STANDING COMMITTEE ON LAW AND JUSTICE: 2019 REVIEW OF THE DUST DISEASES SCHEME

STATE INSURANCE REGULATORY AUTHORITY

ANSWERS TO QUESTIONS ON NOTICE 20 SEPTEMBER 2019

QUESTION 1

The Hon. GREG DONNELLY: *With respect to the framing of what that public health response would be via a Public Health Act, to deal with a matter like we are dealing with now—the issue of silicosis, a dust disease—are you in a position now or on notice to give us any pointers towards a framework in a public health piece of legislation—what it would look like? Perhaps if not in Australia then in other jurisdictions overseas?*

Dr CASEY: *I am happy to take the detail of that on notice.*

The Hon. GREG DONNELLY: *Sure. But perhaps a general comment?*

Dr CASEY: *The Queensland legislation has put that framework in place.*

The Hon. GREG DONNELLY: *In your judgement—if you feel comfortable to answer it, do; if not, just say so. You may not have a familiarity with the Queensland framework. However, do you—with what you know of that framework—believe it is a robust framework and one that is for us in New South Wales worth having a look at?*

Dr CASEY: *I would have to take that on notice. It certainly provides a framework to look at in terms of the public health changes.*

Ms DONNELLY: *I think there was evidence earlier in the week from Dr Edwards that would indicate it is still a space where there is learning happening. The Queensland model is quite new. The Victorian considerations, I understand, are looking at also registering when someone has had exposure, which is an add-on. We will take that on notice, but there are some insights from a few different jurisdictions.*

ANSWER:

Four examples of different frameworks relating to the notification and surveillance of occupational lung diseases, including silicosis, are provided below. Two in Australia and two in the United States.

The two frameworks in Australia are currently in their early stages (commenced in 2019). The Queensland approach has enacted a legislated public health framework while the Victorian approach is a research program that is limited to 12 months, at this stage.

The occupational lung diseases surveillance frameworks in the States of Michigan and New York in the United States have been in place since the 1980's. The New York State framework is based on a legislated occupational lung diseases registry, while the Michigan framework utilises various sources to identify workers diagnosed with work-related lung diseases.

Queensland Notifiable Dust Lung Diseases Register

In 2019, changes to the *Public Health Act 2005* (the Act) and the Public Health Regulation 2018 were passed by Queensland Parliament in response to the emergence of occupational dust lung diseases, including coal workers' pneumoconiosis and silicosis.

The Act and regulation changes provide a legislative framework for Queensland Health to establish a notifiable dust lung disease register (NDLD register). The NDLD register will allow Queensland Health to monitor and analyse the incidence of notifiable dust lung diseases. These changes commenced from 1 July 2019.

The Act was amended to establish a separate framework for notification of occupational dust lung diseases. The rationale for establishing a separate framework was that under section 64(2) of the Act, a condition can only be prescribed as a notifiable condition if the Minister is satisfied the condition is a significant risk to public health. It was considered that coal mine dust lung diseases are related to occupational exposure and are not considered to pose a significant risk to public health within the existing framework established by the Public Health Act.

Silicosis is listed as a notifiable dust lung disease on the register.

Prescribed medical practitioners (occupational and environmental medicine physicians and respiratory and sleep medicine physicians) are required to notify the NDLD register if they make a diagnosis of a notifiable dust lung disease.

The Act also allows Queensland Health to request information about notifications of notifiable dust lung diseases from other State agencies, for example, the Department of Natural Resources, Mines and Energy.

Patients, their family members or their general practitioner are not required to notify Queensland Health of a diagnosis of a notifiable dust lung disease.

Notifications to the NDLD register must be made within 30 days of diagnosis.

If the prescribed medical practitioner has reported the notifiable dust lung disease to the Department of Natural Resources, Mines and Energy, the practitioner does not need to notify the Queensland Health NDLD register.

Further details are available at - https://www.health.qld.gov.au/public-health/industry-environment/dust-lung-disease-register

Silica Associated Lung Disease Health Assessment Research Project – Victoria

In 2019, WorkSafe Victoria funded Monash University to undertake research into the assessment of silica associated lung disease. The project aims to address the lack of evidence regarding the burden of illness and risk factors for silicosis; and inform the advice and support that should be provided by WorkSafe Victoria to employers in affected industries regarding their occupational health and safety obligations.

The 12-month research project, which commenced earlier in 2019, will generate new evidence to improve understanding of the effectiveness of currently recommended health screening methods, increase the state of knowledge about the extent of exposure and control methods, and estimate the prevalence of silica related respiratory illness amongst stonemasons.

WorkSafe Victoria will translate the evidence to support all workers at risk, by updating information to employers on how to prevent silicosis and advising on appropriate health screening requirements to detect silicosis. It will also use the evidence to consider the effectiveness of the current risk controls and requirements in the Victorian Occupational Health and Safety Regulations and to assist in determining the supports required for affected industries.

Key aspects of the research project:

1. Monash has developed a stonemason worker Screening Registry to collect data about all screened workers and inform the establishment of a framework for future monitoring.

2. Monash has developed a Silicosis Disease Registry, in collaboration with the Department of Health and Human Services to collect data about all cases of silicosis disease in Victoria.

3. Monash University will conduct additional research by analysing the health assessment data of 378 Research Participants, to estimate the prevalence of workers with silicosis and the associated stage of disease.

New York State Department of Health – Occupational Lung Diseases Registry

The New York State Department of Health (NYSDOH) conducts surveillance of occupational lung diseases through the on-going collection of data on New York State workers who have been diagnosed with an occupational lung disease.

The NYSDOH Occupational Lung Disease Registry (OLDR) was established in 1981 to reduce morbidity and mortality due to exposure to respirable toxic materials in the work environment. Reporting to the OLDR is essential to public health prevention and surveillance efforts.

Under the *State Sanitary Code*, every physician, health care facility and clinical laboratory in attendance on a person with clinical evidence of occupational lung disease must report the occurrence to the New York State Department of Health within 10 days.

All occupational lung diseases, including silicosis, are reported to the OLDR.

Information is collected to identify workplaces and industries where exposures may cause lung disease among the employees. Program staff educate employees about appropriate work practices and protection. Program industrial hygiene staff work with both employers and employees, to assist them in preventing workplace exposures. Educational information about exposure and prevention is provided to health care providers.

Further details are available at the OLDR website - https://www.health.ny.gov/environmental/workplace/lung_disease_registry/

Silicosis & Other Work-Related Lung Disease Surveillance Program – Michigan USA

In 1988, The State of Michigan instituted a tracking program for silicosis with financial assistance from the National Institute for Occupational Safety and Health (NIOSH). In 2011, surveillance was expanded to include Other Work-Related Lung Diseases (OLDS). The program is a joint project of the Michigan Occupational Safety and Health Administration (MIOSHA) and Michigan State University, Department of Medicine, Division of Occupational and Environmental Medicine.

The reporting of an index patient is a sentinel health event that may lead to the identification of employees from the same facilities who are also at risk of developing silicosis or OLDS. The goal is to prevent work-related lung disease through the identification and workplace follow-up of these index patients.

There are four main activities related to occupational lung disease surveillance in Michigan:

- identifying patients
- interviewing patients and collecting relevant medical records
- conducting workplace inspection, and
- sharing the overall results and lessons learned with industry, employees and other stakeholders.

Patients are identified through mandatory reporting of any known or suspected occupational illnesses, including silicosis and other work-related lung diseases. Part 56 of the *Michigan Public Health Code* requires reporting of all known or suspected occupational illnesses or work aggravated health conditions to the Michigan Department of Licensing & Regulatory Affairs within 10 days of discovery.

Sources to identify patients in Michigan include:

- Health Care Providers Private practice, working for industry, NIOSH-certified “B” readers
- Hospitals International Classification of Disease 10th Revision (ICD-10) Silicosis (J62, J65), Hypersensitivity Pneumonitis (J67), Other Pneumoconioses (J63, J64), Other Respiratory Conditions (J66, J68, Z57.2, Z57.3, Z57.5)
- Workers’ Compensation Agency
- Poison Control Center
- Reports from Co-Workers or MIOSHA Field Staff confirmed by a health care provider
- Death Certificates
- Michigan 3rd Judicial Court for asbestos-related disease
- Mine Safety and Health Administration
- Michigan Cancer Registry for mesothelioma
- Clinical Laboratories for specific IgE allergy testing

Further details are available at https://oem.msu.edu/index.php/work-related-injuries/silicosis

QUESTION 2

The Hon. NATALIE WARD: *Just to belabour the point, you have opened the door so I am going to go through it. In fairness, all of that is after-the-fact stuff. All of that is "once it is a problem". Even halving the standard is again just a way to enforce afterwards. What are we doing about prevention? Each of the entities has said here that they are customer-centred, icare is customer-centred services. The State Insurance Regulatory Authority [SIRA] deals with ensuring key public policy outcomes are being achieved. SafeWork NSW talks about its inspectorate that has a focus on harm prevention and improving the safety culture. All these things are after the fact. I ask you to take on notice, what is SafeWork NSW doing? What preventative measures does it have in place and can it conject about what others potentially could have?*

ANSWER

SIRA has been advised that the following interventions by SafeWork NSW are preventative and aim to improve safety culture:

- **In September 2016**, SafeWork NSW launched the *'Work health and safety roadmap for NSW 2022'* (Roadmap 2022) and called out reducing exposure to hazardous chemicals and materials as a key priority area under Action Area 2.
- **By 30 June 2017**, SafeWork NSW had completed pilot visits and a research project to identify the Top 10 hazardous chemicals and materials that are causing the most harm to workers from a list of over 40,000 chemicals available in Australia. The results were confirmed through stakeholder consultation in a range of industries and pilot visits,
- **In October 2017** SafeWork NSW, launched the five-year '*2017-2022 Hazardous chemicals and materials exposures baseline reduction strategy'* (Chemicals Strategy), which included the training of 184 SafeWork NSW inspectors to identify and address the dangers of silica dust exposure around the State.
- The initial focus of the chemicals strategy is on the top two priority chemicals: Formaldehyde and Crystalline Silica (silica), with the silica intervention covering all industries – manufactured stone, tunnelling, domestic and civil construction, foundries and building products (concrete, bricks etc). Chemicals 3-10 have dedicated information on the website.
- The **Chemicals Strategy** consists of four key components for SafeWork NSW harm prevention intervention:
    - awareness (webinars, factsheets, video safety alerts, social media)
    - interactions (workplace visits, conferences, events)
    - research (health monitoring, international modelling, medical testing)
    - legislation (review of WHS laws, workplace exposure standards, supporting guidance material and/or codes of practice).

- **From 1 July 2018 to 30 June 2019** convened a Manufactured Stone Industry Taskforce that issued a final report to the NSW Government on recommended regulatory changes to better protect workers from silica dust exposure and the lung disease silicosis, which is currently under consideration.
- Three awareness campaigns were conducted in **November 2018, April 2019 and June 2019** to raise awareness on how to prevent exposure to silica dust, that included radio, print, social media and a video safety alert, with the factsheets and radio advertisements in various languages (Arabic, Hindi, Korean, Mandarin & Vietnamese).
- In **February 2019** three manufactured stone industry forums were delivered in Bankstown, Newcastle & Wollongong as well as 36 other industry presentations at various locations to date.
- In **May 2019**, a Silica Symposium was delivered on the latest in silica best practice workplace controls to over 350 business owners and workers, chemical associations, peak bodies, universities, medical professionals, government representatives and industry experts, with "Dr Karl" Kruszelnicki the MC for the event.
- By **30 June 2019**, 971 inspector visits (523 for manufactured stone) were completed, with 667 notices issued (617 for manufactured stone).
- From **August to October 2019**, six Roadshow events were delivered – Orange, Liverpool, Ballina, Newcastle, Tamworth & Queanbeyan.
- For National Safe Work Month **October 2019,** SafeWork NSW will focus on two harm areas in NSW - silica exposure prevention, as well as falls from heights in construction.

QUESTION 3

Mr PARKER: *To be helpful, not on behalf of SIRA, but not verbalising the unions, Unions NSW said it is not yet at a point where it is calling for that. In fact, it thinks that it is a complicated policy question and it would like to see some more research done—I think there is some being done between now and the end of the year—before they draw that conclusion…*

Mr DAVID SHOEBRIDGE: *Mr Parker, if you have that position of Unions NSW somewhere, could you provide that to the Committee on notice? We have not got the benefit of a submission from them.*
Mr PARKER: *On notice, I will provide the contact that was comfortable with me passing that on today.*

ANSWER

The Unions NSW contact referred to by Mr Parker is Ms Natasha Flores, an Industrial Officer at Unions NSW. SIRA has confirmed with Ms Flores that her name and contact details can be provided to the Committee.

Her contact details are: email - or ph .

QUESTION 4

The CHAIR: *Yes. We set that limit to say that the workplace is safe below this limit and I do not need to take any extra measures to limit my exposure, because as long as it stays below that over that period of time then it is deemed to be safe. Once I go above that then I have to take those other measures. Is that right?*
Mr DAVID SHOEBRIDGE: *Ask it as a question of law, not as actually protecting workers' health, but as a question of law.*
The CHAIR: *We will put that to SafeWork, that is okay. I was more going about the change to the national level.*
Ms DONNELLY: *I am happy to take it on notice. Also, yes, there is a lens of health as well is law.*

ANSWER

SIRA has been advised by SafeWork NSW that:

- A workplace exposure standard for a particular chemical sets out the legal concentration limit for that chemical that must not be exceeded.
- While there are approximately 40,000 chemicals in Australia, there are approximately only 700 exposure standards for chemicals at risk - respirable crystalline silica (silica) being one of them.
- Each standard applies to all industries that work with the particular chemical. In the case of silica, the same standard applies to manufactured stone, civil and domestic construction, tunneling, mining, foundry work etc.
- Workplace exposure standards are not intended to represent acceptable exposure levels for workers. They are simply the maximum upper limit prescribed by legislation.
- Workplace exposure standards do not identify a dividing line between a healthy or unhealthy working environment. Every workplace and worker is different, and this means that some workplaces and workers may need additional controls.
- It is a legal requirement for businesses to do what is reasonably practicable to ensure the health and safety of workers. In determining controls measures the business should identify and consider everything within the hierarchy of controls that may be relevant to the hazards and risks and the means of eliminating or minimising the risks. If a risk cannot be removed, a combination of controls may be required to minimise a risk if a single control is not sufficient.
- The global average for the silica exposure standard is 0.1 mg/m^3, which is the current standard in Australia.
- Safe Work Australia manages the exposure standards with a national review process for all 700 currently in train (currently at phase 3). The exposure standards are being released for review in phases with expected completion by the end of 2020.

- The national public comment period for the silica exposure standard (phase 1) closed on 30 April 2019. There were over 4,000 views to the public comment webpage and Safe Work Australia received 67 submissions.
- Following a national public comment period, the Safe Work Australia members recommended (on 31 July 2019) the following changes to the WHS Ministers for the Australian Workplace Exposure Standard for silica:
    - a reduction in the WES for silica to a time-weighted average (TWA) of 0.05 mg/m^3
    - that the reduction be implemented as soon as practicable but by a date no longer than three years from any ministerial decision, and
    - that investigation be undertaken into measurement and practical considerations that would enable a future reduction to a TWA of 0.02 mg/m^3 by WHS Ministers.
- There are currently a number of limitations and practical implications for an exposure standard at 0.02 mg/m^3. For example, the standard is based on a time-weighted average over eight hours. A number of industries, including mining and tunneling, commonly operate with shifts longer than eight hours. Adjusting the silica exposure standard to reflect a 12-hour shift would require businesses to reduce to 0.01 mg/m^3 (cumulative), which would be difficult to measure reliably. Uncertainty in the validity of exposure measurements may provide an avenue for appeal of enforcement actions.
- SafeWork NSW does support further work by Safe Work Australia to investigate whether measurement protocols can be improved to confidently measure exposures at 0.02 mg/m^3.
- Through the Centre for Work, Health and Safety, the NSW Government is also currently investing in research to improve real-time silica detection.

QUESTION 5

The Hon. GREG DONNELLY: *Ms Donnelly, just on this point, given your role connected with SafeWork and your work with SafeWork at the national level, is there any jurisdiction overseas that you have become aware of through your work in this area dealing with this particular issue that is really worth us looking at, not for the sake of just collecting more information, but that you have observed, that they are highly energised and working in a very focused way to deal with this issue in a comprehensive way? Is there any jurisdiction that we ought be looking at? Or perhaps suggesting through recommendations, without anticipating what we are going to be doing, we ought to be looking at in a very focused way. Maybe Dr Casey can feel able to do so.*
Ms DONNELLY: *Dr Casey may have some observations and we may also be able to take that on notice to give you some other information.*

ANSWER

A high-level review of responses to the increase in silicosis in other countries, or provinces/states in those countries, such as Great Britain, Canada, and the United States show similar interventions to those in place in Australia.

The Lancet Respiratory Medicine - Editorial

The Lancet Respiratory Medicine (Volume 7, Issue 4), published 11 March 2019, included an editorial titled 'The world is failing on silicosis'.

The editorial noted the Queensland response to the increase of silicosis cases including its audit and screening program and highlighted the increase in silicosis cases in other countries such as India, China and Turkey.

Three key issues were identified for addressing action on silicosis at global and national levels: education, leadership and robust data.

Education is a requirement in global and national programs to eliminate silicosis as many workers are unaware of the risks associated with exposure to silica dust in their workplace and many employers may not be aware of the risk.

The absence of strong leadership at global and national levels was noted as a key concern in the editorial:

> *In 1995, WHO and the International Labour Organization began a public awareness and prevention campaign to eliminate silicosis from the world by 2030. The campaign garnered some support, and led to the formation of several national programmes, including in China, South Africa, and Turkey, aimed at eradicating the condition. Unfortunately, the campaign does not appear to have maintained momentum. There have been no identifiable national level follow-up studies or centralised follow-ups to the original report*.

Last, there is a need for robust, multinational data to inform policy and understand the extent of the issue as there are very few studies of national or global prevalence concerning silicosis.

The Editorial is available at https://doi.org/10.1016/S2213-2600(19)30078-5

Further information on the International Labour Organization/WHO Global Programme for the Elimination of Silicosis is available at https://www.ilo.org/global/topics/safety-and-health-at-work/areasofwork/occupational-health/WCMS_108566/lang--en/index.htm

Suggested journal articles

SIRA suggests the Committee may find the following journal articles useful as they provide details on artificial stone- associated silicosis in a number of countries.

Leso et al, (2019), 'Artificial Stone Associated Silicosis: A Systematic Review', International Journal of Environmental Research and Public Health, 16, 568. DOI: 10.3390/ijerph16040568

Rose C, Heinzerling A, Patel K, et al (2019). Severe Silicosis in Engineered Stone Fabrication Workers — California, Colorado, Texas, and Washington, 2017–2019. *MMWR Morb Mortal Wkly Rep 2019*; 68: 813–818. DOI: http://dx.doi.org/10.15585/mmwr.mm6838a1external icon.

Barber et al (2018) 'Artificial stone-associated silicosis in the UK' *Occupational and Environmental Medicine*, Volume 75, Issue 7. DOI: http://dx.doi.org/10.1136/oemed-2018-105028

QUESTION 6

The Hon. GREG DONNELLY: *But obviously those three countries, Vietnam, China and Israel—and we were told that about 40 per cent of what arrives at Australia's ports is from Israel—export to the world so in a developing nation or a developed nation, there is a lot of this material being used on a daily basis. There must be jurisdictions, perhaps in Europe or even in North American states—and you can go round—that really have eyes into this and surely the bells are going off pretty loudly in other jurisdictions?*
Dr CASEY: *Again, as Ms Donnelly said, we are happy to take it on notice. I would observe that we have only started seeing systematic reviews in the medical literature appearing in the last three to four years, so the evidence in terms of the causation and exposure, although it has been around for a while, is still emerging. We can have a look.*

ANSWER

Please refer to the answer to question 5.

QUESTION 7

Mr DAVID SHOEBRIDGE: *I was hoping you could give us on notice—it is probably through SIRA—what it would take to get the State register established, both for silicosis cases and for the historical recording of results. I think icare has in their submission this proposition from SafeWork:*
SafeWork NSW has indicated to icare that all manufactured stone sites in New South Wales have been visited, totalling 246 sites.
Can I say that I just find that an extraordinary proposition if that has come from SafeWork. Assuming they have got all the primary manufactured stone worksites, I would imagine manufactured stone is on pretty much residential building site, every multi-level apartment block all over the State. Could I ask you to give your considered view on whether or not icare has really got to all manufactured stone sites in New South Wales?

ANSWER

SIRA has been advised that SafeWork NSW has visited all manufactured stone fabrication sites in NSW and as part of its five-year Chemicals Strategy will have over 9,000 interactions businesses that work with silica. In addition to the fabrication sites, as at 30 June 2019 SafeWork NSW has also undertaken 448 visits within other industries that work with silica and will continue visiting these various sites as part of its strategy. Awareness and education events

are also targeted to the various industries, including Master Builders Association and Housing Industry Association events, specific trade magazines and regional roadshow activities.