SafeWork NSW

NSW GOVERNMENT

NSW Dust Disease Register Annual Report 2023-24

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1 Introduction

1. Introduction

SafeWork NSW is required by legislation to keep the Dust Disease Register (Register) and to provide a report on the Register at the end of each financial year. This is the fourth annual report.

The Register records notifications of cases of the 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 NSW notifications of diagnosed cases of silicosis, asbestosis and mesothelioma and death registrations where these diseases are mentioned; reported to the Register during the 2023-24 Financial Year (1 July 2023 – 30 June 2024).

This report has been prepared to meet the requirements of Section 271D of the Work Health and Safety Act 2011 (NSW), which is for SafeWork NSW to produce a report that includes:

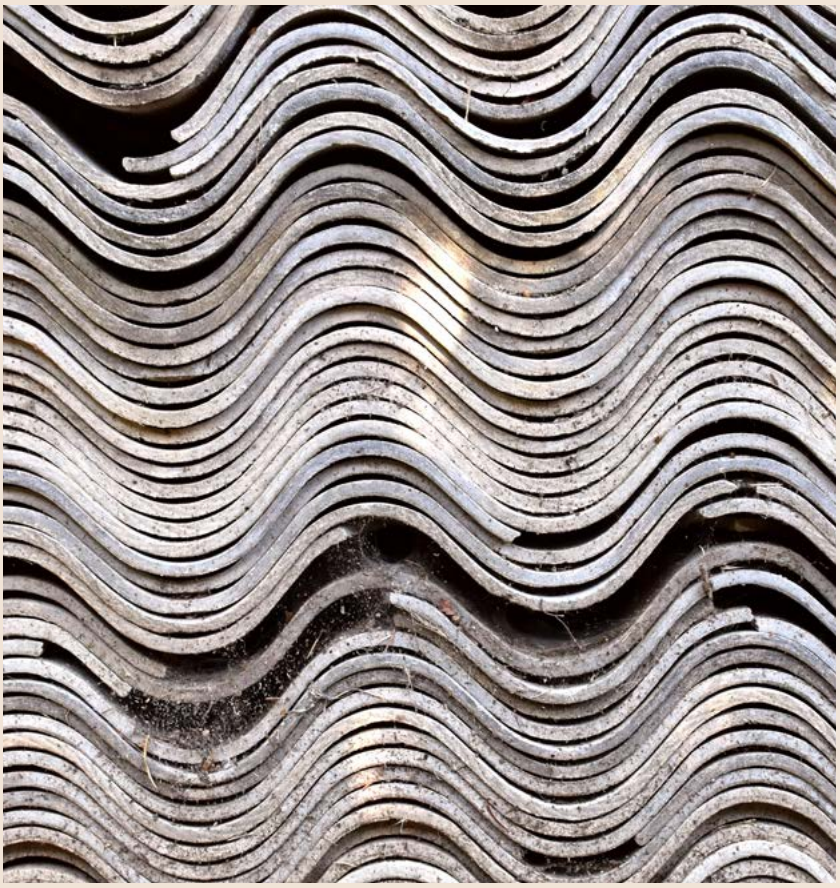
a. the number of cases of occupational dust diseases notified to SafeWork NSW under section 271B during the financial year,

b. the number of deaths resulting from occupational dust diseases notified to SafeWork NSW under section 271B during the financial year,

c. the types of diseases or conditions recorded in the Register during the financial year,

d. the actions SafeWork NSW has taken to implement the purposes of the Register, and

e. any other information about a disease or condition recorded in the Register that SafeWork NSW considers appropriate.



2

Notifiable Dust Diseases on the Register

2. Notifiable Dust Diseases on the Register

2.1 Cases and Deaths

Table 1. Notifiable dust diseases – types (cases and deaths)

Type of dust disease	Number of cases	Number of deaths*
Asbestosis	175	112
Mesothelioma	342	164
Silicosis	115**	10***
Total	**630**	**286**

*Death data may be updated in future reports after formal coding is completed by the Australian Bureau of Statistics (see sub-section 4.3.2 Deaths).

**Due to the transition to the National Occupational Respiratory Disease Register, silicosis cases data ceased to be reported by NSW Health. Data for the period 21 June 2024 to the 30 June 2024 has been extracted from the national register, reviewed against historical notifications for duplication and aligned with previous data requirement to ensure consistency.

***Due to the transition to the National Occupational Respiratory Disease Register, data on silicosis deaths is currently unavailable for the period of 21 June 2024 to 30 June 2024. This data will be publicised once available.

2.2 Silicosis

2.2.1 Cases by type

Table 2. Silicosis cases in NSW by type

Silicosis type	Number of workers
Accelerated	<5
Acute	<5
Chronic	104
Not specified	5

2.2.2 Lung function impairment

The highest number of reported lung function impairment are workers with 0-5% impairment. In the early stages of silicosis, workers do not usually have symptoms.

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

% Lung function impairment	Number of workers
0-5	26
6-40	12
>40	12
Not specified	65

2.2.3 Demographics of workers

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.

- Demographic data has been deidentified to adhere to privacy protocols.
- 114 cases of silicosis were male, 1 case was female.

a) Region of birth

- Australian/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 the small volumes of data.

Table 4. Workers with silicosis by region of birth

Region of birth	Number of workers
Australia/New Zealand	39
Asia	12
Europe	9
Middle East	11
Not specified	44

b) Age group

Table 5. Workers with silicosis by age-group

Age group	Number of workers
Under 21	<5
21-40	24
41-70	74
71-90	16
91+	<5
Not specified	<5

2.2.4 Occupational exposure of workers

- The worker'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).
- ANZSIC code 2090 (Other non-metallic mineral product manufacturing - includes manufactured stone) represents the highest number of reported cases by industry.
- ANZSCO code 7111 (Clay, concrete, glass and stone processing machine operators) represents the highest number of reported cases by occupation.

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

ANZSIC code	Number of workers
2090 – Other non-metallic mineral product manufacturing (including manufactured stone)	83
3109 – Other heavy and civil engineering construction 3212 – Site preparation services earthmoving work	20
Other	10
Not specified	<5

Table 7. Workers with silicosis by occupation where last exposure is expected to have occurred (ANZSCO code)

ANZSCO code	Number of workers
7111 – Clay, concrete, glass and stone processing machine operators	76
7212 – Earthmoving plant operators 8219 – Other construction and mining labourers	25
3311 – Bricklayers and stonemasons	<5
Other	9
Not specified	<5

2.3 Asbestosis and Mesothelioma

2.3.1 Demographic overview

- 83% of notifications for asbestosis and mesothelioma (combined) were male and 17% were female.
- 83% of reported deaths for asbestosis and mesothelioma (combined) were male and 17% were female.
- 463 people (90%) diagnosed with mesothelioma and asbestosis (combined) were over 70 years of age.

2.3.2 Occupational exposure of workers

The main industries where primary exposure to asbestos is likely to have occurred, based on the NSW Health notifications received, for workers diagnosed with asbestosis or mesothelioma are:

- Building and Construction,
- Manufacturing/Boilermakers,
- Electrical,
- Plumbers
- Painters,
- Home duties and,
- Transport workers/truck drivers.

Primary exposure means the industry where the worker is most likely to have contracted asbestosis or mesothelioma. The long latency of these diseases means that people can work across multiple industries over time where they are potentially exposed to asbestos.

3

Actions for the Purposes of the Register

3. Actions for the Purposes of the Register

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.

SafeWork NSW Inspectors review disease notifications to determine an appropriate course of action under WHS legislation. 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 into key languages and promoted through cultural groups and awareness campaigns are targeted at key CALD communities.

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. SafeWork NSW regularly analyses and updates reporting on information contained in the Register, including publishing the NSW Government Silica Dashboard.

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. The service is offered at a clinic in Sydney CBD and through a mobile service that travels to worksites across the state.

3.1 Silica

SafeWork NSW is developing programs of work to deliver on the SafeWork NSW Regulatory Priorities 2023, including: 'Exposure to harmful substances', which aims to reduce the incidence of worker exposure to dangerous substances in the workplace, particularly silica and dangerous chemicals. This is part of the ongoing silica program of work for NSW.

Key components of the program are awareness and education, inspector visits and compliance, legislation, and research into best practice approaches to harm prevention. Details of these are published on the NSW Government Silica Dashboard.

Awareness campaigns continued to run during 2023-24 including industry presentations, webinars, podcasts and the publication of in-language video safety alerts.

On 28 October 2023 SafeWork NSW, in collaboration with the Office of the Building Commissioner, released an online training module to raise awareness of the presence of silica dust on construction worksites. The module covers the risks and long-term consequences posed by exposure and provide workers with the tools to assess their own risk and demonstrate appropriate controls in the correct manner to reduce exposure. As of 30 June 2024, there have been 217 registrations and 194 completions of this course.

On 14 June 2024, SafeWork NSW hosted an online webinar to provide industry with guidance on what it means to 'process' engineered stone and how any processing must be controlled, the transition period to be implemented in NSW, and how to notify SafeWork NSW if you intend to process any legacy stone. This webinar was hosted in the lead up to the 1 July 2024 ban on engineered stone and garnered 305 attendees.

Since launching its first silica-focused program in 2018, SafeWork NSW has completed 2940 silica-related workplace visits, resulting in 1822 improvement notices issued, 130 prohibition notices for uncontrolled exposure to silica dust and 12 penalty notices for illegal cutting of engineered stone (as of 30 June 2024).

A dedicated 'Silica Safety in Construction' compliance program concluded in March 2024. The project was delivered in two phases, an educative and awareness phase and a workplace visit program. A social media campaign, interactive webinar with Inspector Q&A session, updated SafeWork NSW webpages, and targeted stakeholder communications were used to help raise awareness on the dangers of exposure to silica and control measures. There were 390 attendees at the live webinar, 186,625 Facebook impressions, 68,316 Linkedin impressions, and 57,211 electronic direct medias (eDMs) distributed as part of the first stage. The second phase consisted of compliance visits being undertaken by SafeWork NSW Inspectors. Inspectors visited 167 sites and issued 142 compliance notices. The findings report for this project has been published on the SafeWork NSW website (Findings Report: Silica Safety in Construction 2023). Analysis of the program data is underway which will provide insights to the construction industry leading up to the silica reform implementation on 1 September 2024.

SafeWork NSW continues to work to engage with the culturally and linguistically diverse (CALD) groups at risk of exposure to crystalline silica. A behavioural insights project with CALD businesses and workers in the engineered stone sector was undertaken to assist in the development of new, targeted resources on fit-testing to reduce the number of non-compliant PCBUs who are not performing annual fit testing. As a result, SafeWork NSW launched the Silica Safety Mask Basic video in English, Arabic, Mandarin, and Vietnamese.

Employers are required under WHS legislation 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.

3.2 Asbestos

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 2019-23 (NSP) and the new Asbestos National Strategic Plan, Phase Three, 2024-30, 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 NSW chairs the Demolition and Asbestos Consultative Committee (DACC) which provides a regular forum for industry stakeholders to discuss asbestos health and safety matters.

Key Activities

SafeWork NSW undertakes key activities with direct relation to asbestos including:

- regulation and compliance of asbestos removal/assessor licence holders and registered training organisations delivering asbestos training,
- enforcement activities, which resulted in 442 improvement notices, 131 prohibition notices and 76 penalty notices issued during 2023-24,
- 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.

Asbestos awareness and safety course

One of the key initiatives SafeWork NSW launched during Asbestos Awareness Week in November 2023 was an online Asbestos Awareness and Safety course on the Construct NSW Digital Learning platform. The course was developed in partnership with the NSW Building Commission and TAFE NSW. It is a legal obligation for employers to provide workers who are likely to encounter asbestos on the job with asbestos awareness training, however, previously, quality training was not readily available. This course was designed to bridge this gap to provide workers with quality training to fulfil their obligations.

The target audience is tradespeople such as electricians, plumbers, painters, bathroom and kitchen renovators, builders, home handy persons and more. Key learnings of the course include:

- recognising the risk and serious long-term impacts of asbestos exposure,
- roles and responsibilities and legislation for asbestos related work,
- how to determine if asbestos containing material may be present, and
- how to identify and work safely with less than 10sqm of non-friable asbestos.

The 2.5-hour course costs $175 per person, however, enrolment was made free from the 13th of March to the 13th of June 2024. Prior to making the course free, the course had 380 enrolments. Below is a summary of the course statistics up to 30th June 2024, demonstrating the impact of making the course free for 3 months:

- a total of 19,741 enrolments,
- a total of 10,121 people have completed the course and passed the assessment (note that once enrolled, customers have 6 months to complete the course),
- the average feedback score received for the course was 4.3 stars out of 5 stars,
- the average age of customers was 39,
- the average pass mark received by participants was 88% (must get 70% to pass), and
- 21% of customers were female.

Health Monitoring

Under WHS legislation, 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. 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.

4

Appendix

4. Appendix

4.1 Governance

The conditions silicosis, asbestosis, and mesothelioma (as it is a cancer) are included as Scheduled Medical Conditions under Part 4 of the Public Health Act 2010 (NSW), requiring medical practitioners to notify NSW Health when they diagnose a case in NSW.

Part 14 of the Work Health and Safety Act 2011 (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 until the Minister is satisfied that a national register has been established to monitor the prevalence of dust diseases and conditions.

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.

Following amendments made to the NSW WHS Regulation which came into effect on 21 June 2024, the NSW Secretary of the Ministry of Health is no longer required to share silicosis diagnoses and silicosis deaths with SafeWork NSW. In addition, the NSW Ministry of Health will amend its Public Health Act via a Ministerial Order, removing silicosis as a scheduled medical condition.

With the introduction of the National Occupational Respiratory Disease Registry (NORDR) from 21 June 2024, NSW physicians now notify all silicosis diagnosis's directly to the Commonwealth through an online portal.

Under current WHS Act requirements, asbestosis and mesothelioma will continue to be notified by physicians and health practitioners to NSW Health.

4.2 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.

During the 2023-24 financial year, SafeWork NSW has referred four (4) notifications to Comcare and five (5) notifications to the NSW Resources Regulator, the work health and safety regulator for mines and petroleum sites.

4.3 Data considerations and quality assurance

4.3.1 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.

4.3.2 Deaths

Death registrations to the NSW Deaths Registrations Unit Record File (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 Australian Bureau of Statistics 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.

4.3.3 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'.

Due to the transition to the National Occupational Respiratory Disease Register, data on silicosis deaths is currently unavailable for the period of 21 June 2024 to 30 June 2024. Once this data becomes available, it will be reported on.

4.3.4 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 updating of the NSW Government Silica Dashboard.

4.3.5 Updates in future reports

The information contained in this report may be updated in subsequent reports. For example, if additional cases diagnosed during 2023-24 were not notified by 30 June 2024, or if there are changes to death data following final coding for underlying and contributing causes of death.

4.4 Case notification, recording and reporting requirements

Occupational dust disease notification, recording and reporting processes comply with requirements of the *Public Health Act 2010* (NSW), *Work Health and Safety Act 2011* (NSW), *Health Records and Information Privacy Act 2002* (NSW) and the *Privacy and Personal Information Protection Act 1998* (NSW). These requirements have since been updated on 21 June 2024 with amendments to the NSW WHS Regulation stating that the NSW Secretary of the Ministry of Health is no longer required to share silicosis diagnoses and silicosis deaths with SafeWork NSW and the introduction of the National Occupational Respiratory Disease Registry (NORDR).

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 the 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 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 relevant Minister at the end of each financial year and no later than 30 September.
6. The Minister tables the Register Annual Report in Parliament.
7. SafeWork NSW publishes the Annual Report on its website www.safework.nsw.gov.au.

This process will be updated in the next Register Annual Report to account for the introduction of the NORDR.

4.5 Legacy data

The following tables display information on dust diseases in NSW from previous years, including before the creation of the Register.

Information in this table for the financial years 2017-20 (1 July – 30 June) is sourced from icare NSW and was not collected using the same form and processes currently used for the Register, including cases and deaths not being reported separately. Therefore, direct comparisons with the dust diseases data in the Register cannot be made.

Note that for 2020-21, silicosis data is for the full 12-month reporting period (silicosis became a Scheduled Medical Condition on 1 July 2020) while asbestosis and mesothelioma data is for the final six months of the reporting period (asbestosis became a Scheduled Medical Condition on 18 December 2020).

Year (1 July to 30 June)	Disease type	Cases	Deaths
2022-23	Silicosis	65	9
	Asbestosis	63	143
	Mesothelioma	198	159
2021-22	Silicosis	64	10
	Asbestosis	142	111
	Mesothelioma	270	192
2020-21	Silicosis (full 12 months)	57	7
	Asbestosis (final six months)	13	89
	Mesothelioma (final six months)	37	126

Year (1 July to 30 June)	Disease type	Cases
2019-20	Silicosis	107
	Asbestosis	73
	Mesothelioma	174
2018-19	Silicosis	40
	Asbestosis	66
	Mesothelioma	173
2017-18	Silicosis	9
	Asbestosis	47
	Mesothelioma	176

4.6 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.
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.
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.
Asbestosis	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).
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.
Dust Disease 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.
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.

Term	Meaning
Medical practitioner	All registered medical practitioners in NSW, colloquially referred to as 'doctors'.
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.
Notification	Information captured in the NSW Health notification form 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.
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.
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. However, in the early stages of silicosis there may be no symptoms. The symptoms can become severe as the condition gets worse.
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.
Silicosis – accelerated	Accelerated silicosis occurs within 3 to 10 years of high-level occupational exposure to silica dust. 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.

4.7 Acknowledgments

The Register and the delivery of this report is made possible through the cooperation of a number of NSW Government agencies and other associations and organisations, including:

- 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
- Australian Government Department of Health and Aged Care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