

SOUTH AUSTRALIAN GOVERNMENT



**STRATEGY FOR  
RESPIRABLE CRYSTALLINE SILICA  
EXPOSURE AWARENESS & REDUCTION 2020**



Government  
of South Australia



**Strategy for  
respirable crystalline silica  
exposure awareness and  
reduction**

**2020**

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# Introduction

Silicosis is an occupational lung disease caused by the inhalation of respirable crystalline silica. Fine particles, invisible to the naked eye, trigger inflammation and fibrosis in the lungs, leading to progressive, irreversible, and potentially disabling disease<sup>1</sup>.

Mineral sources of silica are abundant and include quartz, granite, sandstone, slate, and sand. Miners, quarry workers, manufacturers, and construction workers are traditionally prone to the disease. Manufacturers and fabricators of engineered stone products are at higher risk due to fine (respirable) particles entering the respiratory tract during the cutting and polishing of artificial stone benchtops containing a high concentration of silica.

There is a workplace exposure limit for respirable crystalline silica in Australia. A workplace exposure limit for a particular chemical sets out the legal concentration limit of that chemical that must not be exceeded in a workplace. On 1 July 2020, South Australia cut this limit by half, to 0.05mg/m<sup>3</sup> measured as an eight-hour time weighted average, as agreed with other states and territories.

## Silicosis prevention – already a priority

Awareness of the deadly risks associated with exposure to respirable crystalline silica and silicosis has grown over the last few years, both in Australia and internationally. In 2019, the Australian Government announced a National Dust Disease Taskforce to work towards understanding the issues underlying the re-emergence of silicosis, in particular the emerging trend of accelerated silicosis amongst workers in the engineered (composite) stone industry.

In South Australia, the Government commenced a silicosis prevention campaign in late 2018, targeting fabricators and installers of engineered stone benchtops and high exposure-risk construction industries. The campaign involved a series of education seminars, health screenings, and audits of workplaces<sup>2</sup>. Although most fabrication workplaces were compliant with the reduced workplace exposure limit, more needs to be done to ensure compliance across all industries. This will include for some workplaces changes to work practices and culture, and an increased understanding of the risks associated with respirable crystalline silica dust.

Although worker exposure to respirable crystalline silica is the main focus, engagement with communities concerned about exposure from nearby industry needs to be addressed. It is important that communities have access to information about potential environmental

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<sup>1</sup> Rose, C., et al., *Severe silicosis in engineered stone fabrication workers - California, Colorado, Texas and Washington, 2017-2019*. Centre for Disease Control and Prevention: Morbidity and Mortality Weekly Report, 2019. 68(38): 813-818.

<sup>2</sup> SafeWork SA (2019) *Respirable Crystalline Silica Compliance Program 2019 Audit Report*

exposure to respirable crystalline silica, noting that in general these remain low and within safe levels.

## **A connected government**

The South Australian Government recognises that a collaborative effort is required to address this emerging issue. This Strategy for Respirable Crystalline Silica Exposure Awareness and Reduction 2020 is South Australia's vision and goals to prevent illness and death resulting from exposure to respirable crystalline silica dust in this State. The Strategy, led by SafeWork SA and supported by other South Australian Government departments and agencies, demonstrates the Government's commitment to raising awareness of and addressing the risks associated with respirable crystalline silica exposure in workplaces, promote safe work practices to prevent occupational diseases, and achieve measurable improvements in the reduction of respirable crystalline silica exposure across business and industry in South Australia.

This Strategy represents a long-term government commitment to support businesses, industry, workers, and the wider community, and provide a guide to inform agency and departmental activities and compliance systems towards achieving a future free from silica-related diseases. It builds on the findings of the SafeWork SA 2019 Audit Report, the early findings and interim advice from the National Dust Disease Taskforce, and continues this Government's proactive approach for preventative action.



# OBJECTIVES



# Priority area 1:

## Health outcomes for individuals

**Increased awareness of the health risks associated with exposure to respirable crystalline silica and where to access information.**

### Objective 1.1

Increase awareness and understanding of the health risks associated with respirable crystalline silica exposure to workers, individuals, and the wider community.

### Objective 1.2

Develop culturally and linguistically diverse educational materials, targeted campaigns, and forums to inform workers of workplace hazards.

### Objective 1.3

Develop a range of communication media such as newsletters, alerts, and website materials for the provision of information and advice to workers, individuals, and the wider community.

### Objective 1.4

Review and develop public exposure reference levels (ground level pollution concentration).

# Priority area 2:

## Supporting businesses and industry

**Improve awareness of exposure pathways and management options of exposure to respirable crystalline silica to influence behavioural change at workplaces.**

### Objective 2.1

Support and assist employers, businesses, and industry with the provision of industry-specific educational tools, programmes, or materials about workplace controls for silica dust exposure.

### Objective 2.2

Promote awareness and education forums that provide information of the dangers of respirable crystalline silica exposure, ensure employers are aware of the changes to exposure standards, and provide advice about employer responsibilities and control measures to minimise exposure.

### Objective 2.3

Support and assist employers, businesses, and industry with the provision of assistance services and educational visits to promote and encourage best work practices.

### Objective 2.4

Undertake targeted intervention activities to ensure businesses and industry are meeting their legislative obligations.

# Priority area 3:

## A connected government

**A cross-government approach to deliver and disseminate initiatives, services, education and awareness programs.**

### Objective 3.1

Identify opportunities to establish or bridge government networks and partnerships, and to bring together and coordinate efforts to protect and support workers, businesses, industry, and the community.

### Objective 3.2

Develop a range of communication methods to target and disseminate information to workers, businesses, industry, industry groups, and the community.

### Objective 3.3

Explore opportunities for information sharing across agencies, data sharing and linkage to facilitate monitoring or workplace compliance.

### Objective 3.4

Identify, develop, and implement partnerships with business and industry groups and other key stakeholders to achieve a state-wide collaborative and supported approach for cultural or operational change.

# Priority area 4:

## National collaboration

**Consultation and collaboration to ensure South Australia contributes to, and is consistent with, best practice National Standards and National Guidance materials.**

### Objective 4.1

Collaborate with other jurisdictions to achieve nationally consistent regulatory approaches to respirable crystalline silica dust exposure.

### Objective 4.2

Work with Heads of Workplace Safety Authorities and Safe Work Australia to ensure that the Australian Workplace Exposure Limit and National Guidance materials for respirable crystalline silica continue to adopt international best practice.

### Objective 4.3

Consult on, and contribute to, national working groups in the review of National Standards and Codes of Practice.

### Objective 4.4

Consultation and collaboration with other jurisdictions about national awareness campaigns and identify opportunities to share resources and information.

## **Priority area 5:**

# **Strategic research and evaluation of best practice**

**Use research, data, and information to monitor the extent of silicosis, identify key knowledge needs, and evaluate the quality of policies and guidelines. Provide recommendations for future activities incorporating these findings.**

## **Objective 5.1**

Consultation and collaboration with other jurisdictions, universities, businesses, industry groups, and national bodies to identify research opportunities.

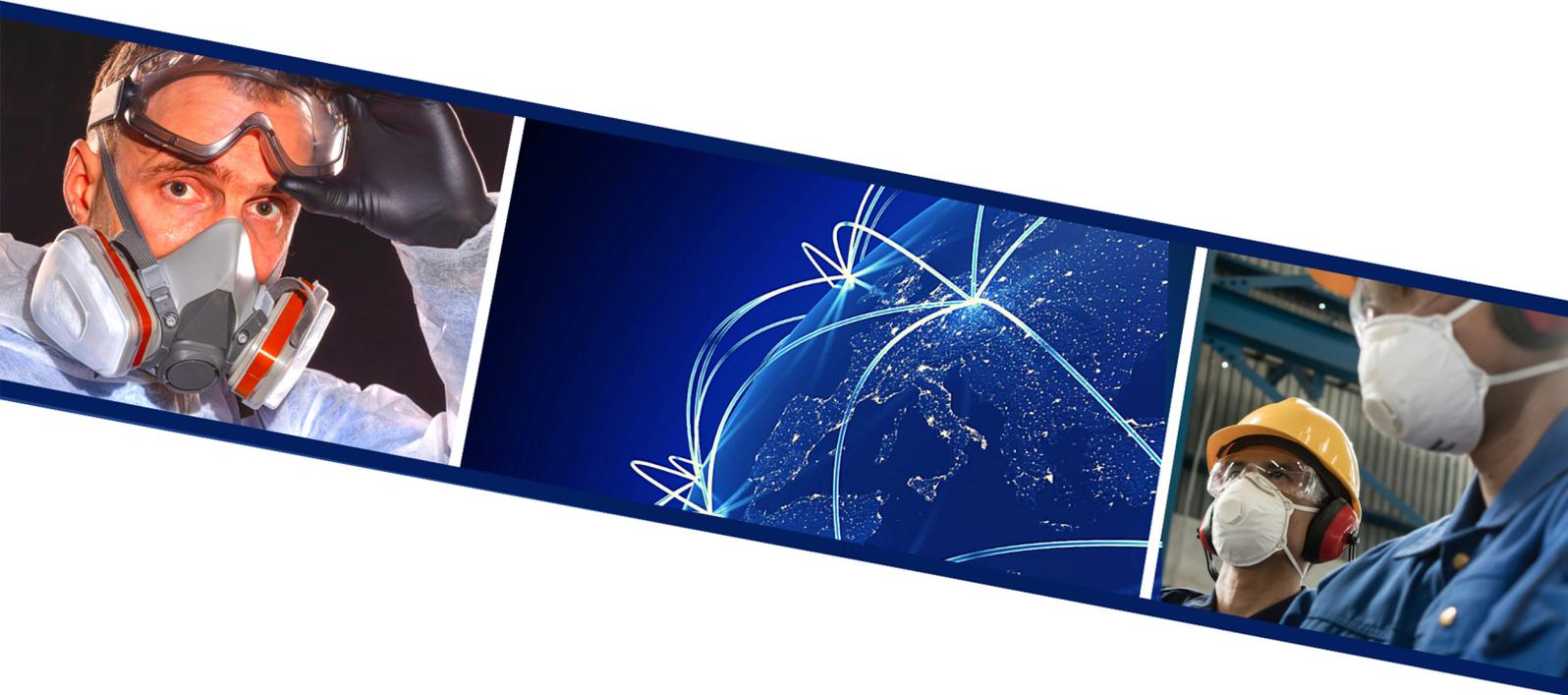
## **Objective 5.2**

Explore the development of a state-based silicosis disease register to monitor the incidence of illness, and to increase understanding of silicosis.

## **Objective 5.3**

Continue to identify and apply relevant research recommendations and findings from academic, scientific, and medical communities.

# TARGETS



# Priority area 1:

## Health outcomes for individuals

**Increased awareness of the health risks associated with exposure to respirable crystalline silica and where to access information.**

### Target 1.1

Workers, individuals, and the wider community are aware of the sources of respirable crystalline silica and of the health risks associated with exposure.

### Target 1.2

Employers, businesses, and industry are aware of the respirable crystalline silica workplace exposure limit.

### Target 1.3

The wider community is aware of public exposure reference levels (ground level pollution concentration).

# Priority area 2:

## Supporting businesses and industry

**Improve awareness of exposure pathways and management options of exposure to respirable crystalline silica to influence behavioural change at workplaces.**

### Target 2.1

Employers, businesses, and industry are supported in creating and maintaining safe work environments for workers.

### Target 2.2

Increased compliance with air monitoring requirements, and with baseline health monitoring and health surveillance requirements.

### Target 2.3

Targeted intervention to identify and address poor work practices and facilitate compliance with the respirable crystalline silica workplace exposure limit.

### Target 2.4

Adoption of best practice mitigation strategies by employers, businesses, and industry as far as is reasonably practicable for their industry sector.

# Priority area 3:

## A connected government

**A cross-government approach to deliver and disseminate initiatives, services, education and awareness programs.**

### Target 3.1

South Australian Government agencies collaborate, and share data and information to achieve the aims of this Strategy.

### Target 3.2

South Australian Government agencies provide continuous, accurate, and consistent messaging to industry and the wider community about respirable crystalline silica exposure and silicosis.

# Priority area 4:

## National collaboration

**Consultation and collaboration to ensure South Australia contributes to, and is consistent with, best practice National Standards and National Guidance materials.**

### Target 4.1

Ensure that South Australian Government strategies align with national strategies.

### Target 4.2

South Australia contributes to the development of national strategies/standards, and is recognised as a leader in respirable crystalline silica management.

# Priority area 5:

## Strategic research and evaluation of best practice

**Use research, data, and information to monitor the extent of silicosis, identify key knowledge needs, and evaluate the quality of policies and guidelines. Provide recommendations for future activities incorporating these findings.**

### Target 5.1

Participate in, and contribute to, respirable crystalline silica research to address knowledge needs and gaps.

### Target 5.2

Encourage national and local research that leads to improved understanding of respirable crystalline silica risks and impacts, and improved exposure management practices.

### Target 5.3

The introduction of a South Australian disease register for silicosis.





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