



Research Analysis Report:

**Analysis of recommendations from research reports completed under the
National Strategic Plan for Asbestos Awareness and Management 2014 – 2018**

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Executive summary

Background and approach

- The Asbestos Safety and Eradication Agency (ASEA) commissioned a large amount of research under the first National Strategic Plan for Asbestos Awareness and Management (NSP) 2014-2018, which has largely been exploratory in nature. This research has provided a critical base for the NSP 2019-2023.
- ASEA consolidated this work by analysing recommendations (including conclusions and proposed actions) from 29 research reports prepared during the period 2014-2018. The process was carried out to ensure that full consideration had been given to the recommendations and to identify any areas that still warrant specific action or further research.
- To commence the analysis, reports were grouped into 13 specific themes. Recommendations from all reports were then reviewed and assessed against the following:
 - Is the recommendation feasible, i.e. can it be realistically implemented?
 - Has the recommendation already been implemented by governments or other stakeholders (either fully, partially or not at all)?
 - If not, who is best placed and legally able to implement?
 - Is implementation important to meet the targets of the NSP 2019-23?

Outcomes

- This report provides a summary of the analysis and includes information on current or proposed activities to address the recommendations.
- Of the feasible recommendations, the majority are either partially implemented (e.g. only implemented in some jurisdictions) or are in the process of being implemented.
- The following areas of work were identified from the research recommendations that are currently being progressed by ASEA:
 - Homeowner and DIY awareness
 - Residential heat map
 - Governance of asbestos waste
 - Resource for local government
 - Asbestos-cement water pipes guidance

- The following key areas were identified as warranting further action or enquiry due to their potential contribution to NSP targets:
 - Investigate current status of asbestos legacy and waste management in Indigenous and remote communities
 - Further work to encourage safe removal of legacy asbestos
 - Asbestos-related disaster planning
 - Improve consistency in asbestos assessments and asbestos registers
 - Improve consistency in asbestos related regulatory frameworks
 - Increased collaboration across support services that could improve reach
 - Asbestos awareness training for trades

- ASEA will consider activities and research we can progress ourselves in these areas and where we need to collaborate with other stakeholders who are able to implement recommended actions.

Key insights

We need to:

- ensure our **research efforts are directed towards encouraging action** based on the evidence we have gathered
- improve the way we **communicate research outcomes** to those best placed to respond to recommendations, and
- **prioritise actions** that could have the greatest impact on eliminating asbestos related disease in Australia.

Overview of work underway and areas where further action may be needed to address research recommendations

Research themes		Work currently being progressed by ASEA	Areas where further action and/or research may be warranted	NSP targets
1	Asbestos in Indigenous and remote communities		Investigate current status of asbestos legacy and waste management in Indigenous and remote communities	Targets 1, 2 and 3
2	Improving asbestos assessment and registers		Improve consistency in asbestos assessments and asbestos registers	Targets 2 and 5
3	Homeowners and DIY	Homeowner and DIY awareness materials and awareness campaign resources		Target 1
4	Asbestos in homes	Development of residential heat map		Target 9
5	Incentivising safe removal of asbestos		Further work to encourage safe removal of legacy asbestos	Target 3
6	Role of local government	Resources for local government		Targets 1 and 2
7	Asbestos management in disasters		Asbestos-related disaster planning	Targets 1, 2, 3 and 4
8	Asbestos training		Asbestos awareness training for trades	Target 1
9	Asbestos waste	- Optimal framework for asbestos waste - Stocks and flows update - Mapping location and accessibility of licensed asbestos waste facilities		Targets 6 and 7
10	Current and future asbestos exposure risks	Development of residential heat map	Improve consistency of regulatory framework	Targets 1 and 2
11	Role of asbestos support services		Increased collaboration across support services that could improve reach	NSP Stakeholder
12	Asbestos-related disease	ASEA monitors and incorporates evidence to inform our work	Further research to understand the full cost of asbestos-related disease	Targets 1 and 8
13	Asbestos case studies and best practice	ASEA guidance on managing asbestos cement water and sewer pipes		Targets 1 and 2

1. Asbestos in Indigenous and remote communities

Research reports

- *Consultation and evidence coordination of asbestos risk management practices in remote communities [Matrix on Board Consulting, November 2016]*
- *Central Australia Remote Waste Management Asbestos Legacy Mapping [Central Desert Regional Council, 2017]*
- *Sustainable approaches to awareness, employment and removal of ACM in remote indigenous communities [Jennifer Goolagong]*

Key issues

- High cost of accessing licensed removal contractors (up to 3x higher) and limited access to licensed landfill sites, poor contractor behaviour and waste management practices
- Ageing buildings, often contain large amounts of asbestos, not well maintained
- Asbestos dumped on outskirts of communities
- Lack of awareness

Recommendations	Implemented?	Current/proposed action by ASEA
Include asbestos as part of larger community initiatives , such as running a whole-of-community clean-up, environmental health program, or home maintenance program.	Partially – activity undertaken by some jurisdictions in specific communities	ASEA is commencing a scoping exercise to find out what has been done in jurisdictions and what the current issues are. Encourage local government to work with indigenous and remote communities (e.g. Central Land Council representing traditional owners) to address these issues – to be included in jurisdictional action plans?
Regional councils should upgrade their cultural awareness training to strengthen relationships and reinforce effective communication strategies with land councils. Use senior community leaders and Elders to provide validity to local asbestos awareness and education campaigns		
Encourage cooperative use of existing infrastructure and equipment required for asbestos removal, storage and disposal.		
Build capability and develop local workforce to carry out asbestos activities		
Provide education material – posters, signs, radio advertising and school education programs		
Work with communities to implement Asbestos Management Plans and reporting procedures		
Secure funding to remediate sites and deliver education		

2. Improving asbestos assessment and registers

Research reports

- *Use and effectiveness of asbestos identification and grading tools by assessors [Campbell Research and Consulting, July 2015]*
- *A methodology report on the development of evaluation criteria to assess visual asbestos assessment tools [University of Tasmania, August 2015]*
- *Asbestos assessment draft guidance testing [Orima Research]*
- *A strategic review of the practice and use of asbestos registers in Australia [Inca Consulting, 2016]*

Key issues

- Asbestos assessors sceptical of a prescriptive tool that calculates or grades risk – registers and assessment reports are the most important outcomes.
- There is a need to increase consistency in the way asbestos assessments are undertaken.
- There are differences in how asbestos registers are developed, what they contain and how they are used.

Recommendations	Implemented?	Current/proposed action by ASEA
Develop a user's guide on assessment reports	Partially	ASEA developed pamphlets on asbestos assessments but this guidance needs review taking into account VAEA work
Establish an expert group to develop definitive guidance on friability	No	Establish expert panel to consult on friability and guidance on assessments
Develop standardised risk categories and control actions	Partially – VAEA has developed a risk assessment model	Improve guidance on consistency in assessments and what to expect from asbestos professionals
Develop guidance on what should be included in a report	Partially	
Encourage voluntary accreditation or certification for assessors	No	Requires industry action
Research to develop a universally applicable asbestos visual assessment tool	No	Consider tools like ACM Check
Improve quality of asbestos registers and address inconsistencies of 'competent person' definition	No	Has policy implications for SWA and links to WHS law review. ASEA could include this in a project relating to asbestos assessments

3. Homeowners and DIY

Research reports

- *Attitudes to residential asbestos assessment [EY Sweeney, 2015]*
- *DIY renovations and the precautionary approach to minimise asbestos exposure [EY Sweeney, 2016]*
- *Measurement of asbestos fibre release during removal work in a variety of DIY scenarios [Monash University, October 2015]*

Key issues

- Lack of homeowner awareness, assumptions that building inspections include asbestos assessments
- DIY renovators unlikely to engage asbestos professionals, need to incentivise homeowners getting an asbestos assessment of the property before commencing renovations
- Simulated testing confirmed existing practices for minimising fibre release are effective, e.g. not using power tools, not breaking up AC sheet, wearing PPE
- Static sampling not as effective as personal monitoring, however most often static sampling is used

Recommendations	Implemented?	Current/proposed action by ASEA
Change DIY behaviour and increase awareness , particularly where asbestos is found, address myths e.g. that small jobs are not risky	Yes, but continuing action needed by all stakeholders	Continuing focus of ASEA and jurisdictional awareness campaigns e.g. 'Asbestos lurks...' Further insights from Newgate survey on DIY activity Developed householder and renovator booklet Campaign targeting CALD communities – Pilot during 2020 awareness week
Incentivise homeowners getting asbestos assessments	No	
Raise awareness of real costs involved in safe versus unsafe removal	Partially	More work on ROI calculator?

4. Asbestos in homes

Research reports

- *Asbestos House [Brian Sketcher, Asbestos Audits QLD, September 2015]*
- *A data-driven approach to predicting asbestos [Data 61/CSIRO]*

Key issues

- Asbestos likely to be present in buildings constructed or renovated up to 2004, despite 1990 being the estimated year – further research needed to validate findings

Recommendations	Implemented?	Current/proposed action by ASEA
Validate the findings of Asbestos House report through broader consultation with industry	In progress as part of the current residential heatmap work	Seek de-identified data from asbestos assessors on their sampling in the residential sector, to test the validity of this assessor's field experience. Otherwise, a more general survey of assessors may also be used. The photographs provided can also be used in agency materials or on the website.
Source target and features data for a machine learning model		Agency sourcing suitable datasets

5. Incentivising safe removal of asbestos

Research reports

- *Barriers, motivations and options for increasing asbestos removal in residential and commercial sectors [Ipsos]*
- *Return on investment to enable safe prioritised asbestos removal in Australia [Adept Economics and Qld Economic Advocacy Solutions]*
- *Economic and financing aspects of asbestos removal [ANU Crawford School of Public Policy, 2018]*
- *Case studies of significant asbestos removal projects [Rawtec, Reincarnate, Prensa]*
- *Review of asbestos stabilisation and containment practices [University of Wollongong]*

Key issues

- Cost is the main factor in decisions relating to asbestos removal
- Low levels of risk literacy relating to ACM is a barrier to informed decision-making
- Perceived likelihood of health impacts is associated with likelihood to remove asbestos
- Government initiatives which reduce the combined cost of removal and disposal are effective
- Interest-free loans are an effective means of increasing removal, although less so than interventions that reduce costs
- The most effective way to manage the long-term risks of exposure to asbestos is via its complete removal

Recommendations	Implemented?	Current/proposed action by ASEA
A checklist that calculates how many dollars of benefits are obtained per dollar of costs was provided - asbestos removalists claimed a median 20 % cost difference between planned and urgent asbestos removal.	Partially – ROI calculator needs review	Research to update cost estimates? Combining the knowledge from this research to update the decision tree from the <i>Review of asbestos stabilisation and containment practices</i> report may be worthwhile.
Increase risk literacy about asbestos to promote informed decision-making	In progress	Development of risk communication guidance.
Implement initiatives that reduce the cost of removal as well as disposal for residential, e.g. <ul style="list-style-type: none"> • Subsidies • Interest free loans • Tax offsets 	Partially, most jurisdictions have removed disposal levy on wrapped asbestos waste and taxation ruling came in July 2020	Developing a factsheet to promote the uptake of the taxation ruling (TR2020/2) which allows landlords to tax deduct testing and removal of asbestos from their rental properties.

		<p>Economic stimulus programs such as HomeBuilder provide an opportunity to fast track removal.</p> <p>Work still needs to be done to further investigate other incentives to promote asbestos removal.</p>
Set targets for asbestos removal from commercial and government buildings	Some jurisdictions have programs for removal in government buildings – not feasible for commercial	This relates to the Target 3 of the NSP 2019-2023 (prioritised removal of ACM's from public buildings and infrastructure)
Support for property managers : <ul style="list-style-type: none"> • education • hotline • an assessment ratings system 	In progress	ASEA conducting awareness survey of real estate agents and property managers and developing guidance Engagement strategy for Real Estate Institutes
Research characteristics of homeowners – income levels and proportion of equity they own – to determine feasibility of using Income Contingent Loans and Equity Contingent Loans to stimulate asbestos removal	No	NEXIS data set has some information on characteristics of homeowners, could include this recommendation as part of heatmap work.

6. Role of Local Government

Research reports

- *Improving residential asbestos safety: Opportunities for local government [UTS]*

Key issues

- Homeowners see local governments (LG) as a trusted source of information about asbestos but had very little awareness about the actions their local governments are taking to improve community asbestos safety.

The opportunities identified for local governments to address some of the challenges around asbestos safety in the residential sector include:

- implementing a comprehensive community asbestos safety campaign, although additional resources would be needed, and a business case outlining the economic or social benefits of various actions could be required by some councils
- running workshops and information sessions for home-owners (in addition to mail outs, the internet and customer service centres) as a preferred method for receiving information
- having an asbestos policy that clearly delineates everyone’s roles and responsibilities.

Recommendations	Implemented?	Current/proposed action by ASEA
Provide a suite of resources including content for websites, flyers for distribution and content for local newspapers and newsletters to support community education, help overcome LG capacity constraints and ensure messages are up-to-date.	Partially with some governments assisting councils	Progress proposal for a dedicated LG resource.
Local governments would benefit from support establishing systems and processes to capture the volume and costs of illegally dumped asbestos		ALGA and NSWLGA participation on Awareness Committee.

7. Asbestos management in disaster planning

Research reports

- *Review of asbestos management practices in disaster planning [Newgate Research, 2017]*

Key issues

Findings included:

- Communication was often piecemeal with no single authoritative voice offering clear and consistent messages
- Lack of awareness in community about what to do before, during and after bushfires and who has responsibility for clean-up
- Inadequate training and PPE for volunteers
- Lack of suitable disposal sites and limited availability of licensed contractors
- Lack of coordination and collaboration between organisations involved in disaster management

While this report included several ‘potential solutions’, it did not fully answer the research questions:

- What disaster planning practices are in place regarding asbestos?
- What is the risk of exposure to asbestos following emergencies and natural disasters?
- What asbestos abatement policies could be developed to assist the management of responses to natural disasters?
- How can best practice emergency management be put in place to ensure asbestos exposures do not occur in times of natural disasters?

Recommendations	Implemented?	Current/proposed action by ASEA
Directly for ASEA <ul style="list-style-type: none"> • raising public awareness; • providing best-practice templates and tools for education and training; • acting as a central repository of case studies, mapping data and other resources; and • coordinating efforts for collaboration and knowledge-sharing. 	Partially	ASEA is working with Asbestos Awareness Committee (AAC) and through the stakeholder engagement projects. Could do more research on learnings from Black Summer bushfires and comparison of jurisdictional emergency management plans in relation to asbestos

<p>Building capacity for collaboration</p> <ul style="list-style-type: none"> • contact database of relevant stakeholders • prioritised work plan of initiatives 	Partially	ASEA has list of state-based contacts, but not complete in relation to disaster management
<p>Establishing definitions and performance measures:</p> <ul style="list-style-type: none"> • Definitions and terminology (risk criteria) developed to facilitate consistent risk analysis of asbestos in natural disaster-prone areas • performance standards should be established in planning and responding to incidents 	Partially	ASEA has developed standard language document – AAC requested it include asbestos in bushfires and natural disasters and how it should be treated
<p>Information packs and campaigns for:</p> <ul style="list-style-type: none"> • <u>Public</u>: national public education campaign including development of information kits for roll-out regarding how to pre-plan and respond to asbestos hazards by natural disasters • <u>State government agencies</u>: a set of ready-made communication tools and templates to assist individual agencies to communicate information and protocols quickly and effectively with disaster affected areas • <u>First Responders</u>: Training materials for volunteers, professionals and semi-professionals 	Partially	
<p>Protective equipment kits: A ready-made kit for volunteers and members of the general community in disaster prone areas, developed and distributed by local authorities</p>	Partially – provided in some areas	
<p>Online resource database for professionals that may include fact sheets, how-to guides, case studies, contact details for professional removalists, storage sites and waste facilities</p>	Partially	Most jurisdictions have dedicated asbestos websites
<p>Database of asbestos affected areas and properties: A collation of available property/ neighbourhood-level information regarding the existence or potential existence of asbestos</p>	In progress	Residential heat map
<p>Partnerships and working groups between stakeholders working at the intersection of emergency and asbestos management aimed at overcoming sectoral/jurisdictional silos and working towards harmonisation of standards.</p>	In progress	Through jurisdictional coordination groups. The emergency operation response centres generally pull in expertise across all areas
<p>Specific policies for asbestos management for emergency services workflows: Developing policy shells and handbooks for incorporation into existing emergency services workflows to address asbestos hazards during natural disasters</p>	Partially	

8. Asbestos training

Research reports

- *Head start to safety: effectiveness of awareness training for high school students [Asbestos Diseases Society of South Australia]*

Key issues

Report highlighted the benefits of Asbestos Awareness Training (AAT) for high school students who expect to pursue employment in the building industry (study involved 485 students).

Recommendations	Implemented?	Current/proposed action by ASEA
<p><i>Asbestos Diseases Society of South Australia (ADSSA) enhance its current AAT program with an increased emphasis on:</i></p> <ul style="list-style-type: none"> • The use of Asbestos Registers in a range of different industry settings • The selection, use and disposal of PPE • Safe Work Method Statements • Resolving concerns with employers when encountering asbestos risks in the workplace. 	Unknown	Follow up with ADSSA
<p>Nationally harmonised asbestos awareness training programs within vocational education training courses</p>	No	The development of training is beyond ASEA's functions. This is a matter for the training industry. In response to the WHS Review, SWA advised they are considering asbestos training for workers.
<p>Make asbestos awareness training programs mandatory for high school students</p>	No – probably not feasible	
<p>Undertake a 3 to 5-year longitudinal study of trade students to:</p> <ul style="list-style-type: none"> • evaluate the effectiveness of asbestos awareness training • assess behaviour change in the workplace. 	No	

9. Asbestos waste

Research reports

- *Illegal asbestos dumping: review of issues and initiatives [ACIL Allen, January 2016]*
- *Asbestos Waste in Australia [Blue Environment, September 2015]*

Key issues

- Around 6,300 tonnes of asbestos containing material is illegally dumped each year in Australia, with the clean-up costing around \$11.2 million.
- Between 2008 and 2014, Australians generated around 20kg of asbestos waste per capita.

Recommendations	Implemented?	Current/proposed action by ASEA
Investigate ways to reduce the costs of legal disposal of ACMs.	Partially - NSW and VIC have implemented asbestos waste disposal strategies, most jurisdictions have reduced levies for asbestos waste.	Links to Theme 5 - incentivising safe removal ASEA is revising Waste Governance report to recommend an optimal asbestos waste management system
Increase the penalties for illegal dumping of ACMs. Simplify and streamline processes through which dumpers are brought to justice	Partially	Policy issue for EPA's
Facilitate information flows on ACM dumping such as notify local council demolition permits to EPAs	Partially	EPA Victoria are doing data intelligence exercise with other regulators.
Allow flexibility in transport requirements for special cases	No	Policy issue for EPA's, there is already some flexibility around unlicensed disposal
Enhance regulatory oversight, undertake spot checks on builders and removalists		Issue for regulators
Enhance accessibility of legal ACM disposal options	Partially - Sustainability Victoria are reviewing this as	ASEA is progressing work on mapping the accessibility of asbestos disposal sites.

	part of their Asbestos Waste Disposal Plan.	
Address local government insurance concerns	No	ASEA is investigating gaps in insurance cover
Provide education and training for renovators and tradespeople: - education materials in hardware and equipment hire shops - provide and advertise the availability of online asbestos safety courses	Partially	ASEA is working with Bunnings on asbestos awareness materials and campaigns
Provide free pick-up services	Partially	WA and other jurisdictions have these programs.
Establish state/territory government asbestos coordination units	In progress	In mid-2020 the Attorney-General wrote to state and territory WHS ministers encouraging this to implement the NSP.
Assess asbestos disposal requirements in remote communities and assist remote communities with ACM disposal problems	Partially	Links to Theme 1
Make it easier to report illegally dumped of ACMs	Partially	EPA NSW have a good mobile platform for reporting dumpers
Improve awareness about legal ACM disposal, including information sessions in schools	Partially	Links to Theme 8
Develop nationally preferred position on: <ul style="list-style-type: none"> tracking asbestos waste, encompassing threshold quantities and sources to which tracking should apply landfill pricing that encourages optimal disposal practices receipt of asbestos waste in areas that do not have ready access to landfill disposal 	Partially	Dept of Agriculture, Water and Environment (AWE) commissioned research in 2019 for a national electronic tracking and data system for inter- and intra-state movements of hazardous and controlled waste. Most jurisdictions have removed levies on wrapped asbestos waste.
Update waste facility database to include all sites known by NSW EPA and Qld EHP to take asbestos.	In progress	Work to be completed end of 2020
Liaise with DoE to obtain ongoing access to annual data on asbestos tonnages reported via Basel Convention submissions.	Yes	Asbestos waste data collected under current contract with Blue Environment
Work with the DoE and relevant state and territory government agencies to develop preferred methods for collating asbestos waste data for reporting via Basel Convention submissions.	Yes	AWE published Australian hazardous waste data and reporting standard in 2019

10. Current and future asbestos exposure risks

Research reports:

- *Current and future asbestos exposure risks in the Australian community [Curtin University]*
- *Asbestos Safety Future report [CSIRO Data 61]*

Key issues

Asbestos in the community

- bushfire and natural disaster zones - climate change may increase the rate of deterioration of asbestos-containing infrastructure
- asbestos roofing (all types), particularly in coastal areas, or locations subject to extreme weather conditions
- illegally dumped or inappropriately disposed ACMs
- increase in number of untrained people conducting activities that involve ACMs, including home renovators and workers in the gig economy
- remote Indigenous community buildings

Asbestos in commercial and government buildings

- schools, hospitals, prisons
- disused industrial premises
- warehouses containing flammable materials

Asbestos contaminated land

- development sites
- naturally occurring asbestos

Imported goods that contain asbestos

Recommendations	Implemented?	Current/proposed action by ASEA
Ensure laws related to asbestos management are nationally consistent	Partially, consistency mainly in WHS laws	ASEA could identify inconsistencies in laws and make recommendations to jurisdictions and SWA
Prioritise removal in areas prone to natural disasters, including: <ul style="list-style-type: none"> • Training and PPE to volunteers • Sourcing additional asbestos removal professionals 	No	Links to Theme 5 ASEA's 'heatmap' will help identify stocks of ACM in these areas

Develop data set and mapping of known locations of ACM	In progress	ASEA's 'heatmap'
Provide incentives for home and commercial building owners to remove ACM roofs	Partially	Links to Theme 5 WA is promoting roof removal currently
A national curriculum for removalists/assessors.	No	Links to Theme 8 SWA has advised that in response to the WHS review they are considering asbestos training requirements for all workers
Examine the effectiveness of key emerging technologies	Partially	ASEA monitors new technologies but there are challenges with economic feasibility
Monitor the labour market balance between supply and demand for asbestos-related work	No	

11. Role of asbestos support services

Research reports:

- *Understanding of asbestos support services: a literature review [Swinburne University, December 2016]*

Key issues

- Australia’s community-based asbestos support organisations offer strong and varied programs of traditional peer-to-peer support including support groups, hospital and home visits and telephone advice. Each organisation has its own area of focus and expertise that can bolster a wider network.
- There is a lack of culturally and linguistically appropriate services or support designed specifically for people from CALD and Aboriginal and Torres Strait Islander communities

Recommendations	Implemented?	Current/proposed action by ASEA
Build new collaborations and partnerships	In progress	Encourage additional collaboration through ASGN – find out what is being done to support CALD and Aboriginal and Torres Strait Islander people Establishment of new Non-Government Advisory Committee
Create an Australia-wide map of asbestos services and support	In progress - Links to all groups are on ASEA website	Supporting ASGN to be more self-sufficient and strategic in their operation
Document social impact	In progress - Production of ASGN highlights video 2019	Supporting ARD groups to produce their own promo materials

12. Asbestos-related disease

Research reports:

- *Future projections of the burden of mesothelioma in Australia [Finity, March 2016]*
- *The economic and social impacts of asbestos-related disease [Centre for International Economics, July 2016, May 2017]*

Key issues

- 19400 estimated cases of mesothelioma between 2015 and the end of the century. Third wave exposures currently account for 1 in 3 cases but will increase – estimated to be over 8000 future cases of third wave mesothelioma.
- Productivity costs (estimated at \$321 million) and health system costs (estimated at \$192 million) are the highest quantified economic costs. Social costs (i.e. reduced quality of life) were measured by burden of disease losses and estimated at 58 077 years of life lost worth \$10.8 billion (a value that ‘may be overstated for elderly sufferers of disease’).

Recommendations	Implemented?	Current/proposed action by ASEA
<p>Asbestos management strategies must be implemented to address third wave exposures. This includes:</p> <ul style="list-style-type: none"> • raising awareness of ongoing risk of asbestos exposure, including significance of low dose exposures • following risk minimisation strategies to deal with these exposures <p>Prioritising removal may reduce number of future mesothelioma cases.</p>	In progress – Addressed in NSP, requires ongoing action by all stakeholders	Updates through Global burden of disease (GBD) study and ongoing work by the WHO consortium, as well as the annual AIHW Mesothelioma in Australia reports.
<p>To understand the full cost of ARDs in Australia requires:</p> <ul style="list-style-type: none"> • primary data collection for mental health and industry impacts • an analysis of governance and reporting costs under alternative policy models, across Australia and possibly internationally • future projections based on the <ul style="list-style-type: none"> ○ changing demographic profile of Australians with ARDs (i.e. third wave sufferers, who are younger) ○ increasing evidence of the link between asbestos exposure and other diseases (e.g. stroke, other cancers) 	No	The data provides a strong economic basis to support the NSP and the agency’s work. Potential future research – quantitative as well as qualitative analysis, such as case studies to assess costs.

13. Asbestos case studies

Research reports:

- *Case studies of asbestos water pipe management practices [2018]*
- *Case studies of asbestos contaminated land [Rawtec, May 2017]*

Recommendations	Implemented?	Current/proposed action
Develop a nationally consistent approach to managing AC pipes that complies with current WHS and environment protection laws	In progress	ASEA’s draft guidelines were released for public comment and are currently being revised.
<p>On-site remediation and disposal of asbestos contaminated soils into engineered containment cells can support the business case for site remediation through reduced transport and disposal costs, particularly in rural and regional areas where transportation distances can be prohibitive. To be supported by:</p> <ul style="list-style-type: none"> • Strong focus on health and safety • Retaining flexibility in the project methodology and developing strong partnerships with regulators • Effective planning and communication 	No	<p>Difficult to develop a business case template for managing asbestos contaminated soils in-situ as requires a site-specific assessment of: risk, suitable management controls, land use and potential nearby sensitive receptors. Generally, EPAs across Australia already prefer that asbestos contamination be managed onsite.</p>