

# Heat health plan for Victoria

Protecting health and reducing harm from extreme heat

December 2018



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# Introduction

Extreme heat is one of the most significant natural hazards facing Victorians.

Each year, extreme heat exacerbates pre-existing medical conditions and causes heat-related illness. Children, people aged over 65, those taking some medications that affect the body's ability to cope with heat, people living alone and people who are socially isolated are among those most affected. A more detailed list of population groups most at risk is provided in the Appendix.

Victoria has experienced first-hand the deadly impact of extreme heat. In 2014, 167 excess deaths were recorded during a four-day heatwave across the state. This heatwave followed the 374 excess deaths<sup>1</sup> recorded during the 2009 heatwave compared to the same period in the previous five years.

Despite the significant impact that extreme heat can have on our health, a number of effective actions can reduce its impact. Promoting these actions and supporting the health and wellbeing of Victorians during extreme heat is a responsibility shared by all Victorians, service providers, community organisations, local governments and state government departments.

This *Heat health plan for Victoria* outlines how the Department of Health and Human Services ('the department'), together with local government and the health and human services sectors, can work together to promote public health and wellbeing before and during periods of extreme heat.

## Objectives

This plan has three objectives:

- Protect the health of the Victorian community from heat-related harm.
- Communicate the actions of the department to prepare for and respond to extreme heat.
- Outline preparedness and response activities for local government and the health and human services sectors to reduce the impact of extreme heat on the Victorian community.

## Domains of action

This plan achieves these objectives across three key domains of action:

- **Empowerment:** empowering the Victorian community to prepare for and respond to extreme heat, particularly those most at risk, their carers, family and service providers.
- **Partnerships:** developing strong cross-sector partnerships through sharing good practice, extreme heat information, research and health advice to promote an informed and collective approach to preparing for and responding to extreme heat.
- **Coordination:** ensuring the health impacts of extreme heat are considered and responded to as part of a coordinated approach to Victoria's emergency management arrangements for extreme heat.

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<sup>1</sup> 'Excess deaths' are deaths that were not otherwise expected and may have resulted from the extreme heat.

# Understanding extreme heat and heatwaves

## Extreme heat and heatwaves

This plan distinguishes between single days of extreme heat and prolonged heatwaves.

**Extreme heat** occurs when the forecast average temperature on any day exceeds the predetermined heat health temperature threshold in a Victorian weather forecast district.

A **heatwave** involves three or more consecutive days of extreme heat.

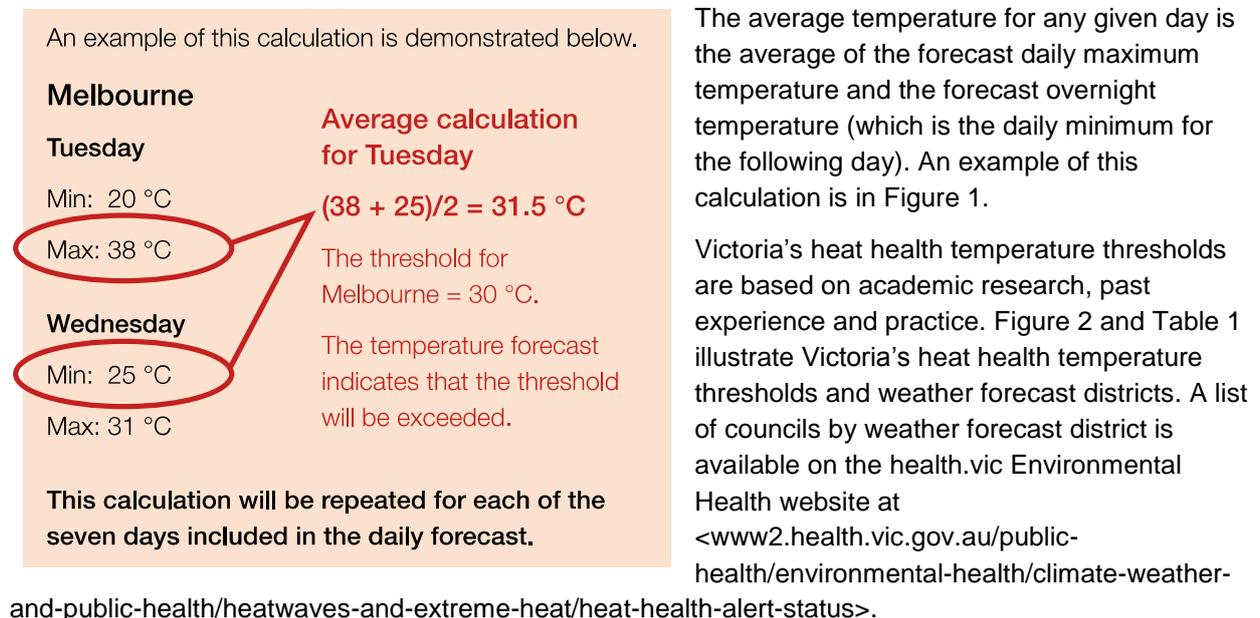
Isolated days of extreme heat typically affect the health and wellbeing of Victorians who are most at risk, commonly due to age, illness, medication or social isolation. A detailed list of population groups most at risk is in the Appendix.

In heatwaves, these impacts are compounded and occur alongside significant health impacts across broad sections of the community. Heatwaves also affect Victoria's natural, built and economic environments, often through the compromised operation of critical infrastructure, facilities and services.

## Identifying extreme heat and heatwaves

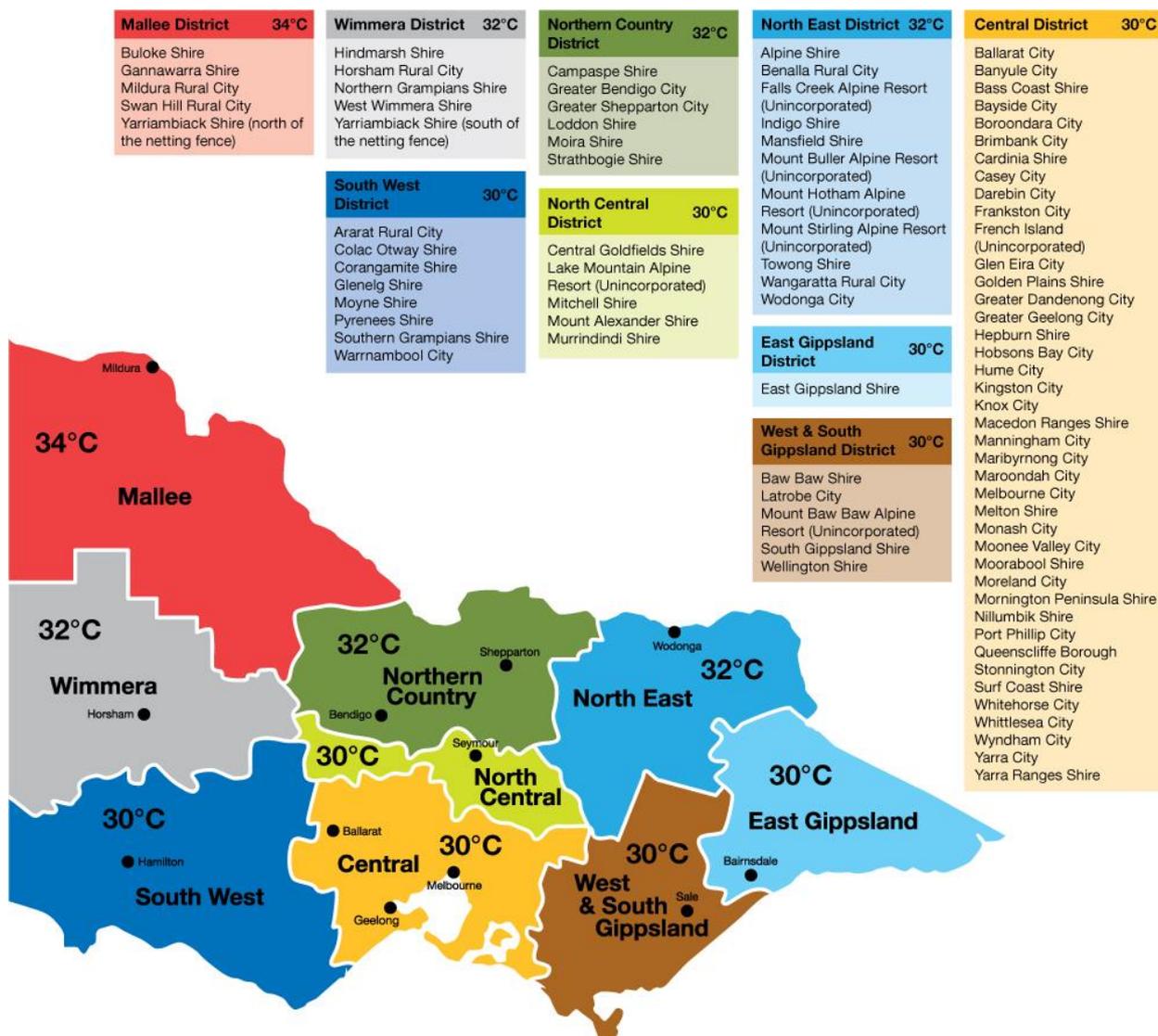
Extreme heat and heatwaves are identified when the average temperature (as forecast by the Bureau of Meteorology) reaches or exceeds the predetermined heat health temperature thresholds for a Victorian weather forecast district. Heat health temperature thresholds are the average temperature above which substantial increases in mortality in weather forecast districts can be expected.

**Figure 1: Calculating the forecast average temperature**



Once average temperatures are forecast to reach or exceed the heat health temperature threshold for a specific weather forecast district, the department issues a heat health alert for that district (see *Heat health alerts*).

**Figure 2: Heat health temperature thresholds and corresponding weather forecast districts**



**Table 1: Weather forecast district and corresponding heat health temperature threshold**

Weather forecast district	Heat health temperature threshold
Central	30°C
East Gippsland	30°C
Mallee	34°C
North Central	30°C
North East	32°C
Northern Country	32°C
South West	30°C
West & South Gippsland	30°C
Wimmera	32°C

## Impacts of extreme heat and heatwaves

The impacts of extreme heat and heatwaves can be significant. Extreme heat increases the incidence of illness, most commonly in the form of:

- heat cramps, heat exhaustion and heat stroke
- dehydration
- gastroenteritis, in connection with poor food handling.

Extreme heat can also exacerbate pre-existing medical conditions, including heart (cardiac) and kidney (renal) disease, asthma and other respiratory illnesses. The risk of drowning can also increase as people engage in water-based recreational activities.

While the impacts of extreme heat can reach across entire communities, those who are most at risk of extreme heat are people:

- of a certain age or life stage
- in particular social or economic circumstances
- experiencing particular health conditions
- taking medications that may affect how the body reacts to heat
- who are active outdoors.

Further information relating to the health impacts of extreme heat is available on the [Better Health Channel website](http://www.betterhealth.vic.gov.au) <www.betterhealth.vic.gov.au>.

Extreme heat rarely occurs in isolation. Infrastructure failure or other natural emergencies can add another level of demand on a community and services. Power outages will affect the ability to operate air-conditioners; bushfires will increase vulnerability by reducing air quality; and public transport disruptions will reduce access to alternative air-conditioned venues.

## Heat health alerts

The department issues a heat health alert when the forecast average temperature reaches or exceeds the heat health temperature threshold for a specific weather forecast district. The alert will be issued up to three days before the forecast extreme heat conditions and is provided through a subscription service which, although available to the public, is particularly targeted to departmental program areas, health services, local government, agency partners and service providers. Once issued, alerts will not be withdrawn.

Subscribers are notified of forecast extreme heat conditions that are likely to affect human health. Subscribers are asked to take action in accordance with their heat health plans, monitor local weather conditions and activate other plans such as service continuity plans, emergency management plans and occupational health and safety plans that contain heat-related actions.

More information is available on heat health alert subscription and operation from [the department's website](http://www.health.vic.gov.au/environment/heatwaves-alert) <www.health.vic.gov.au/environment/heatwaves-alert>.

## Communicating the impacts of extreme heat

This plan is supported by a communication strategy that outlines how the department will improve community understanding of:

- extreme heat conditions
- the risks posed to human health
- steps that individuals, communities and organisations can take to minimise these risks.

The communication strategy includes the department's statewide 'Survive the Heat' campaign. This campaign includes radio messaging, social media and digital messaging, as well as community service announcements, media stories and stakeholder advocacy.

During a heatwave, emergency digital and radio messaging, along with proactive media engagement strategies, will alert Victorians to health risks associated with extreme heat.



Emergency announcements may also run alongside heat warnings issued on the VicEmergency platform when a heatwave is affecting Victoria and when its impacts are being felt across the health, natural, built and economic environments.

The department partners with local government and the health and human services sectors to assist them in promoting consistent heat health messages. A range of public health messages are communicated through these stakeholders that recommend preparatory and preventive actions to reduce the risks presented by extreme heat.

### **Other summer messages**

Government departments, emergency services and agencies provide a range of information and messages over the summer period including the following campaigns: Never Leave Kids in Cars, Fire Ready and Water Safety.

The department consults with these stakeholders through established campaign working groups before summer and through the Emergency Management Joint Public Information Committee during extreme heat events to ensure heat health messages are consistent with other summer messages.

### **Resources**

Heat health information is available for all Victorians. The department also targets preparedness messaging in key population groups including those most at risk of heat-related health impacts and individuals and organisations with a direct care responsibility (including healthcare providers) for these people.

To increase the reach of preparedness messaging, the department makes printed communication resources available at no cost to the Victorian community, local governments and health and human services.<sup>2</sup>

### **Emergency management arrangements for extreme heat**

The Victorian Government has coordinated governance and planning arrangements in place to prepare for, respond to and recover from extreme heat (Figure 3). This plan forms part of these arrangements.

The *Extreme heat subplan*, which is part of the *State emergency response plan* (SERP), outlines the Victoria's arrangements for responding to the impacts and consequences of extreme heat and heatwaves on the Victorian community, infrastructure and services. The subplan has been developed in conjunction with state government agencies responsible for managing the impact and consequences of extreme heat. The activities and arrangements outlined in this plan align to the *Extreme heat subplan*.

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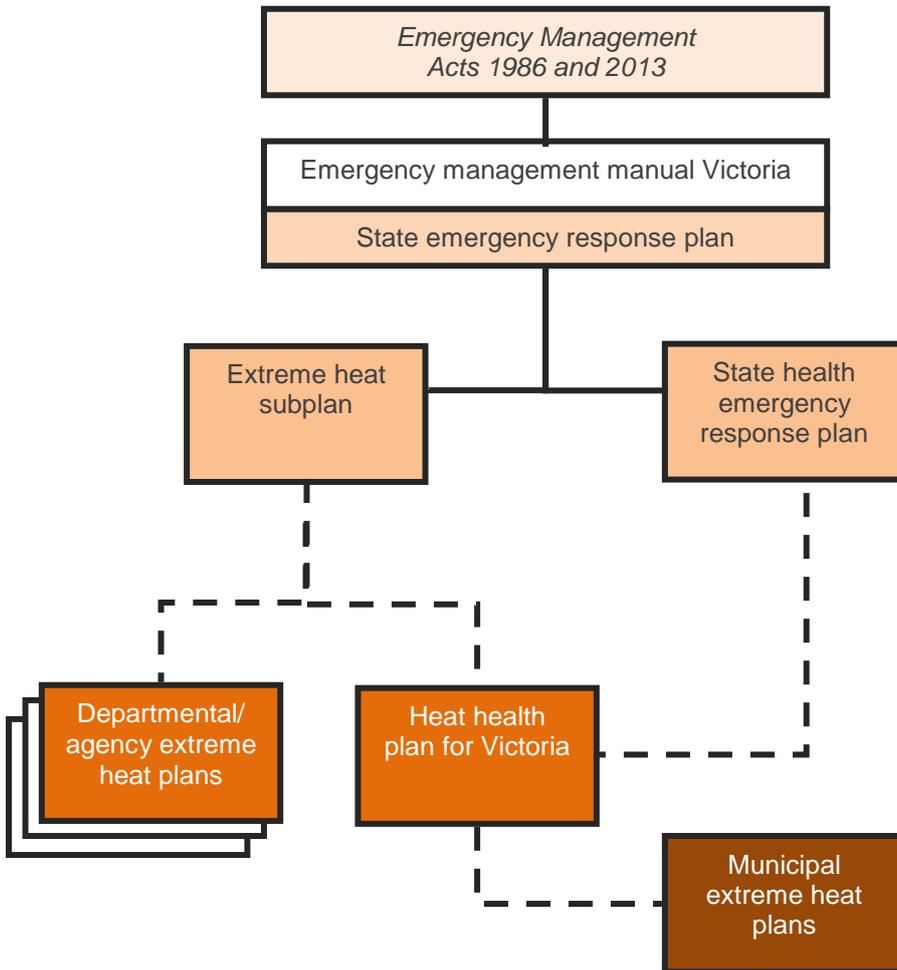
<sup>2</sup> More information about these resources is available from [the department's website](http://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat/heatwave-community-resources) <www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat/heatwave-community-resources>.

The *State health emergency response plan* (SHERP) also forms part of Victoria's emergency management arrangements for extreme heat. The SHERP outlines emergency response arrangements for the Victorian health sector. The SHERP is also a subplan of the SERP.

Activities and arrangements for extreme heat and heatwaves that are specific to individual Victorian government departments and agencies are also outlined in departmental extreme heat and heatwaves plans.



**Figure 3: Victorian Government arrangements for extreme heat preparedness and response**



## Heat health actions

Reducing the impact of extreme heat on the Victorian community is a shared responsibility across state and local governments, service providers, the emergency management and health sectors, communities, households and individuals.

The actions of the department, together with recommended actions to reduce the health impacts of extreme heat for local government and the health and human services sectors in preparation for, immediately prior to, during and after extreme heat, are outlined in Tables 2–5.

Links to resources to support these activities can be found under *Relevant resources*.



**Table 2: Actions of the Department of Health and Human Services before, during and after extreme heat**

Outcome achieved	Prior to summer	Within three days of forecast extreme heat	During an extreme heat event	After an extreme heat event
<b>Empowering Victorian communities</b>	<p>Support heat health planning at the community level to protect all Victorians, particularly those most at risk.</p> <p>Incorporate heat health messages into existing departmental programs that provide services to those most at risk.</p> <p>Prepare community heat health messages and the department's communication strategy to help identify heat health risks and mitigation actions.</p> <p>Undertake preparedness activities to support public housing tenants including releasing tips to stay cool as part of the 'Keeping in Touch' program for participating public housing tenants who are 75 years of age or older.<sup>3</sup></p>	<p>Issue heat health messages through social and online media and radio in line with the <i>Heat health communication strategy</i>.</p>	<p>Issue media releases or hold interviews or press conferences with the Chief Health Officer, Ambulance Victoria and Emergency Management Commissioner to explain the event and how to protect health.</p> <p>Issue heat health messages through social and online media and radio in line with the <i>Heat health communication strategy</i>.</p>	<p>Consider regional and state-level recovery activities and community messaging in line with the <i>Heat health communication strategy</i>.</p>
<b>Sector partnerships</b>	<p>Host regional seasonal preparedness and engagement forums to highlight seasonal preparedness arrangements for extreme heat.</p> <p>Identify and prepare 'Cooler Places'<sup>4</sup> for public housing tenants where possible.</p> <p>Identify established and develop networks to connect and engage with Aboriginal and culturally diverse communities.</p>	<p>Issue a heat health alert when the heat health temperature threshold is reached or exceeded in a particular weather forecast district.</p>	<p>Actively monitor impacts through partnerships with Ambulance Victoria, NURSE-ON-CALL and the Real-time Health Emergency Monitoring System.</p> <p>Enact emergency management plans for services managed by the department.</p>	

<sup>3</sup> The Keeping in Touch program is offered to tenants living alone who are aged 75 years of age or older. Registered tenants receive additional calls during heatwave periods to check on their welfare and provide details of the Cooler Places across the state.

<sup>4</sup> The Cooler Places program involves more than 100 public housing community facilities across Victoria operating as Cooler Places upon the declaration of a heat health alert. These Cooler Places are air-conditioned 'drop in' centres open to all public housing tenants and residents seeking relief from extreme temperatures.

Outcome achieved	Prior to summer	Within three days of forecast extreme heat	During an extreme heat event	After an extreme heat event
	<p>Provide local government, health and community service providers and community organisations with access to heat health communication resources.</p> <p>Participate in heat health and emergency preparedness forums to promote heat health planning, preparedness and response.</p> <p>Provide emergency management preparedness and response guidance to health and human service providers.</p>			
<p><b>Coordination of emergency arrangements</b></p>	<p>Attend and support pre-season briefings with Emergency Management Victoria and the Office of the Chief Health Officer.</p> <p>Ensure consistent and up-to-date public messaging is available on public communication channels including the Better Health Channel and VicEmergency websites and apps.</p> <p>Prepare the department's Heat Health Information Surveillance System to collect and assess morbidity data from a range of health service, health and emergency services.</p> <p>Collaborate with other government agencies and departments to promote a whole-of-government emergency communications approach.</p>	<p>Undertake a risk and consequence assessment of the potential impact on the Victorian community and health sector.</p> <p>Assess the need for a departmental emergency management operational structure to coordinate departmental preparedness and response.</p>	<p>Monitor health system demand in line with the State Health Emergency Response Arrangements.</p> <p>Track and report on care-seeking and the service impact of extreme heat to departmental and emergency management executives through the Heat Health Information Surveillance System.</p>	<p>Consider conducting an evaluation and debrief including of health impacts in accordance the Health and Human Services <i>Emergency management evaluation guidelines</i>.</p> <p>Consider and implement lessons learnt.</p>

**Table 3: Recommended actions for local government before, during and after extreme heat**

<b>Outcome achieved</b>	<b>Prior to summer</b>	<b>Within three days of forecast extreme heat</b>	<b>During an extreme heat event</b>	<b>After an extreme heat event</b>
<b>Empowering Victorian communities</b>	<p>Review organisational heat health plans and other plans containing heat health-related actions.</p> <p>Update individual heat health plans for clients and vulnerable-client lists.</p> <p>Talk with clients, family and carers about subscribing to receive heat health alerts.</p> <p>Develop or review the <i>Heat health communication strategy</i>.</p> <p>Order and display heat health communication material in council venues and distribute to clients.</p> <p>Consider long-term planning opportunities to reduce the impacts of extreme heat.</p>	<p>Provide consistent heat health messages during client visits and telephone calls.</p> <p>Ensure appropriate staffing levels and consider staff and client safety in extreme heat.</p> <p>Ensure staff engaging with the public are aware of council activities to support and protect Victorians from extreme heat.</p> <p>Instigate consistent community messages through local media or other communication channels.</p> <p>Update council websites and social media pages with heat health information or messaging from the mayor or CEO.</p> <p>Restock heat health communication materials and distribute to clients, where appropriate.</p>	<p>Reschedule any non-essential events, meetings and services to another day or to a cooler part of the day.</p> <p>Increase community messaging through local media and standard communication channels.</p>	<p>Actively engage with clients about how they are recovering from the heat and identify and respond to any new or emerging needs.</p>
<b>Partnerships</b>	<p>Engage with key stakeholders and community members to raise awareness about the risks of extreme heat.</p> <p>Engage staff across council to identify opportunities to promote heat health and enhance activities to respond to extreme heat.</p> <p>Identify established and informal networks to connect and engage with Aboriginal and culturally diverse communities.</p>	<p>Encourage local services, clubs and organisations to reschedule services or major events during the period of extreme heat.</p>	<p>Encourage local services, clubs and organisations to share heat health-related information through local networks.</p>	<p>Actively encourage local service providers to engage with clients about how they are recovering from the heat and identify and respond to any new or emerging needs.</p>

<b>Outcome achieved</b>	<b>Prior to summer</b>	<b>Within three days of forecast extreme heat</b>	<b>During an extreme heat event</b>	<b>After an extreme heat event</b>
<b>Coordination</b>	<p>Review and update the heat health plan and other relevant heat plans, including business continuity plans.</p> <p>Ensure all relevant service areas of local government are subscribed to receive heat health alerts.</p> <p>Identify relevant information sources for residents who may be at risk of extreme heat in heat health planning.</p> <p>Participate in exercises and forums to discuss and improve individual and collective responses to extreme heat.</p>	<p>Take action in accordance with heat health plans or other plans containing heat-related actions such as business or service continuity plans, emergency management plans and occupational health and safety plans.</p> <p>Monitor local weather conditions on the Bureau of Meteorology's website.</p>	<p>Undertake council activities in the relevant heat health or emergency management plan as required.</p>	<p>Consider undertaking local recovery activities as required.</p> <p>Consider and implement lessons learnt.</p>

**Table 4: Recommended actions for health and community service providers before, during and after extreme heat**

<b>Outcome achieved</b>	<b>Prior to summer</b>	<b>Within three days of forecast extreme heat</b>	<b>During an extreme heat event</b>	<b>After an extreme heat event</b>
<b>Empowering Victorian communities</b>	<p>Ensure appropriate staffing levels and consider staff and client safety in hot weather.</p> <p>Update individual heat health plans for clients and vulnerable-client lists.</p> <p>Talk with clients, families and carers about preparing for extreme heat by subscribing to receive heat health alerts.</p> <p>Develop and review the organisation's <i>Heat health communication strategy</i>.</p> <p>Order and display heat health communication resources in service venues and distribute to clients.</p> <p>Engage with key stakeholders and community members to raise awareness about the risks of extreme heat.</p>	<p>Reschedule services to the cooler part of the day.</p> <p>Provide consistent heat health messages in line with departmental advice during client visits and telephone calls.</p> <p>Ensure staff engaging with the public are aware of local activities to support and protect those at risk.</p> <p>Restock heat health communication resources in service locations and distribute to clients.</p>	<p>Ensure adequate drinking water is available for clients, visitors and staff.</p> <p>Reschedule any non-essential events, meetings and services to another day or to the cooler part of the day.</p> <p>Increase consistent community messaging through local media and standard communication channels.</p>	<p>Actively engage with clients about how they are recovering from the heat and identify and respond to any new or emerging needs.</p>
<b>Partnerships</b>	<p>Attend local seasonal preparedness forums.</p> <p>Ensure staff are appropriately trained to identify clients who may need assistance during extreme heat.</p> <p>Talk to your local council about what local arrangements are in place to support people who are vulnerable to extreme heat.</p>	<p>Talk with families and carers about identifying actions to protect vulnerable clients and family members from the impacts of extreme heat.</p>	<p>Talk with families and carers about identifying actions to protect vulnerable clients and family members from the impacts of extreme heat.</p>	<p>Talk with families and carers about how their family members or clients are recovering from the impacts of extreme heat and any opportunity to improve support for future events.</p>
<b>Coordination</b>	<p>Review and update the heat health plan and other relevant heat plans, including business continuity plans.</p> <p>Subscribe to the heat health alert system.</p> <p>Participate in exercises to discuss and improve individual and collective responses</p>	<p>Take action in accordance with heat health plans or other plans containing heat-related actions such as service continuity plans, emergency management plans and occupational health and safety plans.</p>	<p>Monitor temperatures in client areas on the Bureau of Meteorology's website.</p>	<p>Consider undertaking local recovery activities as required.</p> <p>Consider and implement lessons learnt.</p>

Outcome achieved	Prior to summer	Within three days of forecast extreme heat	During an extreme heat event	After an extreme heat event
	to extreme heat.	Monitor local weather conditions on the Bureau of Meteorology's website.		

**Table 5: Recommended actions for health services before, during and after extreme heat**

<b>Outcome achieved</b>	<b>Prior to summer</b>	<b>Within three days of forecast extreme heat</b>	<b>During an extreme heat event</b>	<b>After an extreme heat event</b>
<b>Empowering Victorian communities</b>	<p>Identify at-risk patients and begin talking about what will be required for them during extreme heat.</p> <p>Order and distribute the department's heat health brochure to patients, their carers and families.</p> <p>Download or order the department's <i>Factsheet for clinicians</i>.</p>	<p>Make the department's heat health brochure available to patients and carers.</p> <p>Keep waiting and outpatient rooms cool, and provide water.</p> <p>Consider cancelling or deferring outpatients or other non-essential hospital programs that are scheduled during extreme heat.</p> <p>Review discharge plans for at-risk patients, keeping in mind their specific needs, during extreme heat.</p>	<p>Make the department's heat health brochure available to patients and carers.</p> <p>Keep waiting and outpatient rooms cool, and provide water.</p> <p>Consider cancelling or deferring outpatients or other non-essential hospital programs that are scheduled on extreme heat days.</p> <p>Review discharge plans for at-risk patients, keeping in mind their specific needs, during extreme heat.</p>	<p>Where appropriate, actively engage with patients about how they are recovering from the heat and identify and respond to any new or emerging needs.</p>
<b>Partnerships</b>	<p>Include hospital preparedness arrangements and essential actions during extreme heat as part of hospital orientation.</p> <p>Talk with clients, families and carers about preparing for extreme heat.</p> <p>Order and display heat health communication resources in service venues and distribute to clients.</p>			
<b>Coordination</b>	<p>Develop and review the organisation's heat health and business continuity plans to address the needs of staff, patients and carers.</p> <p>Check contingency planning for air-conditioning and power supply.</p>	<p>Take action in accordance with any relevant heat plans.</p> <p>Monitor local weather conditions, heat health information and emergency warnings via the Bureau of Meteorology and VicEmergency websites.</p> <p>Plan for increased demand from</p>	<p>Monitor health service demand in line with escalation and notification arrangements under the <i>State health emergency response plan</i>.</p>	<p>Consider a formal debrief of the response in order to revise and improve the hospital's heat health plan.</p> <p>Consider and implement lessons learnt.</p> <p>Update plans and activities</p>

Outcome achieved	Prior to summer	Within three days of forecast extreme heat	During an extreme heat event	After an extreme heat event
	<p>Plan for power outages, for example, what to do with vaccine fridges.</p> <p>Ensure staff are familiar with the <i>State health emergency response plan</i>.</p> <p>Subscribe to the heat health alert system.</p> <p>Participate in heatwave exercises to discuss and improve individual and collective responses to extreme heat.</p>	<p>patients with heat-related illness or exacerbated medical conditions. This may include a significant increase in ambulance transfers, admissions to the emergency department, short-stay unit and wards.</p> <p>Plan for increased staff absenteeism.</p>		<p>as required.</p>

# Relevant resources

## Extreme heat and heatwave governance

[Emergency Management Act 2013](http://www.emv.vic.gov.au/about-us/what-we-do/our-legislation) <www.emv.vic.gov.au/about-us/what-we-do/our-legislation>

[Emergency management manual Victoria](http://www.emv.vic.gov.au/policies/emmv) <www.emv.vic.gov.au/policies/emmv>

[State extreme heat subplan](http://www.emv.vic.gov.au/responsibilities/state-emergency-plans/state-extreme-heat-sub-plan) <www.emv.vic.gov.au/responsibilities/state-emergency-plans/state-extreme-heat-sub-plan>

[State Health Emergency Response Arrangements \(including the State health emergency response plan\)](http://www2.health.vic.gov.au/emergencies/shera) <www2.health.vic.gov.au/emergencies/shera>

## Heat health information, alerts and warnings

[Heat health alert system](http://www.health.vic.gov.au/environment/heatwaves-alert) <www.health.vic.gov.au/environment/heatwaves-alert>

- Notifies local governments, departmental program areas, hospitals and statewide or major metropolitan health and community service providers of forecast heatwave conditions that are likely to impact on human health. Individuals and organisations can subscribe to receive alerts.

[VicEmergency](http://emergency.vic.gov.au/) <emergency.vic.gov.au/>

- Victoria's real-time information source for all emergency warnings and information including floods, storms, fires, earthquakes, tsunamis, beach closures and more.

[Bureau of Meteorology](http://www.bom.gov.au/) <www.bom.gov.au/>

- The department's official source of weather information. The bureau's seven-day forecast maximum and minimum temperatures are used to calculate if a heat health temperature threshold has been reached in a specific weather forecast district.

[Better Health Channel](http://www.betterhealth.vic.gov.au/) <www.betterhealth.vic.gov.au/>

- Provides health and medical information to improve the health and wellbeing of people and the communities they live in, including information relating to heat health. Information is quality-assured and reliable, up to date, locally relevant and easy to understand.

## Preparedness and planning for extreme heat

[Emergency preparedness clients and services policy](http://providers.dhhs.vic.gov.au/emergency-preparedness) <providers.dhhs.vic.gov.au/emergency-preparedness>

- Outlines how the health and aged care sectors can prepare for external hazards that may affect services, including extreme heat.

[Heatwave planning guide](http://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat) <www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat>

- Supports local government in developing and implementing heat health plans into existing municipal plans.

[Heatwave plan review tool](http://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat) <www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat>

- Supports local government in reviewing heat health plans with suggested information including templates for capturing data and feedback and ideas for facilitating discussion.

[Residential aged care services heatwave ready resource](http://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat) <www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat>

- Supports residential aged care services to develop and implement heat health plans, including ensuring service continuity during extreme heat.

[Guidance for service continuity for community care services in extreme heat conditions](http://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat) <www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat>

- Outlines general principles of service continuity during extreme heat for community care service providers.

Guides that support local government to assist communities in adapting to climate change through their municipal public health planning include:

- [Climate change and health: a guide to relevant resources for planning](http://www2.health.vic.gov.au/about/publications/policiesandguidelines/Climate%20change%20and%20health%20A%20guide%20to%20relevant%20resources%20for%20planning) <www2.health.vic.gov.au/about/publications/policiesandguidelines/Climate%20change%20and%20health%20A%20guide%20to%20relevant%20resources%20for%20planning>
- [Urban design and health: a guide to relevant resources for planning](http://www2.health.vic.gov.au/about/publications/policiesandguidelines/Urban%20design%20and%20health%20A%20guide%20to%20relevant%20resources%20for%20planning) <www2.health.vic.gov.au/about/publications/policiesandguidelines/Urban%20design%20and%20health%20A%20guide%20to%20relevant%20resources%20for%20planning>
- [Climate change impacts and risk management: a guide for business and government](http://www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management) <www.environment.gov.au/climate-change/adaptation/publications/climate-change-impact-risk-management> (Australian Greenhouse Office)
- [Victorian Climate Change Adaptation Navigator online tool](http://www.vcccar.org.au/event/page/climate-change-adaptation-navigator-tool) <http://www.vcccar.org.au/event/page/climate-change-adaptation-navigator-tool>
- [Local climate change adaptation planning: a guide for government policy and decision makers in Victoria](http://www.vcccar.org.au/publication/research-paper/local-climate-change-adaptation-planning-guide-for-government-policy-and) <www.vcccar.org.au/publication/research-paper/local-climate-change-adaptation-planning-guide-for-government-policy-and>.

# Appendix: At-risk populations

Extreme heat can affect anyone. Some people are more vulnerable to its effects due to factors such as their age, health, environment, social and economic circumstances, location or occupation.

The following population groups are likely to be most affected by extreme heat. While these population groups are not in any specific order, belonging to more than one at-risk group may further increase susceptibility to extreme heat.

The protective actions outlined in this plan will reduce the impact of extreme heat for these population groups.

## People of a certain age or life stage

- Over 65 years old, especially those living alone
- Pregnant women and breastfeeding mothers
- Babies and young children

## People with particular health conditions

- Heart and lung disease, high blood pressure, diabetes, cancer or kidney disease
- Certain neurological illnesses (eg Parkinson's Disease, Multiple Sclerosis)
- Mental illness
- Illness or infection that causes dehydration or fever
- Conditions that impair sweating including dehydration, skin disorders (including sunburn, prickly heat and extensive scarring from burns), congenital impairment of sweating, cystic fibrosis, quadriplegia and scleroderma
- Problematic alcohol or other drug use such as amphetamines
- Cognitive impairments that may limit the ability to identify or communicate their discomfort or need for water
- Limited mobility (such as those who are bed-bound or in a wheelchair)
- Overweight or obesity
- Low cardiovascular fitness

## People taking medications that may affect the way the body reacts to heat

- Allergy medicines (antihistamines)
- Some blood pressure and heart medicines (beta-blockers and vasoconstrictors)
- Seizure medicines (anticonvulsants)
- Thyroid medications (thyroxine)
- Water pills (diuretics)
- Antidepressants
- Antipsychotics

## People with particular social and economic circumstances

- Sleeping rough
- Low socioeconomic status who may restrict use of, or have limited access to, air-conditioning
- Living alone or who are socially isolated

- Non-English-speaking people who may not be able to understand extreme heat alerts and warnings or have reduced access to appropriate health or support services

### **People outdoors during extreme heat**

- Working or being physically active outdoors (such as gardeners, athletes and labourers).