

Victorian Adaptation Responses to Climate Change and Human Health



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Partners

- **Local government**
- **Victorian Council of Social Services**
- **Royal District Nursing Service**
- **Ambulance Victoria**
- **Disability Advocacy Groups**
- **Municipal Association Victoria**
- **Bureau of Meteorology**
- **Department Sustainability and Environment**
- **Academic sector**
- **Chronic disease support groups**
- **Westernport Greenhouse Alliance**

Victorian Government – roles, responsibilities

- **Public hospital system**
- **Community health program**
- **State aged care program, including HACCC and residential care**
- **Mental health and drug services programs**
- **Public health program**
- **Ambulance Service Victoria**

Victorian Government – roles, responsibilities

- **Disability residential services**
- **Provides public housing and related services**
- **Concessions program**
- **Emergency management response**
- **Youth Justice**
- **Child protection**
- **Home and residential care for children**

Climate change projections for Victoria in Victoria

- **More frequent and intense bushfires**
- **Warming climate**
- **Inundation/sea level changes**
- **Adverse/extreme weather events**
- **Drying, increasing drought conditions**

Potential health impacts

- **Heat-related illness and mortality**
- **Injury and mortality from bush-fires and extreme weather events**
- **Increased food and water-borne illness**
- **Mental illness**
- **Stress related illness**
- **Respiratory illness**
- **Vector-borne illness**

Likely social impacts in Victoria

- **Economic impact**
 - **Rising energy, water costs**
 - **Costs adaptation and mitigation**
- **Rural adjustment**
- **Change in agricultural capacity**
- **Migration and displacement**
- **Living with uncertainty**

Risk Factors – Heatwave vulnerability

- **Age >65 years, infants**
- **Pre-existing illness**
- **Some drugs e.g. anti-psychotics, diuretics**
- **Overweight**
- **Unfit**
- **Living alone**
- **Urban environment**
- **Type of housing**
- **Availability of air-conditioning**
- **Working or exercising outdoors**



Overseas

France

- France 14,800 deaths

Spain

- 17% increase in deaths

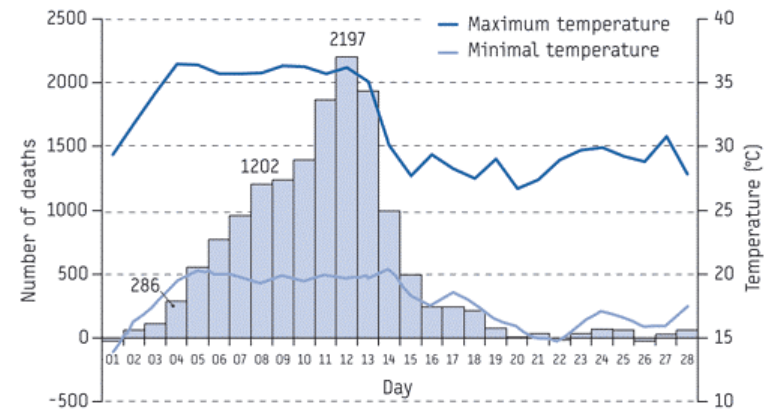
London

- Over 2,000 deaths

Italy

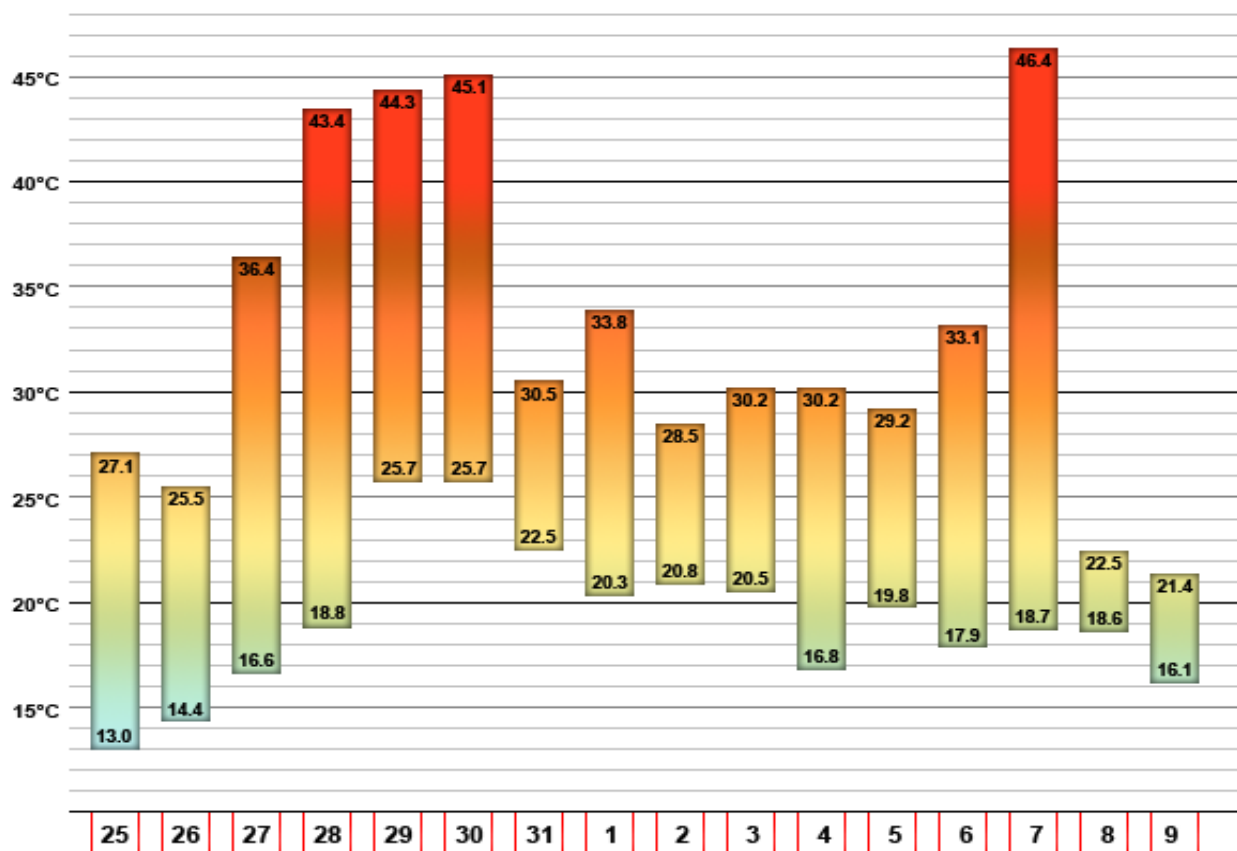
- Over 3,000 deaths

Daily excess of deaths during August 2003 and minimal and maximal daily temperatures, France



Victoria January 2009

Minimum and Maximum temperatures



Melbourne City
January - February 2009

4 day period from the 27/1 to the 30/1 with 3 days of temperatures in extreme range.

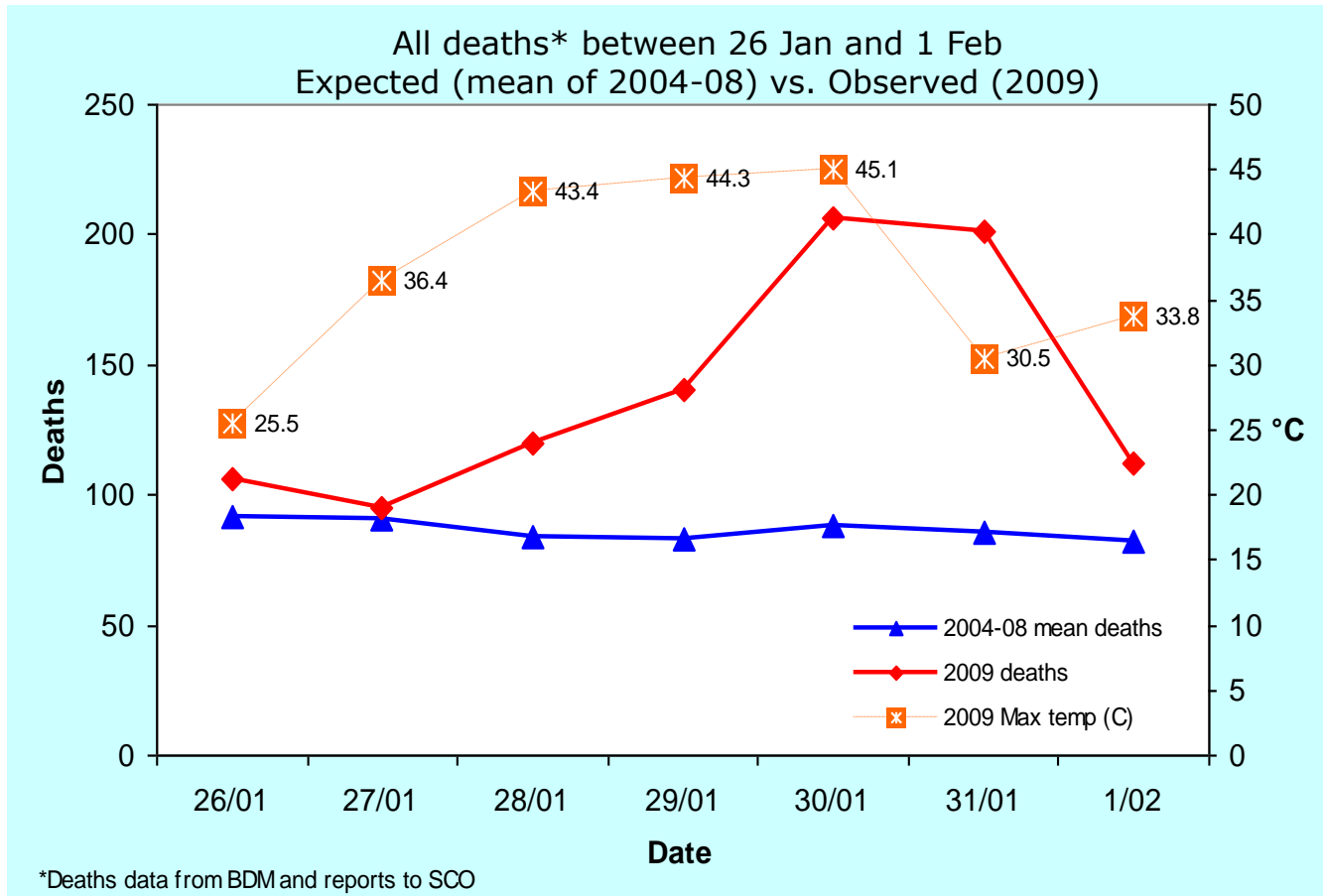
Followed by a further extreme spike on 7/2/09 with subsequent catastrophic impacts associated with Black Saturday.

Impacts of 2009 Heatwave

- Ambulance Victoria (metropolitan) increases:
 - total emergency cases, heat-related conditions and cardiac arrest cases
- Locum GP attendances:
 - direct heat-related conditions and deceased persons
- Emergency Department presentations:
 - Overall presentations, more acutely ill patients, heat-related conditions and deceased patients



Mortality



Total all cause mortality is 374 excess deaths (above expected)

The framework for adaptation

The Ottawa Charter

- **Build healthy public policy**
- **Create supportive environments**
- **Strengthen community actions**
- **Develop personal skills**
- **Reorient health services**
- **Moving into the future**

Strategies...



- Policy
- Prediction (detection) and preventive control measures
- Service enhancement
- Consistency
- Integrated planning
- Planning and practice tools
- Data and evidence

Action at local government level

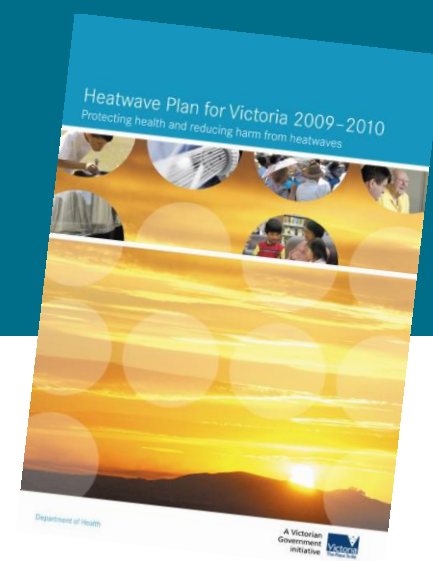


- Opportunities for integrated planning
- Identification of vulnerable communities
- Enhancement of existing services
- Planning and practice tools
- Data and evidence

Components

- Victorian Heatwave Strategy
- Local government heatwave planning
- Heat alert warning system
- Heat health thresholds
- Agreed and consistent messaging between agencies
- Widespread media
- Warnings through Bureau of Meteorology

Statewide Heatwave Plan



- Improved collaborations
- Statewide funding for heatwave planning
- Expanded and improved warning systems
- Enhancement of services provided to people at risk of heat-related illnesses
- Targeted delivery of consistent community messages
- Service support – PAV, Keeping in Touch, Community Register

Resources

Staying healthy in the heat

Heatwaves can affect anybody—here are some things you can do to stay healthy in the heat.

Keep hydrated by drinking plenty of water, sports and fitness drinks and electrolyte replacement. Check a friend or family member, particularly older people, if you are going to be outdoors.

Look after yourself and others. Check on elderly and sick people, neighbours and relatives.

Report any health signs or problems to your GP or pharmacist. If you are unwell, try to stay at home.

Stay hydrated by drinking plenty of water, sports and fitness drinks and electrolyte replacement. Check a friend or family member, particularly older people, if you are going to be outdoors.

Look after yourself and others. Check on elderly and sick people, neighbours and relatives.

Report any health signs or problems to your GP or pharmacist. If you are unwell, try to stay at home.

Heatwaves

Heatwaves
Heatwaves can affect anybody—here are some things you can do to stay healthy in the heat.

Important website
For a more detailed overview, visit the Victorian Government website: www.health.vic.gov.au/environment/heatwaves

Topic	Resources
Heatwaves	Heatwaves: A guide to relevant resources for planning
Heatwaves	Heatwaves: A guide to relevant resources for planning
Heatwaves	Heatwaves: A guide to relevant resources for planning

Staying healthy in the heat

- Keep cool
- Drink plenty of water
- Stay out of the sun
- Look after yourself and others

For more information, visit:
www.health.vic.gov.au/environment/heatwave

A Victorian Government initiative 

What is a heatwave?

Heatwaves are periods of hot weather that last for at least three consecutive days. They are usually defined as a period of at least three consecutive days where the maximum temperature is 35°C or higher.

Why is it important?

Heatwaves can be dangerous for people, especially the elderly, young children, and people with chronic health conditions. They can also cause significant damage to property and infrastructure.

How to stay safe?

- Stay hydrated: Drink plenty of water, sports and fitness drinks and electrolyte replacement.
- Stay cool: Stay out of the sun, wear light clothing, and use fans or air conditioning.
- Look after yourself and others: Check on elderly and sick people, neighbours and relatives.

Climate change and health

A guide to relevant resources for planning

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This guide supplements the *Environments for Health framework* (DHS 2001). This guide introduces key resources that identify climate change adaptation actions relating to health risks which can be implemented by local government. It supplements the *Environments for Health framework* and *Practical Guide to Planning*.

The *Environments for Health* (2001) framework is the main resource for use in planning for the effect of the natural, built, social and economic environments on health. Since 2001 this framework has been used extensively to guide planning at a municipal level.

Environmental dimensions

-  Built/physical
-  Economic
-  Social
-  Natural

Source: PEF Management

Acting locally

Local governments have a critical role to play in creating and sustaining local solutions to the impacts of climate change on population health through their work in:

- health and community services
- provision of recreation facilities
- natural resource management
- infrastructure and property services
- planning and development approvals.

Most climate change impacts on health occur unevenly across regions, communities and demographic sub-groups, reflecting differences in location, socio-economic circumstances, preparedness, infrastructure, institutional resources and local preventative (or adaptive) strategies. Local governments can respond by:

- making adjustments to existing activities and practices so that vulnerability to potential impacts associated with climate change can be reduced or opportunities realised (adaptation)
- management and reduction of greenhouse gas emissions (mitigation).¹

¹ Department of Climate Change 2007, *Climate Change Adaptation Action for Local Government*, prepared by SMEC Australia, Australian Greenhouse Office, Department of the Environment and Water Resources, <http://www.climatechange.gov.au/assets/localgovernment/publications/>

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Other initiatives

- Enhanced and new community registers
- Grants to support frail people, older people and those with disabilities to develop personal emergency plans.
- Keeping in Touch program for older public housing tenants
- Broader agency agreement on public health messaging
- Stronger emergency management arrangements

Challenges

- Management of heatwave and extreme fire messages (relocation vs staying indoors, precedence)
- Climate change impacts on health unevenly across regions, communities and demographic sub-groups
- Mitigation vs adaptation
- Resourcing
- Skills, knowledge and training needs
- Developing regional responses

Proposed next steps

- Evaluation of Victoria's heatwave framework
- Annual review of the *Heatwave Plan for Victoria*
- Health service professionals awareness and education program
- Department of Health Climate Change and Adaptation Strategy

