

Priorities to reduce environmental cancers: evidence-based advocacy for regulatory action

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research
prevention
support

Case studies in evidence-based advocacy

Tobacco tax

Exponential models based on data from large case-control and cohort studies estimate the decline over time after quitting in the risk of acute myocardial infarction (AMI), stroke, lung cancer, chronic obstructive pulmonary disease (COPD), and death. Australian data were sourced for disease incidence and mortality and health care costs. Utility of life estimates were sourced from an international registry and a meta analysis. Outcomes are reported for simulated subjects followed up for 10 years after quitting. Life-years, QALYs and costs were estimated with 0%, 3% and 5% per annum discount rates. Over the four-year period we expect something in the order of 210,000 fewer Australian adults and 40,000 fewer teenagers to be risking early death and disabling disease caused by smoking...

Magic figure: 100,000 premature deaths avoided.

Bowel cancer screening

MISCAN-Colon validated computer simulation model for bowel cancer screening simulated the effects of screening over a 50-year period from 2006. The model parameters included rates of participation in screening and follow-up, rates of identification of cancerous and precancerous lesions, bowel cancer incidence, mortality and the outcomes of the NBCSP. Five implementation scenarios, based on biennial screening using an immunochemical faecal occult blood test, were developed and modelled. A sensitivity analysis that increased screening participation to 60% was also conducted...

Magic figure: 70,000 premature bowel cancer deaths avoided over the next 40 years

Not to mention the \$...



What is 'efficacious' in advocacy?

GOOD POLICY, CLEAR OBJECTIVE

Trust

Clarity

Nonpartisan

Needs-based

Evidence-based

Outcomes-focused

Principled, but flexible

Based on achievable goals

Credit and thanks where due

Proactive or reactive as required

Balances short and long-term goals

A tailored strategic approach – every time



What is 'efficacious' in advocacy?

- **GOOD POLICY, CLEAR OBJECTIVE**
- **A TAILORED STRATEGIC APPROACH – EVERY TIME**

Environmental cancers

The regulatory framework for environmental carcinogens has been complex and fragmented, because carcinogenic substances are variously regulated as workplace hazards, consumer products and environmental pollutants.

Top-ten most carcinogenic occupations: men

Heavy vehicle drivers	DEE, solar UVR, ETS	100
Farmers	Solar UVR, DEE, PAHs	100
Plumbers	Solar UVR, ETS, lead	100
Painters	Solar UVR, lead, wood dust	100
Miners	Silica, DEE, solar UVR	100
Carpenters	Wood dust, solar UVR, formaldehyde	98.8
Animal and horticultural	Solar UVR, benzene, DEE	98.5
Vehicle trades	DEE, asbestos, lead	97.4
Handypersons	Solar UVR, wood dust, silica	97.0
Passenger transport	DEE, shift work, solar UVR	96.8

Source: Carey RN, Driscoll TR, Peters S, Glass DC, Reid A, Benke G, Fritschi L. Estimated prevalence of exposure to occupational carcinogens in Australia (2011-2012). Occup Environ Med 2014



Top-ten most carcinogenic occupations: women

Farmers	Solar UVR, DEE, benzene	100
Automobile drivers	DEE, Solar UVR, benzene	100
Passenger transport	Shift work, DEE, ETS	100
Heavy vehicle drivers	DEE, solar UVR, ETS	100
Handypersons	Solar UVR, ETS, DEE	100
Electrical workers	Solar UVR, ETS, DEE	100
Vehicle trades	DEE, asbestos, ETS	100
Metal workers	Ionising radiation, DEE, formaldehyde	100
Construction workers	Silica, ETS	100
Miners	Silica, lead, nickel	100

Source: Carey RN, Driscoll TR, Peters S, Glass DC, Reid A, Benke G, Fritschi L. Estimated prevalence of exposure to occupational carcinogens in Australia (2011-2012). *Occup Environ Med* 2014

Australian policy priorities

- Harmonise regulations and policies on occupational carcinogens across different industries
- Promote awareness of, and monitor compliance with, best-practice occupational cancer prevention strategies
- Monitor and enforce compliance with regulations relating to occupational cancers.

Compare to...

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