



**Australian
Nursing &
Midwifery
Federation**
VICTORIAN BRANCH

535 Elizabeth Street
Melbourne Victoria 3000

Box 12600
A'Beckett Street PO
Melbourne Victoria 8006

anmfvic.asn.au

t 03 9275 9333

f 03 9275 9344

e records@anmfvic.asn.au

ABN 80 571 091 192
RTOID: 22609

ANMF (Vic Branch) Submission to the Health and Human Services Adaptation Action Plan 2022-2026

Lisa Fitzpatrick
Secretary
ANMF (Vic Branch)

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Contact person:

Roslyn Morgan
Environmental Health Officer
rmorgan@anmfvic.asn.au

The ANMF (Vic Branch) background

The Australian Nursing and Midwifery Federation (ANMF) is Australia's largest national union and professional nursing and midwifery organisation. The ANMF's eight state and territory branches represent the professional, industrial and political interests of more than 300,000 nurses, midwives and carers across the country.

ANMF (Vic Branch) has a membership of over 94 000 comprising nurses, midwives and personal care workers (however titled and working predominantly in the private residential aged care sector). Our members are employed in a range of health services and clinical specialties including hospitals, aged care, community health, mental health, maternal and child health, alcohol and other drug sector, medical clinics, prisons and the Australian Red Cross Blood Service.

The ANMF (Vic Branch) actively promotes action on climate change and environmental sustainability. Nurses and midwives see daily the ways in which everyone's health is inextricably linked to the [health of the environment in which we live](#). Negative health impacts of climate change and environmental degradation affect the key social determinants of health and damage social and community structures. These negative health impacts in turn increase pressure on already burdened health services.

Member consultation

ANMF (Vic Branch) welcomes the opportunity to provide feedback on the Health and Human Services Climate Change Adaptation Action Plan 2022-2026 (the 'AAP').

ANMF (Vic Branch) provided the opportunity for members to review the AAP and have incorporated member suggestions and observation into our commentary and recommendations.

The synergy between mitigation and adaptation

We begin by acknowledging the synergy between mitigation and adaptation. Reducing the severity of climate warming will make it easier for communities to adapt. Adaptation and mitigation must go hand in hand.¹ It is also important that Victorians understand how they can meaningfully and actively participate in action to address climate change.

It is important to note the critical role of primary health prevention. Climate change adaptation is a form of secondary prevention. One example of primary health care provision that adds to quality of care and can reduce hospital transfer, is nurse: patient ratios in the aged care sector.

¹ Daisy Simmons: <https://yaleclimateconnections.org/2019/12/what-is-climate-change-adaptation-and-why-does-it-matter/>

Funding and return on investment

Building resilience to climate change will require investment. Modelling published in *The Lancet Planetary Health* (2018), found that savings from health benefits alone would compensate for the costs of mitigating the effects of climate change in line with the Paris Agreement.² The Intergovernmental Panel on Climate Change (IPCC) estimates that limiting warming to 1.5°C would require an annual investment in the energy system equivalent to around 2.5% of global GDP until 2035.⁸² This sounds like a hefty sum until put into the context that investment to “bend the curve” from the world’s current path and limit warming to arise of 1.5°C by 2100 would generate a net global benefit of \$264-610 trillion (3.1-7.2 times the size of the global economy in 2018).³

It is worth remembering that many of the healthcare staff who work in this space are both value-driven and passionate. Such people deliver return on investment.

Nurses and midwives work tirelessly to implement environmentally sustainable practice and address climate risk over and above their clinical workload. Representing the greatest proportion of the healthcare workforce, nurses and midwives are motivated, insightful and practical. We are clinicians at the coal face and understand “work-as-done” rather than “work-as-imagined⁴” by distanced policy makers.

Australia is a country particularly vulnerable to the impacts of climate change.⁵ Preparing health services for its impact is crucial. This decade must be transformational, and one where we choose a safer future.

Recommendations

1. Adaptation strategies must creatively and strategically incorporate and resource the leadership of the healthcare sector.
2. Adaptation must incorporate primary health prevention strategies.
3. Business case and funding decisions need to regard the cost of inaction.
4. Dedicated funding to provide the financial capacity and resilience necessary to strengthen the health workforce and service delivery through strategies outlined in this report.

² [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(18\)30029-9/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30029-9/fulltext)

³ The 2020 report of The Lancet Countdown on health and climate change: responding to converging crises, executive summary found at: <https://www.envirovaluation.org/2020/12/the-2020-report-of-lancet-countdown-on.html>

⁴ <https://www.bmj.com/content/361/bmj.k2014>

⁵ <https://insightplus.mja.com.au/2019/14/australias-healthcare-system-can-it-cope-with-climate-change/>

Areas of concern and why they matter

The Consultation Survey identified six areas of concern. These are:

1. Direct impacts to health and wellbeing from extreme weather events eg: bushfire, flood
2. Indirect impacts to health and wellbeing eg: vector/water/food borne disease
3. Impact on determinants of health and wellbeing such as employment, income, access
4. Disproportionate impacts on different communities
5. Disruption to service delivery
6. Damage to infrastructure eg: hospitals, housing

ANMF (Vic Branch) conducted a survey to identify areas of concern to members. All of the listed areas were identified as significant and in need of response. Feedback includes: “It is all connected. Everything affects our health. It can be prevented with proactive actions.”

ANMF (Vic Branch) values high quality care, nursing and midwifery excellence, and improved patient outcomes. All of these are placed at risk by the listed impacts of climate change, therefore all are substantively concerning.

Both directly and indirectly, the impacts from climate change will affect global populations, however those impacts will be experienced disproportionately. This will place increased demand on services which may be disrupted due to compromised infrastructure, supply chains and staffing. The impacts listed are interrelated rather than lending themselves to tabulation and rank. All will impact on service delivery and capacity to deliver quality patient care. All require recognition, mitigation, and as last resort, adaptation.

Extreme events further increase stressor demand on stretched health services and can overwhelm emergency and critical care departments.

The November 2016 thunderstorm asthma event saw a 3000% increase in asthma related intensive care admissions in Melbourne and Geelong public hospitals in a 30 hour period⁶. This followed 2332 calls for ambulance assistance in 12 hours.⁷ The 2009 bushfires resulted in a 46% increase in emergency cases at hospitals across the state, including a 2.8-fold increase in cardiac arrest cases.⁸ The 2014 heatwave in South Australia saw Adelaide become

⁶ The November 2016 Victorian epidemic thunderstorm asthma event: an assessment of the health impacts, The Chief Health Officer's Report, 27 April 2017

⁷ <https://www.heraldsun.com.au/news/victoria/coroner-to-reveal-findings-into-2016-thunderstorm-asthma-deaths/news-story/cdcc201e922ca490ddd6ab14c802bf0e>

⁸ <https://environmentvictoria.org.au/our-campaigns/safe-climate/victoria-heatwaves-climate-change/>

the hottest place on the planet and heart attack rates increased by more than 300%.⁹ Smoke from bush fires in January 2020 affected the Canberra hospital. MRI functionality was affected, and procedures were cancelled. Storms in 2016 resulted in the Adelaide hospital losing power, back-up generators failed, and patients were transferred.¹⁰

There are secondary, sometimes hidden impacts that must also be considered. For example, in the lead-up to Black Saturday in 2009, 374 Victorians were killed by exposure to extreme temperatures during the heatwave. Mortality is compounded by heat effect, dehydration and aggravation of underlying cardiovascular and respiratory conditions. Climate change doesn't necessarily create disease, but it amplifies existing health burdens and disease states.

Concerningly, research by Sustainability Victoria (2019) found that the links between climate change and health are poorly understood. Victorians ranked health as the most important issue for them, yet the majority had thought very little about how climate change might affect their health. That left one-third of the public unaware that health risks, such as heat stress and asthma, are likely to increase with climate change. In some instances, those who are least aware are most at risk.¹¹

Health professionals themselves can be affected by the impacting event with both personal and professional implications. When the 2019-20 heatwave and associated bushfires hit Victoria, ANMF (Vic Branch) forwarded a registry of nearly 1000 members to volunteer as part of the Rural Workforce Agency Victoria for bushfire disaster relief. At the same time, ANMF (Vic Branch) were organising emergency relief for staff in Gippsland and Alpine area health services. One example is an emergency convoy to Corryong to replace nursing staff who had been at the hospital for five days since the bushfire closed in on the town on New Years Eve.¹² Members volunteered in emergency shelters, as part of assessment teams evacuating thousands from Mallacoota and helped as part of the SES response. Others coordinated donations of medical supplies and bandages for injured wildlife. Nurses and midwives lost homes, property, fencing, equipment and livestock.¹³ The Walwa Bush Nursing Centre kitchen became a proxy food supply base for the CFA and army when the town's designated relief centre was unstaffed.¹⁴

ANMF (Vic Branch) is experienced in responding to crises. During the COVID-19 pandemic, ANMF (Vic Branch) has been involved in many protective and responsive initiatives, including the COVID-19 Surge Workforce and hot spot guidance for health services. This also includes development of relief teams and 'clinical reserve units' (CRUs). ANMF (Vic Branch) is also part of the Healthcare Worker Infection Prevention and Wellbeing Taskforce which looked at

⁹ <https://theconversation.com/hospitals-feel-the-heat-too-from-extreme-weather-and-its-health-impacts-70997>

¹⁰ <https://www.sbs.com.au/news/adelaide-hospital-s-back-up-power-fails>

¹¹ <https://www.sustainability.vic.gov.au/research-data-and-insights/research/climate-change/health-impacts-of-climate-change>

¹² <https://otr.anmfvic.asn.au/articles/hundreds-of-anmf-members-volunteer-for-bushfire-relief>

¹³ <https://otr.anmfvic.asn.au/articles/so-many-offered-to-help>

¹⁴ <https://otr.anmfvic.asn.au/articles/meet-sandi-grieve-ceo-nurse-practitioner-and-lately-short-order-cook>

tracking activity, oversight of quarantine procedures, latest evidence, audits, fit-testing and other initiatives.

Who will deliver service and provide care if nurses and midwives are not protected? There is already a global shortage of health workers, in particular nurses and midwives, who represent more than 50% of the current shortage in health workers.¹⁵ COVID-19 has taken a horrible toll.¹⁶

Access and availability of essential supplies such as pharmaceutical and medical materials are impacted in extreme events. The writer remembers critical access to IV giving set and dialysis kit supply both being impacted by overseas earthquakes and the associated anxiety this caused. COVID-19 has further highlighted vulnerabilities to our supply chain requiring rapid reorganisation and allocation of precious resources which includes not only supplies of PPE and ventilators, but also substantial staff planning to cover aged care facilities, vaccination centers and other emergency response.

FEEDBACK ON ACTIONS

H2: Improve the evidence base and monitoring of climate related health impacts now and in the future.

Unfortunately, ANMF (Vic Branch) regularly hears from members who struggle to have their work in environmental sustainability and climate risk recognised. Some are accused of distraction from immediate clinical care.

Nursing and midwifery are evidence-based professions. Research, science, evidence base and resources need to be integrated and operationalised throughout healthcare. This can support cultural shift and change expectations and practice.

Research to support change:

- a) **New evidence base and tools that target outcomes. Identify existing opportunities that can be leveraged.**

Action H2 includes the *desired outcome of an increase in data driven adaptation responses*. This is an important recognition that research is not an end in itself. Submission from Research Australia into The National Preventative Health Strategy pointed out the essential need for research to be supported and translated into output and outcomes that lead to impact. Specifics include new clinical guidelines, changes to government policy, more effective public

¹⁵ <https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery>

¹⁶ <https://www.icn.ch/news/icn-confirms-1500-nurses-have-died-covid-19-44-countries-and-estimates-healthcare-worker-covid>

health messaging and other public health initiatives.¹⁷ This is very much needed to support hospitals and healthcare organisations to scale up adaptation and risk mitigation planning.

Three tools that are already influential in healthcare but could be leveraged to drive change are:

- 1) The People Matter Survey. The People matter survey is the Victorian public sector's annual employee opinion survey. The survey results tell organisations how employees see their workplaces, and results are used to work out how to make workplace improvements. <https://vpsc.vic.gov.au/data-and-research/people-matter-survey/>
- 2) The Victorian Healthcare Experience Survey (VHES) which surveys patient experience to improve the safety and quality of care in health services. The department reviews all results to ensure quality care is being provided.

<https://www2.health.vic.gov.au/hospitals-and-health-services/quality-safety-service/patient-experience-survey>

- 3) Accreditation.

All public and private hospitals, day procedure services and public dental practices are required to be accredited to the National Safety and Quality Health Standards (NSQHS).

The Australian Commission on Safety and Quality in Healthcare (The Commission) has expressed support for health service organisations who are developing climate risk plans and taking initiatives towards the delivery of environmentally sustainable health care.¹⁸

The Commission is currently developing a Climate Risk Module which will be voluntary for health service organisations and consists of a number of actions implementable in any health service organisation. Implementation will rely on the health service organisation's existing governance structure. A survey providing opportunity for feedback is currently available on the website and an initial draft module is expected to be made available for public consultation late in 2021.

ANMF (Vic Branch) calls on the Victorian government to support the implementation of this module within Victorian healthcare as a means of substantive sectoral influence.

¹⁷ Research Australia, Response to the Consultation on National Preventative Health Strategy, p 6

¹⁸ <https://www.safetyandquality.gov.au/standards/nsqhs-standards/climate-risk-module>

b) Facilitate Executive delivery.

It is essential that relevant findings and tools on climate risk assessment and response are forwarded to those in charge of health services and incorporated into governance and management.

The Victorian Government Risk Management Framework (VGRMF) requires agencies to contribute to the identification and management of state significant risks, includes material risk. Under their fiduciary duty, derived from the Corporations Act, there is an obligation on Boards to consider if climate change is a material risk. The World Economic Forum Global Risks Report 2020 determined that “the near-term impacts of climate change add up to a planetary emergency that will include loss of life, social and geopolitical tensions and negative economic impacts.” The Public Administration Act 2004 requires directors of public entities to act with a “reasonable degree of care, diligence and skill.” A failure to consider climate change risks could breach this duty.¹⁹

The government must communicate to the Executive that climate risk and adaptation are part of governance and reporting obligations to the Health Service Board. The Department has communication channels that could be revised to ensure climate risk is included for example:

1. Information for Victorian Health Services Boards, found at this link: <https://www2.health.vic.gov.au/hospitals-and-health-services/boards-and-governance/about-health-board>
2. Strategic Planning Guidelines for Victorian Health services: found at this link: <https://www2.health.vic.gov.au/about/publications/policiesandguidelines/Strategic-planning-guidelines-for-Victorian-health-services>

In addition to communicating this expectation, a delivery framework is required with resourcing and reporting.

Examples of tools that could be included are:

Example 1:

The Victorian Managed Insurance Authority (VMIA) case study on Ambulance Victoria implements the Department of Environment, Land, Water and Planning’s Future Climate Tool.²⁰ This tool contains an interactive online mapping tool. An area of risk is chosen e.g.: prolonged heatwave, and various projections can be made such as different time scales, geographic areas. The projected outcomes are compared against the organisation’s strategic objectives and how they will be affected by the projection.

¹⁹ <https://www.vmia.vic.gov.au/tools-and-insights/climate-change/understanding-victorian-risk-management-expectations>

²⁰ <https://www.vmia.vic.gov.au/tools-and-insights/climate-change>

Example 2:

The WHO Hospital Safety Index is being implemented as part of the Queensland Human Health and Wellbeing Climate Change Adaptation Plan.²¹

The Index is a diagnostic tool for assessing the probability of a hospital remaining operational in emergencies and disasters. It helps authorities to determine quickly what actions and measures improve safety and what capacity the hospital has to respond.

Government can identify, fund and facilitate research projects that can deliver the necessary data, tools and information to healthcare management, disaster management groups, and support community planning. Prioritisation should be given to research that explores climate change science, provides evidence-base and delivers data suitable for application in risk assessment, guidance documents and innovative adaptation solutions. Tools will need to support decision making that is robust across a range of scenarios and possible futures.

Related member suggestions include:

- Embed health services risk and resilience assessment and planning in operational strategy planning and reporting alongside existing health service disaster plans.
- Provide funding for climate risk management teams within health services and mobilise existing climate champions across the service to implement roll out adaptive behaviour change education.
- Build in accountability through monitoring and evaluation to demonstrate progress, improvements and effectiveness of resource allocations and financial investments.

Measurement indicators²² would include the capacity of health systems to prepare for and manage the risks of climate change over time. Other elements include: internal monitoring, integrated wholistically throughout the organisation with opportunity for staff engagement and feedback, monitoring the frequency with which vulnerability and adaptation assessments are updated and the extent to which they are implemented, inclusion in risk registers and audit and risk management committees. Indicators also could measure the awareness of the health risks of climate change through recording the number of staff trained in climate change and associated pathways for integrating and regularly updating environmental information, mitigation and adaptation.

c) **Support community refuge**

Other areas for research would include the threats that climate change and extreme weather events pose to public infrastructure including transport and roads needed for evacuation routes and access to emergency centres. Even simple changes like ensuring bus stops are

²¹ Human Health and Wellbeing Climate Change Adaptation Plan for Queensland, p.11

²² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6165508/>

covered will assist with travel, particularly with the need to encourage viable, reliable and safe public transport rather than individual reliance on personal cars.

Community centres need facilitation and funding so they can be repurposed as safety or heat health refuges. During the 2005 Sydney heatwaves, there were reports of [hospitals](#) being accessed by people seeking respite in air-conditioned reception areas.²³ Discussing the 2020 heatwave in Blacktown Sydney, GP Kim Loo said, "Air con is so important because[when temperatures rise] over 35C fans just don't cut it, but running the air con is so expensive. Many of my patients cannot afford it. I advise them to go to shopping centres."²⁴

This does not mean the expensive build of new facilities. Councils can identify suitable venues that could potentially be enlisted with consideration for potential subsidies and grants. Such a scheme is being explored in Blacktown City Council with the example of an air-conditioned church and hall being offered as a venue that would become go-to places on high heat days for the local community to gather at — with toilets, comfortable seating and cold water close by.²⁵ The "Winter Night Shelter Initiative" in Shepparton provides shelter and overnight sleeping accommodation for the homeless.²⁶

There will be others who are vulnerable and without the option of relocation. There is a need for comprehensive risk registers of vulnerable people groups and supportive resourcing for adequate numbers of community nurses to monitor these people during identified risk events.

Given the projections for increased hot days in Australia, a daily heat-risk rating system, similar to the one used for bushfires, could be introduced. This could be supported on work the Bureau of Meteorology (BOM) is doing. The BOM has introduced a national [three-day heatwave forecast](#) and is also working on a "heatwave predictability map" with the intent to better inform Australians about the severity and duration of each heatwave as it rolls in.²⁷

d) Support healthcare sector development

Nursing and midwifery are professions of science. It is essential that nurses, midwives and other healthcare professionals understand and are well prepared to participate in preparation, mitigation and adaptation related to climatic impacts. Further research is needed on how to support health professionals, what their learning needs are and how their practical expertise can be captured and integrated into climate change response and adaptation planning.

²³ <https://theconversation.com/hospitals-feel-the-heat-too-from-extreme-weather-and-its-health-impacts-70997>

²⁴ <https://www.abc.net.au/news/science/2021-01-24/heatwaves-sydney-uninhabitable-climate-change-urban-planning/12993580>

²⁵ <https://www.abc.net.au/news/2021-01-14/western-sydney-heat-refuge-strategy-needed-for-summer-heatwaves/13026882>

²⁶ <https://others.org.au/news/2020/06/30/churches-unite-to-shelter-sheppartons-homeless/>

²⁷ <https://www.abc.net.au/news/science/2021-01-24/heatwaves-sydney-uninhabitable-climate-change-urban-planning/12993580>

Relevant research findings:

1. An American study found that nurses' knowledge of the health-related impacts of climate change was minimal (Polivka et al., 2011).
2. A Swedish study found that nurses perceive an incongruence between climate and environmental issues and their daily work (Anåker et al., 2015),
3. Victorian research by Sustainability Victoria found that:
 - 80% of healthcare professionals say cc is already harming public health
 - 86% see a role for health care professionals in helping inform the public
 - 76% believe their own practice or organisation could be doing more, but
 - only 18% feel confident in their level of knowledge on the health impacts of climate change.

This must be addressed so valuable sectoral leadership can be harnessed. Undergraduate nurse education should incorporate the vulnerabilities of climate change on nursing, in particular in vulnerable Pacific Island nations neighbours.

In spite of these challenges, many nurses and midwives are rising to the challenge, taking the initiative to ensure they are informed and leading response.

Please also refer to H10 discussing sectoral capacity.

e) **Support healthcare trajectory, measurement and delivery of carbon zero emissions**

Healthcare should be a sectoral leader in this health threat and modelling resilience strategies. Not only should we be implementing a comprehensive zero emissions pathway for 2050, but we should also be taking a leadership position with 2040 aspiration. Achieving this would require a research arm similar to that used within the NHS and include scope 3 emissions. This will be further addressed in H11.

Member suggestion is for the development of a role responsible for overseeing reporting by boards and executives of health services. This reporting would include delivering policy and guidelines for health service procurement standards; implementing relevant training, workshops, public education campaigns; coordinating climate risk and adaptation plans between local and State government.

ANMF (Vic Branch) observes this role would sit well with the above portfolio of supporting the research and implementation necessary for healthcare's zero emissions ambition.

f) Explore and develop opportunities to remove low value care.

Low value care confers little or no benefit yet comes with risk of iatrogenic harm. As a result, it generates carbon emissions without improving health.²⁸ One example of this was shared by one of our speakers at ANMF (Vic Branch) Health and Environmental Sustainability Conference in May 2021. Emergency Department Nurse, Hanna Ryan Smith worked as part of a Choosing Wisely project developing guidelines for the use of venous blood gases. Over a period of 9 months, this resulted in savings of 3000 syringes, \$40,000 in money and 6 litres of patient blood! Eliminating ineffective services can reduce potential harm to patients, excess costs and emissions.

“Wiser Carbon Neutral” works to provide the evidence base supporting clinicians and policy makers to decarbonise clinical care. Research is conducted to:

1. Measure the footprint of common items of clinical care,
2. Develop new methods to integrate results of carbon footprint studies into health economic evaluations for use in health technology assessment and clinical practice guidelines.
3. Develop and evaluate interventions to support clinicians to adopt greener clinical care options.

g) Preventative health care, now and into the future: Nurse-Patient ratios.

Population projections for Australia suggest that there will be four million people aged between 65–84 years by 2022 with rapid acceleration of some age groups (over 65, over 85) in the next ten years. The aged care workforce is ageing and there is considerable concern among policy makers and service providers about retaining existing staff and attracting new staff to the sector.²⁹

Residents in aged care have high rates of complex and chronic health conditions including diabetes, respiratory, cardiovascular and renal disorders, dementia and a higher falls risk. All these illnesses are at risk of exacerbation with climate change. An essential and urgent part of preventative healthcare both now and in the future, is the implementation of nurse patient ratio.

Victoria is the first state in Australia and was the second place in the world to have mandated minimum nurse and midwife to patient ratios. In 2015, this was enshrined in State law under the *Safe Patient Care Act 2015*. Unfortunately, these ratios are only applicable to public

²⁸ <https://www.wiserhealthcare.org.au/wiser-carbon-neutral/>

²⁹

https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/BriefingBook43p/ageingpopulation

hospitals and public nursing homes in Victoria. The majority of aged care beds are operated by non-government and private sector employers. The *Aged Care Act 1997* only requires aged care providers to have an 'adequate number of appropriately skilled staff'.³⁰ The Royal Commission into Aged Care Quality and Safety found that Australia's aged care system is understaffed, and the workforce underpaid and undertrained.

The number of patients/residents assigned to a nurse or carer has a direct impact on their ability to provide best practice care. Residential aged care homes with higher rates of nurses qualified in aged care are associated with fewer pressure injuries, lower restraint use, decreased probability of hospitalisation, decreased incidence of urinary tract infections and decreased mortality.³¹ For every patient added to a nurse's workload, the likelihood of dying increases by 7%.³²

The Royal Commission came with expectation of reform, yet significant recommendations have not been implemented. There is no requirement for a registered nurse to be on site at all nursing homes 24/7, or for nurse patient ratios. This will deprive patients of immediately available clinical expertise, avoidable trips to hospital and quality of life. Federal funding lacks accountability to ensure it is invested into care delivery. "It is not too much to ask³³ that residents living in aged care have the dignity and comfort of basic care like meals, pain relief, wound management, a dry incontinence aid or being able to go to the bathroom." (Secretary of ANMF Victorian Branch, Lisa Fitzpatrick.)³⁴

Continued pressure on the Federal government for reform must be maintained to ensure that preventative measure such as nurse to resident ratios in private aged care are enacted to ease pressures on the public health system, and ensure the workforce is best placed to deal with the demand from climate related health impacts.

h) Adapt the lessons from COVID-19

Health experts from the United Nations have said the coronavirus pandemic is a preview of the types of global health threats that will emerge as the planet becomes hotter. How it is tackled has implications for dealing with climate threats as well.³⁵

ANMF (Vic Branch) has been significantly involved in emergency response to COVID-19, many of which will have application in responding to climate change related threats and can be built into adaptive resilience planning.

³⁰ <https://otr.anmfvic.asn.au/articles/explaining-aged-care-ratios-campaign>

³¹ research published in *Nursing economic\$* in 2015 <https://www.australianageingagenda.com.au/contributors/the-case-for-more-nurses-in-aged-care/>

³² <https://otr.anmfvic.asn.au/articles/anmf-clarifies-misinformation-about-aged-care-staff-ratios>

³³ <https://www.anmf.org.au/campaign/entry/its-not-too-much-to-ask>

³⁴ ANMF (Vic Branch) Secretary, Lisa Fitzpatrick, <https://otr.anmfvic.asn.au/articles/enough-staff-to-care-for-residents-its-not-too-much-to-ask>

³⁵ Mandeep Dhaliwal, director for HIV, health and development for the United Nations Development Programme, 2020 Skoll Forum on Social Entrepreneurship, as reported by the Thomas Reuters Foundation: <https://www.reuters.com/article/us-health-coronavirus-climate-change-trf-idUSKBN21I3IC>

1. COVID-19 Surge Workforce and hot spot teams guidance for mental health services. This also includes relief teams and recovery planning using a 'clinical reserves unit' or 'CRU' when the Torrens Nursing Agency pool is at capacity.
2. Healthcare Worker Infection Prevention and Wellbeing Taskforce- This working group was involved in tracking activity, oversight of quarantine procedures, latest evidence, audits, fit testing and other initiatives
3. Utilisation of students in times of demand i.e. Registered Undergraduates Students of Nursing in COVID 19 testing sites and vaccine centers.
4. Consultation around WorkSafe guidance e.g., for members working in testing sites during Jan/Feb heat waves.
5. Preventative measures like the implementation of the Infection Control Lead Nurse in aged care settings in Victoria.
6. Protective Personal Equipment (PPE) taskforce. This taskforce identifies supply and procurement issues for PPE, gaps in service delivery and training needs across the public health system including fit testing and checking.
7. Single Site Employment arrangements- ANMF sits on the 'Guiding Principles Support Hub Advisory Committee' which consists of employer groups, unions and the Commonwealth Department of Health. Significantly, the Commonwealth Government has applied these principles and funding only after a COVID hotspot is defined and an outbreak underway. In contrast, the state government has had single-site funding and supports for employees to maintain one site of employment continuously in place since June 2020. This reflects a preventative and pragmatic approach as opposed to a reactive one.

Another learning from COVID-19 is the need for accurate health messaging and engagement for those people within culturally and linguistically diverse communities.

i) Communicate the research outcomes.

Not only must research happen and be translated into applicable tools, but there is also the challenge of communicating the information. Information must be accurate, readily accessible, and relevant. There can be a lack of connection between data and numbers drawn from climate science and the personal, immediate motivations required to drive climate action.³⁶ An example of one communication resource is posters for healthcare and GP waiting rooms. Behaviour change experts should be consulted to assist.

³⁶ <https://www.theguardian.com/commentisfree/2017/jun/07/caring-about-climate-change-its-time-to-build-a-bridge-between-data-and-emotion>

Member feedback included the implementation of 'Future Health Planning' where materials provided to patients that relate to a medical diagnosis includes information about related climate risk. "For example, respiratory and cardiovascular diseases education material given in 2021 provides context of the burden of disease by 2050 in a high-risk climate scenario to educate people of future risks, promote preventative strategies and where possible empower individuals to reduce their burden of disease and ill-health in a changing climate."

The role of research and developing evidence base cannot be underestimated, particularly in healthcare. One of the stimuli for change in healthcare that is identified by Jeffrey Braithwaite, is using incontrovertible evidence that shows public benefit.³⁷ In the case of healthcare, frameworks of risk, quality, public benefit and community expectation are all important, as is facilitation to participate.

H2: Recommendations:

1. Research the learning needs of health professionals in relation to climate change and how they can be equipped and supported to work within the community, healthcare and patients in climate risk recognition, mitigation and adaptation. Develop educational materials to be incorporated health care organisations e-learning system.
2. Identify new and existing healthcare tools that can be leveraged as part of developing an evidence base and tools supporting change. Examples of these include People Matter Survey and VHES.
3. ANMF (Vic Branch) requests The Department take an active role in promoting uptake of the Climate Risk Module that is being developed by The Australian Commission on Safety and Quality in Healthcare.
4. Incorporate climate risk and mitigation into the governance and management of healthcare, with particular emphasis on Board and Executive roles. The Department should develop a guidance framework and communications plan for the same.
5. Operationalise climate risk mitigation, adaptation and resilience strategies throughout healthcare organisations with guidance and tools to assist.
6. Add climate risk and environmental sustainability as key elements in Healthcare Strategic plans. (Strategic Planning Guidelines for Victorian Health Services, p. 11)
7. Health organisations to develop emission reduction targets that align with their reporting profile through the EDMS, and to include progress in their annual report.
8. Measurement indicators for climate risk integration and management be developed. Examples of same are included in the body of this report.
9. The government to complete climate risk assessment of infrastructure surrounding sites where healthcare is provided, including roads. Audit Victorian bus shelters and identify and refurbish those that do not have covering.
10. Work with local council to identify community centres suitable for use as safety or heat health refuges.

³⁷ <https://www.bmj.com/content/361/bmj.k2014>

11. Risk registers are updated to identify vulnerable people groups. Resource a surveillance task force with community nurse involvement for monitoring registrants in the event of climate risk events.
12. Work with BOM to develop a daily heat-risk rating system for community alert.
13. Continue to capture the evidence base to make it untenable for the reforms recommended by the Royal Commission into Aged Care Quality and Safety not to be implemented. Advocate in the National Federation Reform Cabinet for reformation of the Federal Aged Care Act 1997 so it can support safe patient care and nurse:patient ratios in all aged care settings.
14. Work with ANMF and other health unions to identify and develop emergency strategies learned from the COVID-19 response.
15. Ensure adaptation research and outcomes are inclusive of culturally and linguistically diverse communities
16. Include behaviour change experts in the design and placement of educative materials.
17. Explore and develop opportunities to remove low value care.

H6: Transform the health asset base

H6 This action addresses *transforming the health asset base* as expressed in the climate resilience of *new and existing health infrastructure*. An output is *publication of technical advice and best practice case studies*. There is scope for greater ambition and output.

There is significant new healthcare infrastructure in planning. An immediate example is the provision of up to 60 new local services in response to the Royal Commission into Victoria's Mental Health System.³⁸ Other planned developments are Monash Health's community hospitals planned for Cranbourne and Pakenham, Western Health expansion and Melbourne Health Arden Campus. Designed for health delivery services, all new projects should also be subject to a health impact assessment.

Strategic Planning Guidelines for Victorian health services

ANMF (Vic Branch) notes the Strategic Planning Guidelines for Victorian services available: <https://www2.health.vic.gov.au/about/publications/policiesandguidelines/Strategic-planning-guidelines-for-Victorian-health-services>,

However, these guidelines notably fail to mention climate risk planning and need to be updated.

Adaptation requires we build for the future: Fossil fuel free hospitals

³⁸ <https://www.premier.vic.gov.au/building-our-mental-health-system-ground-2>

In assessing the role of various countries in decarbonising healthcare, Health Care without Harm (HCWH) assign a steep declining trajectory for Australia. This requires immediate, aggressive action to implement a rapid and deep decrease in emissions.

Best practice, or *immediate aggressive action*, requires we move away from fossil fuels.

The Earth's climate has already warmed by 1.2°C above preindustrial times. We are warned that 1.5°C is rapidly slipping out of reach and a 2018 report from the UN climate science panel stated that in order to meet the target, human activities need to fall by 45% by 2030 from 2010 levels and reach zero by mid-century.³⁹ Healthcare facilities being built now will still be in place by 2050 so it is not appropriate that they are built reliant on fossil fuel that needs to remain in the ground.

Natural gas primarily consists of methane. It is estimated that over 20 years, methane traps 86 times as much heat in the atmosphere and carbon dioxide⁴⁰. Gas extraction and processing involves many hazardous substances including those that cause cancer, interfere with hormones, trigger asthma and contaminate the local environment through airborne pollution and wastewater.⁴¹

Technology has evolved to the point where it is possible to build hospitals entirely free of gas and positioned to take advantage of renewable energy.

The Canberra hospital expansion will be powered using electric heat pumps and 100% renewable energy. The emissions saved are anticipated to be equivalent to taking 760 cars off the roads each year, or 1886 tonnes of carbon dioxide.

The South Australia Women and Children's Hospital (nWCH) will be the first new hospital in Australia to be 100 percent electric. Supply will be from the State's renewable electricity grid or on-site electricity generation and storage. This means heating, hot water and kitchen functions within the new building will not be powered by fossil fuels. It is estimated that the all-electric nWCH will help avoid an additional 2,178 tonnes of greenhouse emissions each year, the equivalent of taking approximately 700 vehicles off the road.⁴²

There will be initial upfront cost however this need to be weighed against the unviable cost to health, wellbeing and economy by not achieving the Paris target.

Achieve efficiency savings through upgrade

Where it is not feasible to immediately replace existing infrastructure, efficiency and conservation measures should be implemented. Modelling commissioned by Environment

³⁹ https://www.eco-business.com/news/push-to-keep-15-alive-heats-up-100-days-from-cop26-climate-talks/?utm_medium=email&utm_campaign=Daily%20Digest%2026072021&utm_content=Daily%20Digest%2026072021+CID_792d26a7b2f49fb26c89c6de7e250ea8&utm_source=Campaign%20Monitor&utm_term=Push%20to%20keep%2015%20alive%20heats%20up%20100%20days%20from%20COP26%20climate%20talks

⁴⁰ <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

⁴¹ <https://www.climatecouncil.org.au/resources/gas-habit-how-gas-harming-health/>

⁴² <https://www.wch.sa.gov.au/about/new-wch-project>

Victoria estimates Victoria could reduce its annual gas consumption by around half (98 to 113 PJ) by 2030, through efficiencies such as:

1. replacing old gas ducted heating systems (estimated 48 PJ gas reduction)
2. increasing use of existing air conditioners for space heating (5–15 PJ gas reduction)
3. improving building insulation (more than 10 PJ gas reduction)
4. replacing gas water heaters with heat pumps (10 PJ gas reduction).⁴³

This suggests there is value in a research/audit to determine savings through energy efficiencies in existing healthcare infrastructure. By reducing consumption and making operations more energy efficient, hospitals not only shrink their carbon footprint, they can increase sufficiency and conserve emergency generator supply if the grid is compromised.

Low carbon infrastructure

Resilience needs to be considered when planning new projects – their structure, materials, location and usage. Technologies such as onsite solar not only reduce dependency on the grid but can reduce operational and service costs.

Other design features can include:

- Capture and storage of rainwater and connection to recycled water supply for suitable uses (landscape watering, toilet flushing, building services)
- Design for waste-to-landfill minimisation including allowing footprint for recycling stations in departments and dock.
- High quality internal environment through access to nature and natural lighting to improve hospital amenity for staff and consumers
- Resilient design including capacity to withstand projected climate change events
- Low emissions building materials that are preferably locally made (minimising transportation emissions and stimulating the local economy).

Climate resilient infrastructure.

In the Health and Human Services Consultation session for healthcare organisations held on 26 July 2021, the Department shared climate projections that had been used to identify risks to health infrastructure assets. Not all facilities face the same risks, but all can be shut down abruptly by disaster. Threats are various and include sea level rise, higher winds, direct or

⁴³ Towards 2050: Gas infrastructure in a zero emissions economy interim report, p.18

indirect storm damage, flooding, drought, heatwave, wildfire. Predictive climate models can be used to set structural design criteria for hospitals and other healthcare facilities. These criteria should be applied to both new constructions and retrofits. Assessment must be periodically repeated as hospitals last a long time and safety and building codes will change. It must consider both acute emergency and also gradual shifts like increasing average temperatures.

It is also worth considering the development of hospitals to serve as regional-level resource during disaster. Example is provided in the rebuilding of The Southeast Louisiana Veterans Health Centre post Hurricane Katrina.

1. The hospital is prepared to go seven days without any outside support.
2. It stocks supplies for up to 1,000 people and enough diesel fuel to power its generators at full strength.
3. It has an on-site sewage treatment plant to process and hold a week's worth of waste.
4. The rainwater collection system has capacity of more than a million gallons, and reduces the use of city water for non-potable needs during regular operations while providing a source of emergency water when the normal supply is interrupted.
5. The hospital is designed to survive failure of the city's levees—the source of so much damage after Katrina—with raised floor elevations and critical functions moved from harm's way.
6. Ambulances use a dedicated ramp that doubles as a boat launch.⁴⁴

The health asset base should support circular economy

A resilient adaptive future requires that we respect finite resources and develop circular economy rather than the linear take, make and waste practice we have destructively indulged in.

ANMF (Vic Branch) was instrumental in healthcare being included in the Victorian Waste Education Strategy through the development of the Victorian Waste Education Officer role and consequent resources. This role should be reinstated as a means of ensuring healthcare is included in the Victorian circular economy strategy of Recycle Victoria.

⁴⁴ <https://ehp.niehs.nih.gov/doi/full/10.1289/EHP3810>

Activities of a reinstated Victorian Waste Education Officer (VWEO) would include:

1. Identify and implement circular economy opportunities utilising healthcare recycling in public procurement contracts. There are high volume standard components used in hospital rebuild or refurbishment such as bollards, signage, furniture, car park stops, carpet, concrete which could be made from healthcare waste. The VWEO could liaise with healthcare, manufacturers and other stakeholders to develop this project. There is already precedent for capturing hospital resin capture in NSW through “Wrap Back,” diverting surgical wrap from landfill and converting it into resin for remanufacture.⁴⁵ Complete the circle and bring it into healthcare product and service provision.
2. Institute the four streams of Recycle Victoria into public healthcare, including organics diversion. The Victorian government has a target of halving organic waste to landfill by 2030 and consultant research in 2018 identified organics as a high priority stream within public healthcare.

Research has found that up to 40% of hospital food doesn't get eaten and is thrown away.⁴⁶ An audit at the Epworth Richmond found food waste was 30% of waste stream by volume but 73% by weight.⁴⁷ Another study at Box Hill found 6 tonnes of non-perishable, unopened, unexpired single use food sachets e.g.: salt/pepper/fruit juice cartons, going to landfill that were tested as microbiologically safe. Melbourne Health won the 2019 Premier's Sustainability Award for rediverting 4000 meals a month from landfill to a food charity.

3. Capture savings of appropriately segregating clinical waste. Department of Health survey has found up to 60% mis-segregation in the stream even prior to COVID19.
4. Ensure implementation of regulation compliant, environmentally responsible and comprehensive pharmaceutical waste disposal in healthcare. Both the EPA and Drugs, Poisons and Controlled Substances Regulation contain strict guidelines surrounding pharmaceutical waste disposal. A survey of registrants at the May 2021 ANMF (Vic Branch) Health and Environmental Sustainability Conference found 70% were not provided by their employer with a pharmaceutical bin suitable for S4D and S8 drug disposal. This meant these substances were disposed of in ways that would cause them to enter the waterway, a potential ecological hazard.
5. Identify and disseminate opportunities where healthcare can be included in the single use plastic ban.

Public hospitals and health services that fund and deliver projects directly are encouraged to apply the 2.5 per cent sustainability allowance for items above the business-as-usual

⁴⁵ <https://wrapback.com.au/>

⁴⁶ <http://pedallingforwards.com/a-hospitals-waste-journey/> Western Health.

⁴⁷ Inside Waste June/July 2021, Published on Jun 17, 2021, “Private hospital waste products to good use,” p.38,

https://issuu.com/primecreativemedia-2016/docs/iw0621_lr

requirements. This requirement could be increased. Another opportunity is to include utilisation of materials with recycled content and mandated minimums. Including this in public procurement contracts could provide confidence for manufacturers. This would be included in the Guidelines for Sustainability in Capital works.⁴⁸

The health asset base should protect domestic manufacturing

There is a need for further consideration of HealthShare Victoria ensuring support for Australian and Victorian industry and supply chain as part of Victorian government and procurement contracting. Med-Con, a PPE maker in Shepparton, ramped up to help Australia during our COVID crises but once pandemic pressures started to ease, health services rapidly returned to their overseas suppliers of old.⁴⁹ This is clearly an issue. It also delivers deterrent messaging to industry. The story attracted angry responses from ANMF (Vic Branch) members who stated, “use them and abuse them, what a way to treat the people who stepped up in a crises.”

Supporting domestic manufacture of PPE and other industries, is an essential part of adaptation planning and service continuity. We cannot leave ourselves vulnerable to “just in time⁵⁰” manufacturing models that have no contingency built into them such as delivered by climate change impact and experienced in COVID-19. We have the opportunity to build Australia’s resilience and create new and secure jobs in a safe climate.

Coordination supported by dedicated Environmental Officers in healthcare

Infrastructure assessment, business continuity, disaster recovery, crises response, environmental management plans, pursuit of funding grants, all require time and energy in what is a resource constrained sector.

There is need for the employment of funded, dedicated Sustainability Officers in healthcare to coordinate activities at grassroot and in governance and oversee the implementation of adaptation and mitigation strategies supporting sector resilience.

The Department of Health manages more than \$23 billion in health assets including 126 hospitals and health services but ANMF (Vic Branch) identifies only 11 dedicated Sustainability Officers. One of the important tasks of a Sustainability Officer is to identify, mobilise and establish networks of supporters at all levels of the organisation – from front-line staff to the executive and board.⁵¹ Member feedback includes that “If the Victorian Government is serious about enhancing the adaptive capacity of health and human services, it should advocate for environment and sustainability departments within health services.” One member has the practical suggestion of developing “green governance financing.” As

⁴⁸ <https://www.vhba.vic.gov.au/guidelines-sustainability-capital-works>

⁴⁹ <https://www.abc.net.au/news/2021-07-20/australian-mask-manufacturer-dumped-for-cheaper-suppliers/100304530>

⁵⁰ <https://www.marketplace.org/2020/02/27/justintime-manufacturing-model-challenged-coronavirus/>

⁵¹ <https://www.phrp.com.au/issues/december-2018-volume-28-issue-4/addressing-the-carbon-footprint-of-health-organisations-eight-lessons-for-implementation/>

well as financing the Sustainability Officer, it would “empower climate champions across the service to implement behaviour change education appropriate to their model of care.”

Helpful resources can be developed and released however if they are not applied, the investment is not captured, and the potential is lost. Sustainability Officers can take the resources and findings and translate them into meaningful messages with local application, implement the projects and ensure the savings are realised and promoted. They can also participate in addressing the gap that lack of climate education has created by not having this in curriculum.

Dedicated Sustainability Officers in healthcare can relieve the burden from both executive and volunteer clinicians and improve outputs through dedicated attention. A proviso on this is that the role is adequately positioned within the network with the appropriate level of executive responsibility, access and resourcing.

H6 Recommendations:

1. New hospitals and healthcare facilities should be electrified and powered by 100% renewable energy, not gas.
2. Where it is not feasible to immediately replace existing infrastructure, efficiency and conservation measures should be identified and implemented to reduce demand load.
3. New healthcare related builds should be subject to a health impact assessment.
4. Update the Strategic Planning Guidelines for Victorian Health Services to include climate change risk and assessment.
5. Predictive climate modelling should be a mandatory inclusion in determining structural design and location of new hospitals and health centres. Best practice sustainable design should be standard in all new builds and refurbishment including materials choice, facility operations and resilient design.
6. Reinstigate the Victorian Waste Education Officer role to oversee the integration of circular economy and Recycle Victoria into Victorian healthcare.
7. Expand the Guidelines for Sustainability in Capital Works to include a minimum percentage of recycled content in builds.
8. HealthShare Victoria to prioritise support for onshore manufacturing of healthcare product.
9. Subsidise and increase the number of dedicated Sustainability Officers in healthcare.

H10: Sector capability: demonstrate organisational leadership

H10 addresses the sectoral leadership of the Department of Health and Department of Families, Fairness and Housing. It is important that the Department of *Health establish a*

positive staff and sector partner culture of engagement and accountability. This support is sought and welcomed.

There is a sense however, in which H10 is unnecessarily self-limiting.

Yes, it is important that The Department *walk the talk* however as community models and messengers, this is equally important for healthcare organisations, leadership and staff. We must be supported, facilitated and resourced for action and demonstrate community leadership. Members observed the need for this expanded perspective, suggesting: “there is still a lot the department can do to engage and elevate the capacities of the health and social services workforce to better prepare the community for extreme weather events. The stronger the resilience of health care workforce, the more likely the adaptive capacity of the health service during times of crisis, ensuring better community and health service preparedness across the state.’

The greatest transformation and release of potential will occur when the healthcare sector is empowered to take a leadership role in climate mitigation and adaptation strategy. This will be at the Board and Executive level as discussed in H2, “Research supporting healthcare sector development,” as well as leveraging grassroots capacity local knowledge.

The Lancet medical journal makes it clear: doctors, nurses, and broader health professions “have a central role in health system adaptation and mitigation, in understanding and maximising the health benefits of any intervention, and in communicating the need for an accelerated response.⁵²”

Nurses and midwives are well positioned to be educators and climate change advocates. They are science and evidence-based professionals, value driven and widely trusted. Within community nurses and midwives engage with people at every age and stage of life. Within healthcare they are the most numerous employee numbers and distributed throughout the various levels of the sector.

It beggars belief that the impacts of climate change on health is not standard teaching. This needs an urgent address in both undergraduate and ongoing professional development. Tailored education resources that can be used in teaching climate change and health are a priority for all health disciplines.

Just because it hasn’t been taught, doesn’t mean it isn’t easily learnable and translatable.

A helpful example of an adaptive tool that can be used is found in this article: **10 Ways Climate Change Affects Patients: What to tell your patients. Taken from:**

<https://www.medscape.com/viewarticle/911473>

⁵² The 2020 report of The Lancet Countdown on health and climate change: responding to converging crises

There are many nurses and midwives actively driving and championing projects within their workplace, very aware of the urgent need for action and pursuing all opportunities to address environmental sustainability and climate risk in any capacity, mitigation, activism, advocacy, adaptation.

Unfortunately support for these champions is not guaranteed in their clinical setting. When awareness of climate change risk and environmental sustainability is not embedded within an organisation, many opportunities are lost. The output to healthcare workers, including nurses and midwives, is:

- a) governance messaging that these activities are not within scope, brief or accommodated within the workplace.
- b) lack of recognition, support, and allocated resources of time and material for risk mitigation and environmentally sustainable activities within the workplace.
- c) lost resource of nurses and midwives in implementing local strategy as well as their vital role in assessment, planning and support as community messengers and educators. The role of nurses and midwives in community will not be optimised until it is reinforced by their organisation that this is part of our wider role.
- d) Lack of trained and skilled personnel reduces the ability to implement adaptation measures
- e) Focus on response to immediate demand rather than risks emergent.
- f) Climate risk and environmental sustainability projects dependent on random pockets of passionate individuals rather than applied operation.

There is need for consistent reinforced messaging from The Department that climate change mitigation now and adaptation planning for the immediate future is within our brief and it is a governance expectation as discussed in H2.

In addition, nurses and midwives must hold positions of representation and consultation in committees, boards, governance and decision-making bodies to ensure their local knowledge, views, insights and experience are captured and reflected in outputs. Healthcare will improve if nurses are at the table, rather than in roles remote from power.⁵³

H10 Recommendations

1. Expand the ambition of H10 to include healthcare leadership. Develop actions and strategies that empower healthcare workers and governance to participate in mitigation and adaptation as part of their role with the support of The Department.

⁵³ <https://www.bmj.com/content/373/bmj.n1049>

2. Undergraduate and post graduate nurse education should incorporate the vulnerabilities of climate change on nursing and be equipped to be climate ready practitioners. Member feedback includes “the need for improved clinical assessment and diagnosis of climate related illness and cause of death by medical staff.”
3. The Department prioritise the identification and implementation of strategy that supports health care workers participating in climate risk and resilience within their places of employment and positioning within the community. This includes messaging from The Department that this is part of healthcare governance and healthcare worker role. Provide visible and tangible support to achieve the same through education, grants, and positive profiling through publication and case studies.

Intentional inclusion of nurse and midwife representation in health sector consultations. ANMF (Vic Branch) welcomes the action of H11 to *develop or promote climate change training, tools and resources for health and human service professionals to increase their capacity, resilience*. Reference has been made to some of these in our H2 response.

We see further opportunity for the Department of Health to leverage their delivery footprint and expand on the list of key actions taken by the Health and Human Services system to address climate change to date in Figure 2, page 8 of the AAP 2022-26.

Leadership has been shown through implementation of the Environmental Data Management System (EDMS). This important data on water, energy, waste and emissions provides national lead. Further development opportunities exist in

- a) Feed the data into targeted reduction through expectation, accountability and resourcing as discussed in H2 and H10.
- b) Include and address scope 3 emissions.

Decarbonising healthcare: Include and address Scope 3 emissions.

The Victorian government Renewable Energy Target anticipates 100% renewable electricity for hospitals by 2025. This will reduce hospitals and reduce healthcare emissions by 30-40% and is a welcomed announcement.

Research undertaken by the (then) Department of Health & Human Services found up to 60 per cent of a Victorian health service’s total carbon footprint is related to the embodied carbon within the goods and services it uses every day.⁵⁴ More recent research by Health Care Without Harm estimates scope 3 emissions as 71% of healthcare’s carbon footprint.⁵⁵

The National Health Service (NHS) in the UK has committed to targeting “those emissions under our direct control and those that can be influenced⁵⁶”. This approach means the

⁵⁴ <https://www2.health.vic.gov.au/hospitals-and-health-services/planning-infrastructure/sustainability/carbon-emissions>

⁵⁵ <https://www.arup.com/-/media/arup/files/publications/h/health-cares-climate-footprint.pdf>

⁵⁶ <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

emissions will be examined, researched, identified and strategically targeted and is one ANMF (Vic Branch) would like to see adopted not only within Victoria, but also nationally. This would be another example of Victoria taking national lead.

Procurement and supply chain typically comes under Scope 3 emissions however there is an opportunity to apply the same criterion as the NHS. For example, supporting domestic manufacturing of PPE such as facemasks in a HealthShare Victoria contract.

100% renewable energy is one of seven high impact areas of action identified by the HCWH healthcare decarbonisation pathway.

Victoria is delivering on this action however there is danger that we tick the box as *delivered* and fail to address the remaining 60-70% of our footprint. This gives unintended messaging to health care providers that what can be done is done, and feeds into disengagement. It also fails to identify domestic opportunity to influence or directly control other elements of our emissions profile.

By reducing emissions and becoming more resilient, health systems in every country can become leaders in contributing to both health and climate solutions.⁵⁷

H11 Recommendations:

1. The Department develop and promote climate change training, tools and resources for health and human service professionals to increase their capacity and sector resilience.
2. As an expression of leadership and modelling to both the health sector and community, the Department commits to identify and target “those emissions under our direct control and those that can be influenced⁵⁸”. This approach is applied to Scope 1, 2 and 3 emissions.
3. Require and support public health bodies that report on their emissions profile through the EDMS to develop emission reduction targets, and to report annually on their progress.

⁵⁷ Josh Karliner, International Director at Health Care Without Harm <https://noharm-global.org/articles/news/global/new-world-bank-report-calls-health-sector-leadership-climate>

⁵⁸ <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

H13: Embed Aboriginal self-determination in our approach to climate change adaptation.

Climate change is contributing to the collapse of ecosystems and biodiversity, undermining the foundations for health and wellbeing. It is leading to a decline in habitable land, economic hardship due to loss of livelihoods, coastal inundation, forced internal migration, and the loss of homelands and disrupted connections to country.⁵⁹

Aboriginal communities have lived through millennia of an ice age, drought, and hardship through living sustainable lifestyles respectful of the land, understanding its capacity and limitation. Any discussion of adaptation must recognise this longevity and learning and draw on aboriginal culture and practice as an important resource. Recognised for a life calling of “care for country⁶⁰” 2021 NAIDOC week was themed “Heal Country.” Climate action is one way to heal a country.

“Local resilience depends on local knowledge⁶¹” and our indigenous people offer an invaluable and informed understanding of exactly what is happening at the coalface. The Close the Gap Campaign Report 2021 showcases the achievement of Aboriginal and Torres Strait Islander communities successfully leading public health control measures in culturally appropriate ways to combat COVID-19. As a result, these first nations communities achieved rates of COVID-19 cases six times lower than the rest of the Australian population.⁶²

Research and modelling contained within the “Climate Ready Restoration prospectus, May 2021 (WWF and Greening Australia) identifies six landscapes, including East Gippsland, that represent the most important post fire refuge areas for biodiversity and threatened species.⁶³ These areas will require enhanced legal protection in order to achieve restoration priorities.

The ecological knowledge of Traditional Owners and Indigenous Rangers should be combined with scientific and fire-fighting knowledge as part of post-fires regenerative work to preserve and repopulate species and habitat.

State and national emergency response and recovery programs must include representation, consultation and respect for the specific needs of Aboriginal and Torres Strait Islander communities. Resources must be provided for Aboriginal and Torres Strait Islanders to

⁵⁹ Climate and Health Alliance, Climate change is a health issue, Briefing Paper No.1, 2018. Available at: https://d3n8a8pro7vhm.cloudfront.net/caha/pages/33/attachments/original/1539054808/CAHA_Briefing_Paper_1_Climate_change_is_a_health_issue_2018.pdf?1539054808

⁶⁰ Butler, R. (2019). Aboriginal Elder, Bush Tucker, and Storyteller. Personal Communication via face-to-face conversation, from October 16th to 20th as cited by Planet Ark: <https://planetark.org/newsroom/archive/4863>

⁶¹ <https://ourworld.unu.edu/en/land-use-climate-change-adaptation-and-indigenous-peoples>

⁶² <https://humanrights.gov.au/our-work/aboriginal-and-torres-strait-islander-social-justice/publications/close-gap-2021>

⁶³ Climate Ready Restoration prospectus, May 2021, WWF and Greening Australia, p.24. Downloadable from: <https://www.wwf.org.au/what-we-do/climate-ready-restoration>

develop climate adaptation plans and risk assessments suited to context availing indigenous insight and unique expertise.

H13 Recommendations:

1. Climate adaptation action and risk assessment draw on Aboriginal cultural knowledge and practice in relation to health and wellbeing.
2. Consult with indigenous youth in adaptation planning.
3. In conjunction with traditional landowners, evaluate legal protection for landscapes and areas identified as significant fire refuge areas for biodiversity and threatened species as part of restoration and preservation priorities.

H14: Develop mental health support tailored to climate change impacts

Climate change is a risk factor for both physical and mental health. The uncertainty of climate change exacerbates anxiety and concern about the future. The trauma associated with climactic events not only threatens health and safety, it can impede access to facilities and resources.

Research can identify populations particularly vulnerable to the mental health impacts of climate change to inform the development of appropriate resilience building. This will require inclusion and consultation with culturally and linguistically diverse communities to ensure their local knowledge is included and communication pathways utilised.

Lived experience must inform this Adaptation Action Plan, all the more so when it has the added layer of insight that an experienced nurse provides. ANMF (Vic Branch) publication captures the story of a Gippsland bush nurse, named Anne who tragically lost her home in the fires of 2019-20. Anne's observation is that proposed new services supporting mental health and wellbeing must show regard for pre-existent services with local knowledge and coordinate with them.

"We already had services in place and to some extent these were displaced by those that just dropped in and never understood the way it worked here. The few that have taken the time to find out what works and what doesn't have been valuable for both the community and our Bush Nursing Centre."⁶⁴

Ready and ongoing access to specialist care, both for physical and mental health and wellbeing, is another area of urgent address that Anne's story illustrates.

"We have a doctor in town one day every third week but after the fires and during COVID that was not occurring as it previously would have been. Yes, there are extra

⁶⁴ <https://otr.anmfvic.asn.au/articles/meet-bush-nurse-anne-brewer>

challenges and demands. It is extremely difficult to get someone in to see a doctor, even if they have a cough that has been ongoing for 12 months. Most doctors will do telehealth but that doesn't mean the client gets care that they otherwise would have. (Conversely) for some there are more visits than there would have been if it weren't for the fires. There is a lot more risk management around home visits, initially around fire risk and safety post fires but now around COVID as well."

Those living in rural and remote areas, have limited access to services which can increase their risk of ill health. Further insult, such as climate change only increases that vulnerability and comes on top of existing stressors.

Extreme heat can have significant effects on mental health and behaviour. Colloquial expression includes being "hot headed" or "my blood boils." One standard deviation of temperature increase leads to a 4% increase in interpersonal violence and a 14% increase in group violence.⁶⁵ Various research has shown suicide, a form of violence turned on the self, is increased during extreme heat.⁶⁶

Research by Sustainability Victoria identified emotional response about climate change as being higher in young respondents with 40-50% reporting strong, negative feelings of frustration, fear, sadness, and outrage in relation to climate change. A general sense of feeling "overwhelmed" when thinking about the future impacts was found in 59% of 15–25-year-olds surveyed and 89% of those 18-39.⁶⁷

The Strike4Climate movement highlights the need for attention to the concerns of our youth. It is their future that this report seeks adaptation to! Our youth must be facilitated to participate in the discussion and have their fears, voice, concerns and suggestions reflected in the planning and resource development. This may mean the government takes the initiative to identify and initiate communication vehicles. For example, a web page on a government site may not attract youthful traffic.

H14: Recommendations

1. Draw on lived experience and community consultation to ensure learnings are availed of and incorporated into response.
2. Community response centres to include rural, regional and culturally and linguistically diverse needs.

⁶⁵ Hsiang S, Burke M, Miguel E. Quantifying the influence of climate on human conflict. *Science*. 2013;13;341:1235367; Burke M, Hsiang SM, Miguel E. Climate and conflict. *Ann Rev Econom*. 2015; 7:577-817. As cited in Psychiatric Times, "The impacts of extreme heat on mental health." July 30th, 2019. Found here: <https://www.psychiatrictimes.com/view/impacts-extreme-heat-mental-health>

⁶⁶ <https://www.cambridge.org/core/journals/the-british-journal-of-psychiatry/article/relationship-between-daily-suicide-counts-and-temperature-in-england-and-wales/C74E68D2E180CEADAB7101219DCCB86F>; <https://www.psychiatrictimes.com/view/impacts-extreme-heat-mental-health>

⁶⁷ <https://www.sustainability.vic.gov.au/research-data-and-insights/research/climate-change/health-impacts-of-climate-change>

3. Consult with the Strike4Climate movement and indigenous youth groups to ensure their particular insights, needs and suggestion are reflected in planning and resource development.

Suggested support for the Health and Human Service system to better prepare for climate change

1. Data on climate change and health impacts.
2. Coordinated national response advocated for through the National Federation Reform Council (NFRC). This includes nurse-patient ratios in all aged care and mental health so that problems can be addressed early on and at source rather than progressing to acuity requiring hospital assessment and admission.
3. Dedicated resourcing for the Victorian Sustainability Unit to develop a zero emissions trajectory for healthcare which includes Scope 3 emissions, identifying and targeting “those emissions under our direct control and those that can be influenced.”
4. Reinstitution of the Victorian Waste Education Officer as described in H6.
5. New healthcare builds to be fossil fuel free.
6. The development of research and risk assessment and their incorporation into healthcare governance as described.
7. Tools and templates to support identification of climate risk to hospitals and healthcare.
8. Tools and templates to support adaptation planning for hospitals and healthcare.
9. Employment of Environmental Sustainability Officers to oversee the assessments and implementation of provided tools.

Adaptation and case studies to share:

“Safe from the Storm: Creating Climate Resilient Healthcare facilities.”

<https://ehp.niehs.nih.gov/doi/full/10.1289/EHP3810>

Learnings from Hurricane Sandy and Katrina in America and how this reflected in assessment and planning for new infrastructure.

Education: 10 Ways Climate Change Affects Patients: What to tell your patients. Taken from: <https://www.medscape.com/viewarticle/911473>

Governance: Find out more about the development of a draft Climate Risk Module for consultation: <https://www.safetyandquality.gov.au/standards/nsqhs-standards/climate-risk-module>

Health Care Without Harm Global Healthcare Decarbonisation Roadmap:
<https://healthcareclimateaction.org/roadmap>

Climate and Health Alliance Framework for a National Strategy on Climate, Health and Wellbeing <https://www.caha.org.au/national-strategy-climate-health-wellbeing>

NHS: Delivering a net zero National Health Service.

<https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>