Victorian Adaptation Responses to Climate Change and Human Health

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Department of Health

A Victorian Government initiative

Victoria
The Place To Be

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 HACC 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 bush-fires**
- **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
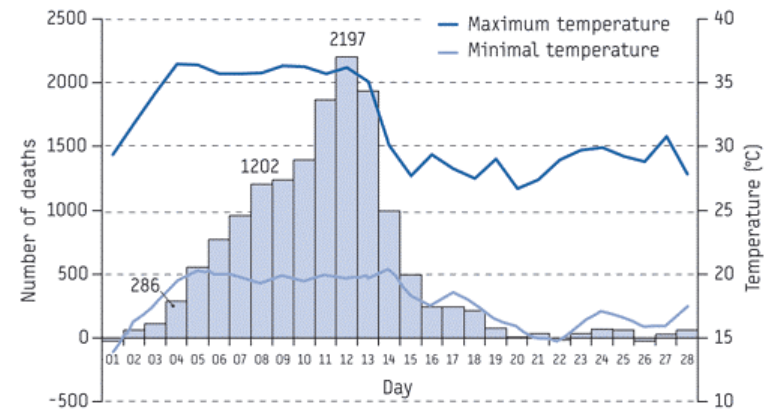
Victoria January 2009

Minimum and Maximum temperatures
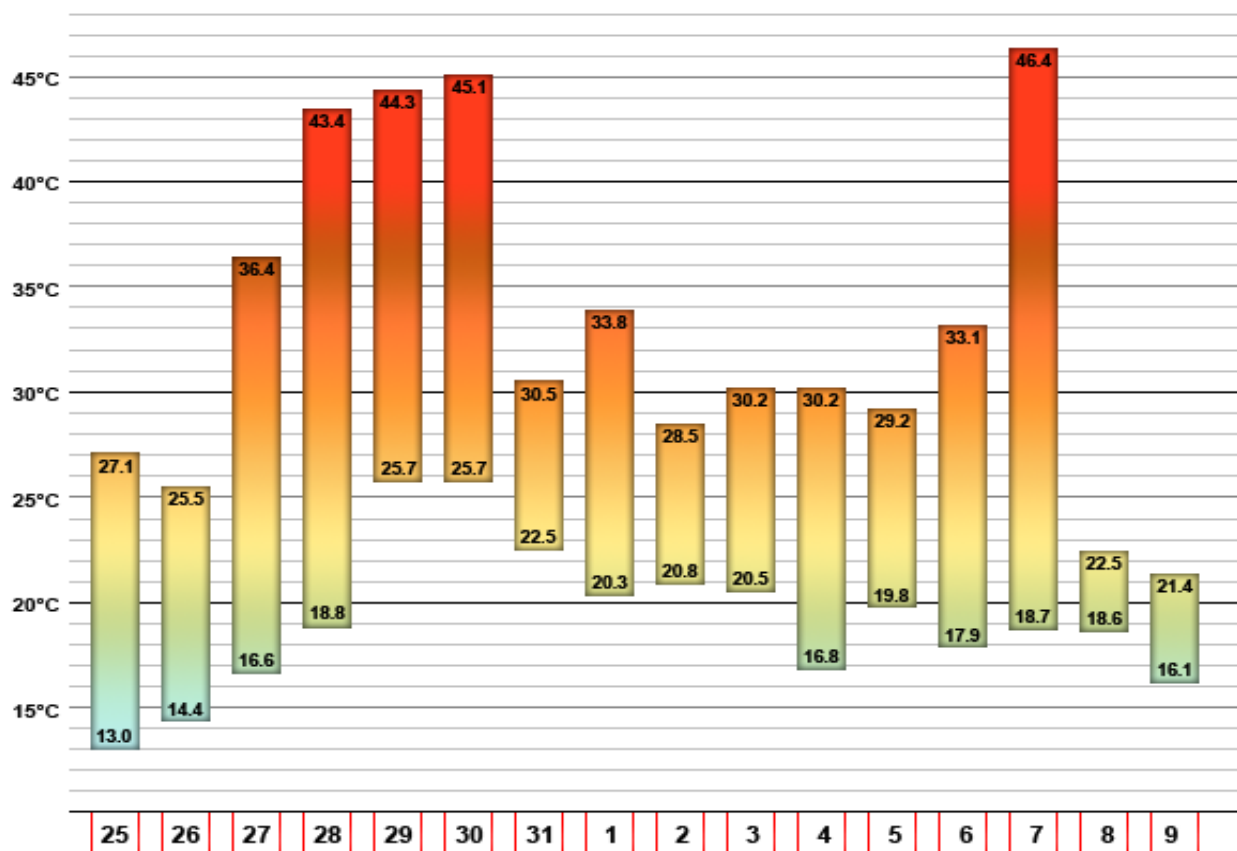
Melbourne City
January - February 2009

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

All deaths* between 26 Jan and 1 Feb
Expected (mean of 2004-08) vs. Observed (2009)

*Deaths data from BDM and reports to SCO
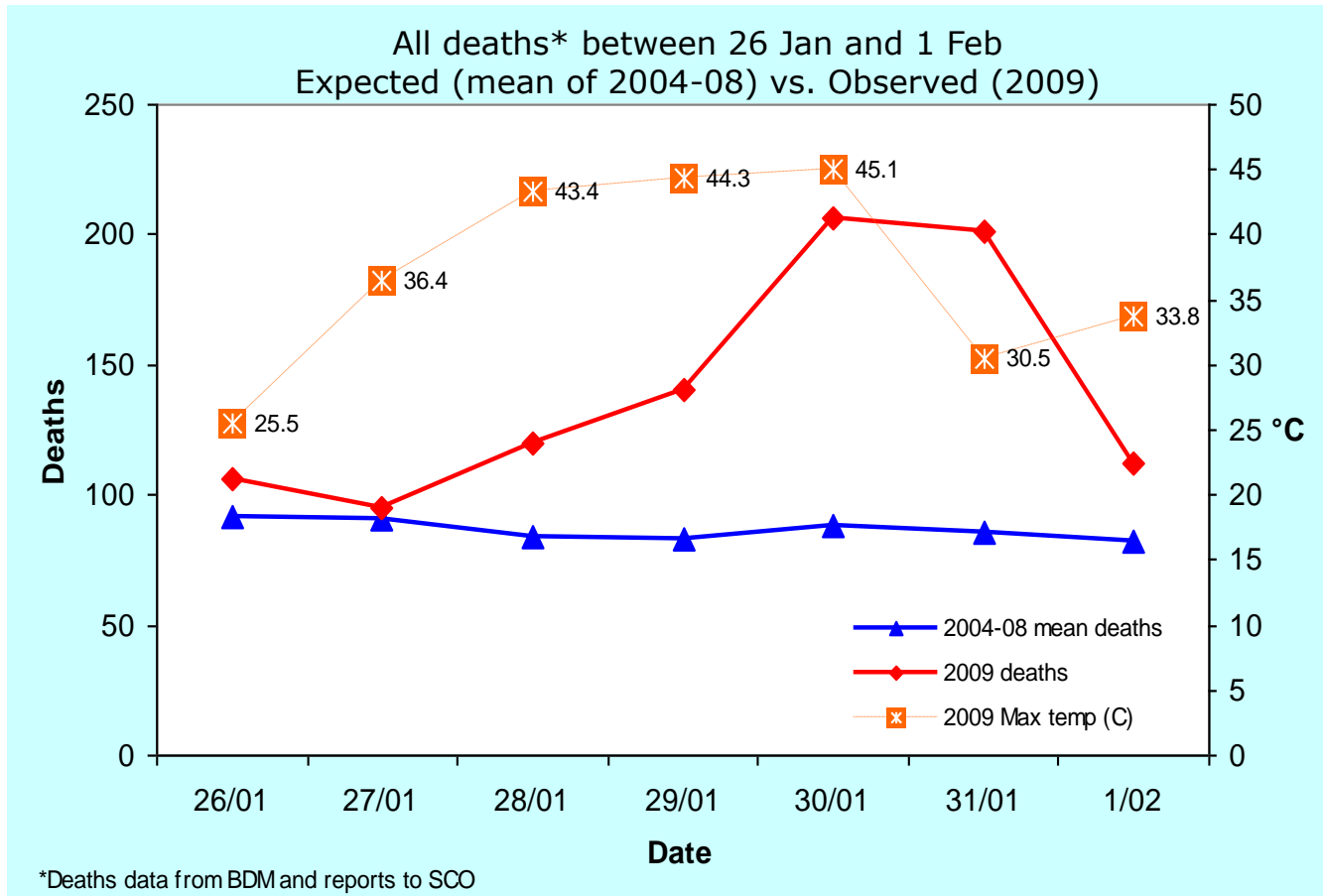
Total all cause mortality is 374 excess deaths (above expected)

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

Heatwave Planning Guide
Development of heatwave plans in local councils in Victoria

A Victorian Government initiative

Department of Human Services

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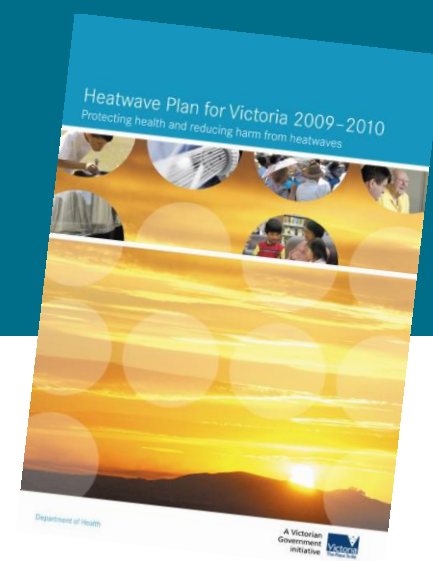
- Improved collaborations
- Statewide funding for heatwave planning
- Expanded and improved warning systems
- Enhancement of services provided to people at risk of heat-related illnesses
- Targeted delivery of consistent community messages
- Service support – PAV, Keeping in Touch, Community Register

Resources

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