

# **Adaptation to climate change**

## **Public health aspects for remote Indigenous communities**

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**Menzies School of Health Research**

NAILSMA forum  
Thursday 22<sup>nd</sup> April, 2010.



# Outline of presentation



- Background
  - The health of Aboriginal peoples in Nth Australia
  - The social determinants
- Health consequences of climate change
- Opportunities that climate change provides
- Policy 'environment'

- **Ecological challenges**

- Wildfires, weeds, introduced species
- External interests
- Climate change
- Dislocated landowners

- **Aboriginal health**

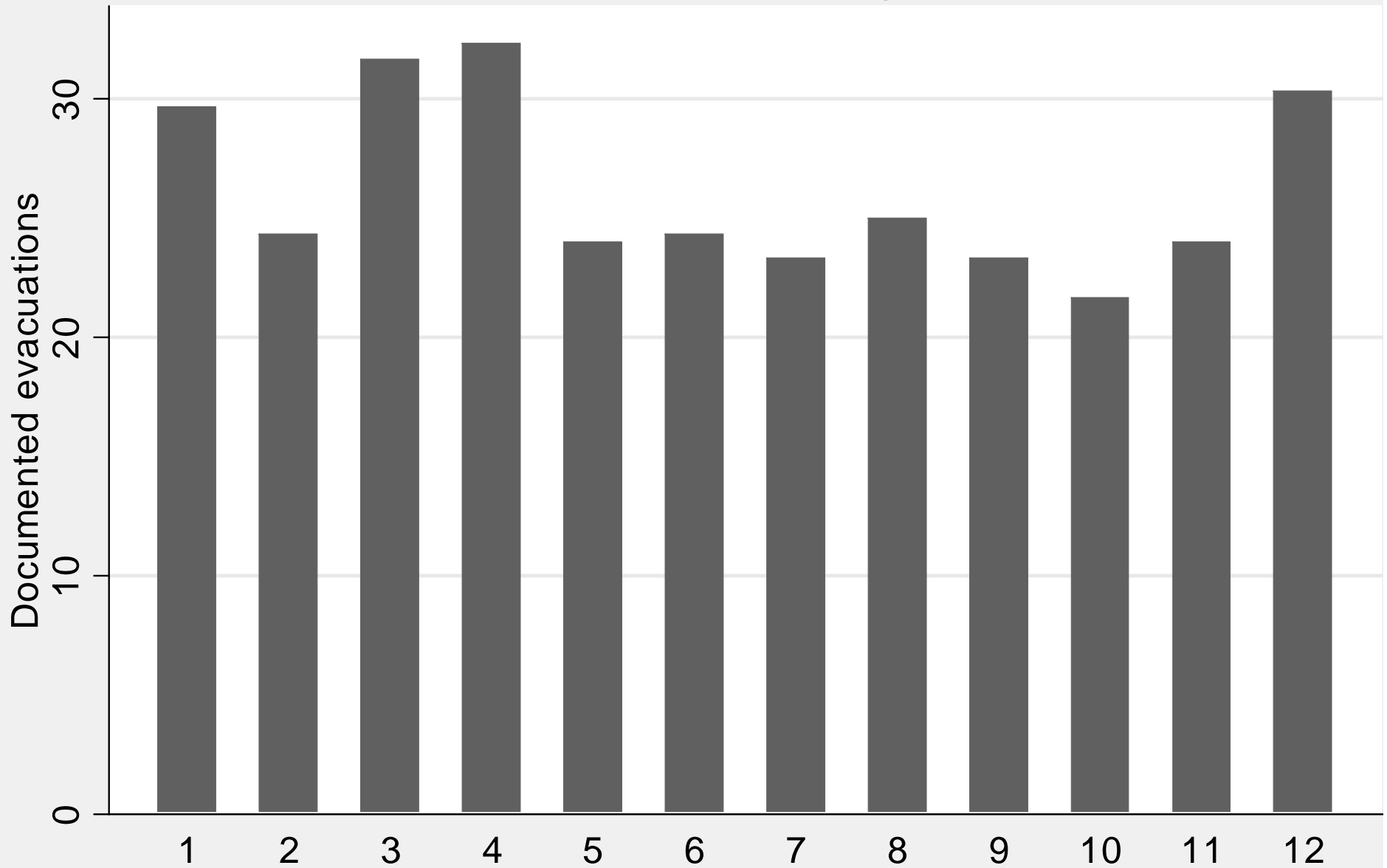
- Chronic ill health: Diabetes, heart disease
- Social determinants
  - Poverty
  - Unemployment
  - Education
  - Autonomy





# Documented evacuations per month

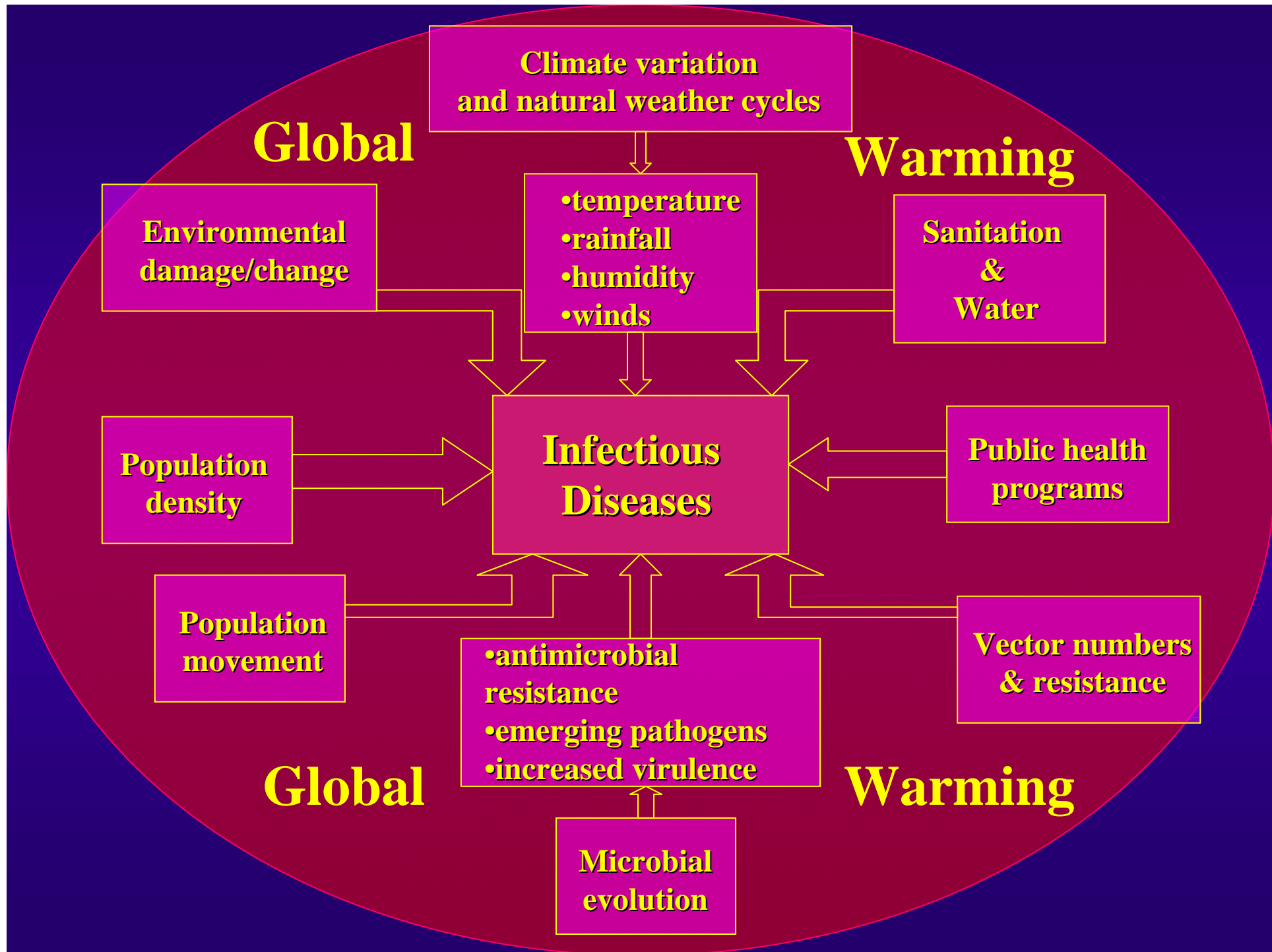
Three year average



# Climate change – health effects



- Islands; sea level rise
- Heat related illness
- Drought and environmental stress for rural populations, farmers
- Trauma from severe weather events; floods, cyclones, bushfires
- Air pollution and aeroallergens (spores, pollen); asthma and allergy
- Infectious diseases






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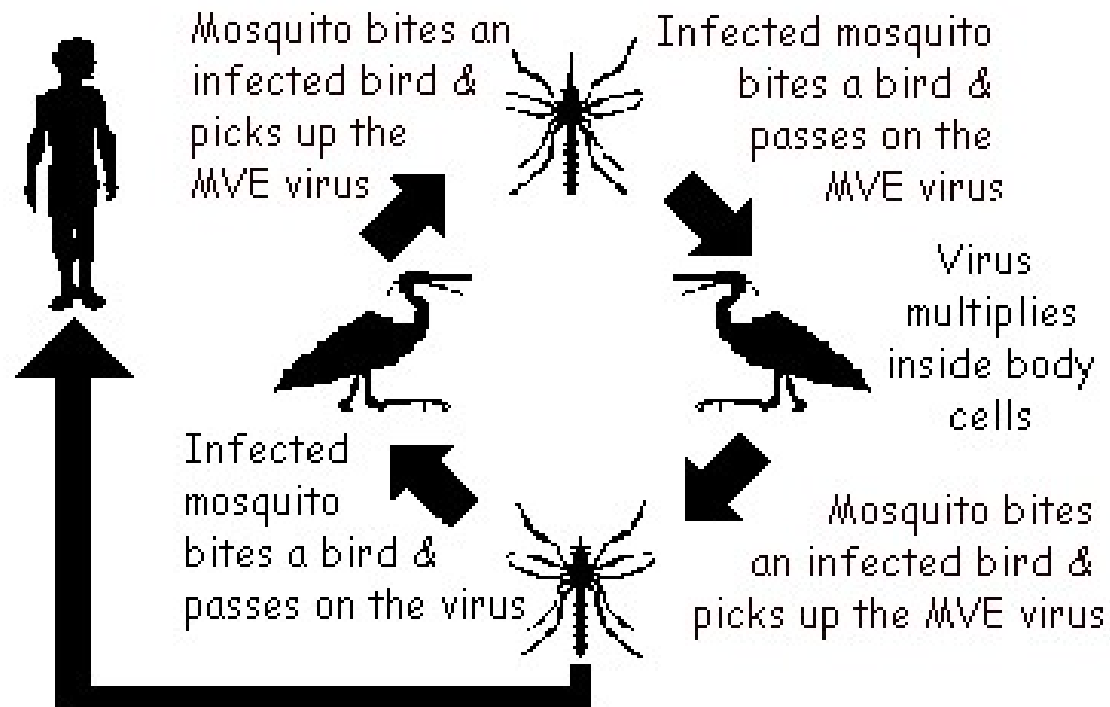
## These are “the most affected by climate variation and global warming”

- Mosquito geographic range - latitude and altitude
- Mosquito longevity
- Biting rates
- Reproduction rates
  
- Shorter Extrinsic Incubation Period of pathogens in mosquito

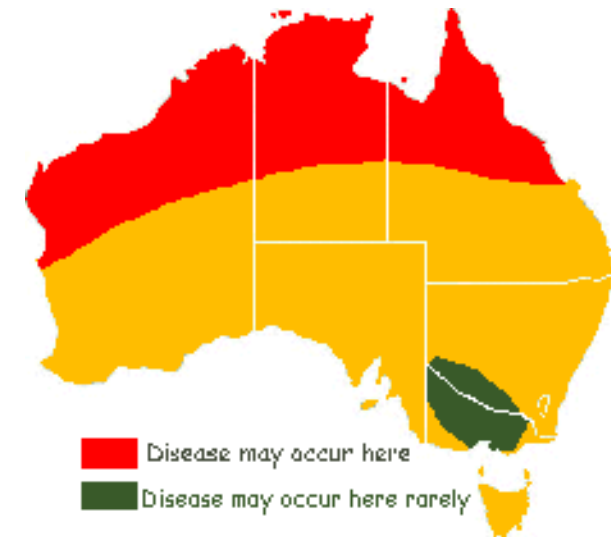


 Distribution of the dengue mosquito (*Aedes aegypti*)

# Murray Valley Encephalitis



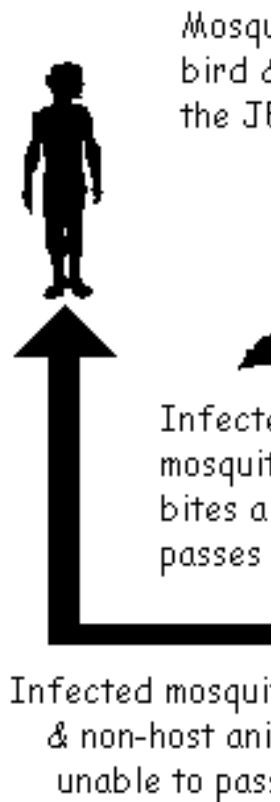
Infected mosquito bites humans & non-host animals who are unable to pass on the virus



J

Torres Strait

es  
search



Cases of JE have occurred here





# Adaptation: the basics



87)

- Natural resource management (NRM)
  - Fire – carbon abatement
  - Feral species – monitoring for biosecurity
  - Weeds
  - Border protection
  - Infectious disease surveillance?

NRM as a health promotion activity

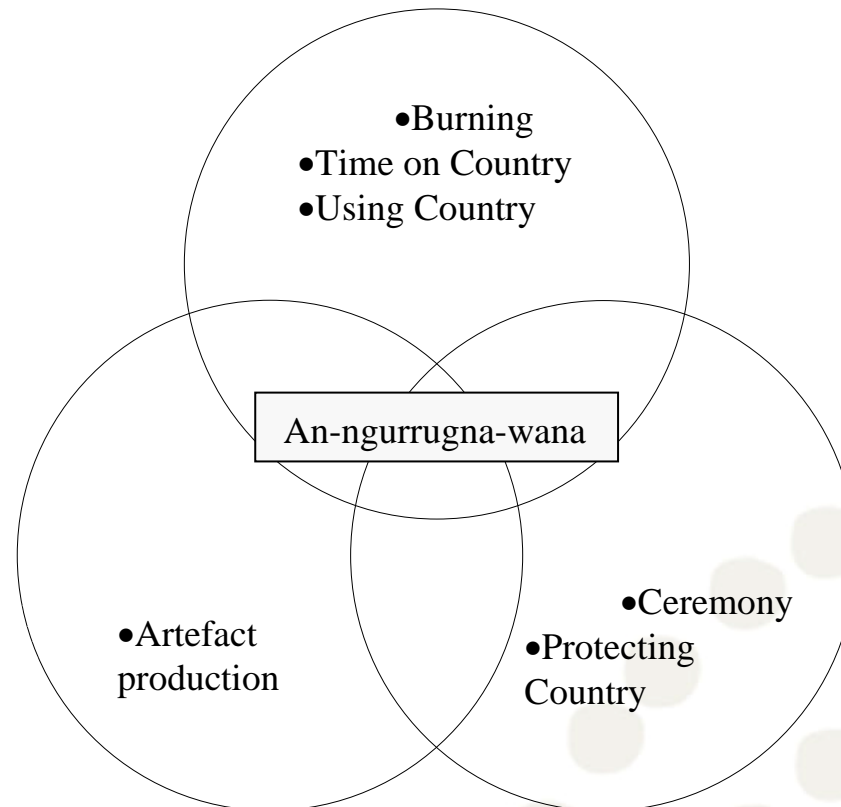
NRM: Continue opportunities for intergenerational engagement with Country

- Trans-disciplinary study 2005 thru 2009
  - Initiated by traditional landowners in Arnhem Land
  - Collaboration with Charles Darwin University
- **Objective:** to investigate associations between ‘caring for country’ participation and human and landscape health
  - 3 Modules
    - Ecology
    - Social enquiry
    - Health outcomes

- For Aboriginal and Torres Strait Islander peoples health does not just entail the freedom of the individual from sickness but requires support for healthy and interdependent relationships between families, communities, land, sea and spirit. The focus must be on spiritual, cultural, emotional and social well-being as well as physical health

# Methods: Caring for Country

## Land



## Body

## Spirit

Burgess CP et al.,. BMC International Journal for Equity in Health, 2008. 7(1): p. 26.

# What did we find



- Greater participation in CFC associated with better health:
  - Better diet, More frequent exercise, Better mental health
  - Less obesity, Less diabetes, Less kidney disease
  - Lower risk for heart disease.

- Recent Policies and reforms that influence community vulnerability
  - NTER
  - Local Government reform
  - Working Futures
  - Health reform
- We need a supportive policy environment to promote climate change adaptation
- Better policy coordination is required

# Acknowledgement



- Thanks to Prof. Bart Currie (MSHR) for the use of his slides

