



WELCOME

CLIMATE EMERGENCY CONFERENCE 2024

DAY 2

*Councils and communities reclaiming
the climate emergency*



Climate
Emergency
Australia



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Climate, health and community resilience





- Dr Tafadzwa Nyanhanda, Victoria University CALD communities' perceptions of extreme heat
- Blanche Evans, Resilience and Recovery officer, East Gippsland Shire Council
Supporting a community hit by multiple climate disasters
- Dr Lai Heng Foong, Bankstown Hospital
Building community resilience to disasters
- Candace Jordan, City of Melbourne
Heat Lab: heat safety and neighbourhood resilience



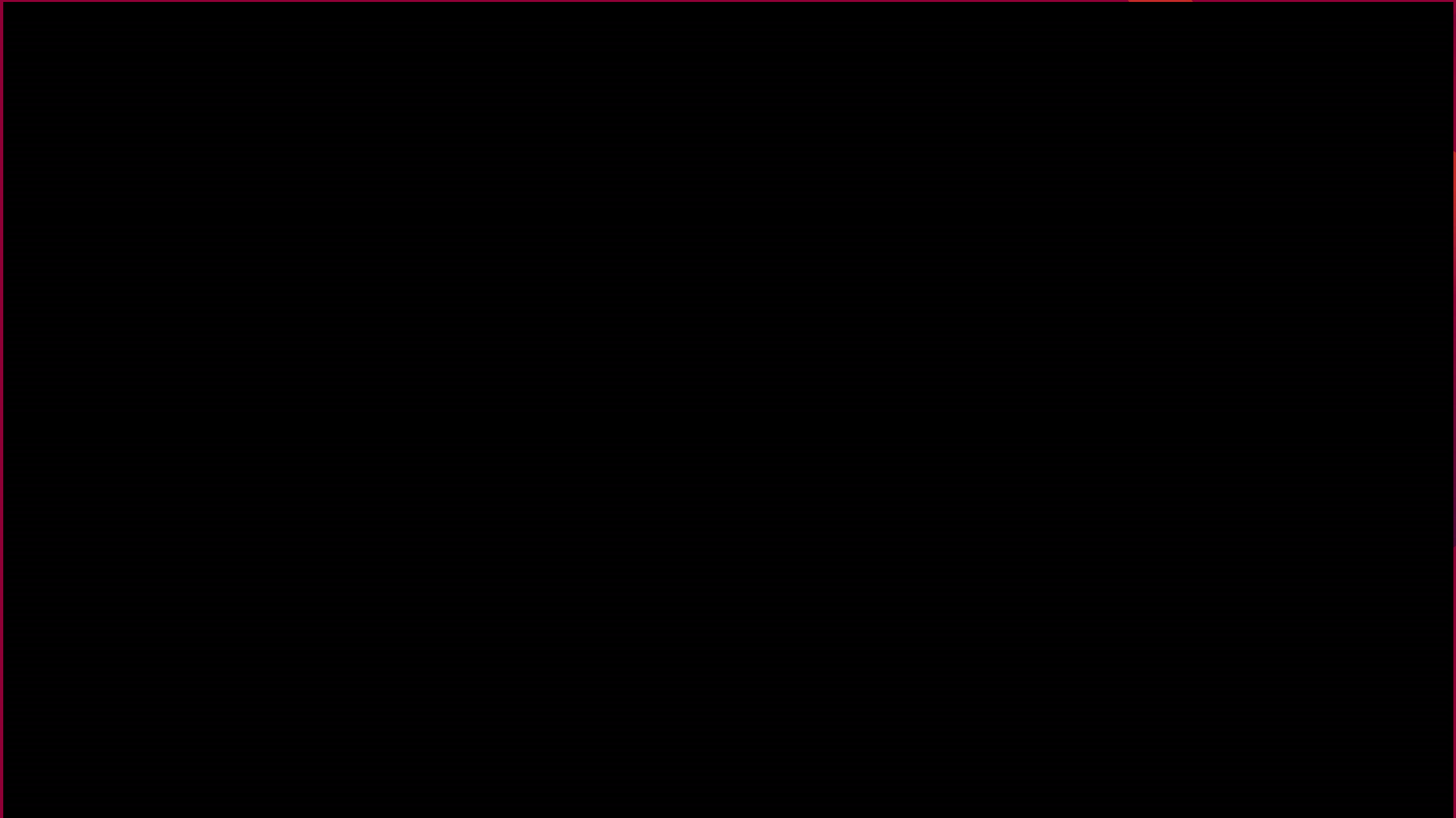
Dr Tafadzwa Nyanhanda

Victoria University

CALD communities' perceptions
of extreme heat



Dr Tafadzwa Nyanhanda, Victoria University





Blanche Evans

Resilience and Recovery officer
East Gippsland Shire Council

*Supporting a community hit by multiple climate
disasters*



Dr Lai Heng Foong, BMBS, FACEM,
MHS (International Health), BA(Hons)

Dr Foong is an Emergency Physician based in Sydney who has a passion for Public Health and Disaster preparedness including COVID-19 preparedness, Climate change and health impacts, Indigenous Health and the social determinants of health.



Building Community Resilience in Disasters

Dr Lai Heng Foong
Emergency Physician
South West Sydney Local Health District
Chair, Public Health and Disaster Committee, ACEM

3d-mapping



Definition of disasters

World Health Organisation

Disaster: a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses that exceed the ability of the ability of the community or society to cope with its own resources



Types of disasters

Natural disasters

- Earthquake
- Flood
- Cyclones/Tropical storms
- Bushfires
- Heat wave
- Pandemics

Man made disasters

- War
- Famine
- Climate change



BACKGROUND

- From 1970 to 2019, weather, climate and water hazards accounted for 50% of all disasters, 45% of all reported deaths and 74% of all reported economic losses (WMO data)
- Many occurred in heavily populated or urban areas
- Risk multiplied by Climate Change and urbanisation
- Damage increasingly on uninsured properties
- Disasters caused by natural phenomena cost \$520 billion in losses forced some 26 million people into poverty each year worldwide (UNDRR 2022)



Number of recorded natural disaster events, 1900 to 2022

The number of global reported natural disaster events in any given year. This includes those from drought, floods, extreme weather, extreme temperature, landslides, dry mass movements, wildfires, volcanic activity and earthquakes.


+ Add disaster category



Source: EM-DAT, CRED / Université catholique de Louvain, Brussels (Belgium)
OurWorldInData.org/natural-disasters • CC BY

▶ 1900 ○





Impacts of disasters

- Health
- Social
- Economic
- Environmental
- Disasters are increasing in frequency, severity and costs
- Climate change is a risk multiplier for disasters
- Climate change can increase disaster risk in many ways - by altering the frequency and severity of hazard events, affecting vulnerability to hazards, and changing exposure patterns.





We are in the
midst of a

Climate
Emergency



Paradigm shift

From Disaster
response to Disaster
Risk Management

From focus on
hazards to
community impact
and building
resilience



Disasters happen when hazards meet vulnerability

Raju, E., Boyd, E. & Otto, F. Stop blaming the climate for disasters. *Commun Earth Environ* 3, 1 (2022).
<https://doi.org/10.1038/s43247-021-00332-2>

We cannot change the occurrence of hazards

But

We can **reduce** our **vulnerability** and **exposure** to prevent them from becoming disasters



Cost savings and lost opportunities

- The [UN estimates](#) that \$1.8 trillion invested in adaptation programs would save countries \$7.1 trillion in climate costs. But only 8% of climate financing has been allocated to *adaptation and resilience interventions* that can save children and families today. (Save the Children)
- Extreme weather drove nearly \$7 billion in insured losses in Australia, and the costs will continue to spiral
- Australia spends 97% funds on disaster response and only 3% on disaster prevention (NEMA)
- For every \$1 spend for Disaster risk reduction/resilience, you can save almost \$9.60 (Insurance Council of Australia data)



Disaster Management

Four phases:

- *Prevention (Mitigation and Adaptation)*
- *Preparedness*
- *Response*
- *Recovery*

Road map
to community resilience

Operationalizing the Framework
for Community Resilience

www.ifrc.org
Saving lives, changing minds.

International
Federation of Red Cross
and Red Crescent Societies

A circular inset in the bottom right corner shows a woman with dark hair and yellow-rimmed glasses, wearing a dark blue top, looking directly at the camera.



What is community resilience?

- The sustained ability of a community to withstand and recover from adversity
- Resilience is critical to a community's ability to reduce loss and recovery periods after an emergency, especially when resources are limited
- intersection of preparedness/emergency management, traditional public health, and community development



**Building
Community
Resilience in
Disasters Toolkit**
by
Dr Lai Heng Foong





Community Resilience Training

- Help in preventing, withstanding, and mitigating the stress of a health incident
- Allow recovery that restores the community to a state of self-sufficiency and at least the same level of health and social functioning after a health incident; and
- Uses knowledge from a past response to strengthen the community's ability to withstand the next health incident.



From Framework to Frontline

- Simple
- Cost-effective
- Building community capacity
- Leveraging existing assets and relationships



Building community resilience in disasters toolkit by Dr Lai Heng Foong

- A project whose main focus is on empowering community with knowledge and practical tools to managing disasters within their respective communities.

Aims:

- 1. To improve the resilience of communities to adapt and mitigate the health impacts of climate change on themselves and other community members
- 2. To improve preparedness of communities to manage natural disasters by education and mock disaster training

Objectives

- 1. To increase the knowledge of communities in disaster preparedness and management by multi-modal delivery including education, site visit and essential resources
- 2. To foster better collaboration between local, state and federal disaster management agencies and non-governmental agencies working in the disaster space and improve disaster preparedness and management vulnerable communities
- 3. To improve readiness of communities to face natural disasters in an All-Hazard approach



This survey aims to capture your experience before and after attending this education session. Your feedback will remain anonymous.
Thank you!

Before Education Session

Please circle one of the options that you agree with most.

Q1.	Do you know what a heatwave is?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q2.	Do you know who is most at risk during a heat wave	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q3.	Do you know how to stay safe during a heat wave?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q4.	Do you know what not to do during a heat wave?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q5.	Do you know the signs of heat exhaustion?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q6.	Do you know the signs of heat stroke?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q7.	Do you know how hot weather can be dangerous on our day to day activities?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT

Thank you for your participation.



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Q7.	Do you know how hot weather can be dangerous on our day to day activities?	CONFIDENT	SOMEWHAT CONFIDENT	NOT CONFIDENT
Q8.	Do you have any feedback or comments regarding this session?			

Thank you for your participation.



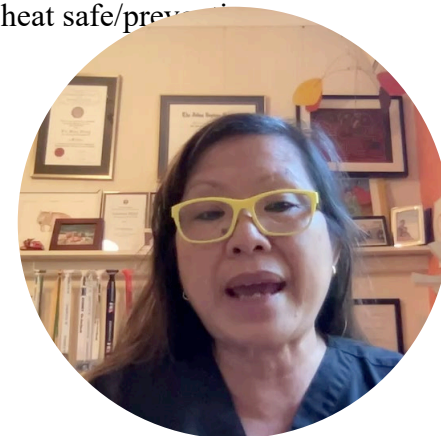
Community consultation

- Local, state, and federal government responsibility in social planning and proactively building community resilience in natural disasters more broadly
- All levels of government are working in silos- onus falls on individuals, families, and communities in low socio-economic populations to build resilience.
- Content: facts, set the scene, how to prepare, practical tips, target population
- Wording ‘Who is at risk’ factsheet - include that everyone is at risk (inclusive language), isolated and those living alone – personalise key message, rethink language such as ‘worsen’ ‘vulnerable’



Community leaders feedback

- Cultural shift and mindset will be a challenge
- Appropriate funding is required for projects/initiatives to ensure all cohorts are delivered consistent messages tailored to their needs
- Vital to develop consistent key messages that are culturally appropriate and translated in multiple languages (refugee and small and emerging communities)
- Imperative to work in partnership and engage early with multicultural/other stakeholders
- Finding balance quality information – too much information verses too little information
- Multicultural networks/groups and community stakeholders are experienced and ready to implement strategies to spread health messages
- Consistent messages utilising different platforms targeting various groups, for example elderly and socially isolated utilising radio
- Development of a campaign with a slogan that is culturally appropriate
- The issue within social planning across council and state government – venues/public spaces not fit for purpose. Libraries are normally open 2-3 hours on Sunday and shopping centres have limited seating capacity.
- Collaboration with government/council initiatives and share resources
- Suggestion to develop heat safe bag (include a water bottle, windscreen shield for cars, curtain shield, hat with relevant information and other heat safe/prevention products – an initiative led by local Councils
- Challenge spreading heat messages when community is struggling with cost-of-living crisis; this is currently the priority
- Align with state and federal governments are preparing heatwave action plan
- Essential to advocate for the application of the Vulnerability Assessment
- There needs to be a sense of urgency on the subject matter to be recognised in the community, in light of summer season approaching



Opportunities to spread the message

- Media channels such radio (SBS and community radio) for socially isolated and elderly or newspapers
- Translated factsheet in main and new and emerging languages
- GPs (YouTube segments), GP engagement is crucial
- Multicultural community health team – trusted source with existing relationships
- Community health centres, pharmacies, emergency department, PHN
- Schools (they in turn can share messaging with parents/care givers)
- Fairs, shopping centres and expos
- Existing groups, service providers and multicultural community organisations
- Religious platforms - leaders/organisations
- Social media (targeted to different demographics for example FB, Instagram, Tik Tok videos for young cohort)
- Health platforms such as NSW Health and SWSLHD website
- Businesses, local councils
- Text messages (similar to COVID tactic)
- YouTube videos by local multicultural leaders



Reducing vulnerability to heat one household at a time

- Home: Are the fans working? Air conditioner working? One AC room as a heat refuge. Stock up on non perishable food in case of heat waves
- Don't go out between 11 to 4 pm
- Cold water in the fridge
- Ice packs
- People: Check all household members for risk factors as stated in the fact sheet and make sure steps are taken to
- Neighbours: check on people next door
- Neighbourhood: where could you escape the heat? Shopping centers, library, community centers
- Helping contact numbers
- Community check in
- Longer term: plant cover, fix windows with lea





Emergency Preparedness List

For Natural Disasters



Pack items into bags or plastic tubs in preparation for natural disasters like bushfires or floods

Essential items

- 7-14 days of non perishable food
- 7-14 days of water
- Flashlights & extra batteries
- Radio
- Phone charger/Power bank
- First Aid Kit
- Basic mutipurpose tool set
- Spare cash
- Sanitation items
- Essential medications
- Personal documents
- Emergency Plan/Contact information
- Maps
- Emergency Blanket
- Whistle
- Change of clothes
- Sturdy shoes
- Wet wipes
- Hand sanitiser

Extra items for kids

- Nappies & baby wipes
- Baby formula and bottle (if using)
- Baby food
- Comfort item
- Toys or entertainment

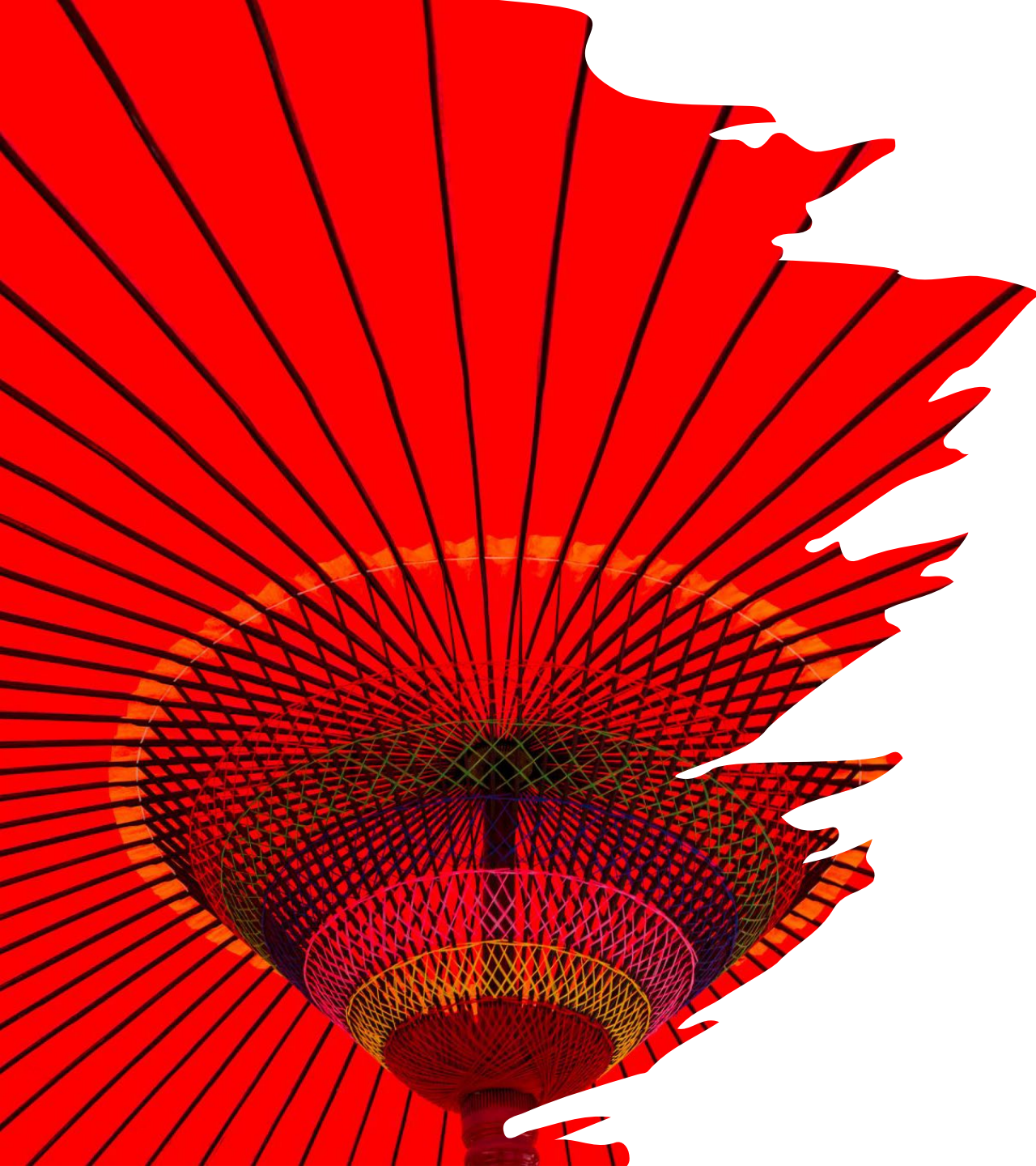
Useful but less essential

- Toiletries
- Spare glasses/house & car keys
- Toilet paper
- Paper towels & tissues
- Dish & hand soap
- Plastic bin bags
- Household bleach
- Pen & paper
- USB of photos and documents
- Car phone charger
- Matches and candles
- Garden or rubber gloves
- Safety goggles
- Manual can opener
- Camp stove & fuel
- Sleeping bag
- Tent & tarps
- Shovel, rope, knife & duct tape
- Water purifying tablets

Extra items for pets

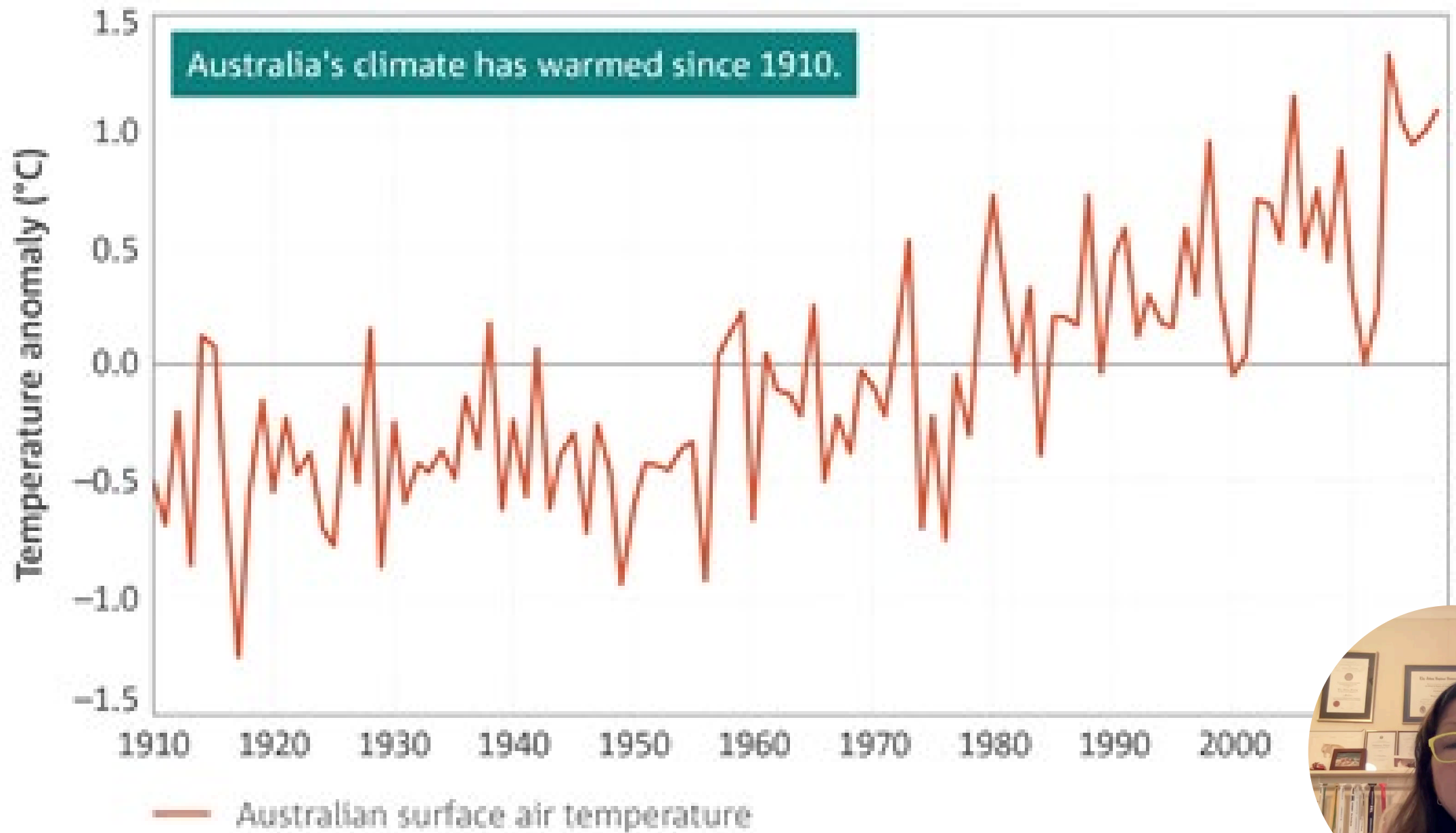
- Pet food and bowl
- Medication & pet first aid kit
- Leash
- Carrier
- ID tags





HEAT





Jan 4, 2020

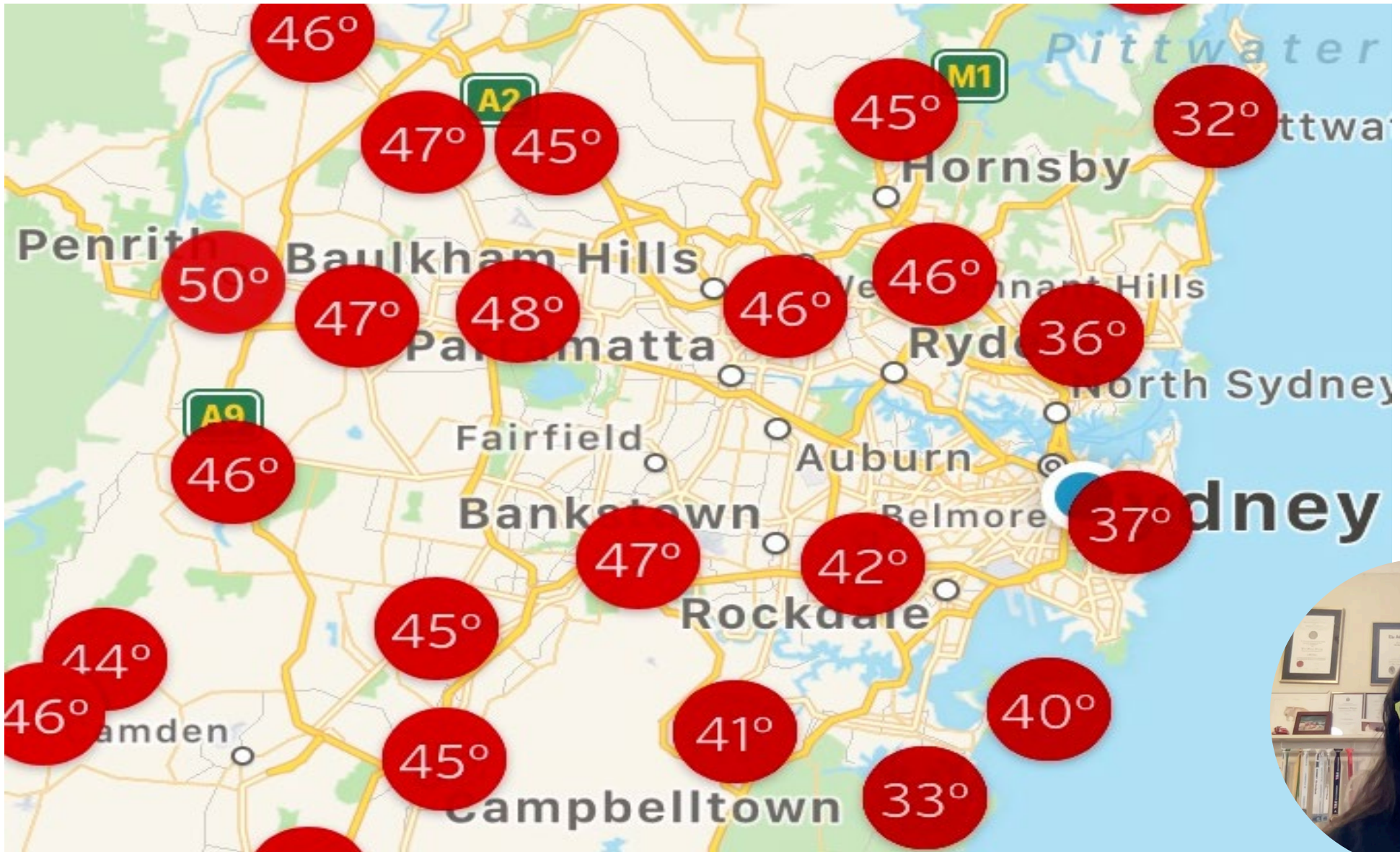


Table 1. Heatwave definitions in Australia (by state)

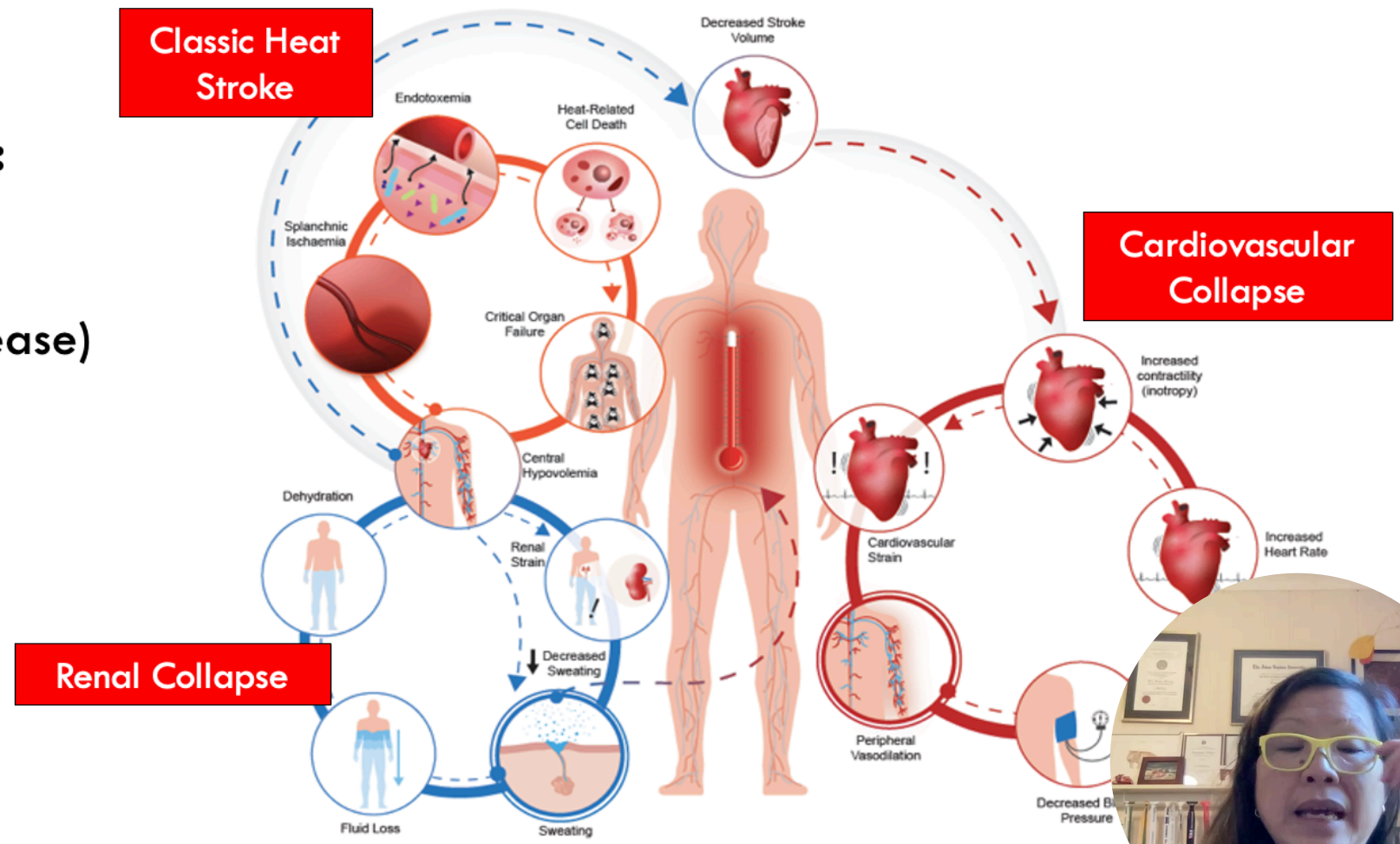
Area	Definition
Sydney	Two successive days at greater than the 95th percentile of expected temperature for a given location with rolling average of 3 days $>27^{\circ}\text{C}$
Adelaide	5 days $\geq 35^{\circ}\text{C}$ or 3 days $\geq 40^{\circ}\text{C}$
Perth	3 days $\geq 35^{\circ}\text{C}$

Note: The Australian Bureau of Meteorology has no universal definition because air temperature, geographical location, humidity, wind speed and expected local average are assessed when determining a heatwave



The most vulnerable:

- Older adults (>65 y)
- Co-morbidities (CV disease)
- Medications
- Poverty
- Socially isolated
- Working in the heat



Indirect Impacts

Direct Impacts

Impact on health services

- Increased ambulance call-outs and slower response times
- Heat cramps
- Response times
- Increased number of hospital admissions
- Storage of medicines



Increased risk of accidents

- Drowning
- Work-related accidents
- Injuries and poisonings



Increased transmission of

- Food and waterborne diseases
- Marine algal blooms



Potential disruption of infrastructure:

- Power
- Water
- Transport
- Productivity



Health Impacts of Exposure to Extreme heat



Heat illness

- Dehydration
- Heat cramps
- Heat stroke



Accelerated death from:

- Respiratory disease
- Cardiovascular disease
- Other chronic disease (mental health, renal disease)



Hospitalization

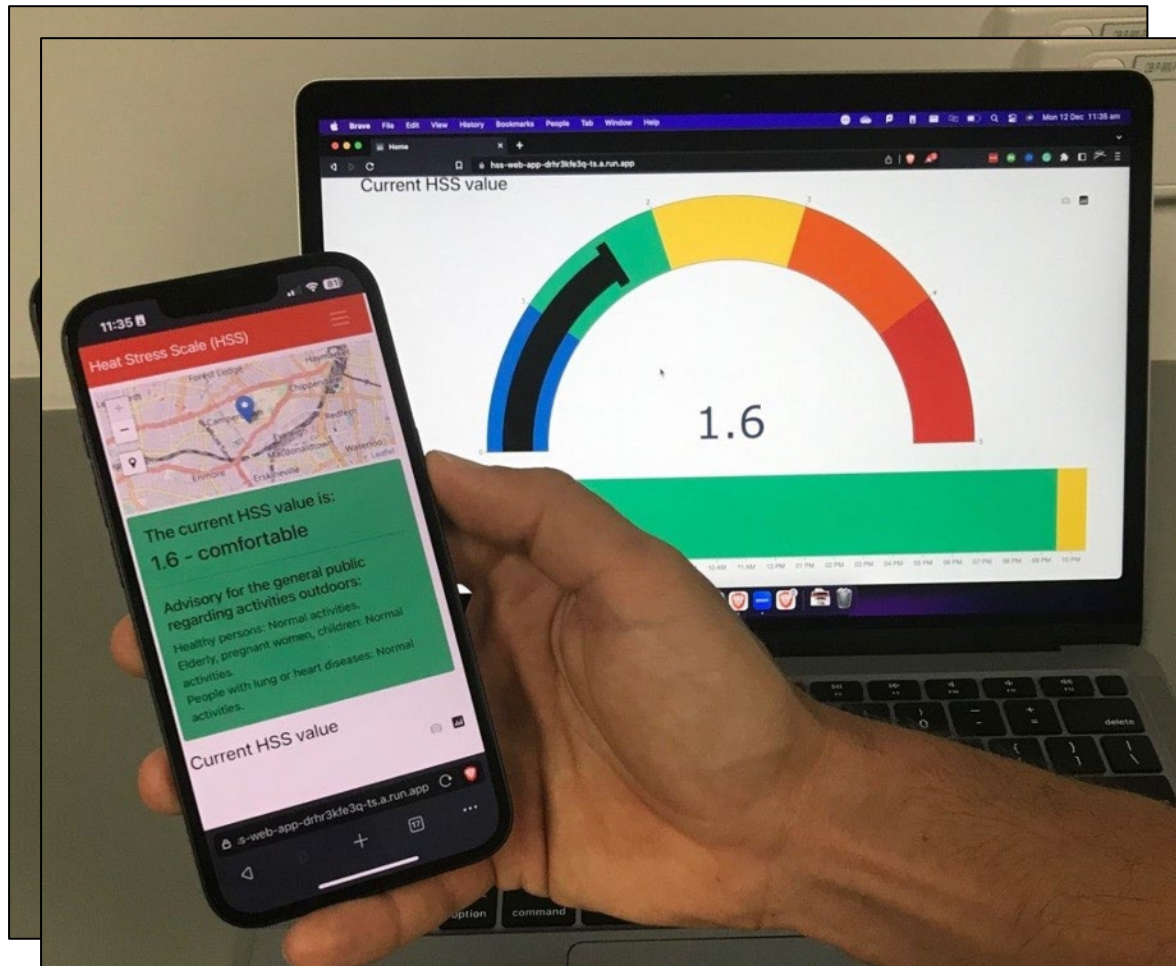
- Respiratory diseases
- Diabetes mellitus
- Renal disease
- Stroke
- Mental health conditions



Heat App

Professor Ollie Jay, University of Sydney

- **Western Sydney “Heat Stress Scale” Project**



- Integrates human physiology/biophysics
- Design workshops with community partner groups
- 2 formats: **Prototype App** and **Public Display**
- Pilot test in 2023
- Seeking to scale-up in 2024



Beat the heat

Hot weather can be dangerous.
Have a plan to protect you and
your family this summer.



health.nsw.gov.au/beattheheat



Sustainable and accessible ways to keep cool

Mitigating climate change is vital, but inevitable rising temperatures means that identifying sustainable cooling strategies is also important. Strategies at the individual scale that focus on cooling the person instead of the surrounding air can be effectively adopted, even in low-resource settings.



- ⊕ Can provide effective cooling for young healthy adults up to 42°C in 50% humidity
- ⊖ Effectiveness is reduced with low humidity, and in older adults (>65 years), unless accompanied by self-dousing
- ⊖ Increases dehydration, but can be offset by drinking an extra glass of water per h



- ⊕ Can reduce heat strain and dehydration up to 47°C if dousing is sufficient to keep the skin wet
- ⊕ Can be used during power outages
- ⊖ Low compatibility with high clothing coverage



- ⊕ Can reduce dehydration and thermal discomfort in hot and humid conditions
- ⊕ Can be used during power outages
- ⊖ Risk of slips and falls



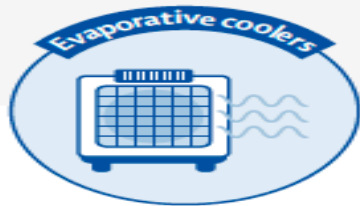
- ⊕ Provides high evaporative heat loss without needing to sweat
- ⊕ Can be used during power outages
- ⊖ Clothing must be re-soaked roughly every 60 min

 Electric fans can be used below these temperatures irrespective of humidity:

39°C Healthy young adults (aged 18 to 40 years)

38°C Healthy adults (aged over 65)

37°C Over 65s taking anti-cholinergic medication



- ⊕ Can cool air temperatures in dry conditions
- ⊖ Minimal effect in high humidity
- ⊖ Risks creating mosquito breeding sites without proper maintenance



- ⊕ Lowers air temperatures in hot and dry conditions
- ⊖ Must be used in well ventilated or outdoor areas otherwise humidity increases offset any benefit
- ⊖ Risk of slips and falls



- ⊕ Can reduce core temperature and cardiovascular strain in conditions up to 45°C
- ⊖ Requires access to ice
- ⊖ Labour-intensive to prepare



- ⊕ Can provide internal cooling
- ⊕ Water should be ingested at a temperature that is most palatable (~10°C) to ensure optimal hydration
- ⊖ If person has already started sweating, not effective at lowering core temperature

Read the full paper: Jay O, Capon A, Berry P, et al. Reducing the health effects of hot weather and heat extremes: from personal cooling strategies to green cities. *The Lancet* 2021. Published online August 19



How to prepare for a

Heatwave

Over the past 100 years, heatwaves caused more deaths in Australia than any other natural hazard

With climate change, heatwaves are becoming hotter, lasting longer and occurring more often.

How heat worsens our health

- Worsens heart and lung diseases
- Worsens other long term problems eg mental health & kidney disease

Who is at risk?

- Young children
- Older people (over 65years)
- People with existing health issues eg heart & lung disease, diabetes, kidney disease
- People on certain medication eg heart medication
- People with disabilities
- People with lower incomes
- First Nations People

Check with your GP to see if you may be at risk

Heat symptoms

- High temperature
- Headache
- Dizziness
- Muscle cramps
- Heavy sweating
- Fainting
- Thirst
- Nausea
- Vomiting
- Confusion

Contact details if you need help

GP Phone number:
Local health hotline:

For all urgent medical attention, please call 000

www.aa4ca.org



What you can do to protect you and your family



Preparing for a heatwave

- Check Bureau of Meteorology to find out when the next heatwave is <http://www.bom.gov.au/australia/heatwave/>
- Stock up on some food and medicine in case of power outages

During a heatwave

- Wear cooler clothes: thin cotton/linen
- Drink more fluid. Avoid alcohol and too much caffeine and sugar
- Freeze ice packs and keep water spray bottles in the refrigerator
- Using a wet cloth on neck and face, with a fan on
- Close blinds and curtains while staying indoors
- Reduce outdoor activities
- Reduce physical activities during hotter times in the day 11 am - 4 pm
- If you do go outside, be sun smart- put on sun screen and wear light clothing, hat and sunglasses. Bring along bottled water with you to stay hydrated
- If you can't keep your home cool, spend 2-3 hours of the day in a cool place (suggestions for air-conditioned public buildings: shopping centres, swimming pools and libraries).
Where is your nearest heatwave shelter?
- Check on the elderly and young to make sure they are coping in the heat



Heat Plan

- Individual
- Family
- Community
- State
- Federal



Australian Red Cross

Woodchester
and
Surrounds

**COMMUNITY LED
DISASTER
RESILIENCE
PROJECT**

A workshop series to get connected and get your community prepared.

SECOND WORKSHOP

Date: Monday April 8 7.00- 9.00pm


Location: Richardson Hall, 1372
Callington Road Woodchester

Registration is free but essential:
Register via the QR Code

Or contact Deb Gregory
Alexandrina Council 8555 7000
debra.gregory@alexandrina.sa.gov.au





YOUR REDIPLAN

[Redacted] 'S RediPlan.

MY EMERGENCY INFORMATION

Name of household member	Medicare number	Centrelink number	Passport number	Tax file number	Driver Licence number	Car registration

MY IMPORTANT NUMBERS

	Name	Relationship	Phone	Address
Member of support network				
Member of support network				



Community resilience is the centre of disaster preparedness



- Save lives
- Save loss of property
- Save cost of rebuilding
- Shortens time to recovery
- Keep family together
- Builds community connections



Any questions?

Toolkit Contact: Dr Lai Heng Foong
l.Foong@health.nsw.gov.au





Candace Jordan

City of Melbourne

Heat Lab: heat safety and neighbourhood
resilience





QUESTIONS AND ANSWERS

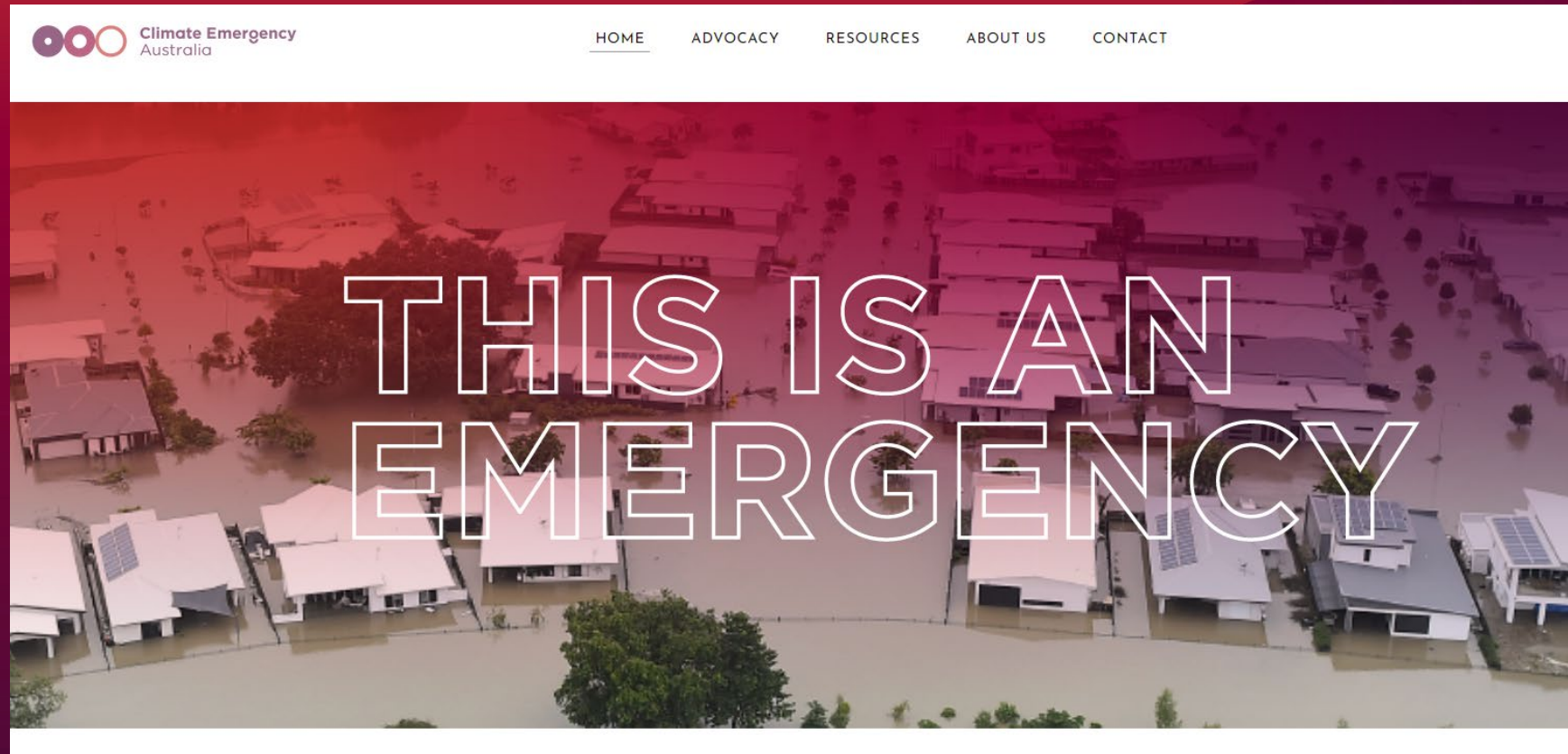


WRAPPING UP



**Climate Emergency
Australia**

Climate
Emergency
Australia
is a network of
Australian
councils that
have declared
a climate
emergency.





Climate Emergency Councils

Climate Emergency Councils (Officers)

This is a discussion group for officers from councils who have declared / acknowledged a climate emergency or approaching that stage. If you would like to add anyone, please contact Sally at CEA (sallym@hume.vic.gov.au)

Set up people



Ideas sharing & discussion

- Australian Local Government Climate Review: survey open now**
- Thermal Camera**
Hi everyone, I am trying to find out 9
- Regen Streets - online forums**
Regen Melbourne are running online
- Time is running out to get in-person tickets!**
- Climate risk training with Griffith Uni - last chance to book for this**

Resources

- Discussion Forums**
- Webinars**
- Guides and checklists**
- Training Materials**

Calendar

- FRI, APR 19**
Climate Emergency Conference 2024
- TUE, APR 23**
Climate Emergency Conference - Day 2 - all online
1:00pm - 5:00pm

To join CEA's basecamp, go to www.climateemergencyaustralia.org.au or email sallym@hume.vic.gov.au