

Real, Urgent & Now

Insights from health professionals on climate and health in Australia



CLIMATE
AND
HEALTH
ALLIANCE

Recognition and Commitment

We recognise Aboriginal and Torres Strait Islander People as the traditional custodians of the land on which we live and work and acknowledge that sovereignty of the land we call Australia has never been ceded. We commit to listening to and learning from Aboriginal and Torres Strait Islander people about how we can better reflect Indigenous ways of being and knowing in our work.

About Climate and Health Alliance

Why we exist: Climate change is the greatest threat to health we face.

Our theory of change: If the health sector leads on climate advocacy and solutions, decision-makers and the public will act, because the community cares about health and trusts health voices.

Our mission: To build a powerful health sector movement for climate action and sustainable healthcare.

Our vision: The health sector plays a leading role in restoring a safe climate, and an ecologically sustainable, just and healthy world.

Contact: fiona.armstrong@caha.org.au

Released September 2021



Suite 4.9, Level 4, 247-251 Flinders Lane,
Melbourne VICTORIA 3000, Australia

© Climate and Health Alliance 2021

About Real, Urgent and Now

This survey was conducted as part of the Climate and Health Alliance (CAHA) project: *Real, Urgent and Now*, supported by the Lord Mayor's Charitable Foundation in 2020/21. This project aims to build capacity within the healthcare sector to understand and communicate the challenge of climate change and the opportunity climate action presents for individual and population health.

CAHA worked with five partner organisations to survey their health professional members to understand barriers and gaps that impact their ability to communicate effectively about climate change and health to a range of audiences.

Acknowledgments

Climate and Health Alliance sincerely thanks the following partner organisations for contributing to this report:



We would like to thank our knowledge partners for their support for this project:



We are grateful to the Lord Mayor's Charitable Foundation for their support for this project.



Contents

Executive summary	7
Introduction	10
Method	13
Results	14
Implications	34
Conclusion	36
What's next?	37



Executive summary

The purpose of the report is to provide an overview of the insights gained from a national survey of Australian health professionals from diverse disciplines:



Health promotion



Public health



Nursing, midwifery



Medical students



Physicians

There were 875 respondents to the survey over two months in late 2020. Respondents came from all states and territories in Australia.

The survey explored health professionals' engagement with climate change, their emotional response to the issue, exposure to climate-health impacts and solutions, their views on priority actions, as well as barriers and enablers to talking about climate change as a health professional and advocating for climate action.

The findings from the survey will be used to guide the development of resources and programs to support health professionals to speak about climate change and health to their patients, clients, colleagues, the media, their communities and their organisations.

Health professionals...



...are concerned about climate change

Health professionals are far more concerned about climate change than the general public. They feel frustrated, outraged and sad when thinking about it.



...are seeing the impact of climate change to their health services

Health professionals report significant disruptions associated with climate change on healthcare service provision and infrastructure. More than half of those surveyed had experienced extreme weather or a natural disaster at work, which negatively affected staff and increased service demand.



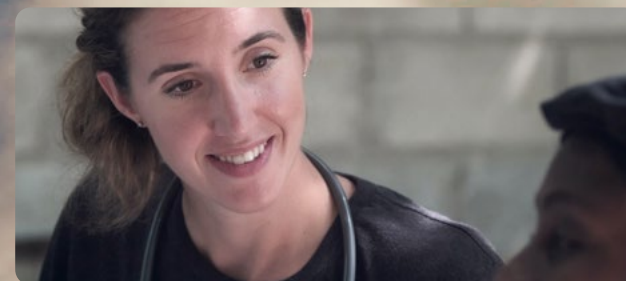
...want action on climate change now

Health professionals want immediate action from governments, business and the health sector. They also think their own organisations could do more on climate by advocating for policy, reducing emissions and providing training to staff and members.



...know that climate change is already affecting health

Health professionals report significant physical and health risks to the communities they serve and the health workforce from climate change. They expect the negative health effects to worsen into the future.



...want to receive information on climate change from their union or professional organisations

Health professionals want resources that convey positive messages about the health benefits of climate action, key messages around climate change and health, and posters, brochures, booklets and factsheets on climate change and health.



...want to talk about climate change but feel insufficiently informed

Only one third of health professionals currently talk to their patients, clients and communities about the health impacts of climate change. A major barrier to talking about climate change and advocating for climate action is that they feel insufficiently informed.



...are more likely to talk about climate change and advocate for climate action if they receive training and resources

Half of those surveyed said they would talk about climate change with their patients, clients and colleagues, and advocate for action within their organisations and communities if they were equipped with adequate knowledge, training and resources.

Introduction

Climate change has been described as the biggest public health threat of the 21st century¹ and is already responsible for a rising death toll and the spread of illness around the world.

Australians are particularly vulnerable due to an already variable and extreme climate. For instance, the unprecedented and climate-related bushfires of 2019-20 had major implications for public health, causing the death of 33 people.¹ A further 417 deaths and 4,456 presentations to hospital have also been attributed to the bushfire smoke that blanketed the east coast of Australia.²

In addition to direct health impacts through extreme events, climate change is also increasingly affecting many environmental and social determinants of health—clean air, safe drinking water, nutritious food, secure shelter and people's livelihoods.

Climate change also threatens the safety and quality of healthcare services. As a material, present and escalating risk to Australia's largest sector (the health and social services sector employs over 1.5 million people and represents 10% of national GDP)³ which underpins the wellbeing and productivity of the economy, climate change is a major threat to Australia's economic stability and security.

Without strong action to curb greenhouse gas emissions, the health and economic impacts of climate change will accelerate in scale and impact. To limit the global average temperature rise to less than 2 degrees, we must deepen the current commitments under the Paris Agreement⁴ and rapidly reduce greenhouse gas emissions globally each year.⁵ Limiting global warming to the preferred scenario of less than 1.5 degrees will require even more drastic action.

Health has been identified as an important lens through which to consider climate change impacts on individuals and society.⁶ Health is a frame which is demonstrated to limit the politicisation of climate change and climate science.

Health is universally valued by all people, regardless of political preference or ideology, thus climate action to protect health is a uniquely compelling call to action. It has enormous potential to reframe the issue of climate change in people's minds.

Health professionals are important and trusted messengers⁷ who have the authority to speak directly about public health threats, and are therefore uniquely placed to communicate the health impacts of climate change.

However, research indicates that health professionals are not yet comfortable talking about climate change in their work.

A 2018 survey⁸ of health professionals in Victoria, Australia revealed that while 86% of health professionals felt they had a role to play in communicating the health impacts of climate change, only 26% were talking about it to patients, clients, or communities. Furthermore, only a third of health professionals felt sufficiently informed about climate change and health, and less than a quarter felt there were relevant education and training opportunities available.

An international survey⁹ found similarly that while most health professionals were interested in engaging in education and advocacy around climate change and health, many health professionals did not due to time constraints, a lack of knowledge, or feeling disempowered.



This survey has been conducted to fill a gap that exists in the research at the national level, and seeks to understand how health professionals across Australia currently engage in the topic of climate change and health in their workplaces and communities.

This information will be used to develop programs to increase the capacity and confidence of health professionals to communicate about climate change and realise their value as trusted and respected voices on the topic.



Method

Together with knowledge partners from Sustainability Victoria, BehaviourWorks Australia, and the Monash Climate Change Communications Research Hub, CAHA designed an online survey to:

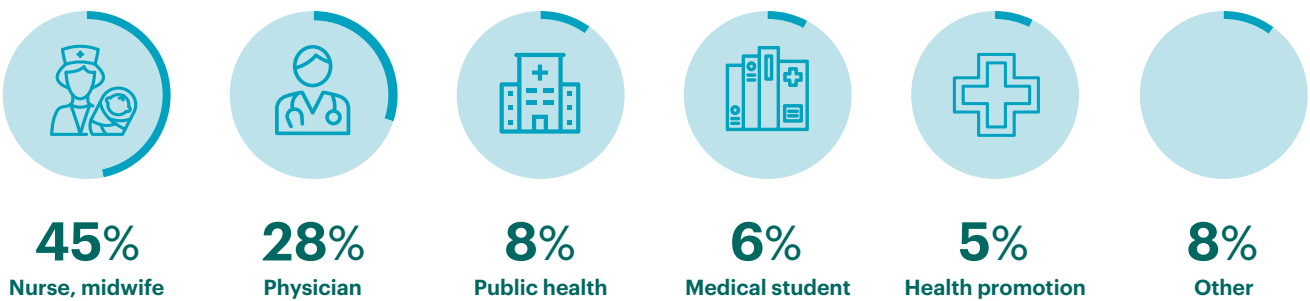
- ✓ Determine the level of knowledge and concern regarding climate change amongst health professionals;
- ✓ Investigate the exposure of health professionals to the impacts of climate change in their workplaces;
- ✓ Better understand health professionals’ knowledge and current communication behaviours regarding the health impacts of climate change;
- ✓ Explore the interest and capacity of health professionals in taking action to reduce the health impacts of climate change.

The survey was distributed via email and social media to health professionals through five national health organisations: Australian Health Promotion Association, Australian Medical Students’ Association, Australian Nursing and Midwifery Federation, Public Health Association of Australia, and Royal Australasian College of Physicians. The survey was also distributed to CAHA’s individual members (Friends of CAHA), and via CAHA’s social media channels. The nationwide survey was completed by 875 health professionals between November and December 2020.

Demographics

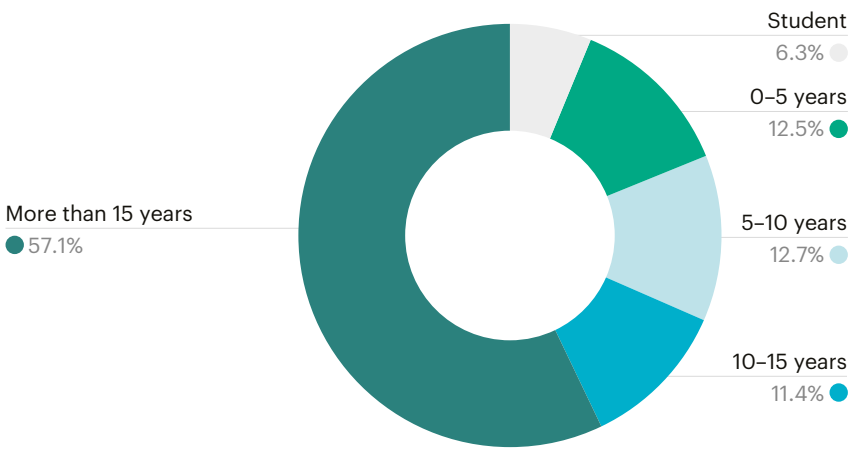
Health profession

The largest proportion of respondents were nurses and midwives, followed by physicians. Other respondents included public health professionals, medical students, health promotion professionals, and others.



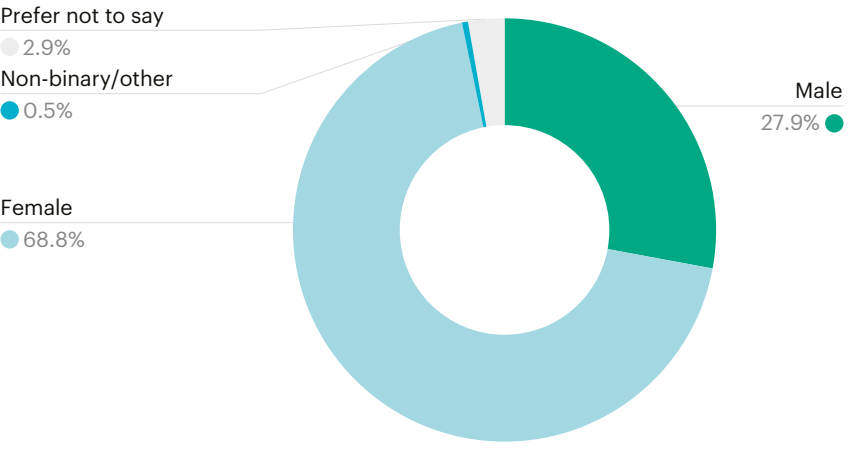
Time in profession

Over half of all respondents (57%) had worked in their health profession for more than 15 years. Those who had been in the profession less than 5 years represented 12% of respondents; 13% had been in their profession for 5-10 years; and 11% for 10-15 years. Students represented 6%.



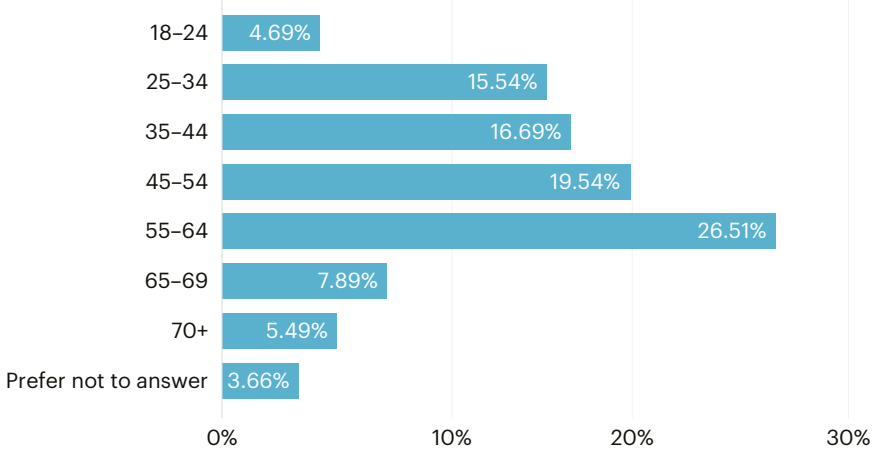
Gender

Almost 7 out of 10 respondents (69%) were female, and 3 out of 10 male (28%). Around 0.5% identified as gender non binary, while 3% preferred not to answer.



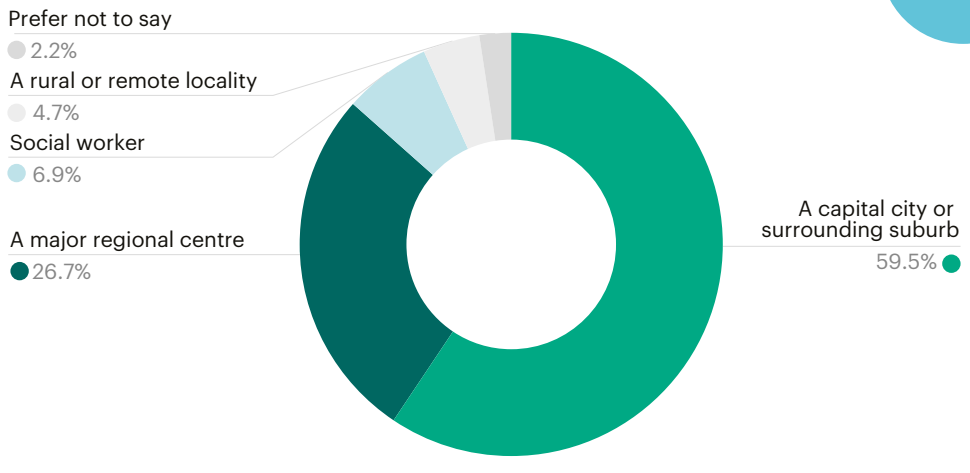
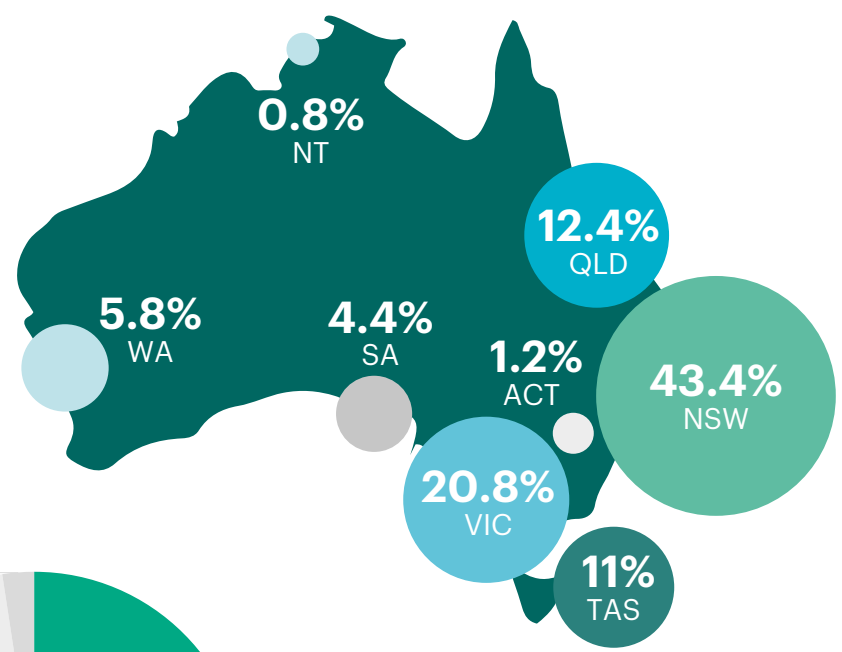
Age

The age range of respondents was between 18 and 70+, with the largest group being between 55-64 years old.



Location

Respondents came from all states and territories in Australia, with the largest proportions from New South Wales and Victoria. The break-down of respondents by location reflected the general proportion of Australians living in urban, rural and remote areas, with a greater proportion living in cities (60%), compared to 27% in major regional centres, and 12% from rural and remote areas.



How do health professionals feel about climate change?

Around three quarters of respondents (76.5%) described themselves as ‘very interested’ in the topic of climate change, signalling a highly engaged group of respondents.

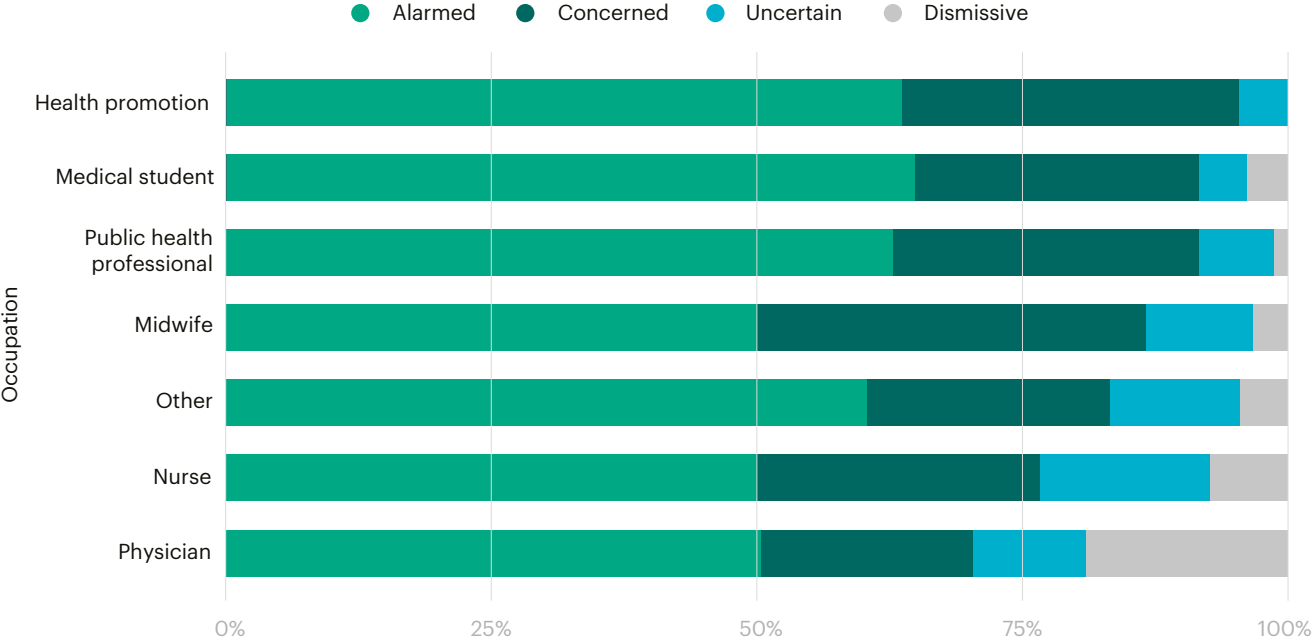
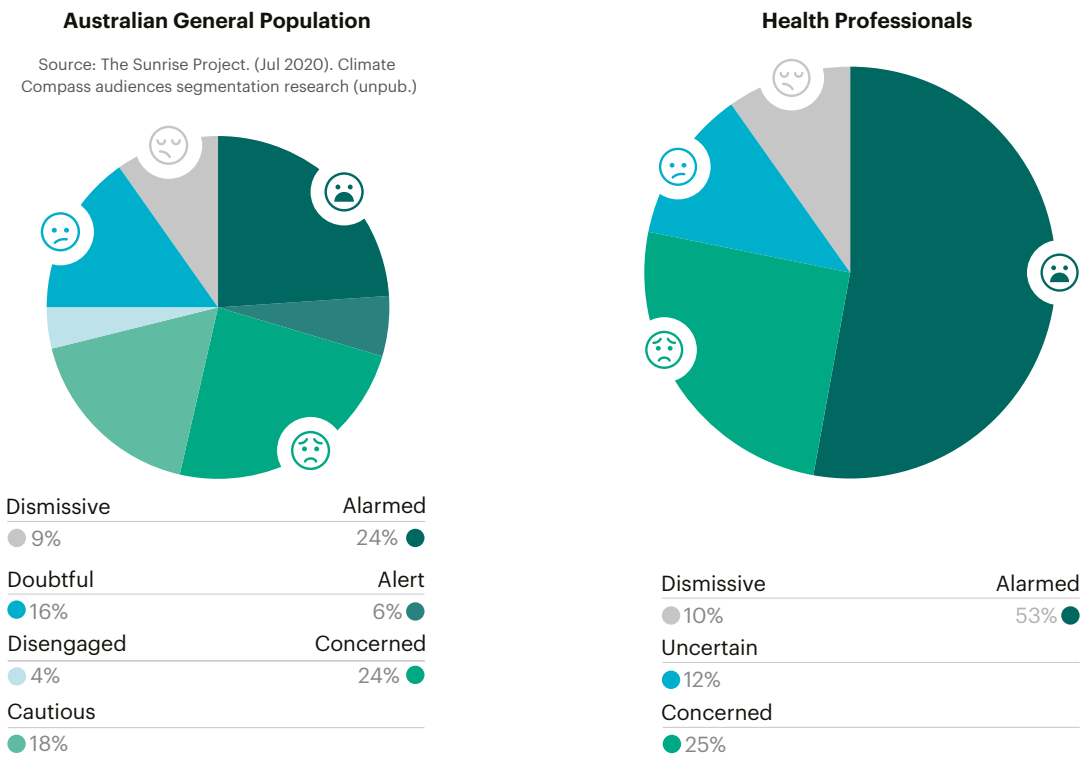
The survey included questions to segment respondents into distinct audiences according to their engagement, beliefs, and concern about climate change.¹⁰ Using latent profile analysis, survey respondents were categorised into four distinct groups:¹¹ **Alarmed** (53%), **Concerned** (25%), **Uncertain** (12%) and **Dismissive** (10%).

- Alarmed** respondents are highly engaged in climate change, accept that it is caused by humans, and are already taking action to address it;
- Concerned** respondents are worried about climate change, though they do not engage with it personally;
- Uncertain** respondents are generally disengaged and believe climate change is less relevant to them than other issues;
- Dismissive** respondents are actively sceptical of climate change.

Health professional segments were compared with the segments present in the Australian general public.¹²

The proportion of health professionals who were Alarmed about climate change was almost double that of the general population. In this graphic, the Alarmed segment of health professionals also includes those who were "Alert".

Three out of four health professionals fell into the Alarmed (53%) or Concerned (25%) segments, signalling their relatively high concern for climate change compared to the general public. The Cautious, Disengaged and Doubtful segments of the Australian public were merged into one Uncertain (12%) segment of health professionals, due to relatively small numbers. The Dismissive segment (10%) of health professionals is a similar proportion to the general public.



There were differences in segmentation between different health occupations. While the majority of respondents across all professions were Alarmed or Concerned, this varied from 69% for physicians to 95% for health promotion professionals.

The future health workforce is the most concerned. Medical students had the largest Alarmed segment (65%), while physicians and nurses had the smallest Alarmed segments (both 50%).

Younger health professionals were slightly more likely to be alarmed than their older colleagues.

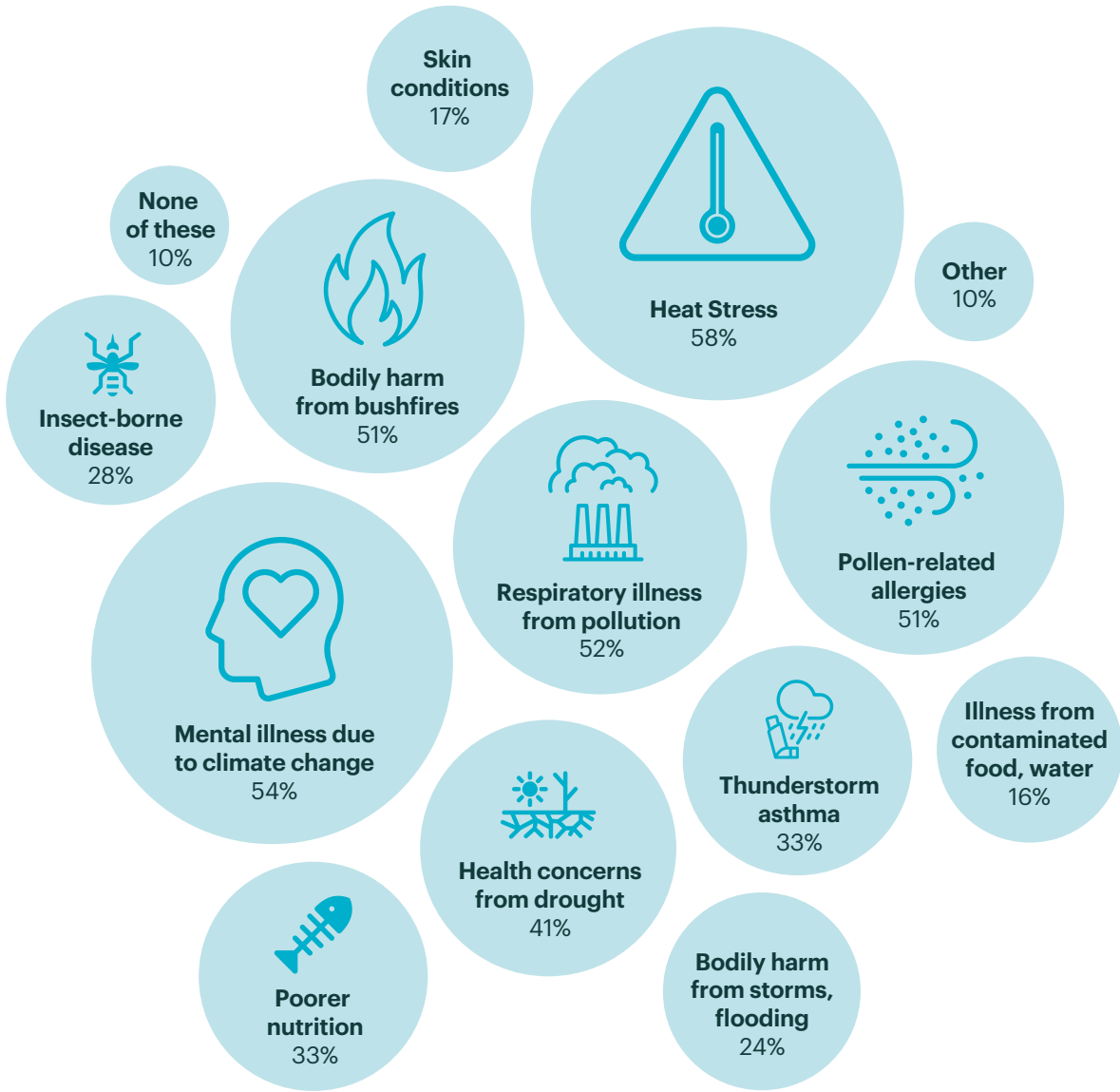
The strongest emotions felt by respondents when thinking about climate change were frustration, outrage and sadness. These emotions were felt more strongly by younger health professionals, who also commonly reported heightened feelings of fear, anxiety, and feeling overwhelmed. Hope was the only tested emotion that showed a positive relationship with age, suggesting that older health professionals are more likely to be hopeful than their younger peers.

How do health professionals view the health risks of climate change?

Almost all respondents had thought to some extent about how climate change may affect people’s health. **Seven in ten respondents (72%) indicated that climate change is already having a moderate to great impact on public health in Australia.** Likewise, 57% of respondents reported climate change is already impacting health services and infrastructure. A majority of respondents believe that in the future climate change will negatively impact these things a great deal. Those who showed high levels of concern about climate change¹³ were more likely to predict worsening future outcomes than those who were less concerned.

The five most common health conditions that respondents reported seeing in their patients were heat stress or heat stroke caused by heat waves, mental illness related to climate change, lung illnesses from increased air pollution, bodily harm from bushfires, including smoke inhalation and pollen-related allergies.

The percentage of respondents who are currently seeing the climate-related health issues in their patients or clients:



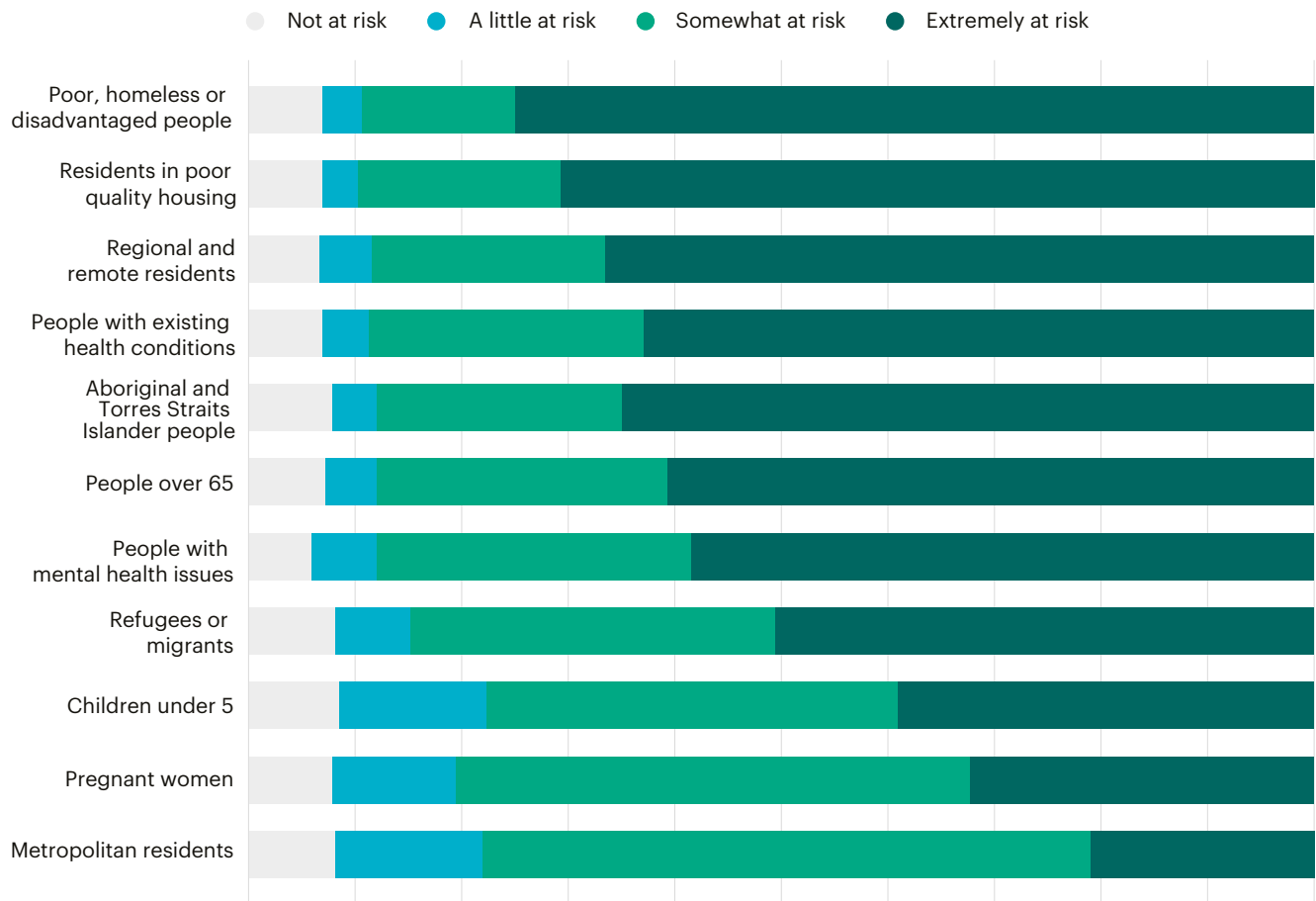
Those who worked in an organisation affected by extreme weather were more likely to have reported all listed climate-related health conditions as ‘Currently occurring’, compared to those whose organisations had not been exposed to extreme weather events. Physicians reported seeing the fewest climate-related health conditions in their patients.

More than four in five respondents across all professions expected climate-related health conditions to become more common over the next 10 years. Mental illness, heat stress or heatstroke, and bodily harm from bushfires were considered by almost all professions to be the three most likely health conditions to increase in the next decade.

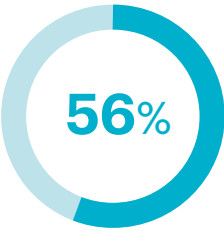
Respondents indicated that the vulnerable groups most at risk of health impacts from climate change were:

- **Poor, homeless or otherwise disadvantaged people** (considered ‘extremely at risk’ by 74% of respondents)
- **People living in poor quality housing without efficient heating or cooling** (considered ‘extremely at risk’ by 70% of respondents)
- **People living in regional and remote areas** (considered ‘extremely at risk’ by 66% of respondents)

Other groups that were considered to be at risk include **elderly people, those with existing health conditions, and Indigenous people.**



What are the impacts of climate change and extreme weather on health services?



Over half of all respondents reported that their health service or healthcare institution had been adversely affected by extreme weather events in the last twelve months. Bushfires (27%) and bushfire smoke (39%) were the most commonly reported events, while heatwaves were the next most prevalent (32%), followed by storms (21%), and flooding (13%).

These events significantly impacted health services. Of those who has experienced extreme weather events:



32%
reported
staff absence
from work



28%
reported
effects to
staff health



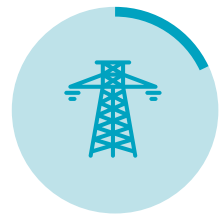
26%
reported
increased service
demand



23%
reported
disrupted access
to health services



21%
reported
effects to staff
transport



18%
reported
power failures



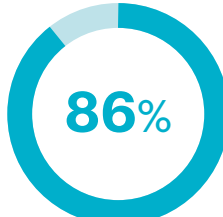
8%
reported
destroyed or
damaged assets



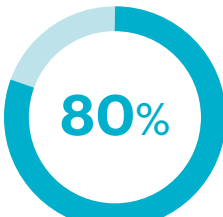
3%
reported
a need to
relocate

Who should respond to the health risks of climate change?

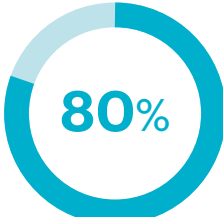
There is a clear consensus among respondents that climate change is a serious problem that requires immediate action, and that the public needs to be better informed about the link between climate change and health.



agree climate change is a serious problem requiring immediate action, and that the public needs more information on its link with health

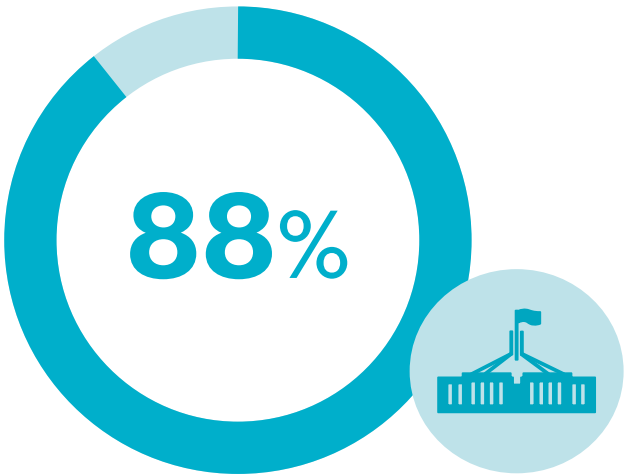


agree the health sector should lead the way on climate action to keep global temperature rise under 2°C



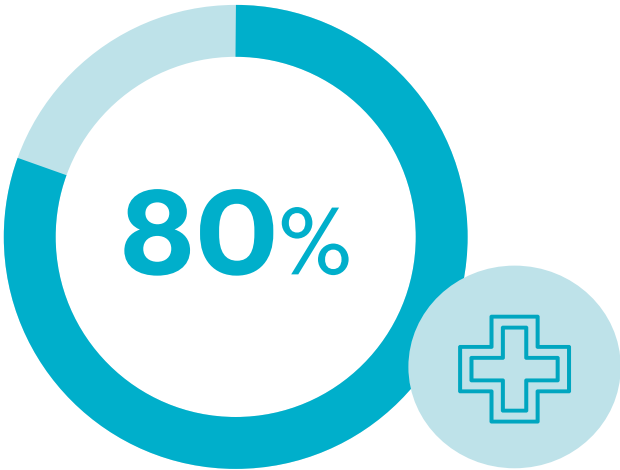
agree health professionals should inform the public about the health effects of climate change

Who should take action?



Almost nine in ten respondents said of respondents indicated that national, state and territory governments, business and industry should be doing more than they are now to protect people from health problems related to climate change

80% of respondents agree that health services and health organisations should be leading the way on climate change action to keep the global temperature increase to less than 2°C



Action from the health sector

More than 80% of respondents think that the health sector could be advocating for policy to address climate change at the federal, state, and local level, as well as reducing emissions in healthcare settings. Additionally, almost three quarters of respondents think that the health sector should divest from fossil fuels, and provide training for all health professionals on climate change.

Respondents also believe that individual health professionals have a role to play in informing the public (80%) and policy makers (78%) about the risks to health from climate change.



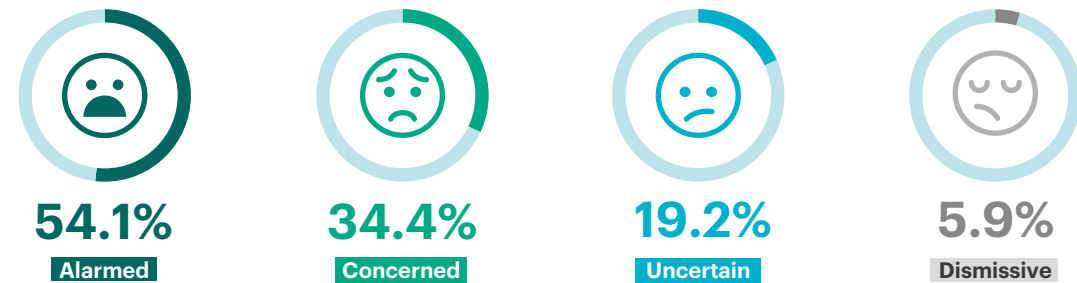
Are health professionals communicating about climate change?

Less than a third of respondents (30%) currently talk to their patients, clients, or community about the health impacts of climate change. Those who do talk to their patients were more likely to be Alarmed or Concerned, and to have stronger feelings of outrage, grief, sadness and frustration when thinking about climate change. About half of Alarmed respondents and a third of Concerned respondents currently talk about climate change with their patients, clients or communities.

Just over one quarter of respondents (27%) were very comfortable communicating the health impacts of climate change to their patients, clients, or communities. Public health and health promotion professionals were most comfortable talking about climate change, while physicians and nurses were the least comfortable.



Who is already talking about climate change at work?

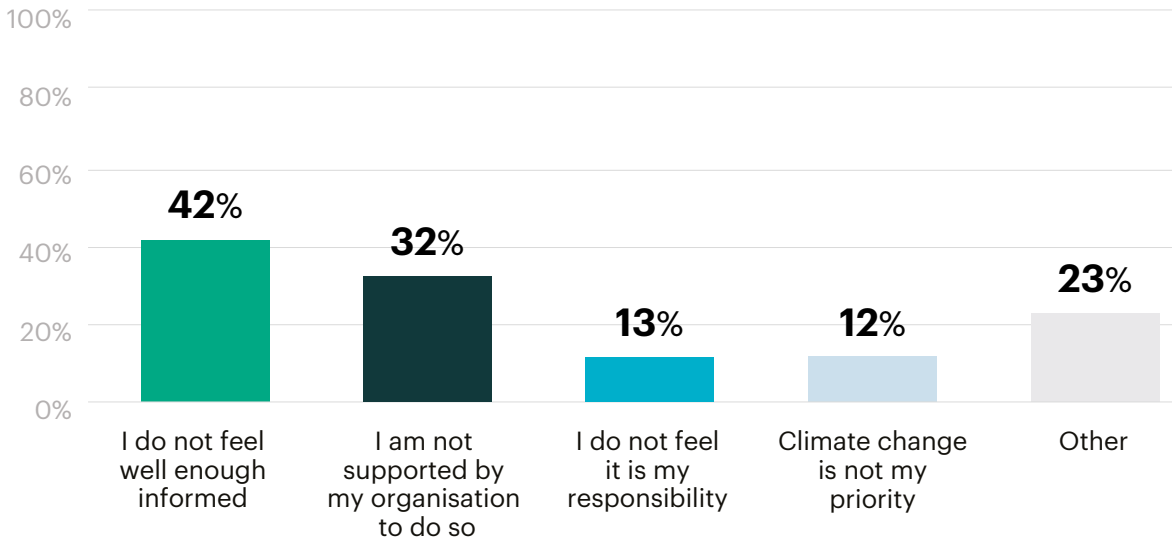


Respondents who knew of others in their organisation talking about climate change were more personally comfortable with talking about climate change than respondents who were not aware of others in their organisation doing so.

Those respondents who were already communicating to their patients, clients, or communities about the health impacts of climate change were also more comfortable talking about ways that people can protect themselves and their health from climate change, and about the actions that individuals can take to mitigate climate change.

Of those who do not already talk about climate and health, 38% said they were 'somewhat' to 'extremely' comfortable with talking about climate change and health, but did not do so, indicating additional barriers to talking about climate change other than comfort level.

The most commonly reported barrier to communicating climate health messages was respondents did not feel well enough informed about the health impacts of climate change (42%), followed by a lack of organisational support (32%).



Only one third of respondents (34%) felt sufficiently informed about climate change as a health professional.

Only one in five respondents (21%) agreed there are sufficient education and training opportunities available to them on the issue of climate change and health, while over three quarters of respondents (78%) agreed that it should be part of ongoing professional training.

Three quarters of respondents (76%) indicated that they would like to learn more about the health impacts of climate change and almost 70% indicated that they would likely attend events on how to communicate the health impacts of climate change.

More than half of all respondents indicated that they would be comfortable communicating climate health messages with adequate training, knowledge, and/or resources.

Other barriers for health professionals included climate change not being prioritised within their organisation (12.34%), and feeling they are not responsible for communicating on this topic (11.89%).

Qualitative responses

Qualitative responses provided further insight with many respondents indicating that climate change was a difficult or inappropriate topic to discuss with patients, especially given the limited resources (time and capacity) health professionals have. Some respondents suggested the potential of a negative response from patients to information about climate change was a barrier, while others doubted their responsibility as health professionals to communicate these messages.

It is a complicated and high risk subject to discuss with patients

Climate change is politicised and unfortunately patients think I'm being political rather than health-orientated

My organisation has removed language regarding climate change from our workplace culture strategic plan

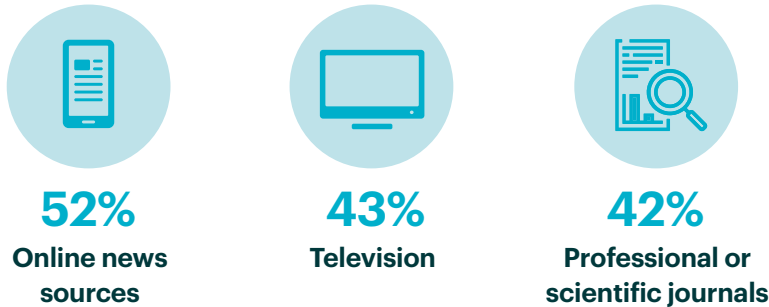
I worry about the reactions I will get from people who do not feel that climate change is a concern

I do not feel that talking about or acting on climate change during my time at work is within the remit of my role

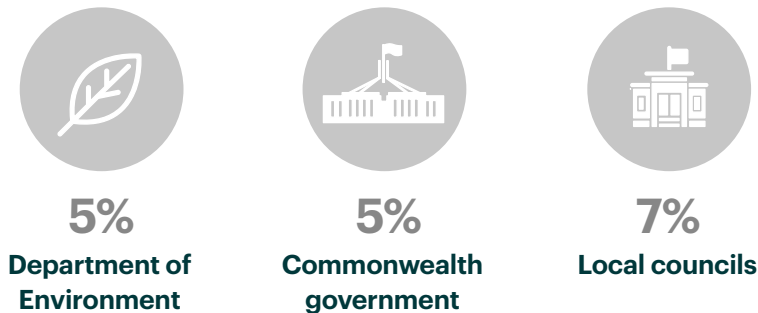
Nurses already have a ridiculous workload, too much expected from us. Educating patients on climate change is not a priority

Where do health professionals get their information about climate change?

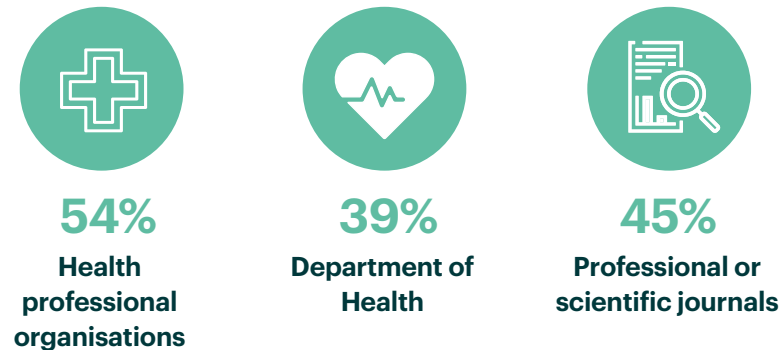
Most respondents indicated that they currently keep informed about the health impacts of climate change through the following sources:



The least accessed sources of information were:



In the future health professionals said they would prefer to be informed and updated on the issues of climate change and health by:



Are health professionals advocating for climate action?



More than half of respondents said they would be very likely to advocate for their institution to reduce its emissions if they had adequate training, resources, and/or knowledge. About 40% of respondents said they would also advocate for climate action in their local community, and/or to their local Member of Parliament, and/or for their organisation to develop a climate risk plan.

Those who were most likely to advocate for climate action were more likely to feel frustrated, sad, outraged, overwhelmed, despairing, fearful, grief, guilty, and/or anxious when thinking about climate change.

Respondents reported the greatest barriers to advocating for climate action were:



Qualitative responses

Qualitative responses further indicated that time constraints were an extremely common barrier to action, with many health professionals already working in roles that demand overtime. Social influences and norms within workplaces were also barriers to action. Here are some of the comments from respondents.

I would be discriminated against if I campaigned at work

Concerned about backlash if I do this at work

Although I'm concerned, I currently do not have the time or energy to do more

Three in four respondents (74%) said they were likely to attend an event to improve their understanding of climate science and the health impacts of climate change. Almost two thirds (62%) of respondents said they were likely to attend an event on how to advocate to decision makers for climate action. Almost 70% said they would attend a training event on how to communicate the actions and day to day changes people can make to prevent climate change getting worse.

The respondents said the most useful resources to assist in advocating for climate action were:



Qualitative responses

When asked what additional support could assist with advocating for climate action, respondents overwhelmingly indicated that there was a need for further education for staff and management, as well as training to engage and inform health professionals on climate change and health. There was also requests for support for advocacy efforts.

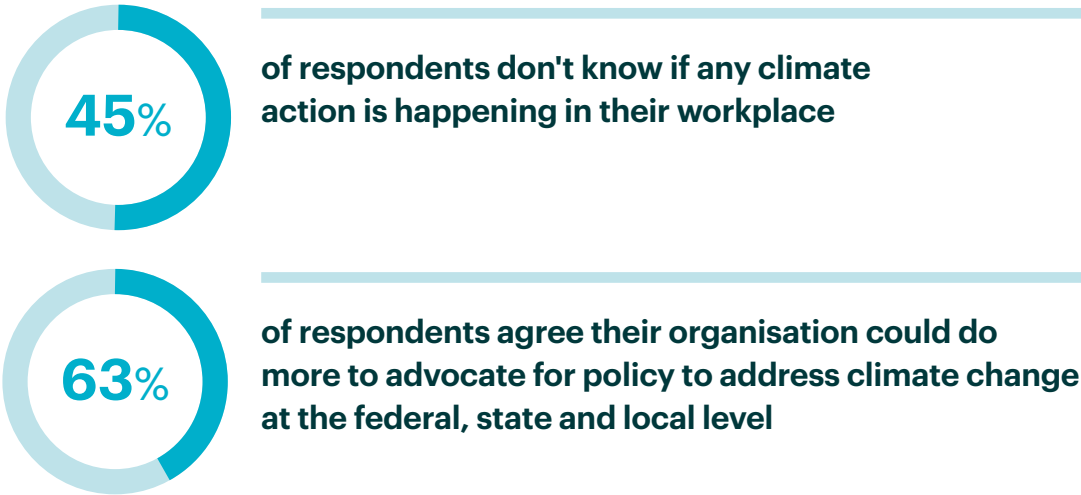
Information on specific ways this can be introduced to clients/patients and how to address leadership that isn't interested or feels it is not part of our 'core business'

Love more training in how to advocate and present amongst backlash

Develop the tools and resources to make it as easy as possible for people to act



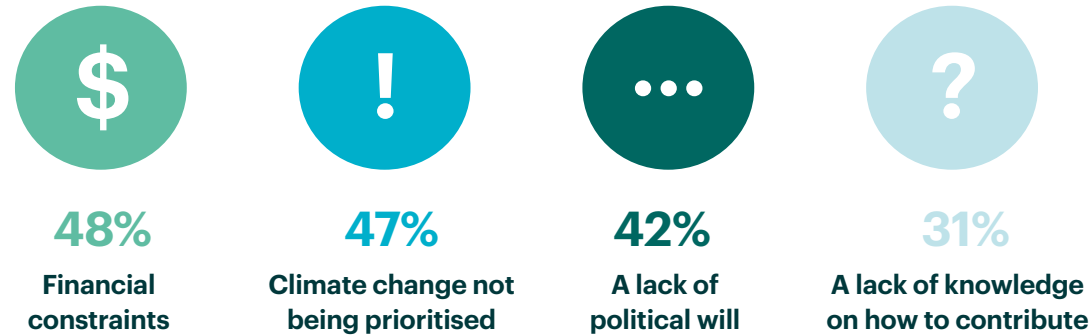
What more can health organisations do?



About a third of respondents (30%) indicated that their workplace or organisation is already taking climate action, or is planning to do so, while almost half of respondents (45%) didn't know if any effort to tackle climate change was taking place. Of those who said their organisation is taking action, 22% said that their organisation was reducing its own greenhouse gas emissions, and 13% said their organisation was advocating for policy to address climate change at the federal, state and local level. Almost two thirds of respondents (63%) thought that their organisation could do more to advocate for policy to address climate change at the federal, state and local level, as well as take actions to reduce emissions, and provide training for all staff on climate change. Over half (54%) thought their organisation should be divesting from fossil fuels.

The majority of respondents thought all the above actions (advocate for policy, reduce emissions directly, provide training for staff and divest from fossil fuels) were possible in their profession, though different professions preferred different actions. Public health professionals indicated that their organisations could do more policy advocacy, while nurses suggested their organisations could train more staff members about climate change and health. Physicians said their organisations could do more to reduce greenhouse gas emissions.

Respondents said the four greatest barriers to their organisation tackling climate change were:



Qualitative responses

These themes also came through strongly in the qualitative answers respondents provided.

- High level leadership lacking; not embedded into the organisation's mission, values statements and strategic plan
- Being a government agency, it can be challenging to address issues that have been politicised such as climate change
- It would be considered a bit political for a public hospital

Implications



Health professionals are more concerned about climate change

Health professionals agree that the health effects of climate change are here, now – and they will get worse.

Health professionals are more concerned about climate change than the general public, with more than half of all health professionals surveyed classified as Alarmed about climate change, and a further quarter classified as Concerned. According to audience segmentation research, Alarmed audiences are most likely to engage in political activism, corporate activism, and discussions about climate change.¹⁴

Given a large proportion of health professionals are Alarmed, they are a group that can be mobilised to take action – with the right training and resources.



Health professionals and climate anxiety

Health professionals feel strong negative emotions, including frustration, sadness and outrage, when thinking about climate change.

The physical and mental health effects of climate change, like climate anxiety,¹⁵ should be considered as a risk to the health and wellbeing of health professionals. A key factor contributing to climate anxiety is understanding the existential threat of climate change but not feeling capable or empowered to mitigate it.¹⁶ This could explain why health professionals are seeking resources with positive and solutions-focused messaging.

Providing resources that increase the capacity of health professionals to respond will be positive for climate action and for their mental health.



The health sector's role

Health professionals believe the health sector has a significant role to play in acting on climate – but they feel insufficiently informed to talk to their patients, clients, and communities about the health effects of climate change.

Not feeling well informed on climate change and health is the largest reported barrier to health professionals communicating the health impacts of climate change to others. While approximately a quarter of respondents felt comfortable talking about the health impacts, more than half said they would be more comfortable if they were equipped with resources, training and information.

This points to the great need for quality, evidenced-based resources and training specifically targeted towards health professionals in Australia.

Given a large proportion of health professionals are Alarmed, they are a group that can be mobilised to take action – with the right training and resources.



Preferred sources of information

Health professionals want information about climate change from their professional organisations.

These organisations were identified as one of the most-preferred sources of information on climate change and health, alongside the Department of Health and professional and scientific journals.

There is an opportunity for health professional organisations to meet this demand through the development of targeted information for their members about climate change and health.



Demand for education and training

There is strong demand for education and training on climate change and health amongst health professionals.

A large majority of health professionals do not feel that they have sufficient opportunities for education and training on climate change and health. Yet three quarters of health professionals want to learn more about climate change and health through their undergraduate and postgraduate curriculum and continuing professional development training.

Combined with the observation that the willingness of health professionals to communicate and act on climate doubled when they felt adequately equipped, **this data provides strong evidence for developing training and resources targeted at health professionals.** Specifically, greater content on climate change in undergraduate and postgraduate health programs, and formal continuing professional development education for health professionals.

These resources would teach health professionals about the links between health and climate change and equip them with strategies to respond.

Conclusion

The findings from this research confirm that climate change is a serious current threat to the Australian public, the health workforce, and healthcare services in Australia. There are clear, substantive and increasing risks to the health of the community, and widespread concrete evidence that the provision of, and access to, health services by patients and the community are being disrupted by climate-related events. It is therefore imperative that greater action on climate change is realised in order to protect human health.

As trusted voices within the community, health professionals have an opportunity to communicate the health impacts of climate change to their patients, clients and communities, as well as advocate for governments and their own organisations to take climate action. However, several barriers, including a lack of knowledge and confidence in communicating the health impacts of climate change, must first be overcome. The study will guide initiatives and resources to address these barriers and can help guide health professionals become effective advocates for climate action.

What's next?

This survey was conducted as part of the Climate and Health Alliance's *Real, Urgent, Now* project, supported by the Lord Mayor's Charitable Foundation.

Using the insights from this survey, the Climate and Health Alliance is working with our partner organisations, knowledge partners and experts to address the key implications of the report. Some of these initiatives include:

- Developing resources to explain ways health professionals can act on climate change to ensure they feel empowered to take action, and to promote hope and positive mental health
- Equipping health organisations and institutions to take action on climate change by reducing emissions in the healthcare sector via our Sustainable Healthcare program
- Providing training for health professionals on:
 - The health effects of climate change, and how to talk about the issue with colleagues, clients/patients, decision-makers and the wider community
 - How to talk to the media about the health impacts of climate change
- Promoting our communications guide to help health professionals feel confident in talking about climate change and understand their power and influence in doing so
- Evaluating which messages are most helpful to mobilise and inspire health professionals to take further action, as well as promote hopefulness and agency
- Connecting health professionals with opportunities to highlight the health effects of climate change to the public

We urge all those interested in this topic to use these findings to inform other initiatives to support health and medical professionals to access the information and resources they require to become effective communicators and advocates on the topic of climate change and health. We also encourage the health sector to work collectively to secure the resources required to reduce emissions in order to reduce the threat of climate change to the health workforce, to health services, and to the wider community through advocacy, communication, and action.

References

1. Costello, A. Abbas, M. Allen, A. Ball, S. Bell, S. et al. (2009) “Managing the health effects of climate change: Lancet and University College London Institute for Global Health Commission.” The Lancet, 373(9676).

2. Hughes, L. Steffen, W. Mullins, G. Dean, A. Weisbrot, E & Rice, M. (2020) “Summer of Crisis.” Climate Council, <https://www.climatecouncil.org.au/wp-content/uploads/2020/03/Crisis-Summer-Report-200311.pdf>.

3. Borchers Arriagada, N. Palmer, AJ. Bowman, DM. Morgan, GG. Jalaludin, BB & Johnston, FH. (2020) "Unprecedented smoke-related health burden associated with the 2019–20 bushfires in eastern Australia." Medical Journal of Australia, 213(6).

4. Australian Institute of Health and Welfare. (2020). “Health Expenditure.” Retrieved from <https://www.aihw.gov.au/reports/australias-health/health-expenditure>

5. Maibach, E. Miller, J. Armstrong, F. ElOmrani, O. Zhang, Y. Philpott, N. Atkinson, S. Rudoph, L. Karliner, J. Wang, J. Pétrin-Desrosiers, C. Stauffer, A. Jensen, G. (2021) “Health professionals, the Paris agreement, and the fierce urgency of now.” The Journal of Climate Change and Health, 1.

6. Liu, PR. Raftery, AE. (2021) “Country-based rate of emissions reductions should increase by 80% beyond nationally determined contributions to meet the 2°C target.” Communications, Earth & Environment, 2(1).

7. Maibach, EW. Nisbet, M. Baldwin, P. Akerlof, K. Diao, G. (2010) “Reframing climate change as a public health issue: an exploratory study of public reactions.” BMC Public Health, 10(299).

8. Hanrahan, C. 27 November 2019, “Australia Talks: The most and least trusted professions revealed,” <https://www.abc.net.au/news/2019-11-27/the-professions-australians-trust-the-most/11725448>.

9. Sustainability Victoria. (2020) “Linking climate change and health impacts.” <https://assets.sustainability.vic.gov.au/susvic/Report-Linking-climate-change-and-health-impacts-Research-Snapshot-2020.pdf>.

10. Kotcher, J. Maibach, E. Miller, J. Campbell, E. Alqodmani, L. Maiero, M. et al. (2021) “Views of health professionals on climate change and health: a multinational survey study.” The Lancet Planetary Health, 5(5).

11. Chryst B, Marlon J, van der Linden S, Leiserowitz A, Maibach E, Roser-Renouf C. (2018). “Global Warming’s “Six Americas Short Survey”: Audience segmentation of climate change views using a four question instrument.” Environmental Communication, 12(8).

12. Leiserowitz A, Maibach E, Roser-Renouf C. Global Warming’s Six Americas 2009: An audience segmentation analysis. 2009. Retrieved from http://climatecommunication.yale.edu/wp-content/uploads/2016/02/2009_05_Global-Warmings-Six-Americas.pdf

13. The Sunrise Project. (Jul 2020). Climate Compass audiences segmentation research (unpub.)

14. According to whether they belonged to the Alarmed, Concerned, Uncertain or Dismissive segment

15. Leiserowitz A, Maibach E, Roser-Renouf C. Global Warming’s Six Americas 2009: An audience segmentation analysis. 2009. Retrieved from http://climatecommunication.yale.edu/wp-content/uploads/2016/02/2009_05_Global-Warmings-Six-Americas.pdf:<http://environment.yale.edu/climate/files/climatechange-6americas.pdf>

16. Clayton S. (2020). “Climate anxiety: Psychological responses to climate change.” Journal of Anxiety Disorders, 74.

17. Ingle HE, Mikulewicz M. (2020). “Mental health and climate change: tackling invisible injustice.” The Lancet Planetary Health, 4(4).

**Climate change
is a health emergency.
As a health professional,
your voice counts.**

Continue the conversation at caha.org.au



**CLIMATE^{AND}
HEALTH
ALLIANCE**