



Heatwave Management: Reducing the Risk to Public Health

Tabled 14 October 2014



Background – what is a heatwave?

- There is no single accepted definition for a heatwave.
- The Bureau of Meteorology refers to 'three days or more of high maximum and minimum temperatures'.
- The *Heatwave Plan for Victoria* refers to 'a period of abnormally and uncomfortably hot weather'.
- Not having a consistent definition has implications for activating the response to heatwaves.



Photo courtesy of the Department of Health.



Background – Impact on public health and health services

- Heatwaves represent a significant risk to public health.
 - Heat-related illness ranges from mild conditions such as a rash or cramps, through to potentially fatal conditions such as heat stroke.
- Some groups are particularly vulnerable.
- Heatwaves can also place significant demands on health and emergency services.



Photo courtesy of the Department of Health.



Background – Victorian heatwaves

Periods of extreme heat in 2009 and 2014 associated with:

- ‘excess deaths’
- increased demand on public health and emergency services.

Daily temperatures in Melbourne during 2009 and 2014 extreme heat events

2009	Max	Min	Mean	2014	Max	Min	Mean
26 Jan	25.5	14.4	21.1	12 Jan	22.8	16.5	19.0
27 Jan	36.4	16.6	27.6	13 Jan	31.1	15.2	24.7
28 Jan	43.4	18.8	34.6	14 Jan	42.8	18.2	35.7
29 Jan	44.3	25.7	35.0	15 Jan	41.7	28.6	34.4
30 Jan	45.1	25.7	33.8	16 Jan	43.9	27.0	34.8
31 Jan	30.5	22.5	25.4	17 Jan	43.9	25.6	32.7
1 Feb	33.8	20.3	27.3	18 Jan	24.0	21.4	20.1

Source: VAGO, based on Bureau of Meteorology data.



Background – heatwave framework

Victoria's heatwave framework consists of:

- *Heatwave Plan for Victoria*
- *Heatwave Planning Guide*
- Heat Health Alert System
- Heat Health Information Surveillance System
- communication resources.



Photo courtesy of the Department of Health.



Audit objectives and scope

To determine whether applying the Department of Health's (DH) heatwave framework has been effective in reducing the impact of extreme heat on public health.

We looked at whether:

- outcomes have improved since 2009
- governance arrangements are effective
- agencies have plans in place that are evidence-based and meet requirements
- resources are fit for purpose and effectively deployed
- activation of heatwave plans is monitored and reported
- public health messages are appropriate and targeted.

The audit included 11 public sector agencies.



Conclusions – Improved outcomes from 2009

- While there were fewer excess deaths in 2014 than in 2009, DH is not able to show clearly that the framework was responsible for this.
- However, the framework and the collective efforts of agencies have contributed to the reduced impact on public health in 2014.
- The framework is soundly based.
- Critical gaps in heatwave management remain.



Photo courtesy of the Department of Health.



Conclusions – Critical gaps

- Governance arrangements for heatwaves are not clear.
- Heatwave planning is variable.
- ‘Activation’ of heatwave plans is inconsistent across agencies.
- Increased demands on health and emergency resources during heatwaves need to be considered.
- The community is not being adequately prepared for heatwaves.



Findings – Governance arrangements are not clear

- Roles and responsibilities for responding to and managing heatwave incidents are not clear or well understood by all agencies.
- Victoria Police's role as control agency for the response to heatwaves was intended to be an interim arrangement, however, this has not been reviewed.
- Monitoring and reporting arrangements for heatwave management are not adequate.



Findings – Quality of planning for heatwave is variable

- There is no mandatory requirement for agencies to have a heatwave plan.
 - There are no clearly articulated minimum requirements to guide development of state-level plans.
- The *Heatwave Plan for Victoria* is an operational plan rather than a state-level plan.
- The currency and quality of municipal heatwave plans is not monitored or reviewed.



Findings – ‘Activation’ of heatwave plans varies



- Activation is not well understood by agencies and is applied inconsistently.
- The Heat Health Alert System does not follow the *Victorian Warning Protocol*.
- Good practice is not shared to drive improvement.

Photo courtesy of the Department of Health.



Findings – Increased demand on resources

- Sufficient and appropriate resources are not always available to respond to heatwaves.
- Failure of critical infrastructure is a significant risk for health services during heatwaves.
- However, there is insufficient assurance that health services are prepared for this risk.



Photo courtesy of the Department of Health.



Findings – Public health messages are not always well targeted

- The Heat Health Alert System is soundly based and accords with best practice.
- However, stakeholders are not consistently informed of forecast heatwave conditions that are likely to have an impact on public health.
- Public health messages do not always meet community needs.



Photo courtesy of the Department of Health.



Recommendations

	Accept
That Emergency Management Victoria:	
1. working with appropriate agencies, clarifies the control and other roles and responsibilities for heatwave arrangements	✓
2. facilitates the development and implementation of coordinated whole-of-government heatwave arrangements	✓
3. facilitates the development of guidelines, including appropriate minimum standards for content in state-level sub-plans of the <i>State Emergency Response Plan</i>	✓
4. in developing the new emergency management planning legislation, clarifies the role of municipal councils and includes a quality assurance mechanism for municipal emergency management planning.	✓



Recommendations – continued

		Accept
That the Department of Health:		
5.	assures itself that public health services are well prepared to manage the risk of critical infrastructure failure during a heatwave	✓
6.	develops a communication strategy for heatwaves that includes public awareness and education activities	✓
7.	implements a phased approach to heat health alert warning categories in line with the <i>Victorian Warning Protocol</i>	✓
8.	reviews the purpose and effectiveness of the Heat Health Information Surveillance System during a heatwave.	✓



Relevant audits

Past audits

- *Managing Emergency Services Volunteers, 2014*
- *Flood Relief and Recovery, 2013*
- *Emergency Response ICT Systems, 2014*

Future audits

- *Emergency Service Response Times*



Contact details

For further information on this presentation please contact:

Victorian Auditor-General's Office

[p] 8601 7000

[w] www.audit.vic.gov.au/about_us/contact_us.aspx