

NSW Dust Disease Register Annual Report 2020-21

SafeWork NSW

July 2021

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1. Foreword

Since 27 October 2020, SafeWork NSW has had an obligation to keep the Dust Diseases Register (Register) and to provide a report on the Register at the end of each financial year.

The Register contains all notifications of diagnosed cases of dust diseases silicosis (caused by breathing in silica dust), asbestosis and mesothelioma (both caused by breathing in asbestos dust) in NSW. This report focuses on notifications the Register received during its first year of operation, the 2020-21 Financial Year (1 July 2020 – 30 June 2021).

Some legislative changes enabled the creation of the Register. Asbestosis and silicosis became Scheduled Medical Conditions in NSW under the *NSW Public Health Act 2010*, requiring doctors to notify NSW Health when a case is diagnosed. The asbestos-related cancer mesothelioma, like all cancers, is already a Scheduled Medical Condition and a notifiable disease. The introduction of the *WHS Amendment (Information Exchange) Act 2020* allows these disease notifications to be kept on the Register by SafeWork NSW to undertake its functions as the state's workplace health and safety (WHS) regulator.

As well as providing additional information regarding the burden of disease, the Register enables timelier and more targeted WHS investigations at workplaces where exposure may have resulted in dust diseases developing.

Asbestos-related illness has held a strong focus for workplace health and safety regulators and public health organisations locally, nationally and internationally since the 1980s. Silicosis has re-emerged as a considerable concern in recent years, particularly for workers in the manufactured stone industry where the most aggressive form of the disease, accelerated silicosis, is developing within 3-10 years of exposure¹.

A case-finding report² published alongside this report provides insight into the burden of silica-related disease in the manufactured stone industry from 2017-2020, before the Register started.

The Register is part of a broader program of work SafeWork NSW is delivering under the *NSW Dust Strategy 2020-2022*³ targeting dust related harm as part of the *NSW WHS Roadmap 2017-2022*⁴. At a national level the *National Dust Disease Taskforce*⁵ is developing a coordinated approach for the prevention, early identification, control and management of occupational dust diseases, including consideration of a similar national register for occupational dust diseases.

Protecting workers in NSW from occupational dust diseases and supporting those workers who have developed these illnesses requires a coordinated cross-government approach. SafeWork NSW is proud to work with [icare](#) (Insurance and Care NSW), [SIRA](#) (State Insurance Regulatory Authority), [NSW Health](#) and co-regulators the [NSW Resources Regulator](#) and [Comcare](#), as well as doctors, health and industry associations, employers and workers to reduce dust-related harm and keep workers safe.

2. Executive Summary

This is the first annual report of the NSW Dust Disease Register (Register), managed by SafeWork NSW.

The NSW Dust Disease Register (Register) records notifications of cases of occupational dust diseases silicosis, asbestosis and mesothelioma in a single place to monitor and analyse the incidence of notifiable occupational dust diseases in NSW.

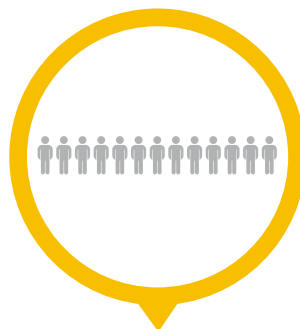
This report focuses on the notifications of diagnosed cases of silicosis, asbestosis and mesothelioma and death registrations where these diseases are mentioned; reported to the Register during the 2020-21 Financial Year (1 July 2020 – 30 June 2021).*

This report has been prepared to meet the requirements of *Section 271D of the NSW Work Health and Safety Act 2017*⁶, which is to produce a report that includes:

- the number of cases of occupational dust diseases notified to SafeWork NSW under section 271B during the financial year,
- the number of deaths resulting from occupational dust diseases notified to SafeWork NSW under section 271B during the financial year,
- the types of diseases or conditions recorded in the Dust Diseases Register during the financial year,
- the actions SafeWork NSW has taken to implement the purposes of the register, and
- any other information about a disease or condition recorded in the register that SafeWork NSW considers appropriate.



Silicosis cases notified



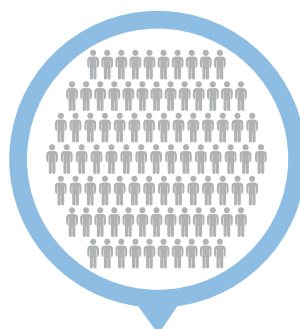
Asbestosis cases notified



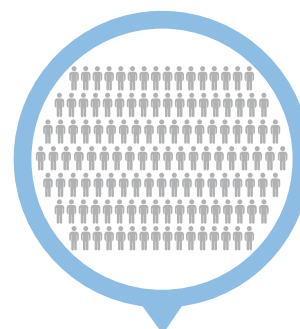
Mesothelioma cases notified



Silicosis number of deaths



Asbestosis number of deaths



Mesothelioma number of deaths

* Data for silicosis is available from 1 July 2020 because the Government made silicosis notifiable from that date in anticipation of the passing of the Work Health and Safety Amendment (Information Exchange) Bill 2020. This was because silicosis was a priority condition following an increase in case numbers.

Asbestosis and mesothelioma data is for the final six months of the reporting period.

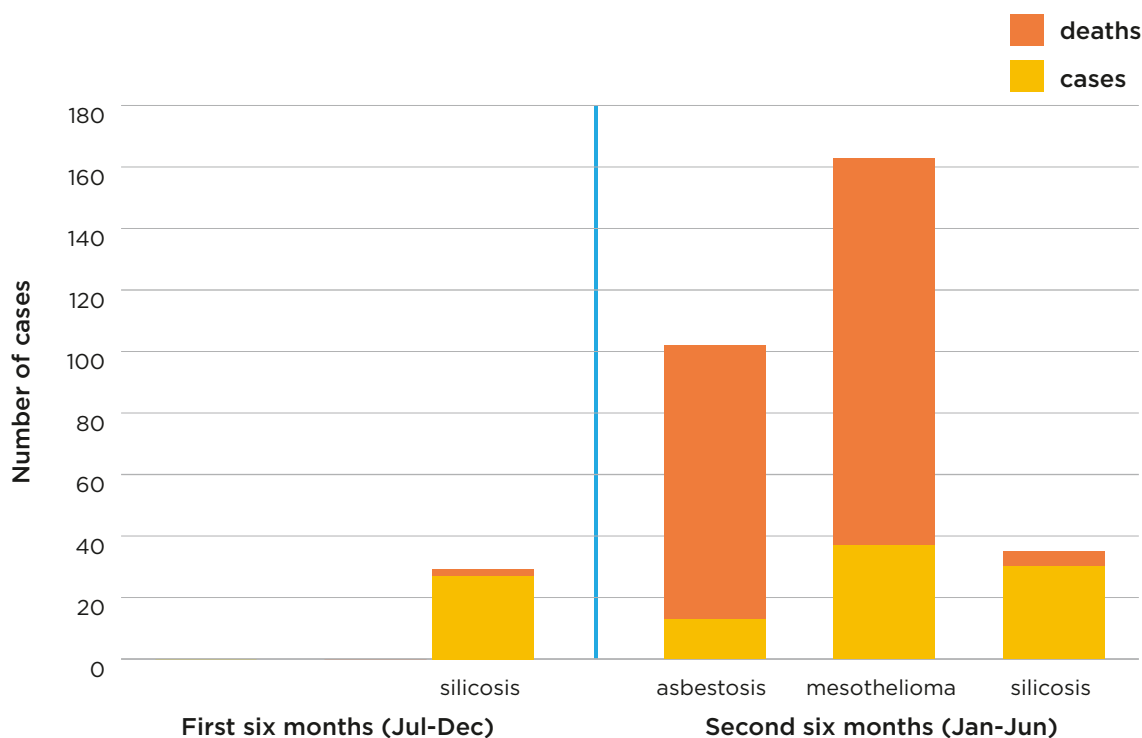
3. Notifiable dust diseases - all types (cases and deaths)

Table 1. Notifiable dust diseases - types (cases and deaths)(NSW Health notifications)

Type of dust disease	Number of cases	Number of deaths
Asbestosis (final six months)	13	89
Mesothelioma (final six months)	37	126
Silicosis (full 12 months)	57	7
Total	107	222

- A small number of silicosis cases notified to SafeWork NSW are known to have been diagnosed prior to the reporting period. They may also appear in legacy data from previous years.
- Data for silicosis is available from 1 July 2020 because the Government made silicosis notifiable from that date in anticipation of the passing of the Work Health and Safety Amendment (Information Exchange) Bill 2020. This was because silicosis was a priority condition following an increase in case numbers. Asbestosis and mesothelioma data is for the final six months of the reporting period.
- Death data may be updated in future reports after formal coding is completed by Australian Bureau of Statistics.

Graph 1. NSW Dust Disease Notifications - All Types Diagnosed Cases and Deaths (NSW Health notifications)





4. Spotlight on silicosis

Silicosis is a preventable occupational dust disease caused by inhalation of very fine silica dust (respirable crystalline silica). When exposure is not controlled, silica dust is a major hazard for workers in NSW.

Reidentification and emergence of silicosis

The introduction of building products with high silica content (including manufactured stone benchtops), major underground infrastructure projects and limited awareness of the risks of exposure to silica, have all contributed to an increase in reported cases of silicosis. In the manufactured stone industry, the identification of accelerated silicosis, the most aggressive form of the disease, has been seen developing within 3-10 years of exposure⁷.

In 2015, the first NSW cases of silicosis linked to the manufactured stone industry in NSW were recorded in literature⁸. Before this, cases of silicosis had remained low and stable for many years. In the five years to 2017, diagnosed cases of silicosis by icare NSW ranged between 6 and 9 per year⁹, jumping to 40 in 2018-19 and 107 in 2019-20. This was in the presence of a targeted workplace health and safety program by SafeWork NSW and greater access to heavily subsidised health monitoring (screening) by icare.

SafeWork NSW is delivering the [NSW Dust Strategy \(2020-2022\)](#), ensuring a coordinated approach for the safe handling of hazardous occupational dusts. Silica dust is a Top 2 Priority Chemical in the [NSW Hazardous Chemicals Strategy 2017-2022](#) being delivered as part of the [NSW WHS Roadmap 2017-2022](#), with a target of 30 per cent reduction in serious injuries and illnesses with a focus on reducing exposure to hazardous chemicals.

Key components of the project are awareness and education, inspector visits and compliance, legislation, and research into best practice approaches to harm prevention. A series of reforms have been introduced to strengthen WHS regulations on silica (see 'Strategic Framework' in Section 8 - About the NSW Dust Disease Register).

Since launching its silica-focused program in 2018, SafeWork NSW has completed 1511 silica-related workplace visits (part of a total 6300 interactions), resulting in 945 improvement notices issued, 72 prohibition notices, 2 penalty notices for uncontrolled dry cutting, grinding, drilling and polishing of manufactured stone (as at 30 June 2021).



1511 workplace visits
(6300 business interactions)



945 improvement notices

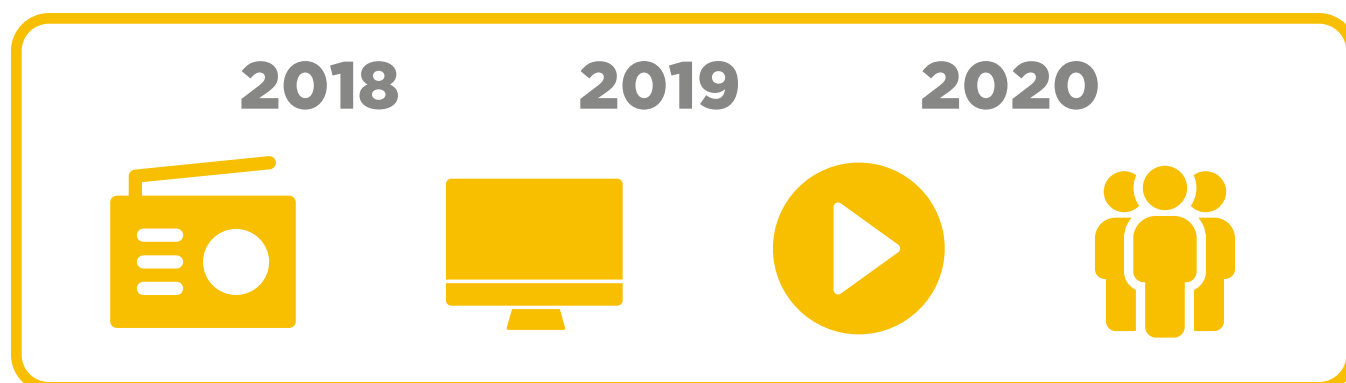


72 prohibition notices



2 penalty notices
(for uncontrolled dry cutting)

Mass awareness campaigns ran in 2018, 2019 and 2020, including radio and online advertising, a Silica Symposium and regional roadshow event series, webinars and safety videos as well as 107 industry presentations.



4.1 Silicosis cases by type

Table 2. Silicosis cases in NSW by type (%) (NSW Health notifications)

Silicosis	Number of workers	Breakdown %
Accelerated	<5	-
Acute	<5	-
Chronic	44	77.19
Not identified	5	8.77

46 cases were notified by icare NSW and 11 cases were notified by other medical practitioners.

4.2 Deaths where silicosis was mentioned

There were seven (7) deaths registered in NSW where silicosis was mentioned; or where a date of death was listed on a disease notification form. Death data may be updated following formal coding processes at a national level (see section 8.3 Deaths).

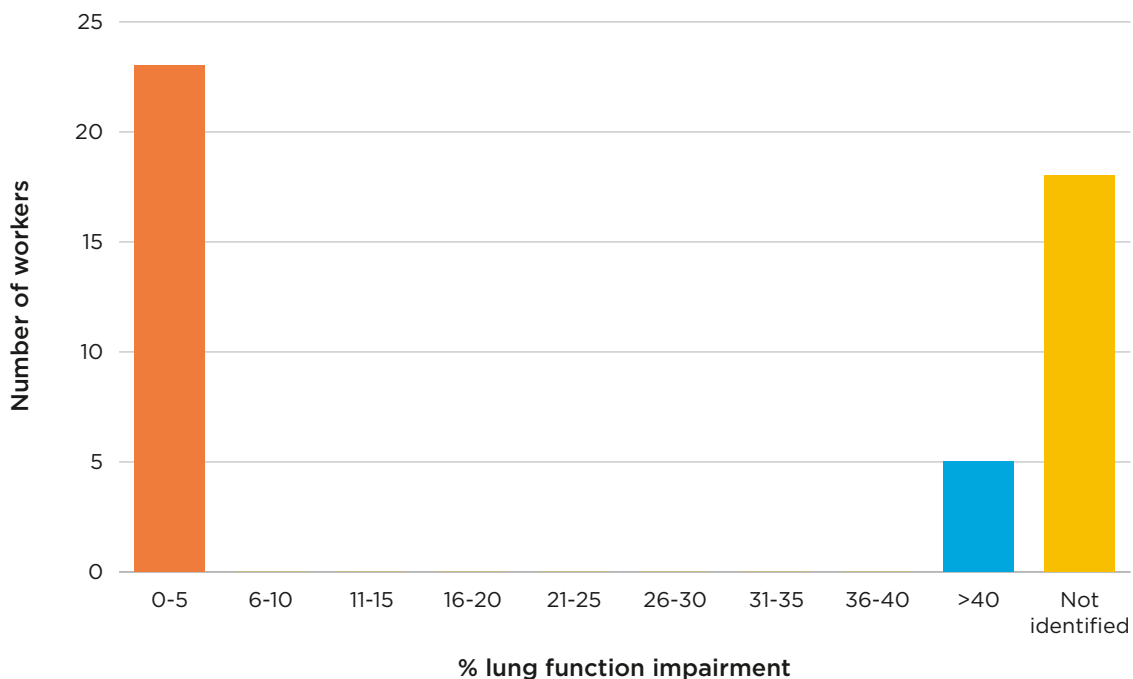
4.3 Percentage of lung function impairment

A total of 23 cases have lung impairment of 0%-5%. In the early stages of silicosis, workers usually don't have symptoms.

Table 3. Workers with silicosis by lung function impairment (%) (NSW Health notifications)

% lung function impairment	Number of workers	Breakdown %
0-5	23	40.35
6-10	<5	-
11-15	<5	-
16-20	<5	-
21-25	0	0
26-30	<5	-
31-35	0	0
36-40	<5	-
>40	5	8.77
Not identified	18	31.58

Graph 3. Workers with silicosis by lung function impairment



4.4 Demographics of workers with silicosis

Demographic overview

Demographic data (including culturally and linguistically diverse communities (CALD), age groups and gender) is collected to inform targeted prevention activities including translated resources and targeted awareness campaigns. Further information on the steps taken by SafeWork NSW to address silicosis exposure in CALD communities is provided in Part 6, Implementing the purposes of the register.

- Demographic data has been deidentified to adhere to privacy protocols.
- All cases of silicosis are male.

Region of birth of workers with silicosis

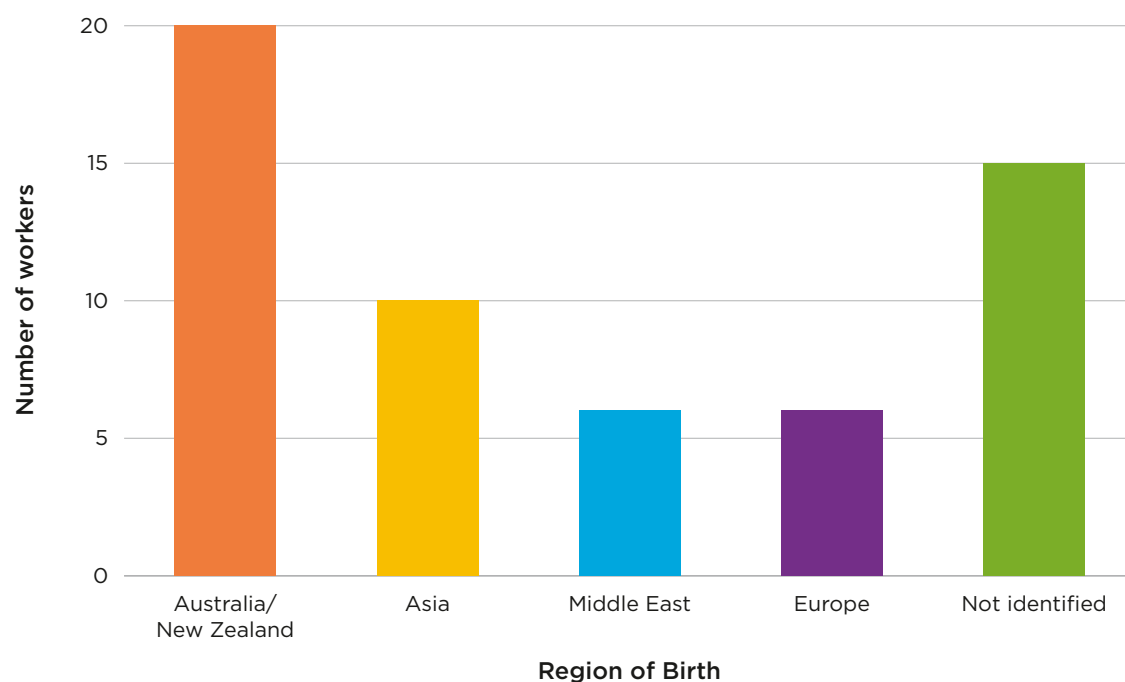
- Australian and New Zealand-born workers represented the highest proportion of cases.

Country of birth data has been grouped under 'region' to allow for more meaningful reporting while maintaining privacy principles, due to small volumes of data.

Table 4. Workers with dust disease by region of birth (%) (NSW Health notifications)

Region of Birth	Number of workers	Breakdown %
Australia/New Zealand	20	35.1
Asia	10	17.5
Middle East	6	10.5
Europe	6	10.5
Not identified	15	26.3

Graph 4. Workers with dust disease by region of birth

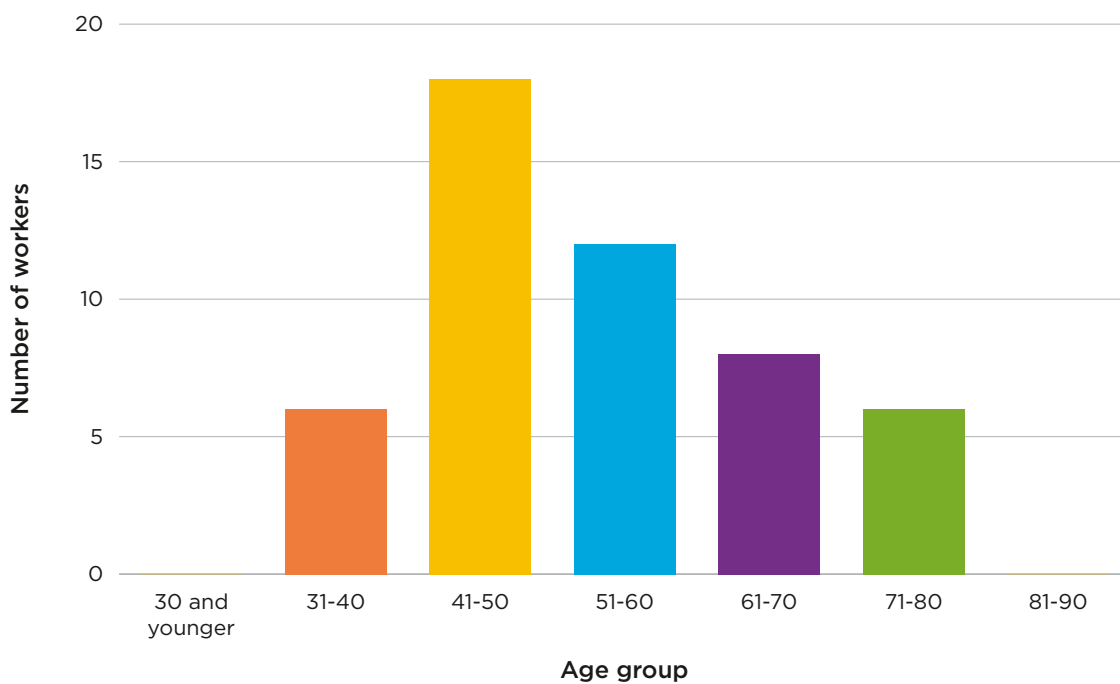


Age group of workers with silicosis

Table 5. Workers with silicosis by age-group (%) (NSW Health notifications)

Age group	Number of workers	Breakdown %
30 and younger	<5	-
31-40	6	10.52
41-50	18	31.57
51-60	12	21.05
61-70	8	14.03
71-80	6	10.52
81-90	<5	-

Graph 5. Workers with silicosis by age-group



4.5 Occupational exposure of workers with silicosis

- Person's last reported industry/occupation. Due to latency of disease and movement of workers between jobs and industries, the industry/occupation reported may not be where exposure occurred.
- ANZSIC code is determined based on employer information. For some businesses, their ANZSIC codes may not align with a worker's ANZSCO code (for example a business may not be classified as a 'trades' business but may employ tradespeople).
- The highest number of reported cases by industry is 2090 - Other non-metallic mineral product manufacturing (includes manufactured stone).
- The highest number of reported cases by occupation is 7111 - Clay, concrete, glass and stone processing machine operators (includes manufactured stone workers).

Table 6. Workers with silicosis by industry where last exposure is expected to have occurred (ANZSIC code) (NSW Health notifications)

ANZSIC codes	Number of workers	Breakdown %
2090 - Other non-metallic mineral product manufacturing (including manufactured stone)	33	57.89
3109 - Other heavy and civil engineering construction	8	14.03
Trades	10	17.54
3221 - Concreting services		
3222 - Bricklaying services		
3231 - Plumbing services		
3243 - Tiling and carpeting services		
3212 - Site preparation services earthmoving work	<5	-
Other	<5	-
Not specified	<5	-

Graph 6. Workers with silicosis by industry where last exposure is expected to have occurred

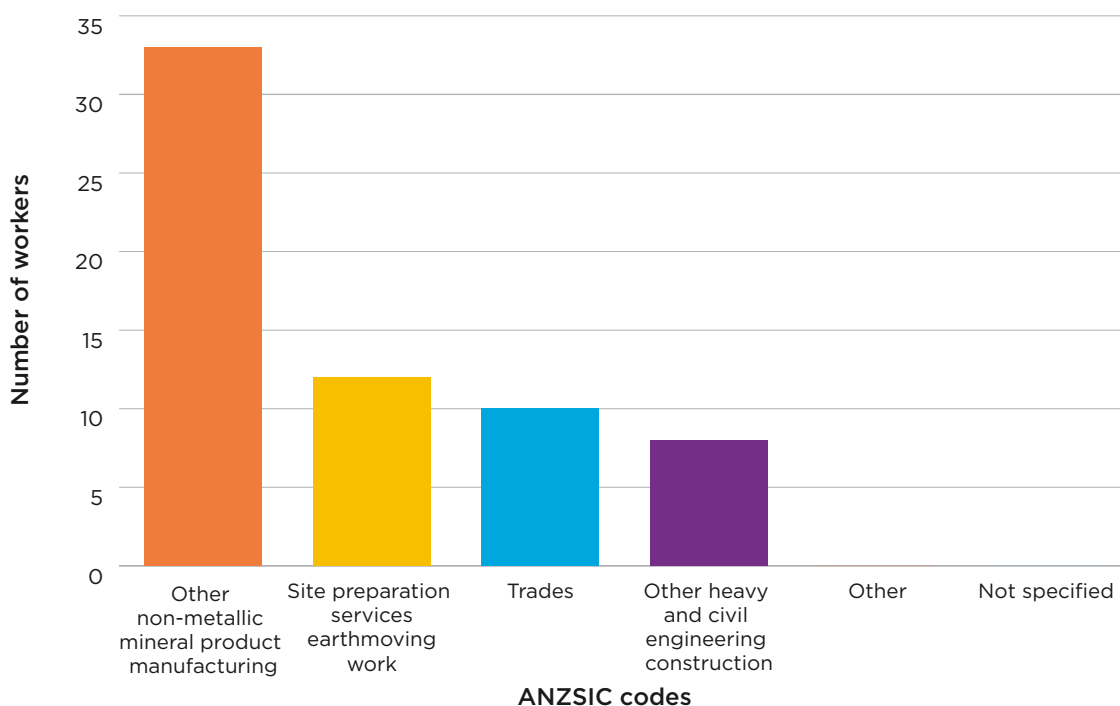
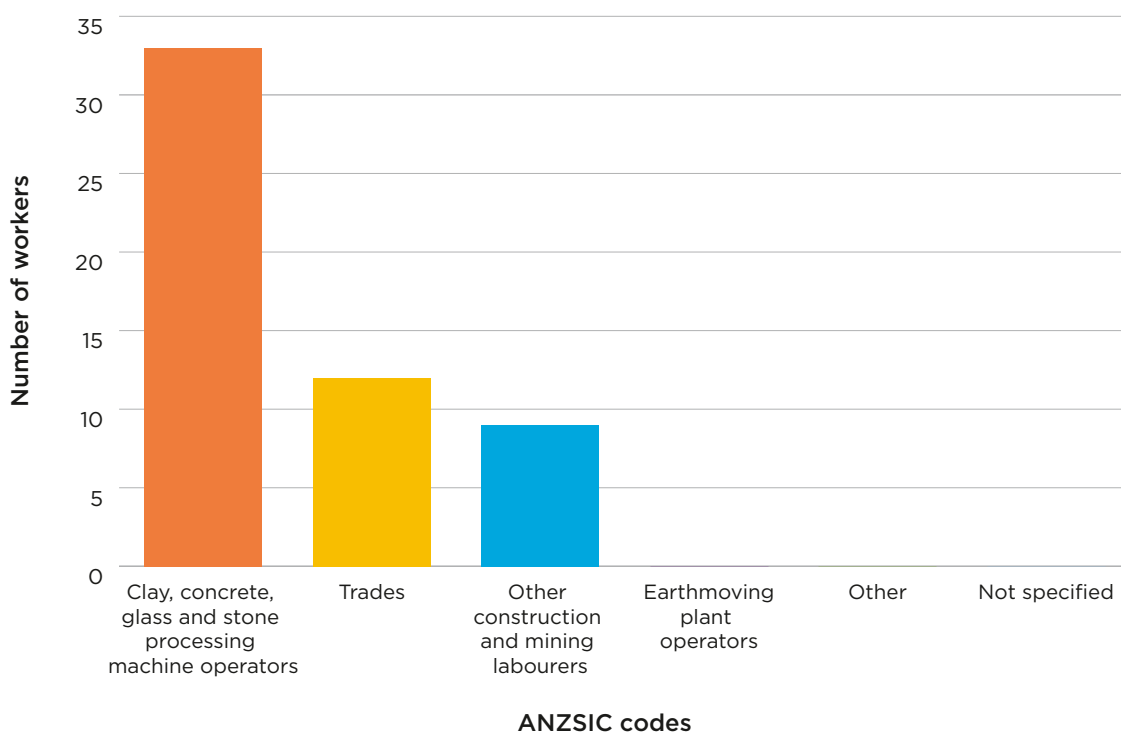


Table 7. Workers with silicosis by occupation where last exposure is expected to have occurred (ANZSCO Code) (NSW Health notifications)

ANZSIC codes	Number of workers	Breakdown %
7111 - Clay, concrete, glass and stone processing machine operators	30	52.63
7212 - Earthmoving plant operators	<5	-
Trades	12	21.05
3311 - Bricklayers and stonemasons		
3312 - Carpenters and joiners		
3341 - Plumbers		
3344 - Wall and floor tilers		
8215 - Paving and surfacing labourers		
8211 - Building and plumbing labourers		
8212 - concreters		
8219 - Other construction and mining labourers	9	15.78
Other	<5	-
Not specified	<5	-

Graph 7. Workers with silicosis by industry where last exposure is expected to have occurred



5. Spotlight on asbestos-related diseases

Australia mined and imported asbestos, which was primarily used in the construction and transport industries because it was durable and resistant to fire and chemicals.

Asbestos is a naturally occurring mineral made up of tiny microscopic fibres.

When asbestos is disturbed, either in its natural form or in an asbestos-containing product, these fibres can become airborne and be easily inhaled. Asbestos fibres may become trapped in the lungs, potentially causing life-threatening diseases such as mesothelioma, asbestosis and lung cancer.

Due to these health risks, Australia imposed a total ban on the mining, manufacture and use of asbestos on 31 December 2003. However, our past use of asbestos means that asbestos-containing materials still exist in our built environment.

SafeWork response

SafeWork NSW is delivering the [NSW Dust Strategy \(2020-2022\)](#), ensuring a coordinated approach for the safe handling of hazardous occupational dusts.

SafeWork NSW is a member of the NSW Asbestos Coordination Committee to improve asbestos management and awareness across NSW. A key focus for committee members is to align activities with the goals of the [National Strategic Plan for Asbestos Awareness and Management \(NSP\) 2019-2023 \(NSP\)](#) which aims to eliminate asbestos-related diseases in Australia by preventing exposure to asbestos fibres.

The NSP ensures there is a nationally consistent and coordinated approach to asbestos awareness, management and removal.

SafeWork chairs the Demolition and Asbestos Consultative Committee which provides a forum for SafeWork NSW and industry stakeholders to discuss asbestos health and safety matters.

Key activities that SafeWork NSW undertakes in relation to asbestos includes:

- regulation and compliance of asbestos removal/assessor licence holders and registered training organisations delivering asbestos training
- enforcement activities
- licensing reforms to enable simpler licensing processes and improved customer service, and
- awareness and education activities such as development and promotion of asbestos safety videos, improving knowledge and influencing behaviour around asbestos exposure risks in the workplace and regular asbestos awareness campaigns.

In the 2020-21 Financial Year SafeWork NSW has:



Completed:

260 licence holder verifications

276 licence assessments

722 asbestos in soils reports

451 waivers

11 exemptions



Responded to: **335** enquiries



Issued:

49 penalty notices

154 prohibition notices

500 improvement notices

15 compliance letters

SafeWork has released 8 asbestos safety videos since 2019, with one video translated into multiple languages. Social media promotion of the videos has resulted in:



560,000 video views (English versions)



26,000 video views of the translated versions
(Mandarin, Cantonese, Arabic, Vietnamese)

Data Source

- All asbestosis and mesothelioma disease notification data and death data is sourced from NSW Health notifications for the final six months of the reporting period, after asbestosis was made notifiable.
- All legacy and industry data has been sourced from icare for the period 1 July 2020 - 31 March 2021.

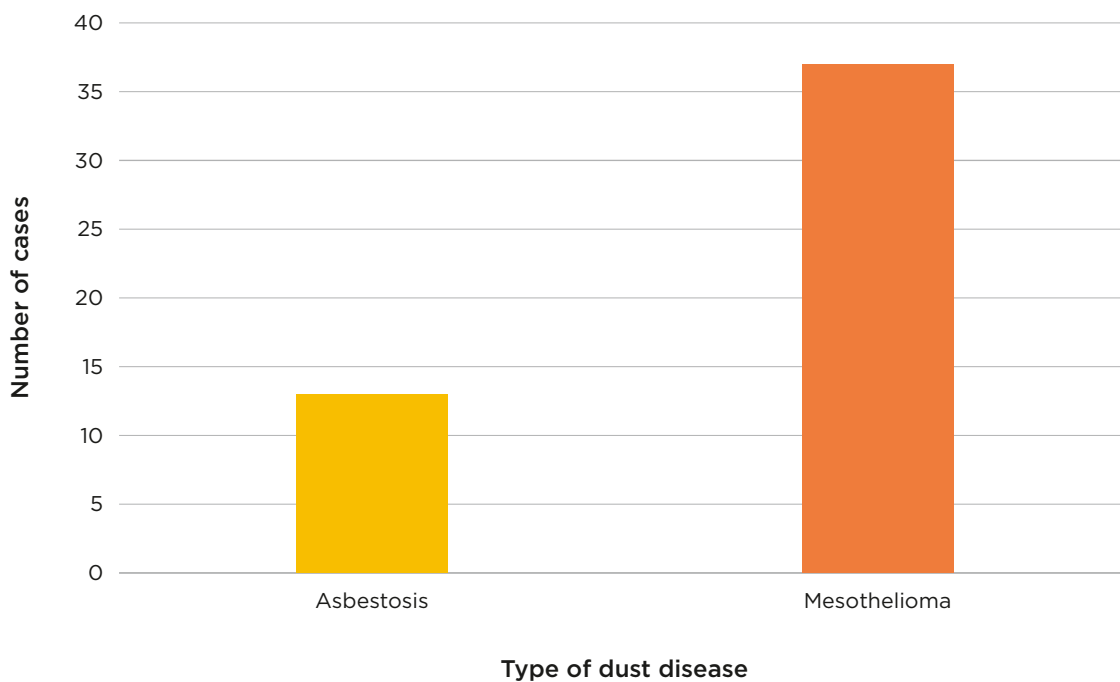


5.1 Cases of asbestosis or mesothelioma

Table 8. New cases of asbestosis or mesothelioma in NSW (last six months 2020-2021) (%) (NSW Health notifications)

Dust disease	Number of cases	Breakdown %
Asbestosis	13	26
Mesothelioma	37	74
Total	50	

Graph 8. New cases of asbestosis or mesothelioma in NSW (last six months 2020-2021)

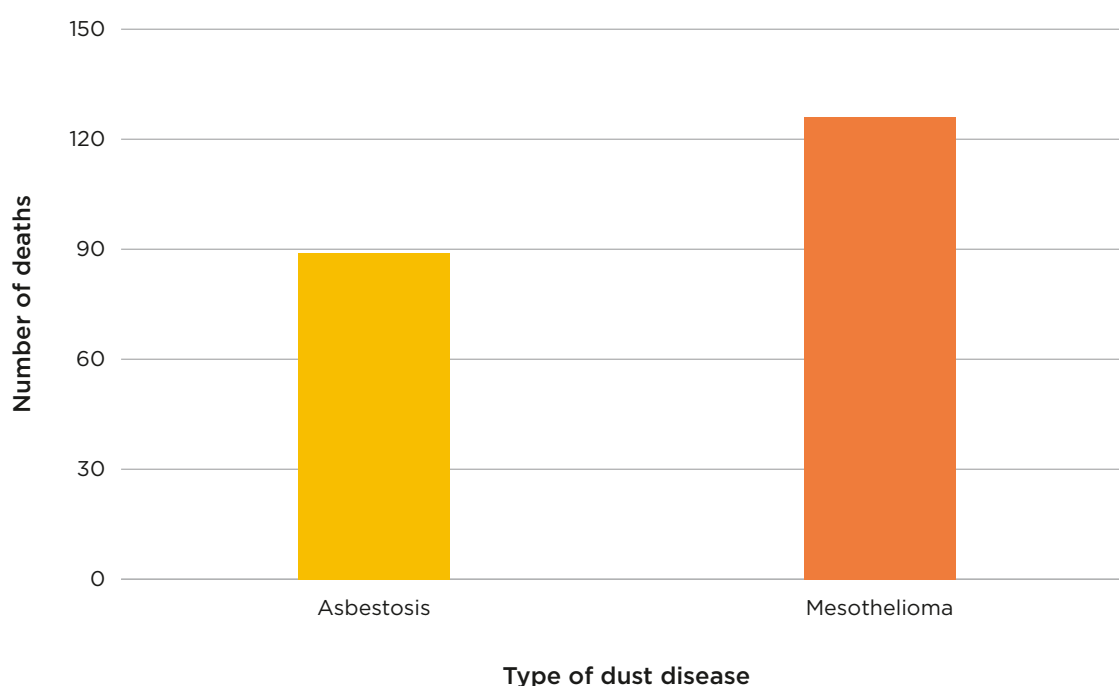


5.2 Deaths where asbestosis or mesothelioma were mentioned

Table 9. Deaths recorded with asbestosis or mesothelioma on death certificate in NSW (last six months 2020-2021) (NSW Health notifications)

Dust disease	Number of deaths	Breakdown %
Asbestosis	89	41.4
Mesothelioma	126	58.6
Total	215	

Graph 9. Deaths recorded with asbestosis or mesothelioma on death certificate in NSW (last six months 2020-2021) (NSW Health notifications)



5.3 Demographics of people with asbestosis or mesothelioma

Demographic overview

- Most people diagnosed with asbestosis or mesothelioma were male (92%).
- The majority of people diagnosed were aged between 71-90 years of age (includes both alive and deceased).
- Demographic data has been deidentified to adhere to privacy protocols.

5.4 Occupational exposure of workers with asbestosis or mesothelioma

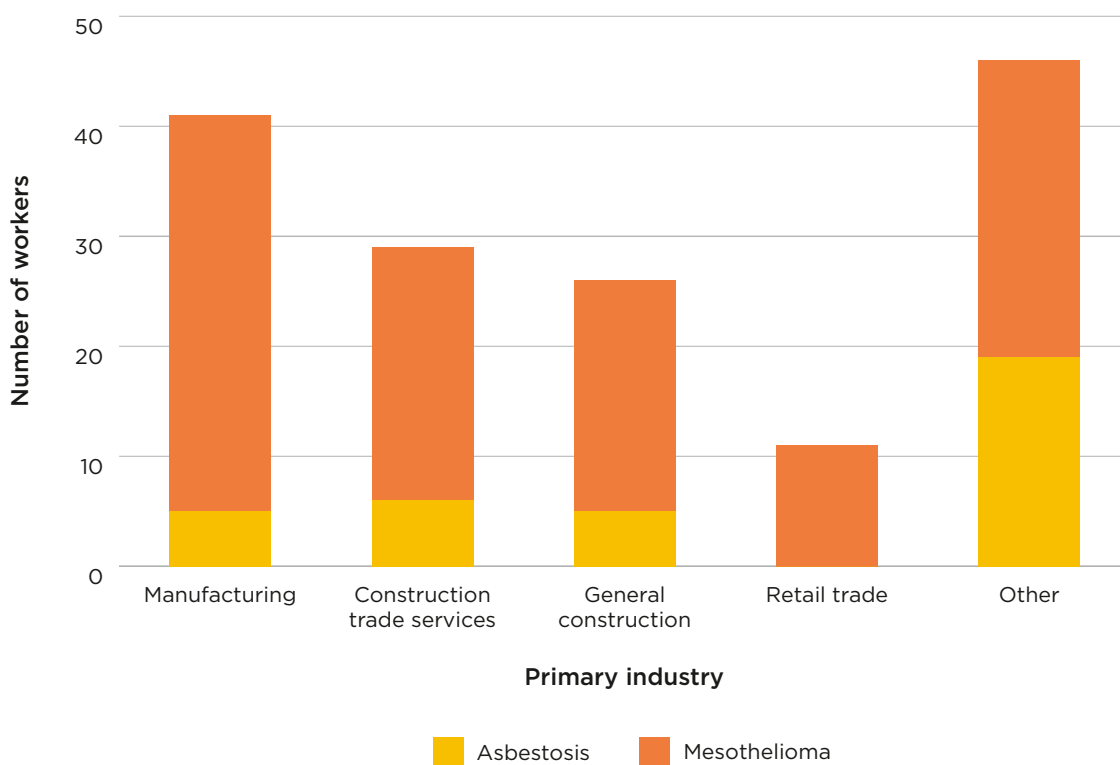
Table 10. Workers with Asbestosis or Mesothelioma by industry where primary exposure is expected to have occurred (2020/21*) (icare data)

Primary industry	Asbestosis	Mesothelioma
Manufacturing including basic iron & steel mfg; manufacturing nec	5	36 includes basic iron & steel mfg (7); manufacturing nec (9)
Construction trade services including plumbing services; construction services nec; air conditioning and heating services	6	23 includes plumbing services (6); construction services nec (5); air conditioning and heating services (5)
General construction including residential building construction nec	5	21 includes residential building construction nec (16)
Retail trade including motor vehicle retailing and services	-	11
Other**	19	27

*Data received from icare (for 1 July 2020-31 March 2021) has been utilised as it reflects the majority of the reporting period, to provide insight to the industries where exposure may occur for asbestos-related diseases.

**'Other' category includes a range of occupations including, but not limited to entertainers, laundry workers, accountants, truck drivers, fire and emergency workers, and home duties.

Graph 10. Workers with Asbestosis or Mesothelioma by industry where primary exposure is expected to have occurred (2020/21*)



6. Implementing the purposes of the Register

6.1 Actions to monitor and analyse incidence of occupational diseases

Key activity	Description
Legislative amendments	<p>The conditions silicosis and asbestosis were included as Scheduled Medical Conditions under <i>Part 4 of the Public Health Act 2004</i> (NSW), requiring medical practitioners to notify NSW Health when they diagnose a case in NSW (being a cancer, mesothelioma was already notifiable).</p> <p>The <i>Work Health and Safety Amendment (Information Exchange) Act 2020</i> (NSW) enables NSW Health to share these notifications with SafeWork NSW for inclusion in the Register and requires SafeWork NSW to securely manage the Register and report to the Minister at the end of each financial year.</p> <p>See 'Legislative Framework' (Section 8 'About the NSW Dust Disease Register').</p>
Creation of NSW Health notification form	To enable NSW medical practitioners to notify a silicosis or asbestosis diagnosis, notification forms were developed consistent with other NSW Health forms for notifiable diseases and published on the NSW Health website.
Communication with medical practitioners	A webinar series was held in June and July 2020 to inform NSW medical practitioners of the new requirements to notify of silicosis diagnosis. An information package and webpage ¹⁰ was also published detailing the changes. NSW Health communicated the addition of asbestosis and mesothelioma notifications to health professionals in early 2021.
Memorandum of Understanding between SafeWork NSW and NSW Health	A Memorandum of Understanding (MOU) detailing the roles and responsibilities of NSW Health and SafeWork NSW in collecting, transmitting, recording and destroying disease notification data for the Register is in place. The MOU is available on the NSW Government Silica Dashboard webpage ¹¹ .
Delivery of IT solution - WSMS object	Additional functionality in SafeWork NSW's existing records management system WSMS has been developed to house the Register, ensuring all necessary data is captured and can be analysed. This new functionality also supports WHS investigations into workplaces where exposure has occurred.
WHS review and investigation processes	SafeWork NSW Inspectors review disease notifications to determine an appropriate course of action under WHS legislation.
Analysis and reporting	SafeWork NSW analyses and updates reporting on information contained in the Register including publishing the NSW Silica Dashboard ¹² .

Key activity	Description
Targeted prevention activities	Insights from disease notifications including demographic data about age, gender and country of birth is used to inform targeted prevention and awareness activities. Guidance material is translated in to key languages and promoted through cultural groups and awareness campaigns are targeted to key Culturally and Linguistically Diverse (CALD) communities.
National Dust Disease Taskforce	In July 2019, the National Dust Disease Taskforce was established to consider a national approach to addressing dust-related harms. This Taskforce handed down its early recommendations and findings in December 2019, which included to consider establishing a National Dust Disease Register (recommendation 4). The NSW Government through SafeWork NSW continues to participate in providing information and advice to this taskforce for the consideration of development of a national dust disease register.
Awareness education with businesses and workers	SafeWork NSW continues to provide education and awareness to businesses and workers who are at risk of exposure to silica and asbestos dusts. Information from the Register will be shared at industry engagement events and through educational materials.

6.2 Information disclosures to other Public Service agencies

Information contained in the notification forms and the Register remains private and confidential.

The *Work Health and Safety Act 2011* (NSW) allows for Register data to be referred to relevant regulators.

SafeWork NSW has referred two (2) notifications to relevant regulators with jurisdiction to investigate a case.

Table 11. Matters referred to regulators

Regulator with jurisdiction to investigate a case of occupational exposure	Number of cases referred to regulator
Comcare	1
NSW Resources Regulator	1

No further data from the NSW Register has been shared beyond public reporting during the 2020/21 Financial Year.

7. Data considerations and quality assurance

7.1 Reporting periods

Silicosis data is for the full 12 month reporting period (silicosis became a Scheduled Medical Condition on 1 July 2020)

Asbestosis and mesothelioma data is for the final six months of the reporting period (asbestosis became a Scheduled Medical Condition on 18 December 2020).

7.2 Privacy

To adhere to data privacy principles, where a figure equals less than five (5), the symbol <5 will be shown. Country of birth data has been grouped as 'region of birth' and occupation and industry data has been grouped, to provide more meaningful information due to the low volumes of data which would require the <5 symbol to be used.

7.3 Deaths

Death registrations to the NSW DRURF that mention silicosis, asbestosis and mesothelioma are provided to the Register by NSW Health at the end of each quarter. Information on deaths may be updated in future reports after formal coding is completed at a national level by the ABS for underlying and contributing causes of death. This process can take up to two years and can be further delayed if a death is referred to the coroner. Death data may also be captured if a 'date of death' is listed on a disease notification form.

7.4 Missing information

The information contained in the Register relies on the notification forms completed by diagnosing doctors and supplied to SafeWork NSW by NSW Health, death registrations at the DRURF and information contained in the NSW Cancer Registry. During investigations, SafeWork NSW Inspectors may determine additional information that can be updated on the Register. Where information has not been provided in a notification and has not been determined through investigations, it is shown as 'not identified'.

7.5 Quality assurance

The development of the disease notification forms followed careful planning and consultation with SafeWork NSW, NSW Health, medical practitioners and other WHS regulators to ensure they capture all the necessary information for the Register.

Information entered into the Register is carried out by SafeWork NSW officers and undergoes regular analysis and reporting, including quarterly updates on the [NSW Government Silica Dashboard](#)¹⁴.

7.6 Updates in future reports

The information contained in this report may be updated in subsequent reports. For example, if additional cases diagnosed during 2020-21 were not notified by 30 June 2021, or if there are changes to death data following final coding for underlying and contributing causes of death.

7.7 Legacy data

The following table shows information on dust diseases in NSW before the creation of the Register. This information was not collected using the same form and processes used for the Register, therefore direct comparisons cannot be made.

Information in these tables is sourced from icare NSW for the financial years 2017-2020 (1 July - 30 June).

Table 12. Legacy data - dust disease cases 2017/19-2019/20 (data sourced from icare)

Year (1 July - 30 June)	Disease type	Cases
2017/18	Silicosis	9
	Asbestosis	47
	Mesothelioma	176
2018/2019	Silicosis	40
	Asbestosis	66
	Mesothelioma	173
2019/2020	Silicosis	107
	Asbestosis	73
	Mesothelioma	174

8. About the NSW Dust Disease Register

Legislative framework

Silicosis became a scheduled medical condition in NSW on 1 July 2020 and asbestosis became a scheduled medical condition in NSW on 18 December 2020 under Part 4 of the *Public Health Act 2010* (NSW). Like all cancers, mesothelioma was already a scheduled and notifiable disease in NSW, notifiable to NSW Health by laboratories and hospital Chief Executive Officers (CEOs). When a medical practitioner in NSW diagnoses one of these conditions, they must notify NSW Health using a notification form.

The *Work Health and Safety Amendment (Information Exchange) Act 2020* (NSW)¹⁵ enables NSW Health to share these notifications with SafeWork NSW for inclusion in the Register and requires SafeWork NSW to securely manage the Register and report to the Minister at the end of each financial year.

A Memorandum of Understanding (MOU) between SafeWork NSW and NSW Health details the agreed processes for collection, transmission and storing of the sensitive health and workplace information held by the Register.

Case notification, recording and reporting requirements

Occupational dust disease notification, recording and reporting processes comply with requirements of the *Public Health Act 2010* (NSW), *Workplace Health and Safety Act 2011* (NSW), *Health records and Information Privacy Act 2002* (NSW) and the *Privacy and Personal Information Protection Act 1998* (NSW). The procedure for handling dust disease notifications is:

1. The diagnosing doctor completes and submits a notification form available on the [NSW Health website](#) to NSW Health to notify of a silicosis or asbestosis diagnosis. Like all cancers, mesothelioma is notified to the NSW Cancer Registry, managed by Cancer Institute NSW.
2. NSW Health collects and securely transmits these forms to SafeWork NSW on a quarterly basis, along with any new death registrations in the Death Registrations Unit Record File (DRURF) that mention silicosis, asbestosis or mesothelioma; and NSW mesothelioma case information held by the Cancer Institute NSW.
3. SafeWork NSW receives the information from NSW Health via secure file transfer.
4. SafeWork NSW enters the information into the secure Register and manages records. Where necessary and relevant, SafeWork NSW shares information with other WHS regulators (NSW Resources Regulator and Comcare). SafeWork NSW uses the information in the Register to investigate workplace exposure to silica and asbestos dusts; as well as analyse and report the information contained in the Register.
5. SafeWork NSW provides the Register Annual Report (this report) to the Minister for Better Regulation at the end of each financial year and no later than 30 September.
6. The Minister tables the Register Annual Report to Parliament.
7. SafeWork NSW publishes the Annual Report on its website www.safework.nsw.gov.au.

Health monitoring (asbestos)¹⁶

Employers must provide health monitoring to workers who are at risk of being exposed to asbestos while on the job, before starting asbestos removal work or ongoing asbestos related work. This includes licensed asbestos removalists and assessors who are wearing full personal protective equipment (PPE). Health monitoring should also be provided to workers at regular intervals (at least once every two years) after the worker starts asbestos-related work where there is a risk of exposure to asbestos.

The employer also has a duty to provide a copy of the health monitoring report to SafeWork NSW if the worker has developed a disease or injury and/or the report contains any recommendations on remedial measures at the workplace.

Health monitoring (silica)¹⁷

Employers are required to provide health monitoring to workers if there is a significant risk to the worker's health because of exposure to crystalline silica.

The employer also has a duty to provide a copy of the health monitoring report to SafeWork NSW where a worker may have developed a disease or injury and/or the report contains any recommendations on remedial measures at the workplace. Before the introduction of the Register and fines for failure to notify, this duty was not being followed.

icare health monitoring services¹⁸

As part of its [Dust Disease Care Scheme](#), icare runs a [Lung Screening Service](#) which provides health monitoring for workers exposed to hazardous dusts in the workplace. These services are provided at subsidised rates. Manufactured stone industry businesses can access free screening as part of the [NSW WHS Roadmap 2017-2022](#) (the Roadmap). The service is offered at a clinic in Sydney and through a mobile service that travels to worksites across the state.

Strategic Framework

All hazardous dust harm prevention activities delivered by SafeWork NSW are coordinated under the [NSW Dust Strategy 2020-2022](#) (Dust Strategy).

The Register enables SafeWork NSW to investigate harmful workplace exposure to silica and asbestos that has resulted in an occupational dust disease. The investigations that follow these case notifications contribute to a broader strategy of compliance and harm prevention activities under the Roadmap.

Three reviews of the NSW Dust Diseases Scheme were held in 2017, 2018 and 2019, with each review making recommendations for disease notification.

The Register delivers on Recommendation 12 of the [2019 Review of the Dust Diseases Scheme](#)¹⁹. A case-finding report for respirable crystalline silica exposure in the manufactured stone industry for 2017-2020 has also been delivered under Recommendation 11 of this same review.

The [2018 Review of the NSW Dust Diseases Scheme](#)²⁰, recommended that if a national register were not established by the end of 2019, NSW should establish its own register. In January 2020, interim advice from the Commonwealth National Dust Disease Taskforce recommended that a national dust disease register be created²¹. In Queensland, a similar register commenced in July 2019.

SafeWork NSW convened a [Manufactured Stone Industry Taskforce](#)²² following recommendations of [First Review of the Dust Disease \(2017\)](#)²³. The Taskforce also supported increasing requirements for disease notification.

A series of silica regulatory reforms under the Work Health and Safety Regulation 2017 (NSW) were introduced alongside the creation of the Register in NSW on 1 July 2020, including:

- halving the workplace exposure standard for respirable crystalline silica to 0.05mg/m³ (over an 8-hour time-weighted period),
- on-the-spot fines for uncontrolled cutting, grinding, and polishing manufactured stone, and
- on-the-spot fines for persons conducting a business or undertaking (PCBU) failing to notify SafeWork NSW of an adverse health monitoring report.

9. Future directions for the Register

Direction	Description
Technological enhancements	SafeWork NSW will continue to work with NSW Health to investigate technological and systems process enhancements to the current system of disease notification.
WHS investigations	SafeWork NSW will continue to investigate matters arising from notifications to the NSW Dust Disease Register. Outcomes of these investigations include improvement and prohibition notices, on-the-spot fines and where appropriate, SafeWork NSW will pursue prosecution under the <i>Work Health and Safety Act 2011</i> (NSW).
Reporting	Information from the NSW Dust Disease Register will continue to be published on the NSW Government website annually. Information on the silica harm prevention activities SafeWork NSW is delivering as part of the NSW WHS Roadmap, including silicosis notifications, are published quarterly on the NSW Government website.
NSW Dust Strategy 2022	SafeWork NSW undertakes all hazardous dust harm reduction activities under the NSW Dust Strategy 2022, which is aligned to the NSW WHS Roadmap 2022 and includes a target of reducing incidence of serious injuries and illnesses by 30% with a focus on exposure to hazardous chemicals and materials.
Informing WHS policy and program design	The information contained in the Register will assist in the design and implementation of current and future workplace health and safety and public health programs by providing a greater level of insight into the demographics of people being diagnosed with occupational dust lung diseases in NSW, enabling a more targeted approach to health and safety interventions.
Sharing knowledge	Introducing a national system for notification of occupational lung diseases, in particular silicosis, is being considered. The NSW Government supports the establishment of a national register and will contribute its knowledge from the establishment of the Register through any consultation it is invited to participate in. Information sharing to other jurisdictions considering establishing similar registers will be provided on request.
National Occupational Respiratory Disease Registry	In July 2019, the National Dust Disease Taskforce was established to consider a national approach to addressing dust-related harms. This Taskforce handed down its early recommendations and findings in December 2019, which included to consider establishing a National Dust Disease Register (recommendation 4). The NSW Government through SafeWork NSW continues to participate in providing information and advice to this taskforce for the development of the National Occupational Respiratory Disease Registry.

10. Glossary

Term	Meaning
ANZSCO	Australian and New Zealand Standard Classification of Occupations, the Australian Bureau of Statistics system for coding and categorising occupations. Where a case's occupation data is known, it has been labelled with the relevant ANZSCO code ²⁴ .
ANZSIC	Australian and New Zealand Standard Industrial Classification, the Australian Bureau of Statistics system for coding and categorising industries. Where a case's industry data is known, it has been labelled with the relevant ANZSIC code ²⁵ .
Asbestos	Asbestos is a group of naturally occurring fibrous minerals. Asbestos was widely used to create cheap, lightweight, and fire-resistant materials for use in buildings, manufacturing and utilities. Millions of Australian homes contain asbestos. Asbestos is common in NSW homes and buildings constructed or renovated before 1990 ²⁶ .
Asbestosis	<p>Asbestosis is a chronic lung disease caused by exposure to asbestos dust. Inhaling asbestos dust can cause scarring in the lungs and in the pleural membrane (lining that surrounds the lungs).</p> <p>People with asbestosis have difficulty breathing, often have a cough, lung damage and, in severe cases, have an enlarged heart.</p> <p>Symptoms usually appear 10 to 20 years after exposure to asbestos dust. Treating the symptoms can help – such as treating shortness of breath with oxygen. However, the damage to the lungs caused by asbestosis is not reversible²⁷.</p> <p>Asbestosis is a Scheduled Medical Condition in NSW under the <i>Public Health Act 2004 (NSW)</i>. Health practitioners are required to notify NSW Health when a case is diagnosed.</p>
Register	The NSW Dust Disease Register is the database where notifications of diagnosed cases of dust disease and deaths are stored. This database is held and managed by SafeWork NSW.
DRURF	The Deaths Registrations Unit Record File (DRURF) includes all deaths registered with the NSW Registry of Births, Deaths and Marriages, including residents of NSW and non-residents. Deaths registration data are timely, however the diagnoses for death registrations data in the DRURF have not been formally coded for underlying and contributing causes of death. This takes place at a national level by the Australian Bureau of Statistics and can take up to two years to occur. Deaths data included in this report may be updated in future reports once this formal coding has been completed and more accurate data is known.
Dust disease	In this report, the term 'dust disease' refers to the three dust diseases that are included in the NSW Dust Disease Register – asbestosis, silicosis and mesothelioma.

Term	Meaning
Mesothelioma	Mesothelioma is a cancer of the mesothelial cells which cover most internal organs. The only known risk factor for mesothelioma is exposure to asbestos. It can take many years after being exposed to asbestos (between 20 and 60) for mesothelioma to develop ²⁸ .
Medical practitioner	All registered medical practitioners in NSW, colloquially referred to as 'doctors' ²⁹ .
Manufactured Stone industry	Industry that fabricates and installs manufactured stone products (commonly composite quartz benchtops). Manufactured stone products commonly contain a high percentage of silica content and the processes to fabricate and install these products, using high-powered machinery can generate significant silica dust if appropriate safety controls are not in place.
Notification	Information captured in the NSW Health notification form ³⁰ regarding a person's diagnosis of silicosis or asbestosis, a death where a notifiable dust disease is mentioned, or information received by the Register regarding cases of mesothelioma held on the NSW Cancer Registry maintained by Cancer Institute NSW.
Occupational exposure	Exposure of a person to a disease-causing agent (in this case respirable crystalline silica or asbestos) occurring during the person's work ³¹ .
Silica	The term silica refers to crystalline silica, typically quartz. When materials containing silica are cut, ground, blasted or polished to create dust, this dust can contain fine particles of silica (respirable crystalline silica) that can be breathed deep into the lungs. This fine silica dust is what causes silicosis ³² .
Silicosis	Silicosis is a long-term lung disease caused by inhaling silica dust, usually over a period of many years. The main symptoms of silicosis are shortness of breath, chest pain, cough and tiredness. But in the early stages of silicosis, there may be no symptoms. The symptoms can become severe as the condition gets worse ³³ .
Silicosis - acute	Acute silicosis occurs after a short exposure to very high levels of silica when the alveolar spaces fill with a lipid and proteinaceous exudate. Working with composite stone products (also known as manufactured stone) containing high amounts of crystalline silica also has been linked to cause acute silicosis. Acute silicosis causes rapidly progressive dyspnoea and death, usually within months of onset ³⁴ .
Silicosis - accelerated	Accelerated silicosis occurs within 3 to 10 years of high-level occupational exposure to silica dust ³⁵ . Accelerated silicosis causes severe shortness of breath and may result in complications including respiratory failure and death.
Silicosis - chronic	Chronic silicosis is the most common form of silicosis, where fibrosis occurs more slowly over 10-30 years after first being exposed ³⁶ .

11. Acknowledgements

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- NSW Health (including the Cancer Institute NSW)
- icare (Insurance and Care NSW)
- NSW Registry of Births Deaths and Marriages
- Department of Customer Service (including SafeWork NSW)
- Thoracic Society Australia New Zealand
- Royal Australasian College of Physicians
- Lung Foundation Australia

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