Removal notifications and removal quantities

Asbestos removal notifications provided to work health and safety regulators

Asbestos removal works are notified to Work Health and Safety (WHS) regulators five days prior to the activity with the estimated amount of ACM to be removed. The only exception is Western Australia who require friable removal works to be reported seven days prior to the activity.

Since 2013-14, there has been a steady increase in the number of asbestos removal notifications being reported nationally.

Figure 11: Notification of asbestos removal (to WHS regulators)

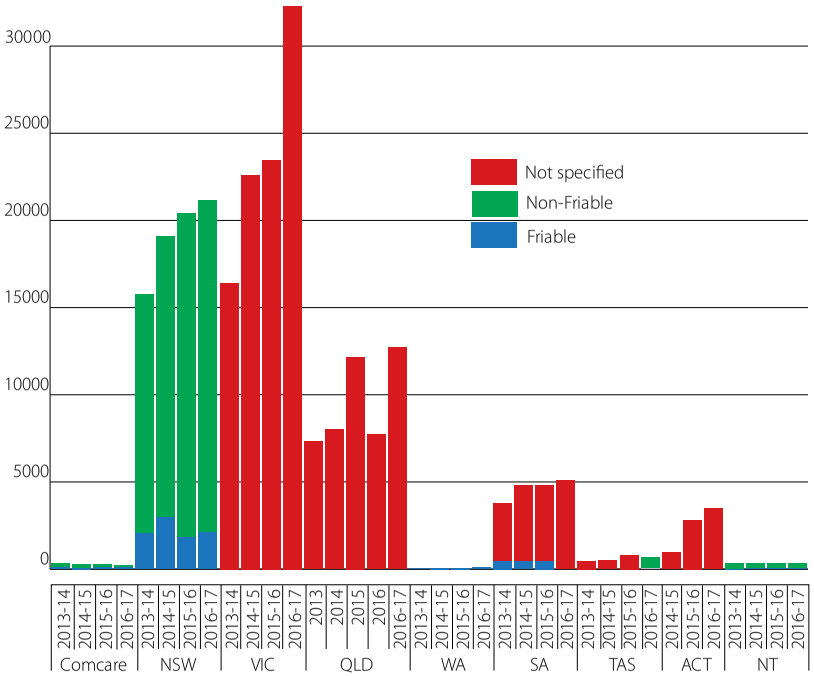


Table 1: Sum of licenced asbestos removal work notifications across all jurisdictions

This table outlines the number of notifications WHS regulators have received for asbestos removal works. Reviewing the data collected to date, there is a national trend towards increasing numbers of removal notifications.

This may reflect that the number of removal jobs is increasing or there is an improved understanding of reporting requirements by duty holders, or a combination of these factors.

	Number of notifications received by WHS regulators			
Financial year, unless otherwise indicated	Friable	Non-Friable	Not specified	Total
Comcare	**326**	**815**		**1,141**
2013-14	85	276		361
2014-15	66	205		271
2015-16	95	207		302
2016-17	80 (Class A)	127 (Class B)		207
NSW	**8,930**	**67,481**		**76,411**
2013-14	2,053	13,709		15,762
2014-15	2,963	16,124		19,087
2015-16	1,799	18,602		20,401
2016-17	2,115	19,046		21,161
VIC			**94,776**	**94,776**
2013-14			16,411	16,411
2014-15			22,606	22,606
2015-16			23,459	23,459
2016-17			32,300	32,300
QLD			**47,953**	**47,953**
2013			7,320	7,320
2014			8,002	8,002
2015			12,169	12,169
2016			7,734	7,734
2016-17			12,728	12,728
WA	**237**			**237**
2013-14	37			37
2014-15	63			63
2015-16	58			58
2016-17	79			79
SA	**1,389**	**11,981**	**5,093**	**18,463**
2013-14	464	3,305		3,769
2014-15	455	4,347		4,802
2015-16	470	4,329		4,799
2016-17			5,093	5,093
TAS	**38**	**655**	**1,781**	**2,474**
2013-14			465	465
2014-15			508	508
2015-16			808	808
2016-17	38 (Class A)	655 (Class B)		693
ACT			**7,231**	**7,231**
2014-15			961	961
2015-16			2,813	2,813
2016-17			3,457	3,457
NT	**96**	**1,207**		**1,303**
2013-14	13	288		301
2014-15	28	287		315
2015-16	30	338		368
2016-17	25	294		319
Total	**11,016**	**82,139**	**156,834**	**249,989**

Table 2: Quantity of asbestos removed (where available)

There are currently no uniform requirements on how asbestos removal notification data is provided across jurisdictions. Asbestos removalists provide information on the quantity of asbestos to be removed in a wide range of formats (including metres squared, cubic metres, tonnes, bags, skips) and amounts are generally estimated. The development of a more consistent process for collating and reporting removal notification data would improve the ability to monitor and analyse removal patterns and trends.

Data suggests the number of removal jobs are increasing, however the quantity is not necessarily increasing. More consistent guidance in this area would improve the possibility of analysis and understanding of removal trends in Australia.

Jurisdiction	Financial year, unless otherwise indicated	Type	Estimated quantity removed m^3	Estimated quantity removed m^3	Estimated quantity removed tonnes
Comcare	2013-14	Friable	112512		
	2014-15	Friable	450849		
	2015-16	Friable	234175		
	2016-17	Friable	Data not captured		
	2013-14	Non-friable	1401539		
	2014-15	Non-friable	200147		
	2015-16	Non-friable	122483		
	2016-17	Non-friable	Data not captured		
NSW	2013 (Oct-Dec)	Friable	58205		25647
	2014	Friable	269067		110978
	2015	Friable	354682		702878
	2016	Friable	269798		1164947
	2017 (Jan – Sep)	Friable	385405		2021497
	2013 (Oct-Dec)	Non-friable	497158		NA
	2014	Non-friable	2012713		NA
	2015	Non-friable	2206443		Plus 153 tonnes
	2016	Non-friable	2663338		NA
	2017 (Jan – Sep)	Non-friable	2822598		NA
VIC	2013-14	Friable		13810	
	2014-15	Friable		121580	
	2015-16	Friable		16571	
	2016-17	Friable		61663	
	2013-14	Non-friable	1076366		
	2014-15	Non-friable	1132570		
	2015-16	Non-friable	1238793		
	2016-17	Non-friable	1176926		
QLD	2015**	Not-specified	1138000	55800	177330
	2016***	Not-specified	1114000		
	2016-17	Not specified	1036759	6416	1127.54
WA	2016-17	NA			
SA	2013-14	Friable	19794		
	2014-15	Friable	35688		
	2015-16	Friable	28710		
	2016-17	Friable	34580		
	2013-14	Non-friable	387621		
	2014-15	Non-friable	464511		
	2015-16	Non-friable	421903		
	2016-17	Non-friable	424,440		
TAS	2016-17	Friable	9556		
	2016-17	Non-friable	66491		
ACT	2015	Friable & Non-friable			13.74
	2016	Friable & Non-friable			16.26
	2016-17	NA*			
NT	2016-17	Not specified			5889.33

*WorkSafe ACT's notification form requires the licensed asbestos removal company to provide an estimate of the square metreage of asbestos containing material to be removed. This information is not aggregated and serves only as an estimate. The amount of asbestos containing material removed in practice is not quantified by WorkSafe ACT.

** As notified by duty holders – As duty holders have flexibility in how they specify the estimated quantity of asbestos being removed, there are other formats specified (for example bags, doors, gaskets, unspecified number of sheets). The figures estimated for 2015 do not include asbestos specified in other formats

***Complete data not provided – estimate

Asbestos disposal data

- Waste disposal data indicates more asbestos waste has been reported in 2016-17 than any previous year that data has been collected in Australia.
- This supports the trend that our ageing asbestos legacy is now a waste stream challenge, with the levels of asbestos waste likely to continue rising.
- Some data limitations are noted and there is a need to ensure accurate and consistent reporting of waste data to support a nationally coordinated approach to asbestos.

Asbestos waste disposal data is tracked by environment protection authorities.State and territory governments capture data on asbestos contaminated waste from their tracking systems for hazardous wastes and/or reports from licensed landfill operators. Data was provided by these governments, some directly and some from historical submissions to the Australian Government for inclusion in its annual report under *The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.*

In considering the data, the following issues should be understood:

1. Hazardous waste tracking systems are maintained primarily to enable checking of transport certificates and operators in the event of suspected illicit activity. Many thousands of records are collected each year. They are infrequently collated, and gaps or even errors may not be readily recognised or followed up.[3]
2. The extent of contamination before waste is deemed 'asbestos contaminated' may differ between jurisdictions. NSW appears to take a particularly risk-averse position, which may partially explain its generation of high volumes of asbestos contaminated waste.
3. Some asbestos contaminated waste may be excluded from this record, including
   - domestic or smaller loads, which, in some jurisdictions, do not need to be tracked
   - soil contaminated with asbestos, which could potentially be reported as 'contaminated soil' rather than 'asbestos contaminated waste'
   - waste from natural disasters.
4. Waste may be reported in volumetric units, requiring conversion to weight. *The Australian Hazardous Waste Data and Reporting Standard* applies an assumed average density of 0.8 tonnes per cubic metre[5]. Some states and territories may apply a different assumed density. Victoria, in particular, applies a uniform density assumption of 1 tonne per cubic metre to all prescribed wastes including asbestos.

Tonnages and trends

Quantities of asbestos contaminated waste generated in 2016-17 are presented by state and territory in Table 1. Longer term annual trend data is shown in tonnes in Figure 1 and in kilograms per capita in Figure 2. Almost invariably, the fate of waste asbestos is disposal in landfill.

Four of the six reporting jurisdictions produced more asbestos in 2016-17 than in any previous year for which data is available. Only in SA and the NT did quantities decline. Notably, the ACT produced over 200,000 tonnes of asbestos waste, equivalent to about half a tonne per person, from the demolition and disposal of 'Mr Fluffy' dwellings. NSW generated over 675,000 tonnes, the highest of any state in any year for which data is available. The collated quantity from the reporting jurisdictions exceeded a million tonnes for the first time.

Figures 1 and 2 show that quantities vary significantly between years and jurisdictions. Spikes are often associated with particular large development projects. NSW usually produces the most asbestos contaminated waste in total as well as per person. In the most recent year, the ACT generated by far the most asbestos contaminated waste per person. Overall, a rising trend is apparent.

[3] In relation to Queensland's 2014-15 data, in particular, *Hazardous Waste in Australia 2017*[4] observed that about 400,000 tonnes of the reported transactions were "recorded as greater than 50m^3 each – which is not physically possible for a truck to carry". Incorrect selection of units is likely in many of these cases. Subtracting this quantity would bring the figure down to about 130,000 tonnes, similar to the 2012-13 figure. No such subtraction has occurred in the figures presented below.

[4] See page 123. Document available from http://www.environment.gov.au/protection/publications/hazardous-waste-australia-2017

[5] See Appendix E. Document available from **http://www.environment.gov.au/protection/national-waste-policy/publications/australian-hazardous-waste-data-reporting-standard**

Table 3: Quantities of asbestos contaminated waste generated by jurisdiction, 2016-17 (tonnes)

ACT	NSW	NT	Qld	SA	Tas	Vic	WA
208,474	675,396	5,913	No report[6]	4,383	15,228	118,626	No report[7]

[6] A response was not received in time for inclusion in this data set.
[7] A response was not received due to concerns over the confidentiality provisions in the relevant WA legislation.

Figure 13: Quantities of asbestos contaminated waste generated by jurisdiction and year (kilograms per person)

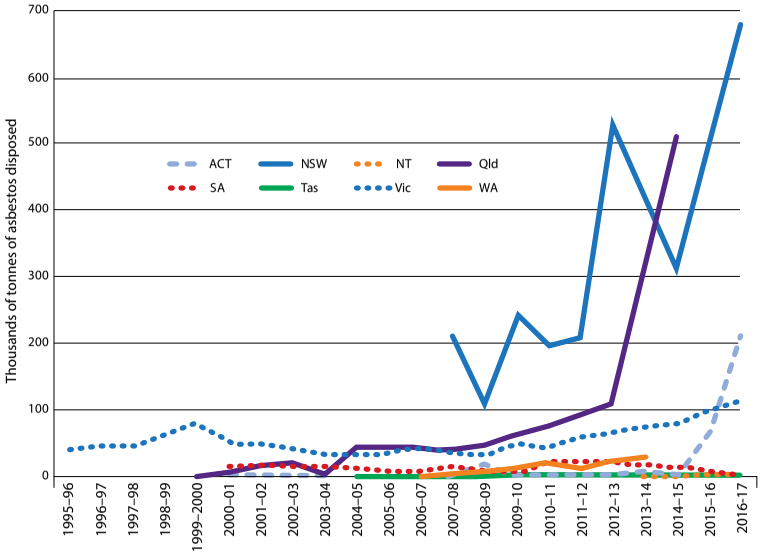
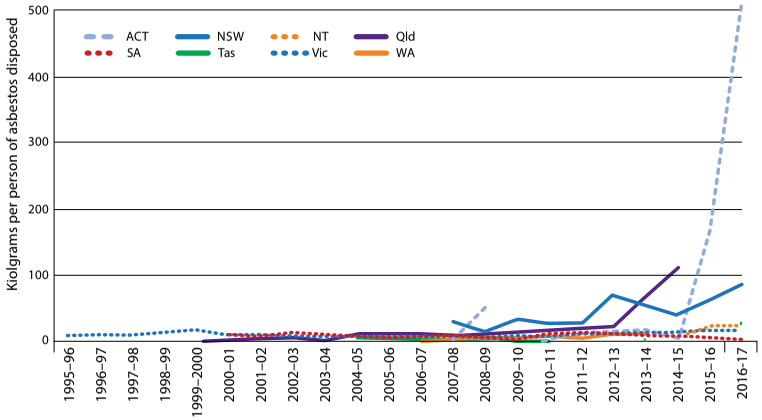


Figure 2: Quantities of asbestos contaminated waste generated by jurisdiction and year (kilograms per person



SECTION 3 –CASE STUDIES

This chapter presents case studies for specific projects. These case studies have been developed showing a variety of approaches to asbestos management and awareness across Australia. This section shows the depth of work being undertaken by governments in Australia working towards the outcomes of the National Strategic Plan.

Cox Peninsula remediation

Link to the National Strategic Plan:

Strategy:
Removal

Deliverable:
Develop and conduct projects in various locations and conditions where ACMs are in poor condition or likely to cause risks to ensure removal approaches are effective

Outcome:
Options to remove asbestos in poor condition are practical, evidence-based and targeted towards sources of asbestos-related disease

Location:
Northern Territory, Cox Peninsula

The issue

The Australian Government owns several parcels of land on the Cox Peninsula that have been used for over 70 years for maritime, communications and defence purposes. A range of contaminants, including asbestos were present at the site and the Commonwealth committed to remediate the land and return the land to a similar condition, as best as possible, to that prior to its maritime use. This included removal of all buildings, communication towers and infrastructure, remediation of several tip sites across the land and protection of Indigenous and European heritage sites.

Action taken

Initially, environmental consultants undertook extensive sampling on the contamination covering approximately 1,000 locations. All samples were analysed by NATA accredited laboratories with the overall site assessment works overseen by an independent Site Auditor.
It was estimated that approximately 28,000 m^3 of contaminated material was present and a remediation plan was developed.

The remediation plan for the site involved several phases:

- the demolition and removal of existing structures, including recycling of waste where possible
- treatment of soils containing Polychlorinated Biphenyls (PCBs) and pesticides via a thermal desorption unit
- placement of ACMs and other inert wastes, including materials currently stored within shipping containers on site, into an engineered containment cell
- rehabilitation of the remediated areas and ongoing monitoring of the containment cell.

The majority of the areas will be remediated to an open space land environmental use standard, meaning the land will be returned to its natural state without any residual contaminants. The former Radio Australia Transmitter Station, where the containment cell is located, will be remediated to a commercial / industrial land environmental use standard.

The asbestos management program for the Cox Peninsula was undertaken over a 12-month period from March 2016 to March 2017. A permanent containment cell was constructed on the site to encapsulate the contaminated materials measuring approximately 100 metres by 100 metres in size, and to a depth of up to 8 metres. Before excavation works began, redundant underground cables, including some asbestos pipes, were excavated and removed. The area was excavated below ground and the base was lined with low permeability membranes. A collection system was installed to collect liquid that may leach out of the waste over time. Only inert materials were deposited in the cell, meaning very small quantities of leachate are likely to be generated. The containment cell was designed to mitigate leachate generation and to minimise leachate escaping. Once the containment cell was filled, a cap was constructed over the top of the cell to encapsulate the material. The cap consisted of a low permeability membrane and a clay layer. The cell was then covered with some of the clean soil that was initially excavated to construct the cell.

Results

The decision to remediate the Cox Peninsula was driven by the need to protect the local community from potential exposure to hazardous materials and to meet the requirements of an Indigenous Land Claim requiring the Commonwealth to hand back the land in a condition that was suitable for use by the local indigenous communities and potential future development. There was strong community and political support to fund what was ultimately a large remediation project. The benefits to the community through reduced risk and the return of land to its traditional owners was deemed to justify the required investment in the project.

Outcomes

The project presented a range of challenges, most notably the working conditions for contractors and meeting the expectations of stakeholders, including the traditional landowners who will progressively receive the land as localised areas of contamination are remediated. During the works, stringent measures to monitor and protect the health of site workers and the local environment were adopted. Approximately 100,000 work hours were completed on the project, with no lost time injury recorded. In addition, the project was subject to several independent safety and environmental audits.

One major challenge experienced during the project was the high level of mixed contaminants within the soils excavated from some of the tip sites. The project plan was to treat this soil for PCB and pesticide contamination using a direct thermal desorption unit. However, this was not possible for some of the tip soils due to the high level of asbestos present that would have introduced exposure risks.

Equally, the levels of PCB and pesticide contamination meant that the soil was also not appropriate for encapsulation within the containment cell that had been constructed. The most suitable method of management for this material was disposal to the City of Darwin's Shoal Bay Waste Management Facility, which had appropriate containment facilities.

Next steps

Site works at Cox Peninsula were completed ahead of schedule by March 2017. Following project completion, the Commonwealth (through the Department of Finance) will be responsible for the initial phase of site monitoring and groundwater testing to validate the remediation of the land and the performance of the containment cell. The land will be managed by the Commonwealth in accordance with the Site Management Plans throughout 2017-18.

Once Environmental Site Auditor approval has been obtained, the land will be ready for transfer to the Traditional Owners as part of the Kenbi land claim.

Figure 14: Concept diagram of containment cell liner and cap

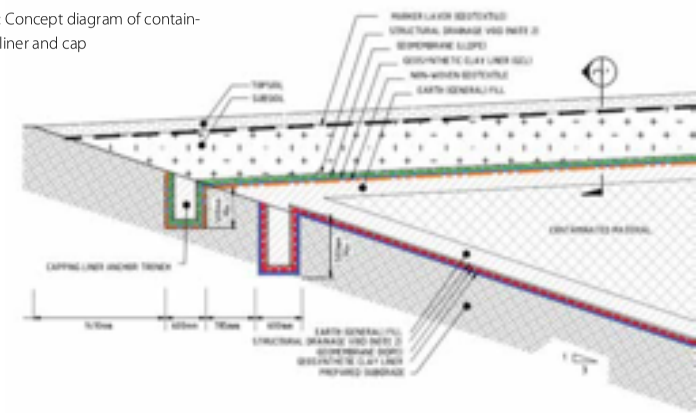


Figure 15: Original Communications Station

Figure 16: Removal of buried asbestos conduit

Figure 17: Commonwealth-owned areas of Cox Peninsula indicated in red

NSW GOVERNMENT

Protecting NSW residents and communities from loose-fill asbestos insulation

Link to the National Strategic Plan:

Strategy:
Removal

Deliverable:
Develop and conduct projects in various locations and conditions where ACMs are in poor condition or likely to cause risks to ensure removal approaches are effective

Outcome:
Options to remove asbestos in poor condition are practical, evidence-based and targeted towards sources of asbestos-related disease

Location:
NSW, statewide

The issue

In 2015, the NSW Government launched the Voluntary Purchase and Demolition Program to address the issue of loose-fill asbestos insulation in NSW residential homes. The program and its associated assistance package is designed to provide safety, certainty and support for NSW residents by locating and remediating properties affected by loose-fill asbestos insulation. The Loose-fill Asbestos Implementation Taskforce manages the program.

One of the key challenges of the Program is to raise community awareness sufficiently to fully engage with potentially affected homeowners in identified local government areas. Success also depends on gaining sufficient trust among affected homeowners for them to elect to have the government test their properties and, if found to be affected by loose-fill asbestos insulation, purchase their property at market value, demolish the premises and remediate the land.

The delivery of the program also relies on employing rigorous work, health and safety standards at each phase of work, particularly in the sample testing of properties, asbestos removal and demolition activities.

The NSW Government also introduced a number of new laws to identify properties affected by loose-fill asbestos insulation and to protect residents, workers and communities.

Action taken

A key action for the first phase of the program was to drive homeowner registration for free sample testing through community awareness and engagement. This was achieved by implementing a comprehensive, targeted advertising campaign, complemented by direct marketing and local community engagement.

As registrations commenced, the program concurrently commenced sample testing of residential properties for loose-fill asbestos insulation. The sample testing inspections are being prioritised to focus on identified local government areas (LGAs) where the likelihood of properties containing loose-fill asbestos insulation is highest. Licenced asbestos assessors who are industry experts in the identification and assessment of friable loose-fill asbestos insulation carried out the testing.

As at 30 June 2017, 139 properties had been identified under the Voluntary Purchase and Demolition Program, where 85 owners elected to have the NSW Government purchase the premises and land, and 28 elected to have the NSW Government purchase the premises only.

Dedicated case managers work closely with homeowners and tenants, supporting them through the process of acquisition, demolition and remediation. In addition to the purchase of the affected premises at market value, financial assistance payments are extended to these homeowners to help ease their financial burden. The program also partnered with the Council of the Ageing (COTA) to provide additional support to affected homeowners who can explore housing options applicable to their personal situation.

In December 2016, the Program commenced the demolition phase in identified 'hot spot' LGAs, starting in Queanbeyan. Working jointly with Public Works Advisory, a total of 14 affected residential premises across different LGAs were demolished and the sites successfully remediated by 30 June 2017.

Demolition of the properties allows these sites to be removed from the publicly available Loose-fill Asbestos Insulation Register. The register has also been promoted extensively to the wider community, particularly local councils, emergency services personnel, real estate professionals and licensed builders and tradespeople.

Results

The taskforce is now delivering all stages of the program including registration, testing, acquisition, demolition and remediation.

As at 30 June 2017, the taskforce achieved the following milestones:

- over 90,000 registrations were received, of which 70,000 meet eligibility criteria
- 38,053 sample inspection tests had been conducted
- 139 properties were identified as containing loose-fill asbestos insulation
- 80 affected properties purchased were acquired by the NSW Government
- 368 financial assistance payments were made
- 14 properties have been successfully demolished and remediated.

Outcomes

The program has successfully demolished and remediated 14 properties in two of the LGAs with the highest number of properties affected by loose-fill asbestos insulation. These properties have been removed from the Loose-fill Asbestos Insulation Public Register and safely handed back to the community.

Next steps

- The program has reopened registrations for testing in some areas in response to feedback from homeowners who did not previously register. These homeowners were encouraged to register after hearing about the positive experience affected homeowners had while participating in the program.
- Engagement with stakeholders, community and homeowners remain a priority for the program.
- Sample testing of properties is continuing across NSW, including those with identified roof access issues (for example no man-hole, flat or cathedral roof types).
- The acquisition, demolition and remediation of properties is also continuing, particularly in the most affected areas.
- The taskforce will maintain focus on ensuring the health and safety of all Program stakeholders.

More information

Loose-fill Asbestos Implementation Taskforce:
www.loosefillasbestos.nsw.gov.au

Figure 18: Encapsulated premises

Figure 19: Remediated site

"Betty"- Driving home the dangers of asbestos: A portable model house displaying where asbestos can be found in the home

Link to the National Strategic Plan:

Strategy:
Awareness

Outcome:
Increased community awareness of the risks posed by asbestos and its impact on the health of the community

Location:
NSW, statewide

The issue

One in three Australian homes contains asbestos in some form or another. With the popularity of renovator lifestyle television programs spurring a boom in DIY and home renovations, together with a lack of community understanding of the types of ACMs that remain in homes, a strategic, practical education program aimed to address the need for practical asbestos education was required

Action taken

The Heads of Asbestos Coordination Authorities (HACA) determined that an education resource was needed -that was big, portable, practical, safe, accurate and engaging - to advance awareness of asbestos. They aimed to achieve practical consumer learning, deliver potentially life-saving messages to communities and to drive traffic to **asbestosawareness.com.au**.

Extensive research and development was undertaken in the design and construction of a portable model house, ensuring it would be more than a moving billboard and become a world-first experiential communication tool. Purpose built, "Betty" the portable model house, demonstrates the many and various product types and locations where asbestos might be found in homes to educate homeowners about ACMs in homes, provide easily digestible information on safe practices, and engage stakeholders and media to drive traffic to the website.

Betty is driven, manned and maintained by dedicated, trained volunteers Geoff and Karen Wicks. Since Betty was launched in November 2012 she has toured extensively throughout NSW to deliver her vital message to thousands of homeowners in hundreds of communities and has appeared at Sydney's Royal Easter Show twice and been the feature of industry, trade, life-style, community and local government events in multiple regions around the state.

During Betty's tours of duty there is extensive media activity around her appearances. To date, Betty has travelled more than 50,000 kilometres and conducted extensive community and media engagement tours throughout NSW, Victoria, Queensland, South Australia and the Northern Territory.

Results

- during Betty tours, daily website visits increase up to 193%
- Betty consistently drives over one-third of annual traffic to **asbestosawareness.com.au**
- outside Asbestos Awareness Month, Betty is the primary resource driving website traffic
- Betty has exhibited at 207 health and community events, toured to 177 communities and conducted media events in the majority of these locations
- Betty has distributed more than 130,000 brochures and 50,000 magnets and branded tape measures
- Betty has engaged with 144 Councils, over 7,000 renovation students and 4,000 conference delegates and appeared at 65 Bunnings stores engaging DIY renovators and trades people

As demand and booking requests increased, to address the issues of availability, the Betty virtual tour 'Asbestos in Your Home' was launched to deliver online global access to Betty's message.

Outcomes

In addition to engaging members of the community in a practical learning style, Betty effectively garners media coverage reaching into Australian homes and driving increased online education in every community she visits.

What makes Betty so effective is that she delivers serious, life-saving messages in an educational, creative, non-threatening format that engages communities, stakeholders, media outlets, health, government and international asbestos awareness advocates.

Betty is a novel approach to a serious issue that has exceeded expectations in delivering practical learning experiences to hundreds-of-thousands of Australians, while leveraging stakeholders and media to increase traffic to asbestosawareness.com.au and engage broader audiences in online education.

Next steps

Betty is set to tour Western NSW and Tasmania during Asbestos Awareness Month in November 2017 and will continue her community awareness and education program throughout NSW in 2018.

More information

www.asbestosawareness.com.au
Watch Betty in action: **https://vimeo.com/80178222**

Figure 20: Betty in Orange NSW

Figure 21: Betty

VICTORIAN GOVERNMENT

Victorian Government Building Asbestos Register

Link to the National Strategic Plan:

Strategy:
Identification

Deliverable:
Review building and infrastructure data to estimate likely presence of ACMs

Outcome:
Estimated total presence of ACMs in the built environment is available

Location:
Victoria, statewide

The issue

On 31 December 2016, the Victorian government established the Victorian Asbestos Eradication Agency (VAEA) to plan for the prioritised removal of asbestos from Victorian government-owned buildings.

VAEA's specific functions are to:

- develop the Victorian Government Building Asbestos Register to record the location and condition of asbestos in relevant buildings
- construct the Victorian Government Asbestos Risk Assessment Model to analyse the risk of exposure to identified asbestos
- produce the Schedule for the Prioritised Removal of Asbestos to plan for the removal of identified asbestos hazards
- report its recommendations to the Victorian Government.

The agency's first report is due in December 2018. Thereafter VAEA will report annually to the government on the progress of removal. The reporting cycle will ensure a consistent, risk-based approach across government to the assessment, removal and management of ACMs in Victorian Government buildings now and into the future.

Action taken

In its first six months of operation, VAEA has established its governance and management systems, developed protocols to support its functions and operation, and worked collaboratively with over 400 government departments, agencies and public sector bodies to:

- provide stakeholders with clear advice and ongoing information about its work
- design the Victorian Government Building Asbestos Register
- standardise ACMs related terminology to ensure consistency in the data collected on the type, condition and location of ACMs
- tailor building data from state asset registers to each portfolio.

Having commenced data collection across the Victorian public sector, the agency is now developing its risk assessment methodology.

Results

The Victorian Government Building Asbestos Register will improve how the government identifies and manages ACMs. By building upon information already contained in workplace asbestos registers, this centralised register will:

- furnish the government with a sector-wide understanding of the presence and condition of ACMs in government buildings
- inform the agency's risk-based approach to its analysis of building data
- underpin a plan for prioritised asbestos removal that will minimise asbestos risks by targeting hazardous asbestos.

Outcomes

With the development of the Victorian Government Building Asbestos Register, the VAEA has devised the tools it needs to implement and deliver on phase one of its project.

Next steps

For the remainder of 2017, the agency will continue collecting available data from public sector bodies and enter that data into the newly established Victorian Government Building Asbestos Register.

In 2018, VAEA will continue to provide input into the implementation of the National Strategic Plan for Asbestos Management and Awareness 2014–18 through its work on the Victorian Government Asbestos Risk Assessment Model and the Schedule for the Prioritised Removal of Asbestos.

The agency's removal schedule is aligned to the Asbestos Safety and Eradication Agency's strategic outcomes and deliverables as VAEA will:

- review the potential risks and benefits of a prioritised removal program to safely remove ACMs in government-owned buildings
- propose practical, evidence-based options to remove ACMs in poor condition
- consider how the asbestos removal infrastructure will be able to meet the requirements of prioritised removal and the future needs/demands of ageing ACMs without creating increased risk
- estimate the realistic capacity and achievable rate for the safe removal of ACMs.

By the time VAEA reports to the Minister for Finance in December 2018, it will have supported the Victorian government's commitment to the National Strategic Plan for Asbestos Management and Awareness 2014–18 by meeting five deliverables and six outcomes within two key strategies.

QUEENSLAND GOVERNMENT

Implementation of a dedicated state-wide asbestos unit within Workplace Health and Safety Queensland

Link to the National Strategic Plan:

Strategy:
Best practice

Deliverable:
Identify opportunities to share best practice for initiatives related to the safe management of asbestos such as licensing, education, training and home renovations where ACMs may be present

Outcome:
Evidence-based best practice to minimise risks in targeted areas

Location:
Queensland, statewide

Introduction

In 2010, Workplace Health and Safety Queensland (WHSQ) established a dedicated Asbestos Unit that was staffed with three asbestos technical experts. In 2017, staff levels in the unit were increased by five staff in order to, amongst other things, target investigation of poorly performing asbestos licence holders, to target selected asbestos regulatory prosecutions, to oversee high profile and high risk events such as the removal of asbestos debris arising from the use of high pressure water and to oversee the management and removal of imported asbestos containing materials. To ensure interventions by the unit are based upon rigorous occupational principles, the unit is led by the Chief Advisor Asbestos and Occupational Hygiene who has completed a PhD in the area of dusts, fibres and particles. The unit employs inspectors with technical expertise regarding asbestos and compliance processes.

Action taken

The following are the key priorities of the Asbestos Unit:

1. **Assessment of work practices of current asbestos removal licence holders**

The unit is undertaking a review of the compliance history of all Queensland licensed asbestos removalists.

2. **Rapid response following importation of materials containing asbestos**

Imported materials containing asbestos continue to find their way into the Australian and Queensland supply chain. The Australian Government is reviewing border protection mechanisms to prevent such imports. In the interim, WHSQ is notified of imports of materials containing asbestos via the Heads of Workplace Safety Authorities (HWSA) Asbestos Importation Working Group. Such notification triggers the national Rapid Response Protocol and the operational aspects of this, such as assessment of the material and statutory direction in relation to risk management and removal. The unit coordinates these responses.

3. **Target high-risk asbestos related regulatory offences**

To ensure that high-risk events associated with non-licenced asbestos work are comprehensively investigated and considered for either regulatory infringement or prosecution, the Principal Inspectors from the unit are utilise a 'mobile' team approach. This involves a comprehensive investigation of high-risk events, including: where licenced quantities of asbestos were removed without the required licence; a building or structure was demolished without first removing asbestos; high-pressure water was used on asbestos containing material; and asbestos related waste has not been disposed of appropriately.

4. **Rapid intervention regarding high profile and risk events such as asbestos debris caused by high-pressure water**

Each year in Queensland, there are approximately five events involving the use of high-pressure water to clean an asbestos roof occur, causing a high risk of exposure to the resultant asbestos debris. To ensure appropriately skilled and time-resourced staff are mobilised, staff from the unit carry out the oversight of the clean-up of asbestos debris caused by use of high-pressure water.

Results and outcomes

A review of the compliance history of all Queensland licensed asbestos removalists has identified a number of licence holders who consistently demonstrate poor asbestos removal practices. These license holders have been escalated for comprehensive audit by the unit. The comprehensive audit may recommend that operators need to 'show cause' as to why the licence should not be conditioned, suspended or cancelled.

The involvement of the unit in the HWSA Asbestos Importation Working Group has been working effectively. Information regarding imported asbestos containing materials has been shared between jurisdictions following the activation of the Rapid Response Protocol.

The initiatives and priorities of the dedicated unit are regularly reviewed and assessed to ensure they are effective and appropriately managing asbestos issues across Queensland.

Next steps

The expansion of the dedicated unit within WHSQ has only recently occurred. The resourcing and work of the Asbestos Unit will be regularly assessed and reviewed to ensure it is meeting its objectives.

Development and validation of an asbestos identification app

Link to the National Strategic Plan:

Strategy:
Identification

Deliverable:
Pilot residential ACM identification tools and strategies with local government partners

Outcome:
Improved practice in the residential sector to identify and minimise the risk of exposure, in particular for DIY home renovators

Location:
Western Australia, statewide

The issue

There is generally a lack of knowledge and awareness in the community about asbestos identification and its safe management in residential settings. The amount and condition of in situ ACMs remaining in Western Australian housing stock is not known. Therefore, the Western Australia Department of Health aimed to develop and validate a mobile application ('app') that can be used by householders, tradespeople and environmental health officers to screen the home for the presence of in situ asbestos.

Action taken

A mobile app, called 'ACM Check', was developed to identify and assess the condition of in situ ACMs located in residential settings. The app was first built on the iOS platform and tested on a sample of 40 pre-1990 homes located throughout the Perth metropolitan area. The results obtained from ACM Check were compared to onsite inspections conducted at each of the homes by an environmental consultant. The results of the inspection were used to validate the results obtained by ACM Check. Feedback regarding the app was collected from each of the 40 participants through an online questionnaire.

Results

The app identifies potential ACMs through a questionnaire that asks the user simple questions about the age of the house, renovation history and key features of the building materials used. Based on the answers, the app determines if a material is unlikely, possible or likely to contain asbestos. Users rate the current condition and likelihood of disturbing materials that are determined to be possible or likely ACM via the app.

Overall, there was strong agreement between the app and environmental consultant when categorising a house as having in situ asbestos present on the property. The strength of agreement between the app and environmental consultant ranged from low to high when categorising specific materials as unlikely, possible or likely ACM. Based on the feedback, participants were either 'very satisfied' or 'satisfied' with the ease-of-use, look and feel, and time it took to complete the app.

Outcomes

The iOS version of ACM Check app was updated based on participant feedback from the validation study before being replicated on Android. Both versions were released to the Australian public in June 2017 and are now available for free from the App Store and Google Play.

Next steps

Data from completed ACM Check questionnaires is currently being collected from consenting users. The data will be analysed and used by Curtin University researchers to estimate the amount and condition of ACMs in Western Australian housing.

More Information

Further information can be found at **http://healthsciences.curtin.edu.au/schools-and-departments/public-health/research/research-projects/acm-check-asbestos/**

The ACM Check app can be downloaded from the following:

App Store **https://itunes.apple.com/au/app/acm-check/id1124047076?mt=8**

Google Play **https://play.google.com/store/apps/details?id=au.com.rhpi.acmcheck&hl=en**

WESTERN AUSTRALIAN GOVERNMENT

Asbestos Cement Roof Removal Strategy

Link to the National Strategic Plan:

Strategy:
Removal

Deliverable:
Investigate the barriers to the safe removal of ACM from Government, commercial and residential properties and develop policy options to support the removal of asbestos in poor condition

Outcome:
Identification of the barriers and obstacles for timely and safe asbestos cement roof removal and disposal in the residential sector

Location:
Western Australia, statewide

The issue

Asbestos cement roofs were installed between the 1940's and 1980's throughout Western Australia. They are now increasingly deteriorating and coming to the end of their useful life. As asbestos cement roofs deteriorate they release asbestos fibres into the environment. As they age they become more brittle increasing the risk of falls and the complexity of intact sheet removal. Asbestos cement roofs can cause considerable contamination as a result of fires, non-compliant removal practices, and illegal dumping.

Until now, advice for asbestos cement products has been to maintain them if they are in good condition and remove them if they are starting to deteriorate. However, older roofs are increasingly difficult to maintain or restore to good condition and some roof maintenance, such as harsh cleaning of moss and lichen, may lead to further damage and the spread of contamination.

It is clear that many, and eventually all, asbestos cement roofs need to be removed. The Department of Health Western Australia is increasingly providing advice or direction to building owners recommending removal over maintenance of existing asbestos cement roofs.

However, there are a number of obstacles to the safe removal and replacement of asbestos cement roofs, relating mostly to cost and a poor understanding of the legislative removal and disposal processes. The aim of the asbestos roofs project is to identify the obstacles for the removal of these products in the residential environment and investigate strategies to overcome these.

Action taken

Current and proposed activities by the Western Australia Department of Health under the asbestos cement removal strategy include:

- consultation with local governments and relevant regulatory agencies about the costs and management of asbestos disposal.
- a review of the total costs of removal, disposal and replacement of an existing asbestos cement roof, as compared with replacing other types of roofs
- the development of a discussion paper on possible incentives, education needs and possible regulatory requirements for the removal of asbestos roofs

Outcomes/next steps

This project is currently being undertaken in Western Australia but it is expected the findings will be relevant to other jurisdictions.

More information

http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/Asbestos/PDF/GuidanceNoteonAsbestosCementRoofs20162%201.ashx

Figure 22: ACM corrugated roofing

Figure 23: Narrow corrugated AC roof cladding

WESTERN AUSTRALIAN GOVERNMENT

Collection, treatment and disposal of asbestos and bituminous coated pipes

Link to the National Strategic Plan:

Strategy:
Removal

Deliverable:
Pilot residential ACM identification tools and strategies with local government partners

Outcome:
Improved practice in the residential sector to identify and minimise the risk of exposure, in particular for DIY home renovators

Location:
Western Australia, statewide

The issue

Water supply pipelines installed throughout Western Australia in the 1960s and 1970s were coated in a bituminous material containing asbestos and other contaminants.

In 2016, Western Australia Water Corporation launched a project to collect, treat and dispose of significant quantities of the asbestos coal tar coated pipes and manage impacts from the pipes that had been removed from the network and stored throughout the State.

Contractors were engaged to identify a treatment solution that safely removed the contaminant product from the mild steel cement lined (MSCL) pipes and diverted the pipe product from landfill to a centralised storage facility for processing.

A custom-made treatment facility was developed to remove personnel from the treatment process and uses high pressure water to remove and contain the contaminant product for further processing and disposal.

Action taken

Pipe collection

More than 11 kilometres of pipe was collected from more than 60 locations state wide and stored at a dedicated facility. The collection included a comprehensive evaluation and classification program and regulator, community and stakeholder engagement.

Processing facility

A contractor was engaged to develop an innovative treatment solution resulting in:

- securing a suitable site to store the pipe and establish a customised pipe handling and stripping plant.
- storage and operating licences issued by the Department of Environmental Regulation
- development of an enclosed remotely operated pipe coating stripping plant utilising high-pressure water.
- monitoring processes including air sampling, acoustic surveys and controlled waste sampling and analysis.
- filtration of water used in processing for asbestos, Polycyclic Aromatic Hydrocarbons (PAH) and Polychlorinated Biphenyls (PCB) in the waste stream.

Licensing and regulatory considerations

The licencing process considered not only the asbestos management but also other contaminants such as PAHs and PCBs that were detected in the asbestos pipe coating.

Results

The project resulted in a custom built facility dedicated to the storage and processing of asbestos and bituminous-coated pipes, with potential application to other contaminant coated products.

It is expected the project will be completed in late 2017 with initial feedback indicating:

- safe stripping of pipes was achieved without personnel involvement and with minimal environmental impact
- diversion of pipe product from waste stream was achieved
- management of 60 sites across the State
- reduction of impacts associated with asbestos coal tar coated out of service pipes.

Outcomes

Contaminated pipe was removed and recovered from more than 60 areas of Western Australia, including removal of asbestos impacts.

The project resulted in development and licensing of a new treatment plant and contaminant product was removed and verified for reuse/ diversion from landfill.

Next steps

The processing and treatment program for identified pipes will be completed and consideration will be given to ongoing management of waste materials impacted by coating.

Figure 24 and 25: The redundant pipes were in varying states of degradation

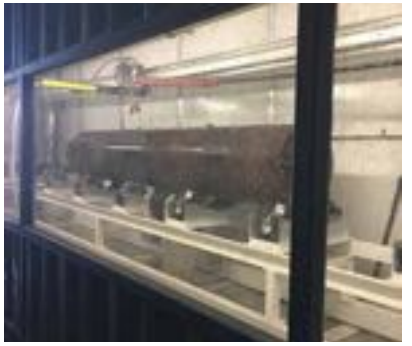


Figure 26: The treatment plant removes personnel manual labour and utilises water pressure to remove the coating from the pipes, supporting pipe reuse or recycling and diverting waste from landfill.

SOUTH AUSTRALIAN GOVERNMENT

Asbestos removal notification data moves online

Link to the National Strategic Plan:

Strategy:
Best Practice

Deliverable:
Identify opportunities to share best practice for initiatives related to the safe management of asbestos such as licencing, education, training and home renovations where ACMs may be present

Outcome:
Evidence based best practice to minimise risks in targeted areas

Location:
South Australia, statewide

The issue

SafeWork SA undertook an initiative to streamline the collection of asbestos removal notification data and other documents that were required to be provided to the work health and safety regulator.

An online portal was developed to eliminate the administrative burden and delays for asbestos removalists as a result of processing hard copy forms, including notification forms, clearance certificates and waste transport certification.

Action taken

To launch the new online portal, SafeWork SA provided asbestos removalists with a unique user name, password and training. The online notification portal aims to make the notification process as streamlined and user-friendly as possible, and ensures all mandatory information is provided.

Asbestos removalists have the option to select an air monitoring company or a licensed asbestos assessor to comply with the regulatory requirement of air monitoring (In South Australia, air monitoring is also required for class B asbestos removal work). This detail is also collected in the new online notification portal.

Once notification is completed via the portal, the removalist cannot amend the information provided. A dedicated asbestos removalist email address was created for correspondence with licence holders where they can notify of any changes to allow SafeWork SA to monitor amendments and ensure compliance. To further monitor compliance, the clearance certificate must be uploaded within five days and the waste transport certificate uploaded within 14 days of job completion. This process ensures asbestos waste is being disposed of correctly.

Results

Moving the notification process to an online solution has allowed removalists to lodge an application at any time that is convenient to them. It also removes the costs of postage or the inconvenience of having to visit a Customer Service Centre during opening hours to lodge the paperwork.

The notifications portal allows licence conditions for asbestos removalists to be easily monitored and the data collected to be widely utilised. Proactive inspections by SafeWork SA inspectors can be targeted and inspectors can review information prior to attending an asbestos complaint. A greater understanding of where asbestos is located in the community is being developed and the quantities and types of asbestos removed can be more accurately recorded. Information is also being gathered on past removals in local council areas to inform future activities. The data is being shared with the Environment Protection Authority via a memorandum of understanding to assist its investigations and promote a collaborative effort to improve asbestos disposal practices in South Australia.

Outcomes

The online notification portal has been positively received by licence holders in South Australia, with removalists advising they prefer the portal and dedicated email address to lodge notifications as it streamlines the process and minimises any delays in commencement of work. There is easy access to SafeWork SA's Help Centre when asbestos removal concerns are raised by the community, minimising unnecessary inspector attendance and unnecessary job delays for the removalist.

The portal collects valuable data, including the quantities and types of asbestos removed in workplaces and residential areas, providing the ability to monitor trends and share information with other regulatory bodies.

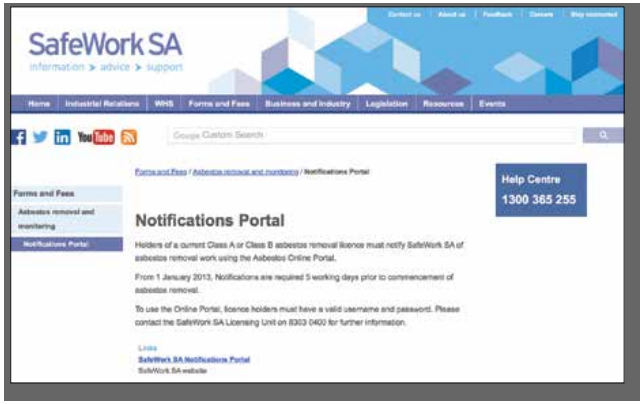
Two class B asbestos removalists have had their licenses cancelled recently indicating the portal is a valuable tool to monitor compliance with licence conditions and regulations.

Next steps

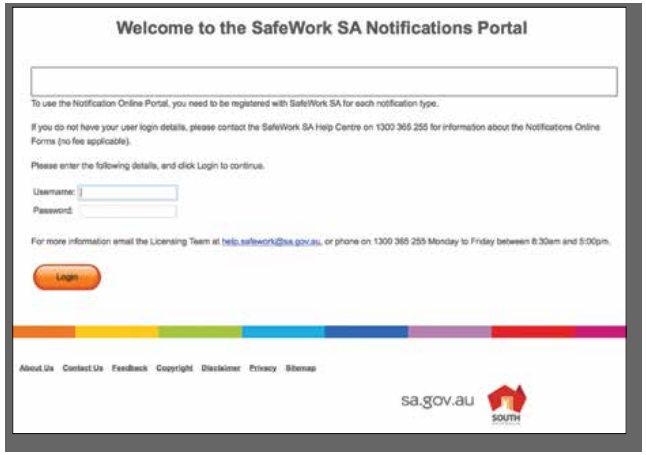
Currently the South Australian Government is developing and reviewing the state emergency plan and an issue was identified that no information was available on the location of asbestos in the suburbs. The data collected via SafeWork SA's notification portal will be used to assist identifying suburb hotspots by reviewing asbestos removal activities in the area. As more data is collected, the applications and uses of the portal will further benefit South Australia and improve disposal practices for ACMs across the state.

More information

https://www.safework.sa.gov.au/notif/home



https://www.safework.sa.gov.au/show_page.jsp?id=113141



Asbestos Awareness Campaign

Link to the National Strategic Plan:

Strategy:
Awareness

Outcome:
Increased community awareness of the risks posed by asbestos and its impact on the health of the community

Location:
Tasmania, statewide

Introduction

Recent media attention has provided a distorted view of the risks of asbestos within the Tasmanian community. However it is acknowledged that raising awareness of the dangers of asbestos is still vitally significant. Exposure does not always lead to disease, but every time someone is exposed, the risk of future illness increases.

Action taken

The WorkCover Tasmania Board through WorkSafe Tasmania and in conjunction with ASEA ran an integrated asbestos awareness campaign between 2 May and 30 June 2017.

ASEA's interest was to target the DIY home renovator audience. WorkSafe Tasmania's focus was on workplaces and tradespersons working in the home renovations space.

The campaign was developed as a pilot, to test the effectiveness of a mass media campaign to influence behaviour associated with asbestos and asbestos related products.

The broad aims of the asbestos safety campaign were to increase awareness of the dangers of asbestos, increase the adoption of safe DIY practice, and therefore reduce the chance of exposure to asbestos and subsequent health risks.

In more detail, the campaign aimed to educate targeted audiences about:

- the potential health dangers of exposure to asbestos
- the products asbestos can be found in
- knowing where asbestos is in any workplace or home being renovated
- consulting the workplace asbestos register
- getting an experienced asbestos assessor to undertake an asbestos survey
- using a licenced asbestos removalist.

Key audiences targeted were:

- tradespeople/businesses renovating residential premises
- DIY home renovators
- real estate agents
- landlords
- people under 30 years old

Results

Deliverables of the Asbestos Awareness Campaign were paid advertisements including: broadcast, print and online media; and dedicated WorkSafe web pages (**www.worksafe.tas.gov.au/asbestos-safety**), Facebook content (**www.facebook.com/worksafetasmania**) and Workplace Issues magazine feature in the June edition (**www.worksafe.tas.gov.au/resources/wpi-magazine**)

Outcomes

The campaign was successful on many fronts. Some of the key findings were:

- The campaign achieved a very high level of frequency (the number of times people saw the advertisements) across each TV network used for the advertisements. The reach across the three networks was around 60 per cent of the total available audience which is a very substantial result.
- DIY home renovators were more likely to take action than tradespeople. The main positive actions DIY home renovators took were to look for asbestos assessor/removalist (43 per cent) and access the WorkSafe website or Helpline (14 per cent equally). 'Increased awareness' was high in the DIY group.
- Tradespeople were more likely to recall the message 'the safest tool to use is your phone' than the DIY group.
- The DIY website page was clearly twice as popular as the trades people page. This shows the media campaign successfully targeted this audience, and got them to act on the key message which was to go to our website for information.
- Website searches were very high at the beginning of the work week, on Mondays and Tuesdays. This suggests people may have seen the ads on the weekend (the TV advertisements aired during shows on Saturday, Sunday, Monday and Tuesday nights) and looked up the website when back to work on Monday. This is a successful outcome for the campaign.
- Facebook page visits, likes and number of people engaged were consistently high during the campaign.
- Between 2 May and 30 June there were 54 asbestos related enquiries to our Helpline call centre. In comparison, between 2 April and 1 May, there were only 13 asbestos-related enquiries. Helpline numbers show that overwhelmingly, the campaign was successful at reaching the DIY target audience.

Conclusions and implications for future work

This campaign has highlighted the success of running integrated simple messages about asbestos safety by combining workplace and DIY messages.

The central message of this campaign, the safest tool to use when dealing with asbestos (is your phone/tablet) was demonstrated to be effective in the recall of tradespeople and the action taken by the DIY sector, showing the benefit for these target groups.

Interestingly, the DIY sector was the leading responder to helpline inquiries and the targeted DIY webpage was the second most popular web page in the campaign (after the main landing page), suggesting that there is strong appetite for greater access to information with clear and simple messages by this sector. As noted in the key findings, the DIY group were also more likely to take action following the campaign than tradespeople.

One of the targets for this campaign was to increase the use of residential asbestos surveys. Based on feedback from the asbestos professionals contacted in Tasmania, this does not appear to have had any direct impact within the evaluation time period.

This is not surprising as it is likely that it will take a longer period than the evaluation period for any changes to be identified by asbestos professionals. It may be beneficial for WorkSafe Tasmania to survey asbestos professionals in six months' time to see if any change has been identified.

The audience overview also highlights that the leading location for people accessing the web was Melbourne, with Sydney and Brisbane also featuring in the top five cities. This highlights that when people seek information about asbestos safety they do not restrict themselves to the jurisdiction of their work health and safety laws. In line with simple messaging that suits different user groups, it may also be more effective for jurisdictions to collaborate on a single campaign. This would create stronger awareness across jurisdictions, and likely be most cost effective to run.

More information

www.worksafe.tas.gov.au/asbestos-safety

ACT GOVERNMENT

ACT Asbestos Health Study

Link to the National Strategic Plan:

Strategy:
Research

Deliverable:
Commission and promote research that reduces the risk of exposure to asbestos and minimises the impact of asbestos-related disease

Outcome:
Commissioned research identifies practical and innovative approaches to prevent or minimise risks from exposure to asbestos fibres, and support for people with asbestos-related diseases

Location:
ACT

The issue

In 2015 the ACT Government responded to calls from community residents for detailed information about the potential health impacts associated with living in a property contaminated with loose fill asbestos insulation (Mr Fluffy).

Funded through the Asbestos Response Taskforce (the Taskforce) the ACT Government commissioned the National Centre for Epidemiology and Population Health (NCEPH) at the Australian National University (ANU) to undertake a two-year study to improve understanding of the health risks associated with Mr Fluffy loose fill asbestos insulation. The purpose of the study was to gain an additional understanding of the risk of developing mesothelioma from living in a house containing loose fill asbestos insulation.

On 21 June 2017 the NCEPH at the ANU released their final report of the ACT Asbestos Health Study.

Action taken

The ACT Government provided funding of $415,807 over two years to the ANU's NCEPH to support the study. Independent researchers from the NCEPH undertook the study in consultation with external cancer epidemiology experts from Sydney University and the Karolinska Institutet, Sweden. The research was overseen by a Steering Committee that included representation from ACT Health, the Taskforce, NCEPH, the NSW Chief Health Officer and other experts as required.

There were four separate stages to the study:

1. an analysis of mesothelioma rates and distribution in the ACT (September 2015)
2. focus groups held with current and recent residents of affected houses to discuss their health-related concerns (February 2016)
3. a survey looking at the likely exposure levels and health related concerns of current and recent residents (February 2017)
4. a study linking a number of data sets to estimate the risk of developing mesothelioma in current and former residents compared with the general population (June 2017).

The unique nature of asbestos exposure caused by loose fill asbestos meant that direct evidence was not available from scientific literature or from other countries about potential health risks. This study makes an important contribution to knowledge of the risks of low-level domestic exposure to loose fill asbestos.

Results

Stage four of the study linked Medicare data, death registrations and the Australian Cancer Database to compare the incidence of mesothelioma in people who have lived in a Mr Fluffy house with the incidence in those who have not lived in a house with loose fill asbestos insulation.

The study covered the period from November 1983 to December 2013 and found around 17,000 people had lived in a Mr Fluffy house in Canberra, representing 1.7 per cent of the population.

In total, 285 current and former residents of the ACT were diagnosed with mesothelioma over the study period. Only seven of these residents had lived in a Mr Fluffy house before their mesothelioma was diagnosed.

The study found the risk of contracting mesothelioma was low, but the rate of mesothelioma in men living in Mr Fluffy homes was 2.5 times higher than in men not living in these houses. This corresponded to four extra cases of mesothelioma in male Mr Fluffy residents between 1984 and 2013 (that is, additional to the number expected to occur in this group, even if there had not been loose fill asbestos insulation installed in these houses).

There were no cases of mesothelioma in women who had lived in a Mr Fluffy affected property. On average in Australia at present, the rate of mesothelioma in females is about a fifth of that in males.

The study also found that the rate of colorectal cancer was 1.3 times higher in male Mr Fluffy residents and 1.7 times higher in female Mr Fluffy residents than the corresponding rates in residents who did not live in affected premises. These were higher than expected and might be due to unavoidable bias in the study's design.

Prostate cancer rates were also found to be 1.3 times higher in male residents of affected premises. This result was unexpected and it is uncertain whether or not it was due to asbestos exposure in the affected houses.

The elevated rates of colorectal and prostate cancers identified in the study for residents of loose fill asbestos insulation were somewhat unexpected. Other studies have found, at most, weak associations between asbestos exposure and these cancers. Study researchers suggested additional explanations for these associations should be considered, including other risk factors that were unable to be measured, such as smoking or diet, and particularly in the case of prostate cancer, people seeking screening for cancer.

Although the study found the rate of mesothelioma was higher in men who had lived in a loose fill asbestos insulation property than in men who had not, the risk of developing mesothelioma was very low even among Mr Fluffy residents.

The increased risk of mesothelioma in men living in affected properties may reflect higher exposure to loose fill asbestos through activities like entering roof spaces or doing renovations. These activities were reported more frequently by men than women in the cross sectional survey (Report 3 of the Asbestos Health Study).

Results from the study should be interpreted with care, as there was:

- no data prior to November 1983
- little information on other possible explanatory factors, such as occupational history of asbestos exposure
- statistical uncertainty due to small numbers of some cancers.

Outcomes

The ACT Government noted the findings of the final report of the study indicating an increased risk of mesothelioma among men living in a Mr Fluffy property.

Following the release of the study, the taskforce distributed the report and advice from the Chief Health Officer on health implications to homeowners, residents and registered former residents. This correspondence advised that people concerned about their health should seek advice from a qualified medical practitioner who could provide an assessment of individual circumstances. Information on other support services available was also provided, including help for people experiencing psychological distress.

The results of the study also reinforced the need for people who continue to live in affected properties to have an asbestos management plan (AMP) prepared by a licensed asbestos assessor in place, and to make sure that any remediation work recommended in these plans is carried out. WorkSafe ACT continues to monitor compliance with AMPs in these properties.

The taskforce's personal support team continues to provide ongoing information and advice to assist homeowners experiencing psychological distress and health concerns, and to connect them with the free support services provided through community partners.

Next steps

To enable future revisiting of the issue, the data sets are being preserved in keeping with the relevant ethics committee approval requirements.

Advice from the NCEPH and the ACT Chief Health Officer is that mesothelioma takes a long time to present, so whilst it might be useful to re-run the data linkage and analysis, this should not occur for several years.

More information

http://nceph.anu.edu.au/research/projects/act-asbestos-health-study

https://www.youtube.com/watch?v=PyLzM42e07Y&feature=youtu.be

Figure 27: Loose fill asbestos insulation advertisement

ACT GOVERNMENT

Loose-fill Asbestos Eradication Scheme

Link to the National Strategic Plan:

Strategy:
Removal

Deliverable:
Develop and conduct projects in various locations and conditions where ACMs are in poor condition or likely to cause risk to ensure removal approaches are effective

Outcome:
Options to remove asbestos in poor condition are practical, evidence-based and targeted towards sources of asbestos related disease

Location:
ACT

The issue

The Asbestos Response Taskforce was established in June 2014 to deliver an enduring, coordinated, comprehensive and compassionate response to assist homeowners and their families directly affected by the legacy of loose fill asbestos insulation in the ACT. Loose fill asbestos insulation, commonly referred to as "Mr Fluffy", was installed into approximately 1100 Canberra homes between 1968 and 1979 and comprised of pure, raw asbestos (mostly amosite but in some cases crocidolite) that was crushed and blown into the roof spaces as thermal insulation material.

The Taskforce is responsible for delivering the Loose Fill Asbestos Insulation Eradication Scheme which is the ACT Government's commitment to eradicate the legacy of Mr Fluffy from 1,023 of Canberra's residential homes. The taskforce engages with homeowners and tenants, neighbours, community, industry and other jurisdictions to efficiently, effectively and safely deliver the eradication scheme.

Action taken

The ACT Government announced the formation of the taskforce, along with an emergency financial assistance package for resident owners and tenants of affected homes on 25 June 2014. The assistance comprised grants of $10,000 per household (plus $2,000 per dependant) for emergency accommodation and replacement of essential household items. Another key element of this emergency package was the facilitation of asbestos assessments of the properties by the Taskforce to manage market demand; ease financial costs to owners; and to ensure the Government had access to the resulting information on contamination quickly to assist policy and program design.

A key focus for the taskforce in these early stages was to support homeowners and tenants, particularly those with concerns about health, relocation and financial issues. A dedicated team was formed within the taskforce to provide personalised support and advice. The taskforce also engaged with the wider community to gather their views and inform them about Mr Fluffy Loose fill asbestos insulation, and the government's response to the issue. A Community and Expert Reference Group made up of homeowners, industry groups and unions, and senior government officials including the Work Safety Commissioner and Chief Health Officer, was formed to provide additional guidance and support to the taskforce. This period also saw activity from community-led groups advocating on behalf of affected owners.

In light of the Long Term Management of Loose Fill Asbestos Insulation in Canberra Homes report prepared by the Taskforce, the ACT Government reached the conclusion that demolition of all affected houses was the only enduring solution to the health risks posed to residents, visitors and workers by the continuing presence of loose fill asbestos insulation, and their attendant social, financial and practical consequences.

On 28 October 2014, the ACT Government announced the eradication scheme under which it offered to voluntarily acquire all houses affected by loose fill asbestos insulation in the ACT with the view to demolishing the affected homes and selling the remediated blocks. Delivery of the eradication scheme was supported by a $1 billion loan to the ACT Government by the Australian Government.

The Eradication Scheme Voluntary Buyback Program commenced on 28 October 2014 and closed on 30 June 2015. On 1 July 2015, the definitive list of loose fill asbestos insulation affected homes was published for the first time and the Taskforce's Pilot Demolition Program commenced the same week. The Indicative Demolition Schedule was first published at the end of August 2015 and has been updated and published for the fifth time on 7 July 2017. Arrangements for the sale of remediated blocks were released in September 2015 and sales of the first lot of remediated blocks occurred in April 2016.

Results

As at 2 August 2017 – less than three years since the eradication scheme's announcement:

- the owners of 995 of the 1,023 affected houses have agreed to participate in the eradication scheme
- 11 eligible impacted properties have been identified and all owners are participating in the Scheme
- 933 houses have been acquired (including eight of the 11 eligible impacted properties)
- 783 properties have been demolished, 764 of these through the ACT Government Demolition Program
- The ACT Government has sold 373 remediated blocks.

The last 12 months has seen a significant increase in the pace of demolitions. Demolition programming is currently indicating the bulk of the taskforce's demolitions will be complete by the end of 2017, some six months ahead of previously revised programming. The significant progress in completion of demolition activity is primarily due to the strong working relationships established with industry, and the innovative, efficient and safe practices that have developed over time.

Safety remains the key consideration for the taskforce during asbestos removal and demolition works. To ensure the health and wellbeing of workers and the wider community, licensed asbestos removalists and assessors, demolition contractors, WorkSafe ACT inspectors and the taskforce work together with well practiced and implemented processes firmly in place.

After focussing on ensuring the safety of workers, neighbours and the wider community, demolition programming and delivery also considers efficiency and minimising disruptions to the community through the demolition process and transportation of demolition waste. Efficiencies in delivering the overall eradication scheme have been gained as its implementation has progressed, with particular savings being achieved through the demolition program, which will result in the eradication scheme being delivered ahead of schedule and under budget.

Throughout demolition program delivery the taskforce also maintained ongoing and regular engagement with former homeowners and tenants, neighbours, and the wider Canberra community about demolition timing and the sorts of activities people will see on site during works. Stakeholder engagement has been a key activity of the taskforce and has been a critical element to successful delivery of the scheme. Recognition that the personal impact for each homeowner as they progress through the scheme will vary for each individual, and each demolition is an individual experience for every neighbour, has underpinned the taskforce's community engagement and communications approaches.

Homeowner, tenant and community engagement is continuously being reviewed to ensure its effectiveness and has taken a variety of forms, from formal correspondence, community meetings, eNewsletters, social media posts, on-site signage, face-to-face conversations. Communications and engagement review has encompassed:

- ongoing evaluations and refinement of the communications strategy and materials in response to emerging issues and maturation of the scheme
- identification and mapping of gaps in information and materials through various feedback mechanisms including community engagement activities, social media, phone calls, email and an ongoing online-survey
- attendance at community council meetings, community events and public forums
- door knocking and face-to-face engagement
- social media engagement.

Working collaboratively with all stakeholders has enabled the taskforce's delivery against the ACT Government's goal of providing an enduring solution to an issue that has affected Canberra and people living in Canberra for nearly 50 years. Stakeholders have engaged actively with the taskforce to support the safe delivery of the eradication scheme and have included representatives across:

- the ACT public service
- national public sector and academic asbestos experts
- property valuers
- contractors and regulators with regard to enhancing safe and efficient demolition practices
- experts in contaminated land for the provision of soil clearances against agreed requirements
- regulators and industry leaders in framing and codifying medium term asbestos management plan arrangements
- industry peak bodies and educational institutions in relation to training and workforce capacity needs and development opportunities
- community service organisations providing support to affected home owners
- health care providers specialising in psychological and social support.

Outcomes

Delivery of the eradication scheme remains on budget and the demolition program continues to track ahead of schedule, with safety for workers and the broader community continuing to be the demolition program's key focus.

Planned performance audits of the taskforce's delivery of the scheme are currently not reflected in the ACT Auditor-General's forward work program. This may be in part due to the findings from the ACT Auditor-General's first performance audit of the taskforce's governance, financial management and risk management frameworks for delivery of the scheme reflecting "... better practice". In light of its commitment to ensure openness and transparency in delivery of the scheme, arrangements for independent auditors to evaluate the effectiveness of the taskforce's implementation and delivery of the eradication scheme are currently being made. The audit will evaluate taskforce performance across all four phases of the eradication scheme's delivery and focus on benefits realisation and measuring success in achieving the ACT Government's objectives of the scheme.

Next steps

The taskforce will continue to pursue the demolition program with a focus on safety, and engage with contractors and regulators to share better practice along the way. The majority of houses acquired by the ACT Government are expected to be demolished by the end of 2017, six months ahead of the previously revised demolition schedule, with the balance of demolitions to occur through 2018 to after 30 June 2020 (at the end of the deferred settlement period).

Processes for formally closing affected homeowner case files where they have moved through the scheme completely and are no longer in need of and/or desiring contact or assistance from the taskforce has commenced and will continue as the final stages of the taskforce's work in delivering the eradication scheme are realised. Affected owners and their families who require ongoing support in assisting their transition will continue to receive personalised support and referral to appropriate community service providers.

Resale of remediated blocks will become the more prevalent activity as the demolition program winds down. The sale of remediated blocks is an established part of the real estate market in Canberra, and rebuilding of new houses on the remediated blocks is becoming more prevalent, signalling the renewal and psychological regrowth that was intended in the design of the eradication scheme.

More information

http://www.asbestostaskforce.act.gov.au/

Figure 28 and 29: Asbestos Response Taskforce Community Consultation Event

Figure 30 and 31: ASEC meeting at house demolition

National Strategic Plan for Asbestos Management and Awareness

2014 – 18 Strategies and outcomes summary

Australian Government
Asbestos Safety and Eradication Agency

AIM: to prevent exposure to airborne asbestos fibres in order to eliminate asbestos-related disease in Australia.

PRINCIPLES

- precaution
- evidence-based decision making
- transparency
- public participation
- collaboration

	1. AWARENESS	2. BEST PRACTICE	3. IDENTIFICATION	4. REMOVAL	5. RESEARCH	6. INTERNATIONAL LEADERSHIP
GOALS	Increase public awareness of the health risks posed by working with or being exposed to asbestos	Identify and share best practice in asbestos management, education, handling, storage and disposal	Improve the identification and grading of asbestos and sharing of information regarding the location of ACMs	Identify priority areas where ACMs present a risk, identify the barriers to the safe removal of asbestos and review management and removal infrastructure to estimate the capacity and rate for the safe removal of asbestos	Commission, monitor and promote research into the prevention of asbestos exposure and asbestos-related disease.	Australia continues to play a leadership role in a global campaign for a worldwide ban on asbestos mining and manufacturing
OUTCOMES	1.1 Increased community awareness of the risks posed by asbestos and its impact on the health of the community. 1.2 Improved access to information for those who work and live with asbestos, including where and when to source information and advice. 1.3 Demonstrated cultural and behavioural change within the community as a result of improved understanding of both the health risks and exposure pathways of asbestos in both commercial and residential environments.	2.1 Evidence-based best practice to minimise risks in targeted areas. 2.2 Model training for workers likely to come into contact with ACMs to increase competency and decrease risk. 2.3 Australian communities are supported to manage asbestos risks during natural disasters or emergencies. 2.4 Improved transport, storage and disposal practices for ACM.	3.1 Evidence-based model for grading in-situ asbestos is developed. 3.2 Improved stabilisation and containment practices for ACMs in poor condition. 3.3 Improved identification and management of information regarding asbestos contaminated land. 3.4 Estimated total presence of ACMs in the built environment is available. 3.5 Improved practice in the residential sector to identify and minimise the risk of exposure, in particular for DIY home renovators. 3.6 Effective coordinated response when ACMs in imported material are identified.	4.1 Priority actions identified support removal of ACMs in poor condition. 4.2 Options to remove asbestos in poor condition are practical, evidence-based and targeted towards sources of asbestos-related disease. 4.3 Asbestos removal infrastructure can meet the future needs and demands of ageing ACMs without creating increased risk. 4.4 The barriers to the safe removal of ACMs are reviewed and options to address the challenges faced by government, commercial and residential sectors are evaluated.	5.1 Coordination of key research supports evidence informed policy and practice. 5.2 Commissioned research identifies practical and innovative approaches to prevent or minimise risks from exposure to asbestos fibres, and support for people with asbestos-related diseases.	6.1 International issues relating to asbestos and asbestos-related disease are effectively coordinated. 6.2 Australia recognised as an international voice in the global campaign against asbestos hazards. 6.3 Best practice for awareness, management and eradication of asbestos is shared internationally.

asbestossafety.gov.au

RECENT DEVELOPMENTS

2012 The Australian Government releases the Asbestos Management Review Report which recommends the development of a national strategic plan to improve asbestos awareness and management in the broader community

2013 In 2013, the Australian Government commits funding to Comcare to ensure the safe handling of asbestos during the removal of asbestos in telecommunication pits with a verification program

1 JUL 2013 The Asbestos Safety and Eradication Agency (ASEA) is established to support and monitor the National Strategic Plan for Asbestos Management and Awareness, and provide a national focus on asbestos issues which go beyond workplace safety to encompass environmental and public health concerns

SEP 2013 First meeting of the inaugural Asbestos Safety and Eradication Council

2014 The ACT Government establishes the Asbestos Response Taskforce to provide a coordinated response to address community concerns about contamination of over 1,000 Canberra houses with loose-fill asbestos insulation

2014 The Australian Government provides the ACT Government with a concessional loan of up to $1 billion to help pay for the demolition of homes affected by loose-fill asbestos

2014 ASEA works with all levels of government in Australia to develop an agreed National Strategic Plan for Asbestos Management and Awareness

NOV 2014 The 1st International Conference on Asbestos Awareness and Management took place in Melbourne

2015 Work commences on demolition of over 1,000 houses in the ACT as part of the ACT Government's Loose Fill Asbestos Insulation Eradication Scheme

NOV 2015 The 2nd International Conference on Asbestos Awareness and Management took place in Brisbane

28 AUG 2015 The National Strategic Plan for Asbestos Management and Awareness 2014-18 is launched by the Minister for Employment

2015 The NSW Government establishes the Loose-fill Asbestos Implementation Taskforce in August 2015

2016 The Victorian Government announces the Victorian Asbestos Eradication Agency

SEP 2016 First meeting of the Asbestos Policy and Regulation Interdepartmental Committee held

NOV 2016 The first National Progress Report on the National Strategic Plan for Asbestos Management and Awareness 2014–18 is released

NOV 2016 The 3rd International Conference on Asbestos Awareness and Management took place in Adelaide

JUN 2017 Reporting and coordination identifies 151 different activities contributing to the National Strategic Plan

FEB 2017 First meeting of the second term of the Asbestos Safety and Eradication Council

DEC 2016 New Chair and Council members of the Asbestos Safety and Eradication Council appointed by the Australian Government