



6th September, 2019

Submission to the Climate Health WA Inquiry

The World Health Organisation Collaborating Centre for Environmental Health Impact Assessment (the Centre) at Curtin University is pleased to submit this submission to the Climate Health WA Inquiry.

Responses to the Terms of Reference:

- establish current knowledge on the implications of climate change for health in Western Australia (WA) and recommend a framework for evaluating future implications;
- identify and recommend a program of work to manage the implications of climate change for health in WA, which will:
 - protect the public from the harmful health impacts of climate change;
 - strengthen the preparedness and resilience of communities and health services against extreme weather events, with a focus on the most vulnerable in the community;

The Centre has been actively working on the issue of climate change and health at a local and international level for over a decade and hope that the Inquiry will lead to strong action in this area.

The “Operational framework for building climate resilient health systems” (WHO, 2015) provides a useful overarching framework for a program of work. The ten components of the framework (listed below) cover the key aspects of the Inquiry’s Terms of Reference:

1. Leadership and governance
2. Health workforce
3. Vulnerability, capacity & adaptation assessment
4. Integrated risk monitoring and early warning
5. Health and climate research
6. Climate resilient and sustainable technologies and infrastructure
7. Management of environmental determinants of health
8. Climate-informed health programmes
9. Emergency preparedness and management
10. Climate and health financing

Many of these components were also addressed in the previous work commissioned by the Department of Health (DoH) and reported in “*Health impacts of climate change: Adaptation Strategies for Western Australia*” (DoH, 2008). This process used the climate projections at the time to create a future scenario (2030) against which the potential changes to the environment (in the broadest sense of biophysical, social, economic) could inform the pathways that could result in impacts to the health of the people of WA.

Although the report is over 10 years old, it provides a solid foundation for this Inquiry and future work in the area. For example, the report includes approximately 350 potential adaptation strategies developed in consultation with a wide range of stakeholders. It would be prudent to build upon these and other findings. It is recommended that a review of the report is undertaken especially for the identified high priority risks, in relation to their:

- Current relevance and potential risk level
It would be appropriate initially to focus on the risks to health (and benefits where identified) that have been identified in the initial and any subsequent assessments as Extreme or Very High. These should be reviewed in the light of implementation progress of adaptation/management applications both within the health sector and within other relevant sectors. The extent of implementation and the gaps or limitations should be considered.

For example, a range of sectors (health, mining and industry, commerce, within the State Hazard plan and so on) has extensively addressed the direct and indirect implications of heat exposure in the workplace and the community. However, the potential for adverse effects to health from heat remain extreme and there may be a requirement for modified or new approaches for the management of heat, especially for the reduction of heat stress. Recent publications¹ have indicated that the current Building Code of Australia has deficiencies with respect to thermal comfort in the home. While the Australian Government has published requirements for Passive Design of homes, these apply predominantly for new homes and little information is available about their implementation or about retrofitting existing homes. While there are limits to the role of the Department of Health in this area or others related to thermal comfort, this and other similar activities could be raised as an issue for advocacy through the State Emergency Management Committee of which the Department of Health is a member.

- Breadth of consideration of the determinants of health
The initial assessment in WA focused primarily on the health implications of environmental issues linked to climate change and representation from the social sectors was minimal. The implications of climate change for the social attributes of society are now clear and many sectors have commenced addressing these. It is important that health is being considered in the context of these plans and the Department of Health can play an important role in consulting with these sectors (community development, disability services, education and so on) to ensure this is the case.
- Potential gaps in the assessment and responses
A key component of the assessment was the establishment of a climate scenario for WA. It was acknowledged at the time that the projections for WA were conservative. These should be updated on the basis of current knowledge.

Additionally, the identified health impacts in the original assessment were based on the identification of environmental (biophysical, social, services and infrastructure) changes arising from climate change and while these were considerable, they were constrained by the breadth of representation from those sectors able to provide this information and the depth of knowledge at that time. Extensive descriptions of environmental pathways were also limited. And overall, the focus was predominantly on Perth and the South West.

Consequently, understanding of variations in environmental changes and the flow on health effects across the State should be improved. This could be achieved through localized or regional assessments engaging with appropriate expertise building on existing knowledge.

- Current application of adaptation strategies
Circumstances within government at the time of the assessment limited opportunities to monitor progress of the adaptation strategies. Similarly, many of the adaptation strategies identified during the original assessment were described as in development or adequate for the expected circumstances. A review of the current circumstances of these and their expected

¹ <https://www.abc.net.au/news/2018-01-04/australian-houses-losing-in-heat-management-design/9287188> and <https://theconversation.com/australia-has-a-new-national-construction-code-but-its-still-not-good-enough-113729>

applicability under contemporary climate change projections would provide a more accurate understanding of the appropriateness of these.

- Potential for further involvement of other sectors
Many government sectors and others embraced being involved in the original assessment. The resulting document was also released for public comment and support from a wide cross section of the WA community and elsewhere was received. However, opportunities to directly engage with others were limited. The local government sector, many NGOs and others have adopted strategies to work with communities at the local level and it would be appropriate to ensure that the Department of Health continues to identify and form collaborations with these.
- Potential for further benefits to health
Any activities undertaken should encompass the whole population but emphasis should be placed on addressing vulnerable populations and where possible seek to improve health outcomes.
- Potential to contribute towards the development of a Climate Change and Health Adaptation Plan
The development of the Climate Change Adaptation Plan will be welcomed. We would suggest that the community component of the plan addresses each of the following areas but with a greater clarification and emphasis on social elements:
 - Health Impacts of Extreme Events
 - Health Impacts of Heat and Heat Events
 - Water-Borne Diseases and Water Quality
 - Vector-Borne Diseases
 - Air Quality and Associated Health Impacts
 - Food-borne Diseases
 - Food Production
 - Social/Community/Lifestyle

The assessment was undertaken in collaboration with a wide range of sectors responsible for the management of these environmental elements. It is acknowledged that while the health sector has extensive expertise in the management of risks to health from the environment, it is not responsible for the management of the environmental impacts themselves. The above project involved multiple areas within the health department, as well as numerous health-determining sectors such as energy, water, planning, environment and agriculture. Many of the health impacts of climate change will occur as a result of changes in these sectors. Likewise, many of the adaptation strategies to address health impacts of climate change will occur outside the health sector. It is therefore critical that any future evaluations continue to adopt a multi-disciplinary approach. For high-risk impacts, the potential for multi-agency teams should be considered.

With respect to an ongoing program to assess vulnerability and develop adaptation strategies to protect public health, we recommend a similar framework to the 2008 report be used. The Centre has published a guide [Climate Change, Vulnerability and Health: A Guide to Assessing and Addressing the Health Impacts](#) (Spickett, Katscherian and Brown, 2015) which would be a valuable resource for future assessments. The guide uses a HIA framework and has been used for assessments in the Asia Pacific region as well as for United Nations Framework Convention on Climate Change (UNFCCC) global Vulnerability and Adaptation Assessment training. The Impact Assessment process developed has also been modified for application on other sectors in WA (Fisheries, Agriculture).

- Evaluate the likely benefits (health and wellbeing, social and economic) arising from climate change mitigation strategies, with a focus on WA health services.

A similar approach to the previous section can be used to evaluate the likely benefits of climate change mitigation strategies. We also recommend that potential risks of potential mitigation and adaptation strategies are considered as part of this process.

- Define the role of the Department of Health in leading public policy on climate change and health.

Leadership and governance is one of the key components of the ‘Operational framework for building climate resilient health systems’ (WHO, 2015). The Department of Health can play a critical role, not just within the health sector, but with other key sectors and the broader community. The key recommendations of the [COP24 Special Report: health and climate change](#) should be considered in the context of this role:

- Identify and promote actions that both cut carbon emissions and reduce air pollution, and by including specific commitments to cut emissions of Short Climate Pollutants
- Remove barriers to investment in health adaptation to climate change, with a focus on climate resilient health systems, and climate smart healthcare facilities
- Engage with the health community, civil society and health professionals, to help them to mobilize collectively to promote climate action and health co-benefits
- Promote the role of cities and sub-national governments in climate action benefiting health
- Formal monitoring and reporting of the health progress resulting from climate actions
- Inclusion of the health implications of mitigation and adaptation measures in economic and fiscal policy
- Recommend the terms of reference, scope and preferred methods for:
 - undertaking a climate change vulnerability assessment for the health sector; and
 - developing a Climate Change Adaptation Plan for the health sector.

Preferred methods for the climate change vulnerability assessment are discussed on pages 2 and 3. The Centre supports the development of a Climate Change Adaptation Plan. We believe the plan should be developed as a key component of an overarching Climate Change Action Plan, encompassing both mitigation and adaptation.

The Climate Change Adaptation Plan could be presented in the form of:

Strategic Directions

- Cabinet endorsement
- Strategies developed for extreme and high risk health issues
- The health impacts of climate change should be “mainstreamed” into all future policies and plans

Government responses

- Appointment of a section within DOH responsible for climate change and health adaptation activities including liaising with activities in other key sectors
- Support given to sections within WA Health with respect to:
 - Health information systems (data collection, collation, analysis)
 - Public Health prevention and protection programs specifically targeting climate change and health

- Review and implementation of infrastructure and emergency preparedness plans for future environmental and climate disasters

Community involvement

- Community education, health promotion and awareness-raising with respect to public and environmental health

Key specific activities/projects

- Support further research into climate related health effects including:
 - Enhancing scientific evidence of links between health and climate
 - relevant epidemiological studies related to key identified climate risks (eg air quality, vectors)
- Regular collection and review of climate and health data including correlation of weekly and/or monthly climate data (at least temperature and rainfall) with the corresponding health data (outpatient presentations and/or inpatient admissions for selected climate-sensitive diseases e.g. diarrhoeal disease)
- Review and, if necessary, clarify/update case definitions used by health professionals for selected climate-sensitive diseases (e.g. dengue fever)
- Incorporate climate change considerations, including the health impacts into school curricula