Doctors for the Environment Australia

ANNUAL REPORT

2013



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Chair's Report

Preamble

After six politically turbulent years, internal divisions within the previous Australian Labor Government and a number of serious errors of judgement and resolve on vital issues, a determined and tightly controlled Coalition has regained the Government benches. Disunity is rarely rewarded at the ballot box.

Throughout the latest election campaign conducted by both major parties, the issues of climate change and other major environmental threats were essentially sidelined and debate about health policy was effectively muzzled by the victors.

Some fine legislative achievements and symbolic acts will remain as long term legacies of the past six years but some others will now be under considerable threat.

Doctors for the Environment Australia (DEA) strongly supported some form of carbon pricing and the establishment of the Clean Energy Fund to serve as market driven measures designed to wean Australia away from carbon emitting fossil fuels.

As an organisation concerned with the health consequences of environmental hazards, DEA is well aware of the direct polluting effects of coal mining, transportation and combustion causing additional morbidity and mortality amongst exposed communities, the additional, external costs of coal and its destructive greenhouse gas burden, it strongly supported the development of economically robust and reliable alternative renewable energy technologies.

The incoming Government now has the heavy responsibility to perform wisely and well in many fields including the fundamental need to protect the environment and the health of its citizens.

According to Bill McKibben, the most fundamental and critical environmental need from a global perspective is to limit the additional carbon emission burden into the atmosphere to no more than 565 gigatonnes this may then limit the global temperature rise to 2°C. The average global temperature rise from pre-industrial times to date is now 0.7°C. The known fossil fuel reserves currently targeted by multiple countries and companies total an estimated 2,795 gigatonnes, around five times the threshold level.

A 2°C rise in average global temperatures will still inflict enormous damage on the Earth and its people, its fauna and flora. It will imperil biodiversity and general habitability with some regions far more badly affected than others, and extreme weather events will become more frequent. A rise above that 2°C level may well consign the Earth to an irretrievable future.

Any mention of these dangers was deliberately expunged from serious discussion during the election campaign and historians will judge this harshly.

Coalition's Direct Action Plan

The Coalition's Direct Action Plan outlines a framework for achieving a 5% reduction in fossil fuel emissions over 1990 levels by 2020. A number of the components of the plan are largely untested and aspirational at this stage. The plan includes the planting of 20 million additional trees by a so called green army of young people and the sequestration of carbon in soil. It includes research and development of biomass as an energy source and promoting energy saving measures.

The plan aims to have an additional one million solar energy homes by 2020. It proposes research and development of 25 tidal energy or geothermal micro projects and the development of other major renewable energy projects. It has a limit on the funds being made available. It will support research into algae and biofuels and a number of other initiatives. It does not aim to tackle the expansion of coal mining or the early phasing out of coal-fired power plants. The incoming Government plans to abolish the Clean Energy Corporation and defund the Climate Commission.

DEA continues to argue that a 5% target is insufficient. As a country with amongst the highest per capita carbon footprint in the world and with enormous natural advantages for renewable energy generation through multiple proven technologies, Australia could become a world leader and an exporter of energy produced from them.

The planned extension of deforestation recently announced by the Queensland Government could result in sufficient damage to negate even a 5% carbon emission reduction target. Deforestation plans are also in the sights of other companies and state governments.

In addition, authorisation is being given to the expansion of coal mining in Queensland and NSW with export arrangements to China, India and elsewhere. That coal will be fed into power generators in those countries and will add to the global carbon emission burden. Australia cannot wipe its hands of the global impact which those coal exports will cause. Queensland's Galilee Basin alone could result in the export of 330 million tonnes per annum of thermal coal, more than doubling Australia's current production capacity.

Some DEA activities

Over the past 12 months, DEA has continued to assimilate and present the scientific evidence on the impact of environmental challenges on health. It has been very active in a wide range of areas pertaining to climate change, fossil fuels, air quality and forests and biodiversity. These accomplishments are detailed later in this report.

The future

Australia is lagging well behind a number of other technologically advanced countries in tackling its carbon emissions. The policy stance of the incoming Federal Government could delay the development of alternative renewable energy technologies but there are a number of factors giving some glimpses of hope.

Companies who have invested time, effort and considerable finance into these alternatives, and can demonstrate major economic as well as environmental benefits, are becoming more vocal.

Renewable energy technologies are becoming more effective, more efficient and more competitive economically. Technologies such as solar thermal plants can provide reliable 24 hour supplies to large populations as they are now doing in Spain and Nevada, USA.

Australia's large land mass and exposure to sunlight makes it ideally placed to supply not only its entire energy needs but also to potentially transmit it to adjacent countries if political and industrial vision enables it to do so.

Wind farms continue to proliferate in Australia and internationally in spite of local resistance and anecdotal health concerns voiced by some people. Many scientific reports indicate there is no evidence for these claims.

The UK and major countries in Europe are much more advanced than Australia in a number of areas of environmental policy initiatives. For example, the National Health Service (NHS) of the UK, said to be the fourth largest employer in the world, contributes 4% of the total annual carbon emissions of that country and has resolved to reduce those emissions by 34% by 2020 and 80% by 2050. It is adopting a number of rigorous policies to achieve the targets.

In 2011, the conservative Association of Surgeons of Great Britain and Ireland (ASGBI) issued a consensus statement on cost effective and sustainable surgery. It has become much more conscious of waste and of the carbon footprint of medicine. Similar medical organisations are following that path.

Youth around the world are becoming much more aware and active on environmental matters. Communities in USA and elsewhere are organising grassroots movements to challenge corporations who are despoiling their countryside and pouring pollutants into their skies. The international communications grid has some hazards but it also offers tremendous connectivity for those who are concerned about health and the environment.

The medical profession must become better informed and more strategically active. It is not just the Intergovernmental Panel on Climate Change (IPCC) which warns us all that the time to act is now. Further delays will just make solutions that much harder to find and increase the magnitude of hardship, hunger, misery and premature mortality around the Globe.

Professor Kingsley Faulkner AM

Chair

Climate change and health

With atmospheric CO₂ levels reaching 400ppm in the last 6 months and the changing political and public debate, there has possibly never been a more important time in Australia for independent, trusted information around the issues of climate change and health. DEA has been at the forefront of analysing and communicating the connection and implications to the medical profession, patients and the wider community for over a decade, including a joint poster with the AMA as far back as 2007: www.dea.org.au/resources/file/climate change and health poster. Yet we appreciate that there has been a recent shift amongst the wider community's perception of the urgency surrounding the many implications climate changes bring to the health of present and future generations. The Australian Bureau of Statistics Report 4626.0.55.001 - Environmental Views and Behaviour, 2011-12 showed that there was a 20% drop in concern about environmental problems in general (to 62%) and a 16% drop in concern about climate change (to 57%).

The reasons for changing priorities amongst the public are many and varied and DEA is continuing to address the issue on many levels including the recent establishment of a Climate Change Sub-committee chaired by Aaron Tracey. The wide remit of the sub-committee will allow it to focus on producing materials to generate discussion, both within DEA and amongst the wider community, on issues relating to climate change and the methodologies being implemented to combat its effects. The committee is also seeking to find novel ways to present climate change issues and to frame the climate change message in a more palatable, relevant way for the community.

DEA's Climate Change Policy has been significantly updated by Dr Dimity Williams, Dr David Shearman and Professor Tony McMichael. The policy is available here www.dea.org.au/images/general/DEA Climate Change and Health Policy 05-13.pdf and the Position Statement-Climate Change and Health 05-13.pdf.

More specifically over the last year; Dr Dimity Williams represented DEA on "The Panel", a nationally syndicated news and current affairs program following DEA's media release "Climate report shows more death from heatwaves" www.dea.org.au/news/article/media-release-climate-report-shows-more-deaths-from-heatwaves, in response to the release of the Climate Commission's report The Critical Decade 2013, and Dr David Shearman authored 'The climate "tide" is still rising', British Medical Journal, 25 March 2013 http://blogs.bmj.com/bmj/2013/03/25/david-shearman-the-climate-tide-is-still-rising/.

A submission was made to the Climate Change Authority Caps and Target Review arguing that increasing Australia's 2020 emissions reduction target from 5% to 25%, would deliver significant health benefits for the Australian public

www.dea.org.au/images/uploads/submissions/Caps and Targets Review Submission 05-13.pdf.

Dr Marion Carey and Dr Eugenie Kayak appeared before the Senate Inquiry for 'Recent trends in the preparedness for extreme weather events' in February, highlighting climate change's amplification of extreme weather events, the health implications and the vulnerability of our health systems with DEA referred to in the final report www.dea.org.au/images/uploads/submissions/Extreme Weather Events Submission 01-13.pdf.

Professor Tony McMichael of the DEA Scientific Advisory Committee also highlighted once again why climate change and health should be key election issues in an excellent article in The Conversation www.dea.org.au/news/article/why-climate-change-should-be-a-key-health-issue-this-election.

Action on coal and unconventional gas

Exposing the harm to human health from fossil fuels is a key role of DEA and the massive expansion of the coal and unconventional gas industries is of grave concern. The resulting greenhouse emissions have international health consequences and are the main threat to the stability of the Earth's life support systems; the impacts of their pollution within Australia have been detailed in DEA's report "The Health Factor".

The health factor: Ignored by industry, overlooked by government

"The Health Factor" report released by DEA in May 2013

www.dea.org.au/images/general/DEAtheHealthFactorV2 2013.pdf revealed the costly legacy unfolding for Australia from under-regulation of the pollution caused by many resource projects. It detailed the existing and potential health effects on communities across Australia from coal and coal seam gas (CSG) projects and described how cardio-respiratory and other diseases in nearby communities are likely to be caused or exacerbated by pollution from coal mining and transport. Coal projects have been allowed to pollute at levels known to compromise human health and where inadequate monitoring of air quality disguises the dangers. The report also points out that the research and regulation on CSG lags well behind these developments, and the degree to which they harm human health is not yet understood.

In the report DEA expressed the view that state government approvals of coal and CSG projects are often influenced by potential economic gain without thorough assessment of potential harms. DEA advocated for health impact assessments to be a mandatory part of the approval processes for any polluting industrial project.

The report attracted widespread media interest, particularly in rural and regional areas.

It is important to emphasise that we recognise that humanity's use of fossil fuels must be replaced by viable alternatives and an essential part of our advocacy is on the lack of health impacts from the development of solar, wind and tidal energy.

Air quality and pollution

Many regions of Australia suffer air pollution which is not within air quality guidelines recommended by the World Health Organization. DEA recognises the health impacts in communities related to coal mining developments and to coal fired power stations. In 2013 the Senate Community Affairs Committee instituted an enquiry into the Impacts on Health of Air Quality in Australia. DEA made a comprehensive submission to this committee

www.dea.org.au/images/uploads/submissions/Impacts on health of air quality in Australia Submission.v1 03-13.pdf and appeared before the Senate Community Affairs Committee for one hour on 17 May 2013.

Important points made in both the DEA submission and presentation were:

- There are significant health costs associated with the effects of air pollution;
- Coal-fired power stations and other fossil fuel developments, as well as motor vehicles, are a major source of air pollution;
- The current national ambient air quality standards have been reviewed but are yet to be changed to reflect current scientific evidence of health impacts. In particular, there is a lack of a compliance standard for fine particulate matter (PM_{2.5}) despite overwhelming evidence of its importance as a health issue;
- Current monitoring and reporting practices for air quality by the states are generally inadequate to fully protect public health and inform communities of their exposures;
- Climate change is expected to cause further declines in air quality;
- A reduction in fossil fuel combustion can improve human health directly, by reducing chronic disease risks from air pollutants, and indirectly from mitigation of climate change, which is hazardous to health.

Dr Merryn Redenbach's appointment to facilitate work on health and fossil fuels

In August we announced the appointment of Dr Merryn Redenbach to the position of Research and Liaison Officer from funds made available by a generous donor who we thank most gratefully.

Merryn's role is to enhance DEA's contribution to education on the health impacts of fossil fuel development – the local pollution impacts and the health effects from the greenhouse emissions they cause. She is liaising with the many community groups around Australia who ask DEA for help and she is increasing coordination and support for the many DEA members who already work on this issue.

Merryn is a medical graduate of Melbourne University, an advanced trainee in Paediatrics, a skilled clinician and has many achievements in community liaison and campaigning. Merryn has also been a very active DEA member for the past four years.

Coal mining and health

Newcastle and the Hunter (NSW)

Air pollution from mining is rampant in the Hunter. Over the past year, DEA has deployed its resources to influence government over planning and air quality. In addition DEA experts have been an integral part of the Coal Terminal Action Group (CTAG) which campaigns on pollution from coal wagons transiting Newcastle.

The development of a new terminal for the export of coal will bring a great increase in the number of coal wagons traversing Newcastle. A report by the Australian Rail Track Corporation (ARTC) on the impact on air quality of coal trains along this line from the Hunter Valley to the Port of Newcastle was examined by public health experts including those of DEA. It was concluded that the statistical methods were inappropriate, and that fundamental errors had been made such as analysing the time periods when the prevailing wind was carrying dust away from the monitor rather than towards it. These errors had obscured the findings of pollution. The data has been sent by ARTC to the Chief Scientist for re-analysis. This issue had extensive media coverage.

In a remarkable initiative, the Coal Terminal Action Group raised finances to hire an Osiris air quality monitor for three days to monitor dust beside the rail corridor. The study showed that loaded and unloaded coal trains increase pollution levels by 200% to 1200% www.hcec.org.au/node/103. The ABC Catalyst programme recorded this as an example of "citizen science" www.abc.net.au/catalyst/stories/3831563.htm.

DEA made a comprehensive submission opposing the amendments to the NSW Department of Planning and Infrastructure "State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) Amendment (Resource Significance) 2013" www.dea.org.au/images/uploads/submissions/NSW Mining SEPP Submission 08-13.pdf on the grounds of inadequate health assessment, economic outcomes and air quality standards.

"In the opinion of DEA, the proposal inappropriately promotes and facilitates the development of resource mining at the expense of the other valuable land uses, ecosystems, local communities, our health and the stability of our climate. It appears to be in direct contradiction to the NSW government's own planning legislation, and overall policy to assess the triple bottom line in new developments. It could be perceived by the NSW public to be an attempt to smooth the way for further expansion of mining in NSW, for short term financial gain at the expense of community well being, the environment, climate and public health".

Port Augusta (SA) coal-fired power stations

The pollution from the brown coal-fired power station at Port Augusta is not significant in national or international terms but it has caused the inhabitants demonstrable ill health.

DEA has pursued replacement of the power station by solar thermal and storage because this should be an easy decision based on the facts, pollution, ill health, and the need for regional development, and transition to renewable energy. Unfortunately it has become a case study on the impotence of Australian governments, and the primacy of industry.

DEA made a detailed briefing to the South Australian Parliament on the health benefits of solar thermal technology and obtained support for clean air for Port Augusta from the Australian Medical Association South Australia (AMA), Royal Australian College of General Practitioners (RACGP), Public Health Association of Australia (PHAA) and the Royal Australasian College of Physicians (RACP).

DEA made a detailed submission to the Parliamentary Inquiry into solar thermal power generation at Port Augusta:

www.dea.org.au/images/uploads/submissions/Solar Thermal Power Generation - Port August 12-12.pdf and appeared for an hour before the committee. We made numerous visits to state and federal parliamentarians and to Ministers and Shadow Ministers.

The operator, Alinta, applied to Australian Renewable Energy Agency (ARENA) for funding for a feasibility study for solar thermal and was refused. DEA has analysed this refusal and has asked a number of questions of ARENA, Alinta and both South Australian and federal governments www.reneweconomy.com.au/2013/a-letter-to-arena-and-alinta-why-dump-port-augusta-solar-72228.

DEA continues to work on the Port Augusta issue because it epitomises the problems that must be solved if Australia is to benefit from the energy revolution that is underway. The fundamental problem is that governments hand their responsibility for health and innovation to industry and when industry decides to continue burning cheap brown coal it is simply an issue of "market forces".

Anglesea (VIC)

2012/13 has been as busy year for DEA in Anglesea.

DEA, community members and other groups have worked hard to tackle the health risks and environmental damage posed by the brown coal mine and power station in Anglesea, both of which sit less than a kilometre from the edge of the township.

A number of summer market stalls were held to help engage and educate the local and visiting community about the health risks associated with the mine and power station. Information from DEA was vital in providing people with clear and reliable facts regarding the health impacts of coal.

The Senate Inquiry into the Impacts on Health of Air Quality in Australia was an opportunity for Anglesea residents to raise concerns about the risks to human health from coal. Local group Surf Coast Air Action submitted to the inquiry with assistance from DEA. In DEA's own submission to the Inquiry, Anglesea was given significant mention.

Following the submission to the inquiry, Jacinta Morahan (DEA member) was invited to meet with Greg Hunt, the then shadow spokesman for the environment and Sarah Henderson (who now holds the seat of Corangamite). Ms Henderson has since publicly committed to expediting the implementation of stricter air quality standards of the National Environment Protection Measure for Ambient Air Quality (NEPM).

DEA also met with Senators Christine Milne and Richard Di Natale at a round table discussion in Geelong. This was followed by a tour of Anglesea to evaluate the proximity of the power station and coalmine to the township and new primary school.

In June DEA held a very successful lunch meeting in Anglesea with medical students, doctors, a local councillor and several state politicians. Eugenie Kayak spoke about DEA and advocating for an environment that supports health, Marion Carey about the health risks of coal and Jacinta Morahan gave a more local perspective of the impacts upon health and community.

Leading up to the election, Surf Coast Air Action and the Australian Greens facilitated a community meeting where Jacinta Morahan spoke to a packed hall on behalf of DEA about the health risks of coal mining and coal combustion and the potential health threat to the area from CSG mining.

Unconventional gas mining and health

DEA is playing an increasingly important role in helping to inform communities of the potential adverse impacts of unconventional gas and advocating for greater protections. This year has seen an enormous amount of work on this issue, including presentations, submissions, articles and other advocacy.

The unconventional gas industry is continuing to expand, with government assessment and regulation failing to keep up. We saw allegations in Queensland of huge developments being fast tracked under political pressure without adequate time for assessment: https://www.couriermail.com.au/news/public-servants-tasked-with-approving-to-massive-csg-projects-were-blindsided-by-demands-to-approve-two-in-two-weeks/story-e6freon6-1226574952587. This is at a time where allegations of corruption in relation to mining approvals in NSW have been verified by ICAC.

DEA's voice of integrity and balance is needed now more than ever in the public domain and communities count on our advocacy for their health and well-being. Fortunately our work, in conjunction with others concerned about this issue, has been bearing fruit.

We highlighted in the media the emerging research from Southern Cross University on higher than expected methane leakage from gas fields in Queensland and we continue to provide support and advocate on behalf of the residents of the Tara area: www.dea.org.au/news/article/media-release-coal-seam-gas-fails-on-human-health-2-4-2013 www.theconversation.edu.au/air-pollution-from-coal-seam-gas-may-put-public-health-at-risk-10819 www.theconversation.com/we-need-to-do-our-homework-on-the-health-risks-of-coal-seam-gas-13173

Federally we lobbied for a role for the Commonwealth in the assessment of CSG and shale gas projects. We were very pleased that the former Environment Minister Tony Burke introduced amendments to the Environment Protection and Biodiversity Conservation Act 1999 that will require federal assessment and approval of CSG and large coal mining developments that have a significant impact on a water resource.

www.dea.org.au/images/uploads/submissions/CSG and large coal mining impacts on water resources submission 07-13.pdf

We are delighted that the Australian Medical Association now has a policy on CSG, advocating that governments must strengthen the assessment and monitoring of the health impacts of CSG developments in Australia.

New South Wales

DEA has been very active in NSW, where we have seen significant improvements in protection from inappropriate CSG development with the state government introducing a 2km exclusion zone for residential areas (see below). Subsequently, CSG company Metgasco announced it was suspending all exploration and production in the Northern Rivers area of NSW, citing regulatory uncertainty and the state government's recent CSG exclusion zone for residential areas and agricultural infrastructure.

- We presented a submission to the NSW Planning Assessment Commission objecting
 to the approval of Apex Energy's CSG exploration wells in the Illawarra, part of
 Sydney's water catchment www.illawarramercury.com.au/story/1300120/csg-advocate-faces-down-hostile-crowd, www.youtube.com/watch?v=3txXyNnfC6E&feature=youtu.be. The CSG
 project proposed for this protected area in the Illawarra region has been rejected
 with greater protection for Sydney's water catchment:
 www.dea.org.au/news/article/dea-celebrates-sydney-water-catchment-protection.
- We presented at community forums organised by Campbelltown City Council in SW Sydney, and at Medowie organised by the Wilderness Society's Newcastle office.
 www.abc.net.au/news/2013-02-20/doctors-sound-warning-on-csg/4528950
- We presented on the health impacts of coal and CSG along with The Australia Institute and Sharyn Monroe (author of Rich Land, Wasteland) in Tamworth, Narrabri, Gunnedah and Moree.
- In February 2013 AGL suspended their application for Stage 3 of the Camden Gas Project amid vocal, sustained and widespread community and local government opposition. Just a few days later Premier Barry O'Farrell announced major changes to CSG regulation including a 2km exclusion zone for residential areas, effectively making AGL's Stage 3 plans impossible to achieve.
 www.premier.nsw.gov.au/sites/default/files/TOUGH%20NEW%20RULES%20FOR%20COAL%20SEAM %20GAS%20ACTIVITY.pdf
 www.smh.com.au/environment/dead-in-the-water-ofarrell-buries-coal-seam-gas-plans-20130218-2eniw.html
- We met with the representatives of the NSW Health Department to talk about our concerns in relation to CSG.
- We made an extensive submission to the NSW Chief Scientist's Review of CSG, in May 2013, and followed up with a visit to her office in June and the supply of further information of relevance to her report.
 www.dea.org.au/images/uploads/submissions/Review of CSG in NSW -Chief Scientist Submission 05-13.pdf
- We made a submission to the NSW Planning Review White Paper in June 2013.
 www.dea.org.au/images/uploads/submissions/NSW Planning Review White Paper submission 06-13.pdf

- We made a submission to the NSW Mining State Environment Planning Policy in August 2013, an amendment designed to facilitate the approval of fossil fuel projects, putting the economic significance of the resource above all social and environmental considerations.
 - www.dea.org.au/images/uploads/submissions/NSW Mining SEPP Submission 08-13 .pdf

Queensland

- We continue to liaise with communities who are distressed by symptoms they are concerned are due to exposure to pollution from CSG. The Queensland government has recently released a report on their risk assessment of CSG impacts on people living in the Tara area www.health.qld.gov.au/publications/csg/default.asp. We note that any such risk assessment requires adequate environmental assessment which has been patently lacking. The public health physician involved states:
 "Evaluation of comprehensive information on air, water and soil contaminants, as well as an evaluation of the level of noise currently experienced, is essential to assist in establishing the likelihood of a causal link between the symptoms experienced and exposure to CSG activities."
- We met with the Queensland AMA to discuss CSG and the situation in Tara. We also met with the Chief Health Officer of Queensland to voice our concern regarding the health complaints in the CSG fields near Tara, and the inadequacy of the health department's response to date.
- We made a submission on the EIS for Arrow Energy's Bowen Gas Project which
 proposed to develop CSG resources in an area of approximately 8,000km² with over
 6,000 wells www.dea.org.au/images/uploads/submissions/Bowen Gas Project Submission 0413.pdf.

South Australia

 We have provided feedback on the "Roadmap for Unconventional Gas Projects in South Australia" including information on potential health impacts and we have prepared information on the health impacts of shale gas mining which is being approved in the SE of South Australia.

Western Australia

- We joined with a range of organisations related to the Clean Water Healthy Land Alliance, sending candidates in the state election, questions to respond to in relation to shale gas development and fracking.
- We have lobbied politicians and state government, written letters and media articles and given presentations. We are speaking up for the right of communities to receive unbiased information about proposed extensive shale gas development in WA.

- DEA presented at a meeting with parliamentarians and at several community based meetings organised by the National Party of WA about the potential health impacts of unconventional gas mining.
- The James Price Point Gas Hub in the Kimberley failed to proceed amid strong community opposition but much more development is in the pipeline for this region.

ACT

 We have attempted to provide feedback to the National Harmonised Regulatory Framework for Coal Seam Gas in order for health and environmental impacts to be better recognised and prevented.

Victoria

With concerns that an expansion of shale gas and tight gas in Victoria is imminent
we have been actively informing communities about potential impacts and talking to
politicians and journalists.

There are still great challenges before us to achieve better health protection in relation to unconventional gas, and much work to be done. But all our efforts collectively have made DEA an effective force for change and a valuable support for communities.

This extensive work could not have been carried out by the DEA Unconventional Gas Subcommittee if it had not been for the great many hours of work volunteered by an army of members across NSW, VIC, ACT, QLD, SA and WA.

Fossil fuel divestment

"Vote with Your Money!"

The DEA Divestment Subcommittee was formed in July 2013, inspired by the work of 350.org and Bill McKibben and his "Do The Maths" tour. This Sub-committee supports the DEA medical students' involvement in fossil fuel divestment campaigns on university campuses (see DEA students' report). In addition, the working group has sent out an appeal to all DEA members to commence personal divestment. Briefly summarising the rationale behind fossil fuel divestment, this email is a step-by-step guide to personal divestment and what each member can do to discourage further investment in the fossil fuel industry in view of its serious national and global health impacts.

www.dea.org.au/news/article/dea-action-on-divestment-vote-with-your-money

Forests and biodiversity

In April 2013 the DEA Forests and Biodiversity Sub-committee held its inaugural meeting with the purpose of sharing our passion for nature and collaborating on the best ways for DEA to work to highlight the interrelationship between our health and natural ecosystems.

The committee is currently chaired by Dr Dimity Williams who is also a member of the National Management Committee (MC) and Victorian Committees, other members include A/Prof Marion Carey and Dr George Crisp (both also on the National MC); Dr Ben Ticehurst (corresponding member of National MC); Dr Ken Winkel; Dr Nimna de Silva; Dr Sujata Allan and Dr Frank Nicklason.

The committee's work to date includes:

- development of a biodiversity policy and position statement for DEA (still in production)
- publishing an article on the importance of biodiversity for health in Crikey http://blogs.crikey.com.au/croakey/2013/06/11/as-the-earth-approaches-a-critical-tipping-point-a-reminder-about-why-our-biological-wealth-is-critical-for-health/
- submission to the federal government's proposed amendments to cut 'green tape' by moving control over development that impacts natural parks and other natural ecosystems to the pro-mining/logging state governments https://www.dea.org.au/images/uploads/submissions/Environment Protection and Biodiversity Conservation Amendment 01-13.pdf
- submission to the NSW Government's proposed amendments allowing the burning of biomass for 'renewable energy' from native forests www.dea.org.au/images/uploads/submissions/Native_forest_bio_material_submission_08-13.pdf
- letter to The Age 21.8.13 Vital Life Support Systems www.theage.com.au/comment/the-age-letters/another-progressive-idea-from-the-coalition-20130820-2s9dq.html

- radio interview on Triple RRR, 25.8.13 The importance of nature for our children http://ondemand.rrr.org.au/player/128/201308251300
- collaboration with the International Union for the Conservation of Nature in the development of *Healthy Parks Healthy People guidelines*.

Apart from the work of this committee, many others have been working on issues which impact our forests and ecosystems such as the Great Barrier Reef. Our Tasmanian committee has been working hard to stop mining from proceeding in the Tarkine and Dr Rohan Church in conjunction with Dr Dimity Williams has written to parliamentarians on this issue. The work by our coal and unconventional gas committees and other individuals, which highlights the effects these industries have on both land and marine ecosystems, is crucial. Indeed, the only modification made by government on the dilution of the Environmental Protection and Biodiversity Conservation Act was to protect aquifers and this was after much work by the DEA unconventional gas group.

Communications

Over the past 12 months DEA has taken active steps to enhance our communications in a number of different ways. The driver behind this work is the understanding that whilst we are doing fantastic work, we need to become more skilled and strategic with our communications to be yet more effective.

We have been assisted in this process by Anne Walker who has used her expertise in this area and provided us with a report on areas for improvement.

'DEA in a heartbeat'

Is a 3 minute video clip www.dea.org.au/resources/file/dea-in-a-heartbeat-who-what-and-why which succinctly explains who we are, what we do and what our motivations are. It reflects the diversity of our membership with regard to gender, heritage, occupation and passions. It is readily accessible on the home page of our website and can be embedded in presentations for our members to utilise when they are talking on our behalf and wish to give a brief overview of DEA. The script and format was developed by Dr Michael Loftus, Dr Rohan Church and Dr Dimity Williams and the filming and production was done by Jeff Canin at Green Turtle films www.twodegreesmovie.com.

We would like to thank all those who worked hard to produce such an inspiring clip and thank DEA members; A/Prof Marion Carey, Ms Prashanti Manshikanti, Dr Merryn Redenbach, A/Prof Grant Blashki and our Chair, Professor Kingsley Faulkner for their participation. We would also like to thank staff at the beautiful Maranoa Gardens in Melbourne for allowing us to have exclusive access for filming.

View 'DEA in a heartbeat' www.dea.org.au/resources/file/dea-in-a-heartbeat-who-what-and-why

Awards

Tony McMichael Public Health Ecology and Environment Award

DEA Honorary Secretary and founder, Professor David Shearman, was presented with the inaugural Tony McMichael Public Health Ecology and Environment Award (TMPHEEA) at the Public Health Association Australia annual conference dinner on 18 September 2013.

The award was created by the Public Health Association Australia (PHAA) for two reasons. Firstly, to acknowledge and celebrate the life and work of Tony McMichael and secondly to recognise and appreciate the achievements of a person, who has made a significant, discernible contribution in the combined domains of public health and ecology or environmental health, consistent with and has contributed to fulfilling the aims of the PHAA and the EESIG.

David Shearman has indeed done this. He is a long term member and President of the SA Conservation Council, an IPCC third and fourth assessment reports contributor, author of several books and countless articles on health and the environment. He works closely with all parties to get the message of the importance of the environment for human health across to decision makers.

In his acceptance speech, David made it clear that his achievements are not his alone; he is a member of a large and very hard-working, committed organisation. He is encouraged by the younger members joining DEA, and is cognisant of their responsibility for getting humanity onto the right track.

Educational activities

One of the Objectives of our Constitution is;

To alert doctors and the public on the health effects of environmental degradation locally and worldwide using the best available scientific evidence and the precautionary principle.

Therefore our educational role is paramount, and is embodied in all our activities – addressing community groups, 'grand rounds' in hospitals, briefing elected representatives whether in their offices or in committees. But it is in our relationship with the DEA student members that this educational intent is best illustrated.

Our organisation displays the philosophy of medical education and applies it to the global ecological threats of our time. In medical education, the student is taught by word and deed the imperative of lifetime education, for this is our duty to each patient and to humanity. From the very first day of medical education the teacher-student relationship gradually evolves into a partnership of learning whereby the student at the bedside becomes a crucial member of the team. A doctor who has never learned from the student is probably not a very good doctor.

This philosophy is on display in DEA and it is appropriate therefore that students are full members of DEA helping us with decisions and evolving their own activities. They are integral to the DEA team that may visit a minister and are often the leaders in community interaction. They pursue inclusion of climate change in the curriculum of medical schools around the nation and write learned articles for our web site- and much more.

The student report below should be read in this context. Medical students also play an important role in the AMA (through the AMSA) and in the Medical Association for the Prevention of War, and DEA is fortunate to have within its membership some hundreds of the brightest and most motivated students, and to have them work not just for their future patients but to help in the greatest issues of our time. To do this they absorb the skills of medical and scientific advocacy from their senior colleagues.

DEA student members

The last year has seen student membership expand significantly, particularly in Victoria, where Harry Jennens www.dea.org.au/news/article/stepping-up has been an incredibly enthusiastic and encouraging state representative and the DEA students have co-hosted events with Ignite (Monash University's global health group). Queensland DEA students have been integral in organising DEA's seminar 'Health and the Environment', held following the AGM in Brisbane on the 29 September 2013. Students from all other states have participated in numerous activities, which have helped build membership. State committees with university representatives have been encouraged to assist in the coordination of events across campuses and states.

iDEA13 Conference

iDEA13 (convened by DEA students Sarah Cohen and Sandy Simon) was once again a great success. Attended by students and doctors from across the nation and held at the University of Adelaide over the 6 and 7 April 2013. The excellent list of keynote speakers included Dr Bob Brown, Professor David Karoly, Professor Michael Kidd, Associate Professor Grant Blashki, Dr Merryn Redenbach, Dr Peter Tait, Dr Frank Nicklason and Daniel Spencer (Bob Brown Young Environmentalist of the year 2012) from the Australian Youth Climate Coalition (AYCC). A panel of politicians with representatives from all three major political parties shared insights into the effective ways of engaging politicians and numerous interactive workshops were held.

The student AGM and committee elections were held at the end of the conference. Alice McGushin (TAS) was elected as the National DEA student representative. iDEA 2014 will be held in Melbourne over the weekend of 22 and 23 March 2014 with the continued aim to build and expand DEA's annual conference.

Fossil fuel divestment and Code Green Week

This year, DEA students and the AMSA Code Green team joined forces for a national student fossil fuel divestment campaign and to reignite Code Green Week. Together, DEA and AMSA Code Green have worked on encouraging medical students to get involved with

university divestment campaigns at their campuses and sending out letters asking the medical schools to introduce climate change into their curriculums. Medical students are now involved in university divestment campaigns in every state.

Almost 400 medical students work-shopped the concept of fossil fuel divestment at the AMSA Global Health Conference – an event developed and run by Alice McGushin, Tim Martin and AMSA's Steven Parnell.

Students from across the nation were also involved in organising and participating in National Code Green 16-21 September. Events for this week include climate change seminars and forums, film screenings and bike rides to promote healthy transport. The week was launched dramatically in Hobart at the end of the Global Health Conference, with students acting out a hospital scene on the beach to create a visual image of the strains climate change will put on healthcare systems.

Other student activities

Fact & Action meetings have continued nationally www.dea.org.au/resources/category/handouts, with the aim of increasing their frequency over the year as they offer members a good opportunity to learn about an environmental health issue and take action on it. The meetings also tend to attract interested students to DEA.

There have been many more events over the last 12 months with states and universities having the opportunity to act autonomously, running their own individual events, as well as running events that students are involved in at a national level. DEA students also participated in activities organised by other groups, including AYCC's National Day of Action, Bill McKibben's 'Do the Math' tour as well as screenings of the 'Do the Math' film, National Tree Day, the Australian Students Environment Network's Students of Sustainability conference, the AYCC's Power Shift summit.

The DEA Student Committee is also delighted to have initiated the creation of a DEA twitter account @DocsEnvAus.

Parliamentary visits and letters

Briefing visits to state and federal parliamentarians, Ministers and Shadow Ministers remain a key part of our activity. In person we explain the health aspects of environmental, energy and resource policies. We approach each visit strategically with a team of two or three members of DEA including a student member. This team is usually well received. We have also been a part of community groups visiting Ministers to describe pollution issues and have addressed groups of members of parliaments to brief them on particular issues. These activities occur in all states and are too numerous to list.

On issues of great importance to us we have made several mail-outs to brief all federal Members of Parliament and Ministers.

Submissions made to parliamentary committees

DEA has submitted to governments a remarkable body of detailed analysis at a rate of nearly 2 submissions per month. This reflects our increasing expertise on a wide range of issues but also our recognition that these submissions are consulted and cited once on the parliamentary web sites. Not least is the opportunity subsequent to the submission to address a committee of parliamentarians, interact with them directly and answer their questions.

DEA submissions:

Illawarra Coal Seam Gas, Apex Gas Exploration Project Mod 2 www.dea.org.au/images/uploads/submissions/Illawarra Coal Seam Gas 09-12.pdf

A Medical Opinion on the RET Issues Paper www.dea.org.au/images/uploads/submissions/Renewable Energy Target Issues Paper 09-12.pdf

Senate Community Affairs Committee Inquiry into Australia's domestic response to the World Health Organization's (WHO) Commission on Social Determinants of Health report "Closing the gap within a generation"

www.dea.org.au/images/uploads/submissions/Social Determinants of Health 10-12.pdf

Submission on the WA Draft Forest Management Plan 2014-2023 www.dea.org.au/images/uploads/submissions/Submission Draft Forest Management Plan DEA.pdf

Submission to the Regulatory Reform Taskforce, Department of Sustainability, Environment, Water, Population and Communities on the proposed amendments to the EPBC Act

www.dea.org.au/images/uploads/submissions/EPBC Act Submission.pdf

China Stone Coal Project Submission
www.dea.org.au/images/uploads/submissions/China Stone Submission 12-12.pdf

Parliamentary Inquiry into solar thermal power generation at Port Augusta www.dea.org.au/images/uploads/submissions/Solar Thermal Power Generation - Port August 12-12.pdf

Submission to Environment Protection and Biodiversity Conservation Amendment (Retaining Federal Approval Powers) Bill 2012

www.dea.org.au/images/uploads/submissions/Environment Protection and Biodiversity Conservation Amendment 01-13.pdf

Camden Gas Project Stage 3 Northern Expansion
www.dea.org.au/images/uploads/submissions/Camden Gas Project Stage 3 Submission 01-13.pdf

Senate Inquiry for Recent trends in and preparedness for extreme weather events www.dea.org.au/images/uploads/submissions/Extreme Weather Events Submission 01-13.pdf

Submission on the Santos GLNG Gas Field Development Project Draft terms of reference for an environmental impact statement

www.dea.org.au/images/uploads/submissions/Santos GLNG Submission 02-13.pdf

New Acland Coal Mine Stage 3

www.dea.org.au/images/uploads/submissions/New Acland Stage 3 Submission 02-13.pdf
This submission was a joint collaboration between DEA and Economists at Large.

Submission to Carmichael Coal Mine and Rail Project Environmental Impact Statement www.dea.org.au/images/uploads/submissions/Carmichael Coal Mine and Rail Project Submission 02-13.pdf

Submission to the South Australian Department for Health and Ageing South Australian Public Health Plan

www.dea.org.au/images/uploads/submissions/SA Public Health Plan Submission 03-13.pdf

Senate Committee on the impacts on health of air quality in Australia www.dea.org.au/images/uploads/submissions/Impacts on health of air quality in Australia Submission.v1 03-13.pdf

Submission to the Productivity Commission major project development assessment processes

www.dea.org.au/images/uploads/submissions/Major Project Development Assessment Submission 04-13.pdf

Adani – Abbot Point Coal Terminal 0 - EIS

www.dea.org.au/images/uploads/submissions/Adani Abbot Point Coal Terminal 0 Submission 04-13.pdf

EIS - Arrow Energy - Bowen Gas Project

www.dea.org.au/images/uploads/submissions/Bowen Gas Project Submission 04-13.pdf

Waratah Coal's China First Project (Northern Export Facility) SEIS submission www.dea.org.au/images/uploads/submissions/Waratah Coal - China First SEIS Submission 05-13.pdf

Submission to the Review of CSG activities in NSW by the NSW Chief Scientist and Engineer http://dea.org.au/images/uploads/submissions/Review of CSG in NSW - Chief Scientist Submission 05-13.pdf

Climate Change Authority Caps and Targets Review
www.dea.org.au/images/uploads/submissions/Caps and Targets Review Submission 05-13.pdf

Submission on the NSW Planning Review White Paper www.dea.org.au/images/uploads/submissions/NSW Planning Review White Paper submission 06-13.pdf

Draft significant impact guidelines: CSG and large coal mining impacts on water resources www.dea.org.au/images/uploads/submissions/CSG and large coal mining impacts on water resources sub mission 07-13.pdf

Submission to the Productivity Commission into the non-financial barriers to mineral and energy resource exploration

www.dea.org.au/images/uploads/submissions/Productivity Commission Resource Exploration 07-13.pdf

Submission to the NSW State Environmental Planning Policy on Mining, Petroleum Production and Extractive Industries Amendment
www.dea.org.au/images/uploads/submissions/NSW Mining SEPP Submission 08-13 .pdf

NSW EPA draft protection of the Environment Operations Amendment (Native Forest and Bio-material submission

www.dea.org.au/images/uploads/submissions/Native forest bio material submission 08-13.pdf

Media releases

With the majority of Australian press adopting a contrarian view to climate change and related issues it is increasingly difficult to reach the public with facts. Indeed we recognise that we must increasingly consider utilising social media. However in 2012/13 we persisted with the issue of media releases (see below). Generally, the response was poor apart from *The Health Factor* report which generated huge interest around Australia and particularly in rural press and media.

"Doctors Prescribe Bike Riding", 10 October 2012 www.dea.org.au/news/article/media-release-doctors-prescribe-bike-riding

DEA & BZE – "Global coal study highlights serious health risks in the Hunter", 29 October 2012

www.dea.org.au/news/article/global-coal-study-highlights-serious-health-risks-in-the-hunter

DEA & NTN — "Coal Seam Gas Pollution", 15 November 2012 www.dea.org.au/news/article/media-release-dea-ntn-15-11-2012-coal-seam-gas-pollution

"Renewable targets fall short of the mark", 19 December 2012 www.dea.org.au/news/article/media-release-renewable-targets-fall-short-of-the-mark-19-12-12

"Coal seam gas fails on human health", 2 April 2013 www.dea.org.au/news/article/minister blocks opportunity for communities to hear about the health risks

"Bob Brown to inspire future doctors", 5 April 2013 www.dea.org.au/news/article/media-release-bob-brown-to-inspire-future-doctors

"Health cost of climate change", 6 April 2013 www.dea.org.au/news/article/health-cost-of-climate-change

"GP fears for health of gasfield residents", 1 May 2013 www.dea.org.au/news/article/media-release-gp-fears-for-health-of-gasfield-residents

"The Health Factor report - Damning evidence on health impacts of coal & CSG", 22 May 2013

www.dea.org.au/news/article/media-release-damning-evidence-on-health-impacts-of-coal-csg

"Doctors envisage a healthier future for Anglesea", 16 June 2013 www.dea.org.au/news/article/media-release-doctors-envisage-a-healthier-future-for-anglesea

"Climate report shows more deaths from heatwaves", 17 June 2013 www.dea.org.au/news/article/media-release-climate-report-shows-more-deaths-from-heatwaves "Port Augusta denied clean energy", 26 July 2013 www.dea.org.au/news/article/media-release-port-augusta-denied-clean-energy

"Doctors applaud coal funding cut as positive health measure", 29 July 2013 www.dea.org.au/news/article/doctors-applaud-coal-funding-cut-as-positive-health-measure

"Heat related deaths to rise", 1 August 2013 www.dea.org.au/news/article/heat-related-deaths-to-rise

"Proposal to fast track NSW mining carries health risks", 13 August 2013 www.dea.org.au/news/article/media-release-proposal-to-fast-track-nsw-mining-carries-health-risks

Medical Observer and DEA collaboration

DEA's collaboration with Medical Observer (MO) has continued throughout 2012/2013, thanks to the contributions of our DEA authors.

Since 2009, DEA and MO have obtained mutual benefit in an association involving the provision (by DEA) and publication (by MO) of opinion pieces concerning the effects of the environment on human health and related issues.

The liaison has continued to:

- provide regular opinion pieces for Medical Observer for which no payment is accepted
- improve DEA's contact with general practitioners across the nation to increase their awareness of environmental issues affecting the health of their patients

DEA opinion pieces which have been published are:

- Health Impact Justifies Renewable Energy explained that a renewable energy future is justifiable on health grounds alone. Dr George Crisp, 16 October 2012 www.medicalobserver.com.au/news/health-impact-justifies-renewable-energy
- Preparedness is key to extreme weather events sets out that DEA emphasises the need to assess how essential health services will cope in the wake of extreme weather events, to strengthen the primary healthcare sector, and to urgently limit future damage by effective action on climate change. A/Prof Marion Carey, 19 February 2013
 - www.medicalobserver.com.au/news/preparedness-is-key-to-extreme-weather-events
- A Healthy World without Inequality calls for the debate about sustainability to move from a polarised political or narrow economic debate to encompass health and wellbeing taking account of social determinants and the biophysical environment. Dr David King, 30 April 2013
 - www.medicalobserver.com.au/news/a-healthy-world-without-inequality

- Can Young Doctors Save the Planet? highlights that with increasing junior doctor numbers there is a better opportunity than ever before to strengthen our profession's ability to shape public policy towards achieving healthier outcomes by providing training in health advocacy, particularly around climate change health issues. Dr Rohan Church, 25 June 2013
 www.medicalobserver.com.au/news/can-young-doctors-save-the-planet
- Democracy: essential for health and wellbeing called on readers in the lead up to
 the election to consider whose policies are best going to serve equity and fairness
 and thus drive better health, whose will best protect the environment on which we
 depend for our wealth and prosperity, and whose will make a more democratic and
 therefore healthy society. Dr Peter Tait, 13 August 2013
 www.medicalobserver.com.au/news/democracy-essential-for-health-and-wellbeing

All of the DEA opinion pieces have been printed with DEA acknowledged as either the author's affiliation, or the source of the articles together with our web address.

Several DEA members, notably Dr Helen Redmond and Dr George Crisp have made valuable additions to the comments which follow the article on the Medical Observer website.

George Crisp also had letters printed on 17 May 2013 and 19 July 2013 in response to David King's and Rohan Church's articles, and Helen Redmond on 8 March 2013 wrote about *A Doctor's Duty of Care should include the bigger picture*.

MO ran a news article on 5 October 2012 entitled *Doctors fight expansion of Newcastle coal terminal* quoting Dr Linda Selvey and DEA about inadequate monitoring of air pollution.

An Inside Story article on 22 February 2013 entitled *Raging Debate: GPs' fight to lead* featured DEA prominently, quoting Dr David King on the role of GPs in promoting sustainability in the context of the trend of increasing extreme weather events. www.medicalobserver.com.au/news/raging-debate-gps-fight-to-lead

Summary of the Treasurer's Report for the financial year 2012-2013

Our financial position remains stable. The total equity for the year ending June 2013 was \$110,694 (compared to \$124,250 for the previous financial year). The difference was largely due to a considered spending increase to support our expanding activity.

However the cornerstone of our activity and financial viability is our membership base, hence I am pleased to report that the encouraging trend of membership growth last year has continued. Importantly, we are clearly engaging with our student colleagues as their numbers expand. This will lay the base for our future activity as there has been a pleasing transition of student members to full members post-graduation.

The average length of membership of our current postgraduate members is just under 5 years, reflecting the commitment to the vision of DEA. We are indebted to and thank this cohort. We also welcome the new cohort to face the challenges ahead.

Please see the Annual Financial Statement for more details.

Hakan Yaman, Honorary Treasurer

Management Committee 2012-2013

The following committee was elected on September 9, 2012

Professor Kingsley Faulkner - Chair

Professor David Shearman – Secretary

Dr Hakan Yaman – Treasurer

Dr Marion Carey (VIC)

Dr George Crisp (WA)

Dr Eugenie Kayak (VIC)

Dr David King (QLD)

Dr Helen Redmond (NSW)

Dr Linda Selvey (WA)

Dr Peter Tait (ACT)

Aaron Tracey – Student Representative

Dr Dimity Williams (VIC)

Corresponding members:

Rohan Church (TAS)

Jenny Hellsing

Anna Norris (TAS)

Dr Ben Ticehurst (NSW)

Ex-officio:

Joy Oddy - Administration Officer

DEA Scientific Advisory Committee

We are fortunate to have the support of a Scientific Advisory Committee consisting of eminent doctors and scientists and we thank them for their advice and contributions throughout the year.

The members of this committee are:

Professor Stephen Boyden AM

Professor Peter Doherty AC

Professor Bob Douglas AO

Professor Michael Kidd AM

Professor David de Kretser AC

Professor Stephen Leeder AO

Professor Ian Lowe AO

Professor Robyn McDermott

Professor Tony McMichael AO

Professor Peter Newman

Professor Emeritus Sir Gustav Nossal AC

Professor Hugh Possingham

Professor Lawrie Powell AC

Professor Fiona Stanley AC

Dr Rosemary Stanton OAM

Dr Norman Swan

Professor David Yencken AO

Thank you to our many contributors

A huge thank you to the many people who make Doctors for the Environment Australia what we are today.

Without the generosity of our many volunteers including; members, non-members, our ever energetic students and our hard working committees, donating their time, energy and expertise writing submissions, giving media interviews, talks and lectures we would not be able to accomplish the amount we do.

Again, we must thank our Accountant, Cameron Batterham and IT advisor, Mark White for another year of help and support.

We thank everyone who has supported us with financial donations and remind you that tax deductible donations can be made via our website www.dea.org.au.

Publications

Blashki G. *DEA – DOCS ON BIKES*, YouTube Clip, October, 2012 www.youtube.com/watch?v=CFRgkltv0zA

Carey M. *Rethinking climate change action*, WME Magazine, September 2012 www.monash.edu/research/sustainability-institute/assets/documents/carey-wme-1209-au-014.pdf

Carey M. *Air pollution from coal seam gas may put public health at risk*, The Conversation, 20 November 2012

www.theconversation.edu.au/air-pollution-from-coal-seam-gas-may-put-public-health-at-risk-10819

Carey M. *Preparedness is key to extreme weather events*, Medical Observer, 19 February 2013

www.medicalobserver.com.au/news/preparedness-is-key-to-extreme-weather-events

Carey M. We need to do our homework on the health risks of coal seam gas, The Conversation, 2 April 2013

www.theconversation.com/we-need-to-do-our-homework-on-the-health-risks-of-coal-seam-gas-13173

Carey M. Self interest: a sound reason for protecting our biological life support systems, Crikey, 11 June 2013

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Church R. *Can young doctors save the planet?*, Medical Observer, 25 June 2013 www.medicalobserver.com.au/news/can-young-doctors-save-the-planet

Crisp G. *Fear of Fracking*, Medical Observer Interview on unconventional gas, 2 October 2012

www.medicalobserver.com.au/news/fear-of-fracking

Crisp G. *Health impact justifies renewable energy*, Medical Observer, 16 October 2012 www.medicalobserver.com.au/news/health-impact-justifies-renewable-energy

Crisp G. *Doctors looking upstream*, Medical Forum, 1 June 2013 www.medicalhub.com.au/wa-news/guest-opinion-editorial/4035-doctors-looking-upstream

Jennens H. *Stepping Up*, AMSA magazine Panacea, Ed. 1, 2013 www.dea.org.au/news/article/stepping-up

King D. *A Healthy World without Inequality*, Medical Observer, 30 April 2013 www.medicalobserver.com.au/news/a-healthy-world-without-inequality

Redmond H. *A Doctor's Duty of Care should include the bigger picture*, Medical Observer, 8 March 2013

Selvey L A, Carey M G. *Australia's dietary guidelines and the environmental impact of food "from paddock to plate"*. Med J Aust 2013; 198 (1): 18-19.

 $\underline{www.mja.com.au/journal/2013/198/1/australia-s-dietary-guidelines-and-environmental-impact-food-paddock-plate}$

Senior T. *Big Coal makes essential reading for politicians*, Crikey, 8 August, 2013 http://blogs.crikey.com.au/croakey/2013/08/08/big-coal-makes-essential-reading-for-politicians/

Shearman D. *Diagnosing the health risks of unconventional gas*, Renew Economy, 28 November 2012

www.reneweconomy.com.au/2012/dealing-with-the-health-risks-of-unconventional-gas-99242

Shearman D. D*ealing with the health risks of unconventional gas*, The Conversation, 28 November 2012

http://theconversation.com/dealing-with-the-health-risks-of-unconventional-gas-10987

Shearman D. *Moylan's anti-coal message is an international one*, The Conversation, 10 January 2013

www.theconversation.com/moylans-anti-coal-message-is-an-international-one-11515

Shearman D. *Coal's hidden costs make solar a bargain*, Climate Spectator 20 February 2013 www.businessspectator.com.au/article/2013/2/20/policy-politics/coals-hidden-costs-make-solar-bargain

Shearman D. The climate "tide" is still rising, British Medical Journal, 25 March 2013 http://blogs.bmj.com/bmj/2013/03/25/david-shearman-the-climate-tide-is-still-rising/

Shearman D. A letter to ARENA and Alinta: Why dump Port Augusta solar?, Renew Economy, 29 July 2013

www.reneweconomy.com.au/2013/a-letter-to-arena-and-alinta-why-dump-port-augusta-solar-72228

Tait P. *Democracy: essential for health and wellbeing*, Medical Observer, 13 August 2013 www.medicalobserver.com.au/news/democracy-essential-for-health-and-wellbeing

West H. *Lake Pedder*, APHRA Magazine, August 2013 www.aphramag.com/#!lake-pedder/coo2

Williams D. *Survival is at stake* - on climate change, letter to The Age, 28 August 2013 www.theage.com.au/comment/the-age-letters/fog-of-election-campaign-hides-terrible-decisions-20130827-2soah.html

Williams D. Vital Life Support Systems, letter to The Age, 21 Aug 2013 www.theage.com.au/comment/the-age-letters/another-progressive-idea-from-the-coalition-20130820-2s9dq.html

Conferences, talks and lectures

Blashki G. *Understanding Climate Change – Science and Impacts* AYCC Power Shift Summit, Melbourne, 13 July 2013

Carey M. Workshop convenor/presenter: *Exploring the Health implications of Energy Choices*. Population Health Congress Adelaide, 10-12 September 2012.

Carey M. Presentation on unconventional gas to Lyceum Club, 13 November 2012

Carey M. Community Reference Committee Meeting, EPA (VIC), 5 March & 18 June 2013

Carey M. Presentation at Anglesea on health impacts of coal and air pollution, 16 June 2013

Church R. *Recycling in hospitals*, Tasmanian Health Organisation - North West, via teleconference, 11 July 2013

Crisp G. Climate change: health impacts, Edith Cowan University, 22 November 2012

Crisp G. *Health benefits of urban trees and green spaces*, briefing to Subiaco Council, 11 December 2012

Crisp G. Health risks from fracking Public Lecture, Fremantle, 14 December 2012

Crisp G. Climate change: health impacts, CUSP, Curtin University, 17 April 2013

Crisp G. Climate change and health, Curtin University, 14 May 2013

Crisp G. *Health risks from Fracking* Public Lecture, Earthwise, Subiaco, 4 July 2013

Crisp G. *Health impacts of diesel particulate air pollution*, Fremantle Road to Rail Forum, 17 August 2013

Ewald B. *Epidemiology of the harmful effects of chronic exposure to PM*_{2.5}, Community Air Forum, March 2013

Horton G. *Climate Change Health and Advocacy* lecture to undergraduate allied health students, University of Newcastle, 22 October 2012

Horton G. *Climate Change Health and Advocacy* iLEAD Skill-Building Lecture, International Leadership Experience and Development Program, University of Newcastle, 16 May 2013

Kayak E, McGain F, Kotteck W. *Addressing our environmental impact at work*, PBL ANZCA ASM, Melbourne, 4 May 2013

Kayak E. Environmental Advocacy and the Anaesthetist ANZCA ASM, 7 May 2013

Kayak E. *Anaesthetists and the Environment* Brisbane Anaesthetic Group, Red Hill, 11 May 2013

King D. *The next 30 years: challenges ahead in a changing world*, University of Qld MBBS Class of 1982 reunion conference, 15 September 2012

King D. *Global Health and the environment*, Global health symposium, MBBS II University of Queensland, 7 Aug 2013

Knoesen R. CSG and Health, Wellington Awareness Group, 3 September 2012

Knoesen R and McCubbin J. *CSG Health Concerns*, Wellington Shire Council Meeting, 20 November 2012

Knoesen R and Redenbach M. CSG Health Concerns, Seaspray Public meeting, 11 May 2013

Loftus M. *DEA* Creating Healthy Sustainable Societies Conference, MSSI, Melbourne, 22 November 2012

Maxwell J. Climate and Health, Peter James Centre, Eastern Health, 1 September 2012

Maxwell J. *Climate, Health and Hospitals,* Warrandyte Climate Action Network, Vic, 24 October 2012

McCubbin J. CSG Health Concerns, Darnum CSG Meeting, 5 April 2013

McCubbin J, McKinnon K, Strasser B. *Health and Environmental Sustainability*, Monash Gippsland Medical Students, 24 May 2013

McCubbin J. Health Effects of CSG, Mirboo North Public Meeting, 23 June 2013

Morahan J. Clean Air for Our Coast, Anglesea Public Meeting, 21 July 2013

Pearson K. *Health Impacts of Climate Change*, AYCC National Day of Action Rally, Melbourne, 11 May 2013

Redenbach M. Health Concerns with Coal Seam Gas, Poowong, 28 September 2012

Redenbach M. Coal Dust and Health, Mackay Public Meeting, 27 February 2013

Redenbach M. Coal Dust and Health, Alligator Creek Public Meeting, 28 February 2013

Redenbach M. *Coal Dust and Health*, Grand Round, Mackay Hospital Public Meeting, 1 March 2013.

Redenbach M. *Fossil Fuels and Health* Plenary, National Coal and Gas Gathering, Kurri Kurri, 19 May 2013

Redenbach M. "ealth Concerns with Coal Seam Gas, Newry, 19 June 2013

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