

Submission

WA Climate Health Inquiry

29 August 2019

The Aboriginal Health Council of Western Australia (AHCWA) is pleased to provide a submission to the WA Department of Health's Climate Health Inquiry (the Inquiry). AHCWA welcomes the State Government's commitment to implementing recommendations from the recent Sustainable Health Review (2019) (SHR), of which the establishment of the Inquiry is one.

AHCWA is the peak body for 23 Aboriginal Community Controlled Health Services (ACCHSs) providing comprehensive primary health services across diverse regional, rural and remote locations in Western Australia. AHCWA exists to support and act on behalf of our 23 Member ACCHSs, and our principal vision is for Aboriginal people in Western Australia to enjoy the same level of health and wellbeing as all Western Australians.

AHCWA and its member ACCHSs are united in their concern about the ever-increasing impacts of climate change on Aboriginal people's health and wellbeing, their communities and country. Being on the front line of comprehensive primary health care service delivery across the diverse climates of WA, ACCHSs are increasingly witnessing the effects of changing weather patterns and environmental degradation on the health and wellbeing of Aboriginal people.

While addressing the health and wellbeing impacts of climate change is daily practice for ACCHSs, a deep and clear understanding of the direct link between climate change and health is only just emerging. ACCHSs are not alone in their developing awareness of this link. As stated by Professor Tarun Weeramanthri when he met with ACCHSs CEOs in July 2019, the health sector generally is starting from a very low baseline in its recognition of, and response to, climate change.

This Inquiry is a timely catalyst for the WA Government and its partners to better understand the impacts of climate change on health, and for immediate planning to begin. The publication of the Department of Health's Sustainable Health Review (2019) is a key platform from which to launch climate change mitigation and public health adaptation actions for the future. While the SHR doesn't make direct recommendations on climate change mitigation and adaptation, it can be used to develop principles and priority actions for addressing the health impacts of climate change in WA.

AHCWA and its member ACCHSs are using this submission process to demonstrate that they are key, interested stakeholders in this emerging area of knowledge, and are committed to collaborating with partners across the government and non-government sector to identify climate health issues, and develop solutions. Importantly, as traditional owners and custodians of the land and environment being effected by climate change, Aboriginal people and their communities must share the lead in this important work.

AHCWA's submission is based on information gathered from its member ACCHSs, recommendations of the SHR (2019), and emerging evidence in the area of climate and environmental health. The submission has been informed by the Inquiry's Terms of Reference, and is broken into the following three sections:



AHCWA
Aboriginal Health Council
of Western Australia

1. The impacts of climate change on the health and wellbeing of Aboriginal people and their communities
2. The ACCHSs sector: Preparing for and responding to climate change
3. A joint approach to climate change: Opportunities for the future

PART 1: The impacts of climate change on the health and wellbeing of Aboriginal people and their communities

To understand Aboriginal health and wellbeing as it is impacted by climate change, this submission will first briefly describe key characteristics of climate change, and outline their environmental consequences. The impact of these environmental consequences on the health and wellbeing of Aboriginal people and their communities, will then be illustrated.

Key Characteristics of Climate Change

Increasing temperatures

Average annual temperatures in WA have increased by 0.9°C since 1910 (Department of Environment and Conservation [DoEC] 2012). Between 1910 and 2013 temperatures in the South West have increased by 1.1°C, in the Pilbara by 1.0°C, and in the Kimberley by 0.9°C (Department of Primary Industries and Regional Development [DPIRD] 2018). The intensity, frequency and duration of hot spells has also increased, with south coast areas the only exception (DPIRD 2018).

Changing rainfall patterns

Between 1950 and 2011 in WA, rainfall increased across most regions, with the north east of WA recording the highest increase in rainfall (DoEC 2012). However, during this time, rainfall considerably decreased across the south west of WA, with the Bunbury to Walpole region recording the largest decrease, falling by up to 50 millimetres each decade (DoEC 2012).

Storms/cyclones

Increases in ocean temperatures impact the intensity of cyclones in Australia (Climate Council of Australia [CCoA] 2019). Approximately 75% of severe cyclone crossings in Australia that took place between 1970-71 and 2007-08 were in WA. The region off the north west coast has the highest incidence of cyclones in the southern hemisphere (Bureau of Meteorology n.d.).

Rising sea levels

Increasing temperatures contribute significantly to rises in sea levels, with the rate of global sea level rise increasing rapidly in recent decades (Weeman & Lynch 2018). With an extensive ocean border, WA is very susceptible to rising sea levels (DEE n.d.). Between 1991 and 2011, data shows that the sea level at Hillarys, on the north coast of Perth, rose approximately 9 mm each year (DoEC 2012).

Environmental Consequences of Climate Change

Air pollution

Bushfires; Increasing temperatures and reduced rainfall lead to increases in fuel load and dryness. The frequency and intensity of bushfires across WA is anticipated to increase with the Pilbara expected to have the greatest increase in severe fire days (DPIRD 2018). These bushfires destroy

immense regions of the natural environment, but also cause high amounts of particles to become airborne increasing the concentration of atmospheric pollutants.

Wind; Increasing wind patterns can have significant health impacts. Strong winds carry dust and contribute to the spread of disease, and worsen existing eye, ear and throat conditions. Many roads, particularly in rural and remote communities across Western Australia, are open and unsealed allowing the easy spread of dust and disease in windy conditions. Driving on unsealed roads during windy periods can also be extremely dangerous.

Flooding; Flood inundation, particularly in residential properties in warm and humid locations, can lead to the growth of mould. Inadequate ventilation following inundation leads to mould growth and spore release which exacerbates existing respiratory illnesses (Beggs 2018).

Coastal erosion

As a result of rising sea levels, coastal flooding and storm surges are occurring more frequently, and areas along the WA coast with shallow coastal waters are increasingly vulnerable to coastal erosion (Department of Climate Change 2009). Many Aboriginal communities, cities and critical infrastructure are located along the coast and are, therefore, at risk of damage and displacement.

Heat waves/Extreme heat

Australia wide, heat waves cause the highest number of deaths of any natural weather event, and can lead to increased morbidity and mortality in Aboriginal communities (SHR 2019; CCoA 2014). Heat waves contribute significantly to the burden on people and health services with heart attacks, strokes, accidents, heat exhaustion and death occurring more frequently (Climate Commission [CC] 2011). Periods of prolonged heat can also lead to drought which, in turn, can result in significant food security challenges.

Health and Wellbeing Impacts of Climate Change for Aboriginal People (including impacts on the social determinants of health)

Increased burden of disease

Respiratory diseases; Climate change contributes to exacerbations of respiratory diseases, including asthma, allergies, and chronic obstructive pulmonary disease (CC 2011). As described, the spread of dust, particles and spores through air pollution can contribute significantly to the prevalence of these diseases. Aboriginal people and their communities experience high levels of respiratory disease making them more vulnerable to impacts of climate change.

Other diseases; A warming climate and alterations to rainfall levels influence the geographic range, seasonality, and rate of various infectious diseases. Mosquitos breed in warm climates and it is expected that patterns of mosquito-borne diseases like Dengue Fever and Ross River Virus will vary due to climate change (Doctors for the Environment 2016). While further research is required, there is also a potential anecdotal link between the prevalence of changing climate conditions, living conditions, and communicable diseases including Leprosy, Acute Rheumatic Fever, Trachoma and Ear Infections. All of these diseases are very preventable, yet continue to be present in the Aboriginal population.

Water insecurity

Severe droughts and floods can cause water supplies to become contaminated compounding water security challenges already experienced by many Aboriginal people and communities in WA. In the dry Western Desert region of WA, studies are showing increased concentrations of nitrates and uranium in drinking water supplied to Aboriginal communities (Rajapakse et al 2019). In the Kimberley, water from shallow aquifers are prone to experience salinity when water levels are low. Conversely, water contamination in wet seasons or regions of WA may occur as a result of flooding restricting access to clean drinking water and wastewater services (Government of Western Australia 2019).

Food insecurity

Extreme weather events resulting in extreme heat, drought and poor soil, may impact the cost and yield of crops in Australia, disrupt the food supply and increase the risk of foodborne infections such as bacterial gastroenteritis. While the vast majority of Australians have access to safe, cheap, high quality food, in many remote WA communities the cost of core foods like fruit and vegetables can be 30% higher (CCoA 2015). Climate change can also impact transportation infrastructure and supply lines which further impacts food security.

Loss of habitat

Coral and Fish Species; Destruction of coral reef systems have increasingly occurred as a result of rising sea temperatures and carbon dioxide absorption from climate change. This impacts significantly on coral growth and damages reef structures, causing many species of marine life to be under rising threat (CSIRO n.d.). This has significant implications for the food security of Aboriginal people and their communities living in coastal areas.

Biodiversity and habitats; Consequences of climate change, such as prolonged droughts and floods, cause significant damage to the biodiversity of the natural environment, and threaten the survival of many animal and plant species (Department of Environment and Energy 2004). The destruction of native plant species and the habitat of wildlife impacts the food security of many Aboriginal people and their communities. Bush food, or 'bush tucker', forms a large part of the diets of Aboriginal and Torres Strait Islander people, with many of these people using the land as their primary food source. This is not only problematic in itself but creates a dependence on non-traditional foods which have a higher fat and sugar content which can increase the risk of chronic diseases such as Diabetes.

Issues of caring for country and displacement

Many Aboriginal people in WA live in areas experiencing the biggest impacts of climate change, including coastal, rural and remote areas (Global Health Alliance Australia [GHAA] 2019). For Aboriginal people, connection to country is a fundamental part of their way of life and is vital for cultural continuity and social and emotional wellbeing (Australian Institute of Aboriginal and Torres Strait Islander Studies [AIATSIS] 2009). Caring for country has significant cultural and spiritual ties, and disruptions to this can cause significant problems for wellbeing. Climate change has the potential to destroy cultural practices, traditional knowledge, community lands and family homes, and can force Aboriginal communities to relocate to new, unfamiliar country. This not only breaks traditional ties (AIATSIS 2009) but can also compound experiences of trauma related to Aboriginal people being forcibly removed from land in the past.

Infrastructure challenges

Power outages; Disrupted power supplies resulting from storms, flooding and extreme heat have direct impacts on the ability of ACCHSs to deliver services. For example, unreliable power has the potential to impact the cold chain supply of vaccines and other medicines.

Washaways – roads and airstrips; Extreme weather events, including rainfall and flooding, can create significant challenges for access to primary health care for remote Aboriginal communities. Many roads in regional and remote Western Australia are unsealed, and become inaccessible when flooded or during other extreme events including bushfires. Providing patient transport via air can be very costly and can also be limited when airstrips are inaccessible. This is of particular concern when communities become isolated by flooding or patients require urgent medical evacuation.

Building maintenance; Housing and other community infrastructure can be significantly damaged by climatic events including flooding, humidity and heatwaves. Insufficient infrastructure and ventilation can increase the build-up of indoor pollution and mould, which can cause respiratory problems and the risk of disease to increase.

Health sector workforce stress

Climate change poses challenges for the attraction and retention of staff in ACCHSs. Due to the extreme climate conditions in some locations, extra measures are required to support staff providing services under these conditions. Appropriate heating and cooling must be available for clinics and accommodation, and consideration must be given to the toll on staff providing outreach services to patients who are unable to visit clinics due to extreme heat. There may be increased demand for health services during climate events which may also lead to worker stress and burnout.

Loss of traditional culture

Bush Medicine; Bush medicine and traditional healing practices play an important role in the holistic approach to health among Aboriginal people (Australian Indigenous Health InfoNet n.d.). Herbs and other plants from the natural environment with significant healing and protection properties, are used in healing practices which have been sustained for thousands of years (Australian Geographic 2017). The loss of these plants through climate change has irreversible impacts on traditional cultural practices.

Hunting and Gathering; Traditional hunting and gathering has remained an important cultural activity for many Aboriginal people and their communities (Australian Law Reform Commission 2010). Environmental degradation and the extinction of traditional plants and animal species as a result of climate change may prevent these traditional practices from continuing. This, in turn, may lead to significant health problems for Aboriginal people, including poor social and emotional wellbeing associated with a loss of culture.

Mental health and social and emotional wellbeing

The social and emotional wellbeing of Aboriginal people is a holistic concept, which is inclusive of and influenced by the social determinants of health. Connection to country, continuity with community, physical, emotional and cultural wellbeing are all key elements. A disconnection from any of the dimensions of social and emotional wellbeing can cause an Aboriginal person to experience an imbalance in their overall health. Climate change has the potential to impact key determinants of social and emotional wellbeing and, therefore, poses a significant risk for the mental health of Aboriginal people (Commonwealth of Australia 2017).

Anecdotal evidence from health professionals working with children and young people report that an increasing number are reporting psychological distress and anxiety due to climate change and the lack of government action and commitment to implement effective mitigation strategies. With time, this situation will only worsen if the government does not engage Aboriginal communities to develop and lead solutions to this crisis.

PART 2: The ACCHSs sector: Preparing for and responding to climate change

As demonstrated, the ripple effects of climate change have far reaching direct impacts on health and wellbeing, and implications for the social determinants of health including community cohesion, housing and social and emotional wellbeing. WA ACCHSs bear witness to these impacts on Aboriginal people and their communities on a daily basis.

While ACCHSs are united in their willingness to respond to the needs of their communities, their services and experiences are all very different. There are 23 ACCHSs in WA delivering services across more than 75 clinics. They respond to health and wellbeing needs across urban, rural and remote areas, and across climatic zones. They deliver a variety of services including child and maternal health care, social and emotional wellbeing support, daily living assistance for people with disability under the NDIS, and community hubs for children, families and Elders.

Common to all ACCHS, however, is a commitment to delivering health and wellbeing services under a holistic Model of Care which has been designed by Aboriginal people, for Aboriginal people. The Model of Care necessarily locates Aboriginal people within the context of eight determinants of health; family, community, culture, language, country, physical wellbeing, spiritual wellbeing, and emotional wellbeing.

The Model of Care can be used to demonstrate how broadly the health and wellbeing of Aboriginal people can be impacted by the wide ranging impacts of climate change. For example, as the physical health of an Aboriginal person is directly influenced by community and country, any disturbance to these elements may have impacts for their health. If land erosion results in communities being displaced and having to move off country, it is highly likely that the wellbeing of each individual Aboriginal person and the community will be negatively affected. Simply, environmental health and human health are inextricably linked.

Having an understanding of the interconnectedness of determinants of wellbeing for Aboriginal people, as illustrated by the Model of Care, places ACCHSs in a unique position to lead climate adaptation and mitigation initiatives. ACCHSs know what works, and why, when delivering health outcomes with Aboriginal people and must be deeply engaged in developing any strategies and programs to address climate health in WA.

Leaders in the ACCHSs sector support this inquiry, not only as it starts an important conversation about the impacts of climate change on health, but also because it calls for all health services, including ACCHSs, to consider their roles and responsibilities to bring about change. ACCHSs are keen to explore how, as a sector, they can play a role; harness their collective knowledge, experience, capability and initiative to drive a platform for change. ACCHSs want the WA Government to know they are listening, they have much to contribute, and they would like to learn more.

The challenge is clear; Aboriginal people and their communities are already vulnerable as a result of intergenerational trauma and disadvantage which is a lasting legacy of government policy limiting their autonomy, their culture and their relationship with country. ACCHSs are working closely with Aboriginal people and their communities across Australia to address these vulnerabilities and achieve

significant public health gains, however, there is the potential for these gains to be significantly undermined by the public health challenges brought about by climate change (GHAA 2019, p. 11).

To work towards solutions, ACCHSs are driven to understand more about the nuances of responding to climate change. For example, the SHR (2019) refers to adaptation and mitigation in relation to climate change action. Adaptation may refer to ACCHSs building capacity and resilience to the impacts of climate change, while mitigation may mean changing behaviours and developing innovative solutions.

However, it is also important that government agencies understand climate change responses must, and will be, different for Aboriginal people and communities across the State. A one-size-fits-all approach can't be applied. Targets and options will differ significantly for Aboriginal communities in urban, rural, and remote areas. For example, studies have shown that the systemic disadvantages experienced by people living in regional communities will be further compounded by the impacts of climate change (GHAA 2019), therefore, climate health initiatives must be unique to each community, and draw on their significant experience and traditional knowledge.

What's happening in the ACCHSs sector to respond to climate change?

As previously stated, ACCHSs are already responding to the health impacts of climate change, however, these actions are not stand alone responses and are within the course of their general delivery of comprehensive primary health care services. For example, working in conditions of extreme heat is not unusual in remote areas of the Pilbara, Gascoyne and Goldfields, and ensuring the continuation of services, including renal dialysis, is a key priority for the Kimberley in the wet season.

To ensure they are resilient and remain sustainable during periods of extreme weather events, ACCHSs may need to reframe their approach to service delivery as a direct response to climate change. This will involve increasing knowledge about adapting to and mitigating climate change, developing policies and procedures to embed concepts of sustainability into organisations, collaborating and partnering across government and non-government agencies, and increasing investment in the ACCHSs sector; elements which are discussed in Part Three of this submission.

Current experiences of ACCHSs adapting to the health impacts of climate change include;

Preparing for and responding to extreme weather events:

- ACCHSs work with other local services when confronted with storms, cyclones, flooding, bushfires and drought. They consult community on layout plans, speak with local experts, including Aboriginal Rangers, to understand risks and opportunities, and consider the location of flood plains and water sources.
- In the Fitzroy Valley, Nindillingarri Cultural Health Service (NCHS) has contingency plans to manage flooding in the wet season. Alongside other community organisations and government agencies, NCHS works with community members to ensure they have stocked food supplies and medicines. Elderly people and other vulnerable people are brought into town to avoid being cut-off from services, and disaster responses are planned in advance.
- In circumstances when medical evacuations are required due to extreme weather events, Puntukurnu Aboriginal Medical Service (PAMS) coordinates travel and accommodation support through the Patient Assisted Travel Scheme (PATS).



Heavy Rain and Flooding in the Kimberley Region

The 2018 wet season in the Kimberley brought very heavy rain and flooding causing erosion and major damage to sealed and unsealed roads and air strips. The impact on Aboriginal people and their communities was immense.



Transport links between Fitzroy Crossing, Broome, Derby, Kununurra, Wyndham and Halls Creek were severely affected, limiting the services ACCHSs were able to provide to communities.

Communities became isolated and lacked access to essential goods and services including medical appointments, specialist care, medication, food, clean water and other essential supplies. The communities of Bidyadanga and Beagle Bay were isolated for over two months.

The stress and uncertainty of these events had significant impacts for the social and emotional wellbeing of the Aboriginal people and communities involved.

To minimise the health impacts and hardships experienced by Aboriginal people and their communities, the Kimberley Aboriginal Medical Service (KAMS) coordinated and funded a number of relief operations:

- Helicopter transport for doctors to attend community clinics to deliver medical care.
- Airlifting a patient from a remote community to Broome for medical treatment.
- Aircraft charters to transport staff between Derby and Broome.
- Towing services to ferry staff vehicles across flood plains between Broome and Bidyadanga.
- Transport of fresh produce, medicines and other supplies to remote clinics and communities.



KAMS are not resourced to deliver emergency services but are committed to delivering support to the communities they service. This is despite the large financial costs and logistical challenges for operating remote clinics during extreme weather events.

Adapting to extreme heat

- ACCHSs located in the hottest areas of WA, including the Goldfields, Gascoyne, Central Desert Region, Pilbara and Kimberley, face extreme challenges for ensuring the health and wellbeing of Aboriginal people, their communities, and staff.
- Air-conditioning units are essential in these areas but come at a huge cost to ACCHSs. They require significant power to run, they need ongoing maintenance, and have only a limited life-span due to overuse. The build-up of red-dust, made worse by wind, is a key issue for their lack of durability.
- Solar power is one initiative being used in some ACCHSs (see case study).
- To ensure staff remain safe and healthy in the course of their duties under extreme heat conditions, ACCHSs ensure that staff have access to essential items to ensure their health and wellbeing. When doing outreach to remote clinics, staff travel with kits equipped with sufficient drinking water, dissolvable electrolyte tablets, cooling sticks and a satellite phone in case of emergencies.

Responding to the social and emotional wellbeing of community members and staff

- In alignment with their Model of Care, many ACCHSs provide social and emotional wellbeing programs in communities. These programs can be engaged to support community members affected by the health impacts of climate change, and staff (who are often community members themselves) experiencing stress and burnout as a result of increased demand for services.

Ensuring food security

- Geraldton Regional Aboriginal Medical Service (GRAMS) supports the model of sustainable food production delivered by the Midwest Employment and Economic Development Aboriginal Corporation (MEEDAC) Community Gardens Project in Dongara and Mullewa.
- The Community Gardens Project provides meaningful employment and training opportunities for Aboriginal community members, but also contributes to food security in rural locations. It is an innovative example of Aboriginal people living and thriving on country.

Planning for a more sustainable future

- ACCHSs are consistently problem solving ways to improve efficiency in the way they deliver services, and are increasingly exploring sustainable options for service delivery and infrastructure. In adapting to climate change, AHCWA and ACCHSs are considering ways they could be doing things differently.
- Mappa;
 - A current key initiative of AHCWA is the establishment of the Mappa online tool to assist people across WA to access health services as close to community and family as possible. Mappa will have information about medical services that are located nearest to communities, and detail the schedules of visiting specialists and outreach services, therefore improving travel planning for rural and remote patients.
 - Currently, Aboriginal people and their families travel great distances across the state to attend medical appointments. It is not uncommon for people from the most remote areas of the Goldfields, Central Desert, Pilbara and Kimberley regions to travel on multiple modes of transport, over numerous hours, to attend simple outpatient appointments in Perth.
 - While the aim of Mappa is to improve travel efficiency and improve cultural security for Aboriginal people, it will also assist in reducing carbon emissions normally expelled during long journeys across the state.

- Telehealth;
 - The Department of Health's Telehealth is an important technological tool for sustainable health service delivery in the future. Similar to the Mappa portal, Telehealth provides health care closer to home, reducing a patient's need to travel. This will have a positive impact on the reduction of carbon emissions as less people will be travelling across the state.
 - Many Aboriginal people prefer to attend a Telehealth consultation with an ACCHSs doctor, Aboriginal Health Worker or Aboriginal Health Practitioner in attendance for advice and support. At present, there are limitations to Medicare billing arrangements which means that, for some types of consultations, the ACCHSs worker isn't able to make a claim to Medicare to fund the appointment. This 'red tape' is influencing the uptake of Telehealth in many ACCHSs and must be addressed to ensure adequate funding is available to ACCHSs, and that Aboriginal people have equal access to Telehealth services.

Solar Panel Technology in the Goldfields and Pilbara

Spinifex Health Services (SHS), located in Tjuntjuntjara near the border of WA and SA, revamped their clinic to install solar panels. The aim was to harness the sun's natural energy to convert into power, and reduce the overhead costs and climate impacts as a result of the clinic running a diesel generator. It was a very innovative project, which also had the benefit of supplying energy to other parts of the community, but became a very costly exercise as the budget and funding did not include connection of the solar panels to the main power grid.

This resulted in a delay to the opening of the clinic which was detrimental to the health and wellbeing of the community; due to its remoteness, there were very limited health service alternatives.

Puntuturnu Aboriginal Medical Service (PAMS) in the Pilbara has had a similar experience. PAMS has commenced work on an innovative clinic, which has a sustainability and environmentally friendly focus. Due to the extreme heat and need for cooling devices, PAMS is considering options for improving its energy efficiency, and reducing its extremely high power costs, through the installation of solar panels. As with SHS, connecting to the main power grid is extremely expensive.

ACCHSs are not-for-profit organisations, often providing services in very remote locations. Funding for ACCHSs infrastructure, particularly in response to climate change, is very difficult to source and is currently inadequate. A far greater commitment by commissioning bodies is required to ensure ACCHSs are funded to respond to the health impacts of climate change for Aboriginal people and their communities.



Innovative Infrastructure in the South West

The South West Aboriginal Medical Service (SWAMS), based in Bunbury, is collaborating with the University of Technology, Sydney (UTS) to develop a new health hub. They are designing an innovative space, equipped with new technologies to support services that will improve child and maternal health and outcomes for Aboriginal children in the future.

The unique, sustainability driven design will provide opportunities for Aboriginal children to be cared for, supported and tracked throughout their transition to adulthood, ensuring they are set up for success as adults. The vision is to create a whole of life support system for a new generation of Aboriginal children and their families; sustainable design and service delivery, for sustainable lives.

One of the biggest challenges for SWAMS is securing funding to build this important building. A genuine commitment by funding bodies is required to turn this plan and vision into a reality, and set a benchmark for ACCHS clinics across WA in the future.

PART 3: A joint approach to climate change: Opportunities for the future

This submission has detailed the impacts of climate change on the health and wellbeing on Aboriginal people and their communities, and the initiatives already being undertaken to respond to this challenge. While the scope of climate, environmental and health impacts seems overwhelming, as stated by the Global Health Alliance Australia (2019, p. 6), 'the threat is great, but so is the opportunity'; this section details those opportunities.

Consult and listen to the Aboriginal community

Aboriginal people, their communities and ACCHSs are innovative and resilient. They have generations of traditional knowledge and expertise in managing and living on the land and it is essential that, in any climate change response discussion, that Aboriginal sovereignty and relationship with country is respected, protected and promoted.

Engagement with Aboriginal people, their communities and ACCHSs must be genuine; they must promote two-way learning and must not be a tick-box exercise. As stated by Professor Weeramanthri when he presented to the ACCHSs CEOs, generations of Aboriginal stewardship should now aid a bridge to the future.

Genuine partnerships with Aboriginal communities

The SHR (2019, p. 11) recommends ACCHSs being recognised and strengthened as 'leaders in Aboriginal primary health care'. AHCWA and its member ACCHSs strongly support this recommendation and should be the preferred providers for any Aboriginal primary health care programs in WA. Given the SHR's strong acknowledgment of the ACCHSs sector, it is essential that ACCHSs are engaged in genuine partnerships for addressing the health impacts of climate change.

ACCHSs must co-lead, co-design, co-produce and co-evaluate climate change response initiatives. Aboriginal people and their communities must be part of the conversation, must be empowered to make decisions, and must receive feedback from other agencies on any consultation. The position of the SHR (2019, p. 4) that 'partnerships must be based on shared objectives and common purpose, new levels of trust and respect, and formal sharing of risks and benefits' is strongly supported by AHCWA and its member ACCHSs.

A coordinated approach

ACCHSs are a key stakeholder and provider of primary health care services in the broader health community of WA; a community which needs to work together to respond to the health impacts of climate change.

ACCHSs welcome the opportunity to be part of a co-ordinated cross agency, cross-government, cross-community approach and notes the recent announcement by the Hon. Stephen Dawson MLC on the development of a State Climate Policy for WA.

Increasing climate change awareness

Education and awareness raising for Aboriginal people about the health impacts of climate change is a first step in gaining support for adaptation and mitigation initiatives in communities. Information needs to be culturally secure, and available in languages that different communities understand.

Consideration could also be given to the co-design and development of resilience activities including workshops, support networks, and mentorship programs by and for Aboriginal people, community members and their families. These resources must proactively foster resilience and prevent burnout.

Capacity building: Supporting healthy and resilient communities

The SHR (2019, p. 2) found that ‘Western Australians want health and social care that addresses all of the factors that influence health rather than focusing solely on hospitals and beds’. This means holistic primary health care, closer to home. ACCHSs provide this service for Aboriginal people and their communities but will need further support to respond to the increasing health impacts of climate change.

A commitment to building the capacity of ACCHSs is required. This not only includes increased, more secure funding, but also a review of the available workforce to determine strengths and potential opportunities. Aboriginal Health Workers, Aboriginal Health Practitioners, and Environmental Health Workers are experts in their fields, and options to enhance their impact and drive their potential must be explored.

Support for vulnerable populations

In a recent report, the Global Health Alliance Australia (2019, p. 22) stated that ‘climate change will exacerbate existing health system inequities, as human resilience is shaped by location, physical condition, social status, poverty, control over resources, and relationship to land and food-producing systems’. In essence, climate change will have the biggest impact on the health outcomes of the most vulnerable people in society.

In most population measures, vulnerable populations are defined as women, children, the elderly, people with disability, people from culturally and linguistically diverse backgrounds, and Aboriginal people. Aboriginal people can experience a cross-section of these identified vulnerabilities leading to compounded levels of hardship. It is, therefore, imperative that proactive public health efforts are prioritised to reduce the harmful health impacts of climate change on vulnerable populations.

Investing in innovation

New approaches to adapting to and mitigating the health impacts of climate change require innovation and investment. This is acknowledged by the SHR (2019) which recommends the WA health system must be more flexible and adaptive, and that investment and reinvestment is required to develop proactive and sustainable health interventions.

ACCHSs consistently deliver innovative and flexible primary health care services for Aboriginal people but current investment and security of funding is inadequate. Too often, commissioning bodies provide funding for programs for which a lot of additional unfunded work is required. The economic burden for ACCHSs responding to the health impacts of climate change must be recognised and appropriate funding be made available.

Opportunities for Environmental Health

Aboriginal people and communities living remotely are much more vulnerable to Environmental Health factors than people living in other areas of WA. This is often due to lack of housing, overcrowding, poor access to and cost of maintenance, limited access to clean water, and inadequate sewerage facilities. Severe weather events associated with climate change can further damage infrastructure compounding health hazards for Aboriginal people and their communities (Australian Indigenous Health InfoNet 2019).

Environmental Health Workers in the ACCHSs sector are experts in managing these kinds of health risks in conjunction with Aboriginal communities. They provide support and deliver services to improve infrastructure, waste management and sustainability. Environmental Health Workers have the potential to add significant value and expertise in responding to the health impacts of climate change.

A sustainable effort

While the threat of climate change is real, and the opportunities to adapt to and mitigate its impacts are evident, a genuine, collaborative and coordinated response to this challenge must be sustainable over time. This involves committed partnerships across agencies and sectors, ongoing and secure investment in climate health initiatives, and ingenuity in workforce development and management.

The SHR (2019, p.2) acknowledges this challenge and, with regard to investment, states that 'honest discussions need to be had to consider the best use of public funding'. ACCHSs recognise that sustained policy and program initiatives are costly but strongly supports the position that investment in climate change responses must not be assessed on cost alone. Rural and remote initiatives are much more likely to have higher per capita costs than initiatives in urban centres, however, this must not be the only, or key, consideration. There must be a balance.

Conclusion

Aboriginal people, their communities and ACCHSs are becoming increasingly aware of the detrimental health impacts of climate change in WA. It is an insidious change, but a collaborative, coordinated response is required.

AHCWA and its member ACCHSs are committed to genuine partnerships to develop and lead adaptive and mitigating initiatives in the area of climate health. However, Aboriginal people must be empowered to share their traditional knowledge, maintain sovereignty over their land, and be pivotal in any decision making. Secure and adequate funding is also required to demonstrate the WA

Government's commitment to managing the health impacts of climate change and to ensure initiatives are maintained.

As key stakeholders and committed ACCHSs, AHCWA and its member services welcome further opportunities to consult with the Department of Health and any other agencies in relation to climate health.

References

Australian Geographic 2017, *Get well soon, the Noongar way*, available from: <https://www.australiangeographic.com.au/topics/science-environment/2017/02/noongar-aboriginal-bush-medicine/>. [5 September 2019].

Australian Indigenous Health InfoNet 2019, *Environmental health*, available from: <https://healthinonet.ecu.edu.au/learn/determinants-of-health/environmental-health/>. [3 September 2019].

Australian Indigenous Health InfoNet n.d., *Traditional healing and medicine*, available from: <https://healthinonet.ecu.edu.au/learn/cultural-ways/traditional-healing-and-medicine/>. [5 September 2019].

Australian Institute of Aboriginal and Torres Strait Islander Studies 2009, *Indigenous health and wellbeing: the importance of country*, available from: https://aiatsis.gov.au/sites/default/files/products/report_research_outputs/ganesharajah-2009-indigenous-health-wellbeing-importance-country.pdf. [27 August 2019].

Australian Law Reform Commission 2010, *Traditional hunting, fishing and gathering in Australia*, available from: <https://www.alrc.gov.au/publication/recognition-of-aboriginal-customary-laws-alrc-report-31/33-traditional-hunting-fishing-and-gathering-practices/traditional-hunting-fishing-and-gathering-in-australia/>. [5 September 2019].

Beggs, P 2018, *Climate change and allergy in Australia: an innovative, high-income country, at potential risk*, Public Health Research and Practice, vol. 28, no. 4, available from: <http://www.phrp.com.au/issues/december-2018-volume-28-issue-4/climate-change-and-allergy-in-australia-an-innovative-high-income-country-at-potential-risk/> [3 September 2019]

Bureau of Meteorology n.d., *Climatology of tropical cyclones in Western Australia*, available from: <http://www.bom.gov.au/cyclone/climatology/wa.shtml>. [5 September 2019].

Climate Commission 2011, *The critical decade: Climate change and health*, Commonwealth of Australia, available from: <https://research-management.mq.edu.au/ws/portalfiles/portal/72263235/72262980.pdf>. [26 August 2019].

Climate Council of Australia 2015, *Feeding a hungry nation: Climate change, food and farming in Australia*, available from: <https://www.climatecouncil.org.au/uploads/7579c324216d1e76e8a50095aac45d66.pdf>. [28 August 2019].

Climate Council of Australia 2014, *Heatwaves: hotter, longer, more often*, available from: <https://www.climatecouncil.org.au/uploads/9901f6614a2cac7b2b888f55b4dff9cc.pdf>. [27 August 2019].

Climate Council of Australia 2019, *Weather gone wild: Climate change-fuelled extreme weather in 2018*, available from: <https://www.climatecouncil.org.au/wp-content/uploads/2019/02/Climate-council-extreme-weather-report.pdf>. [26 August 2019].

Commonwealth of Australia 2017, *National strategic framework for Aboriginal and Torres Strait Islander peoples' mental health and social and emotional wellbeing*. available from: https://www.pmc.gov.au/sites/default/files/publications/mhsewb-framework_0.pdf. [26 August 2019].



AHCWA
Aboriginal Health Council
of Western Australia

- Commonwealth Scientific and Industrial Research Organisation 2015, *Climate change in Australia Information for Australia's Natural Resource Management Regions*, Bureau of Meteorology, Australia, available from: https://www.climatechangeinaustralia.gov.au/media/ccia/2.1.6/cms_page_media/168/CCIA_2015_NRM_TechnicalReport_WEB.pdf. [28 August 2019].
- Department of Climate Change 2009, *Climate change risks to Australia's coasts: a first pass national assessment*, available from: <https://www.environment.gov.au/climate-change/adaptation/publications/climate-change-risks-australias-coasts>. [27 August 2019].
- Department of Environment and Conservation 2012, *Adapting to our changing climate*, Government of Western Australia, available from: <https://www.der.wa.gov.au/images/documents/your-environment/climate-change/adapting-to-our-changing-climate-october-2012.pdf>. [27 August 2019].
- Department of Environment and Energy 2004, *Threatened Australian plants*, available from: <https://www.environment.gov.au/resource/threatened-australian-plants-0>. [5 September 2019].
- Department of the Environment and Energy n.d., *Observed changes in our climate system*, available from: <https://www.environment.gov.au/climate-change/climate-science-data/climate-science/understanding-climate-change/indicators>. [27 August 2019].
- Department of Primary Industries and Regional Development 2018, *Climate trends in Western Australia*, available from: <https://www.agric.wa.gov.au/climate-change/climate-trends-western-australia>. [28 August 2019].
- Doctors for the Environment 2016, *Climate change and health in Australia*, available from: https://www.dea.org.au/wp-content/uploads/2017/02/DEA_Climate_Change_Health_Fact_Sheet_final.pdf. [3 September 2019].
- Global Health Alliance Australia 2019, *From Townsville to Tuvalu: Policy advice for governments in Australia*, available from http://glham.org/wp-content/uploads/GLHAA_TownsvilleTuvalu-08.pdf. [21 August 2019].
- Government of Western Australia 2019, *Remote Aboriginal communities get water service upgrade*, available from: <https://www.mediastatements.wa.gov.au/Pages/McGowan/2019/03/Remote-Aboriginal-communities-get-water-service-upgrade.aspx>. [26 August 2019].
- Rajapakse, J., Rainer-Smith, S., Millar, GJ., Grace, P., Hutton, A., Hoy, W., Jeffries-Stokes, C. & Hudson, B. 2019 *Unsafe drinking water quality in remote Western Australian Aboriginal communities*. Geographical Research, vol. 57, no. 2, pp. 178-188.
- Sustainable Health Review 2019, *Sustainable health review: Final report to the Western Australian Government*. Department of Health: Western Australia.
- Weeman, K & Lynch, P 2018, New study finds sea level rise accelerating. Available from: <https://climate.nasa.gov/news/2680/new-study-finds-sea-level-rise-accelerating/>. [28 August 2019].