

## Climate Health WA Inquiry

### About your submission

Are you responding on behalf of an organisation or group?

No

Yes

If yes, please identify the organisation:

### Your contact details

The following information will not be published without your permission but enables the Inquiry to contact you about your submission if required.

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### Publication of submissions

Submissions will be published with the name of the submitter unless otherwise indicated below. Do you consent to be identified in the published submission?

Yes, I / my organisation agree to be identified

No, I / my organisation request to remain anonymous

### Terms of Reference

You are encouraged to address at least ONE of the Terms of Reference as listed below. Please select which item/s you will address:

- 1. Establish current knowledge on the implications of climate change for health in Western Australia (WA) and recommend a framework for evaluating future implications.
- 2. 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.
- 3. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will strengthen the preparedness and resilience of communities and health services against extreme weather events, with a focus on the most vulnerable in the community.

4. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will reduce the contribution of WA health services to climate change and other detrimental impacts.
5. Identify and recommend a program of work to manage the implications of climate change for health in WA, which will enable WA Health services to implement change, including energy efficiency, to a more sustainable model.
6. Evaluate the likely benefits (health and wellbeing, social and economic) arising from climate change mitigation strategies, with a focus on WA health services.
7. Define the role of the Department of Health in leading public policy on climate change and health.
8. Recommend the Terms of Reference, scope and preferred methods for undertaking a climate change vulnerability assessment for the health sector.
9. Recommend the Terms of Reference, scope and preferred methods for developing a Climate Change Adaptation Plan for the health sector.

### Submissions response field

**Please type your response to the item(s) selected above into the field below. Alternatively you may provide your submission as a separate attachment (suggested maximum 5 pages).**

In the Pilbara we have frequent issues with the heat and cyclones in summer.

This will get worse with climate change.

We will have less frequent ( or more frequent) but more severe cyclones with subsequent:

- Damage to infrastructure of health facilities, flooding, roof damage, impaired internet, and possible evacuation of some hospital patients or early discharges required when a cyclone is predicted.
- Flooding and impaired access to the hospitals (particularly between Port Hedland and South Hedland where flood plains lie in between – cutting off access for sick persons in the Port to access the hospital in the case of emergencies – ie trauma, women in labour, cardiac or respiratory emergencies, sick paediatric or psych cases. The same flood plains contain the airport and it is often closed in times of cyclones and flooding so stopping access for emergency support services so fixed wing services eg RFDS cannot operate or land ie severely ill patients cannot be conveyed to Perth as usual.( we do not have an ICU in Hedland or Karratha – just a High Dependency Unit) There is helicopter landing pad at the hospital but the range of the helicopters is not great. It may be possible to evacuate to another town where the airport is not flooded, eg Karratha or Broome or Tom Price etc to meet up with an RFDS plane.
- Hedland will have impaired access by road – often main roads north and south are closed due to flooding, after cyclones or heavy rain, and many Pilbara towns and communities are isolated by flooding after cyclones, so that emergency support services cannot enter, or be resupplied with food or water. IN some communities and towns this can be for some weeks.

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- Cyclones and rising tides may mean more extensive tidal flooding in cyclones and either relocation of houses by the sea or more extensive evacuation of houses in times of cyclones and the need for more numerous purpose built cyclone shelters. ( not all facilities fit the criteria in their building construction eg the new sports stadium in South Hedland is ideal in size as an evacuation point, but was not built to cyclone specifications) This is particularly so for those with poor housing or those living outside with no housing. The poor and Indigenous who live rough or are visiting from other areas are vulnerable to these climate changes and are particularly badly hit by cyclones and food and water shortages and lack of safe shelter.
- Water supplies from underground supplies (usually rivers) may reduce with increasing heat, and less rain, and lead to new water sources needing to be found for the towns. Wells can be contaminated with local ground elements so the water supply needs to be considered carefully and monitored.

The heat (and winds) will become more severe causing

- Heat stroke occurs more often when temperatures in the mid 40's- 50'sC so causing more ED presentations and/or hospital admissions.
- Dust issues – these cause respiratory issues of asthma and possibly other respiratory issues or cardiac issues. Dust has been an ongoing issue in the town of Port Hedland and has not been remediated by industry, which contribute to the more intense issues of dust to the nearby residents than elsewhere in the Pilbara.
- Dust may lead to a resurgence of Trachoma in the Pilbara which has been greatly reduced due to annual screening.
- Environmental heating of cold water in pipes can lead to build up of bacteria and a biofilm in those pipes not used often. This leads to possible inhalation in a shower situation. Recent episodes of legionella in Karratha and Onslow hospitals water pipes and in that of some ships and tugs and mining equipment in Port Hedland and Karratha.
- Possible changes in mosquito borne diseases as the mosquito species may change with increased heat leading to diseases not currently native in the Pilbara occurring eg Dengue and Malaria.
- Currently following cyclones and the changes in migration of water birds from the north into the Pilbara following flooding has in the past led to more dangerous mosquito borne diseases ie Kunjin and Murray Valley Encephalitis in humans. If the flooding is more extensive and longer in duration these may increase.
- Gastroenteritis occurs more frequently in summer in the Pilbara when food is not kept chilled. Sandwiches or cooked chicken pieces prepared for lunches in the mornings from fridges can be risky by lunchtime if not kept in proper conditions. This seasonal increase in gastrointestinal infections is likely to increase.

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- Swimming pools, either in the home backyard or the town or community public pool, will also need to be tended more regularly to ensure no build-up of bacteria. We recently had an outbreak of rotavirus associated with swimming in the main Karratha public pool which required shut down and re-chlorination twice.
- Diseases of the soil and wet in the tropics may become more frequent in the Pilbara eg melioidosis has only occurred infrequently in the Pilbara until now but this may be a more frequent hazard.
- Increasing humidity will lead to more fungal contamination of damp areas in homes – we have had several instances of mould causing respiratory illnesses and mould affecting hospital walls in the Pilbara and those of other institutions eg TAFE buildings, and domestic housing.
- Energy efficiency would be helped by the application of solar panels at the hospitals. Large scale wind farms (the Pilbara is very windy particularly in spring and autumn) or large scale solar farms should be looked into as we have vast tracts of land and endless supply of sun and wind.
- The Local Emergency Committees and Regional Emergency committees run by the Police, FESA, and Local Government, would be ideal to look into these issues at a regional level and develop a planning framework. Health is always part of these committees. The local government agencies and Environmental Health will be vital for input on these issues about evacuation and relocation.
- Health locally needs to plan regarding access to services during cyclones and flooding and development or relocation of some services. Health also needs to consider recycling, policies on eliminating plastics, reusable energy use and remodelling areas to increase shade/cooling while outside or near the hospital. They may need to develop housing on a campus site so that those pregnant women who are about to deliver can stay on site (particularly if from other communities). They need to consider medication and hospital supplies and food and water access for the towns if all the shops are closed or roads and airports inaccessible, and possible contingency plans. The ports are closed during cyclones and the ships are sent to sea.

**Please complete this sheet and submit with any attachments to: Climate Health WA Inquiry**