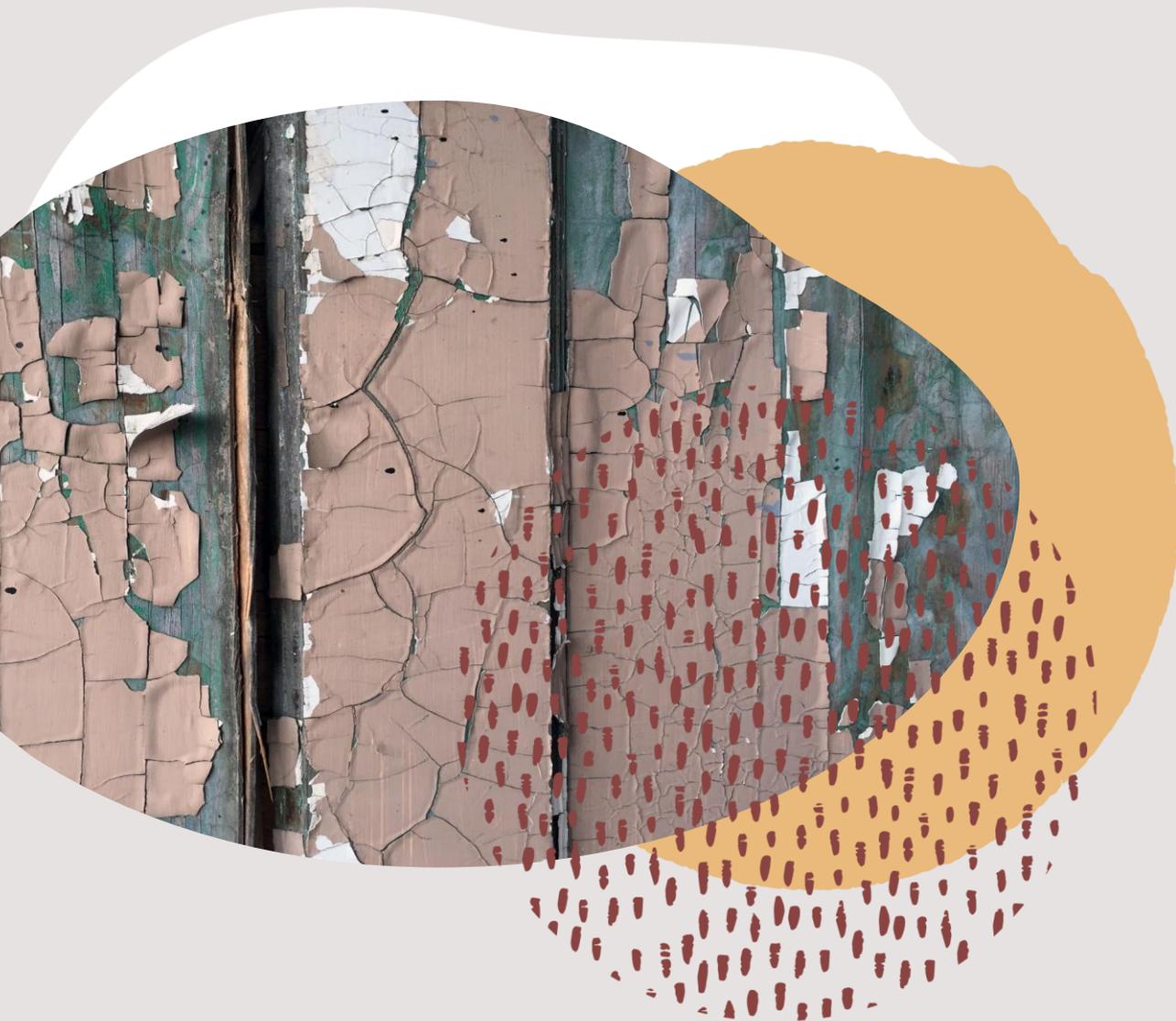


SOCIAL RESEARCH REPORT

# Asbestos Safety Part I – Household Renovations & Maintenance

NSW ENVIRONMENT PROTECTION AUTHORITY



HEARTWARD

STRATEGIC

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## Executive summary

Asbestos-containing materials are an ongoing risk to the Australian community and environment. The NSW Environment Protection Authority (EPA) and the NSW Asbestos Coordination Committee (NACC) are concerned with protecting and maintaining the health and safety of the community and the environment through interventions that lead to safe and lawful behaviour in relation to asbestos.

Heartward Strategic undertook social research to provide guidance on how to increase safe and lawful behaviour in home maintenance and renovation situations up to the point of removal of asbestos waste. The research comprised a quantitative survey of n=4,063 members of the NSW community, and qualitative research that included group discussions and in-depth interviews with more than 100 individuals from relevant professional and non-professional audiences.

Non-professional audiences included:

- the NSW community as a whole
- owner occupiers and other residents of properties built before 1990 ('relevant properties')
- people who ever do unpaid renovation and maintenance work on the relevant properties of family and friends ('unpaid handypeople')
- influencers
- people affected by asbestos-related disease.

Professional audiences included:

- licensed domestic building, maintenance, demolition and waste services professionals
- paid handypeople working in roles where they are likely to encounter residential asbestos
- asbestos specialists such as assessors, licensed removalists and occupational hygienists.

The COM-B behaviour change model was used in this research to provide a validated and systematic method of analysing the data and informing recommended interventions to improve safe and lawful behaviour regarding asbestos in home renovations and maintenance. This model considers three sources of behaviour as potential targets of intervention – the capability to undertake the desired behaviour (having the necessary knowledge and skill to do so), the opportunity to carry out the desired behaviour (in terms of available resources and suitable social context), and the motivation to engage in the desired behaviour (having conscious or unconscious reasons driving the behaviour). Conclusions and implications emerging from this research are discussed in these terms.

The researchers identified the following key insights and implications arising from the data. Please note that all percentage findings reported are from the quantitative community survey.

### RESIDENTIAL ASBESTOS IS A WHOLE COMMUNITY ISSUE REACHING FAR BEYOND DIY RENOVATORS AND TRADESPEOPLE

This research points to asbestos exposure as a wider community risk, not limited to DIY renovators and relevant licensed tradespeople. With 47% of NSW adults living in domestic settings where asbestos is likely present, potential asbestos exposure extends beyond owners and tradespeople to tenants and neighbours of relevant properties, unpaid handypeople and paid handypeople (who are not licensed building professionals).

Among the survey sample, 17% of all relevant homeowners (not just DIY renovators) and 64% of relevant professionals (including unlicensed professionals) indicated having encountered asbestos in the past two years.

The research also uncovered a significant unanticipated audience at risk of asbestos exposure: 'unpaid handypeople' (34% of the total non-professional community), who help with renovation and maintenance tasks on others' properties. A quarter (25%) of this group indicated having encountered asbestos while helping out on a relevant property in the last two years.

Among all audiences, many instances of witting and unwitting asbestos exposure were identified in the qualitative research, only some of which people could reasonably have avoided through better planning. The research also found a significant overlap between audiences, with one person potentially being exposed to asbestos through multiple renovation and maintenance avenues, for example, a professional could be exposed at work, when working on their own home and/or when helping out unpaid on others' properties. As a result, adopting the concept of 'need states' could be more relevant than focusing on discrete 'audiences' when designing interventions. That is, it may be more constructive to design interventions focused on the needs that are dictated by a particular activity or circumstance, rather than characteristics of a defined 'audience' (dictated by age, home ownership or professional qualifications, for instance).

Since the risks of exposure are seen to be shared across society, community expectation is that the responsibility for managing asbestos risk should also be shared, between all levels of government, the original manufacturers of asbestos materials, relevant professionals and property owners. The qualitative components of this research revealed that interventions that position property owners as solely responsible for the management of asbestos (and its costs) can be considered by the community as punitive and are likely to have unintended and perverse behavioural outcomes.

## NEED TO CLOSE GAPS BETWEEN KNOWLEDGE, CONFIDENCE & BEHAVIOUR

Among both professionals and non-professionals alike, the research found evidence of inconsistencies between knowledge about, confidence in dealing with and attitudes towards asbestos, on the one hand, and safe and lawful behaviour, on the other hand. It appears clear that what people know or intend is not always a reliable indicator of their actions. For instance:

- 77% agreed that they would engage a specialist if they had asbestos that needing removing, yet just 48% of those who had actually encountered asbestos consulted any kind of professional, let alone a specialist
- 69% don't believe or are unsure if you can identify material containing asbestos if you know what to look for, yet 38% felt confident that they themselves can identify asbestos exposure risks
- 44% agreed that they know how to protect themselves from asbestos exposure, yet there was little evidence in the survey results or qualitative research that appropriate safety processes were adopted when asbestos was discovered.

Where people were aware of what constitutes safe and lawful asbestos behaviour in domestic settings, they did not always intend to act in line with this. The qualitative research revealed numerous examples of unsafe actions taken despite the professional or non-professional having adequate knowledge. Gaps were also evident in the qualitative research between claimed and actual behaviour, where actions that were initially described as safe, upon closer investigation were revealed not to be so safe. Intervention design needs to consider disparities between knowledge, beliefs and actions, to facilitate closer alignment between them.

## THE FUNDAMENTAL MOTIVATION TO KEEP SAFE IS IMPEDED BY SEVERAL BARRIERS

Asbestos exposure is universally seen as a threat to safety and is typically a source of fear and uncertainty. Community members are inherently motivated to protect their own safety, the safety of their loved ones and that of the broader community. Of the surveyed sample, 71% agreed it is worth investing the time and money

dealing with asbestos now to guard against any future risk and 69% agreed that there is no doubt that they would want to deal with any asbestos in their home safely, regardless of the cost or inconvenience.

However, people do not always act safely when dealing with asbestos, due to powerful behavioural barriers that impede their actions. Applying the COM-B framework, these barriers primarily relate to:

- psychological capability (including specific asbestos knowledge deficits)
- social opportunity (unfavourable social norms and cues encouraging a lax attitude to asbestos safety)
- physical opportunity (perceived and actual barriers relating to the cost and inconvenience of appropriately dealing with asbestos)
- reflective motivation (attitudes and beliefs drawn from lack of specific knowledge, poor modelling and social cues)
- automatic motivation (where denial or panic responses lead to lax safety when protective impulses are frustrated).

In effect, these barriers render the motive to protect oneself from asbestos exposure dormant. Intervention design, then, needs to clear the way for safe action by addressing these significant barriers that prevent it.

The barriers to safe and lawful asbestos-related behaviours and their implications for intervention are further summarised below.

## **MULTI-FACETED COORDINATED EFFORT WILL REDUCE KNOWLEDGE & OTHER BARRIERS**

Lack of knowledge (or psychological capability) is the single most significant barrier to safe and lawful action when dealing with asbestos and is in urgent need of focus. Both professionals and non-professionals show large variation in the amount and accuracy of knowledge they hold about asbestos. Few have detailed knowledge of the risks posed by asbestos, what constitutes risky exposure, where and how to identify asbestos, what to do in the event it is discovered, or how to deal with and dispose of it safely. The 84% having low/medium knowledge of asbestos on an index comprising multiple survey measures were more likely to be younger, in lower income brackets and from culturally and linguistically diverse backgrounds than those with higher levels of asbestos knowledge.

Filling these knowledge gaps is foundational to supporting safe and lawful action, however addressing this barrier alone is unlikely to effectively shift behaviour. This research indicates that a coordinated effort is needed across other capability, opportunity and motivation barriers, so they work in harmony and not at odds with each other.

## **CLEAR, CONSISTENT MESSAGES NEEDED FROM PROFESSIONALS AND ALL SOURCES**

Along with knowledge gaps, the research identified significant social factors that discourage safe behaviour, with professionals' actions having undesirable downstream impacts. Relevant professionals, a common source of asbestos advice, often show mixed and sometimes cavalier behaviour as a result of knowledge deficits, overconfidence in their own capability, competing concerns and the social norms and cues operating in the building profession and on job sites. Of relevant professionals participating in the survey, 59% agreed that 'in reality, the correct handling of asbestos doesn't always happen on a job' and, when last encountering asbestos in a domestic setting, only 47% reported the use of protective gear and only 43% reported that the area where the asbestos was located had been isolated or cordoned off.

The absence of a consideration of asbestos risk in DIY culture reduces the issue's salience, sending the message that it is not a relevant issue for those renovating and maintaining their homes. A lack of focus on asbestos risk in the media, coupled with cavalier attitudes and actions of professionals, send powerful signals to the public that asbestos may not be as serious as they fear. When these cues conflict with other sources of information that highlight the risks, this can lead to confusion. This is illustrated in the research data, with 37% of the surveyed sample agreeing they would have no idea how to go about dealing with asbestos in their home. There was also evidence in the qualitative research of these conflicting messages undermining safe asbestos behaviour, by causing confusion and leaving room for grey moral reasoning and justification of unsafe behaviour.

This suggests that communications on asbestos from all sources will have the most impact if they are aligned in their message.

## USE OF FEAR TO EVOKE SAFE BEHAVIOUR MUST BE PAIRED WITH ACTION STEPS

The emotions most evoked by thoughts of asbestos are fear-based – from the qualitative research these included alarm, concern, unease, anxiety, distress and feeling troubled – and stem from the general knowledge that asbestos exposure can be deadly. Of the surveyed sample, 27% agreed that the topic of asbestos is too off-putting or scary to think about. Tapping into this fear has the potential to motivate protective or safe behaviour. However, this research suggests that fear in the absence of the knowledge or ability to protect oneself leads to denial, panic and ultimately poor decision making and unsafe behaviour (automatic motivation). In the qualitative research, some downplayed the risks, refusing to think about the possibility of asbestos exposure and preferring to remain 'none the wiser', while others described unsafe decisions made in haste in an effort to rid their home of any asbestos risk as soon as possible.

Care must be taken that communications about asbestos exposure risks are unequivocally accompanied by simple, effective, immediate actions people can take to ameliorate this risk. Without this, inciting fear can induce overwhelm, and lead to the very behaviours that interventions are trying to prevent.

## INFLUENCERS NEED TO SHOW LEADERSHIP TO RAISE SALIENCE AND SHOW THE WAY

A lack of specific knowledge about asbestos among non-professionals contributes to heavy reliance on a somewhat over-confident and under-trained body of relevant professionals. Only 52% of relevant professionals in the survey sample had ever completed asbestos training, 30% had completed any asbestos training in the last three years and 32% had *never* completed any asbestos-related training. Despite this, 70% felt equipped with 'enough information about asbestos to make informed decisions on a job site.'

The reliance of the public on relevant professionals is exacerbated by the absence of a single, trusted and widely used source of information on asbestos – 83% of the sample believe they are likely to consult a government department or authority in the event of finding asbestos, however, few of those who had discovered asbestos had actually done so. The qualitative research, however, indicated that the NSW EPA is widely recognised as a relevant body to be speaking on this topic. There is clearly an opening for the EPA to raise its profile as a reliable authority and information source.

Given behaviour modelling has a significant impact in directing community attitudes and behaviours, it's imperative that the right messages about asbestos safety are being spread to the community through government action, influencers of DIY culture in the media, and through the actions of both licensed and unlicensed professionals.

## INTERVENTION IS REQUIRED EARLIER THAN AT POINT OF RENOVATION PLANNING

This research indicates that dealing with asbestos in residential settings is typically not planned for in advance of undertaking work on relevant properties, with only 36% of renovators and unpaid handypeople in the survey having considered if hazardous materials might be a problem prior to renovation work, and only 23% of renovators having considered in advance the cost implications if asbestos was found. Qualitative research findings indicate that, when asbestos is unexpectedly discovered immediately before or during work, the options for dealing with it safely can be limited. Asbestos specialists in this research report that they are often called in once asbestos has already been accidentally disturbed during renovation work. The research shows decision makers commonly plough ahead with work, having failed to allocate enough room for slippage in time or budget and, once committed to a job, professionals too are under pressure to complete work within time and budget limits. This suggests that interventions aimed at or around trigger points for renovation are likely to be too late to be effective.

Community members assert that knowing what is on one's property well in advance of considering any work (ideally, at the time of purchase, through mandatory asbestos inspections or notification from councils or banks) would allow for a wider range of informed decisions to be made regarding the property and the asbestos. This includes whether to purchase the property in the first place, being mindful of the asbestos in planning any work, planning to maintain or remove the asbestos and alerting professionals and any others prior to working onsite.

## MORE FAST, SAFE OPTIONS FOR SMALL PIECES MAY REDUCE DOMESTIC BIN DISPOSAL

Non-professionals and professionals alike use curbside residential bins as a fast, easy, cheap asbestos disposal method (particularly for small amounts) and as an immediate salve for the psychological distress raised by discovering and dealing with asbestos. In the survey sample, 9% of relevant homeowners encountering asbestos and 23% of relevant professionals admitted to using residential bins for recent disposal. Though most non-professionals at least suspect this practice is illegal, they also are generally unsure of how else to immediately deal with the asbestos. Few are conscious or concerned about what implications this might have for transport or waste workers.

Cost is a driver of this behaviour, but only those most economically constrained would be unable to pay for lawful disposal of small domestic amounts of asbestos. For most, cost appeared to be only a perceptual barrier to safe behaviour, fueled by a budget-DIY mindset, an absence of planning and a lack of understanding of what drives the costs of professional removal and disposal. Perceived inconvenience is also a core issue, which underpins a reluctance to appropriately wrap such small amounts of asbestos, or transport and dispose of them at a licensed waste facility.

The option of putting asbestos in a residential bin and solving the problem of keeping oneself and loved ones safe from exposure, has an immediacy that is unrivalled by other perceived disposal options. This research indicates that, in order to address this practice, residents need (and need to be aware of) ways to dispose of small pieces of asbestos easily, lawfully, safely and in a timely manner.

# 1. About the research

## RESEARCH CONTEXT AND AIMS

### BACKGROUND TO THE RESEARCH

Asbestos is a naturally occurring group of minerals which, due to some favourable properties, were used extensively in building materials in Australia from the 1940s. When in fibrous form, however, asbestos can be easily breathed in and become trapped in the lungs, increasing the risk of several types of cancer, including mesothelioma. Due to these health risks, asbestos building products were phased out during the 1980s and eventually banned in 2003. Asbestos-containing materials remain an ongoing risk to the Australian community and environment as more than 4,000 people die each year from asbestos-related disease and it is estimated that one in three houses in Australia contain asbestos.

In the past, people most at risk of asbestos-related disease have been those mining asbestos (constituting the 'first wave' of asbestos-related disease) and those working directly with asbestos building materials (second wave), with the latter still at risk. More recent evidence suggests an emerging third wave of asbestos-related disease among Australians who are not exposed through their work. Do-it-yourself (DIY) renovators, and family and community in close proximity to domestic maintenance and renovation projects are of particular concern, as there is less applicable regulation to minimise risk in this context compared with workplaces.

The NSW Environment Protection Authority (EPA), the lead agency for the coordination of asbestos management in NSW, along with the newly established NSW Asbestos Coordination Committee (NACC), are charged with protecting and maintaining health and safety for the community and the environment through safe and lawful management of asbestos waste. The draft NSW Asbestos Waste Strategy 2018-22 suggests a multifaceted approach across the 'asbestos waste chain', from the planning of maintenance or renovation work, through to final burial or immobilisation of any asbestos found. Mechanisms by which behaviour change could be affected through the Strategy include communication campaigns; new or adapted programs or initiatives; and regulatory approaches to increase awareness, reduce barriers and increase compliance.

To maximise the efficacy of efforts to protect and maintain public and environmental health and safety, there is a need to fill information gaps and build an evidence base to inform key initiatives. To this end, the EPA commissioned Heartward Strategic to provide social research services covering two streams of work:

- **Part 1 Home Maintenance and Renovation** – Conduct research to understand how to increase safe and legal behaviour in home maintenance and renovation situations up to the point of removal of asbestos waste.
- **Part 2 Waste** – Devise a plan for future research to understand how to increase safe and legal behaviour once asbestos leaves the home maintenance or renovation site.

This report provides the findings from Part 1 of this work.

## RESEARCH OBJECTIVES

The objectives of Part 1 of the research program were to:

- gather key insights into each of a range of target audiences, identifying the range of what they typically think, feel and do in relation to asbestos, home renovation and maintenance
- examine how the key audiences interact in residential renovation settings
- uncover the factors driving safe behaviour among target audiences and, conversely, the barriers to this behaviour
- explore the impact of knowledge about negative consequences on behaviour
- investigate the relationship between what professionals (and amateurs alike) say they do and what they actually do
- discover any gaps between target audiences' confidence in acting safely and legally, and levels of knowledge and competence in doing so
- identify the groups of people and sources of information that influence target audience behaviour and any interrelations between them
- understand the prevalence of small quantity disposal in domestic waste and understand levers to positively impact this behaviour.

## RESEARCH METHOD

The research method for Part 1 consisted of a large quantitative research component, followed by explanatory qualitative research. The rationale for, and details of, each component are described below.

### QUANTITATIVE RESEARCH

Quantitative research was conducted to:

- establish a baseline of knowledge, attitudes and behaviour in the community, including specific segments within the community, forming a robust evidence-base for decision-making and enabling changes to be tracked over time
- identify segments within the broader population and within the key target audiences that are identifiable based on behaviour they share and that can be profiled based on demographic, geographic and attitudinal characteristics
- help guide sampling for the qualitative research used to gain deeper insight into the topics of interest.

#### Quantitative sampling

The quantitative research comprised an online survey conducted with a large representative sample of NSW residents aged 18 years and older. Gender, age (six age bands) and location (Greater Sydney versus rest of NSW) quotas were set based on ABS data to help ensure that the sample represented the population from which it was drawn, in order to provide a reliable, defensible and future-proof baseline measure of knowledge, attitudes and behaviours across the whole of the NSW community.

A large sample size was selected to ensure robustness of results. The target was n=4,000 and the final sample size achieved was n=4,063, yielding a high degree of statistical accuracy with a margin of error or at most +/- 2% at the 95% confidence level on results pertaining to the whole sample. This large sample size was also selected to

maximise the likelihood that robust numbers of key target audiences would complete the survey. These target audiences included:

- NSW homeowners of properties built prior to 1990 engaged in renovation, actively planning to renovate, or who have recently renovated their property
- NSW homeowners of properties built prior to 1990 who have maintained their home
- home handy people, relevant professional tradespeople and asbestos professionals. To mitigate the risk that these low-incidence groups would be captured in insufficient numbers in a state-representative sample to enable separate analysis, these groups were, as far as was possible, preferentially targeted early in fieldwork through the “pre-targeting” of invitations based on information on industry of employment already held on panelists by the survey panel provider.

### **Quantitative tools**

The questionnaire, designed by Heartward Strategic in collaboration with the NSW EPA, was modular in design. It comprised screening and demographic questions, questions applicable to the whole of the community (covering asbestos attitudes and knowledge) and questions tailored to the specific audiences of interest outlined above. The questionnaire is included in Appendix A.

The average survey length was 11 minutes.

Lines of questioning were underpinned by the COM-B model of behaviour change, described in the next chapter of this report. Survey questioning was designed to ensure actual or likely key influences on behaviour could be established through lines of enquiry that:

- sought to objectively test actual awareness and knowledge rather than self-assessed knowledge or perceived confidence in knowledge (for example, rather than relying on participants to state how confident they are in identifying asbestos, they were asked to select from a list the building materials they believe can contain asbestos)
- presented asbestos as one of numerous considerations, reducing the likelihood of participants overreporting consideration of asbestos in their decision-making.

### **Quantitative data collection**

Quantitative fieldwork was undertaken by social and market research data collection agency Dynata. Dynata holds ISO accreditation for market and social research, and online survey research, and conducts all work according to the Australian Privacy Principles and the market research-specific Industry Privacy Principles. Sample was sourced from their very large panel of individuals pre-registered to participate in online research.

The fieldwork dates were 29 November to 19 December 2019.

### **Data analysis and reporting**

All analysis of data was conducted by Heartward Strategic, with data tables produced by Dynata using Surveycraft software.

Tests of statistical significance between subgroups of interest were conducted using t-tests. Significant differences have been commented on selectively through this report, where deemed meaningful and important.

Note - where a 'net' figure is provided (i.e., the proportion that provided any of two or more responses to a question, such as the proportion that either 'agreed' or 'strongly agreed' with a particular attitude statement), this may differ from the sum of the relevant figures shown in accompanying figures or tables, due to rounding and/or participants selecting a number of responses included in the net.

## QUALITATIVE RESEARCH

Qualitative research methods were also used in this research given their flexible and non-directive/open-ended approach, which is essential for exploratory research informing strategy and behavioural interventions. Qualitative methods facilitated access to the breadth and depth of people's views, behaviours and experiences.

Specifically, qualitative research was undertaken to:

- extend the quantitative research findings by allowing deeper exploration of the nuances of behaviour, including the role of unconscious and contextual factors and grey areas of moral reasoning (relating to ethical decision-making and illegal behaviours)
- help explain quantitative findings by exploring the knowledge, attitudes and behaviour of the different key target audiences and sub-groups within them, to elicit greater meaning and understanding overall and by relevant audience
- bring target audiences and key themes to life, enabling individual experiences and stories to be reflected in the final reporting
- enable access to the views of specialist and low incidence target audiences such as bathroom and kitchen renovation specialists, licensed asbestos specialists and people personally affected by asbestos-related illness.

### Qualitative approaches

Several qualitative methods were used to suit the objectives and relevant audiences to be included in the research. Group methods (group discussions and affinity groups) were selected to enable deep discussion, exploration and challenging of ideas, and to mirror the social context in which decisions are made and information is communicated. Group methods were also used for their efficiency in accessing a wide range of views simultaneously. Interview methods were used for harder-to-reach audiences, to capture the cascade of decision processes used by individuals, or where the material discussed may have been personal or sensitive.

### Qualitative sampling

The qualitative sample included 113 people belonging to audiences of interest to the EPA, with the final balance or spread of the sample across these audiences determined in response to the quantitative research findings. The emphasis was on people living in a home they own that was built before 1990 who had undertaken recent renovations and/or had inadvertently discovered asbestos. The sample also included relevant professionals, specialists and non-professionals who work on such homes.

The audiences that are the subject of this research are described in detail in the following section, 'Research Audiences'. In summary, the comprehensive qualitative sample included:

- 14 group discussions with owner-occupiers of relevant homes, unpaid handy people and influencers (family and friends) of owner-occupiers of relevant homes
- six affinity groups with relevant building professionals including licensed trades and unlicensed paid handy people

- seven interviews with specialist workers including bathroom and kitchen renovators, licensed asbestos specialists (removal and disposal) and occupational hygienists
- four interviews with people affected by asbestos-related illness either through being diagnosed themselves or a close relative
- 10 narrative journey interviews with homeowners, renovators and handy people who have recently found asbestos and handled it in safe or unsafe ways.

The sample was designed to ensure a broad spread on several demographic characteristics, listed below, were represented.

- Location – To provide sufficient NSW regional representation (a gap in previous research), areas outside the Greater Sydney metropolitan region accounted for just over six in 10 qualitative participants.
- Age – Around half the participants were aged 18-39 years and half were aged 40 years or older.
- Gender – Both men and women and women were included in the sample in roughly equal proportions, except for among asbestos specialists, where diverse gender representation was not sought.
- Household income – Middle-ring suburbs and regional locations were selected to represent a range of different income levels.
- Cultural background – Minimum quotas were set to ensure the inclusion of people from diverse cultural backgrounds.

Though investors who own residential properties and tenants who rent those properties were not primary targets of this research, their views are to some extent captured in the findings. This is because some influencers and handy people participants in the research were also owners or tenants, and some relevant homeowners were also investment property owners. The phenomenon of cross over between audiences of interest is discussed in the section below – ‘Research Audiences’.

The full structure of the sample appears in Appendix B.

## **Qualitative tools and data collection**

Recruitment specifications were agreed with the EPA prior to recruitment. Group discussion guides and interview guides were developed by Heartward Strategic and submitted to the EPA for feedback and approval. These are included in Appendix C.

Recruitment was conducted by professional recruitment agencies using three main sources: quantitative research participants who had given consent to be recontacted, contacts on existing research databases and people responding to social networking and social media advertising. Most participants were identified through the last two sources. For affinity groups, a lead participant was recruited via one of these methods and then suggested suitable people they know who also fit the group specifications to attend the discussion with them.

Group discussions were 90 minutes long, contained 7-8 people and were held in professional group facilities and hired meeting rooms. Affinity groups were of the same duration but with 4-5 people known to each other attending. These smaller affinity groups were held in more casual settings such as RSL clubs and homes. Interviews were of 60-90 minutes and half were conducted over the telephone and half face to face.

Participants in the research were given an incentive of between \$90 and \$170, depending on how difficult the audience was to reach and whether or not they helped to recruit the group in the case of the affinity groups.

With participant consent, research sessions were audio recorded for later reference by the researchers during analysis. Fieldwork notes were taken for all sessions. All qualitative fieldwork was conducted between January 23 and February 28.

### **Qualitative data analysis and reading this report**

To ensure data quality, qualitative analysis was based on triangulation of data, with team members testing and retesting the findings to ensure they reflect the sample as a whole. After initially analysing the data separately, findings were then workshopped by the Heartward Strategic team to identify common themes, and areas and magnitude of consensus and divergence.

Throughout this report, quantitative findings are summarised in yellow breakout boxes and charts. Immediately underneath, findings from the qualitative research that relate to these quantitative findings are discussed, followed by any additional qualitative findings from lines of inquiry not covered in the quantitative research. Case vignettes drawn from qualitative interviews are interspersed throughout the report in blue breakout boxes. Pseudonyms have been used in all case vignettes to maintain participant privacy.

This report details overarching themes in response to the research objectives based on the whole sample of participants, as well as differentiating, where relevant, between audiences of interest.

## RESEARCH AUDIENCES

This research includes representation from across the NSW Community, with a focus on those currently considered most likely to encounter asbestos in residential settings where properties were built before 1990. Specifically, this includes certain professionals working on domestic properties, homeowners and do-it-yourself renovators or amateur handypeople.

Crucial to note is that the audiences of interest identified by the EPA are not discrete, mutually exclusive groups. Rather, an individual may simultaneously or over time belong to multiple ‘audiences’. In both quantitative and qualitative phases of the research, crossover between groups was clearly evident; for example, a professional who is also a homeowner doing a renovation, a member of the public who does handyperson work for a friend on their home and maintains their own rental home, or a homeowner and investor who completes all maintenance work on both properties unlicensed.

As a result of this crossover, the research incidentally included participants in situations where they were potentially exposed to asbestos, but which were not part of the project’s original scope, namely, tenants of rental properties and owners of these properties. In-depth and conclusive findings pertaining to people in these situations cannot be drawn due to their low incidence within the research sample, however their responses suggest that further investigation of their situation is warranted, in the interests of encouraging safe and legal behaviour and preventing asbestos-related illness.

Based on this research, we recommend this crossover be considered by conceptualising relevant groups less as ‘target audiences’, and more as ‘need states’ with situation-specific motives and barriers to safe behaviour in relation to the discovery, handling and disposal of asbestos containing materials (ACMs). The expression ‘need state’, borrowed from commercial research practice, is helpful to frame understanding of motives and barriers (or needs) in a specific situation, and inherently acknowledges that one individual may be in different needs states concurrently, or over time.

For practical purposes, the data collection process for this research made a somewhat artificial distinction between non-professional and professional research participants. This was to enable professional participants to primarily respond in relation to their working role, rather than as a homeowner or member of the public. A distinction was also made between people working as paid unlicensed handypeople (professionals) and those who only act as unpaid amateur handypeople (non-professionals), given the likely difference in motives and barriers between the two situations.

Key research audiences are represented in Figure 1, below. Note the overlap between non-professional groups, and the overlap between professional and non-professional groups.

**Figure 1. Key research audiences**



For the purposes of this report, audience groups referred to in the research are defined as listed below.

- **NSW Community** – Adults aged eighteen and over living in NSW.
- **Residents of relevant properties** – Adults in NSW living in properties built before 1990 (includes owners, tenants and any other adults living in such properties).
- **Relevant homeowners** – Owner-occupiers of properties in NSW built before 1990 (including properties owned outright or with a mortgage).
- **Renovators** – Owner-occupiers of relevant properties in NSW who have undertaken major renovation, home maintenance or improvement activities on their relevant property in the last 2–3 years or are undertaking such work. In relation to the quantitative survey, owners planning to undertake this work in the next two years were also included in this audience. This group includes all renovators, from those who exclusively use professionals through to those who do all the work themselves (DIY). For the purposes of the research findings reported here, relevant professionals are excluded from this group.
- **Unpaid handypeople** – Adults in NSW who ever work on friends' or family members' home renovation, maintenance or improvement projects in an unpaid capacity. For the purposes of the research findings reported here, relevant professionals are excluded from this group.
- **Relevant professionals** – Adults in NSW who currently work in professional building or waste services roles most likely to encounter asbestos (see S6 in questionnaire, Appendix A) *and* who work on relevant (established, not new) properties. This group includes:
  - Licensed tradespeople and other professionals working in specific building or waste services roles.
  - Paid handypeople – Adults in NSW who currently work on relevant properties as unlicensed building improvement or maintenance professionals.
  - Asbestos specialists – Asbestos assessors, licensed asbestos removalists and occupational hygienists (reported for the qualitative phase only as small quantitative sample sizes preclude separate analysis).

Two additional audiences were included in the qualitative research stage. These are defined as listed below.

- **Influencers** – Neighbours, family and close friends of those who had undertaken renovations and/or encountered asbestos on a relevant property.
- **Individuals personally affected by asbestos-related illness** – Adults in the NSW population personally affected by asbestos-related illness; either through a personal diagnosis or through someone close to them having, or having passed away from, asbestos-related illness. This group of potentially important influencers were included in the qualitative research design via four depth interviews and the findings from these interviews discussed in this report.

## ANALYSIS FRAMEWORK - COM-B MODEL

The validated COM-B model, developed by Susan Michie and colleagues to guide policymakers in developing behaviour change interventions, was applied to the design, data collection and analysis in this research. The purpose of this was to ground any emergent findings about enabling desirable behaviour within the appropriate context and facilitate the provision of strategic guidance about increasing safe behaviours among the audiences included in this research.

Applying the COM-B model provided a systematic method for understanding the nature of the behaviour to be changed, in this case safe and legal handling of asbestos in home renovation and maintenance, and the different components to consider, allowing reliable diagnosis of the factors driving, and barriers to, safe and legal behaviour. It can also continue to be used going forward, to guide strategy and support the development and prioritisation of behavioural interventions indicated by this research.

The COM-B model identifies three categories of behavioural influences (Capability, Opportunity and Motivation), which each have two dimensions, resulting in six key factors that facilitate behaviour: physical and psychological capability; social and physical opportunity; and reflective and automatic motivation. Each of these is explained below.

### CAPABILITY

In the COM-B model, capability considers both physical and psychological aspects that pertain to an individual. 'Physical capability' refers to people's physical ability to undertake a specific behaviour or change their behaviour, while 'psychological capability' covers their awareness and understanding of the behaviour or changes required and how they can be implemented, including knowledge and comprehension of relevant information.

### OPPORTUNITY

Opportunity focuses on the social and physical factors external to an individual that influence behaviour. Sources of 'social opportunity' can be friends, family, authority figures or perceived experts such as tradespeople, or the broader culture that supports or discourages certain behaviours. 'Physical opportunity' influences include any aspect of someone's environment, including access to resources, such as time and money.

### MOTIVATION

"Motivation is defined as all those brain processes that energize and direct behaviour, not just goals and conscious decision-making. It includes habitual processes, emotional responding, as well as analytical decision-making"<sup>1</sup>. The motivational factors influencing behaviour include 'reflective motivation', people's conscious reasons for doing or not doing something, as well as 'automatic motivation', the unconscious processes that drive or inhibit behaviour.

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<sup>1</sup> Michie, S., van Stralen, M., and West, R. (2011) The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation science*, 6 (42).

## 2. Encountering asbestos – Non-professionals

This chapter of the report discusses the experiences of the non-professional audiences included in the research in relation to encountering asbestos. These audiences include homeowners and other people living in relevant properties (those built before 1990) and unpaid handypeople helping on these properties. It covers:

- findings relating to how and when people in the NSW community might be at risk of encountering asbestos on relevant properties;
- the extent to which the possibility of encountering asbestos is taken into account in planning for work on relevant properties; and
- findings relating to the discovery of asbestos on residential properties, including what actions non-professionals take as a result.

The equivalent findings for professional audiences are reported in Chapter 3.

This chapter (and the following chapter) focuses on apparent behaviour uncovered by the research; barriers and motivators that might help to explain this behaviour are discussed separately, in Chapter 4.

### RISK OF ENCOUNTERING RESIDENTIAL ASBESTOS

The research established who in the NSW community is potentially at risk of encountering asbestos on residential properties, because they live in a relevant property (more likely than others to contain asbestos) and/or because they undertake work on these properties that could potentially disturb any asbestos.

### LIVING IN A RELEVANT PROPERTY

Key statistics from the quantitative survey include:

- 55% of the NSW community aged 18 years and over reported owning the home they live in, either outright or with a mortgage.
- 51% of these homeowners reported their property was built before 1990 (this equates to 28% of all adults in NSW<sup>2</sup>).
  - Population groups significantly more likely than others to own homes built prior to 1990, included women, people in older age groups, those with household income under \$150,000 per annum, those without university-level education, and people who speak only English at home.
- 42% of non-homeowners reported living in a property built prior to 1990 (this equates to 19% of adults in NSW). A further 17% of non-homeowners were unsure of the age of the property.
  - Non-homeowners significantly more likely than others to live in homes built prior to 1990, included people in older age groups, those with household income under \$150,000 per annum, those without university-level educational attainment, households without kids under 18 years, and people who speak only English at home.
- Taken together, these statistics indicate that at least 47% of adults in NSW (and possibly up to 55%, if the 8% of the population unaware of the age of the property they live in is included) currently live in properties which could potentially still contain asbestos.

<sup>2</sup> Although not a key target audience for this research, the survey also found that 8% of the NSW adult population owns a residential investment property that was built before 1990.

The qualitative research captured numerous participants who reported living in areas where they believed much of the housing was asbestos-affected because of the apparent age and building materials (such as fibro and weatherboard cladding) of the local housing stock. Some even identified their area as a hotspot for asbestos due to frequent sightings of illegally dumped asbestos. This included people who were renting and some living in public housing.

All participants in the qualitative research were screened to ensure only those living in properties built before 1990 were included in the research, however, many of these participants were not aware that this meant the property they lived in could potentially contain asbestos, particularly if the property was constructed from brick.

## UNDERTAKING WORK ON RELEVANT PROPERTIES

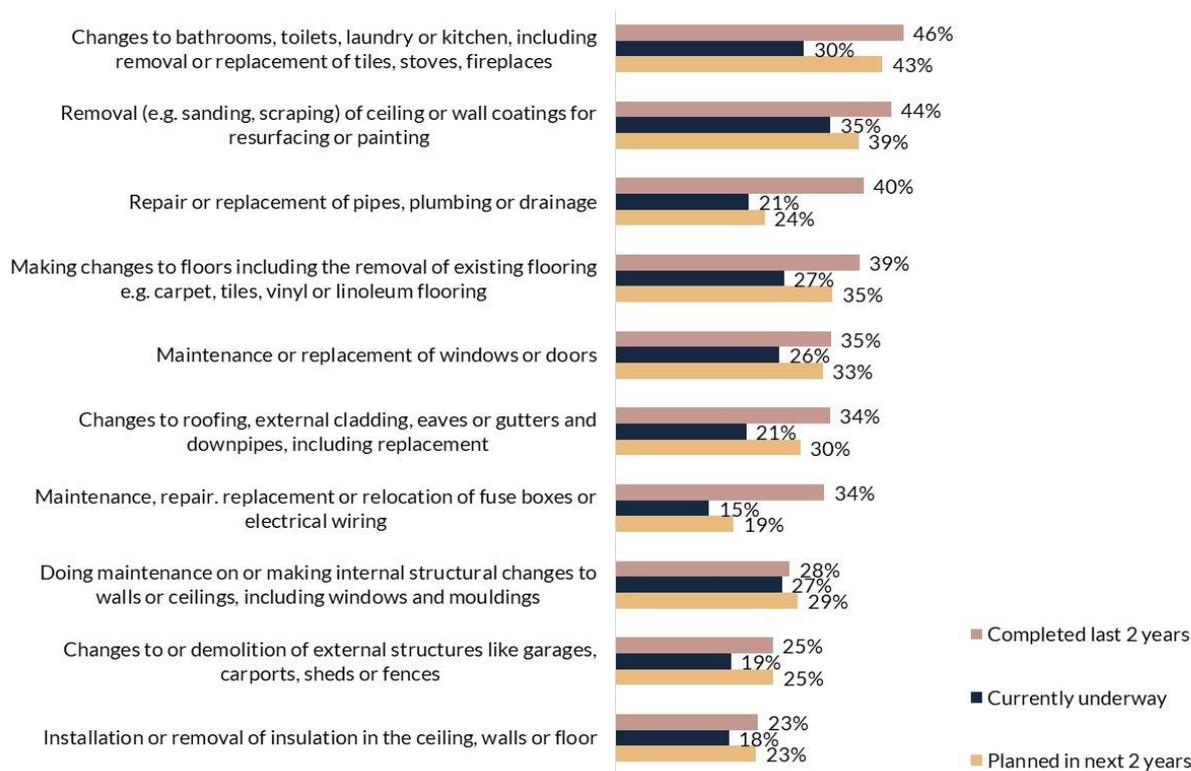
In seeking to understand how non-professionals undertaking renovation and maintenance work on relevant properties consider and deal with asbestos, the research first established the scope and type of work recently undertaken or planned, the extent to which residents do work themselves and the extent to which people help family and friends with work on their relevant properties. These findings can help to shed light on who may be more likely to be at risk of residential asbestos exposure and under what circumstances.

### Major renovation, maintenance or improvement work

Key statistics from the quantitative survey include:

- 64% of relevant homeowners reported having completed renovation, maintenance or improvements in the last two years, and/or that such work was currently underway.
- 50% of relevant homeowners reported planning to undertake some form of renovation, maintenance or improvements in the next two years.
  - Population groups significantly more likely than others to identify themselves as planning, currently undertaking, or having completed renovation, maintenance or improvements in the last two years included those in younger age groups (the likelihood of doing such work declined with age), those with household income of at least \$60,000 per annum, those living as a couple with children (and particularly those with children under 18), those also owning a relevant investment property and those working on others' properties in an unpaid capacity.
- Decision-makers for these renovation, maintenance and improvements were asked to indicate which of a range of specific activities they completed, were undertaking or planned to undertake (shown in Figure 2). Completed works most commonly included changes to wet areas, such as bathrooms, toilets, laundry or kitchens (46%), removing ceiling or wall coatings (44%) and repairing or replacing pipes, plumbing or drainage (40%).

**Figure 2. Renovation, maintenance and improvement activities completed, currently underway or planned on relevant properties**



Q2.1 Which of these activities have/will your renovations, maintenance work or home improvements involve/d?  
 [Base: Homeowners of properties built before 1990. Renovations, maintenance or improvements completed in last two years, n=590; currently underway, n=281; planned in next two years, n=502]

The qualitative research among non-professionals revealed that renovation, maintenance and improvement work on relevant properties was widespread and, in many cases, was viewed as more of an extended process involving multiple separate stages than a single discrete project. Participants reported completing a wide range of renovation activities on their properties, from major planned demolition and renovation activities (for example, complete gutting and reconfiguring of properties, major extensions, kitchen and bathroom updates and adding decks) to more ad-hoc improvements and maintenance (such as replacing eaves or guttering, updating flooring and interior painting), that could place them, their family and any professionals and non-professionals assisting them at risk of exposure to asbestos.

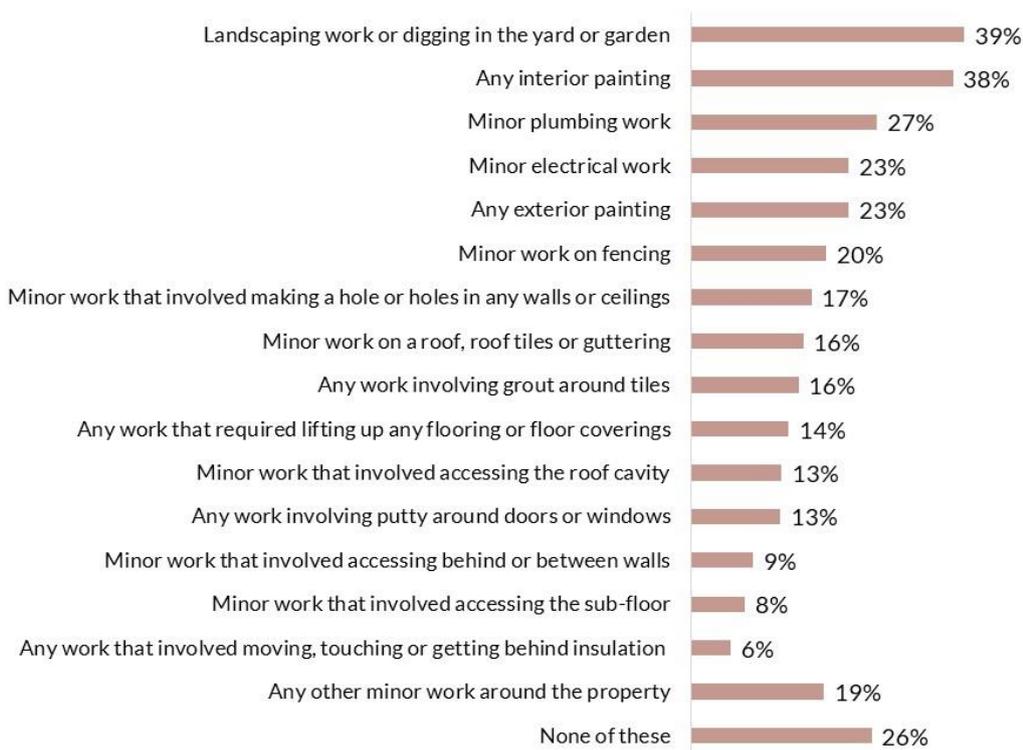
### Minor maintenance work

Key statistics from the quantitative survey include:

- 74% of those living in relevant properties (including homeowners and non-homeowners) indicated they or someone else in their household had undertaken at least one of a range of minor installation, maintenance or repair tasks (shown in Figure 3) at their property in the last two years.
  - Population groups significantly more likely than others to have undertaken minor maintenance work at their relevant property in the last two years included men, those with household income of at least \$60,000 per annum, households with children aged under 18 years, relevant homeowners (rather than renters), those owning a relevant investment property, unpaid handypeople, and renovators.

- Though less common than among homeowners, 60% of renters indicated having undertaken any of the listed minor maintenance tasks in the last two years.
- Most commonly undertaken maintenance tasks overall included landscaping (39%), interior painting (38%), minor plumbing work (27%), minor electrical work (23%), and exterior painting (23%) (shown in Figure 3).

**Figure 3. Minor installation, repair and maintenance tasks undertaken in the last two years on relevant properties**



Q2.47 In the last two years, have you or has anyone in your household personally done any of the following MINOR installation, maintenance or repair tasks at the property where you live? (The property includes all structures such as the main dwelling, extensions, garages, outhouses, additional buildings, as well as fencing and the yard) [Base: All NSW adults living in properties built before 1990, n=1,901]

The qualitative research found that there were numerous opportunities for residents of relevant properties, including renters, to be exposed (often unwittingly) to asbestos during many of the more minor maintenance tasks being undertaken around these properties. Participants were initiating these minor tasks around their home on a fairly regular basis and, in contrast to more major renovation work, seemed more likely to be doing the work themselves or with the help of family and friends, rather than engaging professionals. Many of these activities involved drilling into walls, finishing surfaces and getting into wall and ceiling cavities, and included painting; hanging pictures, window coverings, shelving and cabinets; work involving windows and tiling; work involving lighting fixtures and other minor electrical installations.

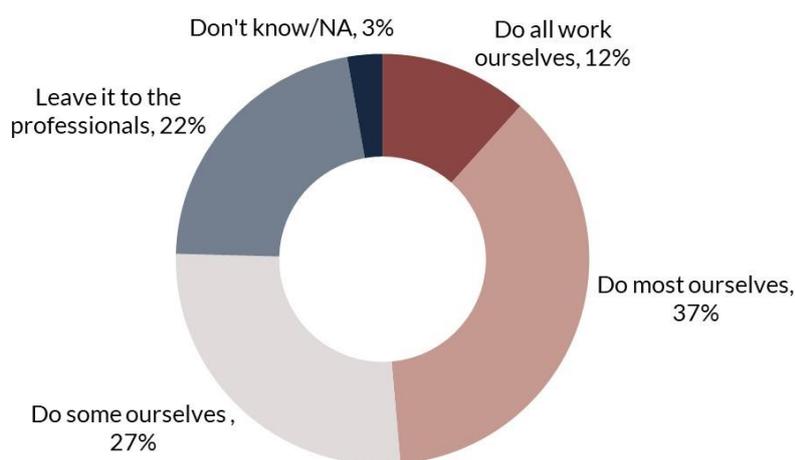
As noted above in relation to renovation activities, when discussing minor maintenance in the qualitative research with homeowners, many seemed to be in a continuous process of maintaining and improving their home over the life of their home ownership. These participants reported having several projects or tasks at various stages of completion going at once. For some, the distinction between renovation, improvement and maintenance activities was blurred, as maintenance work turned into a renovation, or renovations revealed maintenance tasks to be done.

## Do-it-yourself work

Key statistics from the quantitative survey include:

- 75% of relevant homeowners indicated that, when it comes to renovations, maintenance work or improvements on their property, they generally try to do *at least some* of the work themselves; 49% specifically indicated that they try to do *most or all* of the work themselves (see Figure 4).
  - Population groups significantly more likely than others to indicate that they try to do all or most of the work themselves when it comes to renovations, maintenance or improvements included participants aged between 25 and 44 years, those with household incomes under \$150,000 per annum, those with graduate diploma or certificate level education, those living with children aged under 18 years, and those living in regional NSW.
- Homeowners who had completed, were undertaking, or planned to undertake any of the major renovation, maintenance or improvement activities listed above in Figure 2 were asked to indicate who was completing this work. On average, 45% of this work was or is being completed by them personally, their partner or family/friends, and 55% of this work was or is being completed by a professional.

Figure 4. Disposition towards DIY when it comes to renovations, maintenance and improvements



S14. When it comes to renovations, maintenance work or improvements on your property, which one of these best describes you and your household? [Base: Homeowners of properties built before 1990, n=1,127]

The qualitative research supported the quantitative finding that homeowners in NSW have a strongly pro-do-it-yourself (DIY) mindset, with most qualitative participants indicating that there are at least some renovation, maintenance or improvement activities around their property that they like to do themselves. Some even indicated a desire to “give anything a go”. Most common tasks people were interested in doing or had undertaken themselves included unskilled work such as demolition and removal of wall and floor coverings, but also extended to some tasks usually undertaken by trade-qualified professionals, such as painting, plastering, tiling and even, in rare cases, plumbing and electrical work.

*“I actually did the whole thing myself, I know how it all works etc. I did the wiring up to the point to the board, the what’s-a-name, fuse box, and my friend is a qualified electrician, and he does that, checks all what I have done and then finishes the job off so that it is legal.” ( Unpaid handyman, Sydney)*

Qualitative participants revealed that the main motivation for doing work themselves was to save money, which enabled renovations to be more sizeable, to happen sooner and/or to use more expensive materials, fixtures and fittings than might otherwise be the case. In other words, DIY renovations appeared to be largely confined to a tight budget and homeowners were reluctant or unable to part with more funds to engage professionals where they felt they could do work themselves.

*"It's money cost for us. We have found that for instance to do an entire bathroom in one property cost us only three and a half grand doing it ourselves and we had gutted the entire bathroom. But then we have a property interstate also, and obviously we can't always get up there to do everything. It cost us more than that just to put a bloody shower in, with a tradesman doing it. ... (Renovator, Liverpool)*

In addition to cost savings, qualitative participants engaging in DIY work reported a personal interest in different types of building and maintenance work, feeling motivated by the satisfaction gained from learning about and developing a skill, and a sense of accomplishment at completing the job themselves. Homeowners and handypeople alike reported that, when working on projects with family and friends, DIY also had a rewarding social dimension by providing opportunities to spend quality time together completing a project.

Some relevant homeowners engaged in larger scale renovations held the view that they could learn and tackle most jobs that would come up over the course of the work. This attitude sometimes carried across, and impacted decision making, when asbestos was discovered (i.e. some felt this was also something they could potentially handle themselves). Among this group, there was a common belief that, these days, it is possible to learn how to do almost anything yourself via YouTube videos.

*"Because with the internet, just on the internet with YouTube, I know it's not 100 percent they can teach you that but there's so much information right now, you really can do it yourself, and you save so much."*  
(Renovator, Liverpool)

Qualitative discussions also supported the quantitative finding that relevant homeowners living in regional areas appeared more inclined to do work around their property themselves, and to know others who had relevant skills or expertise to assist them, than their counterparts living in metropolitan areas.

## Unpaid handyperson work

Key statistics from the quantitative survey include:

- 37% of the total sample reported helping friends or family members on their home renovations, maintenance or improvement projects in an unpaid capacity. When relevant professionals who are likely to come into contact with asbestos through their work were excluded<sup>3</sup>, this figure reduces to 34%. (This group of non-professionals is referred to as 'unpaid handypeople' in this report.)
  - Population groups significantly more likely than others to say they help family and friends on their renovation, maintenance and improvement work include men, those aged 25-44 years, those with a household income of more than \$100,000 per annum, those speaking a language other than English at home and those owning a relevant investment property.

<sup>3</sup> Incidentally, 75% of relevant professionals report helping friends and family on maintenance and renovations in an unpaid capacity.

The qualitative research included a number of sessions with unpaid handypeople. Unpaid handypeople had undertaken a wide range of tasks on other people's properties, from helping out on small maintenance or installation tasks, through to undertaking demolition and building work on full renovations.

Unpaid handypeople were not all necessarily interested in, or skilled at, DIY. Some just wished to help out friends or family members when asked or helped because professionals were considered too difficult or too costly to engage for small jobs.

Others were genuinely interested in building work and possessed relevant skills gained through experience or employment that they wanted to share with others. Many of this group had also done a lot of DIY work on their own properties and tended to question the quality or costing of tradespeople's work. Some described enjoying the give-and-take of helping others, who could then help them out when they needed it, and through this process they could both impart skills and learn new ones.

While most appeared to derive a sense of personal satisfaction from helping others out, a small number said they were simply lending a pair of hands, returning a favour, or helping out of a sense of obligation or because it was expected of them.

*"[We] try and work the beer economy or the trade economy as much as we can... we help each other out, if you have to get somebody in to do something for you, it costs you an arm and a leg and I'd prefer to use a bit of my time to help them and they can put that money aside, go a holiday, take the family out for dinner, spend it somewhere else instead of spending 30 grand on a renovation or something." (Handyperson, Regional NSW)*

## PLANNING WORK ON RELEVANT PROPERTIES

The research explored the extent to which non-professionals consider and take action in relation to hazardous materials such as asbestos prior to beginning any work on their own or another person's property.

## GENERAL CONSIDERATIONS WHEN PLANNING RENOVATIONS

Renovators<sup>4</sup> and unpaid handypeople were asked about the factors considered when planning work on relevant properties. The aim of this line of questioning in the quantitative and qualitative components of the research was to understand relative priorities when planning work, whether or not asbestos is considered at all and where it sits in relation to other considerations.

### Renovators' time spent and considerations when planning work

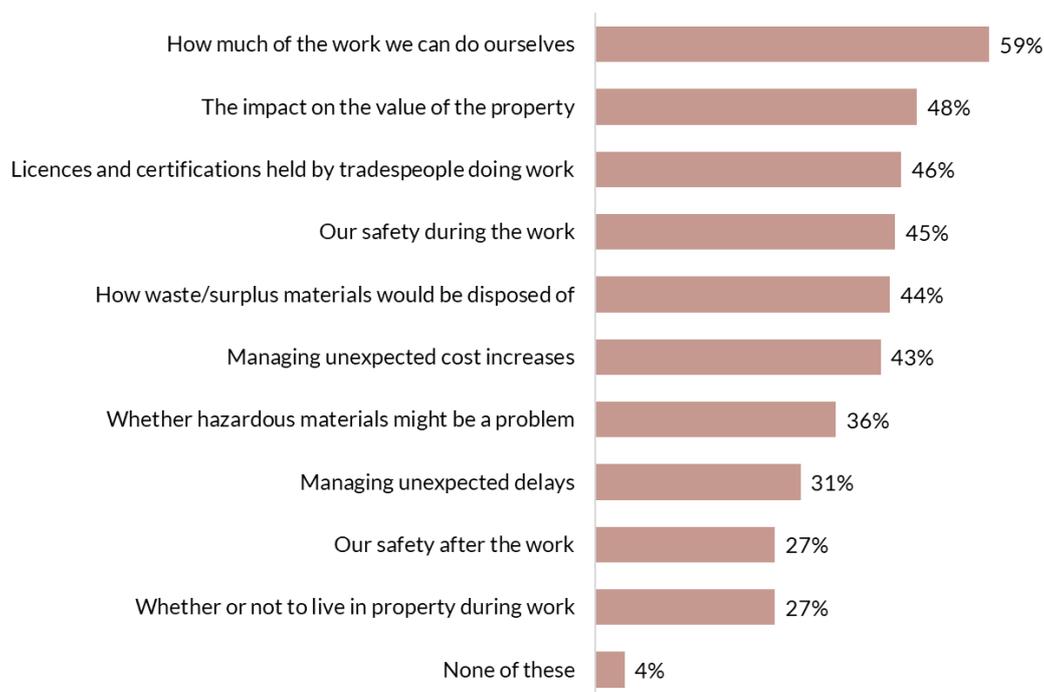
Key statistics from the quantitative survey include:

- Renovators spent six months on average planning renovation, maintenance or improvement work.
- 16% of renovators reported spending no more than one month planning before starting their work.
- 59% of renovators considered, during the planning process, how much of the renovation work they could do themselves. This was the most common consideration among those listed (see Figure 5).

<sup>4</sup> In the quantitative survey, renovators were defined as any relevant homeowners who were planning, currently undertaking or had recently completed renovation, maintenance or improvement work on their property in the last two years. To make recruitment easier, the qualitative research included relevant homeowners who had completed a renovation on their property in the last three years or were currently undertaking one.

- Renovators’ own safety, either during the work (45%) or after (27%), was less commonly selected as a consideration. The proportion considering their safety during the work (52%) was far higher among renovators with a pro-DIY attitude (i.e. those who say they generally try to do most of the work themselves when it comes to renovation, maintenance and improvements) than those without.
- 36% of renovators reported considering during planning whether hazardous materials in or on the property might be a problem (Figure 5).

**Figure 5. General considerations in planning – Renovators**



Q2.2. Which of these things did you consider/have you considered/are you considering as part of planning for this renovation, maintenance or improvement work? [Base: Renovators, n=723]

When it comes to planning renovation work, the qualitative research indicated that renovators are often more interested in dreaming about the end result, or researching materials, designs and processes, than they are in the more pragmatic planning actions of sourcing quotes, identifying suitable professionals or developing contingency plans. This means that a self-reported long “planning phase” may not reflect much pragmatic planning in reality. There were certainly some in the qualitative research sample who said that they had done no real planning at all for their renovation work before starting to pull things out and knock things down.

Renovators in the qualitative research also reported having paid little more than cursory attention to the possibility of encountering hazardous materials before commencing work, regardless of the duration of planning. The exceptions to this were situations where it was known that the renovation would involve asbestos based on a previous determination that it was present.

For renovators who had completed some or most of the work themselves, the main focus of their attention during the planning phase appeared to be on how to achieve the desired result within the (limited) budget available, so considerations were primarily cost-based, with little space for or consideration given to maintaining a buffer for unexpected events such as encountering hazardous materials. Any safety considerations were primarily confined to identifying and mitigating immediate safety risks to themselves when doing the work and to any other family members that might be around the work. Examples include considering how to minimise trip hazards, loose or unstable building materials and injuries from hired power tools/machinery. In some cases, the

term 'hazardous materials' was interpreted quite broadly, for example, to include those posing the immediate safety risks mentioned above, as well as live electrical wires or dangerous (e.g. sharp or slippery) surfaces.

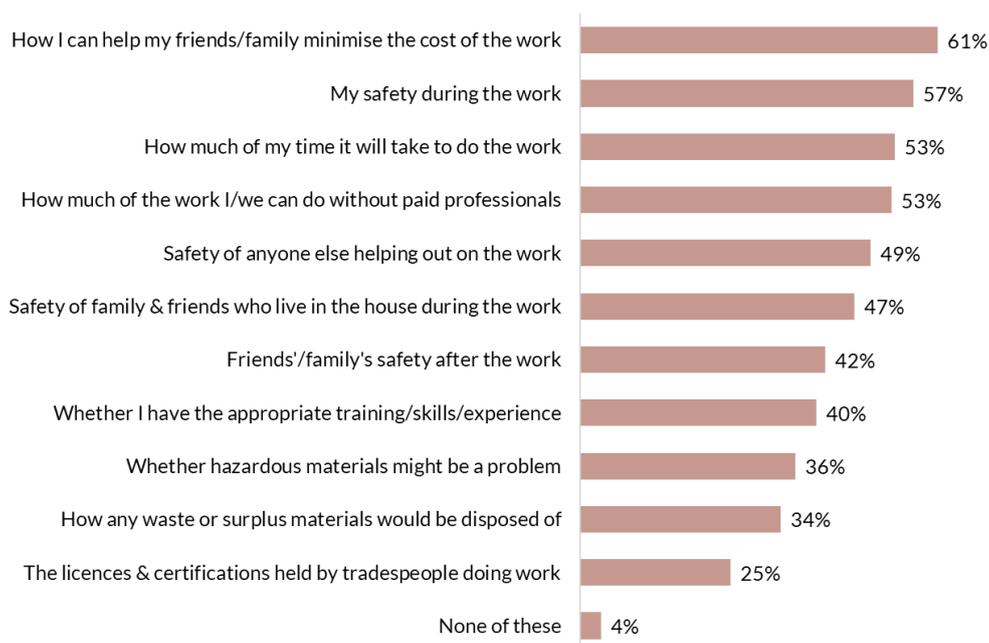
For renovators relying more heavily on professionals, there was an expectation and reliance on those contracted to consider and plan for safety, including hazardous materials, and to raise it with the homeowner, if necessary.

### Unpaid handypeople's considerations when planning work on others' properties

Key statistics from the quantitative survey include:

- 61% of unpaid handypeople considered during their planning for work on friends and family's properties how they could help their friends/family minimise the cost of their work. Among those listed, this consideration was the most commonly selected by this audience (see Figure 6).
  - Consideration of this tended to increase significantly with unpaid handypeople's age, peaking at 76% among unpaid handypeople aged 65 years and older.
- 57% of unpaid handypeople indicated their own safety during the work was a consideration during planning (roughly in line with the 52% of renovators who tend to do most work themselves reporting this as a consideration, reported in the previous section). Unpaid handypeople less commonly reported considering the safety of those they were working with, the homeowner and their family members when planning work on others' properties.
- 36% of unpaid handypeople reported considering, during planning, whether hazardous materials in or on the property might be a problem (reflecting the similar proportion of renovators considering this in planning, as reported in the previous section).
- 46% of unpaid handypeople indicated that they had discussed with the homeowner the possibility of encountering or having to deal with asbestos, before starting work. Slightly more (49%) reported that they had not done this, with the remaining four percent indicating they weren't sure.

Figure 6. General considerations in planning work – Unpaid handypeople



Q2.37 When helping friends or family members with renovations, maintenance or improvement projects on their property, which of these things do you typically consider when planning for this work? [Base: Unpaid handypeople, n=1,372]

The qualitative research suggested that helping others reduce the cost of renovation projects – given the perceived expense of using tradespeople – was a key driver of helping others in an unpaid capacity.

While hazardous materials were sometimes considered during planning, some unpaid handypeople indicated they were less prepared to work with hazardous materials if the property was not their own. Responses indicated that this was in part because they were less prepared to accept risk for someone else (depending on the closeness of the relationship or their trust in the decision maker), and in part because they had less say over decisions in relation to the work as they were only helping.

*“I was just labour, told to turn up on the day and demolish.” (Unpaid handy person, Regional NSW)*

*“When I’m thinking about hazardous materials, I’m thinking about asbestos and lead paint and things like that. So, if it’s just a little job, it won’t involve that. But if you look back, it’s the particles as well, so you do need to think about that too. It took me a couple of gung-ho jobs where I went in without wearing a mask or a respirator to go, ‘no, this doesn’t feel right’. Even if it is a small job, I still need to look at that safety aspect. It’s hard when you’ve got the motivation to just get going and then realise you still need something and have to go back to Bunnings, or I have to make sure I clear all of this before I start, just to make sure that I’m safe.” (Unpaid handy person, Regional NSW)*

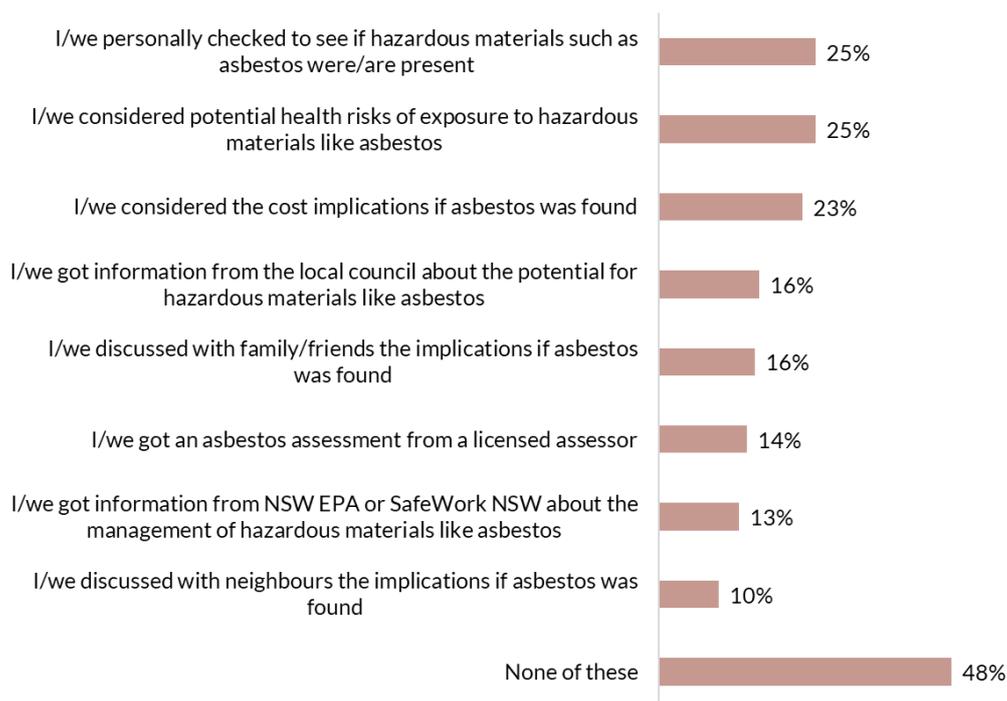
## PLANNING FOR POTENTIAL HAZARDOUS MATERIALS

The quantitative survey asked renovators who had completed or were currently undertaking work, which of a series of actions specifically relating to hazardous materials and asbestos were undertaken during the planning phase for this work.

Key statistics from the quantitative survey include:

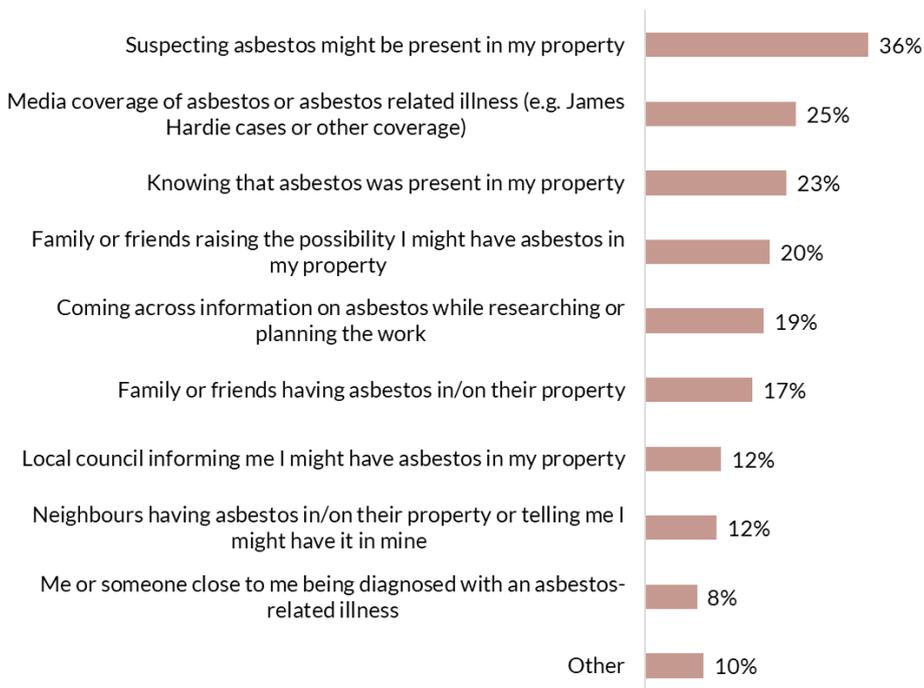
- 48% of renovators indicated that they had taken none of eight specific planning actions relating to potential asbestos that might have posed an issue during work (see Figure 7).
- Personally checking to see if hazardous materials such as asbestos were present and having considered the potential health risk of exposure were the most commonly undertaken of the eight actions listed, each undertaken by 25% of renovators.
- 14% had an asbestos assessment from a professional assessor.
- Those who reported having taken any of the specific actions relating to asbestos in the renovation planning phase shown in Figure 7 were asked what prompted them to consider asbestos – 36% percent of this group said an existing suspicion that asbestos may be present prompted it, while 23% were prompted by actual knowledge of asbestos on the property (see Figure 8).

**Figure 7. Asbestos-specific actions taken during planning phase – Renovators**



Q2.4 Still thinking specifically about your recently completed/ current/ planned renovation, maintenance work or improvements [involving x]... Which of the following has happened during the planning phase for this work on your property (that is, before the work began)? [Base: Renovators, n=723]

**Figure 8. Reasons for considering asbestos in planning – Renovators**



Q2.4a What prompted you to consider asbestos in your planning for this work? [Base: Renovators who had undertaken any asbestos-related action at Q2.4, n=379]

Whether and how people suspect or know asbestos is present on a property was further explored in the qualitative research, which revealed that, when homeowners suspect asbestos is present on their property, this is usually in relation to cladding, cement sheeting or roofing. Suspicions are usually raised due to the look of the material in question and the age of the property, combined with assumptions or knowledge about when asbestos materials were more commonly used. In some cases, tradespeople had indicated to homeowners that asbestos was present, or likely to be present, around their home when quoting for work or undertaking work. Some had family members, such as a parent, or neighbours, point out possible asbestos to them.

Having said this, there were also many relevant homeowners in the qualitative research who had little idea of the history of their home in terms of when any alterations may have occurred, or who had given little consideration as to what materials may be present in and around their property.

The qualitative research with individuals personally affected by asbestos-related illness supported the quantitative finding, illustrated in Figure 8 above, that consideration of asbestos is sometimes prompted by a diagnosis of asbestos-related illness (in oneself or a loved one). Knowing people who have become sick through exposure to asbestos makes potential risks far more salient and, in the qualitative sample, greatly increased consideration of asbestos when considering home renovation, maintenance or improvement.

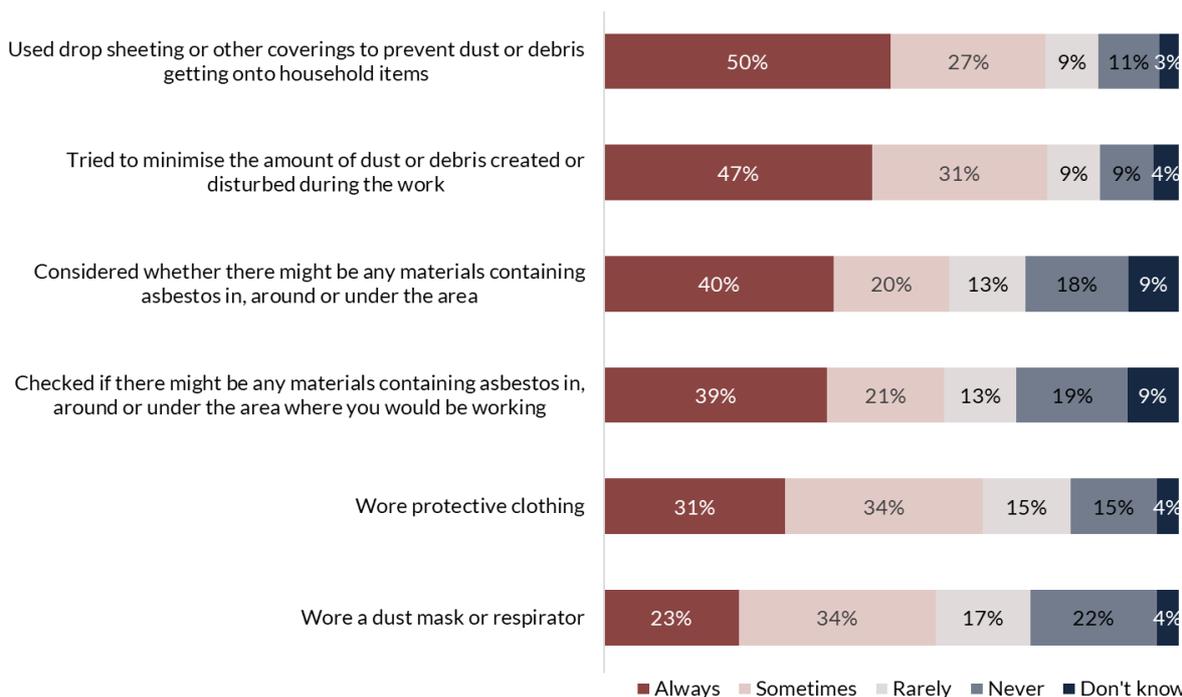
## PLANNING FOR MINOR MAINTENANCE AND INSTALLATION WORK

The qualitative and quantitative research components explored the extent to which asbestos is considered when people are undertaking more minor maintenance and installations tasks around relevant properties. Participants in the quantitative survey who had undertaken any of a range of minor tasks (listed above in Figure 3) were asked about the frequency with which safety precautions, including consideration of and checking for asbestos, were taken, and reasons for this. The qualitative research also explored considerations when planning for minor maintenance work more broadly.

Key statistics from the quantitative survey include:

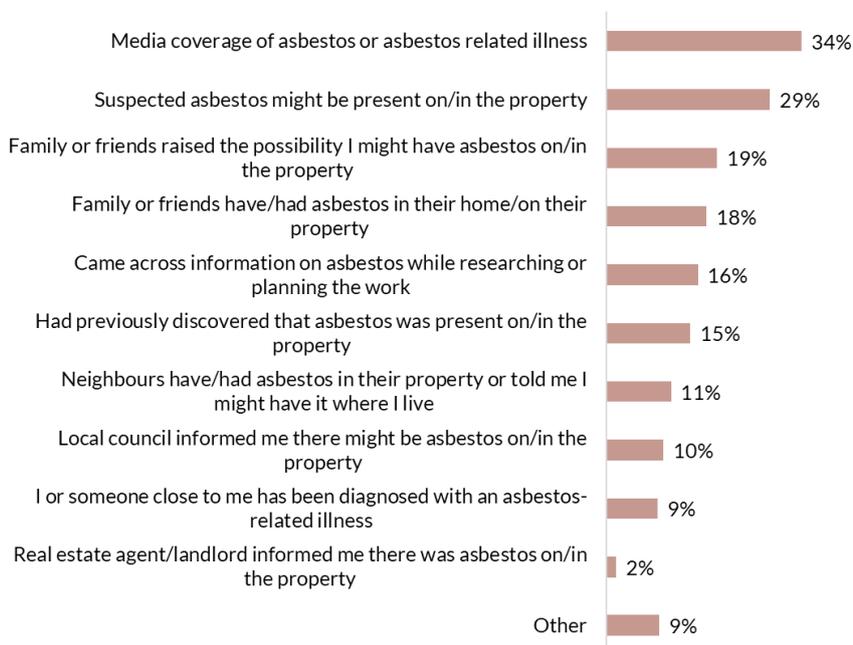
- Using a covering to prevent dust or debris getting onto household items, and trying to minimise dust or debris altogether, were the most widely adopted general safety precautions during minor maintenance work, with 50% and 47%, respectively, indicating they always did this.
- 31% said that they, or the person in their household doing these tasks 'never' or rarely' considered whether there might be any materials containing asbestos in, around or under the area where they would be working, while 40% reported that they always considered this.
- 32% of those completing any minor installation, maintenance or repair tasks in the last two years said that they, or the person in their household doing these 'never' or 'rarely' checked for asbestos where they would be working (Figure 9), while 39% reported that they always checked for this.
- 34% of those indicating that they ever considered or checked for asbestos when completing minor tasks indicated that it was media coverage of asbestos that prompted them to do this (Figure 10). Having an existing suspicion that asbestos might be present (mentioned by 29%) was the next most commonly selected prompt to consider or check for asbestos, among those listed. Of note, these were also the two most common prompts for renovators to consider asbestos in planning for more major renovation work (shown in Figure 8, above).

**Figure 9. Safety precautions undertaken when completing minor installation, maintenance or repair tasks**



Q2.48 Thinking about these minor installation, maintenance or repair tasks, how often did you or the person in your household doing these tasks do each of the following? [Base: Residents of relevant properties who have done relevant minor maintenance tasks in previous 2 years, n=1,405]

**Figure 10. Reasons for considering asbestos in planning – Those doing minor maintenance on relevant properties**



Q2.49 What has prompted you to consider asbestos when planning minor installation, maintenance or repair tasks around the property where you live? [Base: Residents of relevant properties who ever considered or checked for asbestos when doing relevant minor maintenance tasks in previous two years, n=1,061<sup>5</sup>]

<sup>5</sup> The survey response option, 'real estate agent/landlord informed me there was asbestos on/in the property' was only shown to renters. However, for comparability, the proportion shown in Figure 10 is reported over the total base of participants undertaking minor maintenance who considered asbestos in their work. The proportion equates to seven percent of renters undertaking minor maintenance tasks in last two years who considered or checked for asbestos when planning for the task.

Lack of planning for hazardous materials when undertaking minor maintenance was also reported by participants in the qualitative research who lived in relevant properties, even though many suggested that they or other residents in the property were frequently undertaking tasks that could potentially disturb asbestos. As noted in a previous section of this report, most relevant homeowners and even some tenants of rental properties, reported undertaking a wide range of tasks that involved making holes in walls, moving or removing flooring, and getting up into the ceiling or wall cavities, including hanging pictures or other wall fittings, painting (including preparing surfaces for painting), minor construction/repair, minor electrical work and a range of installation activities involving light fittings, window coverings, doors, etc. Very few of these participants reported any sort of planning or preparation for these activities beyond simply gathering the materials required to complete the task, which in some cases required a trip to the hardware store.

In contrast with the quantitative findings reported above, almost no qualitative participants said they considered potentially disturbing asbestos or adopted safety precautions in case of this possibility. It was apparent that any safety precautions usually taken during minor maintenance were done so to avoid immediate safety risks such as electrocution, ladder falls or injury from use of tools. Some used drop sheeting or attempted to minimise dust and debris generated by their work, but this was usually to maintain cleanliness and to avoid dust getting in eyes or breathing in too much dust, and not explicitly to avoid creating, spreading or inhaling asbestos fibres. These participants reported only very rarely using a dust mask or respirator, or any other protective clothing or equipment such as masks, gloves, or even appropriate footwear. Adoption of different types of PPE varied depending on the size and type of task being undertaken and the immediate safety risk they most identified with the task (again, which was rarely, if ever, the risk of encountering asbestos).

## CASE 1: LACK OF PLANNING BEFORE INSTALLATION

### Owner occupier, incidental asbestos discovery, Southern Sydney

Leonora is the daughter of an “old-school DIYer” and is aware of asbestos, as she has previously witnessed her father removing and disposing of it in his red-lidded bin. Leonora has a young family herself and they own a rundown unit, which they are hoping to do up. When wanting to have air conditioning installed in the unit, the only planning Leonora undertook was to get a quote for supply and installation from an electrician recommended by her father. The thought that asbestos might be discovered during the work did not occur to her, and the electrician did not raise the possibility prior to work either. The electrician arrived at the unit and commenced installation and had cut a large rectangular hole in her wall near the ceiling, when he stopped work and told her might have cut through asbestos.

## APPROVALS

The quantitative survey did not include specific questions about building approvals processes, but this was canvassed in the qualitative research. Qualitative findings indicated that council approvals, such as development applications, or approvals from owner’s corporations for home renovations are part of the planning process only if the work being considered is significant. Few qualitative participants had sought approvals and, when this was the case, some relied upon the builder, architect or tradesperson to indicate the need for such approvals. No renovators in the qualitative research mentioned council approvals processes including specific requirements to deal with known asbestos in the property. Having said this, some who had used building companies that handled much of the renovation process for them were not clear on all of the details or requirements relating to their renovation.

In discussing approval, some were of the view that 'red tape' would add significant delays, cost and restrictions to any home improvement process. Consequently, there was a tendency to avoid the need for seeking approvals of any kind, particularly among people intending to do renovation work themselves and handy people.

## SOURCING INFORMATION AND TRADESPEOPLE

The extent to which renovators consider reliable information sources and the qualifications of tradespeople in the planning stages of renovations was also explored in the research.

Key statistics from the quantitative survey include:

- 46% of renovators and 25% of unpaid handy people reported that they considered the licenses and certifications held by tradespeople doing any of the work when planning for renovation, maintenance or improvement work. (Figures 6 and 7, above).
- 13% of renovators reported gaining information from the NSW EPA or SafeWork NSW during the planning of their renovation, maintenance or improvement work. Council was a slightly more commonly nominated source of information, although only reported to have been accessed by 16% of renovators (see Figure 8, above).

These quantitative findings - that, even in the context of larger renovation, maintenance and improvement work (rather than more minor maintenance tasks), sourcing information on hazardous materials and checking the credentials of any tradespeople is a step in the planning process undertaken by a minority of householders - were supported by the qualitative research. The qualitative research suggested that, even where licensed tradespeople were sought, most homeowners choose tradespeople based on recommendation or on previous reliable service. Use of online sources such as Hipages to find the cheapest quote was also common. The assumption appeared to be that, if the tradesperson had their own business, and seemed knowledgeable, experienced, competent and confident, then they must be licensed. Few had actually inspected these credentials. In terms of decision making during the planning stage, unpaid handy people were less involved in this process than the owner, which would account for lower levels of consideration of tradespeople's licenses during planning for the work.

Qualitative research also supported the quantitative finding that few consult the NSW EPA or SafeWork during planning. Though some may be forced to deal with their local council during the planning stages (mainly in relation to development applications), the qualitative research also uncovered a reluctance among some to seek information from their local council. It appeared that this was in some cases driven by concern about revealing that corners had been cut in relation to approval processes.

## ENCOUNTERING ASBESTOS

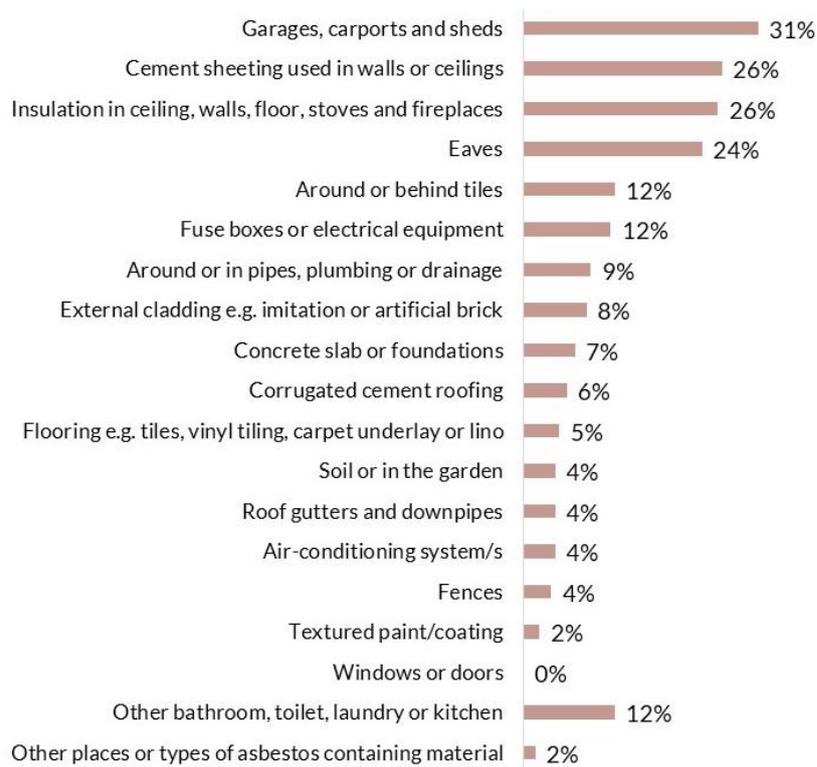
The research aimed to quantify the incidence of relevant homeowners encountering asbestos on their property. It also aimed to quantify the incidence of asbestos being discovered during work completed by unpaid handypeople on other people's properties.

Key statistics from the quantitative survey include:

- 17% of relevant homeowners reported having encountered asbestos on their property in the last two years, either during renovations, maintenance and improvements or in some other way<sup>6</sup>. This equates to 8% of all homeowners in NSW.
- Among these relevant homeowners encountering asbestos:
  - 76% indicated they had encountered asbestos material 'bonded' with other material
    - 11% of these described the asbestos as 'crumbling or able to be crumbled easily with light pressure', 23% described it as 'cut, punctured, broken or damaged', and 69% said it was in good condition with no obvious damage. Only 6% were unable to indicate the condition of the bonded asbestos encountered.
    - 31% indicated that bonded asbestos encountered was either in small or isolated pieces, 38% encountered larger or multiple amounts less than 10m<sup>2</sup> in total, 24% encountered more than 10m<sup>2</sup>, while 7% were unsure of the quantity.
  - 20% reported having encountered asbestos material 'loose or powdered form' (i.e. friable asbestos).
  - 8% was not sure which type of asbestos was encountered
- 41% of relevant homeowners who encountered asbestos therefore encountered a form or quantity that, if removed, should have been handled by a licensed asbestos removalist, because it:
  - was friable (26%, being either in loose or powdered form, or bonded but crumbling or able to be crumbled easily with light pressure); and/or
  - involved more than 10m<sup>2</sup> of bonded asbestos (18%).
- 31% of relevant homeowners who encountered asbestos indicated it was in garages, carports or sheds (Figure 11). It was also commonly encountered in cement sheeting used in walls or ceilings (26%); insulation in ceilings, walls, floors, stoves and fireplaces (26%) and in eaves (24%).
- 27% of relevant homeowners who encountered asbestos indicated that they had already known about the asbestos prior to any work (Figure 12) and 24% reported that it was discovered by a tradesperson, handyperson or other building professional before starting work on the property.
- Unpaid handypeople were asked a much smaller set of questions in relation to asbestos discovery. In total, 25% of unpaid handypeople reported encountering asbestos on a property they were working on in the last two years.

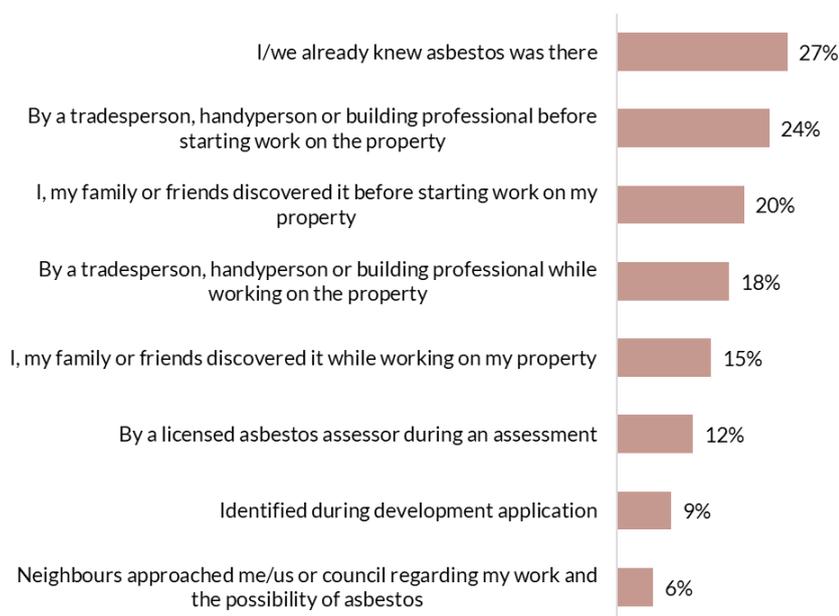
<sup>6</sup> This figure is compiled from survey questions taken from two survey modules: one asked of decision makers engaged in major renovations on relevant properties in the last two years, which sought to understand the renovation experience and any asbestos encountered during such work; and the other asked of all the remaining relevant homeowners in the sample (i.e. who had not encountered asbestos during specific renovation work). The former audience was asked whether asbestos was encountered during the renovation in question, while the other group was asked whether asbestos has ever been encountered on their property in the last two years. Taken together, these questions give the proportion of homeowners of relevant properties in NSW who have encountered asbestos in their home in the last two years. Given the streaming of individuals into the two survey modules, reporting the results of the two questions separately does not give population-representative separate figures. For this reason, data from these two sets of questions have been reported in combined form where possible in this report, though apparent differences between the two methods of encountering asbestos have been included in the commentary, where relevant.

**Figure 11. Locations on property in which asbestos was encountered in last two years – Relevant homeowners**



Q2.7 and Q2.22 Where was this asbestos located? [Base: Relevant homeowners discovering asbestos on property in the last 2 years, n=189]

**Figure 12. How asbestos encountered on relevant properties was discovered – Relevant homeowners**



Q2.10/ Q2.26 How was this asbestos discovered? [Base: Relevant homeowners discovering asbestos on property in the last 2 years, professionals excluded, n=175<sup>7</sup>]

<sup>7</sup> Note: Apart from questions reported above on whether asbestos was discovered and the type and condition of this asbestos, any building professionals were excluded from further questions about the asbestos discovered on their own property in order to reduce the survey length and burden for this audience.

It should be noted that, when discussing asbestos with participants in the qualitative research, the notions of friable and bonded asbestos were not used or well-known. Some more knowledgeable participants made the safety distinction between undisturbed asbestos (safe) and loose particles or dust (unsafe), but knowledge rarely extended beyond this. These conversations also indicated that, in many cases, asbestos encountered is merely suspected to be asbestos, rather than independently confirmed by an assessor and/or through testing.

The qualitative research added considerable additional detail around the circumstances under which confirmed or suspected asbestos is discovered by non-professional audiences. As in the quantitative survey, some relevant homeowners reportedly knew or strongly suspected they might encounter it when embarking on a project. For many others, however, discovery of asbestos came as a surprise. Sometimes, the surprise discovery of asbestos opened a homeowner's eyes to a hazard within their home of which they were completely unaware. For example, some participants – not originally from Australia – were unfamiliar with asbestos at all prior to its discovery on their property by a professional. Surprise discovery halfway through work also potentially exposed people on the property to the risk of asbestos-related harm, as a number of participants described situations in which asbestos was actually or highly likely to have been inadvertently disturbed. Some were aware that they had asbestos in one part of their home, which they were monitoring and avoiding disturbing, only to unwittingly end up disturbing asbestos in another part of their home through very minor work – such as installing a plug in the wall or doing work in the garden.

The qualitative research also drew in participants who had discovered asbestos completely outside of any renovation or maintenance work, large or small. For example, some who were alerted to its presence when purchasing their property or by a family member or neighbour, when a part of the property was damaged or deteriorating, or when coming across small or isolated pieces of asbestos cement sheeting in the garden.

## DEALING WITH ASBESTOS

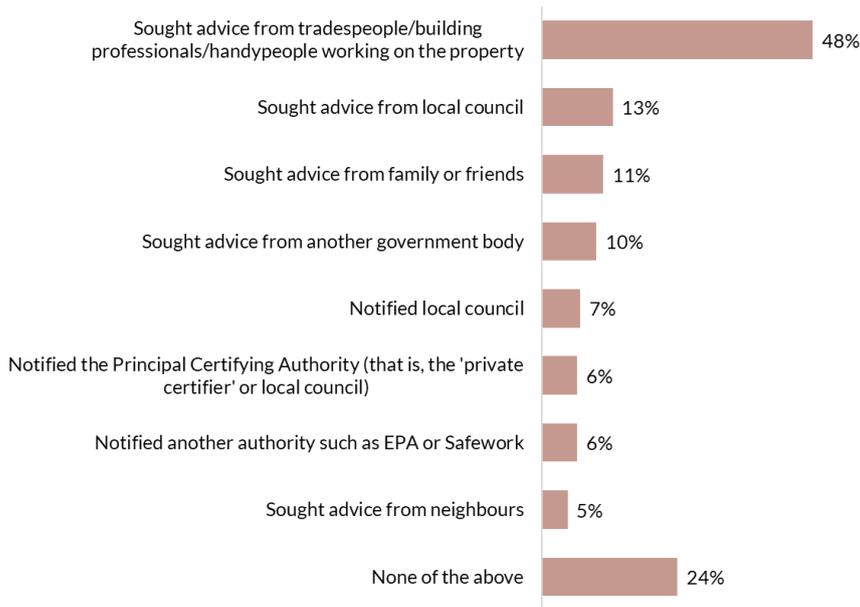
This section reports research findings regarding specific considerations and actions, including safety precautions, undertaken by relevant homeowners when dealing with asbestos encountered on their properties.

### DECISION MAKING

Key statistics from the quantitative survey include:

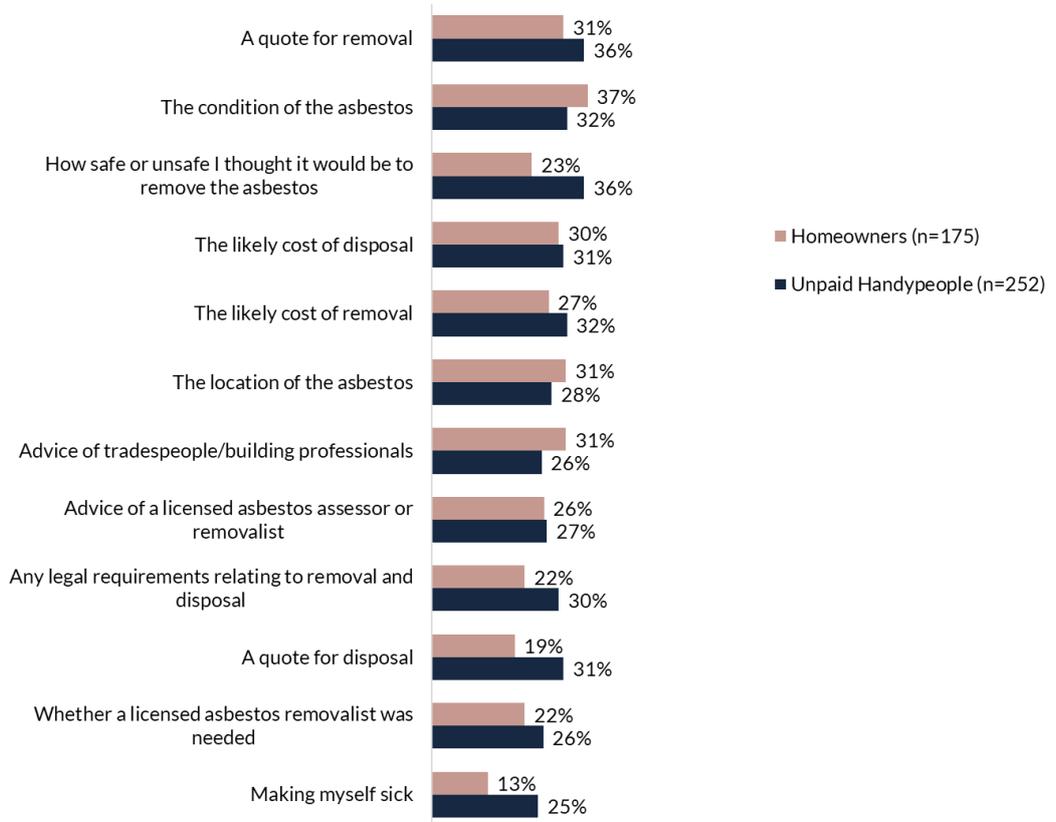
- 48% of relevant homeowners encountering asbestos on their property in the last two years reported that, before taking any action, they had sought advice from building professionals working on the property (see Figure 13). Advice was far less commonly sought from any other sources.
- In terms of notifying others, small proportions of relevant homeowners encountering asbestos reported having notified local council (7%), another authority such as the EPA or SafeWork (6%), or the Principal Certifying Authority (6%).
- One quarter (24%) of relevant homeowners encountering asbestos reported neither having sought advice from nor notifying anyone prior to taking any action regarding this asbestos.
- 80% of unpaid handypeople encountering asbestos while working on someone else's property in the last two years indicated that they were involved in decisions regarding what action to take with asbestos that was encountered.
- Relevant homeowners and unpaid handypeople who had encountered asbestos, were asked to reflect on what they had taken into consideration when they were deciding what actions, if any, to take. These considerations most commonly related to quotes that had been received for removal, and the condition of the asbestos (each nominated by 34% of participants asked this question, Figure 14).

**Figure 13. Actions taken when asbestos was encountered**



Q2.11/Q2.27 Which of the following did you do when the asbestos was encountered? [Base: Relevant homeowners encountering asbestos in last 2 years, professionals excluded, n=175]

**Figure 14. Considerations when deciding what actions to take in relation to asbestos encountered**



Q2.12/2.28 In deciding what actions, if any, to take with the asbestos, which of these did you consider? [Base: Relevant homeowners who have encountered asbestos in last 2 years, n=175]; Q2.41 In deciding what actions, if any, to take with asbestos encountered when working on friends' or family members' home renovations, maintenance or improvement projects, which of these did you personally consider? [Base: Unpaid handy people who have encountered asbestos in last 2 years while working on friends'/family's residential property, n=252]

The qualitative research confirmed the importance of the advice of professionals working on the property, with relevant homeowners reporting having relied heavily on professionals' guidance before deciding what action to take with asbestos they encountered. Other sources of information reported commonly in the qualitative research were online sources – in particular, YouTube and threads on social media discussing asbestos. The qualitative research found that DIY culture is in part fed by self-education videos on YouTube and that learning about asbestos was no different to other home improvement activities in this respect.

The qualitative research found considerable variability in the kinds of factors participants considered when deciding how to deal with asbestos they encountered at home. Each participant considered a combination of factors influenced by their own personal knowledge, experience with and views about asbestos. Most common considerations mentioned by qualitative participants centred on questions that would help them decide firstly whether or not any action was prudent, or even required, such as how dangerous the asbestos was in its current location and condition and whether or not it was possible to ignore or design around it, leaving it in place.

Other common considerations included:

- the likely costs associated with dealing with the asbestos
- who could do the relevant work
- what needed to be done with any asbestos that was removed.

The main aim in decision-making appeared to be to avoid unnecessary costs as far as possible, while ensuring or maintaining an acceptable level of safety. For those who encountered only small amounts of asbestos, considerations were fewer and primarily centred on how to neutralise the immediate safety threat in the least inconvenient way.

A disparity was observed between participants in relation to considerations and concerns they may have regarding asbestos discovered on a property. The reported level of concern appeared to depend on whether the property was owned by them, rented by them, the property of family and friends or a neighbour's property. Participants in the qualitative research appeared to have more conservative views about what should happen with asbestos the less influence or control they perceived to have over the situation and the greater the distance in relationship to the property owner. For example, participants appeared to primarily consider their own and their family's safety in relation to asbestos potentially encountered on a neighbour's property or on one which they were renting and to wish/expect the risk to be neutralised as soon as possible, regardless of cost or other considerations. In contrast, they were more likely to report other considerations in addition to safety when asbestos was encountered on their own property or that of friends and family – such as the cost, time, location and convenience of dealing with it – potentially diluting their focus on safety.

Findings from the qualitative research also suggest that the prospect of 'making myself sick' is comparatively infrequently considered when deciding what actions to take in relation to asbestos on one's own property. This appears to be the case due to the lack of understanding of how widespread asbestos-related illness is, and how risky even low-level exposure is. Also appearing to be in play is some degree of denial, even among those who know that they have had a high degree of personal exposure. In the words of a research participant personally affected by asbestos-related illness, "the mainstream has this view that it won't happen to me. Just like speeding, it's things that happen to other people." These findings are discussed further in this report in the Motivators and Barriers sections on Capability and Motivation.

Another factor the qualitative research revealed as influencing considerations regarding what to do with asbestos encountered by homeowners was the timing of asbestos discovery and the extent to which homeowners were committed to continue with their home renovation, maintenance or improvement project. For example, some discovered asbestos part way through a project for which they had allocated a very small budget, and/or that required swift completion, for example work being done in the only bathroom at a property.

For some, the only practical option apparently available to them at the time was essentially disregarding the risk posed by the asbestos to complete the project as originally anticipated.

Asbestos assessors, removalists and the occupational hygienist interviewed for this project each also noted this desire among some homeowners to plough ahead. These asbestos professionals indicated they were frequently called in to deal with asbestos unexpectedly encountered after work had begun on a property. In such situations, they felt the options available to homeowners were more limited than if proper planning had occurred. Particularly if asbestos had been disturbed, there was often no choice to avoid costs and inconvenience associated with working around or remediating the asbestos.

## CASE 2: INCIDENTAL DISCOVERY AND TRUST IN PROFESSIONALS

### Owner occupier, incidental asbestos discovery, Northern Sydney

Dama and her husband are not DIYers and rely on professionals for all their home maintenance and renovation needs. During a previous renovation that uncovered asbestos, Dama felt fear but was reassured by the builder who advised them to leave the asbestos in place and that it was safe if undisturbed.

*"I was relieved that he gave me a solution and that I didn't have to deal with that."*

Now years later, a recent wild storm broke a panel from the eaves of their roof in two, leaving a gap in the eaves with a broken edge and depositing a piece on the ground. Dama called the handyman they typically use for odd jobs (originally recommended by a friend) who came over and confidently picked up the loose piece, saying he thinks it is asbestos and that he will take it to be tested. Dama trusts the handyman but was left feeling uncertain what will happen now and is trying to put to the back of her mind the hole in her eaves with a broken panel, possibly asbestos.

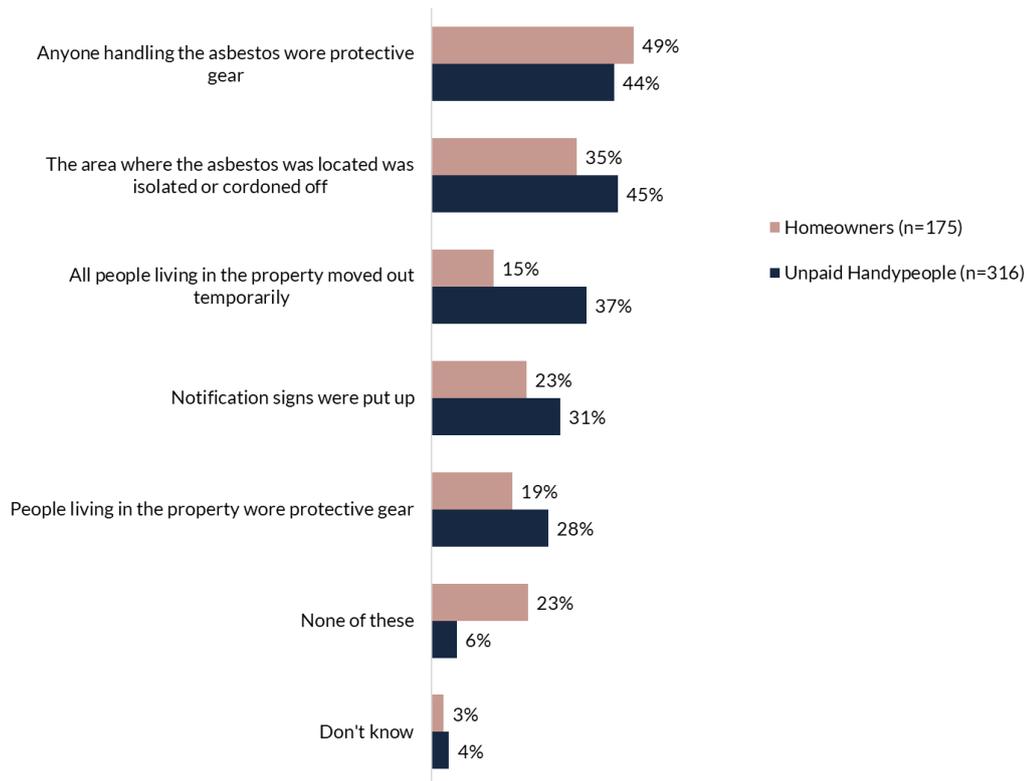
*"It terrifies me, the thought that something's there, hanging. Because it's external, I push it to the back of my mind until I get the test back. But every time I see it, I feel nervous and it reminds me to call the builder."*

## HANDLING ASBESTOS

Key statistics from the quantitative survey include:

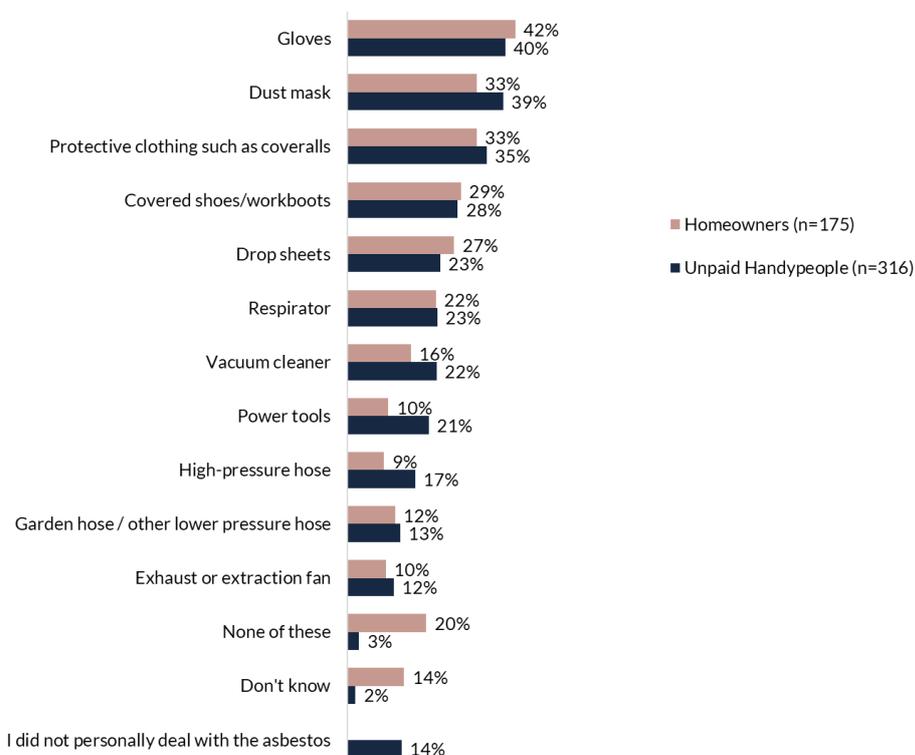
- 49% of relevant homeowners and 44% of unpaid handypeople who had encountered asbestos in the last two years (46% overall) indicated that protective gear was worn by those handling the asbestos. This was the safety precaution most commonly reported, overall, as having been taken in relation to the asbestos encountered. Relevant homeowners were far more likely than unpaid handypeople to report that none of the five safety precautions listed had, to their knowledge, been taken (Figure 15).
- Gloves were the most common piece of personal protective equipment (PPE) survey participants reported using when dealing with the asbestos they encountered on residential properties, reported by 41% overall. The next most commonly used piece of PPE was a dust mask. More participants reported having used a dust mask than a respirator (37% versus 23%, overall; Figure 16).
- Unsafe behaviours were more commonly reported by unpaid handypeople working on others' properties, and this included use of power tools (21%) and a high-pressure hose (17%) when dealing with the asbestos (again, see Figure 16).

**Figure 15. Safety precautions taken**



Q2.13/2.29 Which, if any, of the following happened in relation to this asbestos? / Q2.42 Which if any, of the following happened in relation to asbestos encountered in the last two years? [Base: Homeowners encountering asbestos in the last two years, n=175; Unpaid handypeople encountering asbestos in last two years while working on friends'/family's residential property, n=316]

**Figure 16. What was used when the asbestos was handled**



Q2.16/2.32 Which of the following, if any, were used when dealing with the asbestos? / Q2.45 Which of the following, if any, did you use when dealing with any asbestos you encountered in the last two years? [Base: Homeowners who have encountered residential asbestos in the last two years, n=175; Unpaid handypeople who have encountered asbestos in last two years while working on friends'/family's residential property, n=316]

Participants in the qualitative research echoed the findings from the quantitative survey. Where homeowners or unpaid handypeople recalled dealing with asbestos, they typically reported having undertaken some safety precautions, but rarely what could be considered best practice. Particularly few reported notifying anyone, including authorities, or putting up signage.

As discussed further in this report in the section on Psychological Capability, there was great variation in understanding about what would constitute safe behaviours around asbestos. Few had sought out information on all the steps required to deal with asbestos safely or checked that their understanding of what safe actions should be taken were in line with recommended practice. Consequently, those who dealt with asbestos varied widely in what they perceived as safe behaviours and in which specific precautions they had taken. From being careful not to break asbestos sheeting, putting it carefully in a pile in a corner, opening windows so dust might move through and out of the property, to cordoning off areas and donning the full PPE relevant for asbestos, the behaviours adopted appeared as individual as each participant.

The qualitative research revealed that, though most people dealing with asbestos personally adopted at least some elements of PPE, there was no evidence that the full range of recommended PPE was universally or consistently used. Many participants in the qualitative research described a reluctance to use certain elements of PPE due to factors such as the perceived cost or inconvenience of obtaining them, and perceived discomfort or impracticality of wearing them.

There was also a wide range of variability in the reported use of other equipment that may be protective or even harmful when dealing with asbestos, such as floor coverings, fans or air extractors, vacuum cleaners, hoses and power tools. Some also reported using other tools in a manner that was dangerous, such as using hammers to break up asbestos sheeting.

Though the survey findings suggest that high-pressure hoses are as commonly used when dealing with asbestos as normal garden hoses, this could indicate some confusion between the two types of hoses. The qualitative research found a common perception that 'wetting down' helped to make asbestos safe to handle, however there were a range of perceptions about why this was done, how and when to do it and what equipment to apply to the task, which is discussed in further detail in the Psychological Capability section on safety in this report. Consequently, both safe and unsafe behaviours were described in 'wetting down' asbestos, from once-off or sporadic wetting with a garden hose to repeated misting with spray bottles.

Some of those in the qualitative research sample described the use of vacuum cleaners to clean up after handling asbestos. While one participant mentioned hiring a specialist machine from Kennards for this purpose, others mentioned using their regular vacuum cleaner or one they save for dirty, outdoor or DIY jobs. These participants had given little thought to possible exposure or contamination through later use of these and none had undertaken any decontamination of the vacuum cleaner.

While many took cues from professionals, others had little or no awareness of what safety measures professionals they engaged had taken around asbestos on their property, particularly as many were not on-site when it was dealt with. From participants' reports, professionals appear not to uniformly model best practice.

Adoption of safety precautions appears from the research findings to be in some ways proportional to the amount of asbestos encountered, with more laxity reported around smaller amounts of asbestos. Most care appears to be taken around larger amounts requiring effort to remove or that are discovered during larger renovations, although best practice may not necessarily be common even in these situations. The qualitative research did uncover many examples of asbestos that was reportedly handled in a manner that would have exposed the person handling the asbestos and/or others living and working within the property to asbestos fibres. Of note was an overall sense of confidence among people dealing with asbestos that they had acted safely when, in many cases, judging from their comments, they had not.

The research revealed some impact of interpersonal relationships on views of the safety precautions required when dealing with asbestos based on the differences in reported views:

- between renovators and influencers such as neighbours
- among individuals, depending on whether they were considering their own actions or someone else's.

In these cases, people appeared to consider asbestos more of a threat to their safety and that of their immediate family when it was potentially being handled by people they had less of a relationship with, for example neighbours or the owners of a property they were renting.

Participants displayed less empathy and more stringent expectations regarding the safety precautions they expected neighbours or landlords to take with asbestos than they did regarding asbestos they or their family member might need to deal with. In such circumstances, the lack of personal control over decisions of remote others that could impinge on their personal safety was described as worrying and frustrating, and a sense of outrage or indignance was expressed in relation to perceived lapses in safety when such others were handling such asbestos. Many participants were quick to point out that they would have no qualms alerting the local council or other authorities to perceived lapses of safety and possible illegal behaviour undertaken or abetted by neighbours or landlords.

When it came to asbestos that family and friends might be dealing with on their own properties, however, participants displayed greater empathy and less concern for safety, being more willing to respect the autonomy and decision-making of these individuals in relation to the asbestos they were handling and to acknowledge more of the potential complexity or difficulty involved in safe handling. In relation to family and friends' handling of asbestos, some also said they preferred to mind their own business and not question their judgement.

In relation to asbestos that relevant homeowners (or their own partner) might be dealing with or personally handling, there appeared to be even greater acceptance of the complexity of decisions and difficulties involved in safe handling and (paradoxically, given there was little doubt they had concern for their own welfare and that of their family members) more lenience in terms of what level of safe handling was expected or accepted. In such situations, there also seemed to be less consideration or concern for those who may be exposed at a later point in time in their property or through the disposal chain for asbestos they may personally have been involved in handling, removing, concealing or disposing of in a less-than-safe manner.

## CASE 1: HASTY DECISION BETWEEN TWO UNSAFE OPTIONS

### **Owner occupier, incidental asbestos discovery, Southern Sydney**

Faced with a large hole in her (possibly) asbestos wall, that had been freshly cut by an electrician during installation of an air conditioner, home unit owner Leonora had been given two choices – leave the gap in the wall and have an asbestos assessor come or carry on installing the air conditioner in the hole. Feeling shocked and panicked about ongoing exposure since she and her daughter had already been present while the hole was cut, Leonora chose what she saw as the only practical option, to complete the installation. Afterwards, the electrician left without cleaning up or providing advice and Leonora herself cleaned up the remnants with the family's vacuum cleaner. Leonora now feels guilty and angry about their possible exposure to asbestos, but is unsure who she could have turned to in this situation.

### CASE 3: POSSIBLE EXPOSURE FROM A NEIGHBOURING PROPERTY

#### Owner occupier, encountering asbestos during renovation, Inner West Sydney

Lydia is an experienced renovator and takes asbestos exposure seriously, as a close family member was a builder. When asbestos was found on her property, she and her husband called in professionals to handle removal and disposal. It was a big expense but they felt it was worth it for the safety of their family.

When their neighbours were recently doing a renovation that involved demolition, they asked the builder whether any asbestos was involved. He told them 'no' but knowing the age of the neighbouring home, Lydia and her husband suspected that wasn't the case. To protect themselves, her husband taped shut all the vents in their home as well as a side door that points towards the neighbour and they tried to decontaminate their yard after the demolition work. Lydia would like to see greater oversight on all things asbestos-related from regulating bodies as she believes that there are a lot of shonky operators who cut corners and without stronger regulation or enforcement, unsafe things are bound to happen.

### ASBESTOS LEFT IN PLACE

Key statistics from the [quantitative survey](#) include:

- 55% of relevant homeowners and 47% of unpaid handypeople encountering asbestos in the last two years indicated that at least some of that asbestos was left in place where it had been found.
- 32% of asbestos left in place was simply left as it was found while 66% was covered, painted, coated in another way or enclosed or blocked off in another way.

Qualitative findings indicated that relevant homeowners received the message from professionals, as well as through their own enquiries, that the 'rule of thumb' was to leave asbestos undisturbed if possible, and that it was safe to leave it in place if it was covered in some way, either through a coating or by cladding over the top of it, for example. Some were aware that the option to leave it in place depended on the type or condition of the asbestos, however others knew no more than that leaving the asbestos undisturbed was a possibility. For many, leaving the asbestos in place was a cheap, fast alternative to having to remove or dispose of it at that point in time. Unsurprisingly, this was an option that most homeowners were highly inclined and even relieved to choose. A small number had put off all or part of their plans to leave asbestos in place and undisturbed.

Few showed any consideration for what was to happen with the asbestos in the future, either for themselves or others who might encounter it down the track if it was left in place and none reported having considered or put in place any sort of plan for maintaining the asbestos that was left in place in good condition.

*"Yeah, I had to get rid of one whole wall that was asbestos. We had a feeling [it was asbestos], because it's such an old house, but when we got the engineering in for the supporting beam, to engineer that, to okay it, he just reinforced [our suspicions]. He said, 'Look, that's asbestos, you're going to have to call somebody in to get rid of that wall.' Which we knew, but we decided to keep the rest of the house and leave it, and not unsettle the rest of the house, and we just cladded over the top." (Renovator, Greater Sydney)*

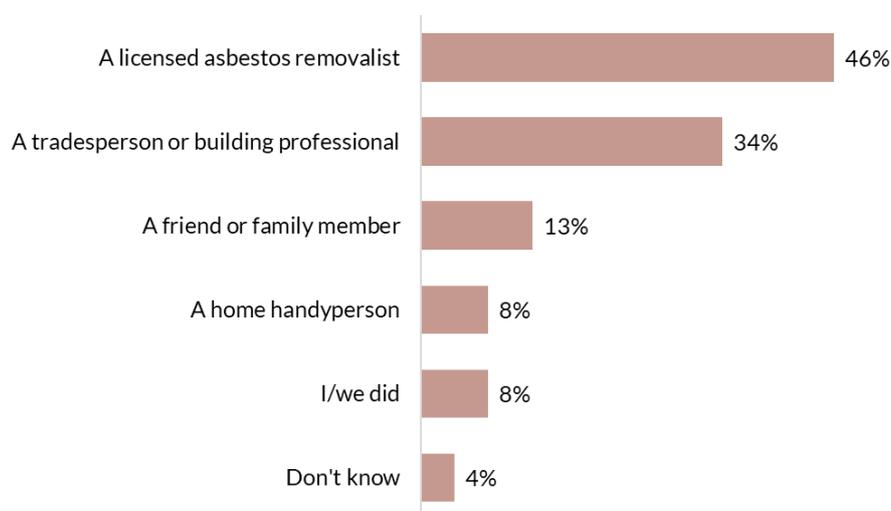
*"Okay, well I didn't remove any of it because I worked out a way of being able to work around it, so I kept it all in place, and as I said, I removed a section that had been replaced before to get in and do the, hooked up to the... so actually, in that case, apart from drilling the hole for wiring and stuff, I was able to work around not producing any asbestos waste that I would then have to get rid of." (Renovator, Regional NSW)*

## REMOVAL OF ASBESTOS

Key statistics from the quantitative survey include:

- 46% of relevant homeowners and 49% of unpaid handypeople encountering asbestos in the last two years indicated that at least some of that asbestos was removed or moved from where it was encountered.
- Where asbestos was removed, 46% indicated that a licensed asbestos removalist had been involved (Figure 17). Indicatively (note the small sample sizes involved), a licensed asbestos assessor was no more likely to be engaged to remove friable asbestos than to remove bonded asbestos.

**Figure 17. Parties removing the asbestos**



Q2.17/2.33 Who removed the asbestos? [Base: Relevant homeowners who have encountered residential asbestos in the last two years and moved or removed at least some of it, n=80]

The experiences of participants in the qualitative research suggested that homeowners who had asbestos removed did not always know whether the ‘asbestos professional’ removing the asbestos was licensed or not. As with tradespeople, there appear to be assumptions made about professionals’ credentials based on them having a business, being reliable and behaving in a professional, confident manner. Few reported checking asbestos license credentials and some did not know that a licensing system existed. Further, the involvement of professionals did not always mean safe behaviours were adopted. The research captured descriptions from homeowners and professionals alike of poor safety behaviour by professionals engaged to safely remove asbestos, such as not using full PPE, improper cordoning off, improper decontamination and unsafe handling.

Many homeowners in the qualitative research were unaware exactly how asbestos from their properties was removed, as they were not on-site when it happened and had been given no detail by the professional. One licensed asbestos professional revealed that they believe their work is so fastidiously safe that they always invite homeowners to stay on-site to observe the measures they go to in removing asbestos safely. From all other accounts in this research, this is clearly a rare practice.

Homeowners reporting having removed asbestos themselves appeared to have engaged in a variety of safe and unsafe behaviours, and this appeared dependent on the knowledge, experience, priorities and resources of the decision maker. From using hair gel when removing screws, to breaking sheets up into small pieces for easier disposal, the qualitative research uncovered many occasions during which homeowners, handypeople, neighbours and renters are likely to have been exposed to asbestos fibres, based on reported behaviours.

Few participants knew they themselves, if a competent person, could legally remove up to 10m<sup>2</sup> of asbestos sheeting and some assumed all asbestos required professional removal, despite having removed some themselves. Those aware of the 10m<sup>2</sup> rule variously interpreted it, including stretching it to include 10m<sup>2</sup> per individual involved in the job.

*“Yeah, we could have called in a specialist tradesperson to remove that [asbestos]. The cost didn't allow that to happen, so we just got dust masks and some goggles and then, yeah, we just continued with the project ourselves. We just used like a, it's called a multitool, we just used one of those just to cut it.... I got [the dust] all over my ear and stuff, but yeah, mainly, I thought the dust mask did its job. I dusted [the dust] off just with my hand and then just hosed it off with the hose...In the bathroom, like on the floor, we've swept that up and then, yeah, vacuumed. That room was sort of isolated, so the door was shut. I had one of them dust snakes, or the draught snakes on the door... So, it was pretty well only that room, but the window was open.” (Unpaid handyperson, Greater Sydney)*

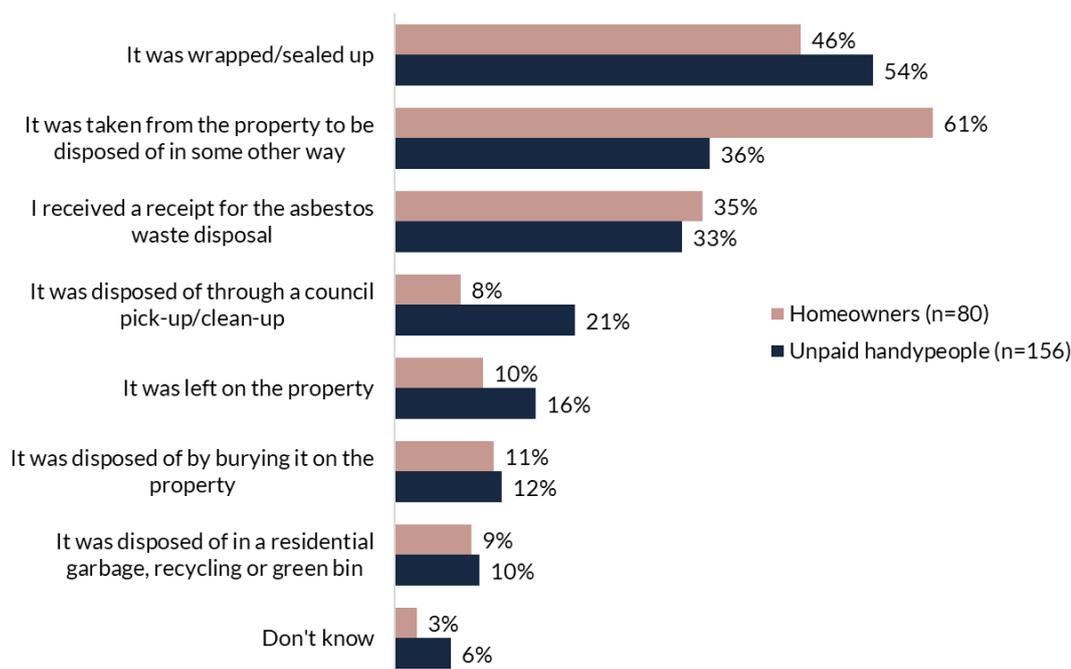
## DISPOSAL OF WASTE

The research explored what happens to residential asbestos waste only briefly, as this was the focus of a second, separate, part of the research program. For this reason, non-professionals who had encountered asbestos on properties that was moved or removed were only briefly asked where the asbestos ended up once removed, and why. Focus was primarily on establishing the extent of and reasons for disposal in residential bins. An analysis of the drivers and barriers to improper asbestos waste disposal, to the extent that this was covered in this part of the research, is provided in Chapter 4.

Key statistics from the quantitative survey include:

- 35% of non-professional audiences encountering asbestos in the last two years and moved or removed it reported clearly improper disposal. Improper disposal options covered in the survey, being of particular interest to the EPA, included: leaving it on the property; disposing of it by burying it on the property; and disposing of it in a residential garbage, recycling or green bin.
- 52% overall indicated that asbestos that was moved or removed had been wrapped or sealed up.
  - Unpaid handypeople were more likely than homeowners to report doing this (54% compared to 46%, see Figure 18)
- 33% overall reported receiving a waste disposal receipt for asbestos that was moved or removed.
- Non-professionals in the survey who reported that asbestos had either been buried at the property or disposed of in a residential bin or via a council pick-up (n=22), were asked to indicate why this had been done. Few provided detailed reasons for disposing of asbestos through these means. Reasons for burial included that there was a hole that needed filling, to get the job done and burial for “safety reasons”.

**Figure 18. What happened when the asbestos was removed**



Q2.15/2.31 Which, if any, of the following happened when the asbestos was removed?

[Base: Homeowners who have encountered residential asbestos in the last two years and moved or removed at least some of it, n=80]

Q2.44 Which, if any, of the following happened when the asbestos was removed?

[Base: Unpaid handypeople who have encountered residential asbestos in the last two years and moved or removed at least some of it, n=156]

Qualitative research participants described a range of improper or illegal behaviours they had taken in disposing of asbestos that was removed from where it was encountered, including:

- leaving it in piles on their property, usually somewhere out of the way, such as behind a garage/shed
- burying it by itself in the garden, or in foundations or concrete poured for new additions, outbuildings or pools
- using it when filling in ground where a pool was being removed
- taking it to someone else’s property (usually a family member’s) to be stored or buried
- putting it into a hired skip
- putting it into a residential garbage bin – this ranged from small pieces encountered incidentally on the property to large pieces of sheeting that were broken up and fed into the bin in small amounts progressively over a number of weeks.

Sometimes asbestos disposed of in the ways described above had been wrapped beforehand, but a lot of it had not, particularly where it was a small amount or where it was deliberately intended to be disguised as regular waste. In some cases, it was the homeowner or resident themselves undertaking these behaviours, in others it was a relative or friend handyman. While some seemed aware that these methods were unsafe, irresponsible or illegal; most found ways of justifying and minimising this behaviour on various grounds, including practical difficulties, time and money limitations, the belief that it was only themselves who were at risk, or the belief that one exposure or exposure to small quantities would unlikely do any harm.

*"Yeah, well the options were to get like a specialist to come and take it away, which would sort of cost, yeah... not really affordable. We could have taken it to the waste tip and that... So, it's quite a bit and you have to wrap it all up... So, we sort of just wrapped it up in like small parcels and just put it in the normal red bin. We were trying [not to break it up] but we weren't very successful...I never really considered burying it, but, because I suppose it gets buried anyway if it goes in the bin. Yeah, we thought we wrapped it quite well so it wouldn't be harmful to anybody else." (Unpaid handyperson, Greater Sydney)*

Qualitative participants that had involved a professional in the disposal process were mostly unaware of how disposal had occurred, presuming disposal to have been undertaken properly given a professional had undertaken the work.

When discussing obtaining a receipt for asbestos disposal, responses were mixed. Some had themselves received this directly from the tip if they had disposed of it there themselves, but, where professionals were involved, a receipt for asbestos disposal was sometimes thought to mean a tax invoice from the professional for their work, rather than a record of proper disposal. Homeowners in this research were largely unaware of what certifications, records or receipts might be applicable to the disposal of asbestos.

#### CASE 4: UNSAFE DISPOSAL IN RESIDENTIAL BIN

##### **Owner, encountering asbestos during renovation, Inland Regional NSW**

Sophie her husband are part-way through renovating before they sell their house. Neither have much experience, but they are learning from YouTube and friends, and doing the majority of the work themselves to save money. Having discovered cracks and holes in an interior wall some months ago, after inspecting it, Sophie's husband decided it was probably asbestos based on its appearance. Sophie felt scared and began looking online for answers, but her search concluded when she found sources suggesting that asbestos removal was costly and only done by professionals.

The couple were confused about the limited options they felt were available to them – professional removal was going to be too expensive and delay work, leaving asbestos in place may continue to expose them to harm, and dealing with it themselves might expose them as well. Feeling pressured, they decided to remove it themselves, though they suspected what they were doing was unlawful.

*"We knew it was wrong, but we thought that's a cheap, easy way to get rid of it"*

They removed the sheeting and broke it into much smaller pieces, mixed it in unwrapped with other building waste, and, over a number of weeks, used their residential curb-side bin to dispose of it. Sophie is aware they may not have followed correct safety protocols during this process, but the priority was ridding the house of the asbestos quickly, at minimum cost.

### 3. Encountering asbestos – Professionals

This report section details findings among professional audiences, including incidence rates of encountering asbestos, as well as reported behaviours in relation to asbestos consideration, identification, handling, removal and disposal. Professional audiences include those currently working in relevant professional building or waste services roles most likely to encounter asbestos, paid handypeople who currently work on relevant properties, as well as asbestos specialists. Given the small sample sizes involved, where possible, quantitative findings from all relevant building ‘professionals’ have been rolled together for reporting purposes.

This chapter covers experiences and behaviours. Specific motivators and barriers to safe and lawful behaviour among professionals are discussed in Chapter 4.

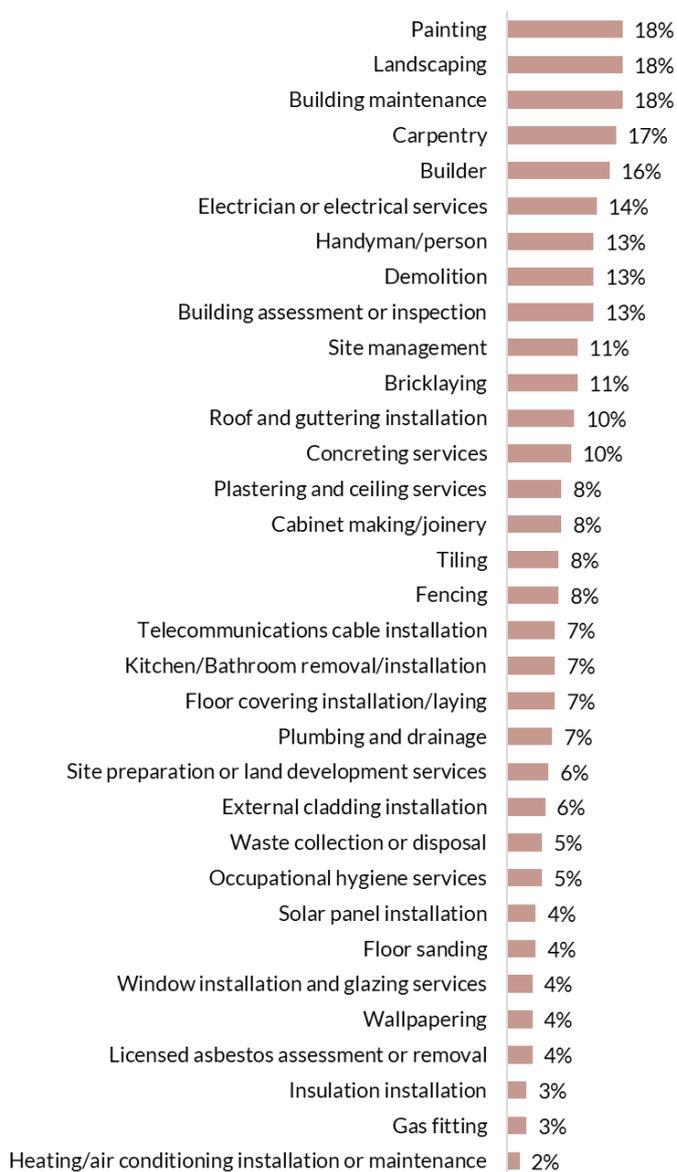
#### RISK OF ENCOUNTERING RESIDENTIAL ASBESTOS

The survey sought to identify who in the NSW community is at risk of exposure to asbestos through the course of paid renovation, maintenance and improvement work they undertake on established residential properties.

Key statistics from the quantitative survey include:

- 5% of the quantitative research sample (201 individuals) were identified as ‘relevant professionals’. These were members of the NSW community aged 18 years and currently working in a professional role in building or waste services – identified in collaboration with the EPA as being roles in which they would be likely to come into contact with asbestos containing materials – and whose work involves established, rather than only brand new, residential properties.
- Figure 19 shows the range of specific roles undertaken by this group of relevant professionals participating in the survey, the most common being painting, landscaping and building maintenance (each comprising 18% of relevant professionals).
- 54% of relevant professionals identified as being an employee, 24% a sole trader, 12% an employer and 9% a contractor.

**Figure 19. Type of work undertaken by surveyed building and waste professionals**



S6. Which, if any, of these type/s of work do you do? [Base: NSW building and waste professionals working on established residential properties, n=201]

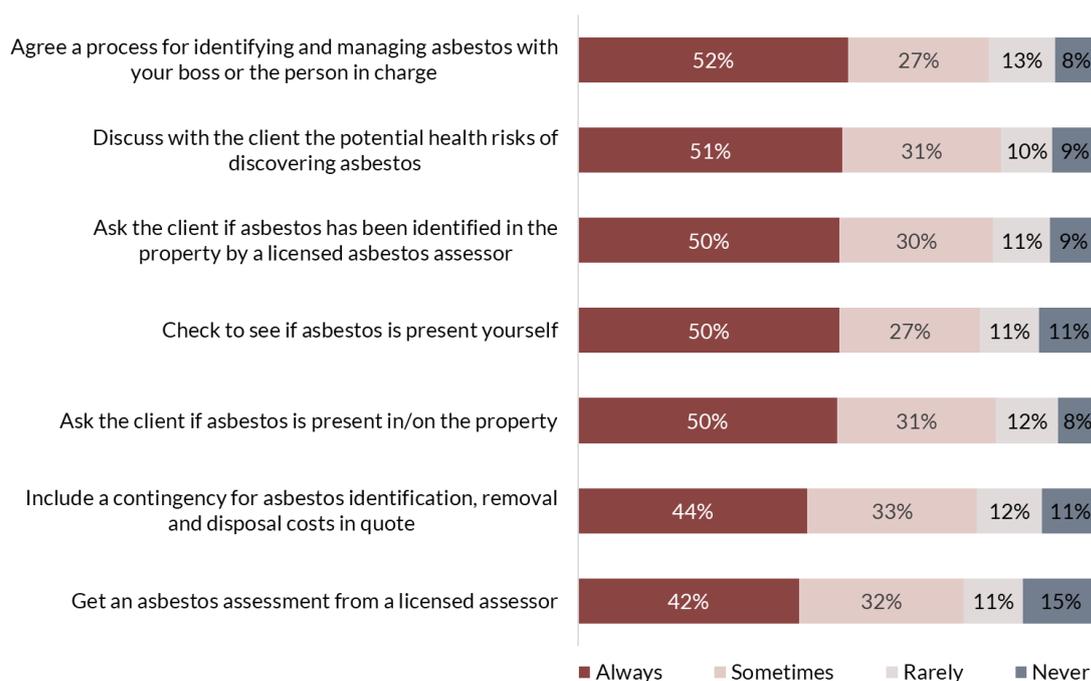
## PLANNING WORK

Both the quantitative and qualitative research components sought to understand the specific role professionals undertake in planning of residential work and whether and how considerations regarding asbestos factor into this preparatory stage of their work.

Key statistics from the quantitative survey include:

- Relevant professionals were asked to specify the frequency with which they did up to eight actions in relation to asbestos when beginning a project/job on a residential property where asbestos containing material could possibly be present (Figure 22). Of note:
  - 52% reported always agreeing a process for identifying and managing asbestos with their boss or person in charge, making this the most consistently undertaken action from the list.
  - Getting an assessment from a licensed assessor was the least consistently carried out action; 42% indicated they always did this, but 15% indicated that they never did (see Figure 22).

**Figure 22. Actions taken when beginning a project or a job where asbestos containing materials could be present**



Q1.5 When beginning a project/job on a residential property where asbestos containing material could possibly be present, how often do you do each of the following? [Base: All building and waste professionals excluding asbestos assessors and removalists, n=193]

The qualitative research did highlight groups of professionals who do not regularly interact with clients at the planning stages of work. This undoubtedly influenced the quantitative findings – a lack of discussion with clients could be a combination of a lack of any form of interaction with the client, as well as any reluctance on the part of professionals to discuss asbestos.

More generally, participants in the qualitative research revealed variation in consideration of asbestos at the planning stage which was related to a number of factors. Primarily, consideration of asbestos was dictated by:

- the type of work undertaken by professionals
- the size of the organisation they work for and their role and seniority within it
- their level of contact with the homeowner client
- their own individual levels of capability and motivation in relation to asbestos.

Generally, professionals who were more junior in their careers and/or who were employees in medium to large organisations appeared less likely to engage directly with clients in planning and quoting on work, and also to be less likely to consider the possibility and potential impact of asbestos in the planning stage of their residential work.

Having said this, most relevant professionals indicated that the possibility of encountering asbestos on the job was something they regularly considered, particularly those working in roles where they were more likely to come into frequent contact with asbestos, such as people involved in work on bathrooms and kitchens. However, professionals appeared to differ in the extent to which the possibility of encountering asbestos factored into their *behaviour* in the planning stages of work.

Those who worked for themselves and/or were directly involved in quoting for a job, reported taking into account the likelihood of encountering asbestos when they went to assess the premises for the purposes of quoting. At this stage, most mentioned that they are alert to any aspects of the job that might present difficulties, including the possibility of encountering asbestos. Most in this group said they were happy to raise these concerns with homeowners at the time, before quoting on the job, as well as indicating how it might affect the costs and timing of the job. In cases where asbestos was not obviously present but could potentially be, given the age of the property, these professionals tended to include caveats around their pricing and timing estimates to explicitly state that they would be adjusted accordingly should issues arise.

*“Well, so when people call me for advice for something, I've always got something in my head, like they describe the job, so I think, ‘Okay, this is what it's going to be like compared to some other job.’ So I think, you know, ‘I might have to do this, I might have to do that, I might have... all the safe work impacts.’ I kind of look after myself, you know, I can't go and work so, yes, I've always got things on my mind like that. (Experienced tradesperson, Greater Sydney)*

For the least frequently taken action reported in the quantitative survey – getting an asbestos assessment from a licensed assessor – interviews with licensed asbestos assessors revealed that a significant proportion of their work comes via building professionals and that often these professionals are keen to obtain an assessment to confirm suspected asbestos in order to provide independent verification to homeowners that asbestos is present. This assists them to prove to homeowners why a variation in their quoted fees and timelines is justified.

Some unlicensed handymen were of the view that they should never have to handle asbestos in their work and so indicated that, if it was clear asbestos was or was highly likely to be present, they were comfortable to decline to take on the job. Other handymen who were more comfortable to deal with asbestos themselves, or to subcontract to a specialist, factored the time and costs to handle any obvious asbestos into their quote, but felt they were a lot cheaper than tradespeople and asbestos removalists.

Employees or contractors, on the other hand, were usually not involved in the quoting stages of work, and in these cases, appeared to exert less control than others over their situation in relation to avoiding asbestos or putting in place measures to protect themselves before starting work on residential jobs. Responses to this differed, however, depending on the size of company such participants were working for. Those working for

small to medium organisations pointed out that they often turn up on day one to work on a job that someone else has scoped out and quoted on, sometimes sight-unseen. If that person had not considered asbestos in the scoping and quoting, then the employees or contractors engaged to carry out the work often felt under pressure to carry on with the job according to the original quote and timeline, and therefore ended up working in conditions where they did not feel completely comfortable or safe. It was noted that some professionals within smaller organisations are reluctant to be the one to speak up and cause a job to halt if asbestos is or is suspected to be present, and consequently cause the job to run overbudget or overtime. Some employees with longer tenure within such organisations reported feeling more comfortable to speak up and exert their rights in such situations.

Employees working for large building companies described a very different scenario. They described workplaces with comprehensive attention to health and safety, and processes in place to sound the alert and deal with suspected or encountered asbestos. Employees in these contexts felt confident that contingencies existed to deal with potential asbestos, that it had been taken into account in planning and quoting, and that any known asbestos had been appropriately cleared from sites prior to them commencing work.

*“Depends which company you work for as well. If you work for a large company, then they have contractors that will stop you working, they’ve got unions as well that won’t let you go in.” (Experienced tradesperson, Greater Sydney)*

## ENCOUNTERING ASBESTOS AT WORK

The extent to which relevant professionals encounter asbestos in their work was explored in the research, as well as the nature of the asbestos they have encountered most recently. Professionals were asked to describe the type, location, quantity and condition of the asbestos they most recently encountered on a residential property and the circumstances surrounding its discovery. The aim of this line of questioning was to understand more about the risks facing relevant professionals in their work, as well as to determine whether professionals have dealt with this asbestos appropriately.

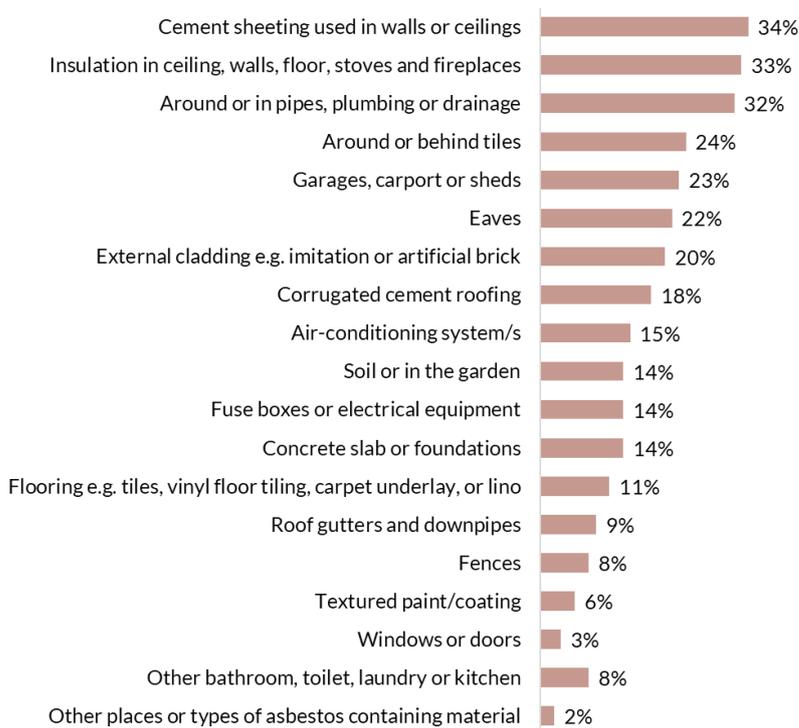
Key statistics from the quantitative survey include:

- 71% of relevant professionals indicated that they have ever encountered asbestos while working on residential properties.<sup>8</sup>
  - 64% of this group said they had encountered residential asbestos within the last two years, which equates to 46% of all relevant professionals surveyed.
- 24% of relevant professionals encountering asbestos in the last two years indicated they had dealt with asbestos on half or more of their jobs over this period. On average, it was dealt with on 29% of jobs that relevant professionals undertook on residential properties in the last two years.
- Figure 20 shows where on the property relevant professionals most recently came across asbestos. The most recent time asbestos was encountered on a residential job in the last two years, it was most commonly encountered in cement sheeting used in walls or ceilings (encountered by 34%).

<sup>8</sup> This proportion and the base it over which it is calculated do not include asbestos assessors and removalists, who are assumed to encounter asbestos in all of their work and so were excluded from this and subsequent questions for professionals about encountering asbestos in their work.

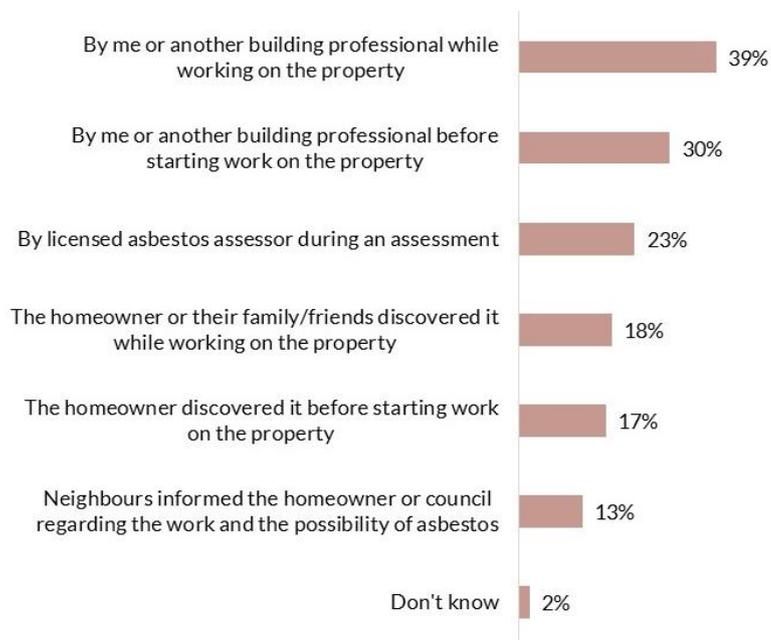
- Among professionals encountering asbestos in the last two years:
  - 78% indicated the most recent asbestos material they encountered was '**bonded**'
    - 32% of these described this bonded asbestos as 'crumbling or able to be crumbled easily with light pressure', meaning the asbestos was actually friable
    - 32% described it as 'cut, punctured, broken or damaged'
    - 57% said it was in good condition with no obvious damage
    - 6% were unable to indicate the condition of the bonded asbestos
    - 45% discovered this bonded asbestos in small or isolated pieces
    - 38% discovered larger or multiple amounts totaling less than 10m<sup>2</sup>
    - 16% encountered more than 10m<sup>2</sup> in total and 1% was unsure of the quantity.
  - 34% reported they most recently encountered asbestos material in 'loose or powdered form' (i.e. **friable** asbestos)
  - Only 3% were not sure whether asbestos they most recently encountered was bonded or friable.
- 57% of relevant professionals encountering asbestos in the last two years had therefore most recently encountered a form or quantity of asbestos that, if removed, should have been handled by a licensed asbestos removalist because it:
  - was friable (49%, being either in loose or powdered form, or bonded but crumbling or able to be crumbled easily with light pressure); and/or
  - involved more than 10m<sup>2</sup> of bonded asbestos (13%).
- The most recent time asbestos was discovered on residential properties in the last two years, relevant professionals or another building professional discovered it themselves (39%) while working on the property. In 23% of cases, the asbestos that professionals most recently encountered was found by a licensed asbestos assessor during an assessment (see Figure 21).

**Figure 20. Locations in which asbestos was encountered by building and waste professionals working on residential properties**



Q1.8 Thinking about the most recent time you encountered asbestos while working on a residential property, where was the asbestos?  
 [Base: NSW building and waste professionals working on established residential properties who encountered asbestos in last 2 years, n=88]

**Figure 21. How the asbestos most recently encountered by relevant professionals on residential properties was discovered**



Q1.12 Still thinking about the most recent time you encountered asbestos while working on a residential property, how was this asbestos discovered?  
 [Base: NSW building and waste professionals working on established residential properties who encountered asbestos in last 2 years, n=88]

Qualitative findings suggest that some of the asbestos that professionals reported encountering in this research was suspected asbestos, rather than actual asbestos as confirmed by an assessor and/or through testing. In qualitative discussions with professionals, it was revealed that many do not bother to test for asbestos, either because they are confident in their ability to identify asbestos (discussed further under Physical Capability) or because their approach is to treat all suspected asbestos as if it was actual asbestos. This is reportedly for safety reasons and to save on the costs of assessment and testing, though it may lead to more time spent dealing with non-asbestos containing materials in the long run, which did not seem to have been considered. This appeared to be more often the view of professionals and handymen who were dealing with smaller amounts of asbestos, who viewed asbestos removal as a simple task and who frequently removed it themselves.

*“The last like two years, every granny flat we’ve done, where we’ve done any sort of excavating in the back yard, 100 percent we’ve found asbestos or glass bottles in the ground.” (Experienced tradesperson, Greater Sydney)*

*“I mean, whenever I go there, unless it’s in the ground, like you said, I don’t have x-ray vision or anything like that, but generally I can see it, like it will be on the eaves around the house or it will be, whatever, and I tell the client like, ‘we can scrape the paint off but I’m not sanding that back, so it might not be the finish you want, painting wise, on the eaves, but I have a feeling that’s asbestos. We can get rid of it, but obviously that’s also a lot pricier.’ I’m not really finding it too much on like cladding on walls anymore, a few like older houses, so, mainly I’m just like finding like flakes of it in the ground.” (Experienced tradesperson, Greater Sydney)*

*“Because, like I could turn up to a site and of course the owner would have to get it tested or I could just tell them, ‘Look, it’s meant to be safe, let’s just deal with it as is’, even if it’s not... like, all dusts are pretty bad, there’s certain ways we should be working whenever stripping off like... And testing’s not cheap. Like, to get someone to come and test it, you’ve got to stop working, get someone to come, take it to the laboratory...” (Experienced tradesperson, Greater Sydney)*

## DEALING WITH ASBESTOS

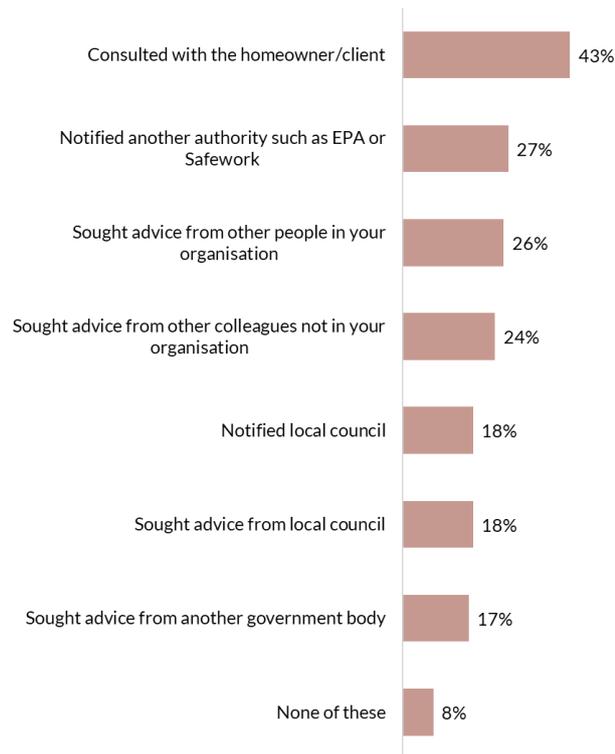
This section reports the specific considerations and actions undertaken by relevant professionals when dealing with the asbestos they most recently encountered when working on residential properties in the last two years.

### DECISION MAKING

Key statistics from the quantitative survey include:

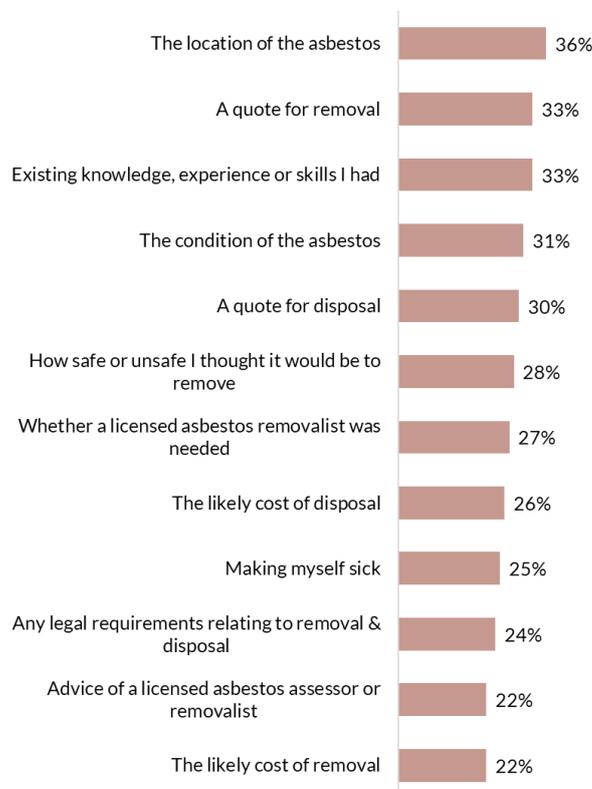
- 43% of relevant professionals encountering residential asbestos on a job in the last two years indicated that the last time they encountered asbestos they had consulted with the homeowner/client as a result. This was the most commonly reported response to an asbestos discovery from the list presented (see Figure 23).
- Professionals who sought advice on how to deal with the asbestos they encountered, more commonly sought it from other people in their organisation (26% sought such advice) or from other colleagues not in their organisation (24%; Figure 23).
- When deciding what actions, if any, to take in relation to the asbestos most recently encountered, more than one third of professionals reported having considered the location of the asbestos (36%). In line with non-professionals, 33% considered a quote for removal and 31% considered the condition of the asbestos (e.g. intact, broken or damaged) the most recent time it was encountered on a residential job (see Figure 24).

**Figure 23. Actions taken when asbestos was encountered**



Q1.13 Which of the following did you do when the asbestos was encountered? [Base: Building and waste professionals who had encountered asbestos on a residential property in the last 2 years, n=88]

**Figure 24. Considerations when deciding what actions to take in relation to asbestos encountered**



Q1.14 In deciding what actions, if any, to take with the asbestos, which of these did you consider? [Base: Building and waste professionals who had encountered asbestos on a residential property in the last 2 years, n=88]

In the qualitative discussions, relevant professionals reported primarily liaising with clients to discuss next steps when asbestos was discovered. Notifying authorities such as councils or SafeWork NSW, tended to be avoided unless it was expressly required. The minority reporting seeking advice from other parties in the quantitative survey also accords with findings from the qualitative sessions which indicated that professionals tend to view themselves as possessing enough knowledge and information to support their decision-making and to enable them to know what to do when encountering asbestos (quantitative findings on this are reported in the Capability section of Chapter 4). They also tend to view themselves as sufficiently competent to identify and deal with asbestos, despite not being asbestos specialists.

Once the presence of asbestos and its location are known, many relevant professionals in the qualitative research reported considerations similar to those mentioned by homeowners. Considerations mentioned centred on determining if and how they could complete the job they were hired to do within the budget and time allocated, while remaining safe or 'safe enough'.

With the exception of large amounts of asbestos, which were accepted as needing to be dealt with by a professional removalist, professionals reported considering how they could try to avoid disturbing the asbestos, if at all possible, including through problem solving to find a new (often more time consuming) approach to the task. Changes to approaches sometimes involved discussion between owners and professionals, particularly if there were cost or time implications.

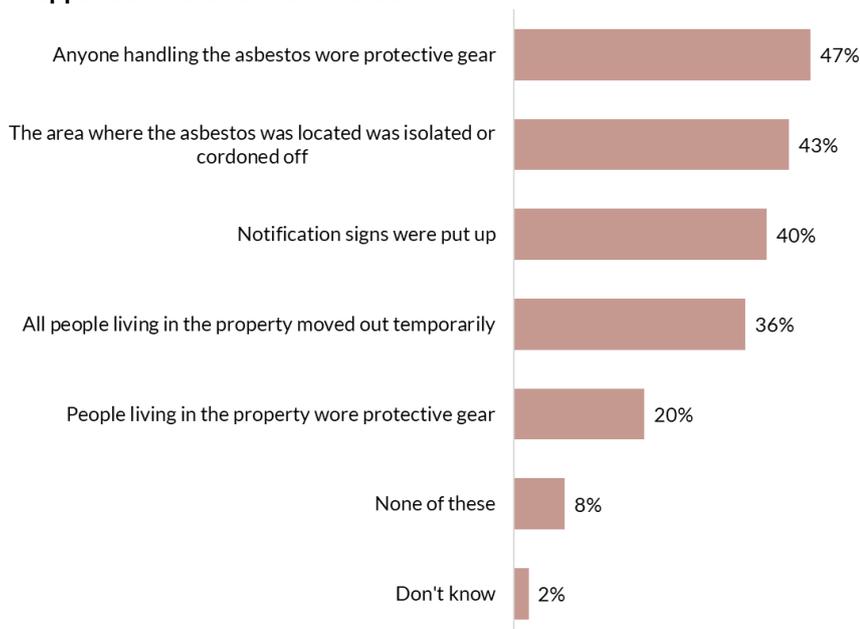
Some business owners reported considering the homeowners' likely view of, or capacity to accept, additional costs or delays when deciding what to do about asbestos they encountered. Those that were employees reported similar considerations regarding their employer. Most went into discussions assuming the client or employer would not be happy about additional costs and delays, but were prepared to state their case for what needed to be done or to present options. In more than one instance, designs were changed in order to progress the renovation and avoid the asbestos. Some reported situations in which they were certain that costs and delays would not be welcome and so avoided discussion, choosing to carry on with the job with some accommodations for personal protection, and a small number carried on with their work as if asbestos was not present.

## HANDLING ASBESTOS

Key statistics from the quantitative survey include:

- 59% of relevant professionals agreed or strongly agreed that 'in reality, the correct handling of asbestos doesn't always happen on a job'. Just 20% disagreed or strongly disagreed.
- 47% of relevant professionals encountering asbestos in the last two years reported that the last time asbestos was encountered, those handling the asbestos had worn protective gear and 43% reported that the area where the asbestos was located had been isolated or cordoned off (see Figure 25).
  - These proportions are roughly in line with those seen for non-professional audiences encountering asbestos, reported earlier.

**Figure 25. What happened in relation to the asbestos**



Q1.15 Which, if any, of the following happened in relation to this asbestos?  
 [Base: All professionals who encountered asbestos in last 2 years, n=88]

The modest proportions of relevant professionals that reported taking each of the safety precautions listed in Figure 25 (in all cases, less than half) could reflect, in part, the number of cases in which asbestos is encountered and left in place (described in the next section of this report). However, qualitative findings also suggest that even basic precautions are not consistently taken by all relevant professionals. Further, within the broad categories of safe behaviour are a wide range of specific behaviours and a great deal of inconsistency across professionals and even by the same professional on different jobs. For instance, the extent of PPE reportedly worn differed greatly, as did reported processes for wearing, decontaminating and disposing of it, which are discussed in the next section of this report. Similarly, for isolating and cordoning off areas, some reported cordoning off only some areas and others, much wider areas. Some more thoroughly, some less thoroughly.

In terms of residents living in the property when work was being completed, participants reported in some cases residents were always very separate from the work being undertaken, while in other cases, they were simply out for the day or during the period work was happening and moving freely within the property when home.

From the descriptions given by professional participants of handling asbestos, there appear to be many opportunities for breaches to safety requirements where asbestos exposure may occur, to professionals or to their clients.

## ASBESTOS LEFT IN PLACE

Key statistics from the quantitative survey include:

- 55% of relevant professionals encountering asbestos in the past two years on a residential job said that on the last occasion at least some of the asbestos was, to the best of their knowledge, left in place where it was encountered.
- 56% reported that the asbestos left in place was covered, painted or enclosed, or blocked off in another way. Asbestos was reportedly left just as it was found by 40%.
  - Compared to non-professionals encountering asbestos, relevant professionals were somewhat more likely to simply leave the asbestos as found without covering, enclosing or blocking it off (40%, as reported above, compared to 32% reported in Chapter 2).

As noted in relation to relevant homeowners encountering asbestos, among relevant professionals encountering asbestos there was also a clear preference for leaving asbestos encountered in place, wherever possible. Though professionals can charge clients for the additional time and costs associated with dealing with asbestos, asbestos was generally described by most professionals as a nuisance and something they preferred not to have to deal with. Sole traders and small business owners reported being keen to move on to their next job as soon as possible and employees of small to medium companies reported feeling pressure from their bosses to do so. The exception to this was employees of large building companies who reported feeling less concerned about how encountered asbestos might impact the job. Some of these participants said it was to their benefit if asbestos was unexpectedly found, as they got a few days off while the site was shut down and the asbestos remediated.

Some professionals participating in qualitative research sessions reported having been involved in (or observing others) covering up asbestos under circumstances that were likely to be illegal. One bathroom and kitchen renovation specialist noted it was illegal in NSW to clad over asbestos sheeting on an exterior, though he claimed to have observed this being done regularly in his regional town. One handyman in the same town had described conducting such work himself and reported having knowingly drilled the cladding straight into the underlying asbestos sheeting without having worn any PPE. A number of others reported having covered up asbestos sheeting in internal property walls with new plasterboard.

Many of the relevant professionals participating in the qualitative research (with the exception of asbestos specialists and those dealing with asbestos day-in and day-out, such as bathroom and kitchen renovation specialists) admitted, or hinted through agreement or gestures, that they had, in some cases in their work, ignored asbestos they encountered while working on residential properties, without informing the homeowner of its presence. Cases where this was specifically described included:

- landscapers turning over asbestos pieces in soil while digging with bobcats, so that it was incorporated further into the soil (though the sample included only a few landscapers, their comments suggested that encountering asbestos pieces in yards while landscaping is so common that it has to be ignored to avoid every landscaping job being halted in order to deal with it)
- tradespeople and handypeople spotting pieces of asbestos in the sub-floor under houses (this was mentioned more than once)
- a cabinetmaker drilling through suspected asbestos sheeting without mentioning it to anyone.

Some relevant professionals in the qualitative sessions appeared not to have considered the consequences of unsafe behaviours for others beyond the end of the job. As noted above, relevant professionals under time and cost pressure to complete the work reported feeling unable to choose a different approach, especially if they

were employees or casual handy people. Some spoke as if dealing with any asbestos encountered was beyond the scope of their responsibilities or peripheral to the requirements of completing the job.

An asbestos assessor participating in the research pointed out that, as for homeowners, the failure of professionals to consider the possibility of encountering asbestos in the planning stages of work appears to limit the options available to them and the homeowners later on when asbestos is inadvertently encountered. Though the overwhelming desire is to leave asbestos in place, by the time asbestos is encountered on job sites, it is often too late to consider approaches that might allow the asbestos to be left in place undisturbed (such as an alternative design or method). Sometimes this leaves unsafe workarounds, such as drilling through or covering up the material, as the only perceived option.

## REMOVING ASBESTOS

Key statistics from the quantitative survey include:

- 50% of relevant professionals encountering residential asbestos in the past two years said that on the last occasion asbestos was encountered during their work, at least some of the asbestos was removed or moved from where it was encountered.
- Among these 44 survey participants (note small base size when interpreting the following results):
  - 61% reported a licensed asbestos removalist had removed at least part of it (this compares to 49% among relevant homeowners moving or removing asbestos, as reported in Chapter 2).
  - Less commonly, it was reported that the asbestos had been removed by them personally (25%), the homeowner or homeowner's friends/family (20%) or another tradesperson/paid handy person (20%).
- Among the 11 participants who indicated they had *personally* moved or removed the asbestos:
  - Seven sought advice to ensure they had the right tools and safety equipment, eight put up a sign, and seven cleared the area of anything that might become contaminated.
  - The most common PPE reported to have been worn included gloves, a dust mask, a respirator, and disposable coveralls (each mentioned by eight or nine). Enclosed safety footwear and safety goggles were each mentioned by six participants.
  - There appeared to be an emphasis on avoiding or minimising breaking or damaging the asbestos-containing material, double-wrapping larger pieces, labelling wrapped or bagged material, and getting rid of disposable clothing (each mentioned by eight or nine participants). Around half indicated wetting down the area, putting small pieces into an asbestos-waste container and decontamination.

In the qualitative research, it appeared that relevant professionals who were not licensed removalists, almost exclusively removed asbestos that was in the form of bonded asbestos sheeting used in internal and external walls and outbuildings, eaves, and wet areas, and pieces of broken cement sheeting found under houses and in soil. Few reported removing other forms of asbestos. There were no examples in the research of professionals who were not licensed to remove asbestos having removed any loose asbestos or friable-condition bonded asbestos themselves. It is possible, based on the types of work participants described undertaking on residential properties, that other forms of asbestos were unwittingly removed from properties, for example in tile grouting, putty, around pipes and in and under flooring, though these were not mentioned by participants.

The discussions revealed a wide variety of behaviours undertaken when it came to asbestos removal, some safe and lawful, and others apparently less so. What happens on site appeared to be strongly related to:

- the culture of the organisation running the job (or the site manager's approach on larger job sites), which sets the tone for how safety issues in general are approached (discussed further in the Opportunity section in Chapter 4)
- levels of knowledge and awareness among professionals about asbestos safety and legality (discussed further in the Capability section in Chapter 4).

Where relevant professionals worked alone or were themselves the employer, their own knowledge and attitudes regarding asbestos, as well as how well the business was going, appeared to primarily guide their own decision-making and behaviour, and that of staff and contractors working under them. These motivators and barriers are discussed in greater detail in Chapter 4.

The qualitative discussions confirmed that, while relevant professionals generally undertook to remove asbestos in a manner that was in accordance with the law, there were some instances where precise legal requirements were not followed, as indicated below.

- Few reported treating soil, in which pieces of asbestos sheeting debris were found, as contaminated and requiring removal.
- Some had themselves removed amounts of asbestos that it seems clear were greater than 10m<sup>2</sup>, though they had estimated or reported it to be an amount that it was 'legal' for them to personally remove, for example, all the sheeting on a large wall, a full bathroom, and all of the eaves in a house.
- It was uncertain whether some removing asbestos themselves could be classed as competent persons, even though they tended to view themselves as competent and were confident in their skills and knowledge. Only one participant, a bathroom and kitchen renovator, had recently undertaken asbestos awareness training. This was because he found he was regularly removing amounts of asbestos less than 10m<sup>2</sup> and wanted to be sure he was doing it safely. This participant appeared well-versed in best practice removal and safety requirements and appeared to be generally following these. No others who had removed asbestos themselves reported having completed any asbestos training recently, besides an apprentice who reported studying a module at TAFE.

*"So I did, I started construction, like I went to TAFE as like mature age, just like six years ago, I think we had half an hour, a half hour talk on what to do if we find it, almost nothing." (Experienced tradesperson, Greater Sydney)*

While a small number of relevant professionals (who were not licensed removalists) reported behaviours when removing asbestos that appeared to fully accord with best practice, most others reported inconsistent or minimal adherence to safety best practice. A summary of the types of behaviours reported by this audience when removing asbestos is listed below.

- When it came to preparing sites for removal of asbestos, reported behaviours varied widely, from not preparing the site at all, to sealing off the worksite and controlling airflow.
- Few removing asbestos themselves reported putting up signage or notifying anyone, including authorities.
- Wetting down was not universally undertaken, some used hoses and others used spray bottles. Other materials were also used to try to minimise dust when removing asbestos, such as painting the surface or covering edges or areas where cuts were being made with a sealant or glue.

- Some reported only using disposable coveralls on larger jobs, and while one tradesperson reported always carrying disposable coveralls, disposable gloves and respirators (including spares for any contractors working with him) in his vehicle, others reported generally not having such materials to hand and only making an effort to purchase them if undertaking a larger or more complex job. Taping the sleeves of coveralls around the wrists to disposable gloves was mentioned by some reporting having worn coveralls.
- For smaller removal tasks, more lax safety behaviour was generally reported, for example a plumber who reported rarely wearing any PPE besides gloves and a dust mask as he didn't usually have anything else on hand and the asbestos he removed was able to be removed in a very short space of time (not enough in his opinion to warrant stopping work to go and purchase the appropriate gear).
- Some had moved asbestos a substantial distance prior to wrapping it, for example taking it out of the house to the backyard to wrap.
- Some reported using work-specific domestic vacuum cleaners to gather up dust, while one had a dedicated vacuum cleaner only used for asbestos removal which was thoroughly decontaminated using a specific process followed each time.
- Decontamination of reusable tools and protective gear did not appear to be common practice, and some reported not taking off potentially contaminated protective gear during work breaks. Some also overlooked decontaminating work boots.
- Only some reported wearing P2 masks or respirators, while others wore simple dust masks. Tradesmen in one group were surprised to hear from one of the group that filters on respirator masks needed to be replaced regularly and every time asbestos was being removed.
- Some clothes that might have been contaminated with asbestos dust had been washed in domestic washing machines alongside other work clothing.
- Asbestos sheeting was sometimes broken when removed or in order to make it smaller for wrapping.

*"If I'm dealing with small bits where I have to like just take a bit, I'll put a bit of wood glue in with the like water and spray bottle and just spray that over everything like sort of the edges of any cracks that might have a bit of loose stuff that I just don't want to breathe in, which I think is, I mean that's what he told me to do which I don't really know if anyone knows like there's this, I've always got a spray bottle in the car for something like...Yeah, like I didn't learn that story from TAFE or anything, that was just a story someone told me once, you know?"*  
(Experienced tradesperson, Greater Sydney)

*"Just whatever you've got on at the time. Unless you're doing the ceiling, you just, unless you've got a jumpsuit in the back of the car..."*(Experienced tradesperson, Greater Sydney)

*"I don't always do the disposable coveralls, but I always have my mask. But I'm always, like, I go hard with the water and sprays and stuff like that and I'm sort of, like I don't know how it works, but in my head I feel pretty confident that I'm not going to be breathing anything in and nothing's really going to be getting into the air, yeah."* (Experienced tradesperson, Greater Sydney)

A number of relevant professionals reported having observed licensed asbestos removalists themselves not following best practice in their removal work. Examples given included observing removalists taking breaks on a residential property but failing to remove their protective gear, some were reportedly observed sitting on a resident's outdoor furniture, others were observed by another participant getting into a truck after finishing work while still wearing protective coveralls. Asbestos assessors reported regularly observing poor safety practices on monitoring jobs, as well as instances in which they were unable to issue clearance certificates due to poor quality removal work where it was obvious appropriate safety precautions had not been taken. In one

instance an asbestos cement roof removal job had been declined a clearance certificate for not controlling the amount of asbestos dust and debris from filling the ceiling cavity during the removal and failing to clear it up, and in another case, asbestos sheeting had been removed but the fixings remained in the wall with asbestos sheeting debris still present around the fixings (in this instance a clearance certificate had been refused three times due to the poor quality of the removal work).

*"It's lunchtime and I see the guys with their suits off all around their neck and their masks on their head, and they are sitting there having a smoke, and I'm thinking, why did you think I just asked you to wrap everything up? And you are sitting on someone's outdoor setting on their balcony? ...It makes a mockery of it all, you know?"*  
(Asbestos specialist, Sydney)

*"I could have multiple teams working, but I have never had a crew that I could trust in somebody's home to do the right thing, no matter what background, even with Class A licenses."* (Asbestos specialist, Sydney)

## DISPOSAL OF WASTE

Key statistics from the quantitative survey include:

- Just six of the 11 professionals who reported having personally moved or removed asbestos indicated that arrangements had been made prior to handling the asbestos for storage and/or disposal of the asbestos. With respect to the last time asbestos was encountered, among the 44 relevant professionals encountering asbestos on residential jobs in the past two years:
  - 23% reported that at least some of the asbestos was disposed of in a residential garbage, recycling or green bin
  - 18% reported that at least some of it was disposed of through a council pick-up
  - 5% reported that at least some of it was disposed of by burying
  - 30% reported at least some of it was taken off the property to be disposed of in another way<sup>9</sup>.
- 52% reported that they had received a receipt for asbestos waste disposal.
- Among the 25 participants selecting an improper disposal method (i.e. in a residential bin, through a council pick-up<sup>10</sup> or via burial):
  - 13 reported that a licensed asbestos removalist had disposed of the asbestos through this means, seven reported they personally had, six reported that one of their colleagues had, and six reported the homeowner or family/friends of the homeowner had.
  - Few provided reasons for why asbestos was disposed this way, though two claimed burying it was a safe way to deal with asbestos and one argued they should be able to dispose of asbestos in residential bins as they pay taxes.

There was some discussion of improper asbestos disposal in the qualitative research sessions. Among relevant professionals, many admitted to disposing of at least some asbestos improperly over the last few years, either in a residential or skip bin, burying it in the ground or in concrete foundations, or throwing it somewhere out of the way on the property. Some removed wrapped asbestos from a residential property to dispose of later. For example, a licensed builder reported storing asbestos he had removed in small amounts on his own property

<sup>9</sup> The survey did not specify in which way it was disposed of after leaving the site as this was not the main focus of this phase of the research.

<sup>10</sup> It was assumed that 'council pick-up' may have included pick-ups designed for more general waste as well as possible specific council interventions that have been trialled in which small amounts of residential asbestos are collected.

until there was “enough” to warrant him engaging a licensed asbestos removalist friend to take it along with his own loads to a waste facility.

*“Truth or off the record? Yeah, you know, I think a blind eye has been turned or it’s been made to look like it’s normal rubbish, you know. Or put in somewhere, for example, back in the ground, covered again, you know, because it’s fine, you know.” (Experienced tradesperson, Greater Sydney)*

*“Like me, when we’re excavating footings for a granny flat or whatever, like it’s the most random thing how you find the asbestos under the ground. I have no clue where this came from, I haven’t seen it anywhere else in the soil, like literally nowhere else in the soil but just one square. So I will actually, I’ll put it into a bag and then I kind of just horde it under the house at my place until I have enough to put with a load. Or, I’ll wait till I’m doing a bathroom, it’s just sitting there inert under our house, and I’ll wait till I have enough to like send it all. Like, how do you deal with that? Because my guy’s not going to come for a square. It’s me avoiding putting it in the normal rubbish.” (Experienced tradesperson, Greater Sydney)*

Motivations and barriers relating to disposal are discussed further in Chapter 4, but it did appear, as for relevant homeowners encountering asbestos, that smaller amounts of asbestos encountered incidentally on a job site were most likely to have been disposed of improperly in bins and skips where people believed they could be disguised as general rubbish or overlooked by waste facilities. Small pieces of asbestos waste were disposed of improperly out of convenience and in some cases a lack of awareness or care of the risks it poses to waste workers down the track. Asbestos waste that was buried, in particular asbestos that was fed into concrete foundations, appeared to be in larger amounts, and this was primarily done to avoid transport and waste facility disposal fees.

*“There’s another thing, I won’t put it in normal rubbish, I’d probably put it back underground or in the concrete, because I think it’s safer, because it’s getting concreted, you know...And no-one’s going to dig that up again for you know, in my lifetime.” (Experienced tradesperson, Greater Sydney)*

*“...just rip them up, put them in garbage bags and get rid of them bit by bit, through normal bags. That’s what they do... With a little bag, like you just said, a little rubbish bag, about this much. They just toss it out on the side of the road... It’s because of the cost, the cost involved in it.” (Less experienced tradesperson, Greater Sydney)*

Relevant professionals that disposed of asbestos themselves at a waste facility reported receiving a receipt for disposal, but also that no client had ever asked to see it. They felt that homeowners simply trusted them to dispose of asbestos appropriately, but some also felt that homeowners did not particularly care what happened to asbestos once it had been removed from their property. The professional who passes on asbestos waste to a removalist friend for disposal reflected that it had never occurred to him to ask his friend what he does with the waste, but thought it was going out to “Eastern Creek”, though he admitted he wasn’t even completely sure there was a waste facility there.

An asbestos specialist noted that, in their experience, other professionals often query the requirement to retain disposal receipts that is written into asbestos control plans. The assessor pointed out that, as the person with responsibility for the job, professionals who contract out removal should see themselves as responsible for the asbestos, right up until it is disposed of.

*“We have had a number of people question us on that [the need to sight and keep disposal receipts]. But you are paying for it, you are the PCBU, you don’t want it to end up on the streets. You need to know what happens to that asbestos from the cradle to the grave.” (Asbestos specialist, Sydney)*

## 4. Motivators and barriers to safe and legal behaviour

To support the development of behaviour change interventions, the validated COM-B model was applied to the research design, questioning and data analysis. This provided a systematic method to understand motives and barriers and identify how desired behaviours might be increased in home renovation and maintenance settings. In a research context, underlying motivations, or the thwarting of these, are challenging to investigate as they do not involve conscious processing and may be difficult to verbalise, observe or measure.

Qualitative research methods provide additional opportunities to explore motivations that is not possible in quantitative approaches, including the observation of spontaneous responses, body language, vocal and para-linguistic cues (such as volume, sighs, pauses) and aversion or attraction to topics of discussion; as well as the implementation of interviewing and projective techniques designed to bypass cognitive processes and filtering.

The sections of the report that follow discuss findings relating to the three categories of influence in the COM-B model, Capability, Opportunity and Motivation. Quantitative findings relevant to each of these categories are discussed where possible – most notably for psychological capability, where measurable knowledge is a core element. Relative to earlier sections of this report, however, the application of the COM-B framework necessitates over-representation of findings from the qualitative phase of research. Further, applying the COM-B model to guide the development of interventions requires meaningful interpretation of behaviours, opinions and experiences expressed by research participants, rather than reporting only what was said, recorded or directly observed. In other words, these report sections provide both description and interpretation of findings.

The qualitative findings reported here are based on all relevant audiences participating, while the quantitative findings are based on the NSW Community as a whole, with apparent differences between different professional and non-professional audiences and different need states noted as relevant in each section.

### CAPABILITY

#### PSYCHOLOGICAL CAPABILITY

Having the psychological capability to enact a behaviour (e.g. to safely and legally deal with asbestos in a residential property) relies upon sufficient relevant knowledge and awareness, and the cognitive skills and context to support appropriate decision-making.

The quantitative survey included several measures to assess the psychological capability of people in NSW to deal with asbestos safely and legally. The relationship between knowledge / awareness, decision-making and behaviour was also explored in greater detail in the qualitative research sessions.

#### Knowledge and awareness

Quantitative data relating to knowledge and awareness appear in Figures 26 through 29 and include:

- Figure 26 – showing awareness of the locations around a residential property in which asbestos can be encountered.
- Figure 27 – showing awareness of the conditions under which asbestos poses risks to health.

- Figure 28 – showing the proportion of survey participants giving a correct answer on a range of knowledge questions about asbestos. These questions were designed to cover awareness of the prevalence of asbestos, risks and consequences, identification, and safe and legal handling and disposal<sup>11</sup>.
- Figure 29 – showing agreement with statements relating to asbestos awareness.

Overall, the data from the quantitative survey and the qualitative sessions revealed that most adults in NSW were generally aware that asbestos can be present in residential properties and that it is a hazardous substance that, through exposure, can lead to health problems and possibly death. However, knowledge about specific aspects of asbestos that may prompt appropriate decision-making and behaviour appeared to be lacking. Findings relating to these specific aspects of knowledge about asbestos are described in the following points.

- **Residential asbestos prevalence and location**

While most people were aware that asbestos is more likely to be encountered in older homes, the survey data showed some confusion regarding which residential properties are likely to contain asbestos. The research also revealed low levels of awareness of the extent to which asbestos was used across different building materials, or in different parts of a property.

Key statistics from the quantitative survey include:

- 80% of surveyed participants agreed or strongly agreed that anyone renovating an older home needs to be careful of encountering asbestos (Figure 29).
- However, just 9% was able to correctly identify that homes built *any* time before 1990 are likely to contain asbestos. It was most commonly accepted that homes built between 1940 and 1990 are likely to contain asbestos (this option was selected by 45% of survey participants; Figure 28).
- Just 7% of survey participants indicated correctly that asbestos was used in over 3,000 different building materials (Figure 28).
- 70% indicated they were aware that, in older houses, asbestos can be found in different types of insulation, such as that used in walls, ceilings, floors, stove and fireplaces. Knowledge that it can be found elsewhere was considerably lower (Figure 26). Taking together all of the responses relating to possible bonded asbestos sheeting (i.e. garages, carports, sheds; cement sheeting and external cladding), 67% indicated an awareness of this form of asbestos.

In the qualitative research sessions, most participants (including building professionals) tended to respond with a guess when asked which types of houses are likely to contain asbestos, though most appeared to believe that properties dating from around the middle of the 20th century were most likely to have asbestos. It appeared that some were thinking mainly of post-war fibro-constructed properties. Others spoke of “housing commission” homes when discussing properties likely to contain asbestos. Very few, with the exception of licensed asbestos removalists, some professionals who had undergone asbestos training very recently and one or two who had read up on asbestos after discovering it in their home, were aware of the year in which asbestos building materials were banned or the period over which they were phased out.

Most qualitative participants could not name more than a handful of different building materials or locations in the home in which asbestos was used and most were shocked or surprised to learn the figure

<sup>11</sup> Note, awareness of safety and legality regarding disposal of residential asbestos was only covered briefly, given asbestos waste is the subject of a planned subsequent phase of research.

was closer to 3,000 different products than 30. For some homeowners, it was at this point in the discussion that they began to wonder whether they had unwittingly been exposed to asbestos in the past or through work around their home.

Among both non-professionals and professionals, asbestos was mainly associated with 'fibro' sheeting and sometimes also with corrugated asbestos cement roofing. Many were also aware of asbestos used in linoleum ('lino') and loose-fill insulation, with some noting the high-profile Mr Fluffy case in the ACT. Far fewer were aware of asbestos in other locations and, where there was awareness, this tended to reflect specific individual locations in which they or people they knew had encountered asbestos, such as in electrical fuse boxes. Mentioned frequently in the qualitative research was that asbestos had been used in the past in road and rail vehicle brake pads. As noted earlier in this report, there was a particular lack of awareness among members of the community of the terms 'bonded' and 'friable' in relation to asbestos, or even that there was a distinction between asbestos materials being in one of these two forms. One asbestos professional found this distinction arbitrary:

*"I don't think there is such a thing as bonded. It's all friable, because in the process of removing bonded it becomes friable at some stage. Otherwise, why do we need masks and suits?" (Asbestos specialist, Greater Sydney)*

Relevant professionals tended to be aware of a broader range of residential uses of asbestos than non-professionals, such as around pipes and fireplaces, behind or around tiles, in pintucking around bricks, in glues, and under flooring. One asbestos assessor noted that conventional wisdom among building professionals about which building materials were 'safe' and which were not in terms of containing asbestos was often incorrect, for example, the belief that sheeting with certain markings or brandings, and continuous linoleum flooring (as opposed to individual linoleum tiles) did not contain asbestos has proven to be false through testing.

*"All most people know is sheet form – they look at eaves, bathroom and kitchen walls. In terms of potential problems, that's probably the least dangerous. Vinyl floor tiles and lagging in ceiling around hot water systems are potentially much more dangerous. But most people are not aware of these." (Asbestos specialist, Regional NSW)*

*"When I started, the idea floating around was that asbestos was present only in individual [lino] tiles, and sheeting was OK, but we are finding lino in sheeting is coming back more and more positive. Vinyl sheet has backing paper which breaks apart and is really dangerous stuff." (Asbestos specialist, Regional NSW)*

- **Risks and consequences**

The research revealed that participants overestimated their knowledge of the consequences of asbestos exposure, when compared with actual specific knowledge about risks and consequences. The research also identified several aspects of asbestos risk about which public understanding appeared to be quite divided. This included awareness of just how risky exposure to asbestos is, the likelihood of experiencing health problems as a result of exposure and awareness of who is at risk.

Key statistics from the quantitative survey include:

- 48% agreed or strongly agreed that they feel fully informed about asbestos and its related dangers (Figure 29).
- However, just 11% were aware that exposure to asbestos fibres can result in all of the following illnesses: asbestosis, mesothelioma, lung cancer, other cancers and pleural disorders (Figure 28). Asbestosis and lung cancer were the illnesses most commonly associated with asbestos exposure.
- Only 4% were able to correctly identify the incidence of asbestos-related deaths in Australia as 4,000 per year, or four times the road toll (Figure 28). The vast majority (59%) indicated they did not know how prevalent deaths from asbestos-related disease are.
- Minority proportions correctly identified as false the following statements (Figure 28):
  - 'You are only at risk of asbestos-related disease after years of regular exposure or intense exposure' (49%)
  - 'Almost all asbestos-related deaths have been among workers in the mining, milling or manufacture of asbestos' (40%)
  - 'The risks associated with asbestos have dramatically decreased since building products containing asbestos have been banned' (21%).

In the qualitative research, participants were generally aware that exposure to asbestos can lead to one or more deadly illnesses, but many (except people who knew someone with asbestos-related illness) were unable to name specific illnesses beyond 'cancer' or 'lung cancer'. Few mentioned or indicated any awareness of chronic respiratory conditions such as pleural disorders resulting from asbestos exposure.

While many understood that just one fibre lodging in the lungs is enough to result in illness and potentially death, others did not believe that illness was likely from a single exposure, or several exposures to small quantities of asbestos, and that it was really only people who worked with asbestos day in and out that were likely to be at risk of disease. Some cited examples of asbestos workers in previous decades featured in the media in the past as evidence of this. Some also were under the impression that the risk of exposure to asbestos had decreased and was lessening over time as most asbestos has been "renovated out" of properties. This view was expressed by licensed tradespeople who believed they were seeing asbestos less commonly than in the past, or in smaller amounts, though others disputed this. Some homeowners pointed to fibro houses being knocked down to rebuild as evidence asbestos was being eradicated from NSW's housing stock quite rapidly. There appeared to be limited appreciation that the risk posed by asbestos may be increasing as materials containing asbestos age and begin to deteriorate.

- **Asbestos identification**

Hand in hand with the misconception that asbestos mainly means fibre cement sheeting, many participants in the research were under the impression that asbestos can be identified by sight, sound or touch. Research participants also revealed a widespread misconception regarding property pre-purchase building inspections, in that most erroneously believed them to include asbestos identification or assessment.

Key statistics from the quantitative survey include:

- 33% correctly identified as false the statement, 'You can generally tell if a material contains asbestos if you know what to look for'.
- 21% of participants in the quantitative survey correctly indicated as false the statement, 'Building inspections carried out before you buy a home typically include an asbestos assessment.'

Many participants in the qualitative sessions mentioned “dimpling” or “golf-ball dimpling” as differentiating sheeting containing asbestos from that which does not. Tradespeople and handypeople participating in the qualitative research were particularly likely to indicate that it was possible to identify asbestos by sight, sound or touch. Some mentioned labelling on the sheeting stating “Hardiplank”, “James Hardie” or “Does not contain asbestos” as indicative of materials that do or do not contain asbestos. Some noted asbestos sheeting has a particular sound when struck or is very difficult to drive a screwdriver through. Asbestos assessors were quick to point out that it is very difficult to rule out something containing asbestos by sight, sound or touch and that testing is always required.

*“With the inspections we do, most of the time you can tell if something is asbestos by tapping or trying to stick a screwdriver in, but I would never use an assessment like that to say it’s not asbestos.”*  
(Asbestos specialist, Regional NSW)

*“Brittle, but it sounds a bit like glass almost when you like tap it but, like I said, really until you start stripping it off and see the back of it then, you can’t 100% tell.”* (Experienced tradesperson, Greater Sydney)

Many participants in the qualitative research sessions were under the impression that their home did not contain asbestos because it had never been identified in the building inspection at purchase. In some cases, this had led to a false assumption that there was no possibility of asbestos prior to embarking on improvement or maintenance activities, and to the subsequent unexpected discovery of asbestos during the work. This assumption had meant professionals and homeowners were at greater risk and more likely to make hasty decisions and not have budget available to safety manage what was found. Some participants were dismayed by the lack of asbestos identification in building inspections, which reflected a more general call for inspection agencies, authorities, centralised record holders (such as strata records) or government bodies (such as local councils) to register and disseminate information about the presence or likelihood of asbestos to homeowners at every possible opportunity. Some felt they were owed a duty of care for this information to be collected and communicated.

- **Safety**

Though most participants in the research were aware that asbestos is or can be hazardous, knowledge about the conditions under which asbestos is safe or poses safety risks, as well as regarding what is safe when dealing with asbestos, was found to be patchy.

Key statistics from the quantitative survey include:

- A majority considered 'extremely risky' to human health each of the following activities:
  - cutting, drilling or breaking through an asbestos product (64%)
  - grinding or buffing its surface (64%)
  - asbestos in loose, fibrous form (60%)
  - asbestos in poor condition (54%).
- However, 36% of NSW adults failed to indicate the activities listed above as extremely risky.
- Cleaning an asbestos containing product using a high-pressure water hose was seen as less risky than the examples listed above, with just 42% rating this as extremely risky.
- In contrast, participants tended to *underestimate* the safety of asbestos materials that are in good condition and undisturbed, with just 16% indicating that asbestos in this state poses very little or no harm to human health (rating harm at zero or one out of 10; see Figure 27).
- The majority of the NSW community participating in the quantitative survey were aware that it is not safe to remove asbestos oneself, with 72% correctly identifying the statement, 'In many situations it is safe to remove asbestos yourself' as false.
- 'Difficulty knowing the safest actions to take' was a key challenge selected by participants who had encountered asbestos. It was the fourth most commonly selected challenge from a list of 19 presented to participants, nominated by 17% overall.

Some in the qualitative research felt that any asbestos poses a safety risk and is best avoided by people or removed from a property as soon as it is discovered. However, many others believed that asbestos intact or in good condition does *not* pose an immediate safety risk. Widely lacking, however, was an appreciation that the condition of asbestos materials can deteriorate over time and that they should be safely maintained, and their condition monitored. Some were under the impression that asbestos was used precisely because it is a very durable material and that this means it is unlikely to deteriorate. Some asbestos professionals questioned the accuracy of the advice that bonded asbestos in good condition left undisturbed poses minimal safety risk, pointing out that buildings move and shift, weather can affect the condition of asbestos exposed to the elements and bonded asbestos can become friable at any time.

*"We can take sheets off in their entirety, but still in the process of removing it you can see the dust, you can see a breakage. There is a company that provide us with a lot of our materials that we need, suits, masks. The owner [of that company] told me himself that 'we've tried everything, we've done all the myths in the fibro industry', so if you put shaving cream and you drill through it, apparently no fibres come out, if you put Vaseline over and then you drill'... They put air monitors on, and they did all that, and every time they got a positive response." (Asbestos specialist, Sydney)*

Qualitative research participants by and large had no idea where to start once asbestos was discovered. As a knee jerk response, many immediately searched online for information about identification and removal – information that was often unchecked for reliability and hastily digested. When asked about what constitutes safe handling of asbestos, participants discussed not handling it at all, avoiding disturbing it, engaging professionals to deal with it and wearing protective gear. However, very few participants, and even some professionals who encountered asbestos in their work (excluding asbestos specialists), were able to give a full or comprehensive account of how asbestos should be handled to ensure it is safe when moving or removing it. This is at odds with claimed knowledge among

professionals in the quantitative survey, in which the majority (66%) agreed or strongly agreed that they “know what to do if asbestos is identified on a building, renovation or demolition site”.

Most in the qualitative research were aware of the need to use personal protective equipment (PPE) when removing asbestos, with many non-professionals even using the acronym “PPE” unprompted in conversation. However, when queried about what PPE should be used, most non-professionals and even some professionals failed to consider all the necessary protective equipment that would ensure safety, particularly when it comes to footwear, disposable gloves and disposable coveralls. It was also apparent that people were not thinking of the need to adopt PPE to ensure safety whenever any action was undertaken around the house that had the potential to encounter or disturb asbestos, or even when handling small/broken pieces of actual or suspected asbestos fibro sheeting.

Participants in the qualitative research were aware of the need to use a protective mask when removing asbestos, and many were aware that a P2 mask or respirator should be worn, though some described a simple dust mask as being required. While professionals were more knowledgeable about PPE than non-professionals, some were not aware of the specific requirements for ensuring a P2 mask was worn correctly or for how often filters should be replaced in reusable respirators.

Regarding other actions recommended to ensure safety when removing asbestos, there was a lack of specific awareness in the qualitative research around the need for signage, alerting authorities, controlling air flow, use of vacuum cleaners, dealing with contaminated soil around and under where pieces of asbestos might be found in yards, wrapping of asbestos, the need for and safest ways of undertaking decontamination of all equipment, protective gear and even the workspace, and the appropriate means for disposing of single use items potentially contaminated with asbestos fibres.

Regarding using hoses on asbestos materials, in the qualitative research, there seemed to be widespread awareness that one of the ways of preventing asbestos fibres from becoming airborne when asbestos materials are handled is to wet the material down. However, there was some confusion about when or how this should be done and, in some cases, this and the wearing of PPE were the only aspects of safe handling about which people were aware.

- **Legality**

With the exception of asbestos specialists, actual knowledge of the legal requirements relating to asbestos removal and disposal was very limited among most members of the community, including among building and waste professionals. This is contrasted with people’s self-assessed knowledge or confidence in their own understanding of requirements, which appears to overestimate actual knowledge and is discussed further under Reflective Motivation.

Key statistics from the quantitative survey include:

- 12% of those who have encountered asbestos in the last two years nominated ‘difficulty knowing the right actions to take legally’ as a key challenge they faced in dealing with this asbestos.
- The same proportion (12%) nominated ‘not knowing who should be doing the work’ as a challenge.
- 68% of all survey participants correctly identified as false the statement, ‘You are allowed to put small amounts of asbestos in your curbside rubbish bin, as long as it is carefully wrapped’ (Figure 28). This means 32% of survey participants failed to acknowledge this practice as illegal.

When discussing the legal requirements for dealing with residential asbestos in the qualitative research, a widespread lack of awareness of the legal requirements regarding removal was observed. While comparatively few may consider it a challenge per se (as indicated by the quantitative research findings outlined above), many participants did not have a clear idea about either their own responsibilities, or those of any contractors they hire, in relation to the handling, removal and disposal of asbestos.

Awareness of who should legally be dealing with asbestos appears to be very low. In the qualitative sessions, some non-professionals were under the impression that specialists must deal with asbestos under all circumstances. Few were aware of the distinction between forms and quantities of asbestos that are required to be removed by a licensed professional (i.e. any friable asbestos and non-friable asbestos that is greater than 10m<sup>2</sup>) versus forms and quantities that do not. Some were aware of “the 10m<sup>2</sup> rule” but were unsure about the specifics or what this means in practice. Participants, for example, wondered whether the maximum amount of 10m<sup>2</sup> referred to a per person, per property or per occasion limit on the amount that can be removed.

Furthermore, participant estimates of just how much asbestos 10m<sup>2</sup> constitutes varied dramatically, with very few aware of the ‘equivalent to one wall of an average bathroom’ guide. Some professionals (with the exception of asbestos specialists) were under the impression that anything less than a bathroom’s worth of sheeted asbestos was able to be removed by them.

*“Because, from the best of my understanding, an individual can dispose of, or work with up to 10 square metres of asbestos, so I made myself at ease thinking all right, I’ve got three or four people in the house, we can get up to 40 square metres by ourselves” (Handyperson, Regional NSW)*

Many were also unaware that anyone who undertakes to remove less than 10m<sup>2</sup> of non-friable asbestos themselves must take the appropriate safety precautions. Asbestos specialists noted that they frequently get called in to assess or remove asbestos once it has been disturbed by homeowners or professionals in carrying out work that should legally have been undertaken by a licensed removalist, and where appropriate safety precautions have not been taken by the party removing the asbestos.

The qualitative sample contained some participants who were and some who were not aware of the legalities at the time they disposed of asbestos in a residential curb-side bin. While many were aware that the appropriate place for asbestos waste is a waste disposal facility (“the tip”), except among those who had been through the process of organising such disposal themselves, there was considerable confusion and uncertainty regarding:

- how asbestos should be prepared for disposal at the tip
- whether all tips can accept asbestos
- the potential costs of disposing of asbestos in this way.

While none disputed the illegality of dumping asbestos on someone else’s land or anywhere that is not a waste facility, there were some questions about the legality of storing or burying asbestos on one’s own property or the property of someone willing to accept it and, if it is indeed legal to do this, the requirements of how asbestos could or should be prepared if storing or burying on a property.

## Decision-making and cognitive overload

The research revealed difficulty making decisions when dealing with asbestos that stemmed from:

- uncertainty or lack of awareness regarding where to source appropriate advice and assistance
- general cognitive overload generated by the interaction of emotion (fear and concern, discussed more under Automatic Motivation), practical concerns such as ability to meet unexpected costs (discussed more under Physical Opportunity) and lack of awareness (particularly around likely risk and safety, discussed above, as well as the options available to minimise risk and meet legal requirements).

In general, professionals participating in this research revealed less uncertainty than homeowners when it came to making decisions about asbestos, which appeared primarily due to confidence in their own knowledge and competence (discussed more under Physical Capability).

Several questions in the quantitative survey were designed to measure perceived knowledge about how to get advice and assistance that could guide appropriate decision-making.

Key statistics from the quantitative survey include:

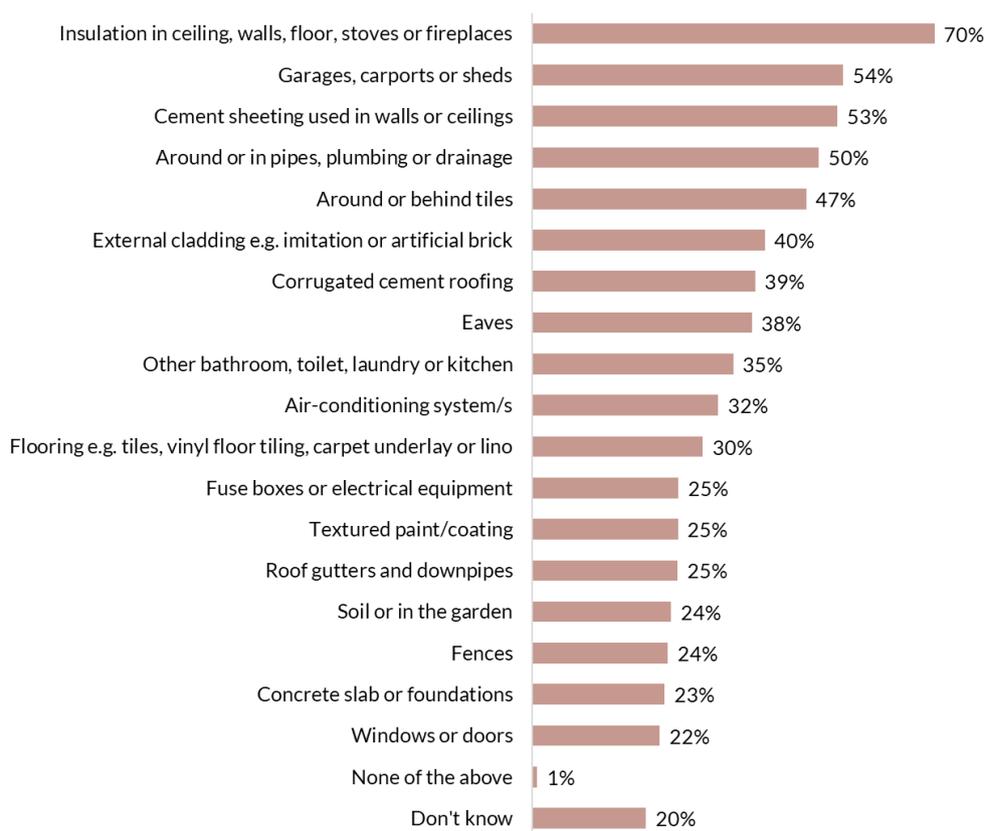
- 38% agreed or strongly agreed that they have no idea how to go about dealing with asbestos that may be in their home (Figure 29).
- Among those encountering asbestos (either on their own property, when helping on another's property or while working on a relevant property):
  - 12% indicated that not knowing who to get trusted information from was a challenge for them – this was more frequently a challenge faced by homeowners and unpaid handypeople, than professionals
  - 11% found not knowing how to find the right people to do the work a challenge.
- 70% of professionals agreed or strongly agreed that they have enough information about asbestos to make informed decisions on a job site.

Overall, the qualitative research sessions indicated that lack of awareness of where to get information and where to find people to do the work of dealing with asbestos, combined with the fear state generated by unanticipated discovery of asbestos, tended to lead people to trust in the advice given by people who weren't asbestos professionals. These people were mainly any building professionals involved in the work, as well as family and friends who were either themselves building professionals or had dealt with asbestos on their own properties.

The general lack of specific knowledge about asbestos, particularly around safety and legality, uncovered in this research, means that people are often making decisions based on ill-informed or only partially-informed advice. Some participants in narrative interviews described the whole experience of unexpectedly encountering asbestos on their property to be so frightening and their lack of knowledge about asbestos at the time to be so limited, that they were making decisions about what to do and who to use in a state of confusion and in haste. The impact of emotions on decision-making is discussed in more detail under Automatic Motivation.

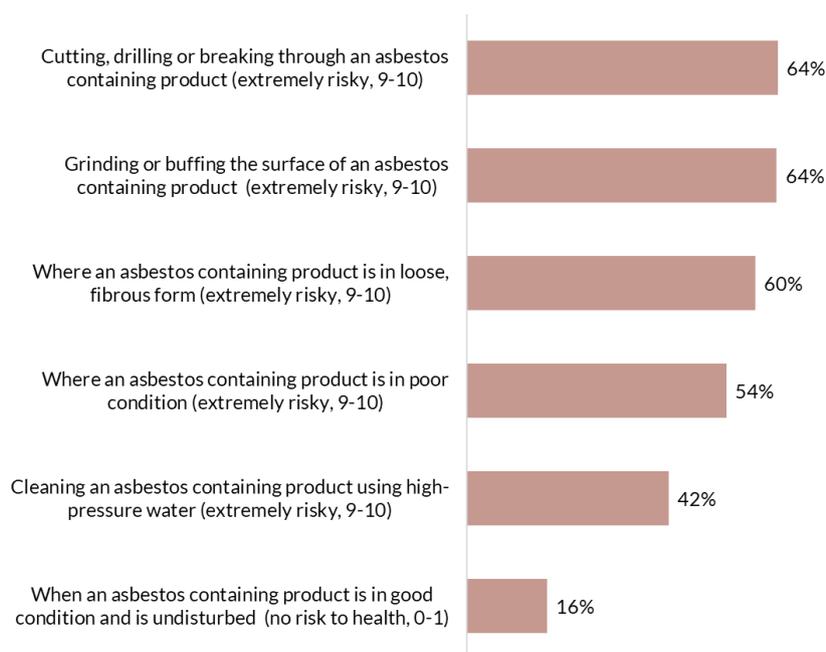
Despite confidence in their own ability to make informed decisions, qualitative sessions with professionals revealed that their information about asbestos was sometimes inaccurate and their confidence out of step with their actual knowledge and behaviour.

**Figure 26. Knowledge about where asbestos can be located in residential properties**



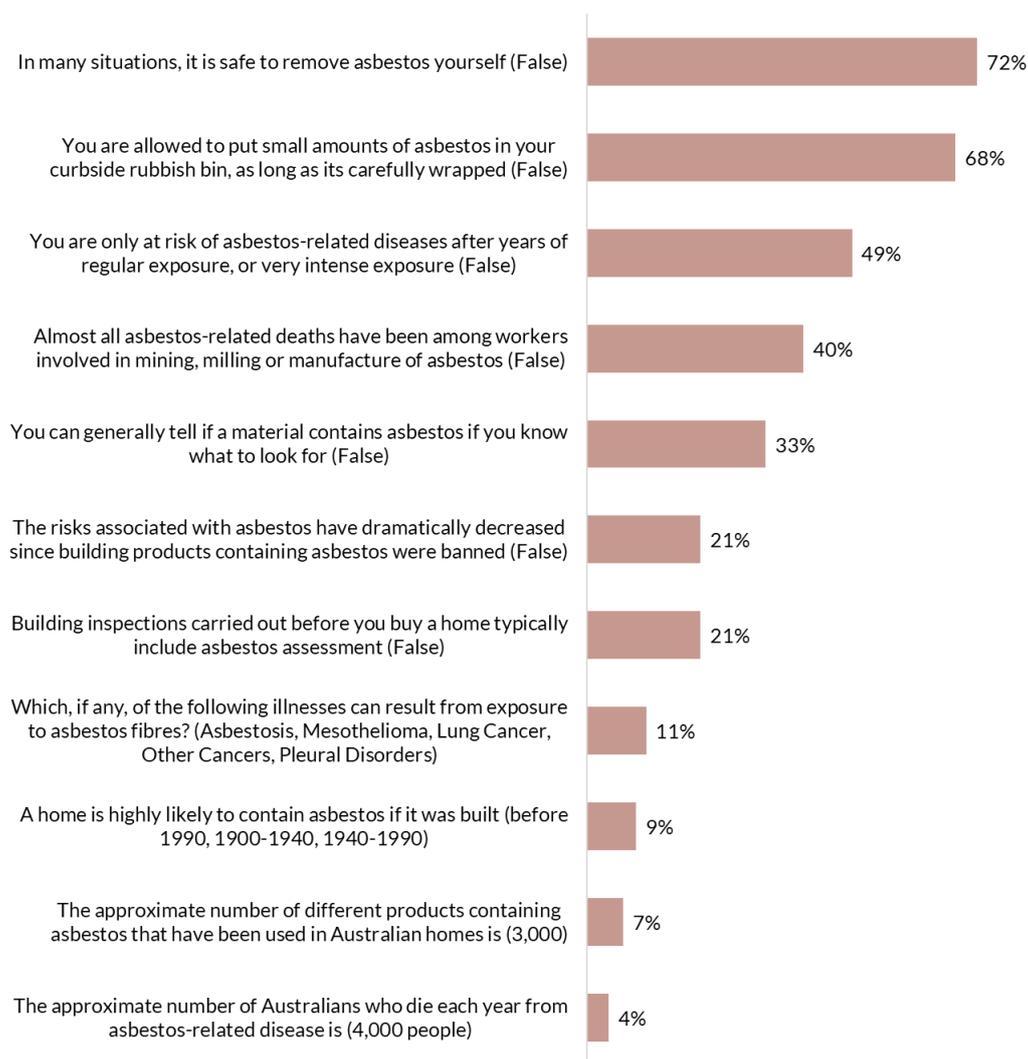
Q3.5 In older houses, asbestos-containing products can be found when renovating, maintaining or improving...?. [Base: All survey participants (adults in NSW), n=4,063]

**Figure 27. Knowledge about conditions under which asbestos poses risks to human health**



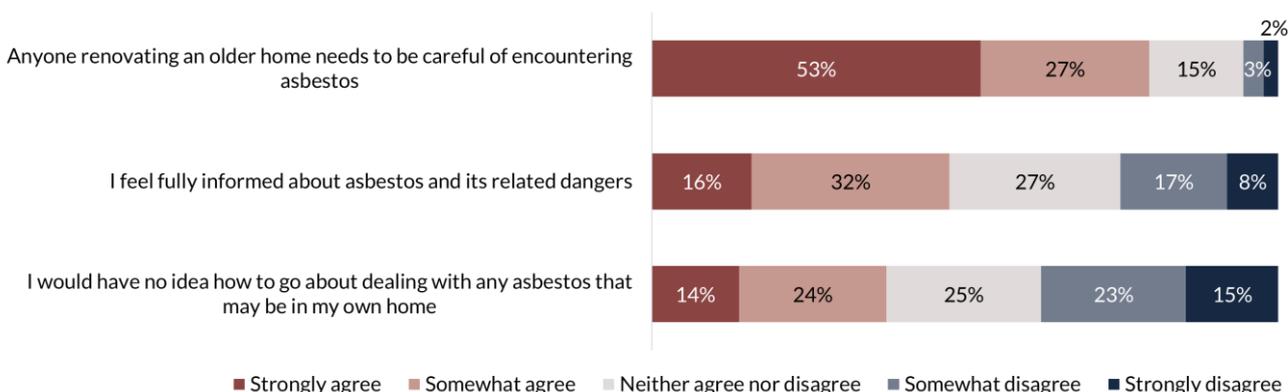
Q3.8 Please rate the following items according to the risk they pose to human health. [Base: All survey participants (adults in NSW), n=4,063]

**Figure 28. Knowledge about asbestos**



Q3.3 A home is highly likely to contain asbestos if it was built...? / Q3.4 The approximate number of different products containing asbestos that have been used in Australian homes is...? / Q3.6 Which, if any, of the following illnesses can result from exposure to asbestos fibres? / Q3.7 The approximate number of Australians who die each year from asbestos-related disease is...? / Q3.9 For each of the following, please indicate whether you believe the statement to be true or false. [Base: All survey participants (adults in NSW), n=4,063]

**Figure 29. Agreement with statements about asbestos awareness**



Q3.1f, g, h To what extent do you agree or disagree with each of the following statements? [Base: All survey participants (adults in NSW), n=4,063]

## KNOWLEDGE INDEX - PROFILING THOSE WITH A KNOWLEDGE DEFICIT

While knowledge of course forms part of psychological capability, a separate knowledge index was created based on demonstrated knowledge at several survey questions(Q3.3, Q3.4, Q3.6, Q3.7 and Q3.9). Where zero to five pieces of knowledge were correctly demonstrated, participants were deemed to have low-medium knowledge. Where six to 11 pieces of knowledge were correctly demonstrated, participants were deemed to have medium-high knowledge.

### Knowledge index:

- Across the community: 84% were classified as having low-medium level knowledge and 16% as having medium-high level knowledge about asbestos.
- Profiling the NSW Community on this index shows that those with low-medium knowledge, contributing to low psychological capability and in turn inhibiting the likelihood of them adopting safe asbestos behaviours, are more likely to be:
  - Under 45 years, rather than 45 years and over - While 90% of NSW residents aged 18-44 were classified as having low-medium knowledge, this proportion decreased to 79% among those aged 45 years and over.
  - Lower income, rather than higher household income - Knowledge was found to increase in line with household income. While 89% of those with a household pre-tax income of under \$60,000 per annum were classified as having low-medium knowledge, this proportion was just 75% among those whose household earned at least \$150,000 per annum.
  - Culturally and Linguistically Diverse - 93% of those speaking a language other than English at home were classified as having low-medium knowledge, compared to 83% among those speaking only English at home.
  - Renters and people who otherwise did not own their own home - 80% of those owning their own home (outright or with a mortgage) were classified as having low-medium knowledge, while this proportion increased to 89% among non-homeowners.

## PHYSICAL CAPABILITY

Physical capability refers to the physical ability, skills and competence people have to undertake a desired behaviour. In relation to asbestos safety, this would mean people have the physical skills and competencies required to identify, and safely and legally remove and dispose of, asbestos.

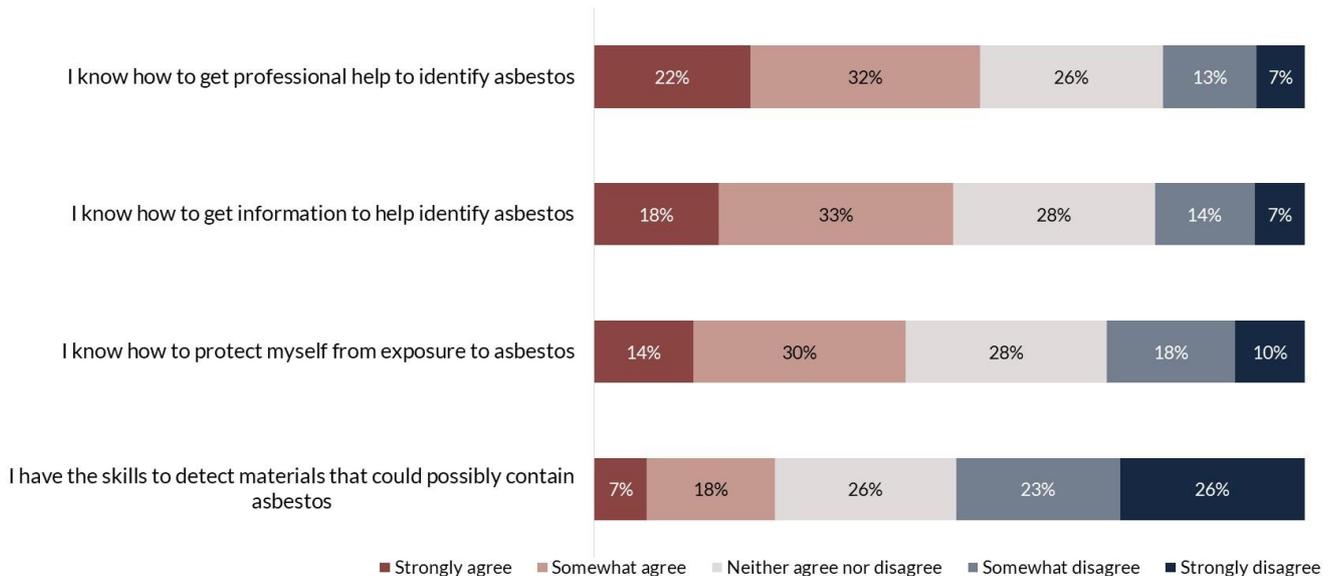
### Self-reported competence

#### Key statistics from the quantitative survey include:

- 25% of the sample overall agreed or strongly agreed that they have the skills to detect materials that could possibly contain asbestos (Figure 30).
- Larger proportions agreed or strongly agreed that they know:
  - how to get professional help to identify asbestos (54%)
  - how to get information to help identify asbestos (51%)
  - how to protect themselves from exposure to asbestos (44%).

- 6% of those encountering asbestos (either on their own property, when helping on another’s property, or while working on a relevant property) nominated not being able to appropriately handle or remove the asbestos themselves as a challenge they faced when encountering asbestos. This was most likely to be nominated as a challenge by relevant professionals (20%).
  - This may reflect a perceived lack of physical capability to do the job personally, or it might also reflect frustration among those who believe they possess the skills to safely remove asbestos themselves at being legally required to use a licensed asbestos removalist to do the job (a Physical Opportunity barrier).

**Figure 30. Agreement with statements relating to physical capability**



Q3.1a, c, d, e To what extent do you agree or disagree with each of the following statements? [Base: All survey participants (adults in NSW), n=4,063]

For the most part, participants in the qualitative research viewed the identification and safe removal of asbestos in residential properties as requiring a specialised skill set that the ordinary person, and even the keen DIYer or home handyperson, does not possess. Views were more mixed regarding whether or not building professionals (who are not asbestos specialists) have the competence to identify asbestos (or at least point out suspected asbestos) and safely remove it. Some members of the public expected that professionals would have these competencies as part of their trade expertise, and many professionals, though not asbestos specialists themselves, considered themselves to have sufficient competency to identify and/or remove asbestos. For some, this was because they believed their experience encountering and handling asbestos was enough to give them the specialised skills to be able to do this safely on a regular basis, while some others did not believe that identifying or handling asbestos required any particular specialised skills beyond their own trade/building expertise.

## CASE 5: OVERCONFIDENCE AMONG HANDYPEOPLE AND RENOVATORS

### Handyperson, encountered asbestos during renovation, Hunter Region NSW

Mathew enjoys helping friends with their home maintenance and improvement work. He is familiar with the dangers of asbestos exposure since he may have been exposed as a young mechanic and now isn't too concerned about exposure. A friend recently looked to Mathew for advice and guidance about asbestos, when working on a recent project together involving the friend's shed. Mathew did not consider having to deal with asbestos as a barrier to completing the work. He was confident about knowing how to handle asbestos and believes that what the asbestos professionals do is not that difficult. Outsourcing the asbestos removal was never considered, because the whole point of him helping his friend was to do the work at minimal expense.

Though Mathew recalls a number of protective steps they took when handling and removing the asbestos, on reflection, he doubts whether they handled the asbestos safely. He now regrets not having given greater thought to people, including themselves, his family and his friend's neighbours, who could have been exposed to asbestos through the work.

### Training on asbestos

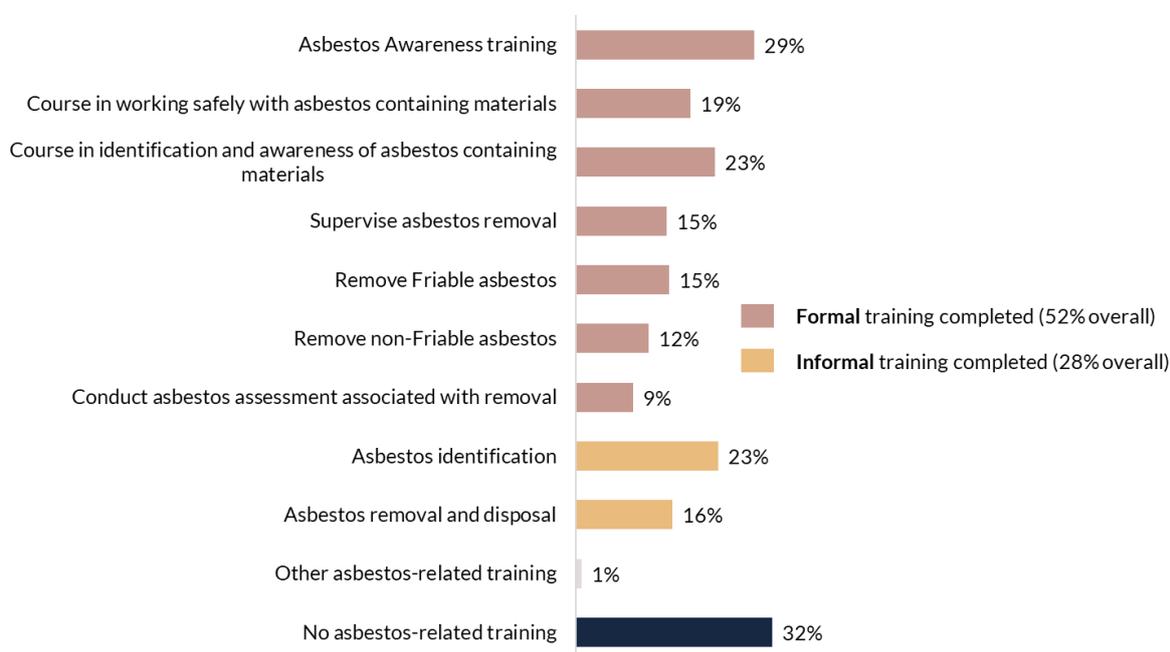
Key statistics from the quantitative survey include:

- 68% of all relevant professionals captured in the quantitative survey indicated that they had **previously completed** some form of asbestos-related training.
  - 52% had completed *formal* and 28% had completed *informal* training<sup>12</sup>.
  - 29% reported having completed formal 'Asbestos Awareness' training making this the most common form of training reported to have been received (Figure 31).
  - Informal training on asbestos identification and formal training through a course in 'identification and awareness of asbestos containing materials' were completed by 23% each.
  - Other types of training were completed by 16% or fewer relevant professionals.
  - 29% who had ever completed asbestos-related training indicated that the last time they completed such training was more than five years ago. Just 13% said they had completed training in the last 12 months, and 31% had completed it between one and three years ago.
- In contrast, 32% of relevant professionals indicated that they had **never completed** any asbestos-related training. This included:
  - 22% of tradespeople and 59% of paid handypeople.
  - The proportion reporting never having received any asbestos-related training was also comparatively high (48%) among those who had been working at least 20 years.

<sup>12</sup> These proportions sum to more than 68% as some reported having completed both formal and informal training.

- All of the eight asbestos specialists captured in the quantitative research sample said they had completed formal asbestos-related training (with three also indicating they had informal training).
  - The number of courses undertaken ranged from three to nine, with an average of 5.3.
  - A course in working safely with asbestos containing materials, and formal training in removing friable asbestos, were the types of training most commonly nominated as having been completed (both were nominated by seven asbestos professionals).
  - Half reported having done their most recent training within the last three years, but two reported not having completed any training within the last five years.
- 61% of all professionals agreed or strongly agreed that they have had sufficient training to be able to identify and manage asbestos on a job site.

**Figure 31. Training ever undertaken**



Q1.25 Have you undertaken any of the following training? [Base: All professionals, n=201]

Among homeowners who engage professionals to work on their properties, there was an assumption, as mentioned earlier, that these professionals would have had appropriate training, or at least know what is required to legally and safely handle asbestos. However, with the obvious exception of asbestos specialists, and those in their early career who had recently studied a building-related trade at TAFE, there were few professionals participating in the qualitative research who could recall having received dedicated training on asbestos. For many who were more advanced in their careers and for trained handypeople, any training they had received about asbestos was reportedly on the job or many years ago (for some, it was even before asbestos products had been phased out of use in Australia).

The quantitative research finding, reported above, that a full 59% of paid handypeople had never received any form of asbestos-related training, is noteworthy. Homeowners in the qualitative research had often decided on a professional to do improvement or maintenance work through word of mouth recommendation or prior reliable experience and did not always know or check whether they were trade qualified. Given relevant homeowners' reliance on the knowledge and recommendations made by professionals mentioned elsewhere in this report, this

potentially led to misplaced trust that the handyperson was across both safety and legal matters regarding asbestos.

While many professionals participating in the survey for the most part believed their asbestos-related training was enough, both quantitative and qualitative findings reported above in relation to professionals' knowledge about asbestos, and in Chapter 3 regarding professionals' behaviour when encountering asbestos, would suggest that there is more that professionals have to learn in relation to asbestos.

*"I think everybody gets told something different, like you just said there before, because they don't teach you in TAFE or there's not a safety officer that teaches you, sometimes how do you know? There's some people that will just pick it up with their hands and just toss it out like rubbish, so everybody has got their own different ways of doing it." (Experienced tradesperson, Greater Sydney)*

Asbestos specialists participating in the qualitative research cited concerns about lack of asbestos training among building professionals and among asbestos specialists in NSW. One concern was that there is no requirement for anyone working in a building-related trade or handyperson role to have undertaken any specific training on asbestos awareness (as is currently the case in the ACT), despite these workers being allowed to remove, or work in and around, asbestos, and them frequently doing so. Even if they do not handle asbestos themselves, they are sometimes the party engaging asbestos assessors and removalists and so are assumed to be responsible for what happens on the site in terms of safety and legality as the PCBU. Another concern was regarding the lack of specific training and licensing requirements for asbestos assessors, which was seen to be indicated in the variable standards applied to issuing clearance certificates by different assessors.

*"My licence was two weeks at TAFE, where now you can do it for a few hours on the internet" (Asbestos specialist, Sydney)*

Though some non-professionals participating in the qualitative research indicated having removed residential asbestos themselves, none had undertaken any formal training course to equip them with the knowledge and skills to do so appropriately. Some mentioned informing themselves of requirements or recommended approaches via online materials, such as information on websites and, in some cases, videos on YouTube.

## **CAPABILITY INDEX - PROFILING THOSE WITH A CAPABILITY DEFICIT**

As a data reduction technique, an index was created which gave each quantitative survey participant a score from zero to 10 denoting the extent to which they appear to have the capability to adopt safe asbestos behaviours. The index was created based on the number of survey question statements relating to both physical and psychological capability at Q3.1 with which the participant either agreed or disagreed (as relevant to the interpretation of the statement). An index score of zero to four points was deemed 'low-medium capability' and five to 10 points was deemed 'medium-high capability'.

#### Capability index:

- Across the community, 53% were classed as having low-medium capability and 47% as having medium-high capability.
- Profiling the NSW community on this measure shows that those with low-medium capability, inhibiting the likelihood of them adopting safe asbestos behaviours, are more likely to be:
  - Female, compared to male - More females were classified low-medium than medium-high capability (58% versus 42%), and the reverse was true for males (47% low-medium and 53% medium-high).
  - Younger, rather than older - Capability was found to increase with age. While 64% of NSW residents aged 18–24 years were classified as low-medium capability, this proportion shrank to just 40% among those aged 65 years and over.
  - Lower income rather than higher – Capability was seen to increase as research participants shifted into higher income brackets. While 89% of those with a household before tax income of under \$60,000 per annum were classified as low-medium capability, this proportion was just 31% among those whose household earned at least \$150,000 per annum.
  - Culturally and Linguistically Diverse - 59% of those speaking a language other than English at home were classified as low-medium capability, compared to 51% among those speaking only English at home.
  - Renters and people who otherwise did not own their own home - 45% of those owning their own home (outright or with a mortgage) were classified as low-medium capability, but this proportion increased to 62% among non-homeowners.

## OPPORTUNITY

### PHYSICAL OPPORTUNITY

Physical opportunity refers to the situational factors outside of an actor that support or hinder the desired behaviour. For safe and legal behaviours in relation to asbestos, this constitutes the availability of external resources such as funds and time, as well as explicit workplace structures, rules, processes and expectations, and contextual, institutional, regulatory and environmental factors.

#### Key statistics from the quantitative survey include:

- 24% of participants who had encountered asbestos in the last two years nominated 'the cost of removal' as a challenge, and 22% nominated 'the cost of disposal', making these the two most commonly nominated of 19 potential challenges.
  - These were nominated as challenges equally by homeowners, unpaid handypeople and professionals.
- Residents having to move out of the house while asbestos-related work was done could also present a physical opportunity barrier, although only 12% overall nominated this as a challenge when they encountered asbestos (perhaps reflecting that many did not actually move out). This challenge was nominated by fewer homeowners themselves (4%) than either unpaid handypeople (16%) or professionals (13%) in relation to the owners of the homes on which they worked.

- Other challenges nominated by quantitative research participants relating to physical opportunity barriers included:
  - The time it took to do the work (13%), reflecting of a lack of physical opportunity due to situation factors compressing the available time to complete the work.
  - The nearest asbestos disposal facility being too far away (13%). Similar proportions nominated this as a challenge in Sydney and in the rest of NSW.
  - Losing access to the area in which the asbestos was located while the work was done (12%). This was a particular concern to relevant professionals, 16% of whom nominated this as a challenge when encountering asbestos.
- 75% of professionals agreed or strongly agreed that all staff are discouraged from taking risks in relation to asbestos.
- 73% agreed or strongly agreed that the organisation takes its legal obligations very seriously in relation to asbestos.
- At the same time, however, 52% also agreed or strongly agreed that time and cost pressures sometimes get in the way of safety at work.

Findings from the qualitative research suggest that the cost of appropriate identification, handling, removal and disposal of asbestos is a genuine barrier for some on lower incomes. The qualitative research sample included a number of homeowners who reported being unable to afford to use paid tradespeople to assist them at all on renovation or maintenance projects. There were many examples of cost impacting consideration of how to handle, remove and dispose of any asbestos suspected or known to be on the property. Many held a belief that engaging an asbestos professional, or appropriately disposing of asbestos containing materials, would be very costly. That said, few had any real understanding of the actual cost, not having sought specific quotes for their project. Many did say, however, that they were renovating on a 'shoestring' and had no contingency funds whatsoever.

There appears to be a strong desire within the community, among both professionals and non-professionals, and both the affluent and the poor, to minimise the cost of home maintenance or improvement activities, through whatever means. For homeowners, saving money at the very least enables work to be done that would otherwise not happen, and at the very best provides additional funds to spend on more enjoyable aspects of the project. Common to all those intent on reducing costs was a sense of satisfaction that they had saved themselves unnecessary expense. This did appear to be a core aspect of the DIY culture and a key driver for many to take on at least less skilled tasks, such a demolition, where the risks of inadvertently disturbing asbestos are relatively high, or to attempt asbestos handling, removal and/or disposal themselves, even with limited knowledge and skills.

Saving on the costs of proper and legal removal and disposal was considered by some to be a motivating factor for self-employed professionals seeking to improve their profit margin, but also for employees in larger companies, some of whom were eligible for bonuses on projects that come in under budget.

*"Yeah of course, because if you have to take it away it's, it's an extra cost. If it's asbestos, you can't just dump it, the bin won't take it. Even fibro sometimes, even if it's fibro, they might not take it because they think it's asbestos. It's an added cost, it's an added thing, and you do want to protect yourself so you will get to live, but, yeah, it makes everything longer, you know, instead of cutting, bang, bang, bang, in and out, then whoever might come after me won't touch it because they might be like, 'Oh no, it's asbestos.'" (Experienced tradesperson, Greater Sydney)*

*“People with lower education levels who are in need financially, they find some place in a National Park, and I do work for National Parks, I actually take away the illegal dumps and there are so many of them. So, I just think a lot of people just think well, ‘I don’t need insurance, I don’t need a licence really,’ - not many household owners would ask you for a licence. So, to him, that \$800 would be straight to his pocket, he probably made more than me when I do a job properly.” (Asbestos specialist, Sydney)*

Some professionals reported having to supply PPE themselves – these were not paid for by their company. For some at the beginning of their career, the costs associated with purchasing quality PPE was a barrier to its use.

*“I buy the cheap P2. The better ones are \$100, but as an apprentice I don’t have that sort of money.” (Less experienced tradesperson, Greater Sydney)*

The qualitative findings also shed light on some of the other physical opportunity barriers to the appropriate management of asbestos, including:

- **The time it takes to appropriately manage asbestos.**

Among homeowners, some spoke of the unexpected discovery of asbestos part-way through work on a bathroom and the inability of members of the household to function without that bathroom, making swift resolution of the issue through whatever means desirable. A swift resolution was also important in other cases of unexpected discovery where the house was otherwise left in an untenable condition, such as with a hole in the exterior wall.

Professionals also revealed many instances of safety compromises in the face of time pressures. When asbestos was discovered, some spoke of carrying on as best they could, rather than cordoning off an area or close a job down part-way through so a specialist could be brought in. In a professional context, time represents money, so that time posed a material barrier to safe behaviour, with direct financial implications.

Those working as casual contractors on job sites were even more aware of time pressures, knowing that they would be the first to go if work had to stop. Employees and casual staff alike reported being subject to the safety processes and procedures laid down by management and reflected that the extent to which safety was emphasised differed depending on the company they were working for, with some, particularly larger companies, having a greater safety focus (including in relation to asbestos) than others. The transmission of safety standards and expectations on a job site occurred both explicitly, via verbal instructions, training, processes and safety equipment, as well as implicitly through the culture of the organisation and the peer pressures to which professionals are subject. These more implicit influences are discussed under Social Opportunity.

*“The other day he had us up on a roof in the pouring rain. He didn’t care about your wellbeing. A job’s a job. It has to get done.” (Less experienced tradesperson, Greater Sydney)*

*“One job, it says that you ought to have all this stuff and high-viz but when you go to the site they don’t normally care. They’re just, like, ‘You’ve got shoes?’ That’s it.” (Experienced tradesperson, Greater Sydney)*

- **Disposal facilities being too far away.**

There was considerable variability in terms of how far qualitative research participants – both in Greater Sydney and in regional NSW – were from a waste facility accepting asbestos. Lack of proximity to a waste facility was an issue for some, but not for others. It should also be noted that the perceived inconvenience of distance is subjective; while a 30-minute drive was considered acceptable to some, the same duration may for someone else be a dealbreaker. For one participant, even a short drive was perceived as inconvenient as she did not own a car.

## CASE 6: LIMITED MEANS LIMITS PERCEIVED OPTIONS

### Relevant homeowner, incidental asbestos discovery, Western NSW

Meredith is a single parent who lives pay cheque to pay cheque and purchased an older home in poor condition some time ago. When looking to improve the property, she is keen to undertake as much work on her own, or with the assistance of friends, as possible. Meredith perceives it is out of the question for her to engage a professional to do any home improvement work.

When recently tackling two jobs in the laundry and the bathroom, she asked her handy next-door neighbour to help. He alerted her that the work involved walls that were likely made of asbestos. After initial hesitation, he continued to help by installing a cupboard and some new tapware. While the neighbour did show some signs of care, such as attempting to minimise dust, no PPE was worn. Meredith feels comfortable that both jobs were done safely and does not believe she or her son were placed at risk. To Meredith, the benefit derived from these small changes to the laundry and bathroom were worthwhile.

## SOCIAL OPPORTUNITY

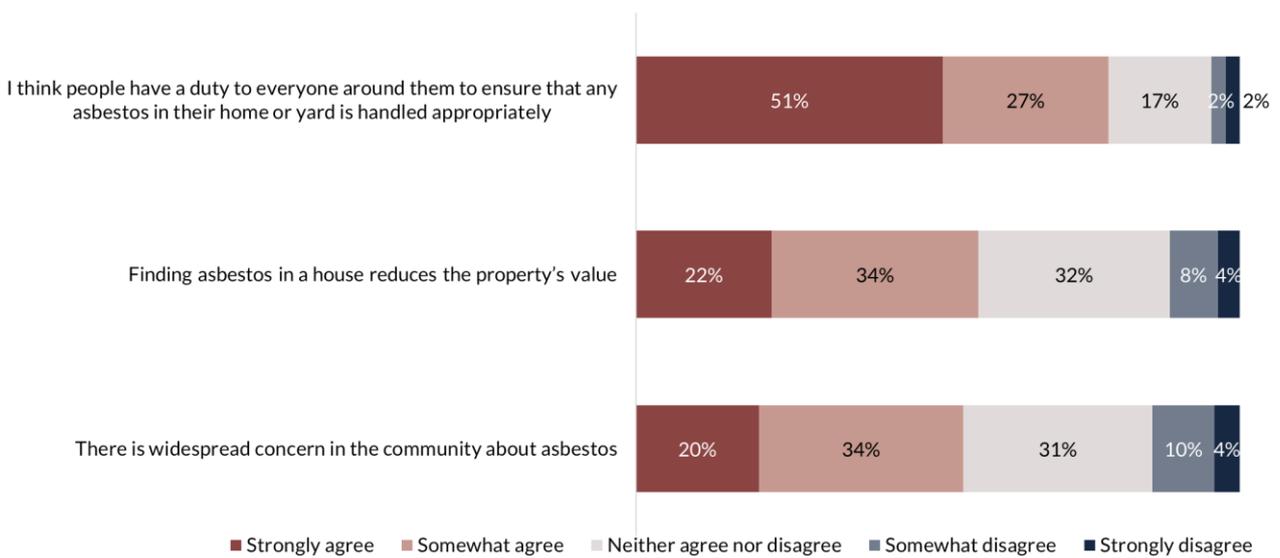
Social opportunity captures the impact of others on an individual's behaviour, thereby situating people within their relevant social context. It explores the extent to which desired behaviour is socially supported or not. This includes the influence of social dynamics, cultural values, standards and customs (both actual and perceived), implicit organisational culture, peer pressure, and relational expectations.

Key statistics from the quantitative survey include:

- Only 14% of all participants in the quantitative survey disagreed or strongly disagreed that there is widespread concern in the community about asbestos (Figure 32).
- 78% agreed or strongly agreed that people have a duty to everyone around them to ensure any asbestos on their property is handled appropriately.
- 56% agreed or strongly agreed that the presence of asbestos negatively impacts a property's value, pointing to a tangible impact of social context.
- Relevant homeowners who indicated that a proportion of the work for their renovation, maintenance or improvement project had or was being completed by tradespeople were asked to specify what had happened in relation to tradespeople involved in the work. Although 32% said they were on site to actively supervise tradespeople, only:
  - 17% indicated that tradespeople had asked them if asbestos was present on the property
  - 16% indicated they had initiated a conversation about hazardous materials like asbestos (Figure 33).

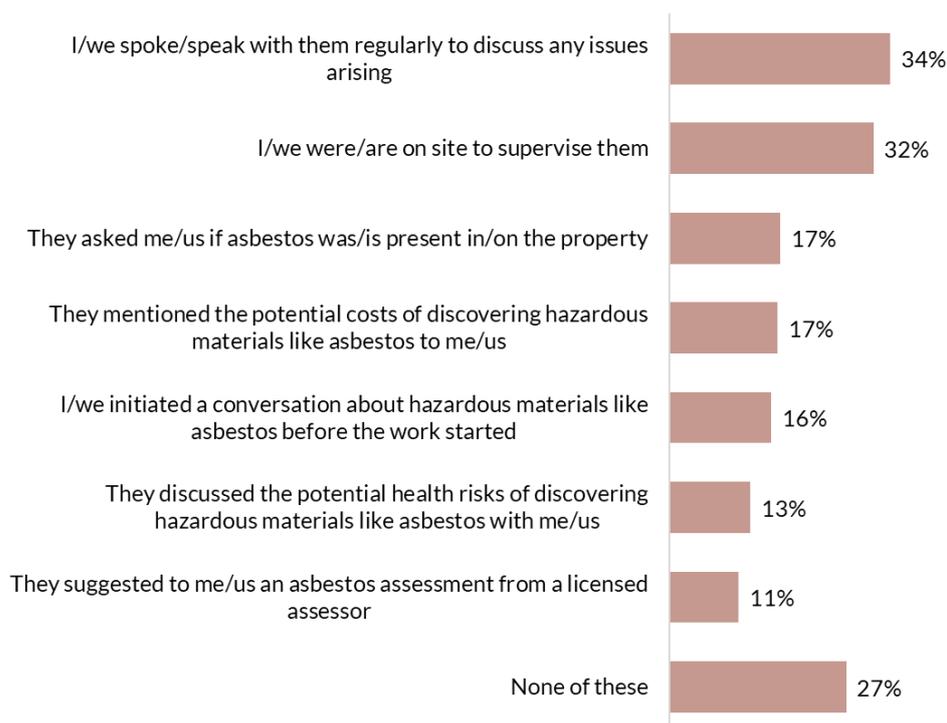
- 11% said that a tradesperson had suggested they get an asbestos assessment from a licensed assessor (Figure 33). On the other side, 66% of relevant professionals working on residential properties agreed or strongly agreed at another question that they feel comfortable to raise the costs of asbestos removal and disposal with clients (whether or not they actually do).
- Unrealistic or unsafe expectations of the homeowners regarding dealing with asbestos was selected as a challenge, from the list of 19 potential challenges presented, by 5% of relevant professionals reporting having encountered asbestos in the past two years. It was most likely to be selected as a challenge by unpaid handypeople (11%) than by professionals.
- 11% of all research participants encountering asbestos noted conflicting advice from others as a challenge. Conflicting advice was viewed similarly as a challenge by all audiences encountering asbestos.

Figure 32. Agreement with statements relating to social opportunity



Q3.1o, p, q To what extent do you agree or disagree with each of the following statements? [Base: All survey participants (adults in NSW), n=4,063]

**Figure 33. Renovator interactions with tradespeople**



Q2.5 Which of the following happened / have happened in relation to tradespeople/professionals involved in this work on your property? [Base: Relevant homeowners who had completed renovation or maintenance work in the past 2 years, or were currently completing, and who had engaged tradespeople for at least a proportion of the work, n=496]

Asbestos – including the possibility of encountering asbestos during home renovation and maintenance activities and what one should do if one does – does not appear to be a prevalent subject in social discourse. Despite the current popularity of a DIY approach, it was noted by many in the qualitative research that asbestos is seldom if ever mentioned on any of the home improvement programs on television and is not a popular conversation at weekend gatherings, even among groups of home renovators. It was noted by some that Bernie Banton, prior to his death, was a fixture on the news in his campaign for victim compensation and a key figure drawing community attention to the dangers of asbestos. Some expressed the view that since his death asbestos has fallen from public discourse.

*“I’ve seen some programs on the news. But these things don’t come up often enough. We see The Block and they never mention the risk of asbestos. All the home reno shows don’t focus on it. it’s only if something catches the eye of the media and they feel compelled to do a story.” (Personally affected, Regional NSW)*

While few argue that there is *insufficient* concern in the community about the risks asbestos poses to health, any concern that exists appeared not to be top of mind. Nor did it seem to be translating into asbestos being considered, or citizens having a clear view of what they should be looking out for, and what could or should be done if asbestos is encountered at home. There appeared to be little if any pressure on individuals from others in society to be mindful of the possible presence of asbestos, or to handle, remove or dispose of asbestos in appropriate ways.

Some participants in the qualitative research were motivated by a sense of responsibility to refrain from exposing others to risk (for example, family and friends) or from passing on the liability of asbestos (for example, by avoiding disposing of asbestos improperly in residential bins, dumping or burying it), mirroring the more than three quarters in the quantitative survey that agreed that ‘people have a duty to everyone around them to

ensure that any asbestos in their home or yard is handled appropriately'. However, this view was not universally held, and some in the qualitative research were comfortable to admit to unsafe or improper asbestos-related behaviours. For others, it appeared that a lack of clarity around what they should be doing in relation to asbestos, and a lack of physical opportunity to be doing the right thing, left them uncertain whether they were acting in ways that would be frowned on by others (if not in ways that were actually illegal).

Some admitted to being reticent to discuss asbestos discovery with others. Among homeowners considering the hypothetical situation of selling their home, for example, some felt caught between wanting to do the right thing by potential new owners of their property and not wanting to disclose the presence of asbestos. They were concerned disclosure may mean having to foot the bill for asbestos removal or a reduction in their property's value at sale.

There also appeared to be a secrecy in some other circumstances surrounding the discovery and management of asbestos. The research captured the stories of some households that had discovered, attempted to accurately identify, and then dealt with asbestos, almost entirely in isolation, without having consulted anyone outside of the household. In these cases, as there was often uncertainty about what constituted safe and legal measures, homeowners sometimes had the sense that they had done the wrong thing and did not want to be held responsible. Similarly, among building and waste professionals in the qualitative research, some spoke of routinely encountering asbestos, working around it and, particularly where the quantity of asbestos was small or not directly where the work was being done, neither consulting others in their organisation nor mentioning it to the homeowner. More commonly, however, there was an interplay between homeowners and professionals.

*"I would tell the client if they wanted us to keep working there. Older people know. They might even give you the heads up." (Less experienced tradesperson, Greater Sydney)*

It appears from the research that conversations about asbestos do not consistently happen, nor necessarily happen as early as desirable (that is, prior to commencement of a job, to ensure any asbestos is identified and that there are contingencies in place should asbestos be discovered and need to be moved or removed). However, as noted in earlier sections of this report, the qualitative research revealed that tradespeople, and also to a lesser extent unpaid handypeople, some of whom are similarly looked to as 'experts', are a key source of guidance to householders on what one could or should do in the event of discovering asbestos.

There were relevant professionals who were attuned to the issue of asbestos, with a solid body of knowledge, raising the topic early with householders and its likely costs in terms of money and time, and calling in, or advising householders to call in, asbestos professionals as appropriate. They also reported feeling generally comfortable to raise the topic and its likely impacts with their clients. These professionals help householders navigate the asbestos in their homes, and often were the first to alert the householder that they have asbestos, and to stay safe. Both the quantitative and qualitative research suggest, however, that such building and waste professionals are in the minority. The following factors inhibit an exchange of information between these parties and a resulting positive impact on safe behaviour:

- Asbestos is not top of mind - where the householder is unaware of any existing asbestos or is aware but does not raise this with the tradesperson, asbestos may not be considered at all, potentially leading to risk of exposure to both tradesperson and householder.
- Concerns about the potential risk posed by asbestos (either to themselves or their clients) are deprioritised relative to other competing concerns. Oftentimes other situational factors were the focus, for example fixed budgets or timelines perceived to be pressing and unable to accommodate delays introduced by appropriate identification, handling and disposal of asbestos, as described earlier. In some cases, concerns about other risks took precedence and, in others, there was an implicit pressure from peers to be cavalier regarding one's own safety and that of other colleagues.

*“Every trade looks after themselves and whatever is comfortable for themselves at that time, so he’ll do whatever he wants, sometimes he cares about the next person, but he doesn’t... Like for myself, like I’m a stonemason, if I need to cut something I’ll just cut it, I wouldn’t even care, plumber’s over there jackhammering and all the dust is going in his face and he’s just like sort of like, ‘I’ve got to get my job done, I don’t care about what the next guy is doing’.” (Experienced tradesperson, Greater Sydney)*

- A lack of experience and knowledge on the part of the building or waste professional which results in poor judgement, advice and behaviour. For some professionals, this issue was deeper than thought of asbestos being clouded by competing concerns but stemmed from a fundamental lack of understanding of the prevalence of asbestos, extent of the hazard, possible locations where asbestos can be found, means of identifying, or appropriate handling or disposal methods, and even that there is such a service as an asbestos assessment that householders can be advised to order.
- A confidence and willingness on the part of the building or waste professional to work around the asbestos, usually handling it only to the extent that they need to complete their task, without putting any onus on the householder to deal with the asbestos so that they could complete their task completely safely. At an extreme and as previously noted, the research sample included those admitting to working in a very unsafe manner with asbestos, or having witnessed others in their organisation do so, for example, knowingly drilling through an asbestos wall to install a plug without the use of appropriate safety precautions, without informing anyone in the household.

*“If there is a lot of it maybe you’d get someone in. But if it’s a little bit. I’d bring it to them. ‘What do you want to do with it? I can work around it but it’s still in the building’.” (Unpaid handyman, Greater Sydney)*

- A lack of appreciation of shared responsibility for mitigating the risks associated with asbestos in the community. While some building and waste professionals spoke of wanting to educate householders about the presence of asbestos within their homes and to help remove asbestos from the community (which was also a key driver of safe disposal practices), others displayed a ‘not my responsibility, not my problem’ mentality. This led to such behaviours as asbestos, that should really be removed, being ‘worked around’, leaving the issue for someone else to deal with in the future, for example, asbestos waste left under houses by a previous owner or tradesperson or being “frisbied” aside (i.e. thrown like a frisbee into a far corner of the sub-floor cavity) when encountered, rather than being flagged with the householder for removal.
- Some homeowners have unrealistic or unsafe expectations regarding dealing with asbestos limiting professionals’ perceived choices. Although a willingness to plough ahead with potentially unsafe asbestos management appeared to be mainly driven by internal cost pressures, some relevant professionals – particularly unlicensed handypeople – did report feeling pressured by homeowners to work with or work around asbestos, or to assist them to remove it to save the homeowner the cost of using a licensed removalist. Some handypeople insisted they were very happy in such situations to refuse such requests, while others reported seeking to accommodate client demands. The ability of clients to pay for specialist advice and assistance was a consideration for some. For example, a handyman included in the sample noted that he had discovered that clients he worked for in the eastern suburbs and lower north shore of Sydney were very happy to pay for full asbestos assessment and removal where needed, and so had come to suggest this routinely.

Even in the absence of more formal advice being provided by professionals to homeowners, the latter appeared to be taking cues from those assumed to be experienced with asbestos and in a position to know what best to do. A casual attitude and approach to asbestos by professionals suggested to homeowners that safe management was easier than perhaps in reality it is. For example, if a tradesperson informed them that they had encountered potential asbestos but said that they could work around it and it was fine to leave it in place, research participants appeared less likely to be concerned, and less likely to seek professional advice or help from a licensed asbestos professional. Some observed how the tradesperson approached asbestos handling (for example, the PPE they wore, which was not always adequate) and then attempted to replicate this when doing work themselves. Advice from tradespeople and also, to a lesser extent, unpaid handypeople and friends and family thought to have experience in asbestos, appeared to reduce homeowners' motivation to seek advice from potentially more appropriate sources, such as the NSW EPA, SafeWork or Council.

*"I have drilled and hung cupboards and pictures and haven't used any breathing apparatus or any form of personal protection when doing that. It never occurred to me. When I had a new stove replaced, the electrician who they sent was cutting tiles and wasn't even wearing any form of breathing apparatus. When you see professionals doing that you don't think anything of it." (Personally affected, Regional NSW)*

## OPPORTUNITY INDEX - PROFILING THOSE WITH AN OPPORTUNITY DEFICIT

As a data reduction technique, an 'opportunity' index was created, giving each quantitative survey participant a score from zero to seven denoting the extent to which they appear to have the opportunity to adopt safe asbestos behaviours. The index was created based on the number of statements relating to both physical and social opportunity from the survey (Q3.1) with which the participant either agreed or disagreed, as relevant. Zero to three points was deemed 'low- medium opportunity' and four to seven points was deemed 'medium-high opportunity'.

### Opportunity index:

- Across the community, 37% were classified as having low-medium opportunity and 63% medium-high opportunity.
- Profiling the NSW community on this measure shows that those with low-medium opportunity, inhibiting the likelihood of them adopting safe asbestos behaviours, are more likely to be:
  - Younger, rather than older - Like Capability, Opportunity was found to increase with age. While 47% of NSW residents aged 18-24 years were classified as having low-medium opportunity, this proportion shrank to just 27% among those aged 65 years and over.
  - Lower, rather than higher household income - Like Capability, Opportunity was also found to increase with income level. While 42% of those with a household pre-tax household income of under \$60,000 per annum were classified as having low-medium opportunity, this proportion was just 31% among those whose household earned at least \$150,000 per annum.
  - Culturally and Linguistically Diverse – As for Capability, Opportunity differed based on whether or not English was spoken at home, with 46% of those speaking a language other than English at home classified as having low-medium opportunity, compared to 37% of those speaking only English at home.
  - Renters and people who otherwise did not own their own home - 33% of those owning their own home (outright or with a mortgage) were classified as having low-medium opportunity, whereas the corresponding proportion was 45% among non-homeowners, mirroring a similar difference seen for Capability.

## MOTIVATION

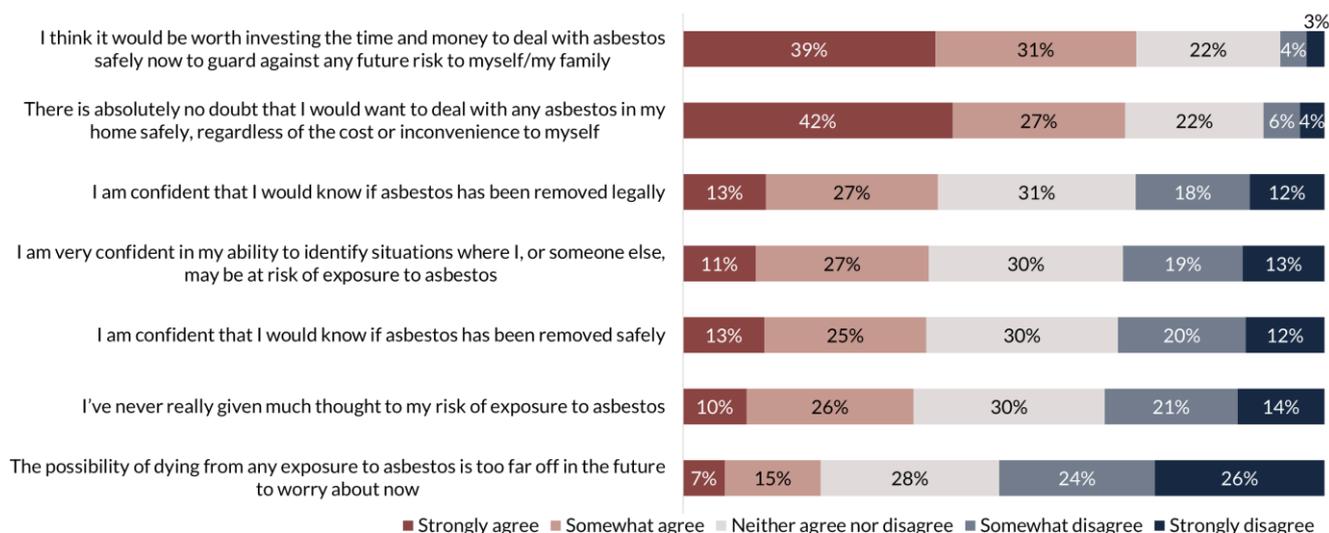
### REFLECTIVE MOTIVATION

Reflective motivation includes conscious reasons and analytical decision-making processes that drive behaviour. Part of reflective motivation are our beliefs about ourselves, our confidence, our goals and intentions, and the anticipated consequences of our actions.

Key statistics from the quantitative survey include:

- 71% agreed or strongly agreed with the statement 'I think it would be worth investing the time and money to deal with asbestos safely now to guard against any future risk to myself/my family' and 69% agreed or strongly agreed that 'there is absolutely no doubt that I would want to deal with any asbestos in my home safely, regardless of the cost or inconvenient to myself' (Figure 34).
  - Those aged 35 years and over and higher income earners (household income of at least \$150,000 per annum) were particularly likely to agree with each of these statements.
- Given awareness, knowledge and competency deficits reported in the Capability section, the quantitative research revealed the NSW Community's likely overconfidence in their own ability to:
  - identify situations where there is risk of exposure to asbestos (38% agreed or strongly agreed that they were confident they can do this)
  - know if asbestos has been removed legally (40% agreed or strongly agreed that they were confident they would know this) and safely (38% agreed or strongly agreed).
- 21% agreed and 51% disagreed that 'the possibility of dying from any exposure to asbestos is too far off in the future to worry about now'.
  - This proportion increased to 31% among relevant professionals. Also, among this audience, 66% agreed or strongly agreed that they are concerned about the health and safety risks of being potentially exposed to asbestos on a job site.
- When encountering asbestos, the possibility of getting caught doing something illegal was not commonly cited as a challenge. It was nominated by just 9% of those having encountered asbestos in the previous two years, and the least likely to be selected of the 19 challenges presented to participants. However, among all relevant professionals, 55% agreed or strongly agreed at another question that they are concerned about doing something illegal when it comes to handling or removing asbestos.

**Figure 34. Agreement with statements relating to reflective motivation**



Q3.1b, l, j, r, s, t, u To what extent do you agree or disagree with each of the following statements? [Base: All survey participants (adults in NSW), n=4,063]

Given time to reflect on the dangers of asbestos and consider the possible consequences of exposure, qualitative research participants were universally concerned about asbestos. The research revealed widespread motivation for individuals to keep themselves, their family, and those around them safe. However, as noted, the research also revealed individuals’ overconfidence in their own abilities to appropriately identify and handle asbestos. – The qualitative research suggests this confidence can reduce an individual’s motivation to seek further information or support or engage the services of an asbestos professional.

The translation of the drive to keep safe into the motivation to adopt of safe behaviours is hindered by the various factors discussed elsewhere in this report, including asbestos not being salient or top of mind, lack of knowledge around where it might be or how to identify it, inadequate cues as to its importance and poor advice or modelling from others. The qualitative research also suggested that such a fundamental human motivation, survival, can be interrupted by a mismatch between the perceived risks and what are regarded as extreme safety measures. Specifically, there is an apparent lack of understanding or appreciation of the risks posed even by low frequency, small quantity exposure to asbestos, coupled with a perception that regulations are excessive. For some, a perception that requirements are extreme seemed to have the impact of making them less inclined to follow them. For example, one participant spoke of receiving advice to remove topsoil to a depth of 10mm in order to make safe an area that may have been contaminated by a dropped piece of asbestos sheeting. This seemed so excessive to the participant that he reported being inclined to ‘take with a grain of salt’ all other requirements. In a similar vein, a couple of qualitative participants commented that seeing the way in which asbestos waste is handled at the tip is demotivating. One who reported regularly using a regional waste facility said that they see loose or split plastic wrap flapping in the breeze due to waste workers running over the asbestos waste with machinery. Another reasoned that because waste workers do not appear to do anything special with asbestos waste at the tip (despite the higher tip fees), compared to regular waste, there seemed little point in going to the effort of specially preparing asbestos waste for disposal.

The fact that asbestos-related disease can manifest many years after exposure also appeared to lead some to focus less on asbestos and more on other more immediately pressing hazards and priorities. In the qualitative research many professionals spoke of the inherently dangerous nature of their work. In terms of hazards, their main focus was more often on things that could put them in hospital and/or otherwise immediately prevent them from working. In particular, falls from heights, electric shocks/electrocution, injuries from power tools and exposure to chemicals, were considered ahead of exposure to asbestos, which was of lesser concern to them in comparison.

*“It’s a risky job at the end of the day. It pushes you out of your comfort zone.” (Less experienced tradesperson, Greater Sydney)*

The qualitative research failed to reveal many instances of individuals being motivated to behave in an appropriate way to avoid legal consequences. In fact, it seems that there is a widespread perception that people are unlikely to get caught mishandling or even outright illegally dumping asbestos. Many participants could call to mind media stories featuring illegal dumping and it was their general assumption that the perpetrators are rarely caught. Some professionals noted that many aspects of their work are monitored by SafeWork, but that appropriate handling and disposal of asbestos was not one of these areas. The non-professional participants in the qualitative research who had disposed of pieces of asbestos in a residential rubbish bin or had buried asbestos on a property and knew or assumed that this was illegal, did not appear to have felt concerned at the time (or even on reflection) that there might have been legal consequences as a result.

In terms of contextual cues that can signal the importance of an issue, qualitative participants reasoned that if exposure to asbestos was so serious a risk, then why were they not seeing public health campaigns, why was enforcement not better resourced, and why were fines not more hefty? This denoted to some that the risk posed by asbestos was hyped up in the media and perhaps not that significant. This was reinforced also by some participants’ observation that individuals are allowed to ‘do it yourself’ in relation to certain types and quantities of asbestos; the implication being that, if asbestos was a serious hazard, then all identification, handling, removal and disposal would be required to be undertaken by an asbestos professional.

Overall, research participants just could not reconcile conflicting implicit and explicit messages they perceived about asbestos and the risk it poses (see Figure 35 below).

**Figure 35. Implicit and explicit messages about asbestos**

MESSAGES OF ALARM	MESSAGES OF CALM
<ul style="list-style-type: none"> <li>• Past coverage in media</li> <li>• Fatalities caused by asbestos</li> <li>• Signage &amp; barriers at removal sites</li> <li>• Sighting full PPE, especially masks &amp; suits</li> <li>• Notification of removal to adjacent properties</li> <li>• Existence of special licenses</li> <li>• The need to involve specialists</li> <li>• Laws &amp; safety requirements for removal/disposal</li> <li>• Personal diagnosis or association with a sufferer</li> </ul>	<ul style="list-style-type: none"> <li>• Confidence of professionals</li> <li>• Lackadaisical behaviour of some professionals</li> <li>• Perceived absence of enforcement</li> <li>• Absence in media or DIY programs</li> <li>• Lack of public health campaigns</li> <li>• No illness in many heavily exposed</li> <li>• Material barriers (cost, hassle)</li> <li>• Lack of public records or notification of owners</li> <li>• Omission from building inspection reports</li> </ul>

The response from those in the research to apparently contrary messages about asbestos appeared to be a dampened focus on safety and wavering commitment to act to minimise risk of exposure. In other words, people were acting not in their own best interests, let alone in the best interest of others. This response is likely, in part, to be the result of the arousal of distressing emotions and people’s need to reduce them. In other words, in the face of fear, discomfort or distress, people were more likely to notice and wanted to believe signals that reduced this. The impact of these unconscious drives on safe behaviour is discussed in the following section, Automatic Motivation.

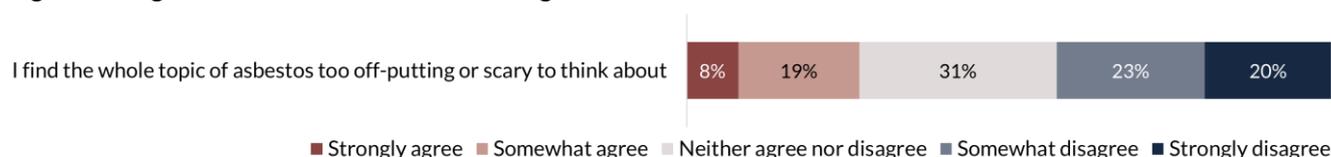
## AUTOMATIC MOTIVATION

Automatic motivation refers to all unconscious processes that activate and guide behaviour, including patterned responses, biases, intuitive and emotional responses and the influence of rewards and disincentives. As Kahneman explains, motivation driven by automatic processes, or “System 1 thinking”, operates fast and instinctively “with little or no effort and no sense of voluntary control”<sup>13</sup>. In designing behavioural interventions, automatic motivation is important to understand, as it represents the lens through which all interventions are perceived and exert an influence behaviour, outside of conscious awareness.

Key statistics from the quantitative survey include:

- Questioning that asked all who had encountered asbestos in the previous two years which challenges they experienced included the following challenge relating to automatic motivation:
  - ‘The stress of having to deal with hazardous materials that could be harmful to health’. Overall, 21% selected this a challenge. This was a commonly cited challenge for unpaid handypeople encountering asbestos working on a friend or family member’s property (23%).
- 27% of participants agreed (strongly or somewhat) that asbestos is ‘too off-putting or scary to think about’ (see Figure 36).

**Figure 36. Agreement with statement relating to automatic motivation**



Q3.1v To what extent do you agree or disagree with each of the following statements? [Base: All survey participants (adults in NSW), n=4,063]

The quantitative findings point to a sense, observed among some in the qualitative research, that attempting to deal appropriately with asbestos (particularly in the context of limited experience and clear and consistent information) can feel ‘too hard’, resulting in such things as corners being cut and not all required actions being taken.

Members of the (relatively small) group of individuals who are so scared by the prospect of exposure to asbestos that they don’t even want to think about or broach the topic with anyone were also identified in the qualitative research. Some of the time this fear appeared to be expressed as denial about the risks posed by asbestos and rejection of the idea that action can be taken to reduce that risk, with such research participants often disinclined to engaged seriously with the topic and sometimes making flippant comments regarding risk (such as that people ‘have to die of something’).

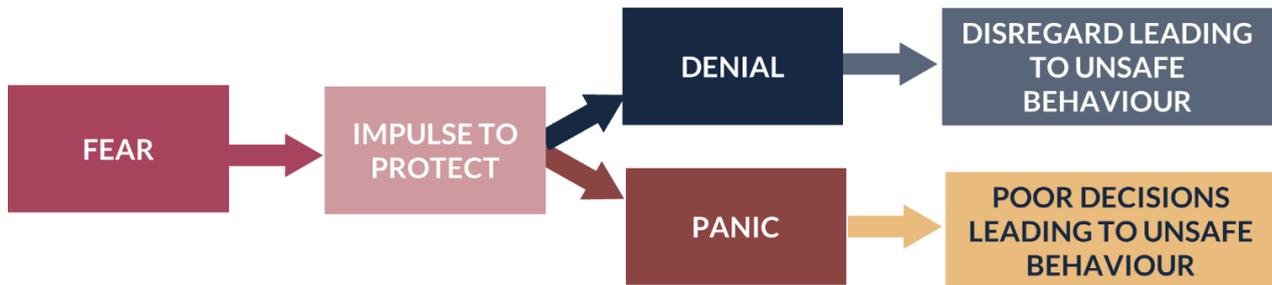
*“People that have worked with it for a long time unregulated... they seem to think taking on the safety standards now is an admission of failure, so they have already convinced themselves that they are not going to die, so adopting safety standards now after being exposed for ten years - especially when people at WorkCover say, well if you have had one fibre, you’re gone - a lot of people say ‘well I’ve had the fibre, why should I take the safety standards now?’” (Asbestos specialist, Greater Sydney)*

<sup>13</sup> Daniel Kahneman. (2011). Thinking Fast and Slow. Farrar, Straus and Giroux.



Importantly, this research indicates that emotional response has a role in decision making when it comes to the handling, removal and disposal of asbestos. Figure 38, below, illustrates the process by which participants' fear appeared to lead to automatic responses that were often unhelpful in promoting safe and lawful behaviours.

**Figure 38. Automatic process of managing fear evoked by asbestos**



Based on the research findings, the automatic emotional fear response to asbestos appears to be accompanied by an urgent impulse to act in a protective way, in the interests of oneself and others. But when this impulse is hampered by incomplete, confusing information, competing priorities or inadequate resources, it is automatically diverted into two broad reactions:

1. Panic – resulting from high stress, fear, concern about consequences and a sense of urgency. This in turn precipitates hasty or poor decision making and, in some cases, unsafe actions (or inaction), such as removing asbestos immediately without adhering to proper safety measures or leaving unsafe asbestos in place.
2. Denial – which occurs when those who feel unable to protect themselves or others, or who fear they have been or will be exposed to asbestos, put the issue out of their minds by rationalising their decisions or ignoring the presence of, or their exposure to, asbestos. In this reaction, unsafe behaviour sometimes results from a dismissive or lax attitude to safety.

Illegal and unsafe behaviours (such as covering up asbestos, quickly ripping it out or disposing of it inappropriately in residential bins) that occur when participants are under pressure can become negatively automatically reinforced when the punitive consequences of this behaviour are avoided, the stress relating to the asbestos is dissolved, the cost and inconvenience of having it professionally removed is sidestepped, and by (in their own estimations) prolonged exposure to asbestos is prevented.

Based on this research, these automatic responses pose a challenge to behaviour change interventions, because communications that evoke a strong, alarming fear response, without being accompanied by clear directions that mobilise the protective impulse, may have the impact of encouraging unsafe reactions. This suggests care must be taken in designing interventions to support immediate safe, protective behaviour that is not hijacked by strong fear responses and the panic or denial that can result.

Worth noting here is that anger was an emotion most commonly described in relation to asbestos by those personally impacted by asbestos-related disease. Among participants diagnosed with asbestos-related disease or close to someone who has been, a high degree of anger was observed towards James Hardie for “covering up” the health risks associated with asbestos for “much longer than they should have”, in order to continue to profit. Anger at government failure in not holding James Hardie sufficiently to account was also expressed. As with other audiences, there was a degree of despair and overwhelm, in addition to distress, sadness and disappointment, exacerbated by a higher degree of awareness of the full extent of the problem and the risks it poses, including the sheer volume of NSW housing stock containing asbestos and the sense of a ‘ticking time bomb’ or the inevitability of a widescale issue. Knowledge of how horrible the death from asbestos-related disease can be, also heightened fear of disease resulting from exposure.

*“So, I have been exposed to it to such a degree that when I found out the dangers of it, I actually felt quite ripped off... We’d smash through it, no masks, no suits, as kids, you know...I’d even take bits and pieces to school camps and we’d put it on the fire because it would pop, you know, we used it to write graffiti on footpaths” (Asbestos specialist, Greater Sydney)*

As with other audiences, how individuals personally impacted by asbestos-related disease dealt with this discomfort varied. While some appeared to have managed to deal with the discomfort and now have a healthy respect for asbestos risk and take very serious safety precautions, the research sample also included those very much in the denial camp. This state of denial included someone who had a parent die with asbestos-related disease, and had herself begun to experience pulmonary symptoms, yet still considered this unrelated to asbestos exposure in childhood.

## MOTIVATION INDEX - PROFILING THOSE WITH A MOTIVATION DEFICIT

As a data reduction technique, an index was created, giving each quantitative survey participant a score from zero to five denoting the extent to which they appear to be motivated to adopt safe asbestos behaviours. The index was created based on the number of statements relating to motivation from the survey question Q3.1 with which the participant either agreed or disagreed, as relevant to the way in which the question was phrased. A score of zero to two points was deemed ‘low- medium motivation’ and three to five points was deemed ‘medium-high motivation’.

### Motivation index:

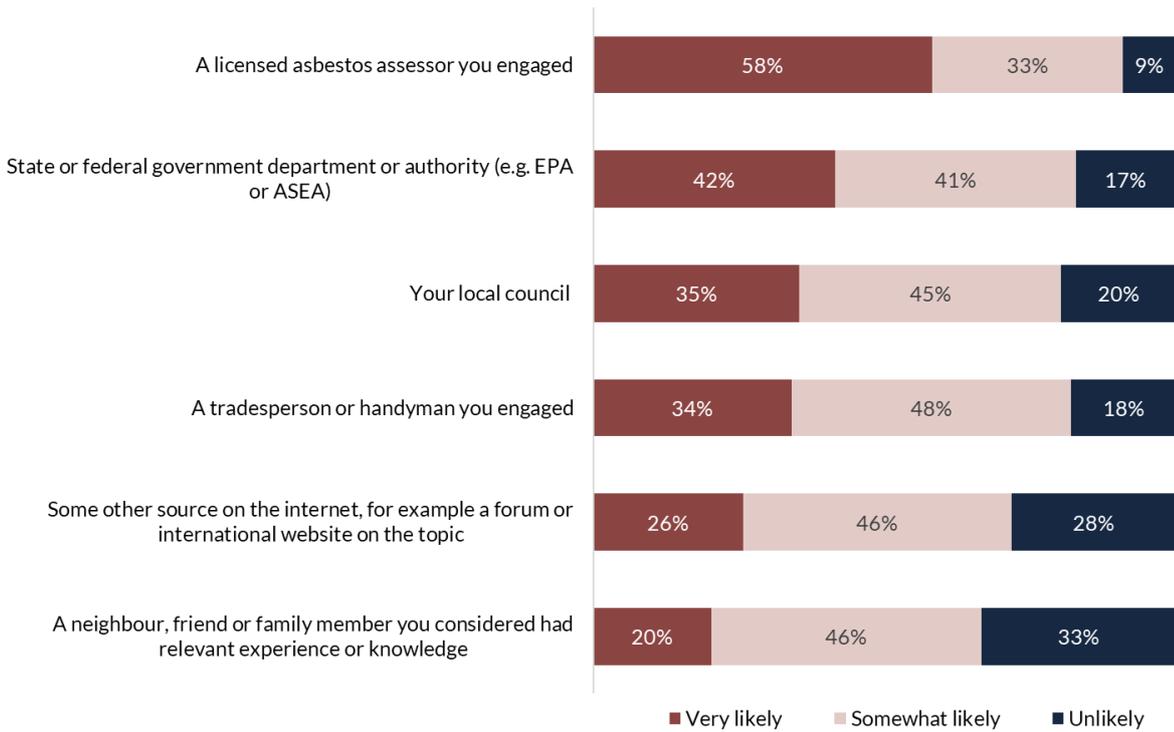
- Across the community, 45% displayed low-medium motivation and 55% medium-high motivation.
- Profiling the NSW community on this measure shows that those with low-medium level motivation, inhibiting the likelihood of them adopting safe asbestos behaviours, were more likely to be:
  - Younger, rather than older - Like Capability and Opportunity, Motivation was found to increase with age. While 60% of NSW residents aged 18-24 years were classified as having low-medium motivation, the corresponding proportion was 29% among those aged 65 years and over.
  - Culturally and Linguistically Diverse - 57% of those speaking a language other than English at home were classified as having low-medium motivation, compared to 43% of those speaking only English at home, reflecting a difference similar to that observed for the Capability and Opportunity indices.
  - Relevant professionals - 55% of relevant professionals surveyed were classified as having low-medium motivation, compared to 45% of all other participants.
  - Individuals also scoring low-medium on the other indices - including the capability (54% of those with low-medium capability were also classed as having low-medium motivation, compared to 36% who had medium-high capability), opportunity (72%, compared to 28%) and knowledge (49%, compared to 25%) indices.

## 5. Use of communication channels & interventions suggested by participants

Key statistics from the quantitative survey include:

- When asked to indicate how likely it was that they would seek advice from each of six different sources if they thought they might have asbestos on the property where they lived, the largest proportion – 58% of all survey participants – indicated they would be very likely to seek advice from an asbestos assessor (Figure 39).
  - Findings discussed earlier in this report show that, currently, comparatively few do seek out the services of a licensed asbestos assessor. At this question, those who had actually encountered asbestos in the previous two years were less likely to indicate that they would be very likely to seek advice from an asbestos assessor (49%) than those who had not encountered asbestos (59%).
  - Relevant professionals were also less likely to indicate that they would seek advice from a licensed asbestos assessor (51% said they would be very likely to do this, compared to 59% of non-professionals), as were individuals who scored low on the Capability, Opportunity, Motivation and Knowledge indices.
  - Females, older participants, those with higher household incomes, and those with a postgraduate degree, were more likely than others to indicate that they would seek advice from an asbestos assessor if they thought asbestos was present where they lived.
- 42% of participants indicated that they would be very likely to seek advice from a government department or authority such as the NSW EPA or ASEA if they thought they had asbestos on their property (Figure 39). This appears to be at odds with other survey findings reported earlier which indicate that people generally do not actually seek information from state or federal government sources about asbestos.
- 42% of those who had engaged in DIY or renovation work in the previous two years indicated they would be very likely to seek advice from a tradesperson or handyman they had engaged if they thought they had asbestos on their property. This was the second most selected advice source for this audience, after an asbestos assessor (60% indicated they would be very likely to seek advice from an assessor).

**Figure 39. Stated likelihood of seeking advice from different parties in the event of believing there to be asbestos on the property where they live.**



Q3.2 If you thought you might have asbestos on the property where you live, how likely would you be to seek advice from each of the following parties?  
 [Base: All survey participants (adults in NSW), n=4,063]

Findings from the qualitative research suggest that the community is currently acquiring bits and pieces of information on asbestos from myriad sources. There are no dominant or clear ‘go to’ sources widely accessed and trusted.

While some are motivated to seek out formal information and advice from government sources, including the NSW EPA, their local council and SafeWork NSW, this appears infrequently done, even by those actively undertaking renovation work in houses likely to have asbestos, or even by those who have encountered asbestos. Some individuals reported having easily found good, clear information, but just as many expressed confusion around the availability of resources to assist, or perceived information they accessed to be misleading, unclear or incomplete (for example, written information from SafeWork NSW available in Bunnings, and some of the content taught at TAFE). It was observed in the qualitative research, that some completing DIY asbestos removal and disposal appeared to be working off patchy guidelines; of course it is difficult to know if all appropriate advice was provided to them and they had forgotten or chosen to disregard some, or if the advice was insufficient, or if it had fostered in them an impression that the task was easier than in fact it is.

Qualitative research participants reported having acquired information on asbestos from a range of sources, including:

- general news media, with particularly strong recall of the Mr Fluffy saga, and James Hardie court cases
- personal previous experience with asbestos, with knowledge gained through word of mouth from friends and family, and/or through being personally impacted by asbestos disease (mainly knowing someone with asbestos-related disease and awareness of how this was contracted)
- social media, including information and advice from YouTube, information from Influencers and information from Facebook renovation groups
- tradespeople they know or who have worked on their property
- information acquired from hardware stores
- among building and waste professionals – training received, and information from worksites and unions.

The NSW EPA appears to have reasonably strong recognition and respect as a trusted information source, at least among the general community, with individuals seeing the EPA as a relevant body to be speaking on this topic. At the federal level, awareness of the Asbestos Safety and Eradication Agency as an information source was absent, but some also saw a role for health departments in communicating on the health risks associated with asbestos exposure (fitting in with their role in preventative health).. Views on local government were mixed. Some expressed the view that council should have a core role in providing information on asbestos and even in potentially monitoring and managing asbestos within their council area. Others expressed cynicism over the motives and/or competence of local government. Some liked the idea of accessing information anonymously from the council, perhaps by way of its website, but did not want personal involvement with the council on this matter given potential ramifications should, for example, there be something improper in their renovation activities or in the way they have or intended dealing with asbestos. Some saw a role for asbestos disease peak agencies and support organisations to play a role in education and awareness, providing a human face to the potential outcomes of exposure.

There was considerable consistency in feedback gained from qualitative research participants regarding their ongoing communications needs on this topic. Participants consistently expressed a desire for more, clear information on several topics, listed below.

- Exposure risk – the risk associated with different levels and types of exposure, the onset, trajectory and treatment of asbestos-related illness.
- How to identify asbestos – including the forms it comes in, the range of products that were produced containing asbestos, the places or locations asbestos might be found in a home, the prevalence of asbestos in housing stock today and what types of housing might be affected. Building and waste professionals in particular wanted more visual aids to help them in a practical sense to identify asbestos during their work.
- How to manage asbestos – including the steps involved. Some desire was expressed for a flow chart clearly indicating decision points and options at each.
- Clarification of legal requirements.
- Options for removing and disposing of asbestos and the costs associated with each.

Generally, the research uncovered a strong belief among different audiences that “forewarned is forearmed”. The qualitative research drew in many individuals who had stumbled across asbestos in some way, some of whom feared on reflection that they had unwittingly exposed themselves to the risk of developing asbestos-related disease. Such individuals regretted not having considered the possibility of encountering asbestos prior to having picked up their tools or otherwise commenced the work and having become “committed”. Many said that, had they known there was asbestos, they would have behaved very differently and potentially not undertaken the work. Some who had been aware of asbestos and had chosen to work with it themselves upon learning more about asbestos through the course of the research, expressed regret that they had done the work themselves or in the way that they had, with many admitting that they had been overconfident and had underestimated the extent of precautions required to work with asbestos safely.

## CASE 2: PURCHASE AS AN INTERVENTION POINT

### Owner occupier, incidental asbestos discovery, Northern Sydney

Dama is a homeowner that was not aware her home contained asbestos prior to buying it and had assumed the pre-purchase building report would mention this. She does not have a clear sense of who is legally responsible for asbestos, though she is adamant that potential owners should be informed before purchasing a house containing asbestos.

*“It’s a government problem, there’s a duty of care. And the building inspections should make you aware of it... You’re taking responsibility for something which is dangerous. You should be aware of that. It should come with the contract.”*

Dama would have preferred to have been notified by local council, by the previous owners or their sales agent, or through the building inspection, that the home contains asbestos so that she could have made a more informed purchase decision.

Overwhelming support was expressed in the research for large scale communications to better educate the community, including mass media communications. A number of other potential interventions were also mentioned, which are listed below.

- **Information given out at hardware stores** where renovators and tradespeople alike buy supplies. Comprehensive but clear written information was desired, with mention also made of the usefulness of short weekend courses or information sessions. Others did, however, express concern over such an approach which was thought might encourage individuals to handle asbestos themselves where it is better left to asbestos professionals.
- **‘Below the line’ communication** approaches, such as encouraging the producers of home renovation shows to feature consideration and management of asbestos, helping to normalise consideration.
- **Better promote, monitor and enforce regulations governing asbestos management** both in domestic and workplace settings, to better highlight the seriousness of this issue. It should be noted that *more* regulations weren’t necessarily called for.
- **Rewarding safe and legal behaviour** rather than punishing it – e.g. provision of rebates or other financial support to help householders audit their properties for asbestos, and to have any remediation work required done professionally

- **Removing or shifting the burden of financial disincentives to dispose of asbestos safely** (e.g. perceived high disposal costs) or making it easier and/or free to dispose of small amounts of domestic asbestos legally. One also suggested standardising tip fees across the state for disposing of asbestos to remove the incentive to transport asbestos further to save on disposal costs.
- Implementation of some sort of system or scheme to **ensure that information about the presence of asbestos is acquired, retained and passed to homeowners purchasing properties**. While suggestions varied, these ideas tended to centre on a perceived duty of care to others, government to citizens, landlords to tenants, real-estate agents to purchasers, and homeowners to anyone to whom they sell their home in the future. Many different examples of such potential interventions were supplied by participants in the research, including:
  - mandating asbestos inspections as part of the property sales process or including it in all standard building inspections
  - requiring real-estate agents and/or homeowners to disclose known asbestos in a sales process
  - requiring financial institutions to request an asbestos assessment as part of applications for property finance if the property was built before 1990
  - local councils compiling a register of asbestos in local residential properties
  - encouraging entities passing on information about the property purchase process (for example banks, property sales sites, real estate agencies, conveyancers etc) to always advise people considering a property purchase to obtain an asbestos assessment for relevant properties as part of their due diligence.
- **Interventions to protect tenants**. Some were also concerned about improving the safety of tenants in relevant properties and suggested interventions such as those listed directly above should equally apply to owners of investment properties built before 1990. Some examples of additional suggested interventions to protect tenants included mandating that owners of rental properties undertake an asbestos assessment on the property that should then be made available to prospective tenants; tenants being notified of known asbestos in a property prior to taking out a lease; including information about asbestos risk in new tenant packs that is similar to information currently provided on mould; and tenant protections in the event a tenant feels unacceptably exposed to asbestos risk (e.g. due to asbestos in poor condition or a landlord undertaking work on a tenanted property).

*"It's pretty much all of the tradies I know that ever come across it their attitude is that it's just a big, like if they really wanted to get rid of it they'd make it cheaper to get rid of it." (Experienced tradesperson, Greater Sydney)*

Interviews conducted with people personally impacted by asbestos-related disease were in part used to ensure there were no sensitivities for these individuals needing to be borne in mind in the development of any future communication campaigns or other interventions. These individuals expressed broadly similar views on communications and other interventions as those in other need states. However, there was a greater call from this group for more obvious, major action being taken by government on what they saw as a pressing public health issue. While they still recognised the importance of personal responsibility in the safe and lawful management of asbestos, the view was strenuously put forward that government must not only make relevant

information easily accessible, but go beyond that to actively assist, through the use of taxpayers' money, with the identification, and safe removal and disposal of asbestos still present in the community.

*"You don't even have oxygen tanks available to people on low incomes. Band-aid approach. When you look back, these companies had registered the customers. If they were serious, they would have got the list of customers and demanded that these gluttonous companies compensate these people and pay to have it removed. But they swept it under the carpet until someone made too much noise." (Personally impacted by asbestos, Regional NSW)*

*"The grim reaper campaign with AIDS. There needs to be a campaign along those lines. You really need to put the fear of God about renovating." (Personally impacted by asbestos, Regional NSW)*

*"We had a scheme once where the state government was subsidising people to put water tanks on their kitchens to minimise the draw on the dams... the solar subsidy... Why not have a government subsidisation? You're leading the campaign by helping Australians to make the houses safer, not just for the families living there then, but also for the future generations." (Personally impacted by asbestos, Regional NSW)*

## 6. Regional and culturally diverse audiences

This chapter of the report focuses on two groups within the NSW Community of particular interest to NSW EPA and that it may be possible to selectively target in any future communications. These groups include those living in regional NSW (rather than the Greater Sydney metropolitan region) and those from a Culturally and Linguistically Diverse (CALD) background. Specific research findings from each of these audiences are discussed in the following sections.

### PEOPLE LIVING IN REGIONAL NSW

In this research, regional residents seemed at slightly less risk of encountering asbestos than their city counterparts. The quantitative research findings showed that they were less likely to live in a relevant property, and less likely to own their own home (hence, less likely to be undertaking major renovation or improvement work). At the same time, however, it appeared that people living in regional NSW may be particularly confident in their knowledge and abilities when it comes to asbestos, whether or not they actually possess relevant knowledge or skills.

Key statistics from the quantitative survey include that those living in regional NSW were:

- Less likely than those in Greater Sydney to live in a relevant property (43% of those in regional NSW, compared to 48% of those in Greater Sydney)
- More likely to be living in a detached house (86%, compared to 66%)
- Have much stronger DIY tendencies when it comes to home maintenance and improvements overall—being much more likely to say they do most or all of the work themselves (61%, compared to 45%) and much less likely to leave it to the professionals (14%, compared to 24%)
- Less likely to indicate they have encountered asbestos in the last two years (13% of homeowners living in Greater Sydney, compared to 8% of homeowners living in regional NSW; and 28% of unpaid handypeople living in Greater Sydney, compared to 19% of unpaid handypeople in regional NSW)
- More likely to strongly agree that they:
  - are very confident in their ability to identify situations where they might risk exposure (14%, compared to 10%)
  - know how to protect themselves from exposure (16%, compared to 13%)
  - feel fully informed about asbestos-related dangers (18%, compared to 15%).

Those in regional areas of NSW participating in the qualitative research showed greater inclination towards tackling home improvement and maintenance task themselves than those living in metropolitan Sydney, preferring to avoid the use of professionals if at all possible. It was also observed that regional participants appeared to have more people within their social networks who had knowledge or prior dealings with asbestos, and who they indicated were willing to exchange advice or help with those seeking it in the barter economy. Aligned with this, regional participants also showed greater confidence and a more 'gung-ho' attitude in undertaking a variety of home improvement and maintenance tasks, one of which was asbestos removal, though like their urban counterparts, this confidence often appeared misplaced.

Asbestos specialists in the qualitative research also mentioned the variation in disposal costs at different regional waste facilities in regional NSW. In some locations, this was perceived to present a large barrier to disposal at that site. It is interesting to note that, in Dubbo, where the licensed waste facility is very close to town and disposal costs are (according to asbestos specialists) much lower than in other places, non-professionals and professionals encountering asbestos on relevant properties also reported improper disposal.

## CULTURALLY AND LINGUISTICALLY DIVERSE AUDIENCES

Eighteen percent of the quantitative research sample (18%) indicated that they spoke a language other than English at home, and thus could be considered to be from a culturally and linguistically diverse (CALD) background. Roughly two in ten participants in the qualitative research were from culturally diverse backgrounds. The qualitative sample also included at least two people who self-identified during the research sessions as being First Nations Australians (this was not specifically asked about during recruitment), however this small number precludes the drawing of distinct findings about First Nations peoples.

Findings from the research suggested that NSW residents from diverse cultural and linguistic backgrounds, in part because of their relatively high rate of unpaid handyperson work, have a similar risk of encountering asbestos as the rest of the community, as shown in the quantitative findings snapshot below. The research suggests, however that they rate comparatively lower in terms of capability, opportunity and motivation to adopt appropriate safe and lawful behaviours in relation to asbestos.

Key statistics from the quantitative survey include:

- Those from CALD backgrounds were less likely than the rest of the community to:
  - live in a relevant property (42% of those from a CALD background, compared to 48% who spoke only English at home)
  - be a DIY-focused renovator (11%, compared to 20%)
  - own their own home (45%, compared to 57%).
- Those from a CALD background were *more* likely than the rest of the community to report that they help on others' properties in an unpaid capacity (38%, compared to 33%)
- On suspecting asbestos, those from a CALD background were more likely than the rest of the community to have sought advice from neighbours, families or friends (76%, compared to 65%) or general internet sources (82%, compared to 69%).
- On the relevant index calculations, those from a CALD background were more likely than the rest of the community to rate as low-medium, rather than medium-high on:
  - psychological capability (59%, compared to 51%)
  - knowledge (93%, compared to 83%)
  - opportunity (46%, compared to 37%)
  - motivation (57%, compared to 43%).

As noted earlier in this report, some participants from CALD backgrounds in the qualitative research were observed to have very low levels of awareness and knowledge of asbestos. Some people who have recently arrived in Australia from countries that have little history of using asbestos-containing construction materials, and who may have missed the James Hardie court cases, claimed that they had never heard of 'asbestos' prior to encountering it on their property or in their work. One asbestos specialist observed that in situations where they are called to a job and the owner is a recent migrant or their English language is limited, it is more challenging to explain the reason for any price difference between licensed removalists and unlicensed handypeople offering to remove the asbestos.

While knowledge is the most significant barrier to safe and lawful behaviour for the NSW community, this appears even more the case among some from CALD backgrounds. It is beyond the scope of this research to inform development of tailored approaches to CALD audiences, though the findings clearly point to a need for intervention to support safety. It suggests both a need for more or more prominent in-language communications, but potentially also a different and broader set of audience-specific messages.

## 7. Conclusions

### RESIDENTIAL ASBESTOS IS A WHOLE-COMMUNITY ISSUE, REACHING FAR BEYOND DIY RENOVATORS AND TRADESPEOPLE.

This research confirms that the risk of exposure to DIY renovators and relevant licensed tradespeople is high. However, given the large proportion of NSW adults living and undertaking renovation and maintenance activities in domestic settings where asbestos is likely to be present (whether or not they themselves own the property), potential asbestos exposure extends well beyond these groups. This research also identifies the risks of asbestos exposure to tenants and neighbours of relevant properties, and a large group of unpaid and paid (but unlicensed) handypeople.

There are clear instances of unsafe and illegal or improper behaviour leading to asbestos exposure among these professional and non-professional groups, warranting behaviour change interventions. The risks appear to be exacerbated by the strong do-it-yourself culture of home ownership and easy access to educative social media such as YouTube, both of which amplify the risks being taken by members of the community, while at the same time fostering a sense of confidence. The research identified many instances of witting and unwitting asbestos exposure, only some of which could reasonably have been planned for, across all parts of the residential asbestos context investigated in this research.

The research also found a significant overlap between audiences, with an individual potentially being exposed to asbestos through multiple renovation and maintenance avenues. As a result, the concept of 'need states' could be more relevant than focusing on discrete 'audiences' when designing interventions. That is, it may be more constructive to think about needs that are dictated by a particular activity or circumstance, rather than as needs of a defined 'audience' (dictated by age, home ownership or professional qualifications, for instance).

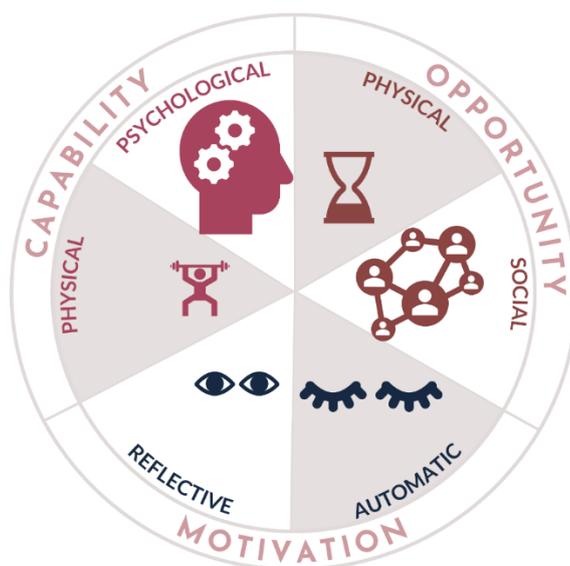
While the most obvious party responsible for asbestos found in residential settings are homeowners, many are attached to the concept of shared responsibility. Also seen as bearing significant responsibility are those considered to be decision-makers in positions of power or keepers of knowledge in relation to the material. That is: the original manufacturers of asbestos products, councils and other bodies thought to hold information about which homes or areas contain ACMs, tradespeople and asbestos specialists, and federal or state governments (who are seen as having allowed the material to be sold over a long period and beyond the point at which its dangers were known).

This sense in which responsibility is a shared, public issue extending beyond relevant homeowners and the professionals they hire, is pervasive in the community, and appears related to a sense of helplessness and overwhelm that accompanies the topic of asbestos. The tone is set for the 'buck-passing' that tends to occur in relation to the problem of finding asbestos and the responsibility and cost of dealing with it. This is not helped by the perceived lack of enforcement of laws and regulations governing the actions of homeowners and professionals in home maintenance and improvement activities. Qualitative research revealed that interventions (such as those currently in place) that position property owners as solely responsible for the management of asbestos (and its costs), can be considered by the community as punitive and are likely to have unintended and perverse behavioural outcomes.

## BEHAVIOUR CHANGE WILL REQUIRE A MULTI-FACETED, COORDINATED EFFORT ACROSS ALL BEHAVIOURAL DOMAINS - CAPABILITY, OPPORTUNITY & MOTIVATION

In applying the COM-B behaviour change framework to these research findings, there are clearly barriers to safe and lawful behaviour in place across all three of the behavioural domains of Capability, Opportunity and Motivation. As with all complex behaviour change exercises, this analysis supports a need for a multi-faceted approach that understands not just the barriers themselves, but how they interact to lead to unsafe actions and asbestos exposure. The relative size of the icons shown in each segment in Figure 40 indicates the extent to which that segment of the COM-B model presents barriers to safe asbestos action by relevant audiences. Each area and its relationship to the others are discussed in the sections that follow the diagram.

Figure 40. COM-B model applied to safe and legal asbestos behaviours



### CAPABILITY

**Psychological capability**, primarily the lack of relevant knowledge among both non-professional and professional audiences, appears the single most significant barrier to safe and lawful action. While knowledge that ACMs pose health risks is widespread, detailed understanding of asbestos and its dangers is not. Both professionals and non-professionals show large variation in the amount and accuracy of knowledge they hold. What they do know is then weighed against other considerations in decisions relating to asbestos, with the outcomes often being unsafe behaviour.

Knowledge gaps need to be closed relating to the likelihood and identification of asbestos, the risks it poses, necessary procedures and involvement of professionals to make it safe, and any certifications or licenses that are involved. The filling of knowledge gaps needs to occur among professionals and, especially, non-professional audiences. In the absence of this knowledge, owners of relevant homes can more easily justify inappropriate behaviours and unsafe decisions.

For professionals, concern regarding asbestos exposure is less salient than other immediate risks such as accidents from falls or power tools and the time pressure faced on job sites. With the longer-term timeframe until the possible onset of illness, asbestos just isn't a high priority concern for many relevant professionals at present.

For non-professionals planning improvement or maintenance work, consideration of the possibility of encountering asbestos, and the options available, is limited, meaning they are ill-prepared to make appropriate decisions and have more limited options available when asbestos is encountered.

Among both professionals and non-professionals alike, the research also found evidence of inconsistencies between knowledge, confidence and attitudes towards asbestos on the one hand, and safe and lawful behaviour on the other. It appears clear that what people know or intend, is not always a reliable indicator of their actions. The qualitative research revealed numerous examples where unsafe actions were taken, despite the professional or non-professional seeming to know better. Gaps were also evident in the qualitative research between claimed and actual behaviour, where actions that were initially presented as safe, upon closer investigation were revealed not to be so. Intervention design needs to consider disparities between knowledge, beliefs and actions to facilitate closer alignment between them.

There is currently perceived to be a lack of easy-to-find, clear, consistent and sufficiently comprehensive information about asbestos. Further, the information that does exist is clearly not adequately reaching and impacting the groups within the community that require it at the appropriate time. In terms of trusted sources, there is considered to be no single reliable and comprehensive source. An opportunity exists for such a source, given the receptiveness of audiences to trustworthy information. NSW EPA is a natural fit for this task.

Knowledge-building information should be integrated into channels that non-professionals are likely to be interacting with, well before they undertake any work on properties, as well as at key points in time when homeowners are likely to be most receptive to information about potential hazards on their property. Knowledge-building information aimed at professionals is unlikely to reach this audience via traditional government information channels and requires seeding through formal and informal professional associations and networks through authentic, relatable ambassadors, and potentially through bodies with which they are required to interact regularly, for example licensing bodies, and workers compensation or liability insurers.

Although a lesser issue, professional audiences also face **physical capability** issues, with a lack of adequate training and skills in safe asbestos handling leading to overconfidence in capability. Behavioural interventions to build physical capability could focus on mandating or facilitating access for relevant professionals to undertake up-to-date education and training on safe asbestos handling.

## OPPORTUNITY

The **physical opportunity** barriers of cost and inconvenience have been raised in previous research – the perceived high cost of removal and disposal acts as a disincentive to act safely, and the inconvenience of disposal at licensed waste sites stands in the way of safe behaviour. These resource limitations are issues, though it is a mistake to consider them the core issue. While for some, especially those with limited financial means, these barriers are insurmountable, for most it is a *choice* not to spend the money or the time to deal appropriately with asbestos. While some do lack the understanding that the choices they are making are not appropriate, it appears that more people reason they are making the best choice for their circumstances, even if it involves avoiding the use of professionals and/or engaging in unsafe or unlawful removal or disposal of asbestos. The do-it-yourself movement fans this flame, with its appetite for a fast, cheap, rolling-one's-sleeves-up, personally fulfilling approach to home improvement, and its reliance on YouTube as a primary source of (mis-)information and instruction.

Interventions could seek to enable safe behaviour through support to overcome physical barriers. For instance, a shift more towards rewarding appropriate behaviour than 'punishing' it with costs, through the provision of rebates or partial rebates for asbestos assessment and disposal costs, or offering free disposal of small amounts of domestic asbestos.

Also worth noting, this research suggests that those most at risk due to poor decisions or improper behaviour are those with the most limited means. Not only are cheaper homes more likely to contain asbestos (and large amounts of it), but household and renovation budgets are tighter, meaning that budgetary restrictions may limit consideration of contracting in asbestos specialists. For these people, the options available are more limited. This also applies to professionals, particularly those that are struggling financially or working for such businesses, and those at earlier stages of their career.

A lack of **social opportunity** is a significant barrier to safe and legal behaviour in dealings with asbestos and influencers (professionals, government authorities and media personalities alike) need to show leadership to raise salience of asbestos safety and provide guidance to non-professional audiences who are strongly influenced by the behavioural modelling of influencers.

Cultural expectations mandate that renovation or improvement activities minimise risk to others, however mixed information and a heavy reliance on relevant professionals to lead the way, can lead to less than safe actions. Professionals bear a heavy burden in this respect, with their attitudes, words and actions speaking volumes to the homeowners they work for and others observing their work. They are in a position of trust and homeowners rely upon their assumed expertise to inform them about asbestos and how to manage it, connect them with suitable specialists and model safe behaviours. They may not always be deserving of this trust, however. The knowledge, experience and behaviour of many professionals reported in this research calls into question whether the training and experience of professionals is sufficient to enable them to safely and legally handle asbestos. The findings indicate that perceived levels of knowledge and the resulting behaviour can be out of step with both safety and legal requirements. Of concern also is that the advice and behaviour of relevant professionals may cue unsafe behaviours to members of the public, implicitly communicating that asbestos is a less serious issue than it is, or that certain required behaviours are optional or unnecessary.

Interventions aimed at professionals will be key in supporting behaviour change among other relevant audiences given the influence professionals have on the beliefs, choices and behaviours of others around them. It is anticipated that social influence might also play an important role in shifting behaviour between professionals as they look to employers and mentors, and their behaviour is often a reflection of the attitudes of their superiors. Strategies that expose professionals to the best practice behaviour of appropriate influencers or encourage professionals to see themselves as trusted advisers and influencers to other audiences, could have a broad impact and prevent the unhelpful downstream impacts in the wider community that were observed in this research.

The absence of consideration of asbestos in DIY culture is also unhelpful by reducing its salience, sending the message that it is not a relevant issue for those renovating and maintaining their homes. A lack of focus on asbestos risk in the media, combined with the actions of professionals, act as powerful signals to the public that asbestos may not be as serious as they fear. There was evidence in the qualitative research of these conflicting messages undermining safe asbestos behaviour, by causing confusion and leaving room for grey moral reasoning and justification of unsafe behaviour. Communications from all sources will have the most impact if they are consistent in their message.

## MOTIVATION

**Reflective motivation** has the potential to be a source of safe and lawful behaviours. The NSW community shares a fundamental view of asbestos as a threat and consequently has a rational motivation towards protecting their own safety, that of their loved ones and the broader community. Across the large number of people participating in this research, there was a sense of concern over this issue and desire to see action at the government level to protect the safety of people living in NSW from exposure to asbestos. Individually, there was strong interest in protecting oneself and close others from asbestos exposure, but also those who may be more vulnerable or more at risk, such as younger people and those with more limited means. There was also a sincere desire among many to do the right thing in relation to asbestos.

However, many individual, interpersonal, structural, and unconscious barriers are currently working against these conscious motivations, leading to a level of unsafe and improper behaviour around asbestos that is likely to even be underestimated in the findings of this research. These barriers include:

- confusion about safe and legal actions
- mixed messages about the possibility and the seriousness of asbestos exposure
- automatic cognitive processes (see 'automatic motivation' below) that render the motive to protect oneself from asbestos exposure dormant.

Prompting safe action then, is about clearing the barriers that prevent people from acting on this core motivation. A comprehensive intervention approach that works on all barriers, is necessary, though addressing the knowledge deficits identified in this research is an essential first step.

The risk of others being exposed to asbestos motivates some people to want to uphold safety and legality in dealing with asbestos, including identification, handling, removal and disposal. For others, however, there is a reluctance to even think of the 'hot potato' of asbestos, once it is off their hands. There appears to be a profound denial of one's own wrongdoing in relation to asbestos safety and in particular the notion that this may at some stage have a negative consequence for someone else, whether that be someone else living in the home, a tradesperson, a transport or waste worker, or a future owner or resident of the property.

For those who suspect they have already been exposed to asbestos, inducing feelings of care towards others will be important to motivate safe behaviour. Broadening their vision beyond the horizon of their own health concerns and encouraging their community spirit fits well with the sense of shared responsibility attributed to the problem of asbestos.

As a source of safe behaviour, **automatic motivation** (or emotional reactions, impulses and reflex responses) currently presents a significant obstacle that warrants close examination. Though safe and lawful asbestos behaviour is unequivocally the most rational course of action for both non-professional and professionals, the sheer size of the perceived problem and its impacts leads to knee-jerk responses typical of people under threat.

The prevalence of asbestos, and the perceived risks and severity of exposure to the substance, contribute to the strong feelings of fear, alarm, overwhelm and helplessness. These strong emotional responses are accompanied by an impulse to protect oneself and others. This research observes that, when this protective impulse is unable to be satisfactorily acted upon, denial or panic can result. This can lead a cascade of decisions where asbestos is ignored or unaddressed, or otherwise hastily, unsafely or improperly removed by professionals and non-professionals. This research also reveals a process of flawed moral reasoning, as people then attempt to justify such behaviours, particularly if they have placed others at risk.

Tapping into this strong fear response in interventions has the potential to motivate protective or safe behaviour, however this needs to be paired with requisite knowledge of immediate safe steps people can take to express their innate protective impulses. Without this, the use of fear-based communications, while seemingly effective at gaining attention, may again lead to the reactivity and lack of safety inherent in panic or denial responses. In other words, fear may well be a powerful communication tool, but only if the impulses that accompany it can be funneled into safe and lawful behaviour through promotion of clear and easy steps which will genuinely foster a sense of control. Overall, asbestos can make people feel helpless, so interventions that support them to feel empowered will be inherently positively motivating.

It cannot be stated too strongly that care must be taken that messages about asbestos exposure risks are unequivocally accompanied by simple, effective, immediate actions people can take to ameliorate this risk. Without this, inciting fear can induce overwhelm, and lead to the very behaviours that interventions are trying to prevent.

### FOR RELEVANT HOMEOWNERS, INTERVENTION IS REQUIRED EARLIER THAN AT THE POINT OF RENOVATION PLANNING

Prior awareness of the presence of asbestos on a residential property gives homeowners and those working on their properties a broader range of response options than if asbestos is encountered by chance or accident part-way through maintenance or improvement work. It also affords homeowners and those working on their properties the time necessary to consider and select the most appropriate, safe and legal response for the circumstance. This suggests that interventions that enable homeowners and professionals to become aware of any asbestos on a property well before any maintenance, improvement or renovation is considered or undertaken, will greatly improve safe and lawful actions around residential asbestos. There are several points in the home ownership cycle, listed below, at which intervention could facilitate better awareness of what materials are present on the property or encourage property owners to find out.

- **When a property changes ownership** – this is a crucial point at which potential property owners could be compelled or encouraged to know what is on the property they are considering purchasing or have just purchased. Potential interventions could take advantage of interactions with many third parties at this point such as real estate agents, financial institutions, building inspectors, property insurers, solicitors and conveyancers, and sources of information about selecting and purchasing a property.
- **When a rental property is between tenants** – this is a crucial point at which rental property owners could be compelled or encouraged to know what is on their property that could put tenants at risk.
- **At the point of renovation ‘inspiration’** – home renovation shows and other sources of inspiration for home design, including online sources, reach homeowners well before they have undertaken practical steps to make changes to their property.
- **When council engages with property owners personally**, for example, when rates are due. This is a point at which personal communication is delivered to every property owner and presents an important channel for reaching property owners outside of the renovation process.
- **When property owners engage with property insurers**, finance institutions or other property-related entities.
- **At any point that asbestos is discovered on a property** – homeowners should be prompted by interventions to undertake a comprehensive assessment to check for any other asbestos on their property.

There are several points at which interventions could be targeted to improve specific knowledge and understanding of asbestos, particularly around safety and legality (rather than broader awareness of the presence or absence of asbestos). These points of intervention should be closer in time to the point at which property owners are potentially having to deal with asbestos. Some examples are listed below.

- **When ownership of a property that is likely to require immediate work, changes hands.**
- **When council engages with residents personally in the lead up to work on a property**, for example, at the start of approvals processes or during the approvals process.
- **At the point of renovation or design 'inspiration'**, as described above.
- **When people are seeking practical information about DIY activities** they hope to undertake, for example online.
- **When a professional is sought out to provide a quote for work.** This could include when property owners are searching for professionals to carry out work on their property, for example when searching relevant online listings or marketplaces, as well as when professionals provide quotes for certain types of work.
- **When people are obtaining safety equipment** or any materials or supplies required to do work around their home, such as at hardware stores.

## FOR RELEVANT PROFESSIONALS, INTERVENTIONS ARE REQUIRED TO IMPROVE KNOWLEDGE AT ALL STAGES OF THEIR CAREER

Professionals are viewed as experts and are heavily relied upon by homeowners to provide advice in relation to asbestos. However, knowledge deficits among this audience can facilitate poor practice in dealing with residential asbestos, both through the actions taken by professionals and by what they communicate to others about asbestos. Interventions are, therefore, additionally required to improve knowledge among relevant professionals. There are several potential points of intervention where knowledge deficits could be addressed among professionals, listed below.

- **When professionals are formally trained/enter their profession** (i.e. in current TAFE modules dealing with asbestos).
- **When professionals are required to engage with professional bodies**, such as at the time of initial licensing and/or renewal for licensed trades.
- **When professionals purchase relevant equipment** or engage with programs (such as tax relief) that assist them to purchase equipment.
- **When professionals engage with third parties in the asbestos lifecycle**, such as asbestos specialists, SafeWork, transporters or disposal sites.

## MORE FAST, SAFE OPTIONS FOR SMALL PIECES MAY REDUCE DOMESTIC BIN DISPOSAL

Non-professionals and professionals both use curbside residential bins as a fast, easy, cheap asbestos disposal method (particularly for small amounts) and as an immediate salve for the psychological distress raised by discovering and dealing with asbestos. The research suggests that the incidence of this is around 1 in 10 for relevant homeowners, and around 1 in 4 for relevant professionals. Though most non-professionals at least suspect this practice is illegal, they also are generally unsure of how else to immediately deal with the asbestos. Few are conscious or concerned about what implications this improper disposal might have for transport or waste workers.

Cost is a driver of this behaviour, but only those most economically constrained would be unable to pay for lawful disposal of small domestic amounts of asbestos. For most, cost appears to be only a perceptual barrier to safe behaviour, fueled by a budget-DIY mindset, an absence of planning and a lack of understanding of what drives the costs of professional removal and disposal. Perceived inconvenience is a key barrier, underpinned by a reluctance to appropriately wrap such small amounts of asbestos, or to transport and dispose of them at a licensed waste facility.

The option of putting asbestos in a residential bin and solving the problem of keeping oneself and loved ones safe from exposure has an immediacy that is unrivalled by other perceived options. This research indicates that residents need (and need to be aware of) ways to easily, lawfully and safely dispose of small pieces of asbestos in a timely manner, to address this practice.

## Appendix A – Quantitative questionnaire

[NOTE MODULE TITLES AND SUBTITLES DO NOT APPEAR FOR PARTICIPANTS]

### QUOTAS

	Category	%	n=
<b>Age</b>	18-24	13%	520
	25-34	18%	720
	35-44	19%	760
	45-54	18%	720
	55-64	15%	600
	65+	17%	680
<b>Gender</b>	Male	49%	1,960
	Female	51%	2,040
<b>Location</b>	Greater Sydney	70%	2,800
	Rest of Sydney	30%	1,200
<b>Total n</b>			<b>4,000</b>

### INTRODUCTION

Thank you for your interest in our survey which should take around 10 to 20 minutes to complete, depending on your answers.

Just to remind you, your responses in this survey will be kept completely confidential and will be used only for market research purposes. As a market research company, we comply with the requirements of the Privacy Act.

Please answer all questions honestly. Your responses will **not** be able to be linked to you personally, and so there is no possibility of any personal, financial or legal consequences arising from any information you provide.

Please remember:

- Use your mouse to 'click' the relevant circles or boxes and mark your selections. Some questions require you to type your answers in the space provided.
- To begin the survey, click on the '>>' button below.
- When you have completed all questions on the screen, click the '>>' button to proceed to the next page.
- If you need to return to the survey later, click the '>>' button and close the webpage. The next time you click on the invite link, it will automatically take you back to the question you were up to.

## SCREENER MODULE

### S1. Are you?

CHECK QUOTAS, SINGLE RESPONSE ONLY

1. Under 18      **TERMINATE**
2. 18-24
3. 25-34
4. 35-44
5. 45-54
6. 55-64
7. 65 or older

### S2. Are you?

CHECK QUOTAS, SINGLE RESPONSE ONLY

1. Male
2. Female
3. Other
97. Prefer not to say

### S3. What is your home postcode?

AUTOCODE LOCATION  
CHECK QUOTAS

### S4. Are you currently?

SINGLE RESPONSE ONLY

1. Working in paid employment
2. Working as an apprentice
3. Self employed
4. Retired
5. Student
6. Carer/home duties

### S5. IF 1, 2 OR 3 IN S4 SHOW:

**In which of these fields do you currently work?**

MULTIPLE RESPONSE

1. Accommodation and food services
2. Administrative and support services
3. Agriculture, forestry and fishing
4. Arts and recreation services
5. Building and construction
6. Education and training
7. Electricity, gas, water and waste services
8. Financial and insurance services
9. Health care and social assistance
10. Information media and telecommunications
11. Mining and manufacturing
12. Professional, scientific and technical services

13. Public administration and safety
14. Real estate services
15. Retail and wholesale trade
16. Transport, postal and warehousing
17. Other services

S6. IF CODE 5 (BUILDING AND CONSTRUCTION), 7 (ELECTRICITY, GAS, WATER AND WASTE SERVICES), 12 (PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES), 14 (REAL ESTATE SERVICES) OR 17 (OTHER SERVICES) in S5 SHOW:

**Which, if any, of these type/s of work do you do?**

Please select all that apply

MULTIPLE RESPONSE

1. Bricklaying
2. Builder
3. Building maintenance
4. Building assessment or inspection
5. Cabinet making/joinery
6. Carpentry
7. Concreting services
8. Demolition
9. Electrician or electrical services
10. External cladding installation
11. Fencing
12. Floor covering installation/laying
13. Floor sanding
14. Gas fitting
15. Handyman/person
16. Heating/air conditioning installation or maintenance
17. Insulation installation
18. Kitchen/Bathroom removal/installation
19. Landscaping
20. Licensed asbestos assessment or removal
21. Occupational hygiene services
22. Painting
23. Plastering and ceiling services
24. Plumbing and drainage
25. Roof and guttering installation
26. Site management
27. Site preparation or land development services
28. Solar panel installation
29. Telecommunications cable installation
30. Tiling
31. Wallpapering
32. Waste collection or disposal
33. Window installation and glazing services
99. None of these

S7. IF CODES 1-33 IN S6 SHOW:

**Do you work in?**

Please select all that apply

MULTIPLE RESPONSE

1. Residential settings (homes or domestic premises)
2. Commercial settings (commercial or business premises)

S8. IF CODE 1 IN S7 SHOW:

**And which of the following best describes the residential properties you work on?**

SINGLE RESPONSE ONLY

1. I only work on established residential properties
2. I only work on brand new residential properties
3. I work on both new and established residential properties

S9. ASK ALL

**Thinking of the property you currently live in, do you own this property?**

SINGLE RESPONSE ONLY

1. Yes, I own the property I live in (outright or with a mortgage)
2. No, I rent
3. No, I am currently purchasing under a rent-to-own arrangement
4. No, I live rent free or under a life-tenure arrangement
5. No, I live with family/another person in their property

S9a. IF 2-5 IN S9 SHOW:

Approximately how old is the property you live in?

Please use your best estimate if you are not sure.

SINGLE RESPONSE ONLY

1. Up to 29 years old (built after 1990)
2. 30-69 years old (built between 1940 and 1990)
3. 70-119 years old (built between 1900 and 1940)
4. 120 or more years old (built before 1900)
5. Don't know

S10. IF 1 IN S9 SHOW:

**What type of property is this?**

SINGLE RESPONSE ONLY

1. Separate house
2. Semi-detached, terrace or townhouse
3. Villa, unit or apartment
4. Removable dwelling such as caravan park cabin
5. Other (please specify)

S11. IF 1 IN S9 SHOW:

**Approximately how old is this property?**

Please think about the age of the primary dwelling you live in on your property and please use your best estimate if you are not sure.

SINGLE RESPONSE ONLY

1. Up to 29 years old (built after 1990)
2. 30-69 years old (built between 1940 and 1990)
3. 70-119 years old (built between 1900 and 1940)
4. 120 or more years old (built before 1900)

S11a. IF 1 IN S11 SHOW:

**Please select the year in which this property was built, to the best of your knowledge.**

[FORMAT DROP DOWN WITH YEARS IN REVERSE ORDER FROM 2019 TO 1990]

S12. IF CODES 2-4 IN S11 SHOW:

**Thinking of the entire property where you live (including all structures on the property such as the main dwelling, extensions, garages, outhouses, additional buildings, fencing and the yard), which of these apply?**

SINGLE RESPONSE IN EACH ROW

	Yes	No/don't know
a. Renovations, maintenance work or improvements <b>have been completed within the last 2 years</b>	1	2
b. Renovations, maintenance work or improvements <b>are currently underway</b>	1	2
c. Renovations, maintenance work or improvements are <b>planned to start within the next 2 years</b>	1	2

S13. IF ANY 1 (YES) IN S12 SHOW:

**What's your role in decision-making regarding these renovations, maintenance work or improvements on your property?**

SINGLE RESPONSE ONLY

1. These decisions are solely my responsibility
2. These decisions are primarily my responsibility, along with someone else
3. I have equal or joint responsibility for these decisions
4. These decisions are primarily someone else's responsibility
5. I have no involvement in these decisions

S14. SHOW ALL RELEVANT HOMEOWNERS [i.e. IF CODES 2-4 IN S11]

**When it comes to renovations, maintenance work or improvements on your property, which one of these best describes you and your household?**

Note: 'ourselves', includes unpaid help from friends or family

SINGLE RESPONSE ONLY

1. I/we do all the work ourselves
2. I/we try to do most things ourselves, but pay professionals if necessary
3. I/we do some things ourselves, but mainly rely on paid professionals or tradespeople
4. I/we leave it to the professionals/tradespeople
98. Don't know/does not apply

S15. SHOW ALL

**Do you ever work on friends' or family members' home renovations, maintenance or improvement projects (in an unpaid capacity)?**

SINGLE RESPONSE ONLY

1. Yes
2. No

**dAUDIENCE: CREATE HIDDEN TARGET AUDIENCE VARIABLES:**

PROGRAMMING NOTE: Respondents qualify for dAudience\_2 can qualify for dAudience\_1 at the same time

1. PROFESSIONAL - **CODE 1** IF 1 IN S7 AND 1 OR 3 IN S8
2. ASBESTOS ASSESSOR REMOVALIST - **CODE 1** IF S6=20
3. DIY/RENOVATOR - **CODE 1** IF 1-3 IN S13 AND 0 AT dAudience=1
4. UNPAID HANDYPERSON - **CODE 1** IF S15=1 AND 0 AT dAudience=1
5. OTHER GENERAL PUBLIC - **CODE 1** IF 0 AT ALL dAudience=1/2/3/4

**GENERAL ROUTING INSTRUCTIONS FOR EACH AUDIENCE (NOTE ALL PARTICIPANTS ANSWER THE SCREENER, MODULE 3 AND DEMOGRAPHICS MODULES):**

dAUDIENCE	STARTS AT Q	BASIC ROUTING
Code 1: PROFESSIONAL	1.1	SHOWN MODULE 1, MODULE 2 [only 2.21, and 2.22, 2.23, 2.24, 2.25 only if relevant] AND MODULE 3
Code 2: ASBESTOS ASSESSOR / REMOVALIST	1.1	SHOWN MODULE 1 [ONLY Q1.1-1.4 AND MODULE 1a] AND MODULE 3
Code 3: DIY / RENOVATOR	2.1	SHOWN MODULE 2 AND 3
Code 4: UNPAID HANDYPERSON	<p>IF ALSO DIY RENOVATOR (dAudience_3=1), START AT 2.1</p> <p>IF RELEVANT HOMEOWNER BUT <b>NOT</b> DIY RENOVATOR (CODE 1 in S9 OR CODES 2-4 IN S11 AND dAudience_3=0) START AT 2.21</p> <p>IF <b>NOT</b> RELEVANT HOMEOWNER (CODES 2-5 IN S9 OR CODE 1 IN S11) START AT 2.37</p>	SHOWN 2a AND MODULE 3 AND POSSIBLY MODULE 2 AND/OR 2b
Code 5: OTHER GENERAL PUBLIC	2.47	SHOWN MODULE 2b AND 3

**MODULE 1. PROFESSIONAL WORKERS' EXPERIENCES**

1.1 SHOW ALL PROFESSIONALS (ASK IF dAUDIENCE=1/2)

**Which of the following best describes you?**

SINGLE RESPONSE

1. Fully qualified tradesperson
2. Third or fourth-year apprentice
3. Second year apprentice
4. First year apprentice
5. Not trade qualified
6. Other (please specify)

1.2 If 1, 5 OR 6 at 1.1 SHOW:

**And are you?**

SINGLE RESPONSE

1. An employee
2. A contractor working for another business
3. A sole-trader
4. A business owner with employees
5. Other (please specify)

1.3 SHOW ALL PROFESSIONALS (ASK IF dAUDIENCE=1/2)

**How many years have you worked in your industry?**

SINGLE RESPONSE

1. Less than one year
2. 1-4 years
3. 5-9 years
4. 10-19 years
5. 20+ years

1.4 Ask if 1, 2 or 4 at 1.2

**How many employees does your business or workplace have?**

SINGLE RESPONSE

1. Up to 5 employees
2. 6-10 employees
3. 11-19 employees
4. 20 employees or more

1.5 SHOW ALL PROFESSIONALS, EXCEPT IF S6=20 [LICENSED ASBESTOS ASSESSORS OR REMOVALISTS]  
[dAUDIENCE = 1 AND dAUDIENCE ≠ 2]

**When beginning a project/job on a residential property where asbestos containing material could possibly be present, how often do you do each of the following?**

SINGLE RESPONSE FOR EACH ROW

RANDOMISE ORDER OF ROWS

#	Statement	Never	Rarely	Sometimes	Always
a	Check to see if asbestos is present yourself	0	1	2	3
b	Ask the client if asbestos is present in/on the property	0	1	2	3
c	Get an asbestos assessment from a licensed assessor	0	1	2	3
d	Ask the client if asbestos has been identified in the property by a licensed asbestos assessor	0	1	2	3

e	Discuss with the client the potential health risks of discovering asbestos	0	1	2	3
f	Discuss with the client the potential costs and timing of identifying, removing and disposing of asbestos	0	1	2	3
g	Include a contingency for asbestos identification, removal and disposal costs in quote	0	1	2	3
h.	[IF 2, 3 OR 4 at 1.1 <u>OR</u> 1, 2 or 5 at 1.2 SHOW:] Agree a process for identifying and managing asbestos with your boss or the person in charge of health and safety for the worksite or business	0	1	2	3

1.6 SHOW ALL PROFESSIONALS EXCEPT IF S6=20 [LICENSED ASBESTOS ASSESSORS OR REMOVALISTS]:  
 [dAUDIENCE = 1 AND dAUDIENCE ≠ 2]:

**Have you ever encountered asbestos containing materials when working on a residential property?**

SINGLE RESPONSE

1. Yes, in the last two years
2. Yes, but not in the last two years
3. No

1.7 IF 1 IN 1.6 SHOW:

**In the last 2 years, on what proportion of residential property jobs have you encountered or had to deal with asbestos?**

Please give your best estimate

[INSERT % ALLOW 1-100]

1.8 IF 1 IN 1.6 SHOW:

**Thinking about the most recent time you encountered asbestos while working on a residential property, where was the asbestos?**

MULTIPLE RESPONSE

1. Air-conditioning system/s
2. Around hot water pipes
3. Around or behind tiles
4. Ceiling or wall insulation
5. Cement sheeting used in walls or ceilings, including windows and mouldings
6. Concrete slab or foundations
7. Corrugated cement roofing
8. Eaves
9. External cladding e.g. imitation or artificial brick
10. Fences
11. Flooring e.g. tiles, vinyl floor tiling, carpet underlay, or linoleum flooring
12. Fuse boxes or electrical equipment

13. Garage surfaces and or walls
14. Garages, carports, sheds
15. Garden sheds
16. Insulation in stoves and fireplaces
17. Insulation in the ceiling, walls or floor
18. Other bathroom, toilet, laundry or kitchen
19. Pipes, plumbing or drainage
20. Roof gutters and downpipes
21. Soil or in the garden
22. Textured paint/coating
23. Windows or doors
24. Other places or types of asbestos containing material (please specify)

1.9 IF 1 IN 1.6 SHOW:

**Thinking about the most recent time you encountered asbestos while working on a residential property, what type/s of asbestos material was encountered:**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

RANDOMISE ORDER OF 1-2

1. Bonded with other material like cement, resin, putty or adhesive (such as in fibro sheeting, or tile adhesive)
2. In loose or powdered form (such as asbestos ceiling or pipe insulation)
98. Don't know

1.10 IF 1 IN 1.9 SHOW:

**And how much bonded asbestos was involved in total?**

SINGLE RESPONSE

1. Small or isolated pieces
2. Larger or multiple amounts but less than 10 square metres
3. Larger amounts more than 10 square metres
98. Don't know

1.11 IF 1 in 1.9 SHOW

**Which of the following describes the condition the bonded asbestos was in?**

Please select all that apply

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-3

1. In good condition with no obvious damage
2. Cut, punctured, broken or damaged
3. Crumbling or able to be crumbled easily with light pressure
98. Don't know

1.12 IF 1 IN 1.6 SHOW:

**Still thinking about the most recent time you encountered asbestos while working on a residential property, how was this asbestos discovered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-6

1. The homeowner discovered it before starting work on the property
2. The homeowner or their family/friends discovered it while working on the property
3. By a licensed asbestos assessor during an assessment
4. By you or another building professional before starting work on the property
5. By you or another building professional while working on the property
6. Neighbours informed the homeowner or council regarding the work and the possibility of asbestos
7. Other (please specify)
98. Don't know

1.13 IF 1 IN 1.6 SHOW:

**Which of the following did you do when the asbestos was encountered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-7

1. Sought advice from other people in your organisation
2. Sought advice from other colleagues not in your organisation
3. Consulted with the homeowner/client
4. Sought advice from local council
5. Sought advice from another government body
6. Notified local council
7. Notified another authority such as EPA or Safework
8. None of these
98. Don't know

1.14 IF 1 IN 1.6 SHOW:

**In deciding what actions, if any, to take with the asbestos, which of these did you consider?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-22

1. The condition of the asbestos e.g. intact, broken or damaged
2. Scaring or alarming the homeowner/client
3. Making the homeowner, their friends, family or neighbours sick
4. Making myself sick
5. Impact on the property's re-sale value if asbestos was revealed
6. Existing knowledge, experience or skills I had dealing with asbestos
7. Whether a licensed asbestos removalist was needed
8. Whether I knew enough about what a licensed asbestos removalist does
9. The likely cost of removal
10. The likely cost of disposal
11. The impact on the timeline for the project
12. Advice of other people in your organisation
13. Advice of other colleagues not in your organisation

14. Advice of a licensed asbestos assessor or removalist
15. A quote for removal
16. A quote for disposal
17. How safe or unsafe I thought it would be to remove the asbestos
18. The location of the asbestos
19. The homeowner/client losing access to the location while work was done
20. Any legal requirements relating to removing and disposing of asbestos
21. Advice from council or government
22. Undertaking a training program to learn about removal and disposal of asbestos
23. Other consideration (please specify)

1.14a IF 1 IN 1.6 SHOW:

Was any of this asbestos...?

MULTIPLE RESPONSE, BUT MUST GIVE AN ANSWER

1. Left in place where it was encountered
2. Removed or moved from where it was encountered
3. Don't know

1.15 IF 1 IN 1.6 SHOW:

**Which, if any, of the following happened in relation to this asbestos?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-7

1. Notification signs were put up
2. The area where the asbestos was located was isolated or cordoned off
3. All people living in the property moved out temporarily
4. People living in the property wore protective gear
5. Anyone handling the asbestos wore protective gear
99. None of these
98. Don't know

1.16 IF 1 IN 1.14a SHOW

**You said, the most recent time you encountered asbestos while working on a residential property, asbestos was left in place. Was it...**

1. Left as it was found
2. Covered
3. Painted
4. Coated in another way
5. Enclosed or blocked off in another way
98. Don't know
99. None of these

1.17 IF 2 in 1.14a SHOW

**You said, the most recent time you encountered asbestos while working on a residential property, asbestos was moved or removed.**

**Which, if any, of the following happened?**

MULTIPLE RESPONSE

RANDOMISE 1-7

1. It was wrapped/sealed up
2. It was left on the property
3. It was disposed of by burying it on the property
4. It was disposed of in a residential garbage, recycling or green bin
5. It was disposed of through a council pick-up
6. It was taken off the property to be disposed of in some other way
7. I received a receipt for the asbestos waste disposal
98. Don't know
99. None of these

1.19 IF 2 in 1.14a SHOW:

**Who removed this asbestos?**

MULTIPLE RESPONSE

1. I did
2. The homeowner
3. Family/friends of the homeowner
4. A/nother home handyperson
5. A/nother tradesperson or building professional
6. A licensed asbestos removalist
7. Someone else did (please specify)
98. Don't know

1.20 IF ANY OF 3-6 IN 1.17 SHOW:

**Who disposed of this asbestos?**

MULTIPLE RESPONSE

1. I did
2. The homeowner
3. Family/friends of the homeowner
4. A/nother home handyperson
5. A/nother tradesperson or building professional
6. A licensed asbestos removalist
7. Someone else did (please specify)
98. Don't know

1.20a IF 6 IN 1.19 OR 6 IN 1.20 SHOW:

**Was a clearance certificate received from the licensed asbestos removalist who removed and/or disposed of the asbestos?**

1. Yes
2. No
98. Don't know

1.18 IF 4, OR 5 IN 1.17 SHOW:

**You mentioned that, the most recent time you encountered asbestos while working on a residential property, it was disposed of in a residential bin, or through a council pick up. To the best of your knowledge, why was this done?** (Please provide as much detail as possible)

[OPEN-ENDED RESPONSE]

1.20b IF 3 AT 1.17 SHOW:

**You mentioned that, the most recent time you encountered asbestos while working on a residential property, it was buried on the property. To the best of your knowledge, why was this done?** (Please provide as much detail as possible)

[OPEN-ENDED RESPONSE]

1.21 IF 1 IN 1.19 SHOW:

**You mentioned that, the most recent time you encountered asbestos while working on a residential property, you removed it yourself. Which, if any, of the following did you do IN PREPARATION FOR handling or removing this asbestos?**

*Please select all that apply.*

MULTIPLE RESPONSE, EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-11

1. Ensured you had all the necessary tools and equipment
2. Sought advice to ensure you had or purchased the right tools and safety equipment
3. Obtained information about how to remove asbestos safely (please specify where obtained)
4. Told those in the neighbouring properties what was happening
5. Put a sign up
6. Made arrangements for storage and/or disposal
7. Checked local council requirements regarding notice of works
8. Isolated the work area and limited others' access
9. Cleared the area of anything that might become contaminated
10. Covered the ground with heavy duty plastic sheeting
11. If working outside, avoided working in high winds
99. None of these

1.22 IF 1 IN 1.19 SHOW:

**Which, if any, of the following DID YOU WEAR when handling or removing this asbestos?**

*Please select all that apply.*

MULTIPLE RESPONSE, EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-6

1. Disposable coveralls
2. Gloves
3. A dust mask
4. A P2 or P3 respirator
5. Enclosed safety footwear
6. Safety goggles
99. None of these

1.23 IF 1 IN 1.19 SHOW:

**Which, if any, of the following DID YOU DO when handling or removing this asbestos?**

*Please select all that apply.*

MULTIPLE RESPONSE, EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-12

1. Used power tools
2. Placed any bolts or fixings or small pieces of asbestos in an asbestos-waste container
3. Thoroughly wet down the area before and regularly during removal
4. Avoided contact with the asbestos containing material
5. Avoided or minimized breaking or damaging any of the material
6. Double-wrapped larger pieces of material in plastic sheeting or placed it in asbestos waste bags
7. Labelled all wrapped or bagged material, or put on warning stickers
8. Decontaminated the area afterwards
9. Decontaminated any reusable items
10. Disposed of any disposable clothing items
11. Undertook personal decontamination
12. Removed any mask or respirator before decontamination
99. None of these

1.24 IF 1 IN 1.6 SHOW

**Thinking about the most recent time you encountered asbestos while working on a residential property, which of the following, if any, were challenges you encountered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-21

1. Difficulty knowing the right actions to take legally
2. Difficulty knowing the safest actions to take
3. Not knowing who to get trusted information from
4. Not knowing how to find the right people to do the work
5. Not knowing who should be doing the work
6. Having to get quotes
7. The cost of removal of asbestos

8. The cost of disposal of asbestos
9. Conflicting advice from different sources
10. Loss of profits from having to deal with unexpected hazardous materials
11. Not being able to do it myself
12. The time it took to do the work
13. The homeowners losing access to the area the asbestos was located while work was done
14. Inconvenience of the residents having to move out of the property while work was done
15. Cost of the residents having to move out of the property while work was done
16. The stress of having to deal with hazardous materials that might harm your health or the health of others
17. The possibility of getting caught doing something illegal
18. Difficulty with neighbours who were concerned about asbestos on the property and/or how it was being managed
19. Managing unrealistic or unsafe expectations of the homeowners
20. Managing unrealistic or unsafe expectations from my boss
21. Nearest asbestos disposal facility was too far away
22. Other challenges (please specify)
23. None of these/no challenges experienced

1.25 SHOW ALL PROFESSIONALS

[dAUDIENCE = 1 AND dAUDIENCE ≠ 2]

**Have you undertaken any of the following training?**

MULTIPLE RESPONSE, EXCEPT IF 'NO TRAINING' SELECTED

1. Formal training - Asbestos Awareness training
2. Formal training - Course in working safely with asbestos containing materials
3. Formal training - Course in identification and awareness of asbestos containing materials
4. Formal training - Supervise asbestos removal
5. Formal training - Remove Friable asbestos
6. Formal training - Remove non-Friable asbestos
7. Formal training - Conduct asbestos assessment associated with removal
8. Informal training on asbestos identification
9. Informal training on asbestos removal and disposal
10. Other asbestos-related training (please specify)
99. No asbestos-related training

1.26 IF ANY 1-10 SELECTED IN 1.25 SHOW:

**When did you most recently complete any training on asbestos?**

SINGLE RESPONSE

1. Less than 12 months ago
2. Between 1 and 3 years ago
3. Between 3 and 5 years ago
4. Between 5 and 10 years ago
5. More than 10 years ago
98. Don't know

1.27 SHOW ALL PROFESSIONALS EXCEPT IF S6=20 [LICENSED ASSESSORS AND REMOVALISTS]  
 [dAUDIENCE = 1 AND dAUDIENCE ≠ 2]

Please indicate how much you agree or disagree with the following statements

SINGLE RESPONSE FOR EACH ROW

RANDOMISE ORDER OF A-J

	STATEMENT	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
a	I know what to do if asbestos is identified on a building, renovation or demolition site	1	2	3	4	5
b	I feel comfortable to raise the costs of asbestos removal and disposal with clients	1	2	3	4	5
c	I have enough information about asbestos to make informed decisions on a job site	1	2	3	4	5
d	I have had sufficient training to be able to identify and manage asbestos on a job site	1	2	3	4	5
e	I am concerned about the health and safety risks of being potentially exposed to asbestos on a job site	1	2	3	4	5
f	My organisation takes its legal obligations very seriously in relation to asbestos	1	2	3	4	5
g	[SHOW IF 1 OR 4 AT 1.2 EMPLOYEE OR HAS STAFF] All staff in my organisation are discouraged from taking risks in relation to asbestos	1	2	3	4	5
h	I am concerned about potentially doing something illegal when it comes to handling or disposing of asbestos	1	2	3	4	5
i	In reality, the correct handling of asbestos doesn't always happen on a job	1	2	3	4	5
j	Time and cost pressures sometimes get in the way of safety at work	1	2	3	4	5

**MODULE 1a: SPECIFIC QUESTIONS FOR ASBESTOS SPECIALISTS**

1.28 IF dAUDIENCE=2, SHOW:

**Are you a:**

MULTIPLE RESPONSE

- 1. Licensed asbestos assessor
- 2. Licensed asbestos removalist

1.29 IF 2 IN 1.28, SHOW:

**Which of the following licenses do you hold:**

MULTIPLE RESPONSE

- 1. Class A asbestos removal licence (allows licence holder to remove friable asbestos and non-friable asbestos and asbestos contaminated dust (ACD)).
- 2. Class B asbestos removal licence (allows a licence holder to remove non-friable asbestos and ACD associated with the removal of non-friable asbestos)

1.30 IF 1 IN 1.28, SHOW:

**Thinking about your work in residential properties (including freestanding and attached dwellings, and strata units) over the last year, roughly what proportion of the assessments you completed were...**

(Doesn't need to add to, but can't be more than, 100)

Assessments	% of work in last 12 months
a. Ordered as part of the purchase of a residential property	
b. Ordered by a homeowner planning work on their home prior to work commencing	
c. Ordered once suspected asbestos had been encountered (before it was disturbed)	
d. Ordered after suspected asbestos had been damaged or disturbed	
e. Ordered as part of an Asbestos Control Removal Plan	

1.31 IF 2 IN 1.28, SHOW:

**Thinking about your work in residential properties over the last year, roughly what proportion of your work included...**

(Doesn't need to add to, but can't be more than, 100)

Removals	% of work in last 12 months
a. The removal of amounts of asbestos less than 10m squared	
b. The removal of amounts of asbestos greater than 10m squared	
c. The removal of friable asbestos	

1.32 SHOW ALL PROFESSIONALS, INCLUDING ASSESSORS AND REMOVALISTS [dAUDIENCE = 1 or 2]

**Which, if any, of the following do you think prevent homeowners from engaging licensed asbestos specialists to ASSESS their properties for asbestos containing materials**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-16

1. Cost of assessment too high
2. Concern it will delay any planned maintenance and improvement works
3. Concern it will lower the value of their property if found
4. Don't believe asbestos could be in or on their property
5. Don't think about asbestos at all as part of renovation work or maintenance work
6. Believe they can identify asbestos by sight
7. Not required under law to undertake assessment
8. Poor understanding of asbestos and in what state it can be harmful
9. Insufficient concern about the health and safety risks of asbestos
10. They assume pre-purchase building inspections include asbestos assessment
11. Poor or conflicting advice from tradespeople/building professionals
12. Poor or conflicting advice from family or friends
13. Inconvenience or cost of having to deal with asbestos once found
14. Not knowing who can identify asbestos
15. Not knowing enough about what a licensed asbestos assessor does
16. Size of job perceived to be too small to warrant engaging specialist
17. Other (please specify)

1.33 SHOW ALL PROFESSIONALS, INCLUDING ASSESSORS AND REMOVALISTS [dAUDIENCE = 1 or 2]

**Which, if any, of the following do you think prevent homeowners from engaging licensed asbestos specialists to REMOVE asbestos containing materials when they are discovered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-16

1. Asbestos disposal facility is too far away
2. Cost of removal too high
3. Cost of disposal too high

4. Concern it will delay maintenance and improvement works
5. Size of job perceived to be too small to warrant engaging specialist
6. Believe they have sufficient skills/experience to remove it themselves
7. Not always required under law
8. Poor understanding of asbestos and in what conditions it can be harmful
9. Insufficient concern about the health and safety risks of asbestos
10. Insufficient awareness of the penalties for improper removal
11. Poor or conflicting advice from tradespeople/building professionals
12. Poor or conflicting advice from family or friends
13. Current penalties for improper removal not a large enough deterrent
14. Not knowing who should be removing the asbestos
15. Not knowing enough about what a licensed asbestos removalist does
16. Assume contractors/tradespeople/handymen can do it/will handle it for them
17. Other (please specify)

1.34 SHOW ALL PROFESSIONALS, INCLUDING ASSESSORS AND REMOVALISTS [dAUDIENCE = 1/2]

**Which of the following do you believe prevent building tradespeople from engaging licensed asbestos assessors or removalists?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-21

1. Asbestos disposal facilities too far away
2. Cost of assessment too high
3. Cost of removal too high
4. Cost of disposal too high
5. Concern it will delay maintenance and improvement works
6. Size of job perceived to be too small to warrant engaging specialist
7. Believe they have sufficient skills/experience to identify and/or remove it themselves
8. Not always required under law
9. Poor understanding of asbestos and in what conditions it can be harmful
10. Insufficient concern about the health and safety risks of asbestos
11. Insufficient awareness of the penalties for improper removal
12. Current penalties for improper removal not a large enough deterrent
13. Haven't provided for it in quotes or cost-estimates
14. Inconvenience or cost of having to deal with asbestos once found
15. Poor or conflicting advice from different sources
16. Not knowing who can identify asbestos
17. Not knowing enough about what a licensed asbestos assessor does
18. Not knowing who should be removing asbestos
19. Not knowing enough about what a licensed asbestos removalist does
20. Uncomfortable raising it with clients
21. Unrealistic or unsafe client expectations prevent doing it properly
22. Other (please specify)

## MODULE 2. HOMEOWNER RENOVATION EXPERIENCES

The following questions are about your actual experiences with renovating, maintaining and improving your property.

ASK IF DIY/RENOVATOR dAUDIENCE = 3

### 2.1 Which of these activities have/will your renovations, maintenance work or home improvements involve/d?

MULTIPLE RESPONSE OKAY IN EACH COLUMN, EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF ROWS 1-10

	<b>COLUMN A Completed in last 2 years SHOW IF 1 'yes' FOR a IN S12</b>	<b>COLUMN B Currently underway SHOW IF 1 'yes' FOR b IN S12</b>	<b>COLUMN C Planned for next 2 years SHOW IF 1 'yes' FOR c IN S12</b>
1. Doing maintenance on or making internal structural changes to walls or ceilings, including windows and mouldings	1	1	1
2. Making changes to floors including the removal of existing flooring e.g. carpet, tiles, vinyl or linoleum flooring	2	2	2
3. Installation or removal of insulation in the ceiling, walls or floor	3	3	3
4. Changes to or demolition of external structures like garages, carports, sheds or fences	4	4	4
5. Changes to roofing, external cladding, eaves or gutters and downpipes, including replacement	5	5	5
6. Removal (e.g. sanding, scraping) of ceiling or wall coatings for resurfacing or painting	6	6	6
7. Changes to bathrooms, toilets, laundry or kitchen, including removal or replacement of tiles, stoves, fireplaces	7	7	7
8. Repair or replacement of pipes, plumbing or drainage	8	8	8

9. Maintenance, repair, replacement or relocation of fuse boxes or electrical wiring	9	9	9
10. Maintenance or replacement of windows or doors	10	10	10
11. None of these	99	99	99

IF ANY OF 1-10 IN COLUMNS A-C, CONTINUE.

IF NONE OF 1-10 IN ALL COLUMNS A-C ABOVE, SKIP TO Q2.21.

EACH PARTICIPANT ANSWERS MODULE 2 FOR EITHER PAST, CURRENT, OR PLANNED RENOVATION/MAINTENANCE/IMPROVEMENTS. SELECTED AS FOLLOWS:

1. IF ANSWER 1-10 IN ONLY ONE COLUMN A-C IN Q2.1, THEY ANSWER FOR THOSE RENOVATIONS (i.e. COMPLETED OR CURRENT OR PLANNED)
2. IF ANSWER 1-10 FOR MORE THAN ONE COLUMN A-C IN Q2.1, THEN THE ORDER OF SELECTION IS:
  - a. FIRST, CURRENTLY UNDERWAY (1-10 IN COLUMN B)
  - b. SECOND, COMPLETED IN LAST 2 YEARS (1-10 IN COLUMN A)
  - c. THIRD, PLANNED FOR NEXT 2 YEARS (1-10 IN COLUMN C)

**dRENO\_STATUS: HIDDEN QUESTION:**

1. COMPLETED
2. CURRENT
3. PLANNED

FOR THE REST OF THIS SECTION, PIPE QUESTION WORDING TO REFLECT THE TENSE OF THE HIDDEN QUESTION (PAST/PRESENT/FUTURE TENSE).

For the next lot of questions, please think specifically about your experiences with the [PIPE WORDING BASED ON HIDDEN QUESTION [PIPE TEXT IF dRENO\_STATUS=1: recently completed/IF dRENO\_STATUS=2: currently underway/ IF dRENO\_STATUS=3: planned] renovation, maintenance work or improvements involving: [PIPE IN RESPONSES 1-10 MENTIONED IN 2.1]

## 2.2 PIPE WORDING BASED ON HIDDEN QUESTION CODE

**Which of these things** [PIPE TEXT IF dRENO\_STATUS=1: **did you consider/** PIPE TEXT IF dRENO\_STATUS=2: **have you considered/** PIPE TEXT IF dRENO\_STATUS=3: **are you considering**] **as part of planning for this renovation, maintenance or improvement work?**

MULTIPLE RESPONSE EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-10

1. The impact on the value of the property
2. How much of the work we can do ourselves
3. Whether or not to live in the property while the work is happening
4. Our safety during the work
5. Managing unexpected cost increases
6. Managing unexpected delays
7. The licences and certifications held by tradespeople doing any or all of the work
8. Whether hazardous materials in or on the property might be a problem

- 9. How any waste or surplus materials would be disposed of
- 10. Our safety after the work
- 99. None of these

2.2a IF COMPLETED OR CURRENT AT HIDDEN QUESTION – IE SHOW IF dRENO\_STATUS = 1 OR 2

**How long did the planning process take for this renovation, maintenance or improvement work, from when you first started thinking about it, to when the work actually began?**

IF PLANNED AT HIDDEN QUESTION - IE SHOW: IF dRENO\_STATUS = 3

**How long do you expect it will be from when you first started thinking about this renovation, maintenance or improvement work to when the work will actually begin?**

Please enter total number of months

ENSURE TWO DIGIT NUMBER BETWEEN 00 AND 99 IS ENTERED

2.3 PIPE WORDING BASED ON HIDDEN QUESTION CODE

**What proportion of this work [PIPE TEXT IF dRENO\_STATUS=1 was/ IF dRENO\_STATUS=2 is being/ IF dRENO\_STATUS=3 will be] done by:**

If unsure, please estimate.

Person/people/worker	% of work
a. Me	
b. My partner	
c. Family/friends	
d. Tradespeople or building professionals	
[AUTOCALCULATE] Total (MUST ADD TO 100%)	

2.4 PIPE WORDING BASED ON HIDDEN QUESTION CODE

**Still thinking specifically about your [PIPE TEXT IF dRENO\_STATUS=1: recently completed/IF dRENO\_STATUS=2 current/ IF dRENO\_STATUS=3: planned] renovation, maintenance work or improvements involving:**

[PIPE IN RESPONSES 1-10 MENTIONED IN 2.1]

**Which of the following has happened during the planning phase for this work on your property (that is, before the work began)?**

MULTIPLE RESPONSE EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-8

1. I/we considered potential health risks of exposure to hazardous materials like asbestos
2. I/we personally checked to see if hazardous materials such as asbestos were/are present
3. I/we got an asbestos assessment from a licensed assessor
4. I/we considered the cost implications if asbestos was found
5. I/we discussed with family/friends the implications if asbestos was found
6. I/we discussed with neighbours the implications if asbestos was found
7. I/we got information from the local council about the potential for hazardous materials like asbestos
8. I/we got information from NSW EPA or SafeWork NSW about the management of hazardous materials like asbestos
99. None of these

2.4a IF 1-8 IN 2.4 SHOW

**What prompted you to consider asbestos in your planning for this work?**

Please select all that apply.

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-9

1. Knowing that asbestos was present in my property
2. Suspecting asbestos might be present in my property
3. Neighbours having asbestos in/on their property or telling me I might have it in mine
4. Family or friends having asbestos in/on their property
5. Family or friends raising the possibility I might have asbestos in my property
6. Me or someone close to me being diagnosed with an asbestos-related illness
7. Media coverage of asbestos or asbestos-related illness (e.g. James Hardie cases or other coverage)
8. Coming across information on asbestos while researching or planning the work
9. Local council informing me I might have asbestos in my property
10. Other (Please specify)

2.5 IF COMPLETED OR CURRENT AT HIDDEN QUESTION (IF dRENO\_STATUS=1 or 2) AND >0% FOR D IN 2.3 SHOW:

**Which of the following [PIPE TEXT IF: dRENO\_STATUS =1: happened/ IF: dRENO\_STATUS =2: have happened] in relation to tradespeople/professionals involved in this work on your property?**

MULTIPLE RESPONSE, EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-7

1. I/we were/are on site to supervise them
2. I/we spoke/speak with them regularly to discuss any issues arising
3. I/we initiated a conversation about hazardous materials like asbestos before the work started
4. They discussed the potential health risks of discovering hazardous materials like asbestos with me/us
5. They mentioned the potential costs of discovering hazardous materials like asbestos to me/us
6. They suggested to me/us an asbestos assessment from a licensed assessor
7. They asked me/us if asbestos was/is present in/on the property
99. None of these

2.6 IF COMPLETED OR CURRENT AT HIDDEN QUESTION (IF dRENO\_STATUS=1 or 2) SHOW:

**Still thinking specifically about your [PIPE TEXT IF: dRENO\_STATUS =1: recently completed/ IF: dRENO\_STATUS =2: current] renovation, maintenance work or improvements involving:**

[PIPE IN RESPONSES 1-10 MENTIONED IN 2.1]

**Was there any asbestos encountered at your property during this work?**

SINGLE RESPONSE

1. Yes
2. No/not yet
98. Don't know

2.7 IF 1 IN 2.6 SHOW:

**Where was this asbestos located?**

MULTIPLE RESPONSE

1. Air-conditioning system/s
2. Around hot water pipes
3. Around or behind tiles
4. Ceiling or wall insulation
5. Cement sheeting used in walls or ceilings, including windows and mouldings
6. Concrete slab or foundations
7. Corrugated cement roofing
8. Eaves
9. External cladding e.g. imitation or artificial brick
10. Fences
11. Flooring e.g. tiles, vinyl floor tiling, carpet underlay, or linoleum flooring
12. Fuse boxes or electrical equipment
13. Garage surfaces and or walls
14. Garages, carports, sheds
15. Garden sheds
16. Insulation in stoves and fireplaces
17. Insulation in the ceiling, walls or floor
18. Other bathroom, toilet, laundry or kitchen
19. Pipes, plumbing or drainage
20. Roof gutters and downpipes
21. Soil or in the garden
22. Textured paint/coating
23. Windows or doors
24. Other places or types of asbestos containing material (please specify)

2.7a IF 1 IN 2.6 SHOW:

**And what type/s of asbestos material was encountered:**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

RANDOMISE ORDER OF 1-2

1. Bonded with other material like cement, resin, putty or adhesive (such as in fibro sheeting, or tile adhesive)
2. In loose or powdered form (such as asbestos ceiling or pipe insulation)
98. Don't know

2.8 IF 1 IN 2.7a SHOW:

**How much bonded asbestos was encountered in total?**

SINGLE RESPONSE

1. Small or isolated pieces
2. Larger or multiple amounts, but less than 10 square metres
3. Larger amounts more than 10 square metres
98. Don't know

2.9 IF 1 in 2.7a SHOW:

**Which of the following describes the condition the bonded asbestos was in?**

Please select all that apply

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-3

1. In good condition with no obvious damage
2. Cut, punctured, broken or damaged
3. Crumbling or able to be crumbled easily with light pressure
98. Don't know

2.10 IF 1 IN 2.6 SHOW:

**How was this asbestos discovered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-8

1. I/we already knew asbestos was there
2. I, my family or friends discovered it before starting work
3. I, my family or friends discovered it while working on my property
4. By a licensed asbestos assessor during an assessment
5. By a tradesperson, handyperson or building professional before starting work on the property
6. By a tradesperson, handyperson or building professional while working on the property
7. Neighbours approached me/us or council regarding my work and the possibility of asbestos
8. Identified during development application
9. Other (please specify)

2.11 IF 1 IN 2.6 SHOW:

**Which of the following did you do when the asbestos was encountered, before taking any action?**

Please select all that apply.

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-8

1. Sought advice from tradespeople/building professionals/handy people working on the property
2. Sought advice from family or friends
3. Sought advice from neighbours
4. Sought advice from local council
5. Sought advice from another government body
6. Notified local council
7. Notified another authority such as EPA or Safework
8. Notified the Principal Certifying Authority (that is, the 'private certifier' or local council)
99. None of the above
98. Don't know

2.12 IF 1 IN 2.6 SHOW:

**In deciding what actions, if any, to take with the asbestos, which of these did you consider?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-22

1. The condition of the asbestos e.g. intact, broken or damaged
2. Scaring or alarming my family and or friends
3. Making my family or friends sick
4. Making myself sick
5. Impact on the property's re-sale value if asbestos was discovered
6. Existing knowledge, experience or skills I had dealing with asbestos
7. Whether a licensed asbestos removalist was needed
8. Whether I knew enough about what a licensed asbestos removalist does
9. The likely cost of removal
10. The likely cost of disposal
11. The impact on the timeline for the project
12. Advice of tradespeople/building professionals
13. Advice of friends/family
14. Advice of a licensed asbestos assessor or removalist
15. A quote for removal
16. A quote for disposal
17. How safe or unsafe I thought it would be to remove the asbestos
18. The location of the asbestos
19. Losing access to the room or space while work was done
20. Any legal requirements relating to removing and disposing of asbestos
21. Getting advice from council or government
22. Undertaking a training program to learn about removal and disposal of asbestos
23. Other consideration (please specify)

2.12a IF 1 IN 2.6 SHOW:

Was any of this asbestos...?

MULTIPLE RESPONSE, BUT MUST GIVE AN ANSWER

1. Left in place where it was encountered
2. Removed or moved from where it was encountered
3. Don't know

2.13 IF 1 IN 2.6 SHOW:

**Which, if any, of the following happened in relation to this asbestos?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-7

1. Notification signs were put up
2. The area where the asbestos was located was isolated or cordoned off
3. All people living in the property moved out temporarily
4. People living in the property wore protective gear
5. Anyone handling the asbestos wore protective gear
99. None of these
98. Don't know

2.14 IF 1 IN 2.12a SHOW

**You said asbestos was left in place, was it ...?**

SINGLE RESPONSE

1. Left as it was found
2. Covered or blocked off in another way
3. Painted or coated in another way
99. None of these
98. Don't know

2.15 IF 2 in 2.12a SHOW

**Which, if any, of the following happened with asbestos that was removed?**

MULTIPLE RESPONSE

RANDOMISE 1-7

1. It was wrapped/sealed up
2. It was left on the property
3. It was disposed of by burying it on the property
4. It was disposed of in a residential garbage, recycling or green bin
5. It was disposed of through a council pick-up/clean-up
6. It was taken from the property to be disposed of in some other way
7. I received a receipt for the asbestos waste disposal
98. Don't know
99. None of these

2.16 IF 1 IN 2.6 SHOW

**Which of the following, if any, were used when dealing with the asbestos?**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED AND NONE OF THESE

RANDOMISE ORDER OF 1-11

1. Dust mask
2. Respirator
3. Protective clothing such as coveralls
4. Gloves
5. Covered shoes/workboots
6. Drop sheets
7. High-pressure hose
8. Normal garden hose or other lower pressure hose
9. Exhaust or extraction fan
10. Vacuum cleaner
11. Power tools
98. None of these
99. Don't know

2.17 IF 2 IN 2.12a SHOW

**Who removed the asbestos?**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

1. I did
2. A friend or family member
3. A home handyman
4. A tradesperson or building professional
5. A licensed asbestos removalist
6. Someone else (please specify)
98. Don't know

2.18 IF ANY OF 3-6 IN 2.15 SHOW:

**Who disposed of the asbestos?**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

1. I did
2. A friend or family member
3. A home handyman
4. A tradesperson or building professional
5. A licensed asbestos removalist
6. Someone else (please specify)
98. Don't know

2.18a IF 5 IN 2.17 OR 5 IN 2.18 SHOW:

**Did you receive a clearance certificate from the licensed asbestos removalist who removed and/or disposed of the asbestos?**

1. Yes
2. No
98. Don't know

2.19 IF 4 OR 5 AT 2.15 SHOW:

**You mentioned asbestos you encountered during this work was disposed of in a residential bin or through a council pick-up, to the best of your knowledge, why was this done?**

Please provide as much detail as possible

[OPEN-ENDED RESPONSE]

2.19a IF 3 AT 2.15 SHOW:

**You mentioned asbestos you encountered during this work was buried at the property, to the best of your knowledge, why was this done?**

Please provide as much detail as possible

[OPEN-ENDED RESPONSE]

2.20 ASK IF 1 AT 2.6

**Thinking about your experience with the asbestos encountered during this work on your property, which of the following, if any, were challenges you encountered?**

MULTIPLE RESPONSE EXCEPT IF 99 (NONE OF THESE) SELECTED.

RANDOMISE 1-19

1. Difficulty knowing the right actions to take legally
2. Difficulty knowing the safest actions to take
3. Not knowing who to get trusted information from
4. Not knowing how to find the right people to do the work
5. Not knowing who should be doing the work
6. Having to get quotes
7. The cost of removal of asbestos
8. The cost of disposal of asbestos
9. Conflicting advice from tradespeople/building professionals
10. Conflicting advice of family or friends
11. Not being able to do it myself
12. The time it took to do the work
13. Losing access to the area the asbestos was located while work was done
14. Inconvenience of having to move out of the house while work was done
15. Cost of having to move out of the house while work was done
16. The stress of having to deal with hazardous materials that could be harmful to health
17. The possibility of getting caught doing something illegal
18. Difficulty with neighbours concerned about asbestos on the property and/or how it was managed
19. Nearest asbestos disposal facility was too far away
20. Other challenges (please specify)
99. None of these/no challenges experienced

2.21 ASK IF PEOPLE OWN A HOME BUILT BEFORE 1990 WHO DID NOT ANSWER ASBESTOS QUESTIONS ABOVE SHOW 2.21 IF (S11 = 2,3 OR 4) AND NOT (2.6 = 1)

[(IF S11=2, 3 OR 4 AND S12 A, B AND C ALL EQUAL 2) OR (IF S11=2, 3 OR 4 AND 2.6=2 OR 98) OR (IF S11=2, 3 OR 4 AND 2.1A, B AND C = 99 (none))]

**In the last 2 years, have you encountered any asbestos on or in your property?**

SINGLE RESPONSE

1. Yes
2. No/not yet

2.22 IF 1 IN 2.21 SHOW:

**Where was this asbestos located?**

MULTIPLE RESPONSE

1. Air-conditioning system/s
2. Around hot water pipes
3. Around or behind tiles
4. Ceiling or wall insulation
5. Cement sheeting used in walls or ceilings, including windows and mouldings
6. Concrete slab or foundations
7. Corrugated cement roofing
8. Eaves
9. External cladding e.g. imitation or artificial brick
10. Fences
11. Flooring e.g. tiles, vinyl floor tiling, carpet underlay, or linoleum flooring
12. Fuse boxes or electrical equipment
13. Garage surfaces and or walls
14. Garages, carports, sheds
15. Garden sheds
16. Insulation in stoves and fireplaces
17. Insulation in the ceiling, walls or floor
18. Other bathroom, toilet, laundry or kitchen
19. Pipes, plumbing or drainage
20. Roof gutters and downpipes
21. Soil or in the garden
22. Textured paint/coating
23. Windows or doors
24. Other places or types of asbestos containing material (please specify)

2.23 IF 1 IN 2.21 SHOW:

**And what type/s of asbestos material were encountered:**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

RANDOMISE ORDER OF 1-2

1. Bonded with other material like cement, resin, putty or adhesive (such as in fibro sheeting, or tile adhesive)
2. In loose or powdered form (such as asbestos ceiling or pipe insulation)
98. Don't know

2.24 IF 1 IN 2.23 SHOW:

**How much bonded asbestos was involved, in total?**

SINGLE RESPONSE

1. Small or isolated pieces
2. Larger or multiple amounts but less than 10 square metres
3. Larger amounts more than 10 square metres
98. Don't know

2.25 IF 1 in 2.23 SHOW

**Which of the following describes the condition the bonded asbestos was in?**

Please select all that apply

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-3

1. In good condition with no obvious damage
2. Cut, punctured, broken or damaged
3. Crumbling or able to be crumbled easily with light pressure
98. Don't know

2.26 IF 1 IN 2.21 AND NOT A PROFESSIONAL [dAUDIENCE ≠ 1 OR 2] SHOW:

**How was this asbestos discovered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-7

1. I, my family or friends discovered it before starting work on my property
2. I, my family or friends discovered it while working on my property
3. By a licensed asbestos assessor during an assessment
4. By a tradesperson, handyperson or building professional before starting work on the property
5. By a tradesperson, handyperson or building professional while working on the property
6. Neighbours approached me/us or council regarding my work and the possibility of asbestos
7. Identified during development application
8. Other (please specify)

2.27 IF 1 IN 2.21 AND NOT A PROFESSIONAL [dAUDIENCE ≠ 1 OR 2] SHOW:

**Which of the following did you do when the asbestos was encountered?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-8

1. Sought advice from tradespeople/building professional/handypeople working on the property
2. Sought advice from family or friends
3. Sought advice from neighbours
4. Sought advice from local council
5. Sought advice from another government body
6. Notified local council
7. Notified another authority such as EPA or Safework
8. Notified the Principal Certifying Authority (that is, the 'private certifier' or local council)
9. None of these
10. Don't know

2.28 IF 1 IN 2.21 AND NOT A PROFESSIONAL [dAUDIENCE ≠ 1 OR 2] SHOW:

**In deciding what actions, if any, to take with the asbestos, which of these did you consider?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-22

1. The condition of the asbestos e.g. intact, broken or damaged
2. Scaring or alarming my family and or friends
3. Making my family or friends sick
4. Making myself sick
5. Impact on the property's re-sale value if asbestos was revealed
6. Existing knowledge, experience or skills I had dealing with asbestos
7. Whether a licensed asbestos removalist was needed
8. Whether I knew enough about what a licensed asbestos removalist does
9. The likely cost of removal
10. The likely cost of disposal
11. The impact on the timeline for the project
12. Advice of tradespeople/building professionals
13. Advice of friends/family
14. Advice of a licensed asbestos assessor or removalist
15. A quote for removal
16. A quote for disposal
17. How safe or unsafe I thought it would be to remove the asbestos
18. The location of the asbestos
19. Losing access to the room or space while work was done
20. Any legal requirements relating to removing and disposing of asbestos
21. Getting advice from council or government
22. Undertaking a training program to learn about removal and disposal
23. Other consideration (please specify)

2.28a IF 1 IN 2.21 AND NOT A PROFESSIONAL [dAUDIENCE ≠ 1 OR 2] SHOW:

Was any of this asbestos...?

MULTIPLE RESPONSE, BUT MUST GIVE AN ANSWER

1. Left in place where it was encountered
2. Removed or moved from where it was encountered
3. Don't know

2.29 IF 1 IN 2.21 AND NOT A PROFESSIONAL [dAUDIENCE ≠ 1/2] SHOW:

**Which, if any, of the following happened in relation to this asbestos?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-7

1. Notification signs were put up
2. The area where the asbestos was located was isolated or cordoned off
3. All people living in the property moved out temporarily
4. People living in the property wore protective gear
5. Anyone handling the asbestos wore protective gear
98. None of these
99. Don't know

2.30 IF 1 IN 2.28a SHOW

SINGLE RESPONSE

**You said that asbestos was left in place, was it...**

1. Left as it was found
2. Covered
3. Painted
4. Coated in another way
5. Enclosed or blocked off in another way
98. None of these
99. Don't know

2.31 IF 2 in 2.28a SHOW

**Which, if any, of the following happened when the asbestos was removed?**

MULTIPLE RESPONSE

RANDOMISE 1-7

1. It was wrapped/sealed up
2. It was left on the property
3. It was disposed of by burying it on the property
4. It was disposed of in a residential garbage, recycling or green bin
5. It was disposed of through a council pick-up
6. It was taken from the property to be disposed of in some other way
7. I received a receipt for the asbestos waste disposal
98. Don't know
99. None of these

2.32 IF 1 IN 2.21 AND NOT A PROFESSIONAL [dAUDIENCE ≠ 1 /2] SHOW

**Which of the following, if any, were used when dealing with any asbestos?**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

RANDOMISE ORDER OF 1-11

1. Dust mask
2. Respirator
3. Protective clothing such as coveralls
4. Gloves
5. Covered shoes/workboots
6. Drop sheets
7. High-pressure hose
8. Normal garden hose or other lower pressure hose
9. Exhaust or extraction fan
10. Vacuum cleaner
11. Power tools
98. Don't know
99. None of these

2.33 IF 7 in 2.29 SHOW:

**Who removed this asbestos?**

MULTIPLE RESPONSE

1. I/we did
2. A friend or family member
3. A home handyperson
4. A tradesperson or building professional
5. A licensed asbestos removalist
6. Someone else (please specify)
98. Don't know

2.34 IF ANY OF 3-6 IN 2.31 SHOW:

**Who disposed of the asbestos?**

MULTIPLE RESPONSE

1. I/we did
2. A friend or family member
3. A home handyperson
4. A tradesperson or building professional
5. A licensed asbestos removalist
6. Someone else (please specify)
98. Don't know

2.34a IF 5 IN 2.33 OR 5 IN 2.34 SHOW:

**Did you receive a clearance certificate from the licensed asbestos removalist who removed and/or disposed of the asbestos?**

1. Yes
2. No
98. Don't know

2.35 IF 4 OR 5 IN 2.31 SHOW:

**You mentioned asbestos you have encountered in the last two years was disposed of in a residential bin, or through a council pick-up. To the best of your knowledge, why was this done?**

Please provide as much detail as possible

[OPEN-ENDED RESPONSE]

2.35a IF 3 AT 2.31 SHOW:

**You mentioned asbestos you encountered during this work was buried at the property, to the best of your knowledge, why was this done?**

Please provide as much detail as possible

[OPEN-ENDED RESPONSE]

2.36 ASK IF 1 AT 2.21 AND NOT EQUAL TO PROFESSIONAL (dAUDIENCE≠1 AND 2)

**Thinking about your experience with asbestos encountered on your property in the last two years...**

**Which of the following, if any, were challenges you encountered?**

**MULTIPLE RESPONSE**

**RANDOMISE 1-19**

1. Difficulty knowing the right actions to take legally
2. Difficulty knowing the safest actions to take
3. Not knowing who to get trusted information from
4. Not knowing how to find the right people to do the work
5. Not knowing who should be doing the work
6. Having to get quotes
7. The cost of removal of asbestos
8. The cost of disposal of asbestos
9. Conflicting advice from tradespeople/building professionals
10. Conflicting advice of family or friends
11. Not being able to do it myself
12. The time it took to do the work
13. Losing access to the area the asbestos was located while work was done
14. Inconvenience of having to move out of the house while work was done
15. Cost of having to move out of the house while work was done
16. The stress of having to deal with hazardous materials that could be harmful to health
17. The possibility of getting caught doing something illegal
18. Difficulty with neighbours who were concerned about asbestos on the property and/or how it was being managed
19. Nearest asbestos disposal facility was too far away
20. Other challenges (please specify)
98. None of these/no challenges experienced

## MODULE 2a: SPECIFIC QUESTIONS FOR UNPAID HANDYPEOPLE

2.37 IF UNPAID HANDY PERSON (dAUDIENCE = 4) SHOW:

**When helping friends or family members with renovations, maintenance or improvement projects on their property, which of these things do you typically consider when planning for this work?**

MULTIPLE RESPONSE, EXCEPT IF 'NONE OF THESE' SELECTED

RANDOMISE ORDER OF 1-11

1. How much of the work I or we can do without paid professionals
2. Whether I have the appropriate training, skills or experience to take on the tasks that will be required
3. My safety during the work
4. The safety of my family and friends who live in the house during the work
5. The safety of anyone else helping out on the work
6. How I can help my friends/family minimise the cost of the work
7. The licences and certifications held by tradespeople doing any of the work
8. Whether hazardous materials might be a problem during the work
9. How any waste or surplus materials would be disposed of
10. Friends'/family's safety after the work
11. How much of my time it will take to do the work
99. None of these

2.38 IF UNPAID HANDY PERSON (dAUDIENCE = 4) SHOW:

**In the last 2 years, before starting work on friends' or family members' home renovations, maintenance or improvement projects, have you and the homeowners ever discussed the possibility of encountering or having to deal with asbestos?**

SINGLE RESPONSE

1. Yes
2. No
3. I have not done unpaid work on any friends' or family members' home renovations, maintenance or improvement projects in the last two years
98. Don't know

2.39 IF UNPAID HANDY PERSON (dAUDIENCE = 4) AND 1, 2, OR 98 at 2.38 SHOW:

**In the last 2 years, have you encountered any asbestos when working on friends' or family members' home renovations, maintenance or improvement projects?**

SINGLE RESPONSE

1. Yes
2. No

2.40 IF 1 IN 2.39 SHOW:

**Were you involved at all in decisions regarding what action to take with asbestos that was encountered?**

SINGLE RESPONSE

1. Yes
2. No

2.41 IF 1 IN 2.40 SHOW:

**In deciding what actions, if any, to take with asbestos encountered when working on friends' or family members' home renovations, maintenance or improvement projects, which of these did you personally consider?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-22

1. The condition of the asbestos e.g. intact, broken or damaged
2. Scaring my family and or friends
3. Making my family or friends sick
4. Making myself sick
5. Impact on the property's re-sale value if asbestos was revealed
6. Existing knowledge, experience or skills I had dealing with asbestos
7. Whether a licensed asbestos removalist was needed
8. Whether I knew enough about what a licensed asbestos removalist does
9. The likely cost of removal
10. The likely cost of disposal
11. The impact on the timeline for the project
12. Advice of tradespeople/building professionals
13. Advice of friends/family
14. Advice of a licensed asbestos assessor or removalist
15. A quote for removal
16. A quote for disposal
17. How safe or unsafe I thought it would be to remove the asbestos
18. The location of the asbestos
19. Losing access to the room or space while work was done
20. Any legal requirements relating to removing and disposing of asbestos
21. Getting advice from council or government
22. Undertaking a training program to learn about removal and disposal of asbestos
23. Other consideration (please specify)

2.41a IF 1 IN 2.39 SHOW:

Was any of this asbestos...?

MULTIPLE RESPONSE, BUT MUST GIVE AN ANSWER

1. Left in place where it was encountered
2. Removed or moved from where it was encountered
3. Don't know

2.42 IF 1 IN 2.39 SHOW:

**Which, if any, of the following happened in relation to asbestos encountered when working on friends' or family members' home renovations, maintenance or improvement projects in the last two years?**

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-7

1. Notification signs were put up
2. The area where the asbestos was located was isolated or cordoned off
3. All people living in the property moved out temporarily
4. People living in the property wore protective gear

5. Anyone handling the asbestos wore protective gear
6. Asbestos was left in place
7. Asbestos was removed
99. None of these
98. Don't know

2.43 IF 1 AT 2.41a SHOW:

SINGLE RESPONSE

**You said asbestos you encountered when working on friends' or family members' home renovations, maintenance or improvement projects in the last two years was left in place.**

**Was this asbestos...**

1. Left as it was found
2. Covered
3. Painted
4. Coated in another way
5. Enclosed or blocked off in another way
99. None of these
98. Don't know

2.44 IF 2 AT 2.41a SHOW:

**You said asbestos you encountered when working on friends' or family members' home renovations, maintenance or improvement projects in the last two years was removed.**

**Which, if any, of the following happened when the asbestos was removed?**

MULTIPLE RESPONSE

PRESERVE ORDER OF RESPONSES

1. It was wrapped/sealed up
2. It was left on the property
3. It was disposed of by burying it on the property
4. It was disposed of in a residential garbage, recycling or green bin
5. It was disposed of through a council pick-up
6. It was taken from the property to be disposed of in some other way
7. A receipt was received for the asbestos waste disposal
98. Don't know
99. None of these

2.45 IF 1 IN 2.39 SHOW:

**Which of the following, if any, did you use when dealing with any asbestos you encountered when working on friends' or family members' home renovations, maintenance or improvement projects in the last two years?**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW, NONE OF THESE AND 'I DID NOT PERSONALLY DEAL WITH ANY OF THE ASBESTOS' SELECTED

RANDOMISE ORDER OF 1-10

1. Dust mask
2. Respirator
3. Protective clothing such as coveralls

4. Gloves
5. Covered shoes/workboots
6. Drop sheets
  
7. High-pressure hose
8. Normal garden hose or other lower pressure hose
- 9.
10. Exhaust or extraction fan
11. Vacuum cleaner
12. Power tools
13. I did not personally deal with any of the asbestos
98. None of these
98. Don't know

2.45a IF 4 OR 5 IN 2.44 SHOW:

**You mentioned asbestos you have encountered on a friend or family member's property in the last two years was disposed of in a residential bin, or through a council pick-up. To the best of your knowledge, why was this done?**

Please provide as much detail as possible

[OPEN-ENDED RESPONSE]

2.45b IF 3 AT 2.44 SHOW:

**You mentioned asbestos you encountered on a friend or family member's property was buried at the property, to the best of your knowledge, why was this done?**

Please provide as much detail as possible

[OPEN-ENDED RESPONSE]

2.46 IF 1 IN 2.39 SHOW:

**Thinking about your experience with asbestos encountered during this work on your family or friend's property, which of the following, if any, were challenges you encountered?**

**MULTIPLE RESPONSE**

**RANDOMISE 1-20**

1. Difficulty knowing the right actions to take legally
2. Difficulty knowing the safest actions to take
3. Not knowing who to get trusted information from
4. Not knowing how to find the right people to do the work
5. Not knowing who should be doing the work
6. Having to get quotes
7. The cost of removal of asbestos
8. The cost of disposal of asbestos
9. Conflicting advice from tradespeople/building professionals
10. Conflicting advice of family or friends
11. Not being able to do it myself
12. The time it took to do the work
13. The homeowners losing access to the area the asbestos was located while work was done

14. Inconvenience of the residents having to move out of the property while work was done
15. Cost of the residents having to move out of the property while work was done
16. The stress of having to deal with hazardous materials that might harm your health or the health of others
17. The possibility of getting caught doing something illegal
18. Managing unrealistic or unsafe expectations of the homeowners
19. Difficulty with neighbours who were concerned about asbestos on the property and/or how it was being managed
20. Nearest asbestos disposal facility was too far away
21. Other challenges (please specify)
99. None of these/no challenges experienced

## MODULE 2b: MINOR MAINTENANCE MODULE

2.47 ASK IF CODES 2-4 IN S9a OR CODES 2-4 IN S11

**The following question is about minor installation, maintenance or repairs at the property where you live.**

**In the last two years, have you or has anyone in your household personally done any of the following MINOR installation, maintenance or repair tasks at the property where you live?**

(The property includes all structures such as the main dwelling, extensions, garages, outhouses, additional buildings, as well as fencing and the yard)

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-12

1. Installation, maintenance or repair work that involved making a hole or holes in any walls or ceilings
2. Any interior painting
3. Any exterior painting
4. Minor installation, maintenance or repair work that involved accessing the roof cavity
5. Minor installation, maintenance or repair work that involved accessing the sub-floor
6. Minor installation, maintenance or repair work that involved accessing behind or between walls
7. Minor electrical installation, maintenance or repair work, such as work on lighting fixtures or switches, electrical sockets, minor wiring
8. Minor plumbing installation, maintenance or repair work
9. Any work that required lifting up any flooring or floor covers, including carpets, tiles, vinyl or wood floors
10. Minor installation, maintenance or repair work on fencing
11. Minor installation, maintenance or repair work on a roof, roof tiles or guttering
12. Landscaping work or digging in the yard or garden
13. Any work that involved moving, touching or getting behind insulation in walls, ceiling or roof cavity
14. Any work involving putty around doors or windows
15. Any work involving grout around tiles, e.g. removing or replacing tiles or re-grouting
16. Any other minor, installation, maintenance or repair work around the property
99. None of these

2.48 IF ANY OF 1-16 IN 2.47 SHOW

Thinking about these minor installation, maintenance or repair tasks, how often did you or the person in your household doing these tasks do each of the following?

SINGLE RESPONSE PER ROW

DO NOT RANDOMISE ORDER OF ROWS

		Always	Sometimes	Rarely	Never	Don't know
<b>a</b>	Wore protective clothing	4	3	2	1	98
<b>b</b>	Wore a dust mask or respirator	4	3	2	1	98
<b>c</b>	Tried to minimise the amount of dust or debris created or disturbed during the work	4	3	2	1	98
<b>d</b>	Used drop sheeting or other coverings to prevent dust or debris getting onto household items	4	3	2	1	98
<b>e</b>	Considered whether there might be any materials containing asbestos in, around or under the area where you would be working	4	3	2	1	98
<b>f</b>	Checked if there might be any materials containing asbestos in, around or under the area where you would be working	4	3	2	1	98

2.49 IF 2, 3 OR 4 at 2.48E or 2.48F SHOW

**What has prompted you to consider asbestos when planning minor installation, maintenance or repair tasks around the property where you live?**

Please select all that apply

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-10

1. Had previously discovered that asbestos was present on/in the property
2. Suspected asbestos might be present on/in the property
3. Neighbours have/had asbestos in their property or told me I might have it where I live
4. Family or friends have/had asbestos in their home/on their property
5. Family or friends raised the possibility I might have asbestos on/in the property
6. I or someone close to me has been diagnosed with an asbestos-related illness
7. Media coverage of asbestos or asbestos-related illness (e.g. James Hardie case or other coverage)
8. Came across information on asbestos while researching or planning the work
9. Local council informed me there might be asbestos on/in the property
10. [IF RENTING, 2 IN S9, SHOW:] Real estate agent/landlord informed me there was asbestos on/in the property
11. Other (Please specify)

### MODULE 3. ASBESTOS ATTITUDES AND KNOWLEDGE

3.1 SHOW ALL

**To what extent do you agree or disagree with each of the following statements?**

SINGLE RESPONSE IN EACH ROW

RANDOMISE ORDER OF A-V

COM-B FACTOR (NOT SHOWN TO PARTICIPANTS)		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
PHYSICAL CAPABILITY	a. I have the skills to detect materials that could possibly contain asbestos	1	2	3	4	5
	b. I am very confident in my ability to identify situations where I, or someone else, may be at risk of exposure to asbestos	1	2	3	4	5
	c. I know how to protect myself from exposure to asbestos	1	2	3	4	5
	d. I know how to get information to help identify asbestos	1	2	3	4	5
	e. I know how to get professional help to identify asbestos	1	2	3	4	5
PSYCHOLOGICAL CAPABILITY	f. I feel fully informed about asbestos and its related dangers	1	2	3	4	5

	g. Anyone renovating an older home needs to be careful of encountering asbestos	1	2	3	4	5
	h. I would have no idea how to go about dealing with any asbestos that may be in my own home	1	2	3	4	5
	i. I am confident that I would know if asbestos has been removed safely	1	2	3	4	5
	j. I am confident that I would know if asbestos has been removed legally	1	2	3	4	5
PHYSICAL OPPORTUNITY	k. I would pay for specialist advice if I was unsure something contained asbestos	1	2	3	4	5
	l. I would not be willing to pay for a specialist to remove small amounts of asbestos if they were found on my property	1	2	3	4	5
	m. I imagine it would cost a lot of money to remove and dispose of asbestos the way you are supposed to	1	2	3	4	5
	n. If I needed asbestos removed, I would get a specialist to do the job even if it delayed the building work	1	2	3	4	5
SOCIAL OPPORTUNITY	o. Finding asbestos in a house reduces the property's value	1	2	3	4	5
	p. There is widespread concern in the community about asbestos	1	2	3	4	5
	q. I think people have a duty to everyone around them to ensure that any asbestos in their home or yard is handled appropriately	1	2	3	4	5
REFLECTIVE AND AUTOMATIC MOTIVATION	r. There is absolutely no doubt that I would want to deal with any asbestos in my home safely, regardless of the cost or inconvenience to myself	1	2	3	4	5
	s. The possibility of dying from any exposure to asbestos is too far off in the future to worry about now	1	2	3	4	5

t.	I think it would be worth investing the time and money to deal with asbestos safely now to guard against any future risk to myself/my family	1	2	3	4	5
u.	I've never really given much thought to my risk of exposure to asbestos	1	2	3	4	5
v.	I find the whole topic of asbestos too off-putting or scary to think about	1	2	3	4	5

3.2 SHOW ALL:

**If you thought you might have asbestos on the property where you live, how likely would you be to seek advice from each of the following parties?**

SINGLE RESPONSE IN EACH ROW

RANDOMISE ORDER OF ROWS

	Unlikely	Somewhat likely	Very likely
Your local council	1	2	3
An Australian state or federal government department or authority, such as the NSW Environment Protection Authority or the Commonwealth Asbestos Safety and Eradication Authority	1	2	3
A tradesperson or handyman you engaged	1	2	3
A licensed asbestos assessor you engaged	1	2	3
A neighbour, friend or family member you considered had relevant experience or knowledge	1	2	3
Some other source on the internet, for example a forum or international website on the topic	1	2	3
[SHOW IF DOESN'T OWN HOME, IF 2, 3, 4 OR 5 AT S9] The owner or managing agent	1	2	3

### **KNOWLEDGE (PSYCHOLOGICAL CAPABILITY) [HEADING NOT SHOWN TO PARTICIPANTS]**

The following questions are designed to measure community understanding of asbestos and asbestos-related disease, for the purpose of enhancing future communications. Please respond based on your current knowledge, without looking up an answer.

#### **3.3 SHOW ALL:**

**A home is highly likely to contain asbestos if it was built...**

Choose as many or as few as apply

**MULTIPLE RESPONSE EXCEPT IF 'ANYTIME' OR 'DON'T KNOW' SELECTED**

1. Before 1900
2. Between 1900 and 1940
3. Between 1940 and 1990
4. Between 1990 and now
5. Anytime, all homes could potentially have asbestos
98. Don't know

#### **Q3.4 SHOW ALL:**

**The approximate number of different products containing asbestos that have been used in Australian homes is:**

**SINGLE RESPONSE**

1. 3 products
2. 30 products
3. 300 products
4. 3,000 products
98. Don't know

#### **Q3.5 SHOW ALL:**

**In older houses, asbestos-containing products can be found when renovating, maintaining or improving:**

Please select all that apply

**MULTIPLE RESPONSE, EXCEPT IF NONE OR DON'T KNOW SELECTED**

1. Air-conditioning system/s
2. Around hot water pipes
3. Around or behind tiles
4. Ceiling or wall insulation
5. Cement sheeting used in walls or ceilings, including windows and mouldings
6. Concrete slab or foundations
7. Corrugated cement roofing
8. Eaves
9. External cladding e.g. imitation or artificial brick
10. Fences
11. Flooring e.g. tiles, vinyl floor tiling, carpet underlay, or linoleum flooring
12. Fuse boxes or electrical equipment
13. Garage surfaces and or walls
14. Garages, carports, sheds
15. Garden sheds
16. Insulation in stoves and fireplaces

17. Insulation in the ceiling, walls or floor
18. Other bathroom, toilet, laundry or kitchen
19. Pipes, plumbing or drainage
20. Roof gutters and downpipes
21. Soil or in the garden
22. Textured paint/coating
23. Windows or doors
24. None of the above
99. Don't know

Q3.6 SHOW ALL:

**Which, if any, of the following illnesses can result from exposure to asbestos fibres?**

MULTIPLE RESPONSE, EXCEPT IF DON'T KNOW SELECTED

RANDOMISE ORDER OF 1-8

1. Asbestosis
2. Mesothelioma
3. Lung cancer
4. Other forms of cancer
5. Pleural disorders
6. Asthma
7. Hayfever
8. Heart attacks
98. Don't know

Q3.7 SHOW ALL:

**The approximate number of Australians who die each year from asbestos-related disease is:**

SINGLE RESPONSE

1. 500 people – about half as many as die on our roads each year
2. 1,000 people – as many as die on our roads each year
3. 2,000 people – twice as many as die on our roads each year
4. 4,000 people – four times as many as die on our roads each year
98. Don't know

Q3.8 SHOW ALL:

Please rate the following items according to the risk they pose to human health.

SINGLE RESPONSE PER ROW

RANDOMISE ORDER OF ROWS

		RATING SCALE [SHOW ENDPOINTS AND LABELS]  0 <span style="float: right;">10</span>  No risk to health at all <span style="float: right;">Extremely risky to health</span>
a	Cleaning an asbestos containing product using high-pressure water	
b	Cutting, drilling or breaking through an asbestos containing product	
c	Grinding or buffing the surface of an asbestos containing product	
d	Where an asbestos containing product is in poor condition, for example, there are chips, tears or abrasions	
e	Where an asbestos containing product is in loose, fibrous form, e.g. in the case of spray-on roof insulation	
f	When an asbestos containing product is in good condition and is undisturbed	

Q3.9 SHOW ALL:

For each of the following, please indicate whether you believe the statement to be true or false.

SINGLE RESPONSE FOR EACH ROW

RANDOMISE ORDER OF A-G

	True	False	Don't know
a. You can generally tell if a material contains asbestos if you know what to look for.	1	2	98
b. In many situations, it is safe to remove asbestos yourself.	1	2	98
c. You are allowed to put small amounts of asbestos in your curbside rubbish bin, as long as its carefully wrapped.	1	2	98
d. You are only at risk of asbestos-related diseases after years of regular exposure, or very intense short-term exposure, to asbestos.	1	2	98

e. Almost all asbestos-related deaths have been among workers involved in the mining, milling or manufacture of asbestos.	1	2	98
f. Building inspections carried out before you buy a home typically include asbestos assessment.	1	2	98
g. The risks associated with asbestos have dramatically decreased since building products containing asbestos were banned.	1	2	98

Q3.10 ASK ALL

Which of the following best describes your own current situation:

SINGLE RESPONSE

1. I know for a fact that my home and yard is completely **free of asbestos**
2. I **don't think** there is any asbestos in my home or yard, but I'm not absolutely sure
3. I **suspect** that there is asbestos in my home or yard, but I'm **not entirely sure** how much or where it is
4. I **know for a fact** that there is asbestos in my home or yard, but I'm **not entirely sure** how much or where it all is
5. I **know for a fact** that there is asbestos in my home or yard, know how much is there, and where it is
98. I **have no idea** whether or not there is asbestos in my home or yard

Q3.11 ASK ALL

Have you ever had a licensed asbestos assessor/removalist inspect your home or yard?

SINGLE RESPONSE

1. Yes
2. No
98. Don't know

Q3.12 IF 1 IN 3.11, SHOW:

When was your property/yard assessed?

Please select all that apply

MULTIPLE RESPONSE

RANDOMISE ORDER OF 1-9

1. Before you purchased the property or before you moved into the property
2. In the process of submitting a development application for work to the property
3. Prior to construction, renovation or maintenance work on the property
4. During construction, renovation or maintenance work to the property
5. Prior to landscaping work to the property
6. During landscaping work to the property
7. After asbestos remediation was completed
8. At a time when material we suspected may contain asbestos was damaged or disturbed
9. In order to monitor the condition of asbestos we knew was at the property
10. Some other time (please specify)

## DEMOGRAPHICS MODULE

### D1. SHOW ALL

**Do you own an investment property that someone else rents (not commercial property)?**

#### SINGLE RESPONSE

1. Yes, I own an investment property/ies
2. No

### D2. IF 1 IN D1 SHOW:

**Which of the following types of investment properties do you own?**

Select all that apply

#### MULTIPLE RESPONSE

1. Separate house
2. Semi-detached, terrace or townhouse
3. Villa, unit or apartment
4. Removable dwelling such as caravan park cabin
5. Other (please specify)

### D3. IF 1 IN D1 SHOW:

**Approximately how old is/are investment property/ies?**

Please select all that apply for separate houses you own as investments.

Please use your best estimate if you are not sure.

#### MULTIPLE RESPONSE

1. Up to 29 years old (built after 1990)
2. 30-69 years old (built between 1940 and 1990)
3. 70-119 years old (built between 1900 and 1940)
4. 120 or more years old (built before 1900)

**D4 What is the highest level of education you have completed?**

#### SINGLE RESPONSE

1. Postgraduate degree
2. Graduate diploma / certificate
3. Bachelor degree
4. Advanced diploma / diploma
5. Technical certificate
6. High school
7. Primary school
8. Other

**D5 What is your household's annual income from all sources before tax?**

SINGLE RESPONSE

1. Less than \$20,000
2. \$20,000 - \$39,999
3. \$40,000 - \$59,999
4. \$60,000 - \$79,999
5. \$80,000 - \$99,999
6. \$100,000 - \$119,999
7. \$120,000 - \$149,999
8. \$150,000 - \$249,999
9. \$250,000 or more
10. I'd prefer not to say

**D6 Which of the following best describes your current living arrangements?**

SINGLE RESPONSE

1. I live alone
2. I live with my parents
3. I live with my partner only
4. I live with my partner with children/other family members in the household
5. I am single with children/other family members in the household
6. I live in a share house (i.e. with friends/housemates/siblings)
7. Other (please specify)

**D7 IF D6 ≠ 1, SHOW: Is anyone in your household under the age of 18 years?**

SINGLE RESPONSE

1. Yes, there is someone under the age of 18 years in my household
2. No

**D8 And do you speak a language other than English at home?**

ACCEPT MULTIPLE RESPONSES, EXCEPT IF NO SELECTED

1. No, English only
2. Yes, Italian
3. Yes, Spanish
4. Yes, Chinese/Mandarin/Cantonese
5. Yes, Arabic
6. Yes, Portuguese
7. Yes, Greek
8. Yes, German
9. Yes, Vietnamese
10. Yes, Filipino
11. Yes, other [Please specify]

D9 Next year, Heartward Strategic will be conducting further research on this topic.

**Are you interested in participating in follow-up research and give permission for Heartward Strategic to review your individual responses to this survey (which would otherwise be confidential) to see if you are eligible to participate?**

**Please note that this is a confidential process and there is no possibility of any personal, financial or legal consequences arising from any information you provide.**

1. Yes, I am interested and give permission
2. No thanks

FINAL SCREEN:

That is the end of our questions. Thank you for participating in this important study which has been conducted on behalf of the NSW Environment Protection Authority. We really appreciate your time and contribution.

Should you wish to find out more about asbestos safety, you can contact:

- **The Asbestos Safety and Eradication Agency:** Hotline – 1300 326 148 / <https://www.asbestossafety.gov.au/>

If this research has brought up any personal concerns, the following sources of support are available:

- **Lifeline Australia:** Telephone Crisis Support – 13 11 14 (24 hours, 7 days a week) / <https://www.lifeline.org.au/>
- **Beyondblue:** Telephone Support – 1300 22 4636 (24 hours, 7 days a week) / <https://www.beyondblue.org.au/>

## Appendix B – Qualitative sample structure

14 x Face to face focus groups with homeowners, unpaid handy people and influencers				
Location	Age group	Gender	Renovator/worker type	Other sample characteristics
Sydney CBD	Older	Male	Homeowners – Renovators	Includes some DIY and some CALD
Sydney CBD	Younger	Female	Homeowners - Renovators	Includes some CALD
Parramatta	Younger	Male	Homeowners – Renovators	Includes some DIY and some CALD
Parramatta	Younger	Mix	Renovation influencers	Includes some CALD
Liverpool	Older	Female	Homeowners – Renovators	Includes some DIY and some CALD
Liverpool	Older	Mix	Homeowners - Incidental asbestos discovery	Includes some DIY and some CALD
Hurstville	Younger	Mix	Homeowners - Incidental asbestos discovery	Includes some DIY and some CALD
Hurstville	Older	Mix	Unpaid home handy people	Includes some CALD
Newcastle	Younger	Mix	Unpaid home handy people	
Newcastle	Older	Mix	Renovation influencers	
Dubbo	Older	Mix	Homeowners - Incidental asbestos discovery	
Dubbo	Younger	Mix	Homeowners – Renovators	
Tamworth	Older	Mix	Homeowners – Renovators	
Tamworth	Younger	Mix	Homeowners - Incidental asbestos discovery	

<b>6 x Tradespeople small group (affinity) discussions</b>				
<b>Location</b>	<b>Age group</b>	<b>Gender</b>	<b>Renovator/worker type</b>	<b>Other sample characteristics</b>
Outer Sydney suburbs	Younger	Male	Less experienced tradespeople (including apprentices and those recently qualified) working on homes and commercial properties built before 1990	Mix of trades represented
Outer Sydney suburbs	Older	Male	Qualified and experienced tradespeople working on homes and commercial properties built before 1990	Mix of trades represented
Inner City Sydney	Younger	Male	Paid unlicensed home handypeople who have done work on homes built before 1990	Mix of demolition and maintenance/improvement
Tamworth	Older	Male	Qualified and experienced tradespeople working on homes and commercial properties built before 1990	Mix of trades represented Mostly contractors, sole traders or employers
Tamworth	Younger	Mix as falls	Less experienced tradespeople (including apprentices and those recently qualified) working on homes and commercial properties built before 1990	Mix of trades represented Mostly employees
Dubbo	Mix	Male	Paid unlicensed home handypeople who have done work on homes built before 1990	Mix of demolition and maintenance/improvement

7 x Specialist worker in-depth interviews		
Location	Renovator/worker type	Other sample characteristics
Greater Sydney	Bathroom and kitchen renovation specialist	Contractor
Regional NSW	Bathroom and kitchen renovation specialist	Employee
Regional NSW	Bathroom and kitchen renovation specialist	Employer
Regional NSW	Asbestos assessor	Sole trader
Greater Sydney	Licensed asbestos removalist	Employer
Regional NSW	Licensed asbestos removalist	Contractor
Greater Sydney	Occupational hygienist / asbestos assessor	Employer

4 x In-depth interviews with people impacted by asbestos-related disease				
Location	Age group	Gender	Relationship with asbestos	Other sample characteristics
Sydney	Older	Male	Personal diagnosis	Exposure to asbestos included through work or exposure in the home
Regional NSW	Younger	Female	Family/friend impacted	
Regional NSW	Older	Female	Personal diagnosis & family/friend impacted	
Regional NSW	Younger	Male	Family/friend impacted	

10 x Narrative Journey Interviews				
Location	Age group	Gender	Renovator/worker type	Other characteristics
Greater Sydney	Younger	Female	Renovator Asbestos Discovery	Safe handling/disposal
Greater Sydney	Older	Female	Renovator Asbestos Discovery	Unsafe handling/ disposal
Greater Sydney	Older	Male	Incidental asbestos discovery	Unsafe handling/ disposal
Greater Sydney	Younger	Female	Incidental asbestos discovery	Unsafe handling/ disposal
Greater Sydney	Younger	Male	Handyperson asbestos discovery	Unsafe handling/ disposal

Regional NSW	Younger	Male	Handyperson asbestos discovery	Safe handling/disposal
Regional NSW	Older	Female	Renovator Asbestos Discovery	Unsafe handling/ disposal
Regional NSW	Older	Female	Incidental asbestos discovery	Safe handling/disposal
Regional NSW	Older	Male	Handyperson asbestos discovery	Unsafe handling/ disposal
Regional NSW	Younger	Female	Renovator Asbestos Discovery	Unsafe handling/ disposal

## Appendix C – Qualitative guides

### DISCUSSION GUIDE FOR NON-PROFESSIONAL AUDIENCES

This research explores motives and barriers to safe asbestos behaviour in private residential settings from discovery to removal (and to some extent, disposal, though this is the express remit of Phase 2 - Waste). This includes, unconscious and contextual factors and grey areas of moral reasoning relating to behaviour, relationships between relevant actors, as well as bringing audiences and behavioural sub-groups to life, and explaining and extending the quantitative findings, among the following non-professional audiences:

- Renovators
- Incidental discoverers of asbestos
- Influencers (family, friends, neighbours)
- Unpaid handy people
- People personally affected by asbestos-related illness

To identify the most fruitful way to impact behaviour and support the design and implementation of interventions, the COM-B framework will be applied to the data collection and analysis process. Namely, identifying how motivation, opportunity or capability impact safe behaviour. This guide will be tailored to each non-professional audience through emphasis/deemphasis, adaptation of exercises and specific probes and lines of questioning as highlighted through the guide.

<b>Arrival and introduction (15 mins)</b>	
<i>Sets the participant/s at ease, reiterates confidentiality and informed consent, seeks audio recording consent, covers general housekeeping and group rules of engagement.</i>	
Welcome	I'd like to thank you for giving up your time to participate in this research. We will be here for 60/90 minutes.
Recap of purpose and voluntary nature of participation	<p>Today we are going to be talking about safety in the home when dealing with hazardous materials.</p> <p>To confirm, your participation in this research is entirely voluntary.</p> <p>EXPLAIN - Importance of honest opinions. No right or wrong answers. Seeking personal opinions and experiences - not necessary for all to agree with each other.</p>
Recording, viewing and confidentiality of participant information	<p>With your permission, I'd like to record this discussion so that we can refer back to it or a transcript might be produced. Our client may also like the opportunity to view the recording. The recording will not be passed on to any other third parties, will be stored securely and will be destroyed after the end of the project. (DO NOT RECORD IF NO PERMISSION. RECORDING WILL NOT BE AVAILABLE TO CLIENT IF ANYONE DOES NOT GIVE PERMISSION.)</p> <p>Our client is viewing/attending today (TAILOR TO SITUATION). If possible, we would like to hold off telling you who the client is/the government body where they work, as this knowledge might influence how you respond during this group. Is it okay if I tell you who the client is at the end of the group?</p> <p>Everything you say today is completely confidential. We are conducting interviews and group discussions with more than 100 people across Australia. No comment will be attributed to an individual. No consequences will result from anything you say.</p>

Housekeeping	Mobile phones, bathroom facilities, emergency exits, refreshments
Warm-up exercise GROUPS ONLY	Before we begin, let's start to get more familiar with each other. We all have things we are good at and things that are important to us. So, when it comes to maintaining or improving a home or property, what is your personal superpower?
Disposition towards and experiences with DIY	<p>EXERCISE – Different people approach and think about DIY differently. On one hand you might think it's a great idea to do all the work on a property yourself. On the other hand, you might think it much better to leave everything to the professionals. If this end of the room [INDICATE] represents pro-DIY, and that end of the room [INDICATE] represents pro-professionals, imagine a line between. Hop up and walk to the spot that represents your views about this. You might be at one end or the other, or anywhere in between.</p> <ul style="list-style-type: none"> <li>• Why did you pick that spot on the line? PROBE <i>whether for self or partner/others</i></li> </ul> <p>INFLUENCERS / THOSE PERSONALLY AFFECTED: Thinking about your family and friends. How do you feel about them personally doing their own renovation or maintenance work? What about your neighbours?</p>

<p><b>Context of potential asbestos discovery (10 mins)</b></p> <p><i>This module lays the groundwork for the discussion by revealing the motives and considerations specific to each group that will impact their perceptions, knowledge, experiences and behaviours with asbestos.</i></p>	
<p>Motivations, priorities, challenges &amp; concerns relating to home maintenance or improvement/renovations or assisting others</p>	<p><b>RENOVATORS AND INCIDENTAL DISCOVERERS</b> – In recent times, you have all been doing [RENOVATORS renovations to your property (or renovations are currently underway)/ INCIDENTAL DISCOVERERS minor maintenance on your property, where hazardous materials were found]. Including work on the rooms inside, the yard, if you have one, a shed or any other outbuildings you have. When you think of this renovation/maintenance/these improvements....</p> <ul style="list-style-type: none"> <li>• What prompted the work?</li> <li>• What if anything excited you about this? What result did you hope for?</li> <li>• What concerns if any did you have?</li> </ul> <p><b>UNPAID HANDY PEOPLE</b> – You have all actively helped out on a friend or family member's renovation project in recent times, whether inside their home or outside in any yard or outbuildings. Thinking of the last time you did this....</p> <ul style="list-style-type: none"> <li>• What prompted your interest in helping out?</li> <li>• What was exciting about this? What result did you hope for?</li> <li>• What concerns if any did you have about the project? Your involvement?</li> </ul> <p><b>INFLUENCERS</b> – You are all close to people (family, friends or neighbours) who in recent times have done a maintenance, renovation or home improvement project, inside their home or outside in any yard or outbuildings. When you think of this....</p> <ul style="list-style-type: none"> <li>• What do you think should be considered when doing maintenance or improvements to property?</li> <li>• What hopes would you have?</li> <li>• What concerns?</li> </ul> <p><b>PEOPLE PERSONALLY AFFECTED</b> – When people you are close to embark on maintenance, renovation or home improvement projects...</p>

	<ul style="list-style-type: none"> <li>• What do you think should be considered when doing maintenance or improvements to property?</li> <li>• What hopes would you have?</li> <li>• What concerns?</li> </ul>
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**Home improvement or maintenance decision making and planning (15 mins)**

*This module explores the extent to which improvement or maintenance activities are planned and the way in which decisions about this are made, including what is prioritised in the process and which actors influence this process.*

<p><b>RENOVATORS (NOT INCIDENTAL DISCOVERERS)</b></p> <p>Exploring the what, who and how of the planning process</p>	<p>I'd like to ask you about the recent (or current) renovation, starting with any planning you did for it.</p> <ul style="list-style-type: none"> <li>• How long did it take from when you decided to start the renovation, to work commencing?</li> <li>• Which of the following components played a part in the planning for your renovation? PLACE CARDS ON TABLE WITH FOLLOWING PROMPTS. ASK PARTICIPANTS TO EXPLAIN AND DISCUSS. IF OTHER COMPONENTS NOT SHOWN, WRITE ON BLANK CARDS:             <ul style="list-style-type: none"> <li>• <i>Involvement of council / planning applications</i></li> <li>• <i>Breaking the job down into components/tasks</i></li> <li>• <i>Getting property inspections</i></li> <li>• <i>Deciding on what to do DIY versus outsource</i></li> <li>• <i>Getting quotes / choosing tradespeople</i></li> <li>• <i>Upskilling or doing any preparatory courses</i></li> <li>• <i>Setting a project budget</i></li> <li>• <i>Building a buffer into the budget for contingencies</i></li> <li>• <i>Working out project timings</i></li> <li>• <i>Considering how to manage unexpected delays/planning for delays in timeline</i></li> <li>• <i>Safety while the work was being carried out</i></li> <li>• <i>Whether any hazardous materials might be encountered</i></li> <li>• <i>Deciding on whether to remain in the house during renovations</i></li> </ul> </li> <li>• When making decisions about [safety, hazardous materials, budgetary contingencies, deciding what to DIY], what factors did you take into consideration?</li> <li>• What were your priorities? PROMPT ON, AND EXPLORE:             <ul style="list-style-type: none"> <li>• <i>relative importance particularly of: safety (which aspects?), legal requirements, licences/certificates held by tradespeople, cost, timing, convenience, past experience, advice from others, hazardous materials]</i></li> <li>• <i>any trade-offs made between components and why? Note where safety and hazardous materials factor in trade-offs.</i></li> </ul> </li> <li>• Who did you include in the decision-making or broader planning process, or did you seek advice from?             <ul style="list-style-type: none"> <li>• Who was most influential? Most helpful? Who was the most frustrating? Looking back, do you wish you had consulted anyone else?</li> <li>• <i>PROBE ON conversations had with tradespeople, other influencers</i></li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• When you were planning this recent/current renovation, what kinds of things, if anything, were you expecting or anticipating could go wrong? How has was your experience different compared to what you expected? CAPTURE ON FLIP CHART</li> <li>• <i>As required:</i> To what extent did you consider that you might encounter hazardous materials? Why / why not? What steps were taken in this respect?</li> <li>• <b>How did the planning for this renovation differ from any planning for minor maintenance tasks? Explore to what extent these are prepared for/safety is considered?</b></li> </ul>
<p>UNPAID HANDYPEOPLE</p>	<p>I believe that everyone here today has helped out on friends’ or family members’ home renovations, maintenance or improvement projects. I’d like to ask you some questions about that work.</p> <ul style="list-style-type: none"> <li>• At what stage in the planning process for this work have you become involved, if at all? Was that appropriate? Has that presented any challenges?</li> <li>• What has been your involvement in decision-making? Who else has been involved? What were your priorities?</li> <li>• Which of the following played a part in your planning, or were key decisions that needed to be made? PLACE CARDS ON TABLE WITH FOLLOWING PROMPTS. ASK PARTICIPANTS TO EXPLAIN AND DISCUSS. IF OTHER COMPONENTS NOT SHOWN, WRITE ON BLANK CARDS:             <ul style="list-style-type: none"> <li>• <i>Involvement of council / planning applications</i></li> <li>• <i>Breaking the job down into components/tasks</i></li> <li>• <i>Getting property inspections</i></li> <li>• <i>Deciding on what to do DIY versus outsource</i></li> <li>• <i>Getting quotes / choosing tradespeople</i></li> <li>• <i>Upskilling or doing any preparatory courses</i></li> <li>• <i>Setting a project budget</i></li> <li>• <i>Building a buffer into the budget for contingencies</i></li> <li>• <i>Working out project timings</i></li> <li>• <i>Considering how to manage unexpected delays/planning for delays in timeline</i></li> <li>• <i>Safety while the work was being carried out</i></li> <li>• <i>Whether any hazardous materials might be encountered</i></li> <li>• <i>Deciding on whether to remain in the house during renovations</i></li> </ul> </li> <li>• When making those decisions, what have been the key factors that you’ve taken into consideration? (PROMPT ON, AND EXPLORE- <i>relative importance particularly of: safety (which aspects?), legal requirements, licences/certificates held by tradespeople, cost, timing, convenience, past experience, advice from others</i>)</li> <li>• How has this differed by the type of project?</li> <li>• <i>As required:</i> To what extent did you consider that you might encounter hazardous materials? Why / why not? What steps were taken in this respect?</li> </ul>
<p>ALL AUDIENCES EXCEPT RENOVATORS</p> <p>General views on planning, including for more minor</p>	<ul style="list-style-type: none"> <li>• Let’s think about the minor installation, maintenance and repair work that one does on one’s property from time to time... What sorts of work come to mind – what have you done before on a property?</li> </ul>

<p>maintenance, specifically the extent to which safety is considered beforehand</p>	<ul style="list-style-type: none"> <li>• What sorts of things have you planned for, before picking up tools? What, sorts of things can potentially go wrong, when doing this sort of work? CAPTURE ON FLIP CHART</li> <li>• To what extent is it important to plan for encountering hazardous materials when doing this sort of work? What sorts of materials might one encounter? In what situations?</li> <li>• How would one know if hazardous materials were on a property? What could one do to find out? Would this be hard or easy? Whose responsibility is it to do this?</li> <li>• What precautions could one take to prevent against exposure to hazardous materials when doing minor installation, maintenance and repair work around one's house and yard? Have [you / others in your household / others helping you] ever taken such precautions? Why / why not? In what situations?</li> </ul>
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**Associations, knowledge and attitudes (20 mins)**  
 This module explores what perceptions about hazardous materials (specifically asbestos) exist and how these are formed (information sources)

<p>Unprompted emotional associations with asbestos. Impact of any emotional distress prompted by discovery of asbestos          [TASK TO ELICIT TOP OF MIND AND DEEPER ASSOCIATIONS]</p>	<p>EXERCISE 1 – HAND OUT LISTS OF FEELINGS FACE DOWN (3 VERSIONS WITH DIFFERENT ROTATION) I'm going to write (or say aloud) a word. When you see/hear the word, I'd like you to turn over the page and scan it.</p> <p>“Asbestos”</p> <p>Now circle the two or three (or more) feelings that first come to you when you see/hear this word. If there is something not covered it in the list, please write it in.</p> <p>EXERCISE 2 - Imagine a new neighbour has moved in that you've become friendly with. They want to do some home improvements to their property, and a tradesperson has advised them that they have asbestos. They have never heard of asbestos, as they are from a country where asbestos was never used in residential housing. They intend to do all the renovation work themselves.</p> <p>Now flip your paper over and in the thought and speaking bubbles write:</p> <p><b>How do you feel or what do you think to yourself?</b> Please write this in the cloud bubble</p> <p><b>What you would have an impulse to do or what action would you want to take?</b> Please write this in the third action bubble</p> <p><b>What you would actually say to your neighbour?</b> Please write this in the speaking bubble</p> <ul style="list-style-type: none"> <li>• Briefly discuss feelings associated with asbestos and advice they would give to neighbour.</li> <li>• PROBE Factors that would vary the response (e.g. location of asbestos, amount of asbestos, condition of asbestos, personal knowledge, experience or confidence regarding asbestos, who lives in the home etc</li> </ul> <p>[INCIDENTAL DISCOVERERS &amp; THOSE PERSONALLY AFFECTED SKIP EXERCISE 3]</p> <p>EXERCISE 3 -</p> <p>RENOVATORS - Imagine that, rather than your neighbours, that a tradesperson has unexpectedly discovered asbestos at your own property.</p> <p>UNPAID HANDY PEOPLE - Imagine a close friend or family member you are about to help on a home maintenance or improvement project have just been told that the area contains asbestos.</p>
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	<p><b>INFLUENCERS</b>– Imagine a friend or family member tells you they have unexpectedly discovered that an area in/on their property that they are about to do improvement work on contains asbestos.</p> <p>ASK THEM TO RECORD WHAT IF ANYTHING THEY WOULD FEEL/THINK, WANT TO DO, SAY DIFFERENTLY, COMPARED TO IF IT WAS A NEIGHBOUR</p>
Salience of asbestos	<ul style="list-style-type: none"> <li>• How much of a concern is asbestos to you personally? Why? What concerns you most about it?</li> </ul>
Actual knowledge regarding asbestos risk	<ul style="list-style-type: none"> <li>• How much of an issue do you think asbestos is for people living in NSW?</li> <li>• PROBE ON             <ul style="list-style-type: none"> <li>○ How widespread it is in NSW?</li> <li>○ The types of properties that are likely to contain asbestos/age of property?</li> <li>○ How safe is it? How dangerous is it? Why?/Why not?</li> <li>○ If considered dangerous, what makes it dangerous for people?</li> <li>○ When it is or could it become dangerous?</li> <li>○ Who is most likely to be affected by it? / Who do you think is most at risk of harm?</li> </ul> </li> </ul>
Knowledge regarding identification of asbestos	<ul style="list-style-type: none"> <li>• Where on a property do you think asbestos might be found? What types of building materials is it potentially in? What does it look like?</li> <li>• How can someone tell if something on their property is made from or contains asbestos?</li> <li>• How can someone tell if something on their property, like soil, might be contaminated with asbestos?</li> </ul>
Personal associations with asbestos	<ul style="list-style-type: none"> <li>• How relevant to you personally is the topic of exposure to asbestos?</li> <li>• What do you perceive your personal risk of exposure to asbestos to be currently? What about in the past?</li> <li>• PROBE ON - awareness or suspicion of any asbestos on/in property and how they know/suspect this.</li> <li>• Do you think any people or family close to you are at risk of exposure to asbestos? Why do you say that?</li> <li>• What sorts of conversations have you had about asbestos, if any? With whom?</li> </ul>

**Dealing with asbestos on your property (25 mins)**

*This module explores perceptions, expectations and experiences relating to dealing with asbestos on a residential property, including exploring different options/possibilities available, and perceptions of safety and legality.*

Encountering asbestos – establishes the extent to which group participants have actually encountered asbestos and gathers information	<p>[TAILOR AS RELEVANT TO GROUP:]</p> <ul style="list-style-type: none"> <li>• [RENOVATORS: Have you encountered asbestos on/in your property?</li> <li>• [UNPAID HANDYPEOPLE: Have you ever worked on a property where you encountered asbestos?</li> <li>• [INFLUENCERS/PERSONALLY AFFECTED]: Do you have friends, family members, neighbours who have encountered asbestos?</li> </ul>
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<p>from those who have [ASK FOR ALL GROUPS]</p>	<p>IF ENCOUNTERED ASBESTOS OR FOR INCIDENTAL DISCOVERERS:</p> <ul style="list-style-type: none"> <li>• Tell me briefly about how that came about/what happened, to the best of your knowledge, when asbestos was encountered on the property? PROBE ON: <ul style="list-style-type: none"> <li>• <i>Where it was found /location/who found it/ feelings when found?</i></li> </ul> </li> <li>• Let's talk a little more about <b>how you knew it was asbestos/identifying asbestos</b> EXPLORE: <ul style="list-style-type: none"> <li>• <i>How they knew it was asbestos? Who identified it as asbestos? How did they know? Was any advice or information conflicting?</i></li> <li>• <i>How confident were they that it was actually asbestos? Was it tested? What/how much was tested?</i></li> <li>• <i>Did they definitively find out if it was asbestos, or assume/leave uncertain? Were you comfortable with this?</i></li> <li>• <i>Type of asbestos – how did they classify it? NOTE USE OF TERMS 'bonded' and 'friable' - Are these terms meaningful?</i></li> <li>• <i>Quantity of asbestos</i></li> </ul> </li> </ul>
<p>Specific experiences dealing with asbestos <b>ONLY ASK FOR INCIDENTAL DISCOVERY GROUPS OR GROUPS WHERE ALL PARTICIPANTS SAY THEY HAVE ENCOUNTERED ASBESTOS</b> ADJUST LANGUAGE ACCORDINGLY</p>	<ul style="list-style-type: none"> <li>• Let's talk more about <b>decision-making when the asbestos was encountered...</b> PROBE ON: <ul style="list-style-type: none"> <li>• <i>What were your main considerations when the asbestos was encountered?</i></li> <li>• <i>What options were available to you that you were aware of at the time? What was your thinking regarding these/what were you weighing up when thinking about what to do? Explore options they had for handling/moving/getting rid of it.</i></li> <li>• <i>Did you tell anyone else about the asbestos? Why / why not? Who? Is there anyone you didn't want to know about it?</i></li> <li>• <i>Did you seek any advice? From who/where? Any other information sources? Explore trust in the different sources of advice/weighing up of advice.</i></li> <li>• <i>Involvement of and interactions between professionals, family, friends, neighbours, authorities, any other parties? Whose responsibility/liability to deal with it?</i></li> <li>• <i>What was done with the asbestos? (E.g. Was it left, disturbed, moved or removed?)</i></li> </ul> </li> </ul> <p>IF NOTHING DONE/LEFT AS IS, PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Why it was left as is?</i></li> <li>• <i>How do they feel about it?</i></li> <li>• <i>Did they know they had to do something and still not do it? (ie did they deliberately or otherwise choose not to 'do the right thing'). Would they do anything differently looking back?</i></li> <li>• <i>Any maintenance plan? Future plans to remove?</i></li> </ul> <p>IF MADE SAFE, MOVED OR REMOVED FROM WHERE IT WAS, PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Who handled the asbestos and decision-making regarding this</i></li> <li>• <i>If specialist removalist used: licensing/ authenticity/ certification</i></li> <li>• <i>Specific safety precautions taken and reason, including preparing for disposal</i></li> <li>• <i>Anything they know should have been done but wasn't when managing or removing it?</i></li> </ul>

	<ul style="list-style-type: none"> <li>Any challenges/difficulties - what would they do differently if had to do it again</li> </ul> <p>[IF MOVED/REMOVED] Let's talk now about <b>where the asbestos ended up and how</b>.</p> <p>PROBE ON:</p> <ul style="list-style-type: none"> <li>Timing – when was disposal considered? Who raised it?</li> <li>Consideration of options that were available, decision factors, and role of advice/info seeking</li> <li>Who disposed of it and how, and decision-making regarding this (especially want to understand specific reasons for any improper or illegal disposal, such as use of skips, residential bins, burying onsite etc)</li> <li>Perceptions of responsibility/liability and legality</li> <li>Knowledge and decision making re use of appropriate professional and processes required - Disposal licensing/ authenticity/ certification/ tracking</li> <li>Anything they know should have been done but wasn't when disposing of it?</li> <li>If disposed of by someone else – did they get proof of correct disposal – what? Why? Why not?</li> <li>Any challenges/difficulties - what would they do differently if had to do it again?</li> </ul>
<p><b>ASK FOR ALL GROUPS WHERE NONE OR ONLY A MINORITY HAVE ACTUALLY ENCOUNTERED ASBESTOS FROM SECTION ABOVE-</b> [ENCOURAGE THOSE WHO HAVE ENCOUNTERED ASBESTOS TO DRAW ON PERSONAL EXPERIENCE / PROVIDE ANECDOTES]</p> <p>Encountering asbestos – expected behaviour</p>	<p>Thinking back to the exercise earlier when you imagined asbestos was discovered at [your/your friend's/family member's/neighbours] place...</p> <ul style="list-style-type: none"> <li>What questions or concerns would you have about it? What do you think your focus would be or main considerations?</li> <li>Do you think you'd tell anyone else about it? Why / why not? Who would you want to tell? Who might you want to keep that information from? What would be the options available to you in terms of what you'd do next? And what would you be weighing up in deciding what to do? FREE FLOWING DISCUSSION, THEN PROMPT AS NECESSARY:</li> <li>Under what circumstances might it be tempting or even a good option to <b>just leave it in place</b>? Why do you say that? Would it depend on the amount of asbestos? Condition of asbestos? Type of asbestos? Where it was?</li> <li>What options are available for dealing with the asbestos (NOTE IF MOVE, REMOVE, STORING OR STOCKPILING ARE MENTIONED) EXPLORE:             <ul style="list-style-type: none"> <li>Who would do it/could they get to do it and option most likely to be selected and why (explore perceptions of cost; who they would seek any advice from)</li> <li>Whether they would remove themselves and when/under what circumstances? Confidence in knowledge/skills to do this?</li> </ul> </li> </ul>
<p><b>ASK ALL AS REQUIRED</b></p> <p>Encountering asbestos – awareness and perceptions of safety and legality</p>	<ul style="list-style-type: none"> <li>What do you think would constitute safe dealings with (handling, removal of) asbestos? What things do you think need to be done to make sure asbestos is handled safely when moving/removing/disposing of it? PROBE ON - how perceptions might differ depending on the type, or amount, or condition of asbestos being handled?</li> </ul> <p>PROBE ON AWARENESS OF:</p> <ul style="list-style-type: none"> <li>Preparation/isolation of the area</li> <li>Minimising dust</li> <li>Appropriate equipment</li> </ul>

	<ul style="list-style-type: none"> <li>• <i>Safety gear (coveralls, safety glasses, gloves, covered shoes, mask/respirator)</i></li> <li>• <i>Decontamination of equipment, clothing, area</i></li> <li>• <i>Preparing for disposal – plastic wrapping, wetting down, pre-booking</i></li> <li>• <i>Notification of Safework or council of removal</i></li> <li>• <i>Signage/ barriers</i></li> </ul> <ul style="list-style-type: none"> <li>• What might make it difficult for someone to safely manage asbestos? Why might someone be tempted to take shortcuts when it comes to their safety? How likely is it that there might be consequences? What sort? For whom?</li> <li>• What about <b>disposing</b> of the asbestos? What are all the options for this? And how does this change from a small piece to full sheeting? BRAINSTORM ON BOARD. Who might use each of these methods and why? What are the pros and cons? EXPLORE <i>views on legality, morality, safety, convenience</i>. Explore any differences in views based on amount/type of asbestos. GET PARTICIPANTS TO RANK FROM BEST TO WORST/LEAST BAD</li> <li>• If asbestos is discovered on a residential property, who has responsibility for making sure its managed appropriately? Who might be liable if it is not?</li> <li>• What might stand in the way of someone handling, removing or disposing of asbestos all the ways they are required to by law? What do you believe are the consequences if asbestos is not removed or disposed of according to the law? PROBE ON – <i>Perceived negative consequences for homeowners, transporters, others involved, waste workers, wider community. Perceived penalties under the law</i>. How likely are these consequences?</li> <li>• Are you aware of or have you heard of any ways in which people dispose of asbestos illegally? What are your views on that?</li> </ul>
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**Communications (15 mins)**

*Role/impact of any recent communications. Additional communication needs. Exploration of preferred/expected/trusted communications sources and channels*

<p>Reflection on sources of awareness/social influence, existing communications</p>	<ul style="list-style-type: none"> <li>• How do you know what you know about asbestos?</li> <li>• Thinking about any information or advice you have sought out or come across about asbestos...             <ul style="list-style-type: none"> <li>○ Who has this information or advice come from? [WRITE LIST UP ON FLIP CHART]</li> <li>○ Was the information easy to find?</li> <li>○ What has been MOST useful to you? Why/in what way?</li> </ul> </li> <li>• [IF NOT MENTIONED ABOVE: Have you seen or heard any advertising around asbestos safety recently? What do you recall? What stood out to you? Who was it from? [ADD ANY ADDITIONAL INFO SOURCES TO FLIP CHART LIST]</li> <li>○ Where did you come across this and what impact did it have, if any?</li> </ul>
<p>Trust in information sources</p>	<ul style="list-style-type: none"> <li>• GROUP SOURCES, ADD ANY MISSING TO FLIP CHART LIST - ENSURE INCLUDES: <i>Local councils, NSW State Govt (EPA, Safework, anyone else), Friends and family, Tradies/building professionals, hardware stores, Asbestos-related disease support groups and other non-government organisations such as Cancer Council NSW, the media]</i></li> </ul>

	<ul style="list-style-type: none"> <li>● EXERCISE: As a group, I'd like you to sort these, from the source you most trust to provide information about asbestos safety to the one you trust the least.</li> <li>○ DISCUSS RESPONSES then go through list and explore what specific types of information they most trust each type of source to provide/cover.</li> </ul>
Communication needs	<ul style="list-style-type: none"> <li>● We've talked about a lot of issues relating to asbestos. Is there anything else about asbestos that you would like to know more about or anything you haven't already mentioned?</li> <li>● [IF ENCOUNTERED/DEALT WITH ASBESTOS: Is there anything about asbestos you wish you had known when you encountered it that you didn't know or weren't aware of at the time?</li> <li>● More broadly, do you think this is an important topic for the community to be across? Why / why not? For which part of the community is this most important?</li> </ul>
Communication channels	<ul style="list-style-type: none"> <li>● From what source would you most prefer to receive or access information about asbestos? PROBE ON which of the ones listed above they most prefer – Local Council, building professionals, hardware stores, state government organisations (EPA, Safework), people affected by asbestos-related diseases, NGOs, anyone else?</li> <li>● Where would you most prefer to find this information? In what format would it be best presented?</li> </ul>
Communication wrap up	<ul style="list-style-type: none"> <li>● What one thing do you think is most important for [INSERT RELEVANT AUDIENCE: e.g. homeowners doing renovations/people working on someone else's property/someone with friends, family, neighbours living in homes that may contain asbestos] to know to ensure they and the people around them stay safe from asbestos exposure when maintaining, improving or renovating a property?</li> <li>● And at what point in time would it be most important/useful for them to know this?</li> </ul>
<b>Debriefing and close (5 mins)</b>	
Closing out the discussion	
Wrap-up	Just finally, imagine its three days from now... What do you think you might still be thinking about from today's session, if anything? What is likely to have stayed with you?
Offer thanks and refer	<p>Thank you so much for your time today, it's been a really stimulating discussion and I hope interesting for you too.</p> <p>If anything we have discussed today has raised any issues or concerns for you, here are some sources of support or information:</p> <ul style="list-style-type: none"> <li>● <a href="https://www.asbestos.nsw.gov.au/">https://www.asbestos.nsw.gov.au/</a></li> <li>● Lifeline Australia: Telephone Crisis Support – 13 11 14 (24 hours, 7 days a week) / <a href="https://www.lifeline.org.au/">https://www.lifeline.org.au/</a></li> <li>● Beyondblue: Telephone Support – 1300 22 4636 (24 hours, 7 days a week) / <a href="https://www.beyondblue.org.au/">https://www.beyondblue.org.au/</a></li> </ul>
Incentive	<i>Explain distribution of incentive (Gift Pay)</i>
Debrief	<i>Explain purpose of research, name client and close</i>

## DISCUSSION GUIDE FOR PROFESSIONAL AUDIENCES

This research explores motives and barriers to safe asbestos behaviour in private residential settings from discovery to removal (and to some extent, disposal, though this is the express remit of Phase 2 - Waste). This includes, unconscious and contextual factors and grey areas of moral reasoning relating to behaviour, relationships between relevant actors, as well as bringing audiences and behavioural sub-groups to life, and explaining and extending the quantitative findings, among the following professional audiences:

- Licensed tradespeople
- Paid handypeople
- Specialised professionals (licensed asbestos assessors, licensed asbestos removalists, occupational hygienists and bathroom and kitchen renovation specialists)

To identify the most fruitful effective way to impact behaviour and support the design and implementation of interventions, the COM-B framework\* will be applied to the data collection and analysis process. Namely, identifying how motivation, opportunity or capability impact safe behaviour. This guide will be tailored to each professional audience through emphasis/deemphasis, adaptation of exercises and specific probes and lines of questioning as highlighted through the guide.

<p><b>Arrival and introduction (5-10 mins)</b></p> <p><i>Sets the participant/s at ease, reiterates confidentiality and informed consent, seeks audio recording consent, covers general housekeeping and group rules of engagement.</i></p>	
<p>Welcome</p>	<p>I'd like to thank you for giving up your time to participate in this research. We will be here for [60/90] minutes.</p> <p><b>THANK THOSE WHO HAVE ALREADY PARTICIPATED IN THE SURVEY</b></p>
<p>Recap of purpose and voluntary nature of participation</p>	<p><b>ASSESSORS/REMOVALISTS/HYGIENIST:</b> Today we're going to be discussing the sorts of work you do, and really your impressions of how homeowners and building professionals deal with hazardous materials, including asbestos, during renovation, maintenance and demolition work.</p> <p><b>ALL OTHER AUDIENCES:</b> Today we are going to be talking about dealing with hazardous materials in your work.</p> <p><b>ALL:</b> To confirm, your participation in this research is entirely voluntary.</p> <p><b>EXPLAIN - Importance of honest opinions. No right or wrong answers. Seeking personal opinions and experiences. FOR GROUPS - not necessary for all to agree with each other.</b></p>
<p>Recording, viewing and confidentiality of participant information</p>	<p>With your permission, I'd like to record this discussion so that we can refer back to it or a transcript might be produced. Our client may also like the opportunity to listen to the recording. The recording will not be passed on to any other third parties, will be stored securely and will be destroyed after the end of the project. <b>DO NOT RECORD IF NO PERMISSION. RECORDING WILL NOT BE AVAILABLE TO CLIENT IF ANYONE DOES NOT GIVE PERMISSION.</b></p> <p><b>IF CLIENT PRESENT -</b> Our client is viewing/attending today. If possible, we would like to hold off telling you who the client is/the government body where they work, as this knowledge might influence how you respond during this group. Is it okay if I tell you who the client is at the end of the group?</p> <p>Everything you say today is completely confidential. We are conducting interviews and group discussions with more than 100 people across NSW [AS RELEVANT: including a</p>

	handful of assessors, removalists and occupational hygienists]. No comment will be attributed to an individual. No consequences will result from anything you say.
Housekeeping	AS RELEVANT - Mobile phones, bathroom facilities, emergency exits, refreshments
Warm-up exercise	To begin with, it would be great if you could tell me a bit about your job/role and how long you have been doing this? Also, how much of your work is on residential properties built before 1990?  FOR ASSESSORS: <i>Ensure we have established qualifications</i>

<p><b>Context of potential asbestos discovery (5-10 mins)</b></p> <p><i>This module lays the groundwork for the discussion by revealing the motives and considerations specific to each group that will impact their perceptions, knowledge, experiences and behaviours with asbestos.</i></p>	
<p>Motivations, priorities, challenges &amp; concerns relating to work on relevant homes</p>	<p>Please take minute to close your eyes or downcast them. I want you to think back over your last working week and the sorts of projects you were working on, particularly thinking about any work relating to residential properties built before 1990. (If you didn't do any work on such properties over the last week, cast your mind back to the last time you did.)</p> <p>Picture in your mind the worksite/s you were at – reflect back on what the site/s looked like, the set up/layout, who you were working with and interacting with about the job/s, the particular vibe or culture on the worksite/s and how you felt about the work you completed over those days.</p> <p>FOR DISCUSSION:</p> <ul style="list-style-type: none"> <li>• Just briefly tell me a bit about what this last work week looked like for you in terms of what you were working on?</li> <li>• What aspects of this/these jobs over the last working week were you particularly proud of or felt went well?</li> <li>• What aspects of this/these jobs were particularly challenging or concerning? GAUGE HOW 'TYPICAL' THIS WEEK WAS IN TERMS OF JOB/TASKS, ACHIEVEMENTS AND CHALLENGES.</li> <li>• More broadly, what would you say are the biggest challenges for you personally in your role? What about for your organisation as a whole? LISTEN OUT FOR SPONTANEOUS MENTIONS OF WORKPLACE HAZARDS AND RISKS [NOTE TO MODERATOR ON TERMINOLOGY: Asbestos is a “workplace hazard”, “risks” such as harm can result from hazards, “control measures” and put in place to manage risks.]</li> </ul>
<p>Occupational risks and prioritisation of safety</p> <p>SKIP FOR ASSESSORS, REMOVALISTS &amp; OCCUPATIONAL HYGIENISTS (IF THEY ARE NOT EMBEDDED WITHIN A TRADE)</p>	<ul style="list-style-type: none"> <li>• In the context of your own industry, what does “safety in the workplace” mean to you? EXPLORE UNPROMPTED ASSOCIATIONS</li> <li>• For someone in a role like yours, what would a “safe” workplace look like? How close is that to your own reality?</li> <li>• Do you think you/ your organisation does safety well? Why do you say that? What, if anything, gets in the way of safety? EXPLORE:             <ul style="list-style-type: none"> <li>• <i>Psychological capability – not top of mind / don't know about it</i></li> <li>• <i>Social opportunity – what those around are doing</i></li> <li>• <i>Workplace / employer structures, processes, requirements</i></li> <li>• <i>Motivations around safety and risk taking – individual &amp; organisation</i></li> </ul> </li> <li>• In your industry, what sorts of hazards are there and what risks do you think workers face to their own personal health and safety?             <ul style="list-style-type: none"> <li>• Which of these hazards are most common?</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Which are most front of mind for you personally, day-to-day? Are there any times when they are more or less front of mind?</li> <li>• Which are the biggest hazards, that worry you most when you stop to think about them?</li> <li>• What is the risk of these hazards causing harm ?</li> </ul> <p>PROMPT AS REQUIRED TO WORK OUT WHERE HAZARDOUS MATERIALS, AND WITHIN THAT, WHERE ASBESTOS SITS.</p>
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**Considerations when setting up a job (10 - 15 mins)**

*This module explores the extent to which improvement or maintenance activities are planned and the way in which decisions about this are made, including which actors influence this process.*

<p>Exploring the what, who and how of the planning/quoting/job set up process</p>	<p><b>ASSESSORS/REMOVALISTS/HYGIENISTS ONLY:</b></p> <p>We are interested in understanding a bit about how asbestos is identified and managed when homeowners are doing renovations or maintenance work on their properties, or knock downs and re-builds. And at what stage asbestos is first considered.</p> <ul style="list-style-type: none"> <li>• To what extent do you get involved in the planning stages of residential maintenance, renovation and demolition work, that is the period before the actual work begins on a property? <i>EXPLORE: When they are typically brought in, by whom, their relationship / interactions with the property owner and any building professionals (noting which types they interact with and when).</i></li> <li>• What are the trigger points for a homeowner to get you involved?</li> <li>• To the best of your knowledge, what have the <u>homeowners</u> typically considered regarding safety/hazardous materials/asbestos in their own planning for work? What have they typically failed to consider?</li> <li>• What about <u>building professionals undertaking</u> residential maintenance, renovation and demolition work? What have building professionals typically considered in their planning for the work? What have they typically failed to consider? <i>EXPLORE any perceived differences between different types of building professionals and note the specific professionals.</i></li> <li>• Do you have a sense of who, in these situations, decides on the process for identifying and managing asbestos in a residential property?</li> </ul> <p><b>ALL OTHER AUDIENCES:</b></p> <ul style="list-style-type: none"> <li>• Walk me through the typical stages you go through when a residential job is being set up, before you actually begin the work.             <ul style="list-style-type: none"> <li>• <i>Personal involvement/role they play</i></li> <li>• <i>Interactions with end clients, what is being discussed/considered at this point? [Pay particular attention to considerations/discussions at <b>quoting</b> stage, listen for any safety/risk related considerations, where they typically come up and whether/how they are discussed with clients]</i></li> </ul> </li> <li>• Now thinking about the most recent work you have done on a residential property:             <ul style="list-style-type: none"> <li>• What risks were identified in the job and what steps were taken to minimise these? How were they factored into the quoting/what contingencies were built in regarding costs/time etc? To what extent were these discussed with or made explicit to the client? Were they included in the contract?</li> <li>• To what extent did you consider that you might encounter hazardous materials, including asbestos? Why / why not? What steps were taken in this respect? To what extent was this discussed with the client?</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>• How typical was your experience on this occasion?</li> <li>• Thinking more generally about when you are planning for and quoting on residential jobs - When are health and safety risks more or less likely to be considered/factored in? What types of risks are more likely to be considered? What types of jobs?</li> </ul>
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<b>Information, knowledge and attitudes (10-15 mins)</b> <i>This module explores what perceptions about hazardous materials (specifically asbestos) exist and how these are formed (information sources)</i>	
Unprompted emotional associations with asbestos	<p><b>EXERCISE 1 - HAND OUT LISTS OF FEELINGS (3 VERSIONS WITH DIFFERENT ORDERS)</b> In front of you there is a list of feelings. Please take a minute to skim the list. Now, open the notepad in front of you. I'm going to say a word. When you hear the word, I'd like you to quickly write down the two or three feelings that first come to you.</p> <p>"Asbestos"</p> <p><b>EXERCISE 2 -</b> Imagine you are about to start a new job with a client who is going to undertake an extensive renovation on a property built before 1990. As far as you are aware, this client has not considered the possibility of encountering asbestos in their planning and budgeting up to this point, but you suspect given the age and style of the house that asbestos could be present in/around where you might be working. On a notepad write:</p> <p>What you would think to yourself?</p> <p>How you would feel?</p> <p>What you would say to the property owner, if anything?</p> <p>What (if anything) is different about this renovation compared to one on a post 1990 house?</p> <ul style="list-style-type: none"> <li>• Briefly discuss feelings associated with asbestos and discussing with clients.</li> </ul>
Salience of asbestos SKIP FOR ASSESSORS & REMOVALISTS	<ul style="list-style-type: none"> <li>• What comes to mind when you think about asbestos?</li> <li>• How much of a concern is it to you personally? Why? What concerns you most about it?</li> </ul>
Actual knowledge regarding asbestos risk SKIP FOR ASSESSORS & REMOVALISTS	<ul style="list-style-type: none"> <li>• How much of an issue do you think asbestos is for people living in NSW?</li> <li>• PROBE ON                             <ul style="list-style-type: none"> <li>○ How widespread it is in NSW?</li> <li>○ The types of properties that are likely to contain asbestos?</li> <li>○ How safe is it? How dangerous is it? Why?/Why not?</li> <li>○ If considered dangerous, what makes it dangerous for people?</li> <li>○ When it is or could it become dangerous?</li> <li>○ Who is most likely to be affected by it? / Who do you think is most at risk of harm?</li> </ul> </li> </ul>
Knowledge regarding identification of asbestos SKIP FOR ASSESSORS & REMOVALISTS AS NECESSARY	<ul style="list-style-type: none"> <li>• Where on a property do you think asbestos might be found? What types of building materials is it potentially in? What does it look like?</li> <li>• How can someone tell if something on a property is made from or contains asbestos?</li> <li>• How can someone tell if something on a property, like soil, might be contaminated with asbestos?</li> </ul>
Personal associations with asbestos	<ul style="list-style-type: none"> <li>• How relevant to you personally is the topic of exposure to asbestos through your work?</li> </ul>

<p>SKIP FOR ASSESSORS &amp; REMOVALISTS AS NECESSARY</p>	<ul style="list-style-type: none"> <li>• What do you perceive your personal risk of exposure to asbestos to be currently? What about in the past?</li> <li>• What do you perceive is the risk of your family’s exposure to asbestos?</li> </ul>
<p>Reflection on sources of awareness/social influence</p> <p>SKIP FOR ASSESSORS &amp; REMOVALISTS AS NECESSARY</p>	<ul style="list-style-type: none"> <li>• How do you know what you know about asbestos? PROBE BRIEFLY ON <i>perceived sources of awareness/information and level of trust</i> [NOTE - TO BE EXPLORED IN MORE DETAIL IN FINAL SECTION OF DISCUSSION]</li> <li>• What sorts of training have you had on asbestos if any? Who provided it? How long ago was it? How useful was it in reality?</li> <li>• What conversations do you have with your colleagues about it? What about with employers?</li> </ul>
<p>Impact of any emotional distress prompted by discovery of asbestos</p> <p>SKIP FOR ASSESSORS &amp; REMOVALISTS AS NECESSARY</p>	<p>EXERCISE - Imagine you are in the midst of renovation or maintenance work at a residential property and have unexpectedly discovered asbestos.</p> <p>REFER TO FEELINGS LIST On a notepad write:</p> <ul style="list-style-type: none"> <li>• How do you feel?</li> <li>• <b>What do you say to the client? To your employer? To your colleagues?</b></li> <li>• What do you do?</li> <li>• What is the next action you take?</li> </ul> <p>PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Any impulses in relation to the asbestos</i></li> <li>• <i>Expectations and timeframes for next steps</i></li> <li>• <i>Factors that would vary the response (e.g. location of asbestos, amount of asbestos, condition of asbestos, personal knowledge, experience or confidence regarding asbestos, who lives in the home etc)</i></li> </ul>
<p><b>Dealing with asbestos on residential properties (20-30 mins)</b></p> <p><i>This module explores perceptions, expectations and experiences relating to dealing with asbestos on a residential property, including exploring different options/possibilities available, and perceptions of safety and legality.</i></p>	
<p>Encountering asbestos</p>	<p>ASSESSORS/HYGIENISTS ONLY:</p> <ul style="list-style-type: none"> <li>• Thinking about asbestos assessments you do on residential properties, how do those assessments typically come about? At what point are they ordered? PROBE ON: <i>as part of the purchase of the property; when homeowner planning work; once suspected asbestos encountered; once suspected asbestos actually disturbed; as part of an Asbestos Removal Control Plan</i></li> <li>• Do you have a sense of why some engage you earlier than others?</li> <li>• What types of properties do you tend to assess? What types and amounts of asbestos do you tend to encounter?</li> <li>• Do you have concerns about the way homeowners and/or building professionals go about the identification and management of asbestos? <i>Probe on perceived differences between different types of building professionals.</i></li> <li>• How often do you think an asbestos specialist is not engaged in home renovation, maintenance and demolition work, when they really should be?</li> <li>• What do you think prevents homeowners / building professionals from engaging asbestos specialists to assess properties? <i>Probe on perceived differences between different types of building professionals.</i></li> <li>• What interactions do you have with authorities about asbestos assessed as part of your work? Which ones?</li> </ul> <p>REMOVALISTS /HYGIENISTS ONLY:</p> <ul style="list-style-type: none"> <li>• How and when do you typically become involved in removal jobs?</li> <li>• Who orders and oversees your removal jobs?</li> <li>• What type and amounts of asbestos do you tend to remove?</li> </ul>

	<ul style="list-style-type: none"> <li>• Do you have concerns about the way homeowners / building professionals go about managing and removing asbestos?</li> <li>• How often do you think an asbestos specialist is not engaged in home renovation, maintenance and demolition work, when they really should be?</li> <li>• What do you think prevents homeowners / building professionals from engaging asbestos specialists to remove asbestos containing materials when they are discovered? <i>Probe on perceived differences between different types of building professionals.</i></li> <li>• What interactions do you have with authorities about asbestos identified and removed?</li> </ul> <p><b>ALL OTHER AUDIENCES:</b></p> <p>Has asbestos ever been encountered when you've been working on a residential property? IF YES, EXPLORE: <i>How often / proportion of residential jobs.</i></p> <ul style="list-style-type: none"> <li>• <b>IF ENCOUNTERED:</b> Thinking about the most <u>recent time</u> asbestos was encountered, tell me briefly how that came about/what happened, to the best of your knowledge? <b>PROBE ON:</b> <ul style="list-style-type: none"> <li>• <i>Where it was found /location/who found it?</i></li> <li>• <i>How did you feel personally?</i></li> <li>• <i>What about the team as a whole? Employer (as relevant)? To the best of their knowledge, homeowner?</i></li> </ul> </li> <li>• And in your work, who decides on the process for identifying asbestos? Is this clear? Are there any challenges in this respect?</li> <li>• Let's talk a little more about <b>how you knew it was asbestos/identifying asbestos</b> EXPLORE: <ul style="list-style-type: none"> <li>• <i>How they knew it was asbestos? Who identified it as asbestos? How did they know?</i></li> <li>• <i>How confident were they that it was actually asbestos? Was it tested? What/how much was tested? Did you get a certificate of analysis?</i></li> <li>• <i>Did they definitively find out if it was asbestos, or assume/leave uncertain? Were you comfortable with this?</i></li> <li>• <i>Was any advice or information conflicting?</i></li> <li>• <i>Type of asbestos – how did they classify it? NOTE USE OF TERMS 'bonded' and 'friable' - Are these terms meaningful?</i></li> <li>• <i>Quantity of asbestos</i></li> </ul> </li> </ul>
<p>Specific experiences dealing with asbestos</p> <p><b>ONLY USE WHERE ALL SAY THEY HAVE ENCOUNTERED ASBESTOS</b></p>	<ul style="list-style-type: none"> <li>• Let's talk a bit about decision-making when the asbestos was encountered... <b>PROBE ON:</b> <ul style="list-style-type: none"> <li>• <i>What were your main considerations when the asbestos was encountered?</i></li> <li>• <i>Who decides on the process for managing asbestos in your jobs? Is this clear? Are there any challenges in this respect?</i></li> <li>• <i>Involvement of and interactions between professionals, householder, neighbours, authorities, any other parties? Whose responsibility/liability to deal with it?</i></li> <li>• <i>What options were available to you that you were aware of at the time? What was your thinking regarding these/what were you weighing up when thinking about what to do? Explore options they had for handling/moving/getting rid of it.</i></li> <li>• <b><i>Did you tell anyone else about the asbestos? Why / why not? Who? Is there anyone you didn't want to know about it?</i></b></li> <li>• <i>Interaction with authorities eg council, SafeWork. What were their interactions?</i></li> <li>• <i>Did you seek any advice? From who/where? Any other information sources? Explore trust in the different sources of advice/weighing up of advice.</i></li> </ul> </li> <li>• What was done with the asbestos? (E.g. Was it left, made safe, disturbed, moved or removed?) <b>IF NOTHING DONE/LEFT AS IS, PROBE ON:</b> <ul style="list-style-type: none"> <li>• <i>Why it was left as is?</i></li> <li>• <i>How do they feel about it?</i></li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Did they know they had to do something and still not do it? (ie did they deliberately or otherwise choose not to 'do the right thing'). Why? Would they do anything differently looking back? Why?</b></li> <li>• <i>Did you provide any advice about how to a maintenance plan for the asbestos or about future management?</i></li> </ul> <p>IF MADE SAFE, MOVED OR REMOVED FROM WHERE IT WAS, PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Who handled the asbestos and decision-making regarding this?</i></li> <li>• <i>If specialist removalist used: licensing/ authenticity/ certification</i></li> <li>• <i>Specific safety precautions taken and reason, including preparing for disposal, signage, personal protection equipment (PPE) or required protective equipment (RPE)</i></li> <li>• <i>Specific notifications given (eg to SafeWork, neighbours, council)</i></li> <li>• <b>Anything they know should have been done but wasn't when managing or removing it? Why?</b></li> <li>• <i>Any challenges/difficulties - what would they do differently if had to do it again</i></li> </ul> <p>[IF MOVED/REMOVED] Let's talk a bit about <b>where the asbestos ended up and how.</b></p> <p>PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Timing - when was disposal considered? Who raised it?</i></li> <li>• <i>Consideration of options that were available, decision factors, and role of advice/info seeking</i></li> <li>• <i>Who disposed of it and how, and decision-making regarding this (especially want to understand specific reasons for any improper or illegal disposal, such as use of skips, residential bins, burying onsite etc)</i></li> <li>• <i>Perceptions of responsibility/liability and legality</i></li> <li>• <i>Knowledge and decision making re use of appropriate professional and processes required - Disposal licensing/ authenticity/ certification/ tracking</i></li> <li>• <i>Anything they know should have been done but wasn't when disposing of it?</i></li> <li>• <i>Interaction with authorities eg SafeWork, councils, EPA? What were their interactions?</i></li> <li>• <i>If disposed of by someone else - did they get proof of correct disposal - what? Why? Why not?</i></li> <li>• <i>Any challenges/difficulties - what would they do differently if had to do it again?</i></li> </ul>
<p>Encountering asbestos – awareness and perceptions of options and best practice</p> <p>USE THIS MODULE INSTEAD OF PREVIOUS FOR WHERE NOT ALL HAVE ENCOUNTERED ASBESTOS – ENCOURAGE THOSE WHO HAVE ENCOUNTERED TO DRAW ON PERSONAL EXPERIENCE /</p>	<p>REFER TO PREVIOUS EXERCISE. Thinking back to when you imagined you had unexpectedly discovered asbestos while undertaking a renovation or maintenance work at a residential property...</p> <ul style="list-style-type: none"> <li>• <i>What questions or concerns would you have about it? What do you think your focus would be or main considerations?</i></li> <li>• <i>Do you think you'd tell anyone else about it? Why / why not? Who would you want to tell? Who might you want to keep that information from? What would be the options available to you in terms of what you'd do next? And what would you be weighing up in deciding what to do? FREE FLOWING DISCUSSION, THEN PROMPT AS NECESSARY:</i></li> <li>• <i>Under what circumstances might it be tempting or even a good option to <b>just leave it in place</b>? Why do you say that? Would it depend on the amount of asbestos? Condition of asbestos? Type of asbestos? Where it was?</i></li> <li>• <i>What options are available for dealing with the asbestos (NOTE IF MOVE, REMOVE, STORING OR STOCKPILING ARE MENTIONED) EXPLORE:</i></li> <li>• <i>Who would do it/could they get to do it and option most likely to be selected and why (explore perceptions of cost; who they would seek any advice from)</i></li> <li>• <i>Whether they would remove themselves and when/under what circumstances</i></li> </ul>

<p>PROVIDE ANECDOTES</p>	
<p>Dealing with asbestos - awareness and perceptions of safety and legality</p> <p>ASK ALL AS RELEVANT,</p>	<ul style="list-style-type: none"> <li>• What do you think would constitute safe dealings with (handling, removal of) asbestos? What things do you think need to be done to make sure asbestos is handled safely when moving/removing/disposing of it? PROBE ON - <i>how perceptions might differ depending on the type, or amount, or condition of asbestos being handled?</i></li> </ul> <p>PROBE ON AWARENESS OF:</p> <ul style="list-style-type: none"> <li>• Preparation/isolation of the area</li> <li>• Minimising dust</li> <li>• Appropriate equipment</li> <li>• Safety gear (coveralls, safety glasses, gloves, covered shoes, mask/respirator)</li> <li>• Decontamination of equipment, clothing, area</li> <li>• Preparing for disposal – plastic wrapping, wetting down, pre-booking</li> <li>• Notification of Safework, neighbours or council of removal - <i>What interaction with authorities is required? [SAFEWORK IS SUPPOSED TO BE ADVISED BEFORE REMOVAL AND THEN NOTICE GIVEN TO OWNER &amp; NEIGHBOURS THAT REMOVAL WORK IS TAKING PLAC.]</i></li> <li>• Signage/ barriers</li> </ul> <ul style="list-style-type: none"> <li>• What might make it difficult for someone to safely manage asbestos? Why might someone be tempted to take shortcuts when it comes to their safety? How likely is it that there might be consequences? What sort? For whom?</li> <li>• What about <b>disposing</b> of the asbestos? What are all the options for this? And how does this change from a small piece to full sheeting? BRAINSTORM. Who might use each of these methods and why? What are the pros and cons? EXPLORE views on legality, morality, safety, convenience. Explore any differences in views based on amount/type of asbestos. GET PARTICIPANTS TO RANK FROM BEST TO WORST/LEAST BAD</li> </ul>
<p>Further probing on responsibilities, workplace culture and reasons for cutting corners</p> <p>ASK ALL</p>	<ul style="list-style-type: none"> <li>• How much concern do you think there is in the community about asbestos? Do you think there's too much concern... not enough concern..? Why do you say that?             <ul style="list-style-type: none"> <li>• What about among tradespeople who might encounter asbestos on jobs?</li> <li>• What about homeowners?</li> </ul> </li> <li>• If asbestos is discovered on a residential property, who do you feel has responsibility for making sure its managed appropriately? Who might be liable if it is not? PROBE: <i>legal versus moral responsibility, versus responsibility in practice</i></li> <li>• In a recent survey we conducted, more than half of the tradespeople we surveyed agreed that the correct handling of asbestos doesn't always happen on the job. Does that surprise you? Why/why not? Why do you think that is the case?             <ul style="list-style-type: none"> <li>• PROBE ON: <i>extent to which time and cost pressures get in the way of safety at work; insufficient awareness/training; extent to which workers are actively discouraged to take risks; extent to which workers feel comfortable to raise safety concerns</i></li> </ul> </li> <li>• Have you ever felt pressured or influenced by a client in a way that might compromise your safety in relation to asbestos? Explore What about by anyone else?</li> <li>• Thinking now about legalities... <b>What are the legal requirements for removing and disposing of asbestos? How well informed do you feel about the relevant laws and regulations relating to asbestos?</b></li> <li>• What might stand in the way of someone handling, removing or disposing of asbestos all the ways they are required to by law? PROBE ON - <i>perceptions of legal</i></li> </ul>

	<p><i>requirements – how easy or hard, how what are interactions with authorities, time, cost, neighbour concern.</i></p> <ul style="list-style-type: none"> <li>• What do you believe are the consequences if asbestos is not removed or disposed of according to the law? PROBE ON – <i>Perceived negative consequences for homeowners, transporters, others involved, waste workers, wider community. Perceived penalties under the law.</i> How likely are these consequences?</li> <li>• Are you aware of or have you heard of any ways in which people dispose of asbestos illegally? What are your views on that?</li> <li>• Do you feel that among building professionals working on residential maintenance, renovation and demolition jobs, asbestos is typically handled, removed and/or disposed of legally? Or typically not? Why do you say that? What about safely?</li> <li>• [FOR TRADES:] Do you think you / your organisation is better or worse than others in your industry when it comes to best practice asbestos management? Why do you think that’s the case?</li> </ul>
<p><b>Communications (5-10 mins)</b></p> <p><i>Role/impact of any recent communications. Additional communication needs. Exploration of preferred/expected communications channels</i></p>	
<p>Existing communications</p>	<ul style="list-style-type: none"> <li>• Thinking about any information or advice you have sought out or come across about asbestos...             <ul style="list-style-type: none"> <li>○ Who has this information or advice come from? [MAKE A LIST]</li> <li>○ Was the information easy to find?</li> <li>○ What has been MOST useful to you? Why/in what way?</li> </ul> </li> <li>• [IF NOT MENTIONED ABOVE: Have you seen or heard any advertising around asbestos safety recently? What do you recall? What stood out to you? Who was it from? [ADD ANY ADDITIONAL INFO SOURCES TO LIST]             <ul style="list-style-type: none"> <li>○ Where did you come across this and what impact did it have, if any?</li> </ul> </li> </ul>
<p>Trust in information sources</p>	<ul style="list-style-type: none"> <li>• Who do you trust most to provide information about asbestos safety? What types of information would you listen to from them?              PROBE ON: <i>Local councils, NSW State Govt (EPA, Safework, anyone else), Friends and family, Tradies/building professionals, hardware stores, Asbestos-related disease support groups and other non-government organisations such as Cancer Council NSW, the media]</i></li> </ul>
<p>Communication needs</p>	<ul style="list-style-type: none"> <li>• We’ve talked about a lot of issues relating to asbestos. Is there anything else about asbestos that you would like to know more about or anything you haven’t already mentioned?</li> <li>• [IF ENCOUNTERED/DEALT WITH ASBESTOS: Is there anything about asbestos you wish you had known when you encountered it that you didn’t know or weren’t aware of at the time?</li> <li>• More broadly, do you think this is an important topic for the community to be across? Why / why not? For which part of the community is this most important?</li> </ul>
<p>Communication channels</p>	<ul style="list-style-type: none"> <li>• From what source would you most prefer to receive or access information about asbestos? PROBE ON <i>which of the ones listed above they most prefer – Local Council, building professionals, hardware stores, state government organisations (EPA, Safework), people affected by asbestos-related diseases, NGOs, anyone else?</i></li> <li>• Where would you most prefer to find this information? In what format would it be best presented?</li> </ul>
<p>Communication wrap up</p>	<ul style="list-style-type: none"> <li>• What one thing do you think is most important for tradespeople working on older properties to know to ensure they and the people around them stay safe from asbestos exposure when working?</li> <li>• And at what point in time would it be most important/useful for them to know this?</li> <li>• What about homeowners?</li> </ul>

<b>Debriefing and close (5 mins)</b>	
Closing out the discussion	
Wrap-up	Just finally, imagine its three days from now... What do you think you might still be thinking about from today's session, if anything? What is likely to have stayed with you?
Offer thanks and refer	<p>Thank you so much for your time today, it's been a really stimulating discussion and I hope interesting for you too.</p> <p>If anything we have discussed today has raised any issues or concerns for you, here are some sources of support or information:</p> <ul style="list-style-type: none"> <li>• <a href="https://www.asbestos.nsw.gov.au/">https://www.asbestos.nsw.gov.au/</a></li> <li>• Lifeline Australia: Telephone Crisis Support – 13 11 14 (24 hours, 7 days a week) / <a href="https://www.lifeline.org.au/">https://www.lifeline.org.au/</a></li> <li>• Beyondblue: Telephone Support – 1300 22 4636 (24 hours, 7 days a week) / <a href="https://www.beyondblue.org.au/">https://www.beyondblue.org.au/</a></li> </ul>
Incentive	<i>Explain distribution of incentive (Gift Pay)</i>
Debrief	<i>Explain purpose of research, name client and close</i>

## INTERVIEW GUIDE FOR NARRATIVE JOURNEY INTERVIEWS

<p>This research explores motives and barriers to safe asbestos behaviour in private residential settings including any planning, discovery and dealing with asbestos up to the point of removal (disposal is the express remit of Phase 2 - Waste). The narrative journey interviews will focus on contextual factors, decision processes and the cascade of decisions that result in safe or unsafe behaviours in the handling and removal of asbestos in owner occupier homes in NSW. This will be achieved by exploring the twists and turns in recent (last 3 years) individual journeys with asbestos, among the following non-professional audiences:</p> <ul style="list-style-type: none"> <li>• Renovators who have discovered asbestos</li> <li>• Incidental discoverers of asbestos</li> <li>• Unpaid handypeople who have discovered asbestos</li> </ul> <p>The first part of the interviews will allow individuals to tell their story in a largely unprompted manner, focusing on what has been important to them. This will reveal the language used, concerns raised, and details or topics omitted spontaneously by discoverers of asbestos. The latter part of the interview will include more detailed questioning on specific topics and issues, based on the content of the narrative already provided. Each interview will therefore be different, based on the unique context and issues raised by the participant.</p>
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<b>Set-up and introduction (5-10 mins)</b>	
<i>Allows interviewer to set-up seating arrangement, recording etc. Sets the participant/s at ease, reiterates confidentiality and informed consent, seeks audio recording consent, covers general housekeeping.</i>	
Welcome	I'd like to thank you for giving up your time to participate in this research. We will be speaking for 60-90 minutes.
Recap of purpose and voluntary nature of participation	<p>Today we are going to be talking about your recent experience with asbestos. To confirm, your participation in this research is entirely voluntary.</p> <p>EXPLAIN - Importance of honest opinions. No right or wrong answers. Seeking personal opinions and experiences</p>

<p>Recording, viewing and confidentiality of participant information</p>	<p>With your permission, I'd like to audio record this discussion – the recording will be stored securely and will be destroyed after the end of the project. The recording enables us to listen and produce a transcript of your interview. I will then write a case study of your experiences for the report – all identifying details will be removed from the case study and any other responses we include, so they cannot be linked with you personally.</p> <p>Everything you say today is completely confidential. We are conducting interviews and group discussions with more than 100 people across the country for this project. No comment will be attributed to an individual.</p> <p>Our client for this research is a government body but I'd like to hold off telling you who exactly the client is until the end of the interview, as this knowledge might influence how you respond. Is it okay if I tell you who the client is at the end of the interview?</p>
<p><b>SECTION 1 - Narrative of the asbestos journey (35-40 mins)</b></p> <p><i>First person oral narratives provide detailed accounts of an individual experience or journey - rather than asking questions in relation to a specific topic (as in the next section), this section is guided by the research aim, but open-ended questions are asked according to the naturally occurring story being shared by the participant. This allows the most salient experiences and topics to emerge in relation to the most recent discovery of asbestos.</i></p>	
<p>Initial narrative prompt</p>	<p><b>Please share the story of the recent discovery of asbestos on/in [your property/ the property of the friend or family member you were helping] from before the discovery was made, up until today.</b></p> <p><b>Feel free to include anything you or others close to you recall about this process and experience, as well as anything you or others may have felt about this.</b></p>
<p>Prompt as required to help participant flesh out their story</p>	<ul style="list-style-type: none"> <li>• Tell me what happened.</li> <li>• What followed that?</li> <li>• Take your time.</li> <li>• What was that like for you?</li> <li>• Can you remember anything specific about that_____?</li> <li>• Can you describe why that moment stands out to you?</li> <li>• How did that relate to _____?</li> <li>• What about that was memorable or important for you?</li> <li>• What did that mean for you?</li> </ul>
<p>Note key areas to explore later in the interview if they arise</p>	<ul style="list-style-type: none"> <li>• <i>Language used</i></li> <li>• <i>Overall emotional climate of journey and feelings along the way</i></li> <li>• <i>Steps in the process and key turning points</i></li> <li>• <i>Difficult and easy parts</i></li> <li>• <i>Pleasant and unpleasant parts</i></li> <li>• <i>Perceptions of the meaning of safety and how to obtain it</i></li> <li>• <i>Level of planning, concern for and provisions regarding safety</i></li> <li>• <i>People involved in decisions vs hands-on work</i></li> <li>• <i>Knowledge and sources of knowledge</i></li> <li>• <i>Actual experience vs expectations</i></li> <li>• <i>Methods of identifying asbestos</i></li> <li>• <i>Methods of dealing with asbestos</i></li> </ul>

**SECTION 2 - General interview guide (35-40 mins)**

*This section allows specific questions to be asked about experiences across the asbestos journey, ensuring we cover consistent topics with each participant. It allows us to sensitively probe or clarify areas which were raised in the narrative section that directly relate to this set of questions. The focus here is on exploring in more depth relationships, feelings, dependencies, and flows of decision making that lead to safe or unsafe behaviour. An open-ended, non-leading question style is maintained. Questions will be customised to incorporate detail already known from responses to the narrative section.*

<p>Clarifying the overall arc of the journey and the feelings surrounding it (5 mins)</p>	<p>Thank you for sharing the story of recently discovering asbestos. Now I'm going to ask you some questions about it.</p> <ul style="list-style-type: none"> <li>• If you had to give this story or journey with asbestos a title, like a book or movie title, what would it be? GIVE A MINUTE TO CONSIDER THEN PROBE Why do you say that?</li> <li>• HAND LIST OF FEELINGS Looking back over the story, as we have been, which of these feelings do you have about your experience? Which others?</li> </ul>
<p>Clarifying the steps or stages in the journey</p>	<ul style="list-style-type: none"> <li>• If you have to break this experience into parts, sections or chapters, what would the major parts be? How would you describe these steps? How long did each take?</li> <li>• Please quickly look back at the list of feelings – which feelings would you associate with each of these parts of your experience?</li> <li>• PROBE <i>Parts or sections that were the difficult/easy, safe/unsafe, important/unimportant</i></li> </ul>
<p>Clarifying decision processes and points along the journey</p>	<ul style="list-style-type: none"> <li>• When you think of any decisions that were made in relation to the asbestos or the circumstances surrounding it, at what points were decisions made? PROBE:             <ul style="list-style-type: none"> <li>• <i>When choices were made</i></li> <li>• <i>What the choice options were</i></li> <li>• <i>Who was involved in deciding</i></li> <li>• <i>How the decision was made</i></li> <li>• <i>Factors that were taken into consideration</i></li> <li>• <i>How hazardous materials and specifically asbestos factored into these decisions</i></li> </ul> </li> </ul>
<p>Clarifying perceptions of safety in relation to asbestos</p>	<ul style="list-style-type: none"> <li>• At what points in the journey was safety an issue?</li> <li>• How did you determine what was safe or not safe in relation to this asbestos?</li> <li>• How were safety concerns weighed up against other concerns?</li> <li>• What were the non-negotiables when it came to safety?</li> <li>• Thinking back over the journey and the decisions points, which were the critical points where decisions relating to safety and asbestos were made?</li> <li>• What steps were taken when it came to safety?</li> </ul>
<p>Clarifying sources of knowledge and information about asbestos</p>	<ul style="list-style-type: none"> <li>• How did you find out about what you know about asbestos, prior to this experience with asbestos (existing knowledge), at different parts of this journey, and afterwards? PROBE INFORMATION SOURCES, PEOPLE/INFLUENCERS/ADVICE GIVERS/FAMILY ETC</li> <li>• Which information sources did you trust most? EXPLORE WHETHER/WHAT TYPES OF INFORMATION ARE BEST GAINED FROM DIFFERENT SOURCES.</li> </ul>
<p>Clarifying direct experiences with asbestos</p>	<ul style="list-style-type: none"> <li>• EXERCISE – FEELINGS AT DISCOVERY: Please close your eyes (or downcast them). Recall the situation you were in immediately before you found out about the asbestos. That is, the moment just before it came to your attention or was discovered. Bring this moment alive, including where you were, who was there, what you were doing. And once you are fully there, now bring to mind the exact moment when you found out about the asbestos.... PROBE:             <ul style="list-style-type: none"> <li>• Feelings</li> <li>• Thoughts</li> <li>• How any fear, discomfort or distress was managed</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>● CLARIFY DETAIL IN RELATION TO:             <ul style="list-style-type: none"> <li>● Main considerations</li> <li>● Location of asbestos</li> <li>● Identification of asbestos – how did they know it was asbestos?</li> <li>● Classification of asbestos – who classified it and how?</li> <li>● Quantity, condition</li> <li>● Options available for dealing with/removing/disposing and how decisions were made</li> <li>● Communicating, consulting, advice and the involvement of others, incl keeping it from others</li> <li>● Responsibility for dealing with asbestos (perceptions and reality)</li> <li>● Choice of licensed or other professionals</li> </ul> </li> <li>● What was done with the asbestos? (E.g. Was it left, disturbed, moved or removed?)</li> </ul> <p>IF NOTHING DONE/LEFT AS IS, CLARIFY:</p> <ul style="list-style-type: none"> <li>● Why it was left as is?</li> <li>● How do they feel about it?</li> <li>● Did they know they had to do something and still not do it? (ie did they deliberately or otherwise choose not to ‘do the right thing’). Would they do anything differently looking back?</li> <li>● Any maintenance plan? Future plans to remove?</li> </ul> <p>IF MOVED/REMOVED FROM WHERE IT WAS, CLARIFY:</p> <ul style="list-style-type: none"> <li>● Who handled the asbestos and decision-making regarding this</li> <li>● If specialist removalist used: licensing/ authenticity/ certification</li> <li>● Specific safety precautions taken and reason, including preparing for disposal</li> <li>● Anything they know should have been done but wasn’t when moving or removing it?</li> <li>● Any challenges/difficulties - what would they do differently if had to do it again</li> <li>● Timing – when was disposal considered? Who raised it?</li> <li>● Consideration of options that were available, decision factors, and role of advice/info seeking</li> <li>● Who disposed of it and how, and decision-making regarding this (especially want to understand specific reasons for any improper or illegal disposal, such as use of skips, residential bins, burying onsite etc)</li> <li>● Perceptions of responsibility/liability</li> <li>● Knowledge and decision making re use of appropriate professional and processes required - Disposal licensing/ authenticity/ certification/ tracking</li> <li>● Anything they know should have been done but wasn’t when disposing of it?</li> <li>● If disposed of by someone else – did they get proof of correct disposal – what? Why? Why not?</li> <li>● Any challenges/difficulties - what would they do differently if had to do it again?</li> </ul>
<p>Future expectations re asbestos</p>	<p>Do you know or suspect there may be any other asbestos on your property? EXPLORE</p> <ul style="list-style-type: none"> <li>● <i>Feelings - in relation to this and approach to managing these feelings</i></li> <li>● <i>Actions - approach to dealing this with this/ any maintenance plans or other plans</i></li> </ul>
<p><b>Summary and close (5 mins)</b></p> <p>Closing out the interview</p>	
<p>Review</p>	<p>MAGIC WAND EXERCISE - Just thinking back to this whole experience with asbestos, if you could wave a magic wand and change one thing – one thing that would have improved it for you, what would that one thing be?</p> <p>And if you had to go through this again, what would you do differently next time? What else?</p>

Offer thanks and refer is appropriate	<p>Thank you so much for your time today, it's been a really stimulating discussion and I hope interesting for you too.</p> <p>If anything we have discussed today has raised any issues or concerns for you, here are some sources of support or information:</p> <ul style="list-style-type: none"> <li>• <a href="https://www.asbestos.nsw.gov.au/">https://www.asbestos.nsw.gov.au/</a></li> <li>• Lifeline Australia: Telephone Crisis Support – 13 11 14 (24 hours, 7 days a week) / <a href="https://www.lifeline.org.au/">https://www.lifeline.org.au/</a></li> <li>• Beyondblue: Telephone Support – 1300 22 4636 (24 hours, 7 days a week) / <a href="https://www.beyondblue.org.au/">https://www.beyondblue.org.au/</a></li> </ul>
Incentive	<i>Explain distribution of incentive (Gift Pay)</i>
Debrief	<i>Explain purpose of research, name client and close</i>

## INTERVIEW GUIDE FOR THOSE PERSONALLY AFFECTED BY ASBESTOS-RELATED HEALTH ISSUES

The purpose of these interviews is to capture unique insights they might have that could help intervention and comms design and to identify any sensitivities these need to account for. Overall – listen out for sensitivities, sentiments and knowledge that pertains to the impact of being personally affected – observe how has this shaped their responses and note what insights can be drawn from these people about how to encourage safe behaviour in the community. Be alert to any issues they may have with particular communications approaches, behaviours, messages etc. Checks regularly they are in an emotional state to continue the interview.

<b>Arrival and introduction (5 mins)</b>	
<i>Sets the participant/s at ease, reiterates confidentiality and informed consent, seeks audio recording consent, covers general housekeeping and group rules of engagement.</i>	
Welcome	I'd like to thank you for giving up your time to participate in this research. We will be here for 60 minutes.
Recap of purpose and voluntary nature of participation	<p>Today we are going to be talking about safety in the home when dealing with hazardous materials.</p> <p>To confirm, your participation in this research is entirely voluntary.</p> <p>EXPLAIN - Importance of honest opinions. No right or wrong answers. Seeking personal opinions and experiences.</p>
Recording, viewing and confidentiality of participant information	<p>With your permission, I'd like to record this discussion so that we can refer back to it or so a transcript might be produced. Our client may also like the opportunity to listen to the recording. The recording will not be passed on to any other third parties, will be stored securely and will be destroyed after the end of the project. (DO NOT RECORD IF NO PERMISSION. RECORDING WILL NOT BE AVAILABLE TO CLIENT IF ANYONE DOES NOT GIVE PERMISSION.)</p> <p>If possible, we would like to hold off telling you who the client is/the government body where they work, as this knowledge might influence how you respond during this interview. Is it okay if I tell you who the client is at the end?</p>

	Everything you say today is completely confidential. We are conducting interviews and group discussions with more than 100 people across Australia. No comment will be attributed to an individual. No consequences will result from anything you say.
Housekeeping	Mobile phones
<b>Home improvement or maintenance decision making and planning (5 mins)</b>	
<i>This module explores the extent to which improvement or maintenance activities are planned and the way in which decisions about this are made, including what is prioritised in the process and which actors influence this process.</i>	
<p>Motivations, priorities, challenges &amp; concerns relating to home maintenance or improvement/renovations.</p> <p>General views on planning, including for more minor maintenance, specifically the extent to which safety is considered beforehand</p>	<p>Thinking about when people you are close to (family or close friends) embark on maintenance, renovation or home improvement projects...</p> <ul style="list-style-type: none"> <li>• What do you think should be considered when doing maintenance or improvements to property?</li> <li>• What hopes would you have?</li> <li>• What concerns?</li> </ul> <p>Let's think about the minor installation, maintenance and repair work that one does on one's property from time to time...</p> <ul style="list-style-type: none"> <li>• What sorts of things have you planned for, before picking up tools? What, sorts of things can potentially go wrong, when doing this sort of work?</li> <li>• To what extent is it important to plan for encountering hazardous materials when doing this sort of work? What sorts of materials might one encounter? In what situations?</li> <li>• How would one know if hazardous materials were on a property? What could one do to find out? Would this be hard or easy? Whose responsibility is it to do this?</li> <li>• What precautions could one take to prevent against exposure to hazardous materials when doing minor installation, maintenance and repair work around one's house and yard? Have [you / others in your household / others helping you] ever taken such precautions? Why / why not? In what situations?</li> </ul>
<b>Associations, personal experience, knowledge and attitudes (20 mins)</b>	
<i>This module explores what perceptions about hazardous materials (specifically asbestos) exist and how these are formed (information sources)</i>	
<p>Unprompted emotional associations with asbestos. Impact of any emotional distress prompted by discovery of asbestos</p> <p>[TASK TO ELICIT TOP OF MIND AND DEEPER ASSOCIATIONS]</p>	<p><b>EXERCISE 1 – HAND OUT LISTS OF FEELINGS FACE DOWN</b></p> <p>I'm going to say aloud a word. When you see/hear the word, I'd like you to turn over the page and scan it.</p> <p>“Asbestos”</p> <p>Now circle the two or three (or more) feelings that first come to you when you see/hear this word. If there is something not covered it in the list, please write it in.</p> <p><b>EXERCISE 2 - Imagine a new neighbour has moved in that you've become friendly with. They want to do some home improvements to their property, and a tradesperson has advised them that they have asbestos. They have never heard of asbestos, as they are from a country where asbestos was never used in residential housing. They intend to do all the renovation work themselves.</b></p> <p>Now flip your paper over and in the thought and speaking bubbles write:</p> <p><b>How do you feel or what do you think to yourself?</b> Please write this in the cloud bubble</p>

	<p><b>What you would have an impulse to do or what action would you want to take?</b> Please write this in the third action bubble</p> <p><b>What you would actually say to your neighbour?</b> Please write this in the speaking bubble</p> <ul style="list-style-type: none"> <li>• <i>Briefly discuss feelings associated with asbestos and advice they would give to neighbour.</i></li> <li>• <i>PROBE Factors that would vary the response (e.g. location of asbestos, amount of asbestos, condition of asbestos, personal knowledge, experience or confidence regarding asbestos, who lives in the home etc</i></li> </ul>
<p>Personal narrative and salience of asbestos</p>	<p><b>Please share with me a little about your experiences with asbestos and asbestos-related illness, so I can better understand your personal situation. PROMPT AS REQUIRED TO ASCERTAIN:</b></p> <ul style="list-style-type: none"> <li>• <i>Who was/is affected?</i></li> <li>• <i>How? How long ago?</i></li> <li>• <i>Knowledge of their exposure to asbestos?</i></li> <li>• <i>How this all has affected them?</i></li> <li>• <i>How much of a concern is asbestos to them personally?</i></li> <li>• <i>What concerns them most about it?</i></li> </ul>
<p>Personal associations with asbestos</p>	<ul style="list-style-type: none"> <li>• <i>How relevant to you personally is the topic of exposure to asbestos?</i></li> <li>• <i>What do you perceive your personal risk of exposure to asbestos to be currently? What about in the past?</i></li> <li>• <i>PROBE ON - awareness or suspicion of any asbestos on/in property and how they know/suspect this.</i></li> <li>• <i>Do you think any people or family close to you are at risk of exposure to asbestos? Why do you say that?</i></li> <li>• <i>What sorts of conversations have you had about asbestos, if any? With whom?</i></li> <li>• <i>If you hadn't had this personal experience, would you have different views or act any differently when it comes to asbestos? How?</i></li> </ul>
<p>Actual knowledge regarding asbestos risk</p>	<ul style="list-style-type: none"> <li>• <i>How much of an issue do you think asbestos is for people living in NSW?</i></li> <li>• <b>PROBE ON</b> <ul style="list-style-type: none"> <li>○ <i>How widespread it is in NSW?</i></li> <li>○ <i>The types of properties that are likely to contain asbestos/age of property?</i></li> <li>○ <i>How safe is it? How dangerous is it? Why?/Why not?</i></li> <li>○ <i>If considered dangerous, what makes it dangerous for people?</i></li> <li>○ <i>When it is or could it become dangerous?</i></li> <li>○ <i>Who is most likely to be affected by it? / Who do you think is most at risk of harm?</i></li> </ul> </li> </ul>
<p>Knowledge regarding identification of asbestos</p>	<ul style="list-style-type: none"> <li>• <i>Where on a property do you think asbestos might be found? What types of building materials is it potentially in? What does it look like?</i></li> <li>• <i>How can someone tell if something on their property is made from or contains asbestos?</i></li> </ul>

	<ul style="list-style-type: none"> <li>• How can someone tell if something on their property, like soil, might be contaminated with asbestos?</li> </ul>
<p><b>Dealing with asbestos (15 mins)</b></p> <p><i>This module explores perceptions, expectations and experiences relating to dealing with asbestos on a residential property, including exploring different options/possibilities available, and perceptions of safety and legality,.</i></p>	
<p>Encountering asbestos – establishes the extent to which participants/ loved ones have actually encountered asbestos and gathers relevant information</p>	<ul style="list-style-type: none"> <li>• Tell me briefly about you or your close family/friends' experiences involving asbestos? PROBE ON:             <ul style="list-style-type: none"> <li>• <i>Where it was found /location/who found it/ feelings when found?</i></li> </ul> </li> <li>• Let's talk a little more about <b>how they/you knew it was asbestos/identifying asbestos</b> EXPLORE:             <ul style="list-style-type: none"> <li>• <i>How they knew it was asbestos? Who identified it as asbestos? How did they know? Was any advice or information conflicting?</i></li> <li>• <i>How confident were they that it was actually asbestos? Was it tested? What/how much was tested?</i></li> <li>• <i>Did they definitively find out if it was asbestos, or assume/leave uncertain? Were you comfortable with this?</i></li> <li>• <i>Type of asbestos – how did they classify it? NOTE USE OF TERMS 'bonded' and 'friable' - Are these terms meaningful?</i></li> <li>• <i>Quantity of asbestos</i></li> </ul> </li> </ul>
<p>Specific experiences dealing with asbestos</p> <p>ADJUST LANGUAGE ACCORDINGLY</p>	<ul style="list-style-type: none"> <li>• Let's talk more about <b>decision-making when the asbestos was encountered...</b> PROBE ON:             <ul style="list-style-type: none"> <li>• <i>What were the main considerations when the asbestos was encountered?</i></li> <li>• <i>What options were available that they/you were aware of at the time? Explore options they had for handling/moving/getting rid of it.</i></li> <li>• <i>Did you tell anyone else about the asbestos? Why / why not? Who? Is there anyone you didn't want to know about it?</i></li> <li>• <i>Did you seek any advice? From who/where? Any other information sources? Explore trust in the different sources of advice/weighing up of advice.</i></li> <li>• <i>Involvement of and interactions between professionals, family, friends, neighbours, authorities, any other parties? Whose responsibility/liability to deal with it?</i></li> </ul> </li> <li>• <i>What was done with the asbestos? (E.g. Was it left, disturbed, moved or removed?)</i></li> </ul> <p>IF NOTHING DONE/LEFT AS IS, PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Why it was left as is?</i></li> <li>• <i>How do they feel about it?</i></li> <li>• <i>Did they know they had to do something and still not do it? (ie did they deliberately or otherwise choose not to 'do the right thing'). Would they do anything differently looking back?</i></li> <li>• <i>Any maintenance plan? Future plans to remove?</i></li> </ul> <p>IF MADE SAFE, MOVED OR REMOVED FROM WHERE IT WAS, PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Who handled the asbestos and decision-making regarding this</i></li> </ul>

	<ul style="list-style-type: none"> <li>• <i>If specialist removalist used: licensing/ authenticity/ certification</i></li> <li>• <i>Specific safety precautions taken and reason, including preparing for disposal</i></li> <li>• <i>Anything they know should have been done but wasn't when managing or removing it?</i></li> <li>• <i>Any challenges/difficulties - what would they do differently if had to do it again</i></li> </ul> <p>[IF MOVED/REMOVED] Let's talk now about <b>where the asbestos ended up and how.</b></p> <p>PROBE ON:</p> <ul style="list-style-type: none"> <li>• <i>Timing – when was disposal considered? Who raised it?</i></li> <li>• <i>Consideration of options that were available, decision factors, and role of advice/info seeking</i></li> <li>• <i>Who disposed of it and how, and decision-making regarding this (especially want to understand specific reasons for any improper or illegal disposal, such as use of skips, residential bins, burying onsite etc)</i></li> <li>• <i>Perceptions of responsibility/liability and legality</i></li> <li>• <i>Knowledge and decision making re use of appropriate professional and processes required - Disposal licensing/ authenticity/ certification/ tracking</i></li> <li>• <i>Anything they know should have been done but wasn't when disposing of it?</i></li> <li>• <i>If disposed of by someone else – did they get proof of correct disposal – what? Why? Why not?</i></li> <li>• <i>Any challenges/difficulties - what would they do differently if had to do it again?</i></li> </ul>
<p>Encountering asbestos – awareness and perceptions of safety and legality</p>	<ul style="list-style-type: none"> <li>• <i>What is your understanding of safe dealings with (handling, removal of) asbestos? What things do you think need to be done to make sure asbestos is handled safely when moving/removing/disposing of it? PROBE ON - how perceptions might differ depending on the type, or amount, or condition of asbestos being handled?</i></li> </ul> <p>PROBE ON AWARENESS OF:</p> <ul style="list-style-type: none"> <li>• <i>Preparation/isolation of the area</i></li> <li>• <i>Minimising dust</i></li> <li>• <i>Appropriate equipment</i></li> <li>• <i>Safety gear (coveralls, safety glasses, gloves, covered shoes, mask/respirator)</i></li> <li>• <i>Decontamination of equipment, clothing, area</i></li> <li>• <i>Preparing for disposal – plastic wrapping, wetting down, pre-booking</i></li> <li>• <i>Notification of Safework or council of removal</i></li> <li>• <i>Signage/ barriers</i></li> </ul> <ul style="list-style-type: none"> <li>• <i>What might make it difficult for someone to safely manage asbestos? Why might someone be tempted to take shortcuts when it comes to their safety? How likely is it that there might be consequences? What sort? For whom?</i></li> <li>• <i>What options are available for dealing with the asbestos (NOTE IF MOVE, REMOVE, STORING OR STOCKPILING ARE MENTIONED) EXPLORE:</i></li> <li>• <i>Who would do it/could they get to do it and option most likely to be selected and why (explore perceptions of cost; who they would seek any advice from)</i></li> <li>• <i>Whether they would remove themselves and when/under what circumstances? Confidence in knowledge/skills to do this?</i></li> </ul>

	<ul style="list-style-type: none"> <li>• What about disposing of the asbestos? What are all the options for this? And how does this change from a small piece to full sheeting? Who might use each of these methods and why? What are the pros and cons?</li> <li>• Under what circumstances might it be tempting or even a good option to just leave asbestos in place? Why do you say that? Would it depend on the amount of asbestos? Condition of asbestos? Type of asbestos? Where it was?</li> <li>• <i>EXPLORE views on legality, morality, safety, convenience. Explore any differences in views based on amount/type of asbestos. <b>Explore impact of being personally affected on their views</b></i></li> <li>• If asbestos is discovered on a residential property, who has responsibility for making sure its managed appropriately? Who might be liable if it is not?</li> <li>• What might stand in the way of someone handling, removing or disposing of asbestos all the ways they are required to by law? What do you believe are the consequences if asbestos is not removed or disposed of according to the law? <b>PROBE ON</b> – Perceived negative consequences for homeowners, transporters, others involved, waste workers, wider community. Perceived penalties under the law. How likely are these consequences?</li> <li>• Are you aware of or have you heard of any ways in which people dispose of asbestos illegally? What are your views on that?</li> </ul>
<p><b>Communications (10 mins)</b></p> <p><i>Role/impact of any recent communications. Additional communication needs. Exploration of preferred/expected/trusted communications sources and channels</i></p>	
<p>Reflection on sources of awareness/social influence, existing communications</p>	<p>How do you know what you know about asbestos...</p> <ul style="list-style-type: none"> <li>• Thinking about any information or advice you have sought out or come across about asbestos... <ul style="list-style-type: none"> <li>○ Who has this information or advice come from? <b>NOTE SOURCES MENTIONED</b></li> <li>○ Was the information easy to find?</li> <li>○ What has been <b>MOST</b> useful to you? Why/in what way?</li> </ul> </li> <li>• Have you seen or heard any advertising around asbestos safety recently? What do you recall? What stood out to you? Who was it from? Where did you come across this and what impact did it have, if any?</li> </ul>
<p>Trust in and preference for information sources</p>	<ul style="list-style-type: none"> <li>• Of all the sources of information about asbestos, which source/s do you most <b>trust</b> to provide information about asbestos safety? <b>ENSURE CONSIDER:</b> <i>Local councils, NSW State Govt (EPA, Safework, anyone else), Friends and family, Tradies/building professionals, hardware stores, Asbestos-related disease support groups and other non-government organisations such as Cancer Council NSW, the media]</i></li> <li>• <i>Explore what specific types of information they most trust each type of source to provide/cover.</i></li> <li>• From what source would you most <b>prefer</b> to receive or access information about asbestos?</li> <li>• <b>Where</b> would you most prefer to find this information? In what format would it be best presented? <b>PROBE CHANNELS, CONTEXT, TIMING ETC</b></li> </ul>

<p>Communication needs</p>	<ul style="list-style-type: none"> <li>• We've talked about a lot of issues relating to asbestos. Is there anything else about asbestos that you would like to know more about or anything that is hard to find information about?</li> <li>• <b>Is there anything about asbestos you wish you had known in the past but weren't aware of at the time?</b></li> <li>• More broadly, do you think this is an important topic for the community to be across? Why / why not? For which part of the community is this most important?</li> </ul>
<p>Communication wrap up</p>	<ul style="list-style-type: none"> <li>• <b>Given your personal experiences with asbestos and asbestos-related disease, what one thing do you think is most important for people to know to ensure they and the people around them stay safe from asbestos exposure when maintaining, improving or renovating a property?</b></li> <li>• <b>What knowledge would you share and with whom about asbestos to motivate them to act safety?</b></li> <li>• And at what point in time would it be most important/useful for them to know this?</li> </ul>
<p><b>Debriefing and close (5 mins)</b> Closing out the discussion</p>	
<p>Wrap-up</p>	<p><b>Overall, how do you believe your personal experiences with asbestos-related illness have shaped what we have discussed today?</b></p>
<p>Offer thanks and refer</p>	<p>Thank you so much for your time today, it's been a really stimulating discussion and I hope interesting for you too.</p> <p>If anything we have discussed today has raised any issues or concerns for you, here are some sources of support or information:</p> <ul style="list-style-type: none"> <li>• <a href="https://www.asbestos.nsw.gov.au/">https://www.asbestos.nsw.gov.au/</a></li> <li>• Lifeline Australia: Telephone Crisis Support – 13 11 14 (24 hours, 7 days a week) / <a href="https://www.lifeline.org.au/">https://www.lifeline.org.au/</a></li> <li>• Beyondblue: Telephone Support – 1300 22 4636 (24 hours, 7 days a week) / <a href="https://www.beyondblue.org.au/">https://www.beyondblue.org.au/</a></li> </ul>
<p>Incentive</p>	<p><i>Explain distribution of incentive (Gift Pay)</i></p>
<p>Debrief</p>	<p>EXPLAIN PURPOSE OF RESEARCH (TO ENCOURAGED SAFE BEHAVIOUR WITH ASBESTOS) AND WHO CLIENT, IS IF NOT PREVIOUSLY DISCLOSED.</p> <p>CLOSE</p>