

Report on Climate, Health & Well-being
Online Discussion Forum
Climate and Health Alliance

December 2016

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Executive Summary

The Climate, Health and Well-being Online Discussion Forum was held over a nine-day period (13-21st August 2016) via the paxrepublic.com platform. It offered participants the opportunity to come together to discuss the ideas proposed in the Discussion Paper: Towards a National Strategy on Climate, Health and Well-being for Australia.

The Online Forum had 118 registrations with 42 active participants. The questions posed in the Forum to prompt conversation included:

- What should the federal government be doing to protect and promote people's health in the context of climate mitigation (i.e. through strategies to prevent further climate change)?
- What's needed in the National Strategy to identify and protect vulnerable communities from climate change?
- What policies do we need to drive the low carbon transition in the health sector in ways that optimise and promote health and well-being?
- What are the key elements of a National Strategy on Climate, Health and Well-being?
- Are the key themes identified in the Discussion Paper the right ones?
- What do we need to do to make a National Strategy on Climate, Health and Well-being a reality?

The key themes emerging from the discussion were:

Leadership

Participants were in consensus that the federal government needs to provide leadership across climate change and health and take action urgently to protect and promote people's health. They noted political will and bipartisan support will be essential to securing and maintaining the necessary governance, funding, policy, infrastructure and resources required long term, to address climate change and associated impacts on the health and wellbeing of the community.

Governance

The need for leadership and coordination at the federal level was argued, with governance arrangements independent of any single agency. This was seen as necessary to facilitate the necessary partnerships for a whole of government approach resulting in shared action, research, participation and responsibility across multiple levels, sectors and jurisdictions.

Legislation

Legislation was raised by participants, in particular the lack of it at the federal and local government level for coordinated and effective action on climate change. Legislation that protects and enhances people's health and wellbeing was advocated, noting some legislation may have the reverse effect.

Funding and infrastructure

Funding was raised frequently in the discussion, related to governance, leadership, research, initiatives and campaigns. The negative impact of reduced funding at the federal level in environmental health was noted, with consequent diminished capacity, coordination and leadership on climate change action. Participants called for an immediate stop to

government subsidies to the fossil fuel industry, a reinvestment of these resources to climate change mitigation strategies and the ultimate phasing out of fossil fuels extraction and production.

National strategy or framework

Participants discussed the need for a national strategy or framework to provide a clear roadmap or plan of action detailing the policies, actions, timelines, targets and responsibilities required at multiple levels and sectors of government to achieve zero net emissions in Australia to maximise positive health outcomes. The urgency in doing so was highlighted, with evidence of a short window of opportunity in which to reduce emissions and avoid pervasive health impacts and catastrophic and irreversible climate change. They noted the need for consistency across sectors to demonstrate a clear national picture of action and progress, and within this, locally relevant resources and information.

Research

The need for research was raised by many participants throughout the forum including:

- surveillance, monitoring and assessment of appropriate indicators to track progress towards the overall target for emissions reduction, enhance preparedness and inform long-term decisions on policy, infrastructure and utilities
- climate-health impact assessments to inform policy development and mitigation strategies, with a focus on vulnerable communities
- research demonstrating the health, economic and environmental benefits of climate change mitigation strategies
- translational research with collaboration between researchers and practitioners from multiple sectors.

Policy

Participants recommended the development of policies across multiple levels and sectors of government that support energy-efficient technology and innovation and changes in attitudes, social norms and behaviours. Policies for sustainable food systems and healthcare, in particular carbon neutral policies were frequently discussed. Applying a climate and health lens to all government policies was recommended. National standards for healthcare procurement that mandate ethical and low carbon purchasing were called for, resulting in collective savings and power of purchasing.

Advocacy

Advocacy was frequently discussed, to empower the community, health professionals, decision makers and politicians to change social norms, create a powerful social movement advocating for climate action and a social license for politicians and policy makers to address climate change. They recommended advocacy efforts change the rhetoric around the impacts of climate change on the environment, to a broader focus on the predicted impacts on the economy, health, social and spiritual wellbeing, quality of life and standard of living.

Education, training and skill development

The need to increase the climate literacy of the community, health professionals, policy makers and politicians was argued. Incorporating education of climate and health in existing health professional training was recommended, including conferences and university training. They also suggested advocacy training for health professionals to empower them to advocate for carbon neutral policies, initiatives and to raise the profile of sustainable health care. Transitional skill development for those working in the fossil fuel industry was also recommended to form part of mitigation strategies.

Learning from experience

Participants discussed the need to draw on the information, tools and evidence, including examples of good practice, case studies and existing guidelines and tools. The opportunity to learn from international experience was discussed, often referencing the US Centers for Disease Control Climate and Health Program which has had success through informing surveillance, enhancing preparedness and building capacity of state and local health departments to contribute to long-term planning decisions.

Drawing on the strengths and experiences of health professionals was raised, with reference to public health successes in tobacco and communicable diseases efforts in Australia. The differences between these efforts and climate change efforts in Australia that could account for the comparative lack of success in tackling climate change were raised including funding, governance, legislation and a systems thinking approach.

The contributions to this Online Discussion Forum, along with responses to the Online Survey accompanying the Discussion Paper: Towards a National Strategy on Climate, Health and Well-being for Australia, and a Report from the Health Leaders Roundtable held in October 2016 will be reflected in a Final Consultation Report in 2017.

The results of this consultation, including the inputs described above, will be used to inform the development of a framework for a National Strategy on Climate, Health and Well-being for Australia in 2017. This framework, developed in consultation with a collaborative network of health organisations, will be presented to federal parliamentarians in 2017, and their support sought for its further development and implementation.

Introduction

In August 2016, CAHA hosted an online virtual conference to discuss the key elements and priorities for a National Strategy on Climate, Health and Wellbeing for Australia. The Forum was facilitated by the paxrepublic.com platform, which uses interactive technology to connect people and ideas across geographic boundaries. It was held over a nine-day period, from 13-21 August 2016, and participants were able to engage in the Forum at any time, and as many times as they wished, during this period.

The Forum provided participants with the opportunity to engage with colleagues and experts in the field. Six questions were posed to stimulate and direct the discussion. The discussion areas included: the role of the federal government in climate change and health, policies to protect vulnerable communities from climate change, how to drive the low-carbon transition within the health sector, key elements of a National Strategy, and advocacy for the Strategy.

In this report, the results, summaries of the six discussion threads and the evaluation are described, and then the Next Steps for the second phase of the campaign are identified.

Methodology

A total of 488 people and organisations were invited to take part in the discussion. Access was restricted to those invited or who requested access via a subscription link.

The period of discussion was from Saturday 13 to Sunday 21st August 2016 and participants were able to join the online conversation at any time over that period.

The following resources were made available to the participants:

- Towards a National Strategy on Climate, Health and Well-being for Australia: Discussion Paper – available at <http://www.caha.org.au/national-strategy-climate-health-wellbeing>
- A link to the Online Survey (now closed) via <https://www.surveymonkey.com/r/T6WN5VJ>
- A video from the 2015 Lancet Commission on Health and Climate: 'How can we transform climate change from a threat to an opportunity to improve global health?', available at <https://www.youtube.com/watch?v=sWhoe9xTC4A>

Facilitation and participants' interactions ensured a diversity of views were aired on the issues of importance to the participants across the consultation period.

- What do we need to do to make a National Strategy on Climate, Health and Well-being a reality?

The following questions were posted on 19th August:

- What should the federal government be doing to protect and promote people's health in the context of climate mitigation (i.e. through strategies to prevent further climate change)?
- What's needed in the National Strategy to identify and protect vulnerable communities from climate change?
- What policies do we need to drive the low carbon transition in the health sector in ways that optimise and promote health and well-being?

The following content provides a summary of the ensuing discussion.

Discussion thread 1: What should the federal government be doing to protect and promote people's health in the context of climate mitigation (i.e. through strategies to prevent further climate change)?

Human health and the health sector have been afforded little consideration in the development of climate policies in Australia. However, climate mitigation policies can result in substantial health co-benefits and considerable cost savings. What strategies, programs and policies need to be included in the National Strategy to both protect health from climate change AND optimise the health benefits associated with initiatives to reduce emissions?

Summary

There was consensus among participants that the federal government needs to provide leadership across climate change and health and take action urgently to protect and promote people's health. They noted that political will and bipartisan support will be essential to securing and maintaining the necessary governance, funding, policy, infrastructure and resources required to address climate change and the associated impacts on the health and wellbeing of the community. They emphasised the need for governance arrangements to be independent and to formalise a whole of government approach, with shared responsibility across multiple levels, sectors and jurisdictions.

Establishment of an Independent Authority must be established - Independent of Government - but reporting to Aus Health Ministers Advisory Council. Bipartisan support is a fundamental necessity for this... needs also to formalize cross jurisdictional - multi -government approach - Fed / State & Local - as well as interdisciplinary - involving multi-portfolios.

[Climate and health researcher, p7]

Can this Federal health leadership vacuum across climate change (and environmental health) be overcome? Obviously it can be given the political will - and it must be. But surviving over time is key... For this [independent authority that reports to AHMAC] to occur and to survive over the timeframes required for sustained and effective action, I absolutely agree that it would require bipartisan support. Look what happened to the Australian National Preventive Health Agency, Australia's most promising public health development in years: politically targeted and undone in a flash by the incoming Abbott government (despite the legislated basis for ANPHA).

[Former Chief Health Officer, p17]

Many discussed the need for a federal department or portfolio to address climate change and health, referring to international examples which have shown success, including the Centre for Disease Control's Climate and Health Program which has informed surveillance, enhanced preparedness and built capacity of state and local health departments to contribute to long-term planning decisions:

The Centers for Disease Control and Prevention established a Climate and Health Program in 2010 and their activities are showing success in readying State and Local Health Departments to better understand and tackle the issues on the ground...I

think there is opportunity for a national health body to lead and support similar action that could occur at state and local levels in Australia.

[Climate change and health policy expert, p9]

When I think through the countries that stand out as exemplars in bringing health and climate change together, they all seem to have a) health people employed in their environment/climate change ministry and b) a health and climate change person in their health ministry (which is harder to do). They seem to be a first (essential) step in bringing together other parts of government in to the same room around a few common agendas.

[Climate and health researcher and policy advocate, p11]

Some participants called for leadership and coordination at the federal level from the Department of Health.

...recognise that Climate change is a national threat - and therefore warrants Commonwealth responsibility, NOT delegating to the States & Territories - as part of their own self-funded Environmental Health responsibilities. Therefore DOHA need to step up to the plate and be actively involved.

[Climate and health researcher, p6]

...the Department of Health sees itself as having virtually no obligatory (legislated) or operational role in environmental health... Somehow, climate change and other 'writ large' consequences of ecosystem degradation conveniently fall outside of scope, and Environmental Health is seen as solely a state and territory role, to be carried out in conjunction with local government.

[Former Chief Health Officer, p17-18]

Funding was raised frequently in the discussion, related to governance, leadership, research, initiatives and campaigns. One participant noted the negative impact on addressing climate change of decreased funding and consequent diminished capacity, coordination and leadership in environmental health within the federal government.

New and ongoing (not re-badged!) Commonwealth funding – probably administered by the Department of Health across several government agencies to tie together the strands and reporting requirements of a national strategy - would be another pre-requisite if Health is to take the lead.

[Former Chief Health Officer, p17-18]

Participants discussed the need for a national strategy or framework to provide a clear roadmap or plan of action detailing the policies, actions, timelines, targets and responsibilities required at multiple levels and sectors of government to achieve zero net emissions in Australia and maximise health outcomes. The urgency in doing so was highlighted, with evidence of a short window of opportunity in which to reduce emissions and avoid pervasive health impacts and catastrophic and irreversible climate change.

But I'm not convinced that we will get to zero net emissions by 2030, 2040 or 2050 if we don't have a...roadmap to get from here to there... what I want to have some confidence about is that our business will deliver what we want to achieve rather

than just make us feel good and move us towards where we want to be. 'Towards' isn't good enough.

[Public health physician, p19]

The work of the Global Carbon Budget project helps illustrate the urgency - it shows we must actually peak and begin to decline emissions almost immediately.

[Climate change and health policy advocate, p21]

The need for research was raised by many participants including: surveillance, monitoring and assessment of appropriate indicators to track progress towards the overall target for emissions reduction, enhance preparedness and inform long-term decisions on policy, infrastructure and utilities; and research demonstrating the health, economic and environmental benefits of climate change mitigation strategies.

The health challenges facing Australia - whilst shared elsewhere - are unique in the degree, intensity, timing of onset, geographical spread, most of which will be contextual to the local community under threat...we need downscaled research into likely health issues, impacts when communities are confronted by multiple insults - and to design, test and evaluate adaptation strategies & resilience building.

[Climate and health researcher, p6]

Participants identified the need to broaden the focus on climate change to include not only environmental impacts but also health, social and economic impacts. Increasing knowledge and raising awareness about the predicted effects of climate change was frequently discussed and referred to the impact on the economy, health, social and spiritual wellbeing, quality of life and standard of living.

"I think any discussion about health and environment is incomplete without recognising the impact of climate change on the loss of people's sense of belonging to a healthy planet (i.e. wellbeing). It transcends cost savings. We currently don't have a way of including spiritual wellbeing otherwise known as 'wellbeing' (as opposed to physical and mental health) in policy and practice but I think we need to find a way to do this otherwise we are missing a large chunk of the health equation.

[Health promotion practitioner, p15]

...climate deniers seem irrelevant when what we are proposing is a better quality of life and standard of living, that also happens to benefit the environment.

[Registered nurse, p20]

Education and advocacy campaigns were frequently discussed: to inform and engage the community, health professionals, decision-makers and politicians; to change social norms; and create a powerful social movement advocating for climate action.

What is needed is a powerful social movement of health professionals that will make inaction by governments untenable.

[Climate change and health policy advocate, p21]

The hospital needs...clear proof given to them that being sustainable also means saving money

[Registered nurse, p12]

It is therefore imperative that health professionals receive the necessary education that will empower them to make the links between climate change and the impact on health. A useful platform could be to utilise the social determinants of health such as transport, land use, agriculture, energy and housing.

[Former health service executive, p12]

Participants referred to public health successes in tobacco and communicable diseases efforts and explored the differences between these efforts and climate change efforts in Australia that could account for the comparative lack of success in tackling climate change. Funding, governance and legislation were discussed. They inferred it will be important to apply learnings from these efforts and draw on the experience and strengths of health professionals, particularly in terms of passion, commitment, coordination and understanding of behaviour change.

I think that the most important thing that health professionals bring to climate change discussions is our understanding of behaviour change...What an irony that Australia has been a global leader in ending the tobacco epidemic but performed so miserably around climate change. Why might this be? And how can we use our expertise in reducing smoking rates, to change everything (policies, guiding principles, expectations and behaviours) around climate change.

[GP and public health physician, p19]

Participants recommended the development of policies across multiple levels and sectors of government that support energy-efficient technology and innovation and changes in attitudes, social norms and behaviours. One participant noted the impact of mitigation policies and strategies on the health and wellbeing of the community should be considered.

Educating and increasing knowledge of health professionals is one piece of the puzzle and a positive step, but there also needs to be other things in place like supportive national policies and frameworks to support this and provide leverage for health professionals to incorporate climate change into their 'core business'.

[Dietician, p14]

One of the most commonly thrown up objections to change is threat of job loss, so an appropriately robust plan that builds on transferable skills to mitigate in this regard is a must. In creating change, if we are focussing on the health aspect, let us not forget that there is a significant mental health threat where job insecurity is an issue. We need to watch that policies don't create more problems where that can be avoided.

[Registered nurse, p10]

The food system was frequently raised, with respect to reducing emissions from agriculture and the impact of climate change on food security at the local and national level. Funding and commitment in this area for research, policy, technology and incentives for farmers were advocated.

There is an urgent need to more fully understand the food systems that help to promote sustainability, which requires research dollars. There is a clear need for agriculture to reduce its reliance on fossil fuels...These are big issues that need to be addressed through government incentives for farmers to be environmental stewards of the land they use for food production.

[Dietician, p10]

The health benefits associated with initiatives to reduce emissions can be demonstrated in food system policies and initiatives linking specifically to preventative health...Framework activities that could be commenced with a very short lead time could include establishment of dedicated programs to address the means to reducing emissions from agriculture, including community education around meat and dairy consumption impacts, support for agroecological farming plus significant support for the multitude of initiatives underway at the community level to support local food economies and to increase food security in Australia.

[Sustainable food expert, p20]

Many noted the need for hospitals, significant contributors to greenhouse gas emissions, to become carbon neutral through policy and advocacy efforts. Raising the profile of sustainable health care was recommended through lobbying and recognition of hospital initiatives.

...the hospital sector must do more, especially in states like NSW. Perhaps we need to lobby NSW Health or apply for an Innovation Award which would get our message out that sustainable health care is the way to go - not only does it reduce greenhouse gases but it also saves hospitals money...I am recommending that we forge ahead with the Global Green and Healthy Hospital's approach - its 10 goals that are so relevant to sustainable health care.

[Nursing policy and professional standards officer, p11]

...I am seeing a lot of people start with great ideas and motivation on the floor only to be beaten down by red tape and lack of hospital support. The hospital says they would like to support us but have no funding and more important priorities...If we could have government targets for emissions, waste and transport set with ramifications if they are not met, and funding to achieve those aims it could force massive change all the way down to us 'groundswellers'.

[Registered nurse, p12]

Participants demanded greater transparency from government about subsidies provided to the fossil fuel industry and other harmful industries, with a plan to transition away from this as soon as possible. They advocated for government subsidies for energy efficient and low carbon industry.

I would like the state and federal Governments to provide greater transparency and take greater responsibility for spending tax payers money on subsidising fossil fuel and unconventional gas corporations, the big four banks and all of the other irresponsible excess and provide an immediate plan for the transition away from these harmful industries. Another strategy might be to subsidise energy efficient, low carbon footprint industries making consumables more affordable.

[Registered nurse, p20]

Discussion

Comment by [public health physician]

The Federal Govt. should demonstrate its total commitment to limiting global warming to well under 2C by developing a clear program (policies, actions, timelines, targets, responsibilities, etc) to eliminate all Australia's greenhouse gas emissions by 2050 at the latest ('all' includes the greenhouse gases we produce within Australia and those produced by fossil fuels that we mine and export; it also includes those often not included in measurement of greenhouse gases - eg those attributable to the armed forces and international travel and freight).

Comment by [climate change and health policy advocate]

Hi [], thanks for commenting. I'd like to challenge you on the 2050 timeframe you have referred to here. What about the fact that scientists say we have only a very short window of time in which to reduce emissions if we are to avoid catastrophic and irreversible climate change? A study by Thomas Frolicker et al in 2013 (see <http://www.climatechangenews.com/2013/11/28/global-warming-hard-to-reverse-say-scientists/>) suggests that even if we cut emissions to zero right now, warming will continue. The work of the Global Carbon Budget project helps illustrate the urgency - it shows we must actually peak and begin to decline emissions almost immediately (see this image from their latest report:

http://www.globalcarbonproject.org/carbonbudget/15/files/Infographic_Emissions2015.jpg). So given that the current level of warming is already dangerous for many human societies and is wiping out other species, we need to be talking about much tighter timeframes than 2050, surely?

Comment by [doctor, climate change and health activist]

As I understand it the Climate Change Authority has recommended 45-65% emissions reduction targets by 2030 on 2005 levels, so I reckon we should campaign for the upper limit of this: 65% cuts on 2005 levels by 2030.

Comment by [climate and health researcher]

A myriad of things are urgently required.

A) reinstate research funding. The health challenges facing Australia - whilst shared elsewhere - are unique in the degree, intensity, timing of onset, geographical spread most of which will be contextual to the local community under threat - such as their "natural climate", their geo-physical (eg risk of flooding /fire/drought/ SLR) as well as socioeconomic characteristics, in addition to the regional economy base - eg agriculture / tourism. SO we need downscaled research into likely health issues, impacts when communities are confronted m by multiple insults - and to design, test and evaluate adaptation strategies & resilience building

B) adopt the recommendations in the CAHA Discussion Paper - Towards a National Strategy on Climate, Health and Well being)

C) recognize that Climate change is a national threat - and theresp0fer warrants Commonwealth responsibility, NOT delegating to the States & Territories - as part of

their own = self funded Environmental Health responsibilities. Therefore DOHA need to step up to the plate and be actively involved. Establishment of an Independent Authority must be established - Independent of Government - but reporting to Aus Health Ministers Advisory Council. Bipartisan support is a fundamental necessity for this. The terms of reference needs to include production of a regular assessment report on progress - akin to the State of the Environment report. Appropriate indicators must feed into this for the purpose of tracking. A Commissioner Role ought also be considered.

D) The governance arrangements of Climate & Health - such as the Authority - needs also to formalize cross jurisdictional - multi -government approach - Fed / State & Local - as well as interdisciplinary - involving multi-portfolios.

...

and many more activities are required by the Federal Government
I'll send more later in the On line conference

Comment by [paediatrician]

Sell the benefits to the more sceptical, and we also need a credible tool for measuring success in the short, medium and long term. If petrol/gas/ diesel were taxed more and more journeys were made under person power, we need to be able to measure the health costs avoided, mental health and well being benefits "saved" as well as countering the inevitable howls of expenses. It would also help push electric vehicles but we may still need some diesel for a bit till we have good enough non-fossil agricultural machinery...other than oxen/ bullocks, which burp!

We should also be getting Climate thinking into our Primary Health Networks (ex Medicare Locals)

Comment by [climate change and health lecturer]

As the top line defence is emission reduction, one question is how do our governments withdraw from long term fossil fuel supply contracts and other trade deals that have been signed in 'good faith'? it seems we'll need international legal changes, and stronger legal protections for people's health and wellbeing.

These are upstream considerations but Australia probably needs to be advocating for these legal reforms, and supporting proposed reforms like the law of ecocide being championed through the UN by lawyer Polly Higgins.

On the other hand, the govt needs to get active to avoid legal challenges itself, brought by citizens who have been left increasingly vulnerable to climate impacts eg as is happening with some success in parts of the US where young people have won some cases where they alleged unsatisfactory climate action.

Comment by [climate and health researcher and policy advocate]

I don't know nearly enough as I should about the response pathways in Australia, so I can only really comment in a generic sense. But there does have to be a balance between giving the issue the urgency it demands (ie. going as fast as we can), and balancing that out with other health priorities and ensuring we don't lose support for strong climate action 3 years down the road because it hurts too much. But I couldn't tell you where that leaves Australia's NEP.

You can see this in AR5 WG3's (and hopefully, soon, the SR1.5) exploration of what a 1.5 degree target would entail. But it's essentially one of three things that get you there: a substantial increase in global nuclear energy capacity; rapid deployment of CCS; or BECCS at a continental scale. Those options are either very unlikely or potentially very dangerous for health.

Comment by [academic general practitioner]

Better facilities for active transport and better public transport would help. We need to commission and publicize reports of the costly externalities of fossil fuel based transport system. eg. Air pollutions, lost productivity, obesity, car accidents etc.

We need to be "for" public transport infrastructure spending for the benefit of jobs, health and the environment, rather than being seen as most often against coal jobs and industry.

Comment by [climate change and health policy expert]

One of the commitments that I'd like to see from the Federal Government would be to mirror the success in the USA of supporting climate change adaptation programs specifically focused on public health. The Centers for Disease Control and Prevention established a Climate and Health Program in 2010 and their activities are showing success in readying State and Local Health Departments to better understand and tackle the issues on the ground. Participating health departments are benefiting from new sources of information in the form of climate models. They are also gaining a better understanding of complex exposure pathways and how these are likely to be affected which is informing surveillance and enhancing preparedness. Health departments are building their capabilities to use these models and better predict how health threats and opportunities will change over time. In the US this is also translating into opportunities to engage in long term decisions on important matters like placement of utilities and infrastructure, and health departments are bringing new information and insight into the deliberations. I think there is opportunity for a national health body to lead and support similar action that could occur at state and local levels in Australia.

Comment by [dietician]

One of the major areas where climate change will have an impact is on food security at household and national levels. There is an urgent need to more fully understand the food systems that help to promote sustainability, which requires research dollars. There is a clear need for agriculture to reduce its reliance on fossil fuels, but our current methods of agriculture are fossil fuel intensive. The cost of food does not include the environmental costs of the industrialised food system, yet consumers seek cheaper food. We need to be aiming for affordable, healthy food. These are big issues that need to be addressed through government incentives for farmers to be environmental stewards of the land they use for food production.

Comment by [registered nurse]

Wouldn't it be wonderful if the full extent of counter-information by companies protecting profit margins could be acknowledged? Instantaneous obstacle removal right

there...However - what we need is policies that reflect the reality of impact around such things as mining in particular. One of the most commonly thrown up objections to change is threat of job loss, so an appropriately robust plan that builds on transferable skills to mitigate in this regard is a must. In creating change, if we are focussing on the health aspect, let us not forget that there is a significant mental health threat where job insecurity is an issue. We need to watch that policies don't create more problems where that can be avoided. There is an opportunity to potentially sell jobs with a better health prognosis than exposure to coal mine dust!.

Fracking needs to end. There is not one good thing about it. It is sooo destructive in so many ways. Is it possible to educate those in power about how plants communicate underground, I wonder? I don't know how to talk about this without also talking about Systems Thinking. Nothing operates in isolation and we are so interdependent on our environment. The whole way in which policy thinking is done needs to shift.

Comment by [nursing policy and professional standards officer]

Great comments from those who have contributed - thank you! I represent the New South Wales Nurses and Midwives' Association and as our members work in more than 220 Public Hospitals across NSW we must work towards reducing their large green house gas emissions. Whilst we have many fronts to work on - ie. food security, public transport, reducing coal-fired power station emissions through the increase in renewable technologies and more; those of us who work "in health" ie. the hospital sector must do more, especially in states like NSW. Perhaps we need to lobby NSW Health or apply for an Innovation Award which would get our message out that sustainable health care is the way to go - not only does it reduce green house gases but it also saves hospitals money. Of course I am recommending that we forge ahead with the Global Green and Healthy Hospital's approach - its 10 goals that are so relevant to sustainable health care. This is what it's about for the Public Hospital Sector who are amazing contributors to green house gas emissions.

Comment by [climate and health researcher and policy advocate]

Perhaps a fairly simplistic suggestion (and they may indeed have someone in place already), but a useful first step would be to create a role for a full-time health and climate change focal point within DoH.

When I think through the countries that stand out as exemplars in bringing health and climate change together, they all seem to have a) health people employed in their environment/climate change ministry and b) a health and climate change person in their health ministry (which is harder to do).

They seem to be a first (essential) step in bringing together other parts of government in to the same room around a few common agendas.

Comment by [registered nurse]

Not a strategist, more of a groundswell nurse on the floor plugging away at daily initiatives person. But I am seeing a lot of people start with great ideas and motivation on the floor only to be beaten down by red tape and lack of hospital support. The

hospital says they would like to support us but have no funding and more important priorities. The hospital needs federal funding for these initiatives and clear proof given to them that being sustainable also means saving money. If we could have government targets for emissions, waste and transport set with ramifications if they are not met, and funding to achieve those aims it could force massive change all the way down to us 'groundswellers'.

Comment by [former health service executive]

One of the fundamental issues we face is that many health professionals lack knowledge of climate change and its impact on health and those that are aware may not be willing to speak out due to the impact it may have on organisational budgets, or even jobs. Those in power seem to disavow climate change and in many cases control the finances of the very facilities the health professionals are employed by.

It is therefore imperative that health professionals receive the necessary education that will empower them to make the links between climate change and the impact on health. A useful platform could be to utilise the social determinants of health such as transport, land use, agriculture, energy and housing.

The impact of climate change is significantly greater for the most vulnerable in our community i.e. elderly, very young, those with disability, chronic disease and mental health. By addressing the social determinants mentioned above, it could provide health co-benefits i.e. reduction in transport by encouraging active transport could result in better air quality and reduced traffic density.

The educational focus also needs to identify possible leaders for further training/support to develop strategies to face the challenge.

A greater focus on health promotion and community development is imperative. Those most vulnerable must be included in the conversations - impacted community, local government, health professionals, regional, state and federal should work together to find solutions and learn from each other.

Health literacy needs to be considered in any integrated planning.

Comment by [former health service executive]

Hi [], good to see you adding in your piece. Can I suggest that hospitals consider entering their initiatives/projects in the National Banksia Sustainability Awards, these are against all industries and have several categories. They are quite prestigious and well recognised and would raise the profile of health in this important area.

Comment by [former health service executive]

I believe it is even more fundamental to work at a local level - the Stephanie Alexander program for schools is an excellent example, the children grow, harvest and cook what they produce. The growth in community gardens and the interest in permaculture, preserving and food banks is growing at a rapid rate.

There is a ground swell of people who are very concerned about food miles, supporting local farmers and farmers markets which is very exciting.

Comment by [climate change and health policy advocate]

I agree []. How do we tell this story in ways that appeal to policymakers, do you think? And as well as the costs of externalities, I think we need to commission research that shows the economics of the health benefits arising from strategies that also deliver ghg emissions reductions. Like this study from MIT (<http://news.mit.edu/2014/cutting-carbon-health-care-savings-0824>) that shows that cutting emissions actually pays for itself, and saves money, when you factor in the health economics. In an ideal world, this is work that would be done by Treasury, isn't it? I wonder if there is anyone on this Discussion Forum that would be interested to explore this topic as a researcher?

Comment by [dietician]

Working with school children is great and I have been involved in working with high school students too. However, work also needs to be done with families so that parents also model food growing, home processing and preparation.

Comment by [dietician]

Hi [] and [], Thank you for both of your comments, you've both made some excellent points that have resonated with me. I feel like there is a disconnect between the health sector and health professionals taking a leading role in addressing climate change as a determinant on health. It can often feel like the response of the health sector is that "we aren't in the business of addressing climate change or environmental issues..."

Educating and increasing knowledge of health professionals is one piece of the puzzle and a positive step, but there also needs to be other things in place like supportive national policies and frameworks to support this and provide leverage for health professionals to incorporate climate change into their 'core business'.

Comment by [policy researcher]

It's good to hear everyone's thoughts and concerns. However I thought we were looking at what a strategy could include which would be a public statement/document that we can take to government etc. That's why my first comments were a list of options to include in such a strategy. I mentioned to include one on renewables too. I would like to get an idea of where we are heading to with the discussion. Are we looking at big picture strategies or all the many problems on the ground which are very significant but to do something about them at a higher level in policy and government and other decision makers.

Comment by [health promotion practitioner]

The social determinants of health model that guides health promotion actually includes environment however it is mostly interpreted as built environment and so rarely gets attention. In addition, there is very little acknowledgment that the environment affects spiritual wellbeing in addition to physical and mental health. This is even tho spiritual wellbeing is the most influential aspect on our whole subjective sense of wellness. By spiritual wellbeing I refer to peoples sense of meaning, purpose and belonging in the world not to religion. I think any discussion about health and environment is incomplete without recognising the impact of climate change on the loss of peoples sense of

belonging to a healthy planet (i.e. wellbeing). It transcends cost savings. We currently don't have a way of including spiritual wellbeing otherwise known as 'wellbeing' (as opposed to physical and mental health) in policy and practice but I think we need to find a way to do this otherwise we are missing a large chunk of the health equation.

Comment by [former chief health officer]

Glad you mention the "g" word [], because I've been puzzling away about this.

"Establish Effective Governance Arrangements" is the second of the six proposed themes that the CAHA discussion paper usefully describes. I see Governance as the Achille's heel of our prospects for a sustained and effective Strategic Plan for climate change action in Australia, and we really need to look hard at what would work in this country

Apologies in advance for my long-winded contribution (about what might be the more boring bit!), but I'd like to focus on some of the more mechanistic aspects, including the likely bureaucratic barriers to a concerted national health-driven approach to climate change.

Sometimes it helps to learn from our history, and explore some of the possible reasons for the current vacuum.

It is interesting to contrast our performance and capabilities in the areas of environmental health - and climate change in particular - with communicable diseases control. Climate change is by far the more "wicked" problem of course, but maybe there are some learnings.

Australia has a reasonably solid track record of jurisdictional involvement and coordinated effort in communicable diseases, albeit the systems for coordination and advancement have worked more because of the extraordinary goodwill and commitment shown by public health servants and workers across the system, than a high-level commonwealth commitment to resourcing the necessary components and infrastructure of a comprehensive national system.

This appears to be acknowledged in the Australian Government Department of Health's National Framework for Communicable Diseases Control released in 2014 (see [http://www.health.gov.au/internet/main/publishing.nsf/Content/E5134F29919E9D74CA257CFB0082C7C5/\\$File/National-framework.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/E5134F29919E9D74CA257CFB0082C7C5/$File/National-framework.pdf))

This document makes a pretty honest appraisal of the current system and its shortcomings, and (I think anyway) lays a solid foundation for moving forward.

But when it comes to Environmental Health, over 25 years we have seen major attrition and leaching of capacity and capability from within the various iterations of the Federal Department of Health.

Our peak national body enHealth has endured diminished capacity in direct proportion to these decreases in Commonwealth funding and project support, and it has gone from the original vision of reporting to Health Ministers on progress made in relation to a (quite broad and visionary) National Environmental Health Strategy, to becoming a subcommittee of the Australian Health Protection Principal Committee, which reports to AHMAC on enHealth's behalf, and presents an annual work plan against the very limited 2012 – 15 National Environmental Strategy that is a far cry from the original Strategy.

So enHealth - while it has produced highly valuable resources and tools over time for State and Territory jurisdictions involved in managing or overseeing on-the-ground

environmental health issues - has had to become more inward-looking and has not been enabled to promote or demonstrate coordinated leadership – especially in matters such as climate change. Truly a case of being the “Cinderella” of public health, as Tony McMichael used to say.

Why is this so?

I am by no means an expert in constitutional law, but perhaps some of the answer lies with the nature and scope of our Constitution.

It has been too easy for the Federal Government to justify this gradual withdrawal as it has gone about the business of making “savings” across government Departments, because there has been no legislated obligation or enabling head of power in the Constitution for an operational role in environmental health. In contrast, communicable diseases (thankfully) has a constitutional ‘hook’ in the form of a single word: “quarantine”. This provides an unequivocal basis for legislation such the Biosecurity Act 2015 (which recently superceded the old Quarantine Act 1908).

In addition there are Federal obligations arising from the International Health Regulations, to which Australia is a signatory by virtue of being a member state of the World Health Organisation.

So - the Department of Health sees itself as having virtually no obligatory (legislated) or operational role in environmental health. There is also a narrow perception that while communicable diseases can cross state or national borders, environmental health issues generally don't (our heat waves are starting to challenge this though). Somehow, climate change and other ‘writ large’ consequences of ecosystem degradation conveniently fall outside of scope, and Environmental Health is seen as solely a state and territory role, to be carried out in conjunction with local government. There can be exceptions, such as when commonwealth-owned property becomes implicated in environmental contamination sagas.

Assuming it would take years to change the Constitution (now there's a thought: A new clause in Part V Section 51: “Matters impacting on the sustainability of ecosystems at the national and international level” ...should we push for this?!) - what other governance and auspicing drivers are we left with for a National Climate, Health and Wellbeing Strategy?

Can this Federal health leadership vacuum across climate change (and environmental health) be overcome? Obviously it can be given the political will - and it must be. But surviving over time is key.

Already there have been a couple of interesting suggestions across this Forum as to what new governance arrangements might look like, including Liz Hanna's proposal for an independent authority that reports to AHMAC.

For this to occur and to survive over the timeframes required for sustained and effective action, I absolutely agree that it would require bipartisan support. Look what happened to the Australian National Preventive Health Agency, Australia's most promising public health development in years: politically targeted and undone in a flash by the incoming Abbott government (despite the legislated basis for ANPHA).

Then there is always the risk from AHMAC itself, which is overburdened and undertakes semi-regular 'purges' of the many committees and subcommittees that report to it, using processes not necessarily based on public health merit and need.

New and ongoing (not re-badged!) Commonwealth funding – probably administered by

the Department of Health across several government agencies to tie together the strands and reporting requirements of a national strategy - would be another prerequisite if Health is to take the lead.

Nothing undermines a new authority faster than pulling a chunk of the funding out of the budgets of the very Federal departments whose policy and program support roles may have been supplanted, yet who still have to manage the governmental dimensions of the issue on their reduced budget.

I am not so clear on how to create a social licence and am really interested in any views on this, or the above, that others may have. There have been some excellent contributions to this Forum that I have learnt from – thank you!.

Comment by [GP and public health physician]

I think health professionals are just like other people. Australia as a whole has been paralysed in recognising the seriousness of climate change, and the response of Australian health professionals reflects our nationality.

"Climate scientists at the National Aeronautics and Space Administration (NASA) have warned for at least three decades that this time was coming, but the global health community has been slow to adopt non-rhetorical positions about links between human and planetary health. That is beginning to change, but far too slowly..."

<http://www.cfr.org/about/newsletters/archive/newsletter/n3980>

I think that the most important thing that health professionals bring to climate change discussions is our understanding of behaviour change. We can look at changes in smoking patterns and see how social status and control are much more important in whether someone smokes or not than knowledge about harms of smoking. Also importance of government leadership, and establishment of social norms are key factors in driving smoking rates down.

What an irony that Australia has been a global leader in ending the tobacco epidemic but performed so miserably around climate change. Why might this be? And how can we use our expertise in reducing smoking rates, to change everything (policies, guiding principles, expectations and behaviours) around climate change. We have much less than that 50 years it has taken to reduce smoking.

Comment by [public health physician]

Coming back in at the death sorry, having commented 15 days ago. I don't disagree with anything that has been said below and the suggestions all seem to be sensible contributions both to the debate and to moving us 'towards' zero net emissions. But I'm not convinced that we will get to zero net emissions by 2030, 2040 or 2050 if we don't have a (hate the word) roadmap to get from here to there. I'm concerned that we'll do all the things mentioned below, and more, and not simply that they won't be enough or not fast enough but that if you actually plan it all out now (recognising that many things will change) the sum of the many parts that we are currently proposing won't actually have a hope in hell of getting us where we want to go - there's no point walking, crawling and

cycling along a bridge that stops half way across the river all the while believing that it does actually reach the other side! In essence my concern is that it's easy for us to be busy but what I want to have some confidence about is that our busyness will deliver what we want to achieve rather than just make us feel good and move us towards where we want to be. 'Towards' isn't good enough.

Comment by [registered nurse]

I feel there are so many important issues that need to be addressed, however leadership by the government to fund a climate and health department/portfolio that works to support the transition of carbon intensive practices through evidence based research would be good. Ensure major public hospitals become carbon neutral as quickly as possible through various means already available. Policies to support energy efficient technology and innovation, attitudes and behaviours. Putting the cost of consumption into perspective. I would like the state and federal Governments to provide greater transparency and take greater responsibility for spending tax payers money on subsidising fossil fuel and unconventional gas corporations, the big four banks and all of the other irresponsible excess and provide an immediate plan for the transition away from these harmful industries. Another strategy might be to subsidise energy efficient, low carbon footprint industries making consumables more affordable (ie supporting local produce in public hospital kitchens, public health promotion of seasonal diets over manufactured food. I would also like to see funding for awareness campaigns on the health, social and economic opportunities of climate change. Finally, climate deniers seem irrelevant when what we are proposing is a better quality of life and standard of living, that also happens to benefit the environment.

Comment by [sustainable food expert]

The health benefits associated with initiatives to reduce emissions can be demonstrated in food system policies and initiatives linking specifically to preventative health. This was attempted to some degree with the National Preventive Health Agency and Healthy Communities work, plus the proposed Community Food Fund that was part of the National Food Plan, whereby resources were to be provided to support local community food initiatives aimed at increasing healthy eating. Framework activities that could be commenced with a very short lead time could include establishment of dedicated programs to address the means to reducing emissions from agriculture, including community education around meat and dairy consumption impacts, support for agroecological farming plus significant support for the multitude of initiatives underway at the community level to support local food economies and to increase food security in Australia.

Selected sections:

The health benefits associated with initiatives to reduce emissions can be demonstrated in food system policies and initiatives linking specifically to preventative health. This was attempted to some degree with the National Preventive Health Agency and Healthy Communities work, plus the proposed Community Food Fund that was part of the

National Food Plan, whereby resources were to be provided to support local community food initiatives aimed at increasing healthy eating

Comment by [climate change and health policy expert]

Hi [], We have a few ideas about creating the social license, which are referred to here in this presentation I have been giving about the campaign to a number of forums, in Melbourne, Sydney, Brisbane, Gold Coast and Canberra, so far.

What is needed is a powerful social movement of health professionals that will make inaction by governments untenable. This is the project we are engaged in here, beginning with the Discussion Paper, the survey, this online discussion, an upcoming health leaders roundtable, and a campaign that we intend to build over the next 2.5 years, to build a strong and visible cohort of health professionals advocating for climate action. You can read / learn more about the strategy here in this presentation we have given to several forums now, and will continue to, as the campaign builds:
<http://caha.org.au/wp-content/uploads/2016/06/Campaign-Climate-Health-Strategy-GENERIC-10-August-2016.compressed.pdf>

Comment by [registered nurse]

I agree it is almost impossible for nurses on the floor - like myself - to have a real impact without top down support.

Discussion thread 2: What's needed in the National Strategy to identify and protect vulnerable communities from climate change?

None of Australia's current climate policies recognise or seek to address the health impacts of climate change on vulnerable populations or on key infrastructure and systems that may impact health. What should be included in the National Strategy to ensure public health vulnerabilities and knowledge gaps are identified and acted upon?

Summary

Participants identified the need for increased funding and capacity to continue research into the health impacts of climate change, particularly on vulnerable communities. Climate-health impact assessments were recommended to inform policy development and mitigation strategies, with a focus on vulnerable communities. One participant felt that although population groups vulnerable to climate change impacts were generally identified, it would be important to better understand the impact on these groups and on social services and systems to inform planning. In response, one participant recommended following the US approach and guidance developed for health departments to address climate change and identify vulnerable communities.

At national, regional and local levels, Australia should already be engaging in scenario-based, climate-health impact assessment and planning to identify and project vulnerable geographical areas, population groups now and into the future, as a basis for evidence-based decision making, adaptation and harm mitigation.

[Climate change and health lecturer, p22]

Processes and practices that involve assessing the differential impacts of climate change on vulnerable groups... It's likely that without requiring vulnerabilities and differential impacts to be explicitly addressed in planning, impacts will be treated as homogenous.

[Health impact assessment expert, p24]

One participant argued the need for government interest and leadership in climate change at the federal level, referring to the US experience. Participants noted the importance of independence, particularly in establishing a central coordinating body, independent of any particular agency, from which to facilitate the necessary partnerships for multisector action and research, enabling equal participation and shared responsibility across sectors.

...show leadership to ensure there is sufficient central support to facilitate partnerships necessary to address climate change and sufficient support at the leadership levels in each agency. A dedicated, central coordinating body that is tasked overseeing cross government climate change activity was invaluable.

[Climate change and health policy expert, p28]

The US Global Change Research Program was referred to as a successful example of the above and in producing translational research with collaboration between researchers and practitioners from multiple sectors.

The Global Change Research Program (GCRP) provided a structure independent of any government agency which allowed each agency to participate in climate change activities on more of an equal footing... A critical element was bridging the disconnect from what the researchers were learning and how the practitioners could put it into action. Bringing researchers and practitioners together to inform each other was of immense benefit.

[Climate change and health policy expert, p28]

One participant noted the need for national guidelines to be standardised or consistent across sectors to demonstrate a clear national picture of action and progress, and within this, locally relevant resources and information.

There is probably a need for an agreed process or processes and tools, guidelines, standardised documentation and communication processes to enable a clear national picture can be built, and within that, a "nested hierarchy" of progressively more localised and locally relevant resources, roles and information.

[Climate change and health lecturer, p22]

Working at the local level was frequently raised in the discussion, including local government, health and community services. Local government was perceived by many as having an important role to play in climate change, particularly in climate change mitigation strategies and providing information to the community, particularly to protect vulnerable communities. One participant noted they would need legislation and increased resources and skills to act effectively.

They [local government, health and community services] have to have strategic plans which could include climate change mitigation and adaptation. They also need to plan for the provision of services funded by both Commonwealth and State governments. A requirement that these plans include appropriate adaptation elements for the population(s) served is probably feasible. These changes would be modifications of existing work and cost very little.

[Professor, Health promotion, p26]

The need for action at the community level was also identified, specifically to increase community awareness of climate change impacts on health and wellbeing and to empower individuals to make behavioural change to contribute to emission reductions.

Present climate change as everyone's responsibility and provide information that empowers people to feel they can influence and change to prevent further warming of the planet; Climate change is global - let it unite us before it divides us.

[Policy researcher, p24]

Participants again called for an immediate stop to government subsidies to the fossil fuel industry, a reinvestment of these resources to climate change mitigation strategies and the ultimate phasing out of fossil fuels and their extraction. One participant noted the vulnerability of communities financially dependent on fossil fuel

industry and provided an example of community-led change to create sustainable industry.

Another aspect of vulnerability encompasses the financial dependency of certain communities on polluting industry. I think a great example of community-lead change in this area is the Voices of the Valley initiative, which seeks to create sustainable industry within the Latrobe valley: <http://www.votv.org.au/transition>. The focus is admittedly not on climate impacts but on how to ensure a viable transition from the coal-fired stations dominating their economy today, to sustainable industry and the upscaling of infrastructure to support it.

[Public health student, p27]

Discussion

Comment by [climate change and health lecturer]

(My 2 cents worth... to start the ball rolling?) It would seem sensible that climate-health research funding and capacity should be increased/ reinstated. While we have some existing research data and experience (through NCCARF etc), we have some identified priority directions in which to move/ act. There is a growing body of knowledge about existing and likely climate health impacts into the future, but there undoubtedly will be surprises.

A research agenda/ program should be coordinated with the independent governance authority proposed for the national climate-health strategy.

At national, regional and local levels, Australia should already be engaging in scenario-based, climate-health impact assessment and planning to identify and project vulnerable geographical areas, population groups now and into the future, as a basis for evidence-based decision making, adaptation and harm mitigation.

There is probably a need for an agreed process or processes and tools, guidelines, standardised documentation and communication processes to enable a clear national picture can be built, and within that, a "nested hierarchy" of progressively more localised and locally relevant resources, roles and information.

Comment by [paediatrician]

This is an opportunity area...but don't mention the C word - Even National Party MP's who are not even sure there is Climate Change should be interested in vulnerable rural communities. Perhaps a Research centre for Drought, Regional Agriculture Medicine and Adaptation, (DRAMA...of course) obviously decentralised to an actual regional area. It would be great to break down the Silo's by having multiple different strands under one roof, from different sectors. Sorry Barnaby but I reckon Vets and security could also come in under the same grouping. Perhaps there should be one in a rural area in each state....but Federally funded and governed, with excellent NBN linking them to each other. They could be funded by removing subsidies to Fossil Industries.

Trying to be Multi-partisan in the current climate may be the best way to proceed, since I think a lot of the complicated cross benchers are rural and regional.

Comment by [climate change and health lecturer]

As a vulnerable population group of particular interest to me, and to many health professionals, the fact that children will bear the brunt of climate change impacts, and that it will be an increasing burden should mobilise young people and young families, as well as the grandparents' generation. This should make mitigation and adaptation/resilience building and preparedness an easier sell, and an easier mobilising argument for people to call on governments to act on, but I have to admit it does not seem to have had that effect yet. Perhaps the time is still coming...?

Comment by [policy researcher]

In this order:

- Promotion of reasons we have climate change;
- Government to phase out fossil fuels and mining and stop spending our budget on subsidising it;
- Funded Research;
- Ministry for climate change established which also overseeing other portfolios on impacts of changes in climate ;
- Promotion of evidence based information to the public;
- Local state and commonwealth government at COAG specific to climate change;
- Research into mitigation of impacts of changes on all Australians;
- Government speaks honestly about facts and is outspoken about deniers and their ignorance;
- All services like My Aged Care include information on how to minimise impacts of change on older people;
- Local councils play a strong role at community level on information and strategies to help older people make good decisions and protect themselves;
- Present climate change as everyone's responsibility and provide information that empowers people to feel they can influence and change to prevent further warming of the planet;
- Climate change is global - let it unite us before it divides us.

Comment by [health impact assessment expert]

Processes and practices that involve assessing the differential impacts of climate change on vulnerable groups, with particular reference to:

- older people (esp with regard to heat effects)
- people with disabilities
- rural and remote populations
- Aboriginal and Torres Strait Islander people
- gender
- different cultural and linguistic groups
- socioeconomic status and personal access to financial resources for adaptation.

It will also be important to assess impacts on social services and systems.

It's likely that without requiring vulnerabilities and differential impacts to be explicitly

addressed in planning, impacts will be treated as homogenous. In some fields, such as environmental science, the focus is often on "vulnerable receptors". This doesn't apply terribly well to human beings, who have agency and can be vulnerable in multiple ways, but it may enable a shared lexicon?

Comment by [health impact assessment expert]

I think there's also a need to establish who will be vulnerable (populations, regions and services) and through which mechanisms. My sense is this is known in a general sense, but perhaps not with the specificity that would be needed to change services/activities/planning?

Comment by [nutritionist]

Legislation!? Local governments in particular may lack the resources to act effectively, and higher levels of government may need to share with them the skills and resources required for success. On the other hand, while legal interventions can serve to protect and enhance health, some laws may have the reverse effect.

Comment by [paediatrician]

..and children, who will suffer at the very least, the mental health consequences of the world we bequeath. On an international scale, the better resourced may cope but the forced migration and fights over water will bring their own costs.

Comment by [professor, health promotion]

Local government is a very important 'actor' in climate change work with local communities but not the only one. We also need to remember that there are also many health and community services that also work at the community level. They have to have strategic plans which could include climate change mitigation and adaptation. They also need to plan for the provision of services funded by both Commonwealth and State governments. A requirement that these plans include appropriate adaptation elements for the population(s) served is probably feasible. These changes would be modifications of existing work and cost very little. Health organisations often say loudly that they can only do this if they are specifically funded. However, when you work with them on it from the inside that claim is not always justified.

Comment by [climate change and health policy expert]

Hi []. I've pasted in a link to a vulnerability assessment guidance document developed by the Centers for Disease Control and Prevention a couple of years back. It was designed to assist state and local health departments to identify who is most vulnerable based on the local climate impacts in their communities. There are also case studies from health departments conducting vulnerability assessments coming out of CDC's Climate Ready States and Cities Initiative. This approach may be something that could be emulated in Oz.

<http://www.cdc.gov/climateandhealth/pubs/AssessingHealthVulnerabilitytoClimateChange.pdf>

Comment by [public health student]

Another aspect of vulnerability encompasses the financial dependency of certain communities on polluting industry. I think a great example of community-lead change in this area is the Voices of the Valley initiative, which seeks to create sustainable industry within the Latrobe valley: <http://www.votv.org.au/transition>

The focus is admittedly not on climate impacts but on how to ensure a viable transition from the coal-fired stations dominating their economy today, to sustainable industry and the upscaling of infrastructure to support it (they address the relationship between education and industry, for example).

VicHealth have also just awarded the initiative \$20 000, so depending on its success, this could be a great model of a pragmatic approach to hold up to government at all levels regardless of their stance on climate issues.

Comment by [climate change and health policy expert]

Hi []. My experience in the US gave me a few insights that could be considered in Australia:

- Firstly, there was a significant escalation in activity at the agency level when the White House stepped up its interest and leadership in climate change. Up until this point at the agency and sector level, it often felt like we were treading water. This really highlights the need for coordinating bodies such as the Department of the Prime Minister, COAG etc to show leadership to ensure there is sufficient central support to facilitate partnerships necessary to address climate change and sufficient support at the leadership levels in each agency.

- A dedicated, central coordinating body that is tasked overseeing cross government climate change activity was invaluable. The Global Change Research Program (GCRP) provided a structure independent of any government agency which allowed each agency to participate in climate change activities on more of an equal footing. We had a health sub-group under the GCRP banner comprised of a number of agencies that touched on health or that could contribute to a health mission including NASA, NOAA, Agriculture, Dept of State, Dept of Defence, EPA, and obviously CDC and NIH. It was surprising to witness how great a contribution the non-health specific agencies could contribute to the common goal.

- Specifically in health, there was recognition that both pure research and the application/translation of the findings needed to be pursued. A critical element was bridging the disconnect from what the researchers were learning and how the practitioners could put it into action. Bringing researchers and practitioners together to inform each other was of immense benefit.

Discussion thread 3: What policies do we need to drive the low carbon transition in the health sector in ways that optimise and promote health and well-being?

There is no Australian equivalent of the UK National Health Service's carbon reduction strategy or sustainable development strategy for the Australian health sector. However the health sector can play an important role in reducing greenhouse gas emissions. How is this best facilitated by the National Strategy?

Summary

Participants highlighted the need to draw on existing information, tools and evidence, including examples of good practice, case studies, guidelines and tools. They referred to examples from the Global Green and Healthy Hospitals Initiative and the UK National Health Service.

Hospitals were frequently raised, with the need for carbon neutral policies that consider the impact of health care on climate change. One participant noted the current requirements for hospitals' reporting of greenhouse gas emissions is inadequate as it fails to recognise the sourcing of manufactured health care goods from overseas.

...hospitals are obliged to report greenhouse gas emissions under the NGER Act of 2007. This was the driving force behind some hospitals getting the ball rolling on going greener. This is a very business based and financial based approach to addressing the problem, and I am concerned that it fails to address other sorts of impact of healthcare - especially manufacturing ones where other, poorer countries bear the brunt of our sophisticated requirements. Is there any way we can begin to develop policies that actually consider impact beyond our borders?

[Registered nurse, p29]

In response, national standards for healthcare procurement that mandate ethical and low carbon purchasing were recommended, providing the policy leadership necessary to drive more immediate but consistent change at the health sector and facility level. Accountability across multiple sectors and levels should be ensured through reporting and monitoring of consistent outcomes. Incorporating such standards into health services' accreditation would increase adherence.

...ensure that there are national standards for healthcare procurement that mandate ethical and low carbon purchasing. It can happen through voluntary means e.g. in the US where there are networks of hospitals beginning to drive upstream changes in healthcare procurement like the new Greenhealth Exchange (GX) program...So as the Global Green and Healthy Hospitals network grows, that network will be able to drive further changes in procurement. But the scientific imperative for rapid transformation means there is public policy leadership needed on this - that's where national standards might come in...

[Climate change and health policy advocate, p30]

I believe there does need to be a national government-led framework or national strategy to ensure that there is a coordinated approach that allows for greater collective savings (economies of scale etc) to be made by the health sector's low carbon transition; including reporting and monitoring mechanisms. The government will need to have a framework to ensure that there are emissions reductions across the entire economy to prevent any one sector being disadvantaged during the transition.

[Communications director, p31]

Again, participants called for an immediate stop to government subsidies to the fossil fuel industry and government leadership to ensure a multi-sector collaboration to policy development.

I feel that it requires Government leadership more broadly as well... From my understanding (coming from my perspective as a dietitian), there are minimal national policies that clearly integrate health, food, social and environmental factors and incorporate action to mitigate and adapt to the impact of climate change on health and food systems. I think a 'silo-ed'/fragmented approach to these issues is often the response and more work needs to be done to bridge the disconnect between environmental issues, health, nutrition, social issues and so forth., and this requires leadership from the national level.

[Dietician, p32]

One participant recommended climate and health is incorporated into medical and health training, suggesting lobbying groups such as the RACGP, nursing and other training bodies.

Discussion

Comment by [climate change and health lecturer]

Perhaps the strategy could call for the collection and communication of good practice examples and case studies from Australia and overseas, and promote available effective tool boxes/ guidelines such as the Global Green and Healthy Hospitals Initiative resources, and UK NHS resources/processes..

Comment by [climate change and health lecturer]

Yes, I agree []. Bipartisan (or indeed multipartisan) commitment to developing and implementing a government "owned" national climate-health strategy or framework is an important basis for broad health sector action.

Comment by [registered nurse]

It's worth noting up front that hospitals are obliged to report greenhouse gas emissions under the NGER Act of 2007. This was the driving force behind some hospitals getting the ball rolling on going greener. This is a very business based and financial based approach to addressing the problem, and I am concerned that it fails to address other sorts of impact of healthcare - especially manufacturing ones, where other, poorer countries bear the brunt of our sophisticated requirements. Is there any way we can begin to develop policies that actually consider impact beyond our borders? This is perhaps a very important and profound question, as global climate change has no borders, yet it sure as hell is going to create border conflict over resources and

consequences. We are only just seeing the first major international law-suites beginning. If we want to be proactive and positive we need a very different attitude to the countries around us and I wonder if there's a way to keep half an eye on that in developing a way of thinking about healthcare and sourcing manufactured goods from overseas that reinforces awareness and a search for improvements.

Comment by [climate change and health policy advocate]

Hi [],

These are really good points. I think one way to address it might be to ensure that there are national standards for healthcare procurement that mandate ethical and low carbon purchasing. It can happen through voluntary means e.g. in the US where there are networks of hospitals beginning to drive upstream changes in healthcare procurement like the new Greenhealth Exchange (GX) program:

<http://www.greenhealthexchange.com/>

GX is a purchasing cooperative founded by four health systems including Gundersen, Dartmouth-Hitchcock, Dignity Health and Partners HealthCare along with longtime sustainability advocates Health Care Without Harm and Practice Greenhealth. GX is backed by a combined total of 60 hospitals that together represent \$21.2 billion in annual revenues and more than \$4 billion in purchasing power. So as the Global Green and Healthy Hospitals network grows, that network will be able to drive further changes in procurement. But the scientific imperative for rapid transformation means there is public policy leadership needed on this - that's where national standards might come in, don't you think?

Comment by [health impact assessment expert]

More generally, end all fossil fuel subsidies, rebates and incentives as quickly as possible, with a focus on coal and diesel.

Within the scope of the health sector, push for carbon neutral policies at facility and health network levels. The health sector is a huge employer - in top three industries in most regions.

Comment by [communications director]

I believe there does need to be a national government-led framework or national strategy to ensure that there is a coordinated approach that allows for greater collective savings (economies of scale etc) to be made by the health sector's low carbon transition; including reporting and monitoring mechanisms. The government will need to have a framework to ensure that there are emissions reductions across the entire economy to prevent any one sector being disadvantaged during the transition. There is also a great deal of benefit in having a government-led framework/national strategy so that there is clarity in how the health sector will achieve its reductions. The framework can also help better coordinate the health sector's response at the individual facility level and network level.

It will also be important to ensure that industry policies are considered so that savings in one area are not then lost by increases in emissions in another area.

Comment by [former health service executive]

Here in Vic. all public hosps. are required to submit their utility data to the Dept., in fact I believe they can access it directly from the suppliers now. This is mandatory and must be published in your annual report. It is very useful as it shows the individual hosps. performance against it's peers and it shows how each hosp. has reduced (hopefully) its footprint over the previous year.

This could become a national strategy and be included as a new standard for Accreditation - if it was part of Accreditation it would be taken seriously. The Standard could have the expectation that every health service must an Environmental Plan with clear KPI's set i.e. a 10% reduction in costs for utilities every year with the associated reduction in greenhouse emissions. It is achievable as we proved with the health service I formally worked at.

Comment by [former health service executive]

We have "Health Purchasing Victoria" which purchases for all public hospitals in Vic. - I believe they now have an environment person to look at these issues. the problem is that in the global sense we are minnow's when it comes to purchasing from the big multinational companies and as such do not have a lot of influence to changing practice. Perhaps if we had a national purchasing scheme we have the critical mass to have more influence. How we would achieve that under the current State/Commonwealth situation would be a significant challenge - perhaps we could start by getting States to work together????

Comment by [dietician]

Hi [], I would like to see a national government-led framework or national strategy that captures accountability to reduce carbon emissions across multi-sectors and multi-levels. Reducing carbon emissions is everyone's responsibility, and I agree with you that a national mandate/national health performance standards may be an effective way to ensure that the outcomes are achieved.

I feel that it requires Government leadership more broadly as well... From my understanding (coming from my perspective as a dietician), there are minimal national policies that clearly integrate health, food, social and environmental factors and incorporate action to mitigate and adapt to the impact of climate change on health and food systems. I think a 'silo-ed'/fragmented approach to these issues is often the response and more work needs to be done to bridge the disconnect between to environmental issues, health, nutrition, social issues and so forth., and this requires leadership from the national level.

Comment by [general practitioner]

Thank you to everyone for ideas and contributions. As a GP I would like to see climate and health as part of medical and health training systems by lobbying groups such as

the RACGP and nursing and other health training bodies. This would not only raise awareness of the seriousness of the issue but would then become part of the consultation conversation and lead to more community education.

Discussion thread 4: What are the key elements of a National Strategy on Climate, Health and Well-being?

What are the governance arrangements that would best facilitate a comprehensive national approach to ensuring climate resilient communities and healthcare? Does it need to be a COAG initiative? Will it require legislation?

Summary

In this section, participants argued for community engagement, education, legislation, and cross sector collaboration.

Participants noted the importance of increasing engagement of the community around climate change through: increasing awareness and knowledge; highlighting personal relevance of climate change and associated health impacts; and focusing on their sense of connection to the natural environment.

Promoting education and awareness is the strategy I believe to be the most critical at the moment. Political debate has muddied the waters and many switch off when we talk about rising sea levels, polar ice caps and imminent food shortages. If people were aware diesel is a class 1 carcinogen and that Australia has a higher mortality rate from vehicle and coal burning emissions than it does from vehicle accidents, it brings the point immediately into the present and personal. How many Australian's are not regularly exposed to vehicle emissions? How many families have not been touched by asthma, strokes, heart attacks or cancer? These are messages that are immediately personal for many Australians and I believe are more likely to capture the attention of the broader public.

[Researcher and oncology pharmacist, p33]

At the grassroots level the way to educate and get buy in and interest from the community is by appealing to their sense of connection to the natural environment first and then focussing on the climate science. There must be an emotional intuitive connection to the problem before you add the intellectual complexities.

[Health promotion practitioner, p34]

The need for legislation was also identified, specifically regarding the design, building and construction of hospitals to maximise passive cooling. Development of a disaster management plan was also recommended, informed through research to predict the impacts and identify vulnerable communities.

One participant highlighted the need for intersectoral collaboration at the local level between council, schools, environmental health and population health. They believed the influence of the natural environment on people's physical, mental and spiritual wellbeing is not clearly articulated in health promotion frameworks and a focus on the natural environment would enhance population health practice. This would require education of health professionals

through university courses and health conferences. In addition, councils and schools should apply a health and wellbeing lens to policy and strategies.

Discussion

Comment by [researcher and oncology pharmacist]

Promoting education and awareness is the strategy I believe to be the most critical at the moment. Political debate has muddied the waters and many switch off when we talk about rising sea levels, polar ice caps and imminent food shortages. If people were aware diesel is a class 1 carcinogen and that Australia has a higher mortality rate from vehicle and coal burning emissions than it does from vehicle accidents, it brings the point immediately into the present and personal. How many Australian's are not regularly exposed to vehicle emissions? How many families have not been touched by asthma, strokes, heart attacks or cancer? These are messages that are immediately personal for many Australians and I believe are more likely to capture the attention of the broader public.

Comment by [registered nurse]

Yes - I think legislation is imperative. It's pointless allowing hospitals to continue to be built without maximising the construction options that promote natural cooling, for example. We are heavily reliant on computer systems and cool operating theatre environments - often an enclosed and isolated space with specific air-conditioning features to promote flow and reduce bug growth - and the reality is if we are looking at 45C and upward temperatures at the height of summer, the entire system will be under enormous strain to remain functional. Legislation will enforce appropriate building construction and, wherever possible, modification of current hospital structures to take this into account.

Everything ties back to research and modelling to attempt to predict vulnerabilities - rising sea-level, areas of flood/storm damage, fire/drought risk, potential damage to infrastructure that may isolate communities that haven't previously been isolated - it amounts to the most massive disaster management plan, really, and needs to be treated as such.

Comment by [health promotion practitioner]

With regard to communication and collaboration and promoting education and awareness, in my experience working at a community health centre in population health, there has been the opportunity to partner with the environmental team at Council on their invitation but there seem to be only a few people who understand why, particularly on the health side. The environment team at Council have a plan to address environment and physical, mental and spiritual wellbeing through their Biodiversity stream particularly but there is no reference to environment at all in any way in the population health team. I think this goes back to the frameworks that guide health promotion do not clearly and strongly articulate natural environment as a determinant of health and there are not clearly articulated links about how a health project would be

enhanced by focusing on natural environment and vice versa. In schools and at Councils they often focus on biodiversity, waste, energy and something else (?). Health AND WELLBEING needs to be a lens sitting over all of these. It needs to be taught in university courses and there needs to be many more professional conversations about it at conferences. I cant emphasis enough however, that we must talk about wellbeing as much as health. Wellbeing (spiritual wellbeing) is left out of most conversations about this issue, it is not unpacked in the discussion paper and does not have a place in these discussions here. Wellbeing i.e our sense of purpose, value and meaning in life defined by a sense of connection to self, others and nature, has a profound effect on our overall health. At the grassroots level the way to educate and get buy in and interest from the community is by appealing to their sense of connection to the natural environment first and then focussing on the climate science. There must be an emotional intuitive connection to the problem before you add the intellectual complexities.. Climate change is abstract to most people including those who are in positions of influence in the health sector. Most people don't know a thriving weed from a native plant, a sick landscape vs a healthy one. They also dont know why they can do all the recycling all the waste reduction and still feel deep sadness and like its all really skimming the surface and not getting to the bottom of the problem. As I mentioned, I think on the environment side, professionals get this there are good robust research papers about and I am starting to see it reflected in council environmental education strategies but it is mostly absent from population health and health promotion.

Discussion thread 5: Are the key themes identified in the Discussion Paper the right ones?

The themes identified in the [Discussion Paper: Towards a National Strategy on Climate, Health and Well-being for Australia](#) are:

- Establishing meaningful national emissions reduction targets and policies - obviously these need to be linked to scientific assessment of the global carbon budget and Australia assuming a fair share of the global task to cut emissions, but how do we ensure they also deliver good outcomes for health and well-being?
- Establishing effective governance arrangements – what does this look like?
- Developing a sustainable and resilient healthcare sector - we know this is needed - how is it best achieved?
- Promoting education and awareness - whose responsibility is it to improve 'climate literacy among health professionals? In the community?
- Strengthen communication and collaboration – if this is about intergovernmental / cross-portfolio cooperation, who needs to be involved?
- Re-establishing national research capacity – how to elicit these commitments? To what extent will the proposed Medical Research Future Fund focus on this profound health threat?

What's missing?

Summary

Universities and health professional associations were perceived as responsible for improving climate literacy of health professionals by including climate literacy in core competencies of courses.

One participant argued for the need to shift focus from mitigation strategies to ones that focus on the restoration, rejuvenation and healing of the environment. They noted this is missing from existing legislation. They also highlighted the need for a systems thinking approach and education of policy makers to change the siloed approach to policy making.

Discussion

Comment by [dietician]

Promoting education and awareness - I agree with []'s comments that it needs to be taught in university courses. This may require greater collaboration with professional (health) associations so that climate literacy and (also more broadly the environment as a determinant of health) is included and explicit in the core competencies of the particular profession. This would help to ensure that health professionals are educated on climate literacy before they are in the workforce.

For the strengthen communication and collaboration, it does say in the strategy "federal, state, local and community agencies" and "health sector and multiple sectors" - perhaps the other sectors that need to be involved (that are implied but not stated) are education, agriculture, business?

Comment by [registered nurse]

Something lacking from the list - we keep talking about reduction of emissions - yet we overlook restoration. Emissions begins with coal, oil and gas. The extraction of these is causing tremendous environmental degradation and although there is usually some sort of clause requiring mining companies to clean up, they usually plead poverty as they only move on once making a loss in an area.

Can we shift the way of talking about mitigation to one step beyond reduction of the "bad stuff".and introduce language that includes restoration? This is a crucial part of tackling climate change that just isn't in the legislative documents at this point (or not much that I'm aware of)

I am totally with []. The direction regarding education was well-reflected in the line of presentations at the Big History: Anthropocene conference at Macquarie University last year, with a heavy emphasis on the need to get out of siloed thinking and into systems thinking at all levels of education. However - we need to find a way to address older generations - those currently in power? - who have never met systems thinking and only know compartmentalised thinking with the consequential lack of connection across sectors in policy making.

The difficulty is that changing culture int his way is probably beyond the scope of this paper and strategy - and yet this paper and strategy is dependent on it Wicked problem for solution, anyone? Can we sell a change in thinking with a policy? Maybe we can... :)

But back to my main point - what's missing - thinking in terms of restoration, rejuvenation, healing of the environment not just stopping the damage and being resilient. Can we reach that far? Should we?

Discussion thread 6: What do we need to do to make a National Strategy on Climate, Health and Well-being a reality?

How do we ensure this is not some 'climate strategy' that sits on the shelf, or is subject to right-left political shenanigans, but creates a framework that underpins a core and enduring commitment from our federal government to climate-health protection, provides national leadership for state and local government action, and meets the needs of the community and the health sector? How do we create the social license for politicians and policymakers to be comfortable in leading on this?

Summary

Intersectoral collaboration was highlighted again by many participants, with the need for recognition from politicians and policy makers that responsibility for climate change is across multiple sectors. One participant noted engaging them early will be essential in ensuring transparency and synergy.

“...we need our policy-makers and Federal politicians to understand and recognise that climate change is not merely an environmental issue to be addressed by environmental policies by the DoE, but a public health one...”

[Climate change and health researcher, p38]

“Yes, and not just health and environment ministers. We need to work with Ministers with responsibility for energy, employment, education, transport, food industry, defence (as climate change is a security issue)... Climate change needs whole of government, whole of society approach”

[General practitioner and public health physician, p40]

This recognition at the federal level should translate to collaborative policy development that considers impacts on both health and the environment, applying both a health lens and an environmental/climate change lens.

“I think we need to emphasize how the policies of other sectors outside of health, such as transport, environment and infrastructure, can directly influence health outcomes and the benefits that derive from applying a 'health lens' when developing such policies.”

[Climate change and health researcher, p38]

“I agree about applying a 'health lens' when developing those other policies you mentioned. I think also applying an 'environmental (or climate change) lens' to health policies is also needed.”

[Dietician, p40]

One participant argued that engaging a larger and more powerful group of health professionals at all levels is essential to creating the social licence for politicians and policy makers to lead a federal government commitment to a climate and health strategy.

In terms of building the SOCIAL LICENCE for the politicians (and as a consequence, the policymakers) to act, organising theory would suggest power comes with numbers - we have to have a vocal and numerically large community calling for that action, and talking about the health impacts of climate change, and putting forward mitigation and adaptation strategies - build power by building numbers.

[Climate change and health lecturer, p38]

To do so, they suggested partnerships with professional organisations and unions to share responsibility for advocacy and climate literacy education for health professionals. This would require development of authoritative guidelines and engagement of academics and credentialing bodies. Specific suggestions for health professional education included face-to-face and virtual solutions: short courses, seminars, in-service education sessions, hospital grand rounds.

One participant raised potential barriers to health professional bodies taking a stance on climate change, being that it is not their core business, and at the individual level, fear of speaking out, particularly those who work in government funded positions or rely on government grants. They suggested health professionals' code of ethics should be appealed to and noted that CAHA may provide options for individual health professionals and health professional bodies to contribute to climate change advocacy without fear of reprisal.

An alliance such as CAHA separated from government funds could then seek endorsement from professional bodies and allow individual health professionals a platform on which to add their voice, without risking political fallout from their own organisation.

[Researcher and oncology pharmacist, p42]

One participant suggested to avoid party politics, a focus on disaster management planning might be needed. Participants also recommended demonstrating to the federal government the cost savings of climate change mitigation compared to the anticipated costs of climate change impacts on health. One participant referred to international research that demonstrates the cost benefits of climate mitigation strategies but noted that despite communicating such research findings, decision-makers are not engaging with these messages and that a powerful social movement is needed.

But governments are unmoved by this. We have shared these statistics over and over again. What is needed is a powerful social movement of health professionals that will make inaction by governments untenable.

[Climate change and health policy advocate, p46]

One participant noted there was a gap between knowing what needs to be achieved long-term and the practical steps that need to be undertaken to get there.

I think there is a gap between knowing in broad brush strokes what our proposed destination looks like or needs to be and what the building blocks of practice look like. It's an enormous task. What we need is a policy robust enough to take us from the one position to the other.

[Registered nurse, p46]

Discussion

Comment by [climate change and health researcher]

This is where the rubber hits the road. What we need to change is the 'how' of how we interact with politicians and policymakers. We need to make them part of our conversation when we are in the earliest stages of this. If they come in too late in the process then there is less likelihood that they can be part of the solution. If we involve them in sitting down at the table and discussing national priorities and explaining how these can support activities around climate change (mitigation and adaptation) and human health, then greater synergies will emerge and a better sense of trust and transparency. I know CAHA is fantastic at interacting with decision makers so this is something that needs to continue and become even stronger from each and everyone one of us when we do get a chance to speak with local, state or federal decision-makers.

Comment by [climate change and health researcher]

As a starting point, I think we need our policy-makers and Federal politicians to understand and recognise that climate change is not merely an environmental issue to be addressed by environmental policies by the DoE, but a public health one, and that population health is inextricably linked with the quality of the surrounding environment (whether that be air quality levels or urban design). To do so, I think we need to emphasize how the policies of other sectors outside of health, such as transport, environment and infrastructure, can directly influence health outcomes and the benefits that derive from applying a 'health lens' when developing such policies.

Comment by [climate change and health lecturer]

In terms of building the SOCIAL LICENCE for the politicians (and as a consequence, the policymakers) to act, organising theory would suggest power comes with numbers - we have to have a vocal and numerically large community calling for that action, and talking about the health impacts of climate change, and putting forward mitigation and adaptation strategies - build power by building numbers. (So this campaign is a good start, in that it will build engagement and ownership across the health community.) But to build the numbers of louder voices:

- need all health professionals at all levels empowered/ informed enough to have the necessary climate conversations with their patients/ communities. Organising and "education"/ professional development both needed, concurrently.

On the plus side, we have large numbers in the health disciplinary workforces and high respectability, and some power. To have an impact though it has to be a well-informed voice. Some thoughts on strategies/ tactics:

- engage prof orgs and unions in strong partnership roles in the campaign - to take on some of the responsibility for informing and engaging members, and advocating upwards for Govt support/ action

- rather urgent need for widespread health professional in-service education/ professional development about climate health, from short presentations, seminars, to

short courses, both face to face and virtual/ blended learning delivery.

- Would it help if the WHO and major international health professional bodies and unions push for/ develop guidelines for mass health worker climate-health education/ prof development?

- engage the academics and professional credentialing bodies to push for/ mandate climate-health in all health undergrad curricula as well as short courses/ online modules, learning packages for post-grad/ ongoing prof development.

Comment by [registered nurse]

If we couch this in terms of disaster management planning - as in relooking at current threats and updating them according to climate change modelling, as well as developing an idea of new threats, we might be able to get around the party politics to some degree. The problem with party politics may arise with the question of who handles the research and who handles the development of strategies and responses. Where there are \$\$\$ there is an ideological clash over what should or shouldn't be privatised. Can we get around that by selling costs savings hard enough?

Comment by [general practitioner and public health physician]

Yes, and not just health and environment ministers. We need to work with Ministers with responsibility for energy, employment, education, transport, food industry, defence (as climate change is a security issue)... Climate change needs whole of government, whole of society approach

Comment by [dietician]

I like your comment [], you've made a really good point that climate change is not merely an environmental issue to be addressed by environmental policies. I agree about applying a 'health lens' when developing those other policies you mentioned. I think also applying an 'environmental (or climate change) lens' to health policies is also needed. That might be a bit out of scope for this forum though, but it's something that I believe is important and missing from health policies and guidelines.

Comment by [dietician]

Another thought that comes to mind is that "money talks". Do we need to present this to government in a way that quantifies the cost-savings of investing in climate change mitigation compared to the huge costs of the burden of disease as a result of climate change?

Comment by [dietician]

Hi [], Replying to your question and expanding on my response to Marissa's comment below about applying 'environmental (or climate change) lens' to health policies. I'm a dietitian, so one example that is central to my work is the Australian Dietary Guidelines. In 2012/2013 when the new Australian Dietary Guidelines were being written, there was support for a sustainability focus to be integrated throughout the guidelines. During the consultation process however, the sustainability focus was removed (although it was included as an appendix...but doing it like that made it feel like an afterthought!). In

Australia, there isn't a current Food & Nutrition policy, but I really hope that when one does come (and there has been a lot of advocacy for one) that there will be an 'environmental/climate change lens' applied to it.

The evidence is clear that human and ecosystem health are interrelated, inseparable and reliant on one another which is reflected in the ecological model of health. Yet still somehow documents like the Dietary Guidelines that are designed with the primary objective of enhancing the populations' health still seems to separate the environment as an unrelated issue.

Therefore, I believe that policies which are designed for health should be developed with an 'environmental lens', just as environmental polices need to be developed with a 'health lens'. :)

Comment by [researcher and oncology pharmacist]

One of the obstacles to health professional bodies taking a cohesive stance on climate change could be due to the perception that it falls outside of core business, and at an individual level, there is a reluctance to be outspoken for fear of appearing political. Clinicians and researchers who work for government funded organisations or rely on government grants can be in a compromised position when it comes to publicly agitating climate related health concerns.

Potential solutions (in a similar vein to [climate change and health lecturer's] previous excellent comment on this)

Most health professions have a code of ethics which covers the broader concepts of public health. This needs to be appealed to. The Thoracic Society of Australia and New Zealand (TSANZ) conference had an air pollution related theme last year. Other professional bodies such as MOGA (Medical Oncology Group of Australia), CSANZ (Cardiac Society of Australia and NZ) ... could follow suit. The CAHA strategy could be tailored and presented at each applicable conference across Australia. Health professional bodies representing the spectrum of health vulnerabilities from cardiopulmonary, paediatric, oncology, geriatric, obstetric fields could be engaged to endorse CAHA's national framework and form a position statement similar to those done by other countries. In terms of funding for this, many health foundations include advocacy in their charter and could be appealed to for donations towards this. An alliance such as CAHA separated from government funds could then seek endorsement from professional bodies and allow individual health professionals a platform on which to add their voice, without risking political fallout from their own organisation. Safety in numbers.

Some other thoughts:

Hospital grand rounds and professional education sessions also provide an opportunity for CAHA to present and engage with the health community.

Council employed maternal care nurses are a group that is critical to enlist and educate. They could then be encouraged to include a session in the council run education sessions for first time parents. These sessions usually cover child health related aspects such as nutrition and water safety. Why not include a session on air pollution – including some practical steps parents can take to reduce the risks. An educational video could be made and used in these sessions.

Comment by [general practitioner and public health physician]

[] - yes!

"Environment and Ecology", and "Food and Health" Special Interest Groups of the Public Health Association have a series of shared policies: Ecologically Sustainable Diets; Food System and Environmental Impacts and Global Warming; the Food System and Food Security. Keep these in your hand when you're working on Dietary policy or guidelines.

<http://www.phaa.net.au/advocacy-policy/policies-position-statements>

Comment by [climate change and health policy advocate]

Yes! I think this is really key,[]. There is great research overseas that is beginning to document both - on the one hand you have the Massachusetts Institute of Technology work (which is just one example of quite a few) that looks at the savings for health budgets associated with climate policies (ie the implementation of strategies to cut emissions). This study found that emissions reductions policies like a national emissions trading scheme, because of it would drive a transition to renewable energy as a low carbon option, would also improve air quality, and deliver such significant health benefits that the economic savings would be worth ten times the costs of the policy! If you spend \$10 million on an emissions trading scheme and you will save \$100 million in avoided ill health and productivity gains. This is the link to some info about the study:

<http://news.mit.edu/2014/cutting-carbon-health-care-savings-0824>

Another study quantifying the health costs from climate change is the DARA report, from 2012. This report estimates that climate change causes 400,000 deaths on average each year today, mainly due to hunger and communicable diseases that affect above all children in developing countries.

They also estimated that present carbon-intensive energy system and related activities cause an estimated 4.5 million deaths each year linked to air pollution, hazardous occupations and cancer.

It estimated the global carbon economy- and climate change-related losses amounted to over 1.2 trillion dollars in 2010. But governments are unmoved by this. We have shared these statistics over and over again. What is needed is a powerful social movement of health professionals that will make inaction by governments untenable. This is the project we are engaged in here, beginning with the Discussion Paper, the survey, this online discussion, an upcoming health leaders roundtable, and a campaign that we intend to build over the next 2.5 years, to build a strong and visible cohort of health professionals advocating for climate action. You can read / learn more about the strategy here in this presentation we have given to several forums now, and will

continue to, as the campaign builds: <http://caha.org.au/wp-content/uploads/2016/06/Campaign-Climate-Health-Strategy-GENERIC-10-August-2016.compressed.pdf>

Comment by [registered nurse]

Hi - I wish I had had more time to dig into the forum. It coincided with an assignment for my Masters degree and therefore I was struggling to find time to squeeze everything in. (I sure wish I didn't have to work full time as well - work keeps getting in the way of important stuff!)

I agree with [climate change and health policy advocate]'s assessment that it was difficult to get people to focus on solutions. I think there is a gap between knowing in broad brush strokes what our proposed destination looks like or needs to be and what the building blocks of practice look like. It's an enormous task. What we need is a policy robust enough to take us from the one position to the other.

The forum is fantastic and useful in that it can allow us to use the nooks and crannies of time available to contribute, as well as bringing in a wider range of voices and skills.

Another thought just popped into my head, and that is that with time, we could get very good at using this sort of format, and learn to focus on the questions better. In the beginning we all need to talk. We are all, I imagine, boiling over with the continual frustration of not really being heard, so the opportunity to write ones thoughts in a space where they will be received favourably may open the floodgates as we repeat and affirm our positions and end up not quite answering the questions. Once that phase is past, focus will most likely improve and much can be accomplished. thank you for this wonderful opportunity to be part of the conversation. I took the liberty to look up a few of the names here to see if I could discover a little background, and I feel very small in the company of giants :) Cheers, [registered nurse]

Evaluation

13 Evaluations were completed, with responses from the following organization types:

- 1 Professional organization
- 2 Healthcare service provider
- 1 Health union
- 2 Research or academic institution
- 2 Health department
- 4 Health advocacy organization
- 1 Other

Question: How successful was the online discussion forum at achieving its aim of stimulating discussion about the key elements of a National Strategy on Climate, Health and Wellbeing?

Extremely successful	8%
Very successful	15%
Quite successful	62%
Somewhat successful	15%
Not at all successful	0%
N/A or rather not say	0%

Question: Which response best describes how you feel about the experience of the online discussion forum:

I'm very happy with the overall experience and would certainly participate in another online forum	46%
I'm pretty happy with the overall experience, but there's some room for improvement – I'd participate in another one	54%
I'd probably not do it again and would prefer another form of engagement.	0%

Please indicate how much you agree with the following questions about the online forum technology provided by Pax Republic.

The registration process was straightforward:

Very	30%
Largely	38%
Moderately	15%
Slightly	15%
Not at all	0%
N/A or rather not say	0%

The forum was easy to navigate:

Very	15%
Largely	62%
Moderately	15%
Slightly	8%
Not at all	0%
N/A or rather not say	0%

The commenting process was easy:

Very	38%
Largely	46%
Moderately	8%
Slightly	8%
Not at all	0%
N/A or rather not say	0%

The email digests of latest comments were useful:

Very	46%
Largely	23%
Moderately	15%
Slightly	8%
Not at all	0%
N/A or rather not say	0%

What other form or dialogue/events would help to progress this conversation?

- Skype conversation - with policy makers, businesses and others who may like to contribute
- Launching a campaign that lobbies power-holders for goals that we want to achieve. I think once we start lobbying then we can get more people involved and we can modify our agenda as we go
- Well, face to face, online, every kind, kitchen table conversations (we can even offer those), forums, lobbying, civil demonstrations - every form of action possible!
- I thought it was designed to come up with a strategy. I read most comments but I have heard them in many forums and it is only effective if we come up with a strong position to those with power to do something .
- In person workshop

- Round table events and university forums would enable more student involvement in discussion
- Perhaps a round table discussion or a workshop event.
- Perhaps a further online discussion which provides a summary of the solutions proposed here, in the context of the discussion paper's 6 key strategies – and asks for commentary and further suggestions might see people more focused on fleshing out solutions? I don't think there was any disagreement with the framework proposed, so why not forge ahead and continue developing?
- Professional association special interest groups. Social media campaign
- Working Party to progress policy development
- Seminars and workshops
- Face to face round tables around Australia
- It may be useful to form focal groups as the territory to be covered is vast.

Please indicate how much you agree with the statements below about the facilitation of the online forum.

It was well facilitated overall:

Very	23%
Largely	54%
Moderately	15%
Slightly	0%
Not at all	0%
N/A or rather not say	8%

It would have benefited from more facilitator interventions:

Very	8%
Largely	15%
Moderately	38%
Slightly	23%
Not at all	0%
N/A or rather not say	15%

The intention and timeframes for the discussion were clear:

Very	15%
Largely	54%
Moderately	15%
Slightly	8%
Not at all	0%

N/A or rather not say	8%
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Likelihood of using or recommending Pax Republic

How likely would you be to consider using the Pax Republic online forum technology for another event?

Very	38%
Largely	15%
Moderately	38%
Slightly	8%
Not at all	0%
N/A or rather not say	0%

How likely would you be to recommend Pax Republic to someone else?

Very	38%
Largely	8%
Moderately	46%
Slightly	8%
Not at all	0%
N/A or rather not say	0%

Please provide any other feedback you have for CAHA or Pax Republic.

- I was a little confused by it. Font on my screen was small, and default text box very long which made it not as readable as it could have been
- No further feedback. It seems this forum has produced a wealth of qualitative data though which looks interesting :)
- See comments prior :-)
- I am still unclear about the outcomes.
- It was not very clear about how to reply to a comment. If you hit reply your response is hidden unless you click on it. Not easy to follow in a forum format.
- I would love more opportunities for students to be involved in the conversation
- This was a very well run and organized event. I enjoyed participating and reading everyone's views and comments.
- I think the only thing I would have liked was a help- chat with tech support person - button - when occasionally i could not get my comments to register, or work out the private chat function - I got a private message but my response did not "go" straight away, then I couldn't find the conversation next time I went to continue...possibly just a function of being short on time and unfamiliar with the platform, but otherwise it was very intuitive and user friendly I thought.

- I am looking forward to the work that will follow on from this forum. [Climate change and health policy advocate] alluded in one of her comments that there would be a leaders roundtable and campaign. I would like to see further opportunities like this forum that allow for two-way discussions and advocacy, and also more proactive discussions or events to focus on implementing solutions that are developed. Thank you for the opportunity to participate in this event and for the innovative way of providing the forum. It's allowed me to participate without barriers of time, money and distance. I've learned from others experiences and comments too!
- Generally this is an acceptable tool but I experienced frustration with the registration process when I tried to change my log in .. I also couldn't get in again after I'd had x 2 chances to respond. Otherwise it's been very useful for discussion.
- First time I was involved and found it beneficial.
- Congratulations - this should provide an evidence base for advocacy.
- It's been an excellent experience. Just wish I'd had one more week so it wasn't only a week coinciding with a 2500 word essay!

Next steps

The contributions to this Online Discussion Forum, along with responses to the Online Survey accompanying the Discussion Paper: Towards a National Strategy on Climate, Health and Well-being (NSCHW) for Australia, and a Report from the Health Leaders Roundtable held in October 2016 will be reflected in a Final NSCHW Consultation Report in 2017.

The results of this consultation, including the inputs described above, will be used to inform the development of a framework for a National Strategy on Climate, Health and Well-being for Australia in 2017.

This framework, developed in consultation with a collaborative network of health organisations, will be presented to federal parliamentarians in 2017, and their support sought for its further development and implementation.