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Evaluation of the Victorian Government heatwave framework

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Glossary

ABS	Australian Bureau of Statistics
ARC	Australian Red Cross
BOM	Bureau of Meteorology
CALD	Culturally and linguistically diverse
CEO	Chief Executive Officer
CFA	Country Fire Authority
CHO	Chief Health Officer
CSO	Community service organisation
DEECD	Department of Education and Early Childhood Development
DEMA	Disability Emergency Management Advocacy
DH	Department of Health
DHS	Department of Human Services
ED	Emergency Department
EH	Environmental Health
EHO	Environmental Health Officer
EM	Emergency Management
EMR	Department of Health, Eastern Metropolitan Regional Office
FAQ	Frequently asked question
GP	General practitioner
HACC	Home and community care
HHA	Heat health alert
HHAS	Heat health alert system
HHISS	Heat health information surveillance system
HHT	Heat health threshold
H&WP	Health & Wellbeing Plan
LGA	Local government area
LM	Loddon Mallee
MAV	Municipal Association of Victoria
MEMP	Municipal Emergency Management Plan
NARI	National Ageing Research Institute
NGO	Non-government organisation
OSV	Office of Senior Victorians
OSVMAC	Office of Senior Victorians Ministerial Advisory Committee
PCP	Primary Care Partnership
RAC	Residential aged care
RDNS	Royal District Nursing Service

REHO	Regional Environment Health Officer
SEIFA	Socio-economic indexes for areas
SES	Socioeconomic Status
SRS	Supported residential facility
VAADA	Victorian Alcohol and Drug Association
VALID	Victorian Advocacy League for Individuals with Disability
VCOSS	Victorian Council of Social Service
VICSERV	Psychiatric Disability Services of Victoria
VMIAC	Victorian Mental Illness Awareness Council
VPTA	Victorian Public Tenants Association
WHO	World Health Organisation

Executive Summary

Access Economics and The National Ageing Research Institute (NARI) were appointed in June 2010 to evaluate the Victorian Government heatwave framework. The framework originated in work by the Environmental Health Unit, Department of Health to address climate change and human health issues. This led in 2007 to the Victorian Heatwave Strategy, a planning document that outlined nine actions that would later contribute to Victoria's heatwave framework. The main components of the heatwave framework were first introduced in the lead up to the 2009-2010 summer along with *Heatwave plan for Victoria 2009-2010: Protecting health and reducing harm from heatwaves*.

The scope of this evaluation encompasses the Strategy and the following components of the framework listed below together with their objectives.

- The *Heatwave Plan* (the State Plan), which guides the state-wide response to heatwaves. It sets out the roles and responsibilities of the Victorian Government, local councils, emergency management and the health and community service sector.
- The *Heat Health Alert System* (HHAS) which monitors climate conditions and notifies councils, departmental program areas, hospitals and health and community service providers of impending heatwaves and to activate their heatwave plans and responses.
- Local council heatwave plans and pilot projects. Thirteen pilot projects were conducted in 2008, involving 22 councils. The experience from these pilot projects was used to develop the *Heatwave Planning Guide*. Funding was also provided to support the remaining 57 councils to develop and implement a heatwave plan.
- The *Heatwave Planning Guide* was developed to assist councils to plan for heatwaves at a community level using existing municipal planning frameworks with which to align heatwave planning. The guide provides councils and their officers with templates, strategies and background information with an emphasis on identifying and protecting vulnerable or at risk populations.
- Public health communication resources, with advice on staying healthy during a heatwave including a heat-related illness information sheet, a brochure, a poster, a label and a telephone script for service providers.
- The Heat Health Information Surveillance System (HHISS) which aims to monitor and assess the human health impact of a heatwave.

Evaluation aim and methods

The aim of the evaluation was to assess the success of the processes, tools and mechanisms implemented as part of the 2009-10 heatwave framework in increasing the community's, and health and community service providers' awareness about the health impacts of heatwaves and strategies for preventing heat-related illness. A requirement was the inclusion of specific recommendations on improvement that included an assessment of the feasibility, effectiveness, acceptability, costs and sustainability for each recommendation.

In line with the department's focus, the evaluation design concentrated on formative and process evaluation. Mixed methodologies were used. The formats for consultation included all of: letter, email, semi structured group interviews, semi-structured face to face interviews, semi-structured telephone interviews, focus groups, and invitation to provide submissions.

In brief, our approach included:

- Publicising the evaluation via attendance at Municipal Association Victoria (MAV) and Office of Senior Victorians (OSV) workshops, an advertisement in a MAV newsletter, via an email of MAV members, and via uploading information about the evaluation onto the departmental website;

- Consultation with MAV;
- Consultation with local councils via face to face meetings, teleconferences, a survey and a voluntary submission process;
- Mixed group meetings with councils and other stakeholders;
- Consultation with regional environmental health officers as representatives of regional department offices more generally;
- Consultation with health and community service providers and other stakeholders via face to face meetings, teleconferences, and surveys;
- Five focus groups with older Victorians (including Office of Senior Victorians Ministerial Advisory Council (OSVMAC));
- Surveys of home and community care (HACC) and supported residential service (SRS) providers;
- Survey of community registers; and
- Consultation with key departmental staff and the Department of Human Services.

A summary of the organisations consulted and invited to participate is provided in Table i.

Table i: Summary of organisations involved in consultations

Type of organisation	Method of consultation	Number of organisations Invited	Number of organisations participating
Councils	Individual meetings	11	11
	Group meeting with other councils	16	12
	Group meeting with other stakeholders	22	12
	Council survey	79	11
	Voluntary submission	79	2
	HACC survey (council providers)	76	30
MAV	Meeting	1	1
HACC providers	Survey	388	79
	Meeting	7	0
SRS providers	Survey	178	26
	Meeting	1	0
Other stakeholders	Meeting	47	27
	Submission	15	1
Community registers	Survey	42	10
Departmental staff	Meetings	8	8
	HHISS end users	3	3
	Meeting with regional officers	8	5
	Survey	8	4
Department of Human Services	Meeting	3	3

The State Plan

The *Heatwave Plan for Victoria, 2009-10, Protecting health and reducing harm from heatwaves* (State Plan or Plan) was prepared as a guide for the department and the Chief Health Officer (CHO) in the response to heatwaves, and outlined the roles and responsibilities in a heatwave of the Victorian Government, local councils, emergency management and the health and community services sector.

Most councils were aware of the Plan but lacked familiarity with the detail, possibly due to its release in December 2009 when most council plans had been completed. Councils were keen to complement not duplicate dissemination of communication resources and media messaging. Regional officers were uncertain of their role in the framework. There was some confusion about the role of community registers and concern about managing community expectations. Assisting councils to meet their responsibility for heatwave planning has many advantages but needs to be supported by strong channels of communication to facilitate information sharing and promote consistency. Organisations representing particular groups of people who are at risk of heat related illness, such as disability advocacy groups, would like to be engaged but don't have the resources to contact every local council. In particular, groups representing people experiencing homelessness, people with a disability, people with a mental illness, and refugees may be missing out on heatwave messages currently. There were requests for more detail about when heatwave becomes an emergency. Small pockets of confusion about cooling centres and emergency relief centres remain.

The Evaluation team examined the Plan document and made some suggestions for refinement including providing clarity about what governments are able to do in a heatwave.

Recommendations

1. Timely release of the State Plan and related framework resources will improve the ability of councils to prepare for heatwave.

   Department of Health response

   The department has released a revised version of the state heatwave plan that will be updated as required, rather than release a plan annually for each summer, which will increase the availability of the plan as well as its timeliness.

   It is anticipated that the broad dissemination of revised communication resources and order forms will increase their availability to service providers in preparation for summer seasons.

2. Consider launching the 2010-11 Plan.

   Department of Health response

   The department considers a launch of the plan may be beneficial in improving its visibility in the community. However, the 2010-11 summer was cooler and wetter than usual, and the state also experienced extensive flooding over this period. Attending to the flood disasters took precedence over launching the plan this summer. A launch may be considered in the future.

3. The department needs to consult regional offices with a view to defining their role in the framework. Specification of the roles and responsibilities of regional offices needs to allow flexibility to accommodate differences between offices. In addition, given their local knowledge, a formalised process for regional offices to submit comments to head office about the heatwave framework and Plan would also be useful.

Department of Health response

While the policy directions of heatwave response are centrally driven, the department considers that ongoing consultation with regional offices and program areas is important to ensure the plan is responsive to the direction and activities of the department as a whole. As such, regional officers were consulted in meetings prior to drafting the revised state plan and the revised draft plan was distributed for comment to regional offices and program areas of the department and the Department of Human Services.

4. It would be useful to provide more detail in the State Plan about the department's communication strategy, in particular, which media outlets the department intends to target and when, so that councils can play a complementary rather than duplicative role. Councils were also interested in obtaining a copy of the departmental distribution list for communication resources — again to ensure they used their available resources to complement the State Government's efforts. Such a list is likely to be too detailed for inclusion in the State Plan, but could be made available to councils via Quickplace.

Department of Health response

The department is working in concert with organisations such as Ambulance Victoria to ensure consistent heat health messages via media such as radio and television are provided to the public in a timely manner. The department has developed printed and electronic communication resources for distribution to community members by service providers. The heatwave newsletter sent to councils and other stakeholders provides more detail of the communication strategy.

5. Community registers are given prominence in the current State Plan — allocated all of page 16. This may have caused confusion about their role and relative importance in the heatwave framework.

Department of Health response

The department agrees a focus on any particular organisation may cause confusion regarding their role in heatwave as there is no single agency that has complete responsibility for protecting the health of at-risk populations in a heatwave. It is important that individuals, government and the broader community work together to reduce the health impacts of heatwaves. The revised state plan has a broader approach to heatwave actions.

6. Strong channels of communication that facilitate sharing of information and which promote service consistency over time would be useful in assisting councils to meet their responsibility for heatwave planning. Given that different areas within council have responsibility for heatwave, information about heatwave needs to be disseminated through all of the relevant existing internal council communication networks. Councils are often best placed to devise the most appropriate solutions and strong communication channels between councils would support councils to solve issues as they arise.

Department of Health response

The department agrees that information sharing between councils and other service providers in relation to heatwave planning is extremely useful in promoting best practice and consistency of practice.

7. A number of those consulted suggested including the education sector as a stakeholder, and DEECD should be added as a stakeholder in view of its role in managing the risk of hot weather to staff and students.

Department of Health response

The department considers the Department of Education and Early Childhood Development to be an important stakeholder. The department will continue to expand its engagement with the relevant DEECD program areas

8. As an alternative to individual councils approaching State based organisations to assist in distributing communication resources, it may be more efficient for the department to seek to engage these organisations, and in any case, the department may have more leverage at a statewide level. Examples of relevant organisations include service clubs (e.g. RSL), supermarket chains, and Centrelink.

Department of Health response

The department will continue to expand engagement with statewide organisations to further the reach and distribution of heat-health messages through a broad range of community organisations.

9. The Evaluation suggests the department consider discussing with the MAV whether it has capacity to become a stakeholder in the framework in view of its potential to assist in coordination, communication and dissemination of information to councils.

Department of Health response

The department considers MAV to be a key stakeholder in the heatwave framework and has valued the input of MAV on the heatwave framework evaluation reference group, the reference group for the *Heat health education strategy for health and community sectors*, development of the *Heatwave Planning Guide* and in comments on drafts of the revised *Heatwave plan for Victoria*. The department will continue to work with the MAV in relation to council involvement in heat-health issues for communities.

10. In view of concerns expressed by NGOs and CSOs about accessing guidance about how to plan for heatwaves, VCOSS may also be able to assist as a stakeholder in the framework by providing information to its members. The information could include links to both State Government publications and council plans as well as other useful information such as that produced by RDNS and ARC.

Department of Health response

The department considers VCOSS to be a key stakeholder in relation to heatwave and climate change issues and has provided funding for a 0.5 EFT policy analyst position to support VCOSS work on heatwave and climate change issues. The department will continue to work with VCOSS to facilitate broad information sharing regarding heatwave planning.

11. It would also be useful to explore efficient ways to link councils and other service providers with peak bodies for groups at risk (acknowledging the sometimes limited resources of these peak bodies) to facilitate information sharing.

Department of Health response

The department is committed to supporting the work of councils to meet the needs of their communities in relation to heat health. In partnership with the MAV, the department agrees to explore efficient ways to link councils and other service providers with peak organisations for groups at risk of heat related health impacts.

12. The department should respond to the requests for clarification of the trigger for declaration of a heatwave as an emergency, and the roles and responsibilities of stakeholders in the heatwave framework when this happens.

Department of Health response

It is unlikely that heatwave alone will be the principal cause of an emergency. As such it is difficult to precisely quantify the triggers of an emergency, however it is likely to include impacts such as extreme demand on services or infrastructure failure impacts. The management of these impacts are dealt with under the state emergency arrangements. The department has provided clarification of these processes in the revised state plan.

13. The department should consult Ambulance Victoria and other relevant organisations including Victoria Police, fire authorities, infrastructure authorities (power, water and public transport) in determining emergency control structures for heatwave.

Department of Health response

As part of the state's emergency arrangements, the department meets regularly, consults and has well established links with other key agencies in the state's emergency management arena. In the event of an emergency level heatwave, Victoria Police is the designated control agency. In the response to an emergency Victoria Police will coordinate responses from relevant agencies including departments of health, infrastructure and transport.

14. The department should consider the modifications to the State Plan document suggested in Table 3.7 of the evaluation report.

Department of Health response

The department has considered the modifications to the state plan suggested and has already included a number of these suggestions into the revised state plan. Additional modifications will be made with subsequent editions of the plan.

Heat health alert system (HHAS)

The HHAS was timely, useful, easy to understand, and the method of communication was appropriate. The principle of an alert based on thresholds was well supported. Some other alert systems (interstate or international) use a combination of temperature and humidity, and the literature suggests also considering the interaction between pollution and heat on health. Some of those consulted suggested distributing the alert only if the weather forecast predicted the temperature would exceed the threshold for more than one day. There was concern about the level of the thresholds and the weather forecast location groups (as outlined in the State plan). Some were confused about the derivation and meaning of thresholds. There was also confusion about the responsibilities for distributing alerts and concern about alert duplication.

Recommendations

1. Given the evidence available at present, the current reliance on temperature as the foundation for alerts is appropriate. However, the department may wish to consider commissioning further research on the impact of humidity and pollution (as per the recommendation by Nicholls et al, 2008).

Department of Health response

The department will continue to monitor the latest evidence about thresholds for heat health alerts to determine the most appropriate threshold for Victoria.

2. A number of stakeholders consulted suggested that alerts should be based on a prolonged period of heat (i.e. when the threshold is forecast to be exceeded for more than one day). This is not supported by the current evidence for mortality, but may be relevant if the alert was used to provide advance warning to health service providers of a peak in activity. We understand the HHISS team is undertaking analysis of the impact of heat on health service provider throughput. This research is very important, and the findings should be discussed with key health service providers such as Ambulance Victoria. Further consultation with Ambulance Victoria on this issue is important for the acceptability of HHAS. The department may also wish to revisit the main objectives/functions of the Heat Health Alert (HHA) (for example by reviewing the program logic associated with it).

Department of Health response

The department has analysed further data that strongly indicates increased morbidity and mortality within 24 hours of the onset of an extreme heat event. This information has been shared with data custodians including Ambulance Victoria.

3. Disseminating the evidence base for the derivation of the threshold, the level at which it is set and the forecast location groups is important in promoting the acceptability and sustainability of the heatwave framework. Recommendations to this end are as follows:
   a. The department needs to educate councils about how the threshold is derived (and how it differs from the fire danger index).
   b. The department should consider disseminating relevant conclusions and views from Nicholls et al (2008) and Loughnan et al (2009) which dispel some commonly expressed council and stakeholder 'myths'.

Department of Health response

The department will continue to work with councils and other stakeholders to increase understanding of the heat health threshold. Additional information titled *Heat health alert system information and guidance* has been developed and distributed to councils to clarify the derivation of the threshold, the forecast locations and the research basis for the heat health thresholds.

4. The threshold for Mildura should be aligned with the evidence from Loughnan et al (2009) at 35 degrees.

Department of Health response

In reviewing the heat health alert thresholds for Victoria, the department has considered a wide range of information including recent HHISS data. Following consultation with experts, including those from Monash University and the Bureau of Meteorology, the department has increased the heat health threshold in Mildura to 34 degrees, the average temperature threshold at which increases in morbidity and mortality are observed.

5. In considering further changes to the threshold levels, the department should consult the BOM.

Department of Health response

The department considers the Bureau of Meteorology a key stakeholder in the heatwave framework. The department has consulted with the Bureau of Meteorology and other key

stakeholders in revising heat health thresholds, and will continue to work with the Bureau into the future.

6. Changes in forecast location groups should be based on advice from the BOM and, if necessary, a cluster analysis to group councils with similar temperatures.

Department of Health response

The department has realigned forecast location groups and associated heat health thresholds in consultation with the Bureau of Meteorology. The Bureau's climatic analyses were the basis for assigning three heat health temperature bands in Victoria. The heat health threshold forecast location districts now also align with total fire ban districts, fire danger boundaries and council boundaries.

7. It is important to engage councils and regional offices by providing them with information at key stages of development of the heat health thresholds and the forecast location groups. Reinforcing that the alert is advisory and councils can determine a response based on local conditions should also allay some council concerns about the thresholds and forecast location groups.

Department of Health response

The department is continuing to work with councils to provide information on developments to heat health thresholds. The department has provided additional; information to accompany heat health alerts to inform councils and other alert recipients of the heat health thresholds and forecast districts in Victoria. The information reinforces the message that alerts are to provide information about forecast hot weather to enable services to consider taking action in accordance with their local plans and arrangements.

8. A protocol for the distribution of alerts needs to be developed, allocating responsibility for alert dissemination. This would improve transparency, allowing gaps to be identified and would reduce duplication. The protocol needs to be widely promoted.

Department of Health response

The *Heat health alert system information and guidance* document outlines the direct departmental distribution of the alerts so services are aware of which organisations are receiving the alerts and may forward the alert if appropriate.

9. Community service organisations receive alerts from councils and other sources, without necessarily being familiar with the framework or the nature of the alert. They need to be included in education about the alert and what it means, and on the set of appropriate responses to a HHA. In establishing an alert protocol, the department should include instructions for councils or others on the contact list who are expected to forward alerts that they need to ensure those receiving the alert understand what it means.

Department of Health response

In continuing the roll out of the heat health alert system, the department is working to improve community service organisations' understanding of the function of the heat health alert system and is developing a guidance note for organisations to clarify their responsibilities to clients and staff in service provision during periods of extreme heat.

10. The department could consider developing an opt-in register for organisations that wish to receive an alert, while maintaining a separate list of key heatwave framework

stakeholders (such as Departmental staff and councils) who, of necessity, require the alert.

Department of Health response

The department's long term goal in relation to heat health alerts is to encourage organisations to be aware of their local heat health thresholds and to check local weather forecasts independently as a trigger for actions. In the interim, the department is continuing to issue emailed heat health alerts and has also provided alerts on the department's website as a downloadable file and through an opt-in subscription to a really simple syndication (RSS).

11. A formal system needs to be developed to ensure the key stakeholder contact list for alerts is updated each year.

Department of Health response

The department undertakes a process to check contact details for each stakeholder prior to summer and issues a test heat health alert to ensure receipt of alerts.

12. The department should talk to the DEECD to ensure consistency in heat related messages.

Department of Health response

The department considers DEECD a key stakeholder in heat health messaging. The department will continue to consult with the relevant program areas within DEECD to ensure consistent heat health messaging.

Processes and supports for local council planning

The planning processes and supports worked well. Nevertheless it is possible that earlier release of the planning guide and State Plan would have increased their value. Grants for developing plans were particularly important in council engagement and in achieving a high completion rate for the 2009-10 summer — especially given competing priorities.

A number of councils expressed concern about the lack of ongoing funding for heatwave planning. Continued provision of supports such as annual heatwave information/discussion forums, Quickplace and use of existing communication networks to disseminate information and raise specific issues related to the framework will facilitate the endurance of the framework and its ongoing evolution. Together with these supports, encouraging regular plan reviews in part by providing a simple checklist/proforma to assist reviews is also likely to embed continuous improvement. Concentrated efforts by the Department to facilitate communication with and between councils through existing communication forums (as per recommendation 6 in chapter 3 relating to the evaluation of the state plan) will also assist councils to clarify their role and what is expected of them.

The Chief Health Officer's report (Department of Human Services (DHS) 2009) was very important in engaging councils and other organisations with the framework. Further research on the impact of heatwave and dissemination of research findings would also support continued engagement with the framework.

An area for further development of the framework over time is to raise awareness among community members who are at risk of heat related illness but who are not currently directly receiving services — in particular, this might include people with a mental illness, people with a disability, homeless people and others mentioned elsewhere in this report. The department might consider ways in which it can provide information to agencies representing these groups,

for example by designating this for discussion at a heatwave information forum to promote swapping of ideas and approaches between these agencies, councils and other service providers.

Recommendations

1. Continued provision of supports such as annual heatwave information/discussion forums, Quickplace and use of existing communication networks to disseminate information and raise specific issues related to the framework will facilitate the endurance of the framework and its ongoing evolution. Together with these supports, encouraging regular plan reviews in part by providing a simple checklist/proforma to assist reviews is also likely to embed continuous improvement. Concentrated efforts by the department to facilitate communication with and between councils through existing communication forums will also assist councils to clarify their role and what is expected of them.

   Department of Health response

   The department will continue to provide support to organisational heatwave planning and review through a range of communication mechanisms.

2. The department might consider ways in which it can assist councils to contact and provide information to agencies representing groups of people who are at risk of heat related illness but who are not currently directly receiving services.

   Department of Health response

   The department will continue to work with councils and peak organisations to facilitate broad information sharing regarding heatwave planning to best meet the needs of community members.

Public health communication resources

A number of communication resources were produced in December 2009/January 2010 by the department in order to raise community and service provider awareness. Hard copies of the resultant poster, brochure and telephone script were widely distributed. A promotional label suitable for use as fridge magnets or other promotional uses was made available. In addition a fact sheet for clinicians was developed primarily for general practitioners, emergency physicians and other health practitioners. The resources were put on the department's website as pdf documents for downloading. Newspaper advertisements were produced by the department, together with information to be circulated during seniors' week as advertisements. Resources were translated into nine languages initially: Arabic, Cantonese, Croatian, Greek, Italian, Macedonian, Mandarin, Turkish and Vietnamese. Subsequently other translations have been made, including Polish, Russian and Dutch. Results from the evaluation indicated that the resources were useful and largely successful in raising awareness. While adopting the same types of heat related messaging, some councils were reluctant to use the department resources (brochures, posters etc) rather than their own, due to timing issues of the release of departmental materials, but in general councils acknowledged they did not have the ongoing capacity to develop their own. Some groups possibly missing out on messages were identified.

There is the potential for conflict in messaging, for example between water use and water conservation.

Concern was expressed about accessibility of messaging for some groups — e.g. people of lower socioeconomic status and those not accessing mainstream media. Broadening the formats to include proformas for newsletters, 'on hold' phone messages, newspaper advertisements, and radio messages would be useful, and many suggested producing televised

messaging especially broadcast near news or weather reports. The audience targeted by communication resources could be broadened to include: sporting groups, children, specific (additional) cultural and linguistic diversity (CALD) groups and Aboriginal and Torres Strait Islander groups, people with cognitive impairment or dementia, people with a disability, homeless people, volunteer workers, people in public housing — and consideration could be given to providing specific resources tailored for these groups. The department has already translated posters into nine languages and brochures into 12 languages at the time of writing, and further translations for distribution to CALD communities would be considered useful. Town meetings could be organised with CALD groups and Aboriginal and Torres Strait Islander organisations to further extend the message to these sections of the community. Larger font resources need to be developed for vision-impaired people, and DVD resources for training and home viewing could be developed.

The *Residential aged care services heatwave ready resource and heatwave* checklist should be distributed to Supported Residential Services, especially to above-pension-level facilities where the resident profile is largely older people. Hard copies of communication resources should be distributed to community registers for forward distribution to new clients. The 'know your neighbour' message should be emphasised to broaden the reach of the framework. Ideas from councils and other organisations on places to display messaging could be circulated and shared. Ideas such as a standard newspaper ad for addition to the local newspaper; a standard script to be played as an 'on hold' message when people ring the council'; an advertisement to put in the school newsletter; and generic messages for community radio were discussed.

Recommendations

1. Broaden the formats of communication resources being distributed, to include proformas for newsletters, 'on hold' phone messages, newspaper advertisements, and radio messages to assist councils.

   Department of Health response

   The department agrees that consistent messaging from multiple sources assists in reinforcing heat health messages to the community. The department will continue to develop a range of communication formats to assist councils and community service providers.

2. Consider producing televised messaging especially broadcast near news or weather reports.

   Department of Health response

   The department agrees televised messaging can be an effective mechanism to provide heat health information to the community. The department will continue to work with key agencies including the Bureau of Meteorology and Ambulance Victoria to ensure televised messages in relation to heat health are consistent.

3. Broaden the audience targeted by communication resources to include sporting groups, children, further CALD and Aboriginal and Torres Strait Islander groups (acknowledging that the department has already developed a number of resources for CALD groups), people with cognitive impairment or dementia, people experiencing homelessness, volunteer workers, and people in public housing — and consider providing resources tailored for these groups.

   Department of Health response

   The department is working to broaden the target audiences for heatwave communication resources. Additional languages have been included in translations. Decisions on additional languages for translation have been based on census information indicating

levels of English proficiency and age groups. The department is working with organisations such as Raising Children Network, to ensure information is available through existing networks for parents with young children. The department is committed to ensuring heatwave messaging is appropriate for target audiences.

4. Consider producing a pictorial resource without words. Abstract images (such as curtains against an open window) should be avoided.

Department of Health response

The department is working closely with the Department of Human Services, Disability Services to develop communication resources that are appropriate for people with a cognitive disability.

5. Facebook and Twitter are effective mechanisms for reaching some people with a disability who may be less mobile.

Department of Health response

The department plans to increasingly use social media to reach different population groups. The department's Better Health Channel contains a number of information pages on heat health and has also has Facebook and Twitter interface. The Chief Health Officer's web page also has Twitter interface.

6. Images used should include a person with a disability.

Department of Health response

The department seeks to develop information that is as inclusive as possible. Images in the revised heatwave plan include people with disabilities. The department is working with Disability Services in the Department of Human Services to develop information suitable for people with a cognitive impairment

7. The resources should note that some medications can be affected in extreme heat.

Department of Health response

The *Staying healthy in the heat* information brochure has been revised and includes a tip to check that medication is stored at the correct temperature.

8. Emphasise the 'know your neighbour' message.

Department of Health response

Caring for one's self and looking out for others is a key message of the heatwave communication strategy. Individuals, government and communities need to work together to provide support for people who are most vulnerable to the health impacts of heatwave.

9. Circulate and share ideas from councils and other organisations on places to display messaging.

Department of Health response

The department agrees that networking and forum opportunities provide councils and other service providers the opportunity to share ideas and innovations in disseminating heat health information.

10. Consider producing additional posters suitable for distribution to CALD communities; consider promoting local meetings with CALD and Aboriginal and Torres Strait Islander organisations to get the message across to these sections of the community.

Department of Health response

The department is committed to providing heat health messages that are accessible to a range of population groups. The department has increased the languages the poster has been translated into - the poster is currently available in 17 community languages.

11. Provide larger font resources for vision-impaired people, and DVD resources for training and home viewing.

Department of Health response

The department has been working with Vision Australia to ensure heatwave information resources are accessible for people with vision impairment. Electronic versions of heatwave communication resources on the department's website are now available in html format allowing those with vision impairment to access the information more easily via computer. The department will continue to work with Vision Australia to ensure a range of accessible formats of heatwave information is available to people with vision impairment.

12. Distribute the *Residential aged care services heatwave ready resource* and heatwave checklist to Supported Residential Services, especially to above-pension-level facilities where the resident profile is largely older people.

Department of Health response

The department agrees the Residential aged cares services heatwave ready resource has application to a broader range of services. The department has re-issued the resource to residential aged care services and has increased the distribution to include supported residential services.

13. Distribute hard copies of resources to community registers for forward distribution to new clients.

Department of Health response

The department is working closely with the Department of Planning and Community Development to ensure community registers are provided with heatwave resources for use in discussions with their clients and for direct distribution. Resources have been distributed to community registers in the 2010-11 summer and will continue to be distributed.

The Heat Health Information Surveillance System

It is apparent from the consultations and the World Health Organisation (WHO 2009) that most surveillance systems are more broadly based than the Victorian (fledgling) HHISS. Other systems were established for a variety of reasons including to monitor outbreaks of diseases such as gastroenteritis or influenza, and to defend against bioterrorism. Heat related health codes are incorporated in these as part of the broader system which monitors a number of different health conditions. Notably, the WHO (2009) concluded that the cost of real time surveillance systems does not justify a focus on a single syndrome or health outcome, but it is useful to expand existing systems to incorporate heat related conditions (WHO 2009, p. 49).

While other data sets may add value to the HHISS we do not recommend adding more data at this stage, preferring a period of consolidation. In considering whether additional data sets would add value to the HHISS, a set of criteria should be developed to ensure that additional data meets the aims and objectives of both the HHISS and the framework more generally.

It would be useful to place a near term (three or four year) sunset on the HHISS at which time a formal evaluation of this component of the heatwave framework would take place. The department could consider setting some specific and realisable goals for the HHISS leading up to its evaluation, together with a budget allocation for achieving these goals.

Given the interest of many of those consulted for this evaluation in information about the impact of heatwaves, the department could consider releasing a regular report of key learnings from the surveillance period.

Recommendations

1. Consider placing a near term (three or four year) sunset on the HHISS at which time a formal evaluation of this component of the heatwave framework would take place. The department could consider setting some specific and realisable goals for the HHISS leading up to its evaluation, together with a budget allocation for achieving these goals.

   Department of Health response

   The department agrees that detailed consideration of the direction and goals of the HHISS is important to ensure this component of the heatwave framework continues to best meet the need for information regarding impact of heat on service demand, mortality and morbidity.

2. That the department consider releasing a regular report of the key learnings from the surveillance period.

   Department of Health response

   The department agrees that regular reporting of key information trends from data from the HHISS will be of value to councils and service providers in better understanding the impact of heat on health service demand.

The Victorian Heatwave Strategy

The Victorian Heatwave Strategy was an initial planning document for the Department of Health. This evaluation has provided evidence for the initiation of the nine actions identified as part of the heatwave strategy. There was no feedback that indicated that the Victorian Heatwave Strategy/framework was not warranted, and on the contrary, stakeholders contacted throughout this evaluation generally approved of the work put into place so far in planning for heatwaves which is perceived as an important area of concern.

The evidence brought to light in this evaluation indicates that the Victorian heatwave strategy has been successful in achieving its objectives. While the strategy and framework are still in the early stages and there are a number of areas where further development is warranted, the work that has been put into place so far has produced some tangible outcomes and raised community and stakeholder awareness of the potential impact of heatwaves.

This evaluation has been undertaken at a relatively early stage in the development of the strategy and framework. As the development of the framework is an iterative process, it is expected that the heatwave framework will continue to be modified in response to local requirements. In subsequent years, further evaluation will identify whether long term objectives are being achieved.

Recommendation

1. Further consolidation and development of the Victorian Heatwave Strategy and Framework activities as detailed in this evaluation will facilitate the achievement of its longer term objectives of reducing morbidity and mortality associated with heatwaves.

Department of Health response

The department is committed to continue working toward reducing and preventing the health impacts of heat in the Victorian community.

Access Economics and the National Ageing Research Institute
January 2011

1 Background to the Victorian heatwave framework

The Victorian heatwave framework originated as part of the Victorian Government initiative on sustainability and climate change: *Our Environment, Our Future: Sustainability Action Statement* (2006).

The onset of heat related illness is rapid (Hajat et al, 2010). People living in normally cooler climates, older people, those with certain chronic medical conditions, and those on certain types of pharmaceuticals, such as antihistamines, antipsychotics, antispasmodics and antidepressants, are especially at risk. A high mean daily temperature, hot nights, and a string of hot days are risk factors for heat related illness. Occurrence of these in early summer is especially dangerous (NHS, 2010; WHO, 2009).

In 2007, the Environmental Health Unit, Department of Health commenced work to address climate change and human health issues. This led in 2007 to the Victorian Heatwave Strategy, a planning document that outlined nine actions that would later contribute to Victoria's heatwave framework.

Funding for the heatwave plan was $2.927 million over the period 2006-07, 2007-08, 2008-09 and 2009-10. As part of this, $1.986 million was provided to assist local councils to develop heatwave plans.

1.1 Heatwave strategy

The aims of the heatwave strategy were to:

- provide a framework to support an ongoing multi-agency and multi-sectoral heatwave preparedness and response across Victoria in order to minimise heat related morbidity and mortality;
- build the capacity of communities and individuals to self manage their response to heatwaves;
- develop a system to provide an appropriate level of coordinated support from health, community and emergency services;
- identify and carry out required additional research to support these objectives in the longer term; and
- host a national conference on climate change and human health.

Nine actions were identified as part of the strategy:

- Better understand the impacts of heatwaves on mortality and morbidity;
- Develop a heatwave warning system;
- Pilot development of local heatwave response plans;
- Develop a guide to local heatwave response plans;
- Fund development of local heatwave response plans;
- Evaluation of implementation of heatwave strategy;
- Host a major conference into health effects of climate change during the second half of 2007 featuring the impacts of heatwaves;
- Work with emergency services organisations and other agencies to raise their awareness about the potential of heatwaves to cause significant community impact; and

- Provide community messages about heatwaves and health.

1.2 Heatwave framework

The main components of the heatwave framework were first introduced in the lead up to the 2009-2010 summer along with *Heatwave plan for Victoria 2009-2010: Protecting health and reducing harm from heatwaves*.

The framework is summarised in Figure 1.1. The top three tiers of the framework represent the planning and master documents outlining the policy and its development. The bottom tier represents the more action-based components of the framework that contribute to the implementation of the strategy during a heatwave. Components of the framework and their objectives include:

- The *Heatwave Plan*, which guides the state-wide response to heatwaves. It sets out the roles and responsibilities of the Victorian Government, local councils, emergency management and the health and community service sector.
- The *Heat Health Alert System* (summarised in Figure 1.2) monitors climate conditions and notifies councils, departmental program areas, hospitals and health and community service providers of impending heatwaves and to activate their heatwave plans and responses.
- The council heatwave plans and pilot projects. Thirteen pilot projects were conducted in 2008, involving 22 councils. The experience from these pilot projects was used to develop the *Heatwave Planning Guide*. Funding was also provided to support the remaining 57 councils to develop and implement a heatwave plan.
- The *Heatwave Planning Guide* was developed to assist councils to plan for heatwaves at a community level using existing municipal planning frameworks with which to align heatwave planning. The guide provides councils and their officers with templates, strategies and background information with an emphasis on identifying and protecting vulnerable or at risk populations.
- Public health communication resources, with advice on staying healthy during a heatwave. The resources comprise:
  - Heat-related illness information sheet;
  - Heatwave important information for summer brochure;
  - Staying healthy in the heat poster;
  - Staying healthy in the heat label; and
  - Telephone script for service providers.
- The HHISS which aims to monitor and assess the human health impact of a heatwave.

Figure 1.1: Heatwave Framework Overview

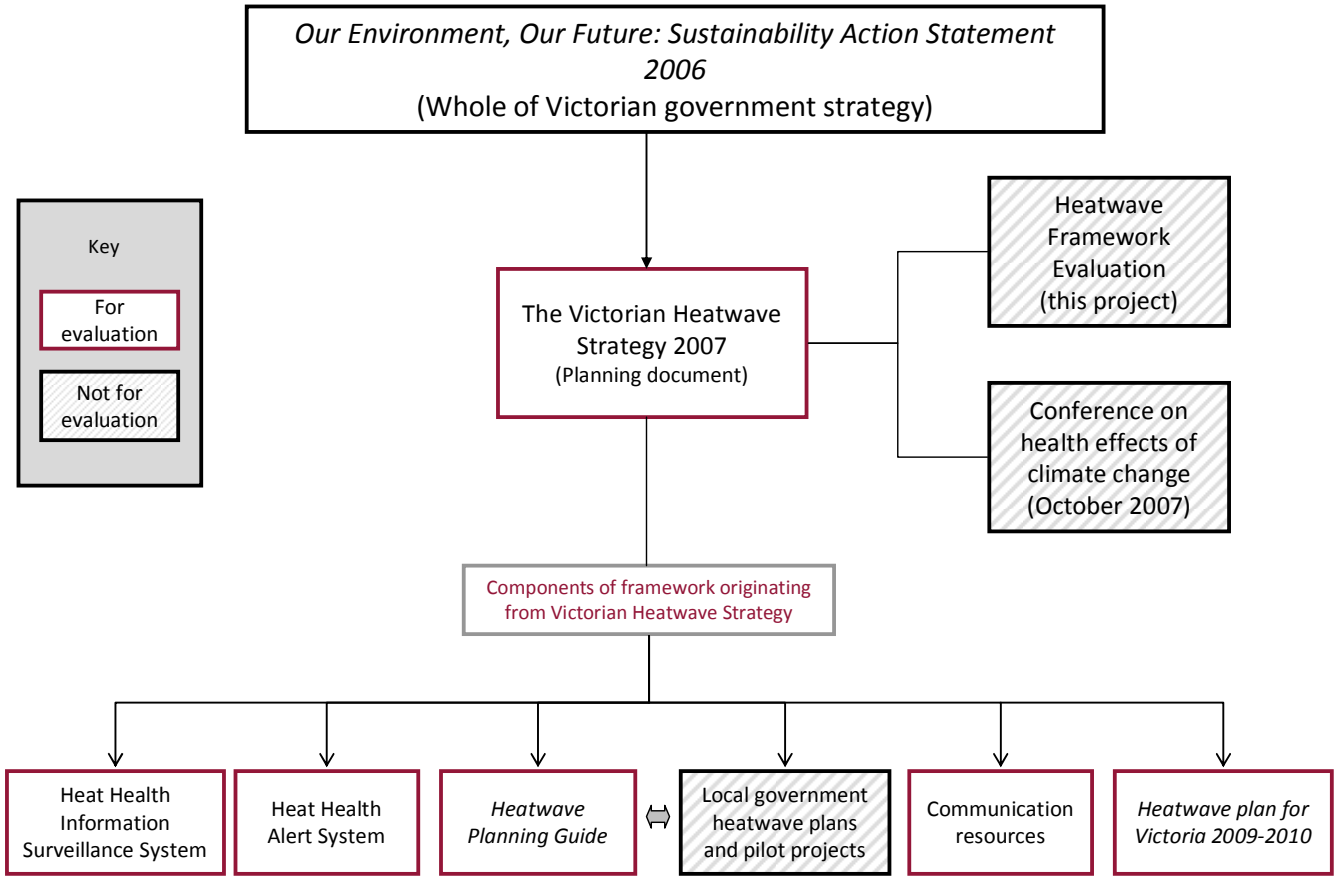
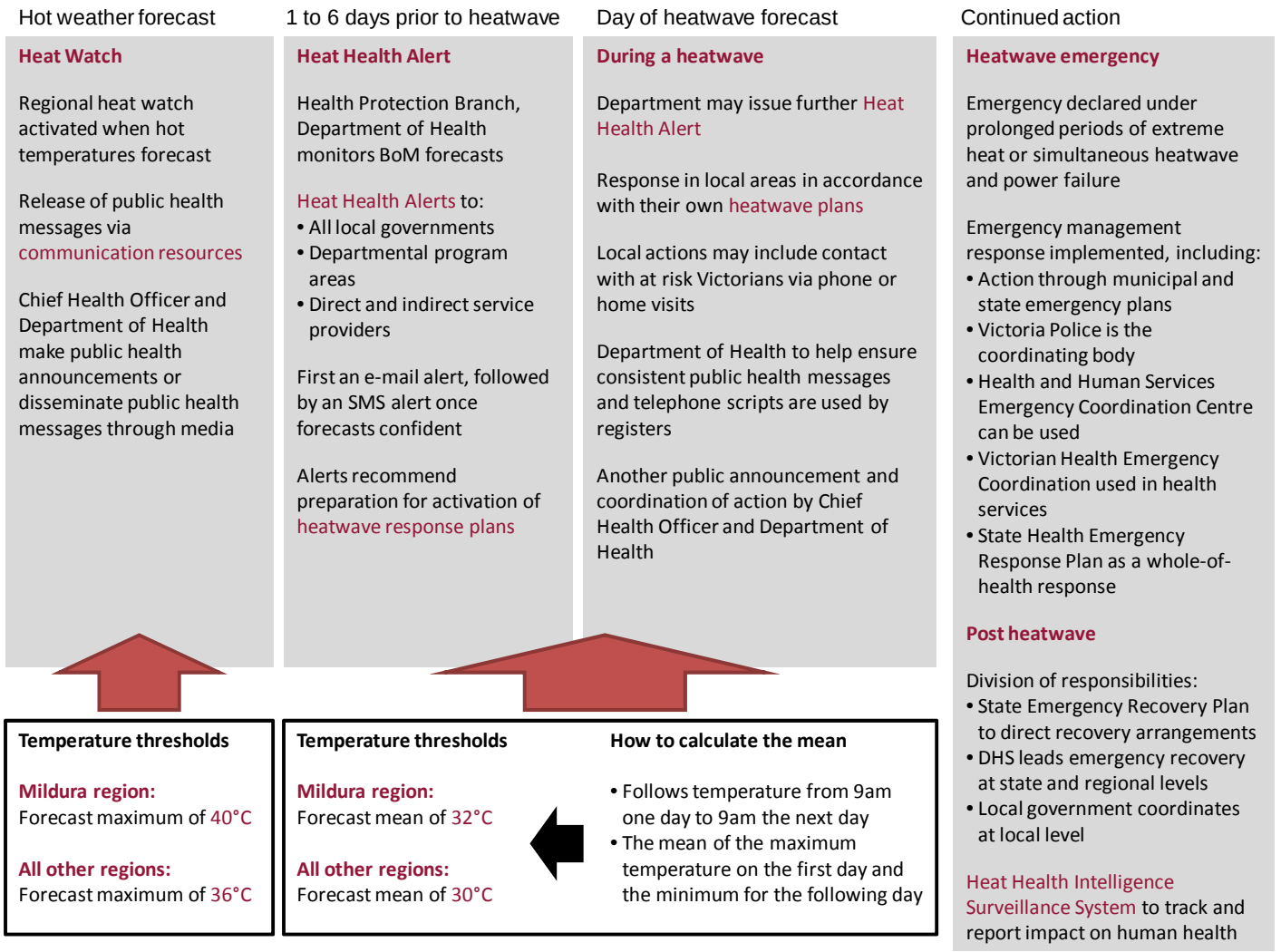


Figure 1.2: Heat health alert system



2 Evaluation approach and methods

This evaluation constitutes action 6 of the framework (see Figure 1.1). The methods are described in detail in Appendix A. A summary is provided here.

2.1 Objective

The aim of the evaluation was to assess the success of the processes, tools and mechanisms implemented in 2009-10 heatwave framework in increasing the community's, and health and community service providers' awareness about the health impacts of heatwaves and strategies for preventing heat-related illness.

A requirement was the inclusion of specific recommendations on improvement that included an assessment of the feasibility, effectiveness, acceptability, costs and sustainability for each recommendation.

2.2 Summary of methods

In line with the department's focus, the evaluation design concentrated on formative and process evaluation. Mixed methodologies were used to address the objectives of the evaluation. The formats for consultation included all of: letter, email, semi-structured group interviews, semi-structured face to face interviews, semi-structured telephone interviews, focus groups, and invitation to provide submissions. The scope of the evaluation and thus the domains for consultation were:

- The Victorian Heatwave Strategy 2007;
- The *Heatwave Plan for Victoria 2009-2010: Protecting health and reducing harm from heatwaves*;
- The Heat Health Alert System;
- The *Heatwave Planning Guide: Development of heatwave plans in local councils on Victoria*;
- The processes and supports provided for the finalisation and implementation of local council plans and their integration into municipal planning process;
- Communication resources; and
- The heat health information surveillance system.

The evaluation of individual council plans was not in scope.

All fieldwork was conducted according to ethical standards of the Australasian Evaluation Society and the Centre for Disease Control. Fieldwork under the auspice of NARI and involving consumer level data collection was approved by Melbourne Health Human Research Ethics Committee.

Strengths and limitations of the evaluation are discussed in Appendix A.

2.3 Activities

Councils were the major focus of the evaluation. Selected other stakeholders, including those providing health and community care services to people at risk of heat related illness, and representatives of people at risk of heat related illness, were also invited to participate.

In brief, our approach included:

- Publicising the evaluation via attendance at MAV and OSV workshops, an advertisement in a MAV newsletter, via an email of MAV members, and via uploading information about the evaluation onto the departmental website;
- Consultation with local councils via face to face meetings, teleconferences, a survey and a voluntary submission process;
- Mixed group meetings with councils and other stakeholders;
- Consultation with MAV;
- Consultation with health and community service providers and other stakeholders via face to face meetings, teleconferences, and surveys;
- Five focus groups with older Victorians (including Office of Senior Victorians Ministers Advisory Committee);
- Surveys of home and community care (HACC) and supported residential service (SRS) providers;
- Survey of community registers; and
- Consultation with key departmental staff including regional offices and the Department of Human Services.

2.3.1 Consultation with local councils and mixed group meetings

Councils were consulted via face to face meetings (individually and in groups), teleconferences and via a survey. Mixed group meetings with councils and other stakeholders were also held. Councils were also given the opportunity to respond to a survey or make a voluntary submission and some councils responded to the survey of HACC providers. The council survey is in Appendix B and the HACC survey is in Appendix C. Meetings were held in various parts of Melbourne as well as in Bendigo, Geelong, Mildura, Traralgon, and Wangaratta.

- Around 19 individual and group meetings were held at which 33 councils attended;
- Voluntary submissions or survey responses were received from 13 councils; and
- 30 councils responded to the survey of HACC providers (some duplicating attendance at meetings or responses to council surveys).

Characteristics of councils consulted are described in Appendix A. A list of councils invited to individual and group meetings is in Appendix E. There are more councils in Appendix A than Appendix E because Appendix A includes those who made a submission/completed the survey, whereas Appendix E is only for those involved in consultations.

2.3.2 Consultation with health and community service providers and other stakeholders

Stakeholders were selected for consultation on advice from the department and with a view to covering health and community service providers as well as groups in the community at particular risk of heat related illness (for example, the Victorian Council of Social Service (VCOSS), groups representing people with a disability, people with a mental illness, homeless people etc). Those invited to consultations and who were able to attend are listed in Appendix E. Around 28 non-council organisations were consulted.

2.3.3 Focus groups with older Victorians

The focus group component of this evaluation was approved by the Melbourne Health Human Research Ethics Committee. Five focus groups were conducted with older people over the age of 60 years in Wangaratta, Traralgon, Mildura, and Parkville.

2.3.4 Surveys of HACC and SRS Providers

The survey was mailed out to 464 HACC providers. A copy of the survey is in Appendix C.

A survey was mailed out to 178 SRSs within Victoria. This survey is in Appendix G.

2.3.5 Survey of community registers

A survey was emailed to 42 community register contacts from an email list provided by the Office of Senior Victorians. The survey is in Appendix I. The list of registers responding to the survey is at Appendix J.

2.3.6 Consultation with key departmental staff and the Department of Human Services

Structured interviews and/or surveys were also held with key departmental staff including staff in the Environmental Health Unit, end users of the heat health information surveillance system, the Chief Health Officer and the Executive Director, Wellbeing, Integrated Care & Ageing Division. The survey of end users of the heat health information surveillance system (HHISS) is in Appendix L.

A meeting was held with five Regional Environmental Health officers (REHOs) at the department, and a survey of REHOs was also conducted to which four regional offices responded. The survey instrument is in Appendix K.

A structured interview was also conducted with Department of Human Services Disability Service Division.

3 Evaluation of the Heatwave Plan for Victoria 2009-10

3.1 Introduction

The *Heatwave Plan for Victoria, 2009-10, Protecting health and reducing harm from heatwaves* (State Plan or Plan) was released in December 2009. While there was no formal launch of the Plan, it was distributed to all council Chief Executive Officers (CEOs), a selection of other council staff and other stakeholders. The release of the Plan was also covered in the media following a departmental media release.

The Plan guides the department and the Chief Health Officer (CHO) in the response to heatwaves, and outlines the roles and responsibilities in a heatwave of the Victorian Government, local councils, emergency management and the health and community services sector.

The discussion in this chapter of the Evaluation relates to both the Plan as a concept as well as the Plan as a document. Other chapters of this report are also relevant to the Plan as a concept (for example, chapter 3) and this chapter needs to be read in conjunction with the rest of the evaluation.

The structure of the Plan document (listing each section heading and the aim of each section) is as follows.

- Executive Summary.
- Understanding heatwaves — defines heatwaves, defines the heat health threshold, outlines Victoria's heat health system and explains the urban heat island effect.
- The effects of heat on health — explains the physiological impact of heat and the symptoms of heat related illness.
- High risk factors — lists the population groups most susceptible to heat related illness and presents a map of Melbourne showing where those at risk are most likely to be located.
- Protective factors — describes how heat related illness can be avoided.
- Laying the foundations — summarises the legislation, policies and processes underpinning the heatwave framework.
- Victoria's heatwave plan — describes the stakeholders in the framework and their roles and responsibilities at each stage: 'pre-heatwave', 'during a heatwave', 'when heatwave becomes and emergency' and 'post heatwave'; lists the community registers; and outlines the heat health alert system.
- Communication resources — presents the brochure and other communication resources developed for disseminating the message.
- Appendices
  - Media releases
  - Victorian heatwave strategy
  - Summer preparedness kit
  - Heatwave planning in Australia and overseas
  - Preparing a heatwave plan.
- References.

3.2 Consultation findings

3.2.1 Councils

Awareness of State Plan

The majority of councils were aware of the State Plan. However, four councils indicated they were not familiar with the State Plan (Table 3.1). There was frequently a lack of knowledge of the detail of the Plan document. For example, consultation participants were occasionally confused between the State Plan and the planning guide. However, councils were generally familiar with the components of the heatwave framework as outlined in the Plan, and so were aware of the Plan's content.

Roles and responsibilities

Most councils considered the roles and responsibilities outlined in the Plan were clear (Table 3.1), with some exceptions which are discussed in other sections/chapters of this evaluation report (for example, in relation to distribution of the HHA).

Table 3.1: Selected responses by councils to the survey — familiarity with State Plan and clarity of roles and responsibilities[(a)]

Survey question	Question content and response analysis	Total[(b)]	Y	N
41	Familiar with the State wide Plan	14	10	4
42.a	Roles and responsibilities of councils are clear	9	7	2
42.b	Roles and responsibilities of the department are clear	7	5	2
42.c	Roles and responsibilities of other stakeholders are clear	6	5	1

[(a)] The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

[(b)] A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

A number of councils would welcome greater detail on the department's communication strategy, in particular, which media outlets the department intends to target and when, so that councils can play a complementary rather than duplicative role. Councils were also interested in obtaining a copy of the departmental distribution list for communication resources — again to ensure they used their available resources to complement the State Government's efforts.

Four councils' representatives indicated they were confused about the role of community registers in heatwave, and councils' responsibilities in relation to them. Five councils' representatives indicated that in their view, registers should not be a council responsibility (it should be noted that funding to establish community registers is on a submission basis from council and Victoria Police) (Table 3.2). A number of concerns were expressed about registers including about the need to manage community expectations of the services provided to those on registers (Table 3.2).

Table 3.2: Councils' views about community registers

Survey question	Question content and response analysis	Total[(a)]	Y	N
15	Have local community register as part of their heatwave plan	14	3	11
	Has vulnerable clients list	8	8	0
	Confusion about the role of registers in heatwave and council responsibilities for them	4	4	0
	Don't see community registers as something that should be a council initiative	5	5	0
	Registers may fill a gap where other means of checking wellbeing/engaging people are not available.	3	3	0
	Registers allow targeted monitoring of vulnerable residents and provide information	4	4	0
	Identifies at risk groups for support	1	1	0
	Concern expressed about the need to manage community expectations. Educating the community to look after themselves and each other is important.	4	4	0
	Concern expressed about multiple registers (Telecross, Telecare/HACC, Office of Housing) in various regions and the need for consolidation to avoid duplication	4	4	0
	Concern expressed about funding for community registers not being available without police support — according to councils, police can veto registers	3	3	0
	Concern expressed about the resourcing required to keep registers up to date	3	3	0
	Concern expressed that those operating the register need training (e.g. in effectively dealing with clients with a mental illness, distressed people and referring people to appropriate services)	1	1	0
	Potential confusion between community registers and vulnerable clients registers	3	3	0
	Confusion between the role of the community registers and the Telecross register	2	2	0

[(a)] A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

Units within council responsible for heatwave

Units within council with responsibility for heatwave differ across councils (Table 3.3). Now that plans have been developed, a number of councils are revisiting which area of council should have prime carriage of heatwave. Heatwave is already allocated to aged care in many councils and the proportion may rise.

Table 3.3: Area within council with responsibility for heatwave

Ballarat	EH/community care and access
Bass Coast	Municipal Emergency Plan
Baw Baw	Emergency Management and Aged Care
Bayside	Aged and Disability Services
Boroondara	EM
Corangamite	Community services
East Gippsland	Planning and Community
Glen Eira	Public Health
Golden Plains	Aged care
Greater Bendigo	EH and Risk Management
Greater Dandenong	EM
Greater Geelong	EH/EM
Hume	Policy and Planning
Latrobe	Emergency Management
Kingston	EM
Knox	Health Services
Macedon Ranges	Community Development (originally with Community Services)
Manningham	Municipal Emergency Management Planning Committee
Mansfield	Emergency Management and Municipal Health and Wellbeing Plan
Maribyrnong	EH (may move to aged care)
Mitchell	Community Services
Moira	Emergency Management / Community Development
Moonee Valley	Public Health
Moreland	Municipal Emergency Management Plan (MEMP)
Mount Alexander	Community Services, Community Development, EM
Moyne	Community and Corporate Support
Port Phillip	EM
Queenscliffe	Community Care
South Gippsland	EM
Stonnington	Corporate and Community Planning
Strathbogie	Community services
Warrnambool	EH and EM
Whittlesea	Emergency Management

Suggestions for other stakeholders who could be included in the State Plan

Councils made a limited number of suggestions about organisations who could be added to the framework — many of which are, however, already engaged. Suggestions included: the education sector, service clubs (e.g. RSL), Alzheimer's' Australia, supermarkets, Primary Care Partnerships, hospitals and Centrelink.

Effectiveness of the Plan/framework

Four councils said the Plan worked well, and one council said it did not work well but did not explain why (Table 3.4). At least four councils said it was difficult to determine whether the Plan worked last year because of the relatively cool summer in 2009-10.

A substantial number of councils were of the view that the framework has raised awareness of heat related illness, although one council attributed the heightened awareness to the January

2009 heatwave. Most councils agreed that there was a 'trickle down' effect occurring (for example, awareness was improving via council staff community networks).

Modifications to the Plan/Framework

A significant minority of councils were concerned that heatwave had added to their responsibilities without a commensurate increase in funding to support continued efforts to maintain awareness about heatwave, conduct plan reviews and train HACC and other relevant staff (Table 3.4). (This is raised in the context of the State Plan because one option is to assist councils by providing guidance on conducting plan reviews in the State Plan.)

Table 3.4: Selected responses by councils to the survey — effectiveness of State Plan

Survey question	Question content	Total[(a)]	Y	N
43	The plan worked well last summer	5	4	1
46	The framework has increased community awareness	12	12	0
	Awareness increased as a result of January 2009 heatwave	1	1	0
47	The framework has increased LGA staff awareness	10	10	0
48	The framework has increased health and community service provider awareness	8	8	0
50	The framework could be improved using templates to assist agencies to review key areas	1	1	0
	The department is pushing more responsibility onto local government without providing adequate resources	5	5	0

[(a)] A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

Identifying and targeting groups at risk

Processes used to identify those at risk of heat related illness included examining other council plans, the pilot projects, the planning guide, assessing HACC and other client lists, using discussion forums with key community groups and accessing local knowledge of council staff (Table 3.5). Notably, the City of Melbourne used its grant money to fund consultants to identify vulnerable groups and develop strategies for reaching them. Many councils noted that their heatwave plan is the first step and the list of those at risk will continue to be refined over time.

Groups currently targeted by a selection of councils, potential gaps and strategies for addressing these gaps are in Table 3.5. Three councils advised they are currently focusing on their HACC clients because they do not have the capacity to broaden their reach. People who are not receiving council services and who are socially isolated were most frequently identified as a gap.

Table 3.5: Vulnerable groups and who might be missing out[(a)]

Council	Process used to identify people at risk	Targeted groups	Groups identified by council as possibly missing out	How to engage those missing out
Bayside	Discussed as part of a planning focus group session with community based agencies to identify most vulnerable groups	Isolated, frail older people	People with a disability	Provide more visual information and use range of media and methods to disseminate information
Boroondara	Clients receiving Health, Ageing and Disability Services and Family Services.	HACC/Disability Services/Family Services clients who are older and/or have a disability and have minimal social supports	People who are socially isolated and have not engaged community services	Local media and increased community awareness – even if vulnerable people don't engage community may report concerns
Campaspe	Used other plans from pilot projects, used own knowledge, info from any guidelines.	Elderly, people with respiratory problems, pregnant women, Indigenous, morbidly obese, people with pre-existing conditions, homeless people, visitors, children under 5	People with a disability	
Corangamite	Used the guide, and client lists. Local knowledge and community consultations as part of plan development.	HACC clients	Young mums on rural properties	Work with maternal and child health nurses.
Glen Eira		Residents aged 60 years and older	People with a disability, people with a mental illness	Develop closer partnerships with groups working with these people

Council	Process used to identify people at risk	Targeted groups	Groups identified by council as possibly missing out	How to engage those missing out
Glenelg		Identified lowest SEIFA, aged, teen mothers, HACC, Community health centre, neighbourhood centres, Indigenous, participants in sport/outdoor rec — but not sure if targeted them all.	Farmers tend to think they are immune to heat, sporting groups	Contact National Centre for Farmer Health (Deakin Uni). Redeveloping playgrounds/sporting areas with appropriate shaded areas, ensure regular drinking breaks, targeted departmental messaging for active people
Greater Bendigo			People living alone who aren't connected to any networks, young mothers living in sub-standard accommodation, people with a mental illness, transient workers	
Greater Geelong			Refugees and homeless	
Hume	Assessed HACC and other client lists and relied on local knowledge of staff	Pre-schools, Leisure Centres, Hume City Council HACC clients through Aged and Disability Services		
Knox	Consultative group ran a risk matrix to identify its target groups.	Older people and active people	Infants, people with a mental illness, older people not connected to council services	Further funding to enable allocation of appropriate resources to engage with these groups
Loddon	Assessed HACC and other client lists and relied on local knowledge of staff		New families to the area, transient workers	
Manningham	Local knowledge	Aged and children		

Council	Process used to identify people at risk	Targeted groups	Groups identified by council as possibly missing out	How to engage those missing out
Maribyrnong	Assessed general statistics about the community (eg low socioeconomic status, high rise). Used the planning guide and pilots.	HACC	Culturally and linguistically diverse (CALD), refugees, high rise residents, homeless	
Mildura			People at risk and low SES	
Moonee Valley		Aged & Disability Services, Local community groups	Public housing and/or high rise tenants	Local community groups and centres that the public housing and/or high rise tenants may visit
Moreland	Used the planning guide and local demographic information.	Older people, infants, pregnant women, people with disabilities, high rise residents, people with pre-existing medical conditions, people with impaired ability, outdoor workers, sports people	Homeless people	Through rooming house operators and housing agencies
Mount Alexander			People living in isolated farming communities, socially isolated people who are not connected to HACC services	
Moyne	Local knowledge and community consultations as part of plan development.	HACC clients	Young mums on rural properties	
Port Phillip		Frail older people, rooming house residents. Starting 2010/2011: Nursing mothers, parents of young children, general public	General public, beachgoers, parents with young children	General promotion of key messages, verbal dissemination of key messages through council staff on home visits

Council	Process used to identify people at risk	Targeted groups	Groups identified by council as possibly missing out	How to engage those missing out
South Gippsland	Identified as part of public consultation with tourism operators, emergency management organisations, health services, council officers, and other community groups.	Older people, socially isolated people, tourists, people with disability		
Southern Grampians		HACC clients		
Stonnington	The pilot project, heatwave research, statistics, feedback from service delivery agencies and the Municipal Emergency Management Plan	Older people (65 years +), young people (15-24), people with a mental illness, people living in public housing	People in rooming houses and supported accommodation facilities.	Council developed a flyer for rooming house operators to inform them of heatwave issues and ideas to assist their residents. This information was distributed at a rooming house forum in the inner region.
Strathbogie	Local knowledge of council staff, assessed HACC clients.	HACC and maternal and child health		Cannot be achieved without additional funding
Warrnambool	Local knowledge and community consultations as part of plan development.	HACC clients	Tourists and itinerant workers	
Yarra Ranges		HACC		

[(a)] A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

Table 3.6: Groups identified by councils as missing out on heatwave messages

Community group	Number of councils
Refugees	2
People with a mental illness	3
People with a disability	3
Homeless people	5
People who are socially isolated and not engaged with council services	7
Young mums with infants - who do not access services such as maternal and child health services	6
Farmers	2
Sporting groups	2
People living in poorly insulated housing	2
People living in high rises	1
Itinerant workers, back packers and tourists	2

Areas requiring more clarity

Three councils argued that more information was needed about what to do when heatwave coincided with power outages (ie. when heatwave becomes an emergency). At least three councils expressed concern that they and their clients were unsure what to do if a heatwave coincided with a power blackout.

It was not possible (or within scope) to investigate in detail whether councils were effectively managing the risk of heatwave to their staff while maintaining their duty of care to clients. Consultations indicated that many councils would welcome more guidance in this area (for services other than community service providers including HACC for whom the department is developing specific guidance).

A significant minority (five councils) indicated there was a lack of clarity about policies in relation to establishing designated cooling centres, or directing people to shopping centres, cinemas or other cool locations. There may have been confusion about cooling centres and whether these were the same as emergency relief centres. However, many councils had a very clear understanding of the risks and considerations associated with these options.

3.2.2 Regional offices

Awareness of the State Plan

One regional office suggested that since the Plan was not launched formally, familiarity with the Plan was not as high as it could have been amongst regional office staff (including across DHS programs) and other regional agencies. Another regional office noted that, together with the grants, the launch of the planning guide contributed to improved awareness of the framework.

Another regional office was complimentary about the State Plan, but noted that its release after councils had already prepared their own plans initially limited understanding of the Plan at a detailed level. The Plan was, however, increasingly utilised as the 2009-10 summer progressed.

Clarity of roles and responsibilities

One office suggested that the allocation of responsibilities for media could be clearer. It was reported that some councils may have been expecting the department to provide media releases for local areas. It is not clear whether the councils in question were aware of the

media releases included in the Appendix of the 2009-10 Plan, or indeed whether these were useful as a guide to development of local media releases.

The role of regional offices

The role of regional offices is not specified in the Plan and clarification would be welcomed. Regional office representatives suggested the regional offices do have a role to play in the framework that reflects their more detailed knowledge of their respective areas, including the health and community sector, the operations of local organisations and their relationships on the ground. Suggestions for their role include:

- Complementing head office communication with, and engagement of councils, including by assessing plans, facilitating plan reviews and sharing information about what works.
- Building capacity in public health planning.
- Contributing to development of distribution networks for heatwave communication resources/materials to expand the reach of the heatwave messages. Assisting councils to identify vulnerable groups and who might be missing out.
- Coordination at the regional level, ensuring links with other program areas funded by the department and DHS. One region through their REHO advised that there is significant opportunity for the development of council and health sector partnerships with regional support and facilitation.
- Advising head office about appropriate timing of framework activities/milestones given regional knowledge of council planning cycles and other competing demands for council attention.
- Advising head office on appropriate, existing, formal communication frameworks for discussion of heatwave issues at a regional level.

Examples of regional office activities facilitating the implementation of the heatwave framework leading up to the 2009-10 summer include:

- A couple of regional offices facilitated heatwave planning by organising meetings and heatwave discussion forums for councils, and providing feedback on draft plans.
- A number of regional offices have assessed the council plans in their area and identified strengths and weaknesses.

REHOs agreed that a formalised structure for regional offices to submit comments on the heatwave framework to head office would be useful. In addition, it would be useful to use the public health senior managers' network and regional environmental health officers' networks to discuss the heatwave framework.

There are differences across regional offices in their approach reflecting differences in organisational structure and regional characteristics. Specification of the roles and responsibilities of regional offices needs to allow flexibility to accommodate these differences.

When a heatwave becomes an emergency

There is a need to clarify the trigger for declaration of a heatwave as an emergency, and the roles and responsibilities of councils and stakeholders in the heatwave framework when this happens.

Stakeholders missing from the State Plan

Two regional offices suggested that DEECD be engaged with the State Heatwave Plan. One REHO noted that DEECD and Primary Care Partnerships (PCP's) are missing from Section 7 of the 2009-10 State Plan. No indication was offered about how these stakeholders should be engaged.

Modifying the State Plan

The role of the regional offices needs to be outlined in the State Plan.

One regional office suggested that the inclusion of more evidence about the impact of heat on health in various parts of the state would build regional and council knowledge and understanding.

Another REHO noted council concerns with the following terminology in Section 7 of the State Plan.

- Section 7.2: *Working with Local Government* (page 19) may raise expectations about the activities local governments will undertake.
- Section 7.3: *Working with Local Government*. The paragraph, 'Contact will be made with Victorians at risk via telephone or home visits to ensure their safety and wellbeing, with increased HACC services provided to clients', may not be correct for all LGAs.

The future of the Victorian Government heatwave framework and its evaluation

Clarification within the State Plan about the future of the framework and the timing of its evaluation would assist councils in their own planning and reviews. Development of a statewide approach to evaluation and review, with links to the heatwave planning guide section on plan evaluation would be useful.

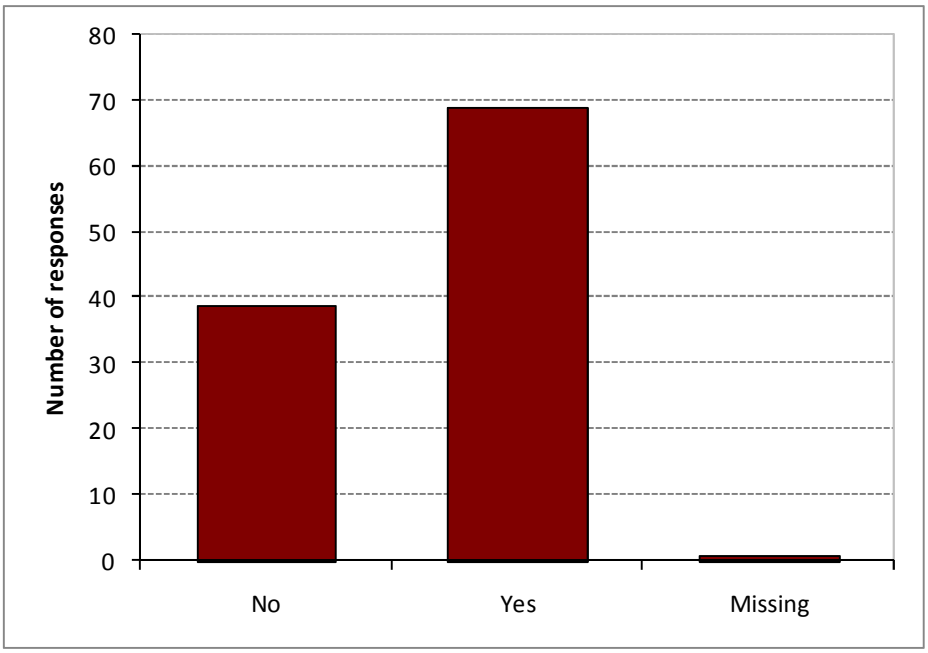
Regional offices suggested that councils and other stakeholders would welcome information on the outcomes of this evaluation.

3.2.3 Home and Community Care providers

Awareness

Survey responses from HACC providers suggest nearly two thirds of the sample were aware of the State Plan (Chart 3.1).

Chart 3.1: HACC provider survey responses — were you aware of the State Plan before we contacted you?



Seventy-three per cent of HACC organisations (total n = 101) reported that their organisation has a heatwave plan or policy. Ninety per cent of local council HACC organisations, compared to 66% of non-local council HACC organisations, reported that they have a heatwave plan or policy ($p<0.05$, chi square = 6.1). Eighty-one per cent of all HACC organisations (total n = 98) reported that their organisation will revise its plan or policy before next summer. Survey responses indicate that 42% of the non-council HACC organisations (total n = 72) were aware of their local council's heatwave plan.

In response to the question "What other stakeholders should be involved at a high level?", many HACC providers either suggested stakeholders already involved in the framework (Department of Planning and Community Development OSV, DHS disability and housing areas, police and emergency services, health and community care providers, and aged care organisations) or groups at a local or regional rather than State level (e.g. Federation of Ethnic Senior Citizens' Clubs in the Northern Region of Melbourne, Neighbourhood houses). Suggestions for additional stakeholders not currently mentioned in the State Plan and which may arguably be approached at State level include:

- Department of Education and Early Childhood Development (or schools);
- Ethnic Communities Council;
- Department of Sustainability and Environment (reason unclear);
- Department of Justice (reason unclear but probably in relation to prisoners);
- Gyms and fitness Centres;
- Shopping Centres;
- Country Women's Association; and
- Returned and Services League.

In response to the question "What further information or guidance about heatwaves would you find useful?" a number of HACC providers mentioned the communication materials (poster, brochure etc) already available. Other comments included:

> *Information in other languages. Use of local respected elders to convey messages to ethno-specific groups*
>
> *Information on travel / transporting older people during hot weather*
>
> *As we are one of the 52 high risk areas for bushfires, during heatwave / high fire risk days we have to limit our services to protect the staff. This reduced the number of people able to help*
>
> *What is the definition of a heat wave?*
>
> *Would like the department to come up with a more explicit list of expectations / responsibilities for organisations?. At present, clients utilising a lot of services might get 5 phone calls on every heatwave day, asking the same questions, providing the same advice.*

Identifying and targeting groups at risk

Seventy-six per cent of HACC organisations (total n = 104) reported they have a process to identify clients at risk during heatwave. This was significantly different between council and non-council HACC providers, with 93% of council HACC providers having a process and only 69% of non-council providers having a process ($p<0.01$, chi square = 6.968). Seventy per cent of HACC organisations (total n = 100) reported they have a process to identify staff/volunteers at risk during heatwaves. There was no difference for this between council and non-council HACC providers.

3.2.4 Other stakeholders

Awareness

Disability service providers were unaware of the Plan, despite one of these organisations being on the list of CEOs to whom the hard copy Plan was sent. They suggested that formally launching the State Plan could have raised its prominence. They also noted that wider distribution in hard copy rather than email format was preferable for gaining staff awareness as emails could too easily be overlooked or deleted.

Over half of the SRS survey respondents (53.8%) were aware of the Plan.

Roles and responsibilities — clarifying the target audience for the Plan

Community Service Organisations (CSOs) expressed concern that the Plan did not outline their roles and responsibilities prior to and during a heatwave. Some appeared to view the Plan (and other framework documents) as a source of guidance on planning and organisational policy in heatwaves, but found it did not meet their expectations (if they were aware of it). CSOs indicated they seek much simpler information than is in the State Plan currently. More broadly, there was an expectation among some CSOs that the Government should assist them to prepare for a heatwave (including how to manage heat related risks to staff whilst maintaining a duty of care for clients).

Larger organisations such as Yooralla, EW Tipping Foundation and Scope Victoria already have plans and policies in place for heatwave, but indicated that they would like to be more involved in the heatwave framework to ensure consistency. They also noted the difficulties in managing the risk to staff whilst ensuring a duty of care to clients.

CSOs suggested that existing non-government resources that might be useful in providing guidance on planning for heatwave include those developed by the RDNS and Shepparton Council.

Identifying and targeting groups at risk

CSOs were concerned that ongoing funding for councils was necessary to support continued efforts to expand the groups receiving messages about heat related illness — in particular people who do not currently receive council provided services. More research on the effectiveness and reach of messages (especially among the poor, those affected by mental illness and/or drug and alcohol problems, and the homeless) was considered important.

Groups such as Psychiatric Disability Services of Victoria (VICSERV), the Victorian Drug and Alcohol Association, the Mental Illness Fellowship and the Victorian Advocacy League for Individuals with Disability (VALID) were keen for their members to receive appropriate messages about heat related illness, but urged that an efficient mechanism be established to coordinate council access to their advice. Their organisations are not well enough resourced to cope with contact from each of the 79 local councils. They suggested that the Municipal Association of Victoria (MAV) or VCOSS could be instrumental in linking councils with appropriate advice. It was also suggested that the Plan could list relevant peak bodies.

More broadly VCOSS suggested it would be useful to develop guidance to assist councils to identify relevant organisations which can help them to raise awareness among non-council clients. In addition, VCOSS suggested that it would be useful for NGOs/CSOs to be able to access council heatwave plans — preferably at a single location.

Stakeholders missing from the State Plan

The three major disability service providers consulted were concerned to ensure that they be included as stakeholders in the plan.

When heatwave becomes an emergency

CSOs and service providers frequently expressed a desire for more information about what happens when a heatwave becomes an emergency, noting that 'normal' heat health advice may no longer be applicable in these circumstances.

Ambulance Victoria raised concerns about who the control agency should be in a heatwave emergency. Their preference would be to have a control team, made up of several organisations from relevant portfolios potentially affected by heatwaves — Department of Health, Ambulance Victoria, infrastructure services (including public transport, water, and power), Victoria Police and fire authorities. This would help to ensure consistent community messaging. Ambulance suggested that the HHA could be used as a trigger for a meeting of the control team. Responses would vary according to the situation. A similar system currently works for fire and wind, so it should be relatively easy to add heat, consistent with the all hazards approach to emergency management.

The ARC was concerned to ensure councils did not build reliance on ARC assistance in to their plans because the ARC would be unlikely to have the capacity to do more than supplement existing support mechanisms to numerous councils likely to be affected during a any given heatwave event. The ARC emphasised the importance of building community resilience and preparing community members to support themselves and each other during a heatwave.

3.3 Discussion

3.3.1 Awareness

Familiarity with the detail of the State Plan has improved over time according to comments during consultations, probably reflecting the stage at which the Plans was released after publication of the planning guide and after the majority of council plans had been completed relatively late in 2009. A number of stakeholders suggested that a formal launch may be useful in raising awareness of the Plan. Now that council plans have been developed there is less heatwave-related development activity to reinforce the message about heatwave. Further, new bushfire structures and processes will likely be a key focus during the summer of 2010-11.

3.3.2 Roles and responsibilities

The department needs to consult regional offices with a view to defining their role in the framework. Regional offices made a number of useful suggestions about how they can add value to heatwave. There are differences across regional offices in their approach reflecting differences in organisational structure and regional characteristics. Specification of the roles and responsibilities of regional offices needs to allow flexibility to accommodate these differences.

As an illustration, a number of regional offices have assessed the council plans in their area and identified strengths and weaknesses. This information may be useful to head office as an input to heatwave information forums, preparation of guidance for councils' plan reviews and identifying examples of 'what works' for dissemination across councils.

In addition, given their local knowledge, a formalised process for regional offices to submit comments to head office about the heatwave framework and Plan would also be useful.

It would be useful to provide more detail in the State Plan about the department's communication strategy, in particular, which media outlets the department intends to target and when, so that councils can play a complementary rather than duplicative role. Councils were also interested in obtaining a copy of the departmental distribution list for communication resources — again to ensure they used their scarce role to complement the State Government's efforts. Such a list is likely to be too detailed for inclusion in the State Plan, but could be made available to councils via Quickplace.

Community registers are given prominence in the current State Plan — allocated all of page 16. This may have caused confusion about their role and relative importance in the heatwave framework. It would be useful to clarify their role in heatwave, and the department may be able to assist in managing community expectations by describing what those enrolled on registers can expect in the way of services as a result of their enrolment.

3.3.3 Maintaining consistency and coordinating heatwave

With council plans generally finalised, a number of councils are revisiting which area of council should have prime carriage of heatwave. Heatwave is already allocated to aged care in many councils and the proportion may rise. This is a concern if it means other groups at risk of heat related illness are neglected. It may also be of concern in maintaining consistency over time.

Differences across councils in areas responsible for heatwave mean that none of the existing communication networks offers the perfect framework for sharing information about heatwave. The department will need to ensure that information is disseminated through all of the relevant communication networks including: the environmental health officer network, the public health senior managers' network, the HACC providers' network, emergency management networks (recovery managers), and regional DHS networks.

There are many advantages in devolving planning and management of heatwave to local councils, in particular their greater knowledge of demographic and other characteristics in their region and consequent ability to develop plans which are well targeted and regionally appropriate. However, such an approach needs to be complemented by strong channels of communication between stakeholders which can be used to share information and promote consistency where necessary over time.

A significant number of councils indicated they would welcome an annual information forum for heatwave. Consultations indicated that the heatwave fora held in previous years were very popular. Quickplace was also considered useful and this should be promoted more widely and accessibility made easier (if possible).

3.3.4 Adding stakeholders to the framework

Clearly, there are various levels at which organisations can become 'stakeholders' in the framework. Most of the key agencies (e.g. Ambulance Victoria, ARC etc) appear to be engaged, although there may be scope to improve communication with some of these groups over time. The Evaluation team was not able to meet all of the stakeholders, for example, the departmental unit responsible for acute care.

Based on the consultations, it would be useful for the department to actively pursue discussions with DEECD in view of its role in managing the risk of hot weather to the education sector and given that councils appear to be receiving heat related advice from DEECD (see also chapter 3).

There are likely to be existing State Government cross-portfolio policy networks that could be more actively used to promote consistency and coordination of government policies and programs in respect of hot weather. In addition, networks across portfolio media units might also be more actively utilised to promote consistency of communication and messaging. Similar networks between the State and Commonwealth Government could also be pursued to ensure coordination and consistency across aged care and veterans' services.

The Evaluation suggests the department consider discussing with the MAV whether it has capacity to play a greater role in the framework to assist in coordination (including between councils and peak bodies representing relatively marginalised groups at risk of heat related illness), communication and dissemination of information to councils.

For the purposes of distributing communication resources, the department could consider approaching state based organisations in view of efficiency and because the department may have more leverage. Examples of relevant organisations include service clubs (e.g. RSL), supermarket chains, and Centrelink.

VCOSS may also be able to assist as a stakeholder in the framework by distributing information (including both State Government publications and council plans as well as other useful information such as that produced by RDNS and ARC) to their NGO members. The department could consider including a section in the State Plan that specifies how NGOs, including registered disability services can engage with the framework (e.g. through ordering departmental communication materials, referring to RDNS and ARC information on planning for a heatwave and, potentially, registering for the HHA if the department pursues the suggestion for an email subscriber service in chapter 3).

3.3.5 Groups missing out

Groups that may currently be missing out on heatwave messages include refugees, people with a mental illness, people with a disability, homeless people, people who are socially isolated and not engaged with council services, young mums, infants, farmers, sporting groups, people living in poorly insulated housing, people living in high rises, itinerant workers, back packers and tourists. The department might wish to consider how it could provide information or guidance to councils on mechanisms for reaching these groups. Facilitating the sharing of information about heatwave across relevant communication networks is critical in enabling councils and other service providers to learn from each other. A number of useful suggestions for reaching these groups were provided in the context of consultations, some of which are outlined in Table 3.5. Strong communication channels which enable councils to swap ideas alleviates the pressure on the department to be the source of all wisdom, when in many instances, councils are best placed to devise the most appropriate solutions.

It would also be useful to explore ways to link councils and other service providers with peak bodies for groups at risk that accommodate the sometimes limited resources of these peak bodies while allowing councils and other service providers access to their advice and knowledge.

3.3.6 When a heatwave becomes an emergency

There were a number of requests for clarification of the trigger for declaration of a heatwave as an emergency, and the roles and responsibilities of stakeholders in the heatwave framework when this happens. The department may wish to revisit this section of the State Plan.

In determining the control structures for a heatwave emergency, the department (clearly) needs to engage Ambulance Victoria. Given the potential for power outage and public transport failures in the heat, engagement of relevant agencies as per Ambulance Victoria's suggestion would seem appropriate.

There is scope to clarify the triggers and processes for opening emergency relief centres when heatwave becomes an emergency in the State Plan. Guidance about relief centres needs to reflect the potential for confusion with the concept of cooling centres and 'cool locations'. It would be useful for the department to continue reinforcing advice about the risks and considerations associated with cooling centres/cool locations, and avoid any potentially misleading statements about these in the State Plan.

3.3.7 Suggested modifications to the Plan

Suggested modifications to the Plan document are discussed in Table 3.7, structured according the relevant section of the 2009-10 State Plan. These suggestions are based on our findings from consultations in relation to the HHAS and communication resources as well as specific comments regarding the State Plan.

Table 3.7: Suggested refinements/updates to the Plan

Section	Suggested update/modification
New introductory section	Consider adding a new introductory section explaining the objectives of the framework overall,[1] and describing each component of the framework (together with their individual objectives). The State Plan could be placed in the context of the framework as a whole using diagrams such as those in Figure 3.1 and Figure 3.2 below.
Section 2: Understanding heatwaves	This section will need to be updated if the threshold(s) are revised. We recommend including an explanation of the science underlying the threshold in this section. (The evidence is currently summarised in Section 6 but may be better placed next to the explanation of the threshold and how it is derived. This is likely to improve the transparency of the evidential footing for the threshold, consistent with council requests.) Consider including the internet address for BOM forecasts at 6km grids for information. Consider explaining that the heat watch is an internal alert for the department to consider releasing media messaging rather than aimed at councils or other stakeholders.
Section 4: High risk factors	The department may wish to emphasise that people of any age may be at risk of heat related illness. The department may wish to consider removing the vulnerability map because it focuses on Melbourne alone, and may confirm the 'myth' that those in rural areas are less susceptible to heat related illness.
Section 5: Protective factors	Revisit messages around "drawing curtains and blinds and opening windows and doors" because of the potential for conflict with bushfire messages (Plan page 9)
Section 6: Laying the foundations	Consider including guidance on managing both the risk to staff and the duty of care to clients in a heatwave. Consider removing the explanation of the science underlying the heat health threshold from this section and transferring it to Section 2: Understanding heatwaves. The following information appears redundant and could be deleted: ■ Table 4: councils involved in heatwave pilot projects ■ Reference to the conference on climate change and human health ■ Table 5: councils with grants to develop a heatwave plan for 2009-10

[1] On page 1, the objective of the plan document is identified as 'to guide the Department of Health and the Chief Health Officer in the response to heatwaves in Victoria'. However, the overarching objective of the heatwave framework is not specified.

Section	Suggested update/modification
Section 7: Victoria's Heatwave Plan	The roles/responsibilities of departmental regional offices need to be documented in this section together with all the other stakeholders.
Page 15	Clarify the roles and responsibilities of departmental units that cross Commonwealth/State boundaries, that is Hospitals and Health Service Performance Division and Aged Care Branch. In particular, role of the Hospitals and Health Service Performance Division is not explained in the current Plan and this needs to be addressed.
Where appropriate	Consider including the alert distribution protocol if this is developed.
The alert is referred to in various sections, but the main explanation of the alert is on page 19 Consider adding a separate section for the heat health alert.	We recommend clarifying the meaning of the heat health alert and the extent to which councils (and others) are free to respond in accordance with local conditions. Notably, since councils and others are increasingly sending alerts to CSOs, the alert needs to be described in such a way that NGOs/CSOs will understand the meaning of the alert, including how it is derived and how to respond.
Page 16	We suggest reducing the prominence given to community registers, clarifying their role in heatwave, and describing what those who enrol on a register can expect.
Where relevant in section 7	Consider suggesting simple ways that NGOs/CSOs can engage with the framework, including informing NGOs/CSOs that they can i) order communication resources to distribute to their clients; ii) develop a heatwave plan for their organisation, drawing on resources such as those produced by the RDNS and ARC, or the State Government heatwave planning guide; and/or iii) register for HHAs (and access advice as to what the HHAs mean) as part of an opt-in register (if the department pursues this recommendation — see chapter 3).
Page 21, When a heatwave becomes an emergency	A number of councils and other stakeholders suggest this section could be clearer, including the triggers for an emergency, and examples of what is required of councils and others when an emergency is declared. The role of the Victoria Police (and relevant others) will need to be updated should control structures for a heatwave emergency be changed.
Page 19, Working with local government Page 20, Working with local government	To assist in managing community expectations, we recommend avoiding potentially misleading statements about what governments are able to do in a heatwave. For example, page 19: Pre-heatwave activity will mainly involve preparation of services including: • *increasing* contact to at risk Victorians via telephone calls and/or home visits; • *increasing* home and community care services to clients; • *extending* pool operating hours; • *opening* emergency relief centres; and • *providing* additional fluid to at risk Victorians

Section	Suggested update/modification
Section 8: Communication resources	Consider including a protocol for communication, outlining the roles and responsibilities of key stakeholders for specific types of media or messaging, and the associated timing. This section will need to be updated if new communication resources are released.
Add a new section on the future of the framework	We suggest including a section outlining areas for further research, and designating milestones for council plan reviews and evaluation of the framework more broadly. Suggested areas for further research are included in the HHAS chapter (chapter 3) and other areas of the Evaluation report.
Various sections Page 9 (Spend as much time as possible in cool or air-conditioned buildings) Page 19 (Pre-heatwave activity will mainly involve preparation of services including: ... opening emergency relief centres) Page 20 (Additional services may include the ... opening of emergency relief centres.)	Revisit messages about cooling centres/cool locations/emergency relief centres to ensure they are clear and consistent with advice to councils.

Figure 3.1: Example of a diagram placing the Plan in the context of the framework as a whole

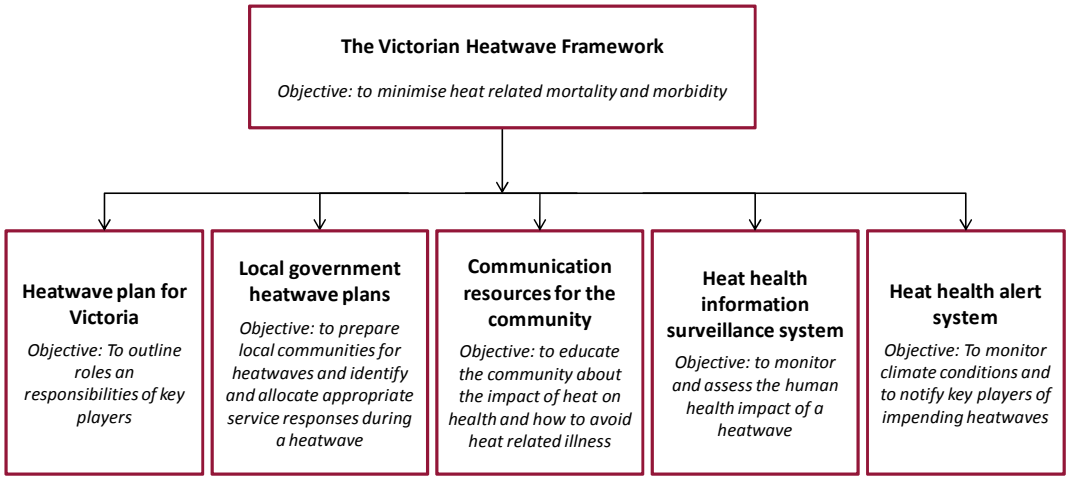
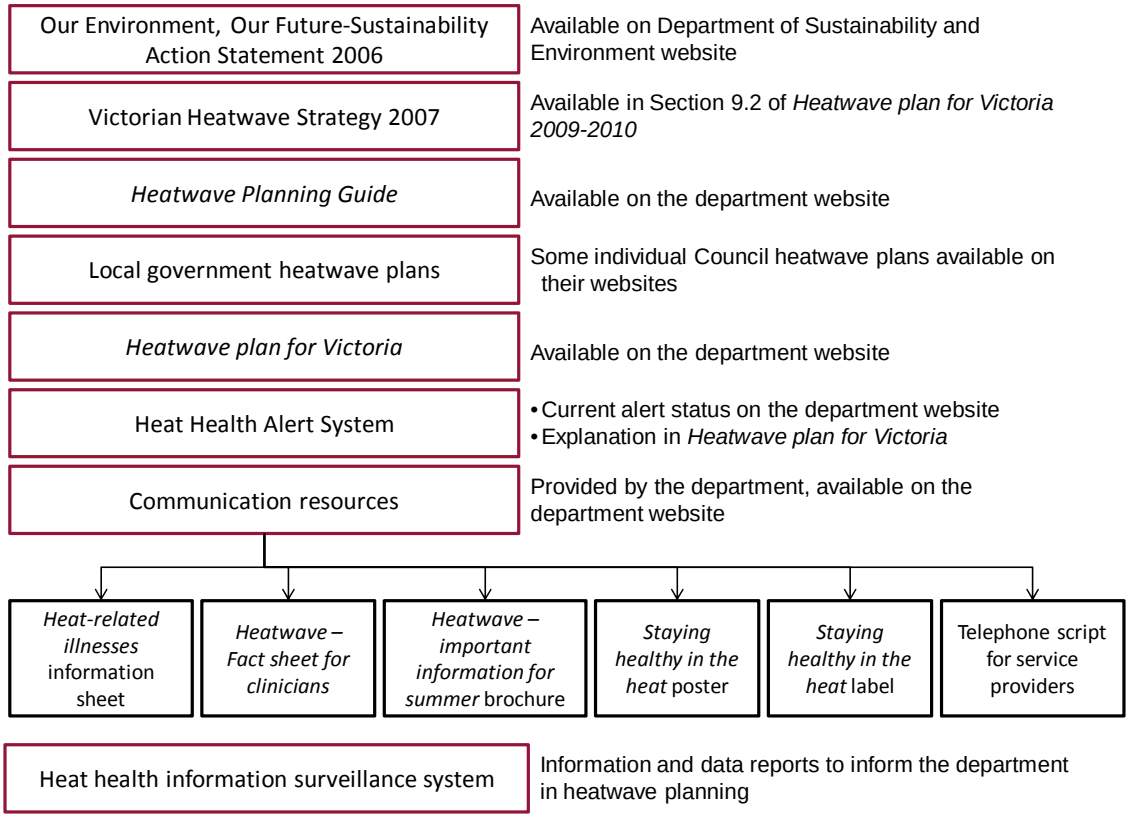


Figure 3.2: Example of a diagram summarising the heatwave framework documents and their location



3.4 Recommendations

1. Timely release of the State Plan and related framework resources will improve the ability of councils to prepare for heatwave.

   Department of Health response

   The department has released a revised version of the state heatwave plan that will be updated as required, rather than release a plan annually for each summer, which will increase the availability of the plan as well as its timeliness.

   It is anticipated that the broad dissemination of revised communication resources and order forms will increase their availability to service providers in preparation for summer seasons.

2. Consider launching the 2010-11 Plan.

   Department of Health response

   The department considers a launch of the plan may be beneficial in improving its visibility in the community. However, the 2010-11 summer was cooler and wetter than usual, and the state also experienced extensive flooding over this period. Attending to the flood disasters took precedence over launching the plan this summer. A launch may be considered in the future.

3. The department needs to consult regional offices with a view to defining their role in the framework. Specification of the roles and responsibilities of regional offices needs to

allow flexibility to accommodate differences between offices. In addition, given their local knowledge, a formalised process for regional offices to submit comments to head office about the heatwave framework and Plan would also be useful.

Department of Health response

While the policy directions of heatwave response are centrally driven, the department considers that ongoing consultation with regional offices and program areas is important to ensure the plan is responsive to the direction and activities of the department as a whole. As such, regional officers were consulted in meetings prior to drafting the revised state plan and the revised draft plan was distributed for comment to regional offices and program areas of the department and the Department of Human Services.

4. It would be useful to provide more detail in the State Plan about the department's communication strategy, in particular, which media outlets the department intends to target and when, so that councils can play a complementary rather than duplicative role. Councils were also interested in obtaining a copy of the departmental distribution list for communication resources — again to ensure they used their available resources to complement the State Government's efforts. Such a list is likely to be too detailed for inclusion in the State Plan, but could be made available to councils via Quickplace.

Department of Health response

The department is working in concert with organisations such as Ambulance Victoria to ensure consistent heat health messages via media such as radio and television are provided to the public in a timely manner. The department has developed printed and electronic communication resources for distribution to community members by service providers. The heatwave newsletter sent to councils and other stakeholders provides more detail of the communication strategy.

5. Community registers are given prominence in the current State Plan — allocated all of page 16. This may have caused confusion about their role and relative importance in the heatwave framework.

Department of Health response

The department agrees a focus on any particular organisation may cause confusion regarding their role in heatwave as there is no single agency that has complete responsibility for protecting the health of at-risk populations in a heatwave. It is important that individuals, government and the broader community work together to reduce the health impacts of heatwaves. The revised state plan has a broader approach to heatwave actions.

6. Strong channels of communication that facilitate sharing of information and which promote service consistency over time would be useful in assisting councils to meet their responsibility for heatwave planning. Given that different areas within council have responsibility for heatwave, information about heatwave needs to be disseminated through all of the relevant existing internal council communication networks. Councils are often best placed to devise the most appropriate solutions and strong communication channels between councils would support councils to solve issues as they arise.

Department of Health response

The department agrees that information sharing between councils and other service providers in relation to heatwave planning is extremely useful in promoting best practice and consistency of practice.

7. A number of those consulted suggested including the education sector as a stakeholder, and DEECD should be added as a stakeholder in view of its role in managing the risk of hot weather to staff and students.

Department of Health response

The department considers the Department of Education and Early Childhood Development to be an important stakeholder. The department will continue to expand its engagement with the relevant DEECD program areas

8. As an alternative to individual councils approaching State based organisations to assist in distributing communication resources, it may be more efficient for the department to seek to engage these organisations, and in any case, the department may have more leverage at a statewide level. Examples of relevant organisations include service clubs (e.g. RSL), supermarket chains, and Centrelink.

Department of Health response

The department will continue to expand engagement with statewide organisations to further the reach and distribution of heat-health messages through a broad range of community organisations.

9. The Evaluation suggests the department consider discussing with the MAV whether it has capacity to become a stakeholder in the framework in view of its potential to assist in coordination, communication and dissemination of information to councils.

Department of Health response

The department considers MAV to be a key stakeholder in the heatwave framework and has valued the input of MAV on the heatwave framework evaluation reference group, the reference group for the *Heat health education strategy for health and community sectors*, development of the *Heatwave Planning Guide* and in comments on drafts of the revised *Heatwave plan for Victoria*. The department will continue to work with the MAV in relation to council involvement in heat-health issues for communities.

10. In view of concerns expressed by NGOs and CSOs about accessing guidance about how to plan for heatwaves, VCOSS may also be able to assist as a stakeholder in the framework by providing information to its members. The information could include links to both State Government publications and council plans as well as other useful information such as that produced by RDNS and ARC.

Department of Health response

The department considers VCOSS to be a key stakeholder in relation to heatwave and climate change issues and has provided funding for a 0.5 EFT policy analyst position to support VCOSS work on heatwave and climate change issues. The department will continue to work with VCOSS to facilitate broad information sharing regarding heatwave planning.

11. It would also be useful to explore efficient ways to link councils and other service providers with peak bodies for groups at risk (acknowledging the sometimes limited resources of these peak bodies) to facilitate information sharing.

Department of Health response

The department is committed to supporting the work of councils to meet the needs of their communities in relation to heat health. In partnership with the MAV, the department agrees to explore efficient ways to link councils and other service providers with peak organisations for groups at risk of heat related health impacts.

12. The department should respond to the requests for clarification of the trigger for declaration of a heatwave as an emergency, and the roles and responsibilities of stakeholders in the heatwave framework when this happens.

Department of Health response

It is unlikely that heatwave alone will be the principal cause of an emergency. As such it is difficult to precisely quantify the triggers of an emergency, however it is likely to include impacts such as extreme demand on services or infrastructure failure impacts. The management of these impacts are dealt with under the state emergency arrangements. The department has provided clarification of these processes in the revised state plan.

13. The department should consult Ambulance Victoria and other relevant organisations including Victoria Police, fire authorities, infrastructure authorities (power, water and public transport) in determining emergency control structures for heatwave.

Department of Health response

As part of the state's emergency arrangements, the department meets regularly, consults and has well established links with other key agencies in the state's emergency management arena. In the event of an emergency level heatwave, Victoria Police is the designated control agency. In the response to an emergency Victoria Police will coordinate responses from relevant agencies including departments of health, infrastructure and transport.

14. The department should consider the modifications to the State Plan document suggested in Table 3.7 of the evaluation report.

Department of Health response

The department has considered the modifications to the state plan suggested and has already included a number of these suggestions into the revised state plan. Additional modifications will be made with subsequent editions of the plan.

4 Evaluation of the heat health alert system

4.1 Introduction

The heat health alert system (HHAS) comprises a heat watch element, a heat health alert (HHA) element and associated temperature thresholds.

- The heat watch element aims to raise community awareness of forecast hot temperatures through the release of public health messages.
- The HHA element aims to notify councils, departmental program areas, hospitals and health and community service providers of impending heatwaves and to advise them to consider activating their heatwave plans and responses.
- The aim of the heat health threshold (HHT) is to define what is considered a heatwave, provide the foundation for issuing HHAs and provide a trigger point at which to activate heatwave actions and plans (see page 3 of the State Plan). In technical terms, the alert threshold is 'a minimum temperature that is likely to impact on the health of a community' (see page 3 of the State Plan).
- The temperature thresholds for activating the heat watch element are a maximum forecast temperature of 36℃ or above in Victoria other than the Mildura district and a maximum forecast temperature of 40℃ or above in the Mildura district.
- The temperature thresholds for issuing a HHA are a mean forecast temperature of 30℃ or above for all local government areas in Victoria (except Mildura district) and a mean forecast temperature of 32℃ in the Mildura district (Mildura, Swan Hill, Buloke and Gannawarra councils).

The evaluation has focused on the HHA element and associated temperature thresholds (rather than the heat watch element and associated temperature thresholds). The heat watch was not mentioned by anyone during consultations and the department advised that it was not a focus for the heatwave framework in the 2009-10 summer (reflecting the relatively cool conditions that year). The heat watch element was intended to act as an internal trigger of hot temperatures, prompting consideration for the release of public health messages.

4.2 Consultation findings

4.2.1 Councils

Usefulness, method of communication and ease of understanding alert message

The method of communicating alerts was considered by all to be appropriate.

The majority of councils considered the alerts timely, useful and easy to understand. One council said the timeframes for notifications were too short. Another council suggested the alerts were not useful because the information provided was already well known by the council and the community. One council said the format was too basic and did not garner attention.

A significant number of councils agreed that the alert — even when not based on an appropriate threshold for their region — was still useful for keeping heatwave on the agenda.

Two councils thought composite alerts for all regions (i.e. not just their region) were useful to inform people who might be travelling. However, one council found this unnecessary and thought it added to the risk of alert fatigue.

Did the alert trigger appropriate responses?

A number of councils (at least six) demonstrated they were unaware that on receiving an alert, they are able to determine whether to enact their response (or not) appropriate to the conditions in their local area. One council always sends out the alert regardless of whether it was perceived as necessary. Another council used the alert as the trigger for implementing its plan — even though it was of the view that the threshold for alerts in its region was too low. One council also asked for clarification about whether it is necessary to wait for an alert before acting. In a similar vein, one or two councils were unclear about their role when an extended period of heat below the threshold seemed to indicate potential for heat related illness, but the HHA was not received.

While during the 2009-2010 summer only one alert was issued on a weekend for a forecast event on Monday, weekend alerts will always be difficult to manage as although the relevant staff will receive the notification they may not always have access to the database to forward on the message, and where they can there is no guarantee that the service receiving the alert will see it until the next business day. Where possible, alerts for extreme temperatures over weekends would be best notified prior to the close of business.

Heat health threshold

Views on the HHT varied (Table 4.1).

Table 4.1: Views on the threshold expressed by councils[(a)]

Comment	Total responses[(b)]	Yes	No
Fine with their threshold	22	10	12[(c)]
Reluctant to change it because it was based on research	1	1	0
No problem with the threshold, but felt it should only be activated after 2-3 days of heat	3	3	0
One threshold could not accommodate all areas within their shire because of variations in the landscape (East Gippsland, Golden Plains, Glenelg, Yarriambiack)	4	4	0
Sceptical of the reason for the change to the thresholds late in 2009	1	1	0
Risk of complacency if alert doesn't match local conditions	1	1	0
Has developed own threshold	2	2	0

[(a)] The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

[(b)] A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

[(c)] Warrnambool, Strathbogie, Loddon, Gannawarra, East Gippsland, Campaspe, Baw Baw, Bass Coast, LaTrobe, Yarriambiack, Mildura and Bayside.

There was some lack of understanding about the derivation of the HHT (based on mean of daily maximum and nightly minimum). At least three councils indicated via discussion that they misunderstood how the threshold was derived, or what it means, with some believing the threshold to be the daily maximum temperature.

Four councils are monitoring the CFA and BOM website for fire conditions already. In these instances, the HHA was perceived as affirming rather than superfluous or the only source of information.

One council said that it more often than not ignored the alert and the threshold. If the temperature went over 40 degrees an alert was distributed.

Weather forecast location group

When asked about their weather forecast location groups, of 15 responses, five councils were satisfied and 10 were not.

A number of councils were of the view that forecast location groupings could be improved. Moira and Shepparton councils indicated that they should be in a separate region to other councils in North-Eastern Victoria. At the Traralgon group meeting the three councils in attendance (Latrobe, Baw Baw and Bass Coast) discussed that Baw Baw, Bass Coast and South Gippsland should all be in one grouping and Wellington and East Gippsland should be in their own. Campaspe expressed a strong preference for inclusion with Mildura rather than Bendigo. At the MAV workshop for HACC coordinators, Warrnambool noted that their climate differed from that of inland areas in their location group (specifically Hamilton).

Alert distribution network

Councils were concerned about alert duplication because of the risk of complacency. The nature of these concerns are described in Table 4.2.

Table 4.2: Views on distribution of alerts expressed by councils[(a)]

Comment	Total responses[(b)]	Yes	No
Requested information about the alert distribution list so they could avoid duplicating alerts	2	2	0
Coordination across State Government departments would be useful in limiting confusion and duplication	1	1	0
Duplication of alerts may lead to complacency - may cause difficulties in distinguishing between a duplicated and a new alert	1	1	0
Council contact receives the alert multiple times themselves	6	6	0

[(a)] The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

[(b)] A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

In addition, some councils were unsure of their responsibilities for distributing alerts to organisations outside council. A list of organisations external to councils to whom councils forward alerts is in Table 4.3.

Table 4.3: Organisations external to council to which a HHA was sent by council

Council	Organisation to which alert is forwarded by council
Ballarat	—
Bayside	Community based organisations, hospitals and members of the primary care partnership
Campaspe	Echuca Regional Health, Kyabram & District Health Services, Rochester & Elmore District Health Services, Goulburn Valley Health – Waranga Campus, Njernda Aboriginal Corporation, Nish Street Medical Practice, Rich River Health Group, Echuca Primary Care Clinic, Kyabram Regional Clinic, Dr Peter T Tisdall, Campaspe Medical Group, Rochester Medical Group, Rushworth Medical Clinic, Elmore Medical Practice at Lockington, Wharparilla Lodge – Echuca Community for the Aged, Warramunda Village, Tongala & District Aged Care, Henley Apartments, Goulburn Valley Health - Waranga Hostel, Echuca College, Echuca College, St Josephs College Echuca, Kyabram P-12 College, Echuca Specialist School, River City Christian College, Rochester Secondary College, Rushworth P12 College, St. Augustine's P-10 College, Echuca East Primary School, Echuca South Primary School, Echuca West Primary School, St. Mary's Primary School, Dawes Road Primary School, Kyabram P-12 College, Lancaster Primary School, Nanneella Estate Primary School, Rochester Primary School, St. Josephs School Rochester, Stanhope Primary School, Tongala Primary School, St. Mary's School Rushworth, St. Patrick's Catholic Primary, Welton Primary School, Gunbower Primary School, Girgarre Primary School, Colbinabbin Primary School, Echuca Central (208) Primary School, Lockington Consolidated School, Colbinabbin Preschool, Echuca East Preschool, Girgarre Kindergarten, Kyabram Municipal Preschool, Rochester Kindergarten, Stanhope & District Kindergarten, Unwin Street Kindergarten, Echuca Central Kindergarten, Echuca South Community Preschool, Gunbower Kindergarten, Lockington Kindergarten, Rushworth Kindergarten & Childcare, Tongala Kindergarten, Berrimba Childcare Centre, Campaspe Community Children's Centre, ABC Learning & Developmental Centre, Kyabram Community Centre, Childcare Early Learning Centre Kyabram, Rochester & District Childcare, Campaspe Primary Care Partnership, ABC Radio & Local Newspapers, Shire of Campaspe – Shire Everyone email group
East Gippsland	Community service providers and other relevant bodies
Glen Eira	Local police, Jewish Care, community health organisations
Golden Plains	—
Golden Plains	—
Greater Bendigo	—
Greater Dandenong	Interfaith network, neighbourhood houses, community centres, emergency housing agencies, local mental health services, welfare agencies
Hume	Wandara Club, Broadmeadows Arabic Senior Citizens, Sunbury Greek Senior Citizens, Multicultural Senior Citizens Network , Parents Craigieburn Education and Community Centre, Gladstone Park Seniors, New mothers, Craigieburn Maternal and Child Health, Hume Emergency Management Committee, Hume Aged Services Network, Hume Health Services Network, Hume Refugee Network, Finchley Support Services, Royal District Nursing Services
Loddon	Alerts forwarded to 9 community groups who volunteered to receive the alerts (register to be updated this summer)

Council	Organisation to which alert is forwarded by council
Macedon Ranges	Alerts forwarded internally to OH&S, PR, Aged & Disability, Family and Children's Services, Recreation and Health Services (Macedon Ranges, Kyneton District, Cobaw Community and St Lukes) who in turn alert community and staff
Manningham	Community groups
Maribyrnong	—
Moira	CFA, Vic Police, Red Cross, Vic SES, Ambulance Victoria, Numurkah District Health, DSE, Goulburn Murray Water, Goulburn Valley Water, Parks Victoria, DHS, Cobram District Hospital, North East Water, Barmah Kindergarten, Central Access Ltd, Cobram Special School, Numurkah Community Learning Centre Inc, Numurkah Multicultural Friendship Group, Numurkah Primary School, Numurkah Senior Citizens Club, Sacred Heart College, Sacred Heart Primary, St Josephs Primary, Tungamah Primary, Yarrawonga Denis Medical Group, Yarrawonga Medical Clinic, Yarrawonga Primary, Burramine Hall, Cobram Community House, Kotupna Community Centre, Wunghu Primary School, Yarrawonga District Health, Cobram District Hospital
Mount Alexander	Community health, hospitals, welfare organisations, aged care services
Moyne	—
Port Phillip	Key community groups, rooming house associations
Queenscliffe	—
Southern Grampians	—
Stonnington	Inner South Community Health Service, Caulfield Community Health Service, Cabrini Health, New Hope Foundation, MECWA, Jewish Care, Prahran Mission, RDNS, GP Division, Office of Housing, Port Phillip Community Group
Strathbogie	A range of service providers
Warrnambool	—
Yarra Ranges	—

4.2.2 Departmental Regional Offices

Regional offices of the Department of Health were consulted on their views of the heatwave framework through a survey sent to public health managers and regional environmental health officers (REHOs) with combined regional responses provided at a meeting of REHOs. Many of the views reflect the close relationships between the regional offices and councils.

Heat health Threshold

The Loddon Mallee (LM) regional office representative reported that councils in the region considered the current HHT too low. Moreover, it was considered setting the trigger at such a short duration (one day/night) was also inappropriate. In Loddon Mallee, the current threshold may be appropriate to use as the trigger for a more prolonged period of heat (e.g. three days/nights). The Hume regional office representative expressed similar concerns, suggesting the threshold does not seem to take into account localised climatic conditions north of the divide and therefore the triggers were signalling heatwave conditions for what could be considered normal weather in parts of the region.

Not all councils (and possibly not all regional offices) understood that they were not obligated to implement their plans on receipt of an alert, but had the discretion to act in accordance with their own judgement about the conditions in their area.

Councils may also be confused about the evidence base for the HHT and the reasons for using a different set of thresholds to those recommended by Monash (Nicholls et al 2008). Engaging councils with information about the evidence may also allay concerns that 'Melbourne is dictating' what happens in other areas. The evidence base needs to include how service providers are affected by heat, e.g. nurse on call, ambulance and emergency department.

It may not be necessary to change the threshold, but more information and a discussion of the evidence base for the HHT and the reason it was changed from the initial Monash recommendation would facilitate council compliance with the framework. One office in particular reinforced that more evidence on the impact of heat on health in various parts of the state would build knowledge, and would be a good tool to assist in engaging councils.

Weather forecast location groups

In Hume region there are substantial geographical variations and grouping these councils together may not be appropriate as they are part of a large rural area with variations of local climatic conditions. Regions north of the divide in particular have expressed concerns about the variations within their group. Hume region representative mentioned that the threshold may be a problem for Wodonga and the surrounding area.

Alert distribution network

REHOs agreed that clarification of the alert distribution network would be very useful. Without a protocol it is not possible to identify gaps in the network. One regional office had attempted to identify gaps but was unable to because the only indication of distribution was the alert email which often didn't confirm the other recipients. This office also suggested that agencies who wish to distribute messages among their networks would find a guide or alert protocol useful — in part to avoid duplication which could lead to confusion. Another REHO reported tension between HACC and Environmental health (EH) staff because both were keen to be the key contact for alerts. This may reflect lack of knowledge about the distribution network as a whole. The Hume regional office representative indicated that they forward the HHA to their local councils. As these councils are already receiving the HHA from the department, this is likely to be causing a duplication of alerts at the council level.

4.2.3 Home and Community Care providers

Responses to the HACC provider survey are outlined in full in Chart 4.1. Half of the sample was aware of the alert. A high proportion of responses to the other questions were missing. Of valid responses:

- Just under half found the alert useful.
- Just over half agreed there was a problem with conflicting messages. Four survey comments suggest this relates to concern about the nexus between bushfire and heatwave:

  > *Relates to the feedback clients have given about the "Fire Danger Ratings" - has created confusion*
  >
  > *Some people confused between heatwave alerts and bushfire alerts*
  >
  > *Confusion with bushfire alerts needs to be thought through*
  >
  > *Code red and heat health alert? Which one is more appropriate in an area not at risk of bushfire?*

  One comment related to the potential for confusion when Victorian services receive an alert but NSW services do not.

On the NSW Victorian border there are days when a code is called on one side of the river and not on the other

Other comments were as follows.

- Two respondents commented on the usefulness of the HHAS.

  This has been beneficial in raising awareness amongst staff acting as a prompt to remind clients to take precautions

  Yes - good tool to deliver information to staff efficiently

- The threshold or forecast location group need adjusting.

  the heatwave threshold is too low [in the North East] *i.e. 30 degrees*

  Many of the regions are too broadly lumped together i.e. coast-inland and doesn't take into account variants like sea breezes etc

  Temp threshold should be same as Mildura

- The service covers two regions with different thresholds.

  Our service covers 2 regions (central and north central) - we use higher rating

- The alert distribution network needs to be refined.

  People tune out when hearing the messages frequently in the North East –

  Because last summer was mild it is hard to gauge if HHA was useful. The amount of emails was enormous. I was receiving emails direct from the department and also receiving them from others who forwarded them on. It is good to get the notification - organisations need to have their own internal response too, so at least the alert triggers an awareness

  No proper coordination of info - sent by both state and federal departments / regions

  There was too much information from too many sources which proved to be confusing

- Some comments suggested the need for further education about the framework and the HHAS.

  Need to be informed about above

  Please send information re this so the information can be shared

  The alert system had minimal application in our organisation

  Needs to be re-iterated messaging rather than "one-off"

  Often alerts are sent late in the day with 24 hours notice

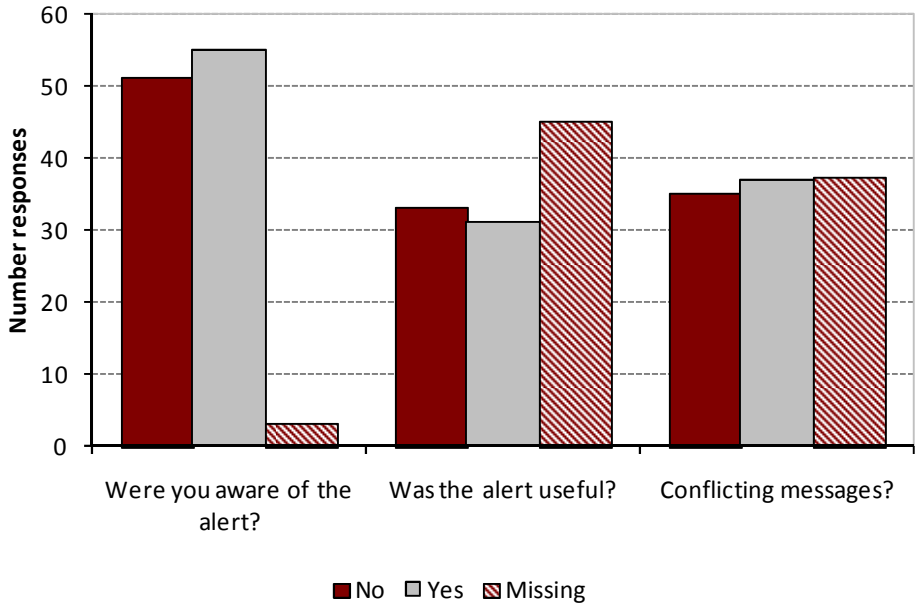
  We do our own via our Telecare Service

  Would hope that the practice of giving 2-3 days notice would continue wherever possible

- One comment confirmed concerns expressed by a range of stakeholders including councils that community members need to be convinced about their risk of heat related illness.

> *Clients in our area regularly make comment that "they have lived all their lives in this heat".*

Chart 4.1: HACC provider survey responses to questions about the HHAS



4.2.4 Other stakeholders

The RDNS indicated that the HHA was affirming rather than duplicative.

Ambulance Victoria supported the HHAS initiative, but suggested there was scope for improvement. Advanced notice was indicated as very important for planning, but there was considered to be a trade-off between advanced notice and certainty. In other words, it would be useful to know how reliable the seven day forecasts are for planning purposes. In addition, Ambulance Victoria was more concerned with being notified of heatwave events that last a number of consecutive days rather than for single day events as this is more relevant for their caseload. Mortality may not be the relevant metric for ambulance.

The ARC viewed the alert as a useful warning that they may receive requests for assistance from councils.

Ambulance Victoria reported that the HHAs last summer were confusing and multiple alerts were received for different regions within a 24 hour period. Ambulance Victoria suggested the HHAs be consolidated on a map of all regions showing their HHA status — similar to fire alerts — and updated daily.

CSOs may receive an alert from their local council or from the department. VCOSS and Action for Community Living both (separately) noted that these organisations need to be educated about what the alert means and what types of responses are appropriate. There may be some organisations missing out on the alert, according to VCOSS, and there is potentially a role for organisations to register voluntarily to receive the alert.

The three major disability service providers discussed the alert in the context of informing people who live independently but receive limited services. The idea discussed was that the

alert would allow people to plan for the hot weather and remain independent in their self-management. In contrast, people with a disability living in residential care would be cared for according to the plans put in place by management. However, it was added that if the alerts were to go out to individuals, they need to be supported with accessible communication resources to equip them with appropriate information regarding the actions and steps they should take to prepare.

In terms of the key stakeholders representing vulnerable groups that were consulted, most were not receiving the HHA. VICSERV confirmed that they receive the alert along with their members, as did the VPTA. However, the VPTA also stated that they did not know how they came to be placed on the distribution list. Port Phillip Community Group mentioned that they also receive the alert, but that they approached the department to request to be included in the distribution list. The EW Tipping Foundation mentioned that they receive a hot weather alert, but that they couldn't be sure if it was the HHA from the department. Other organisations did not mention receiving the alert at all.

4.3 Discussion

Overall, the alert system worked well. Alerts were useful, timely, contained appropriate information and were easy to understand. The email/SMS media was supported and no problems with this mechanism of communication were identified. An added benefit of alerts was to maintain awareness during summer about heatwave and risk of heat related illness.

In summary, the principle of a heat health alert threshold system was viewed favourably by those consulted during the evaluation, despite some concern being expressed about the level of thresholds, some confusion about the derivation and meaning of thresholds and concerns about alert duplication.

4.3.1 Appropriateness of heat health alert thresholds

Clearly, the HHT needs to be set at an appropriate level. A threshold that is higher than evidence would support may lead to unnecessary illness. A threshold that is lower than evidence would support may limit the effectiveness and durability of the framework by diluting the importance of heat health messages and contributing to alert fatigue. In addition, a threshold that is lower than evidence would support may be costly if it unnecessarily diverts resources into heatwave and away from other activities.

The alert threshold is currently set based on the relationship between heat related deaths and temperature. There are a number of metrics on which the alert threshold could have been founded, including a combination of temperature and humidity, or illness rather than death. The United States National Oceanic and Atmospheric Administration National Weather Service (2010) heat alert procedures are based on a heat index which reflects both air temperature and relative humidity. The United Kingdom (UK) Health Protection Agency (2007) noted evidence of the link between heat and pollution and excess mortality and suggested research to determine effects of pollution in times of high heat. The Queensland Government (2004) set the criterion for a heat warning based on a combination of temperature and humidity. Nicholls et al (2008) noted that further analysis of factors which may have confounded the correlation between temperature and excess death, for example humidity and pollution, would be useful. Given the current evidence available, we consider the current reliance on temperature to be appropriate. However, the department may wish to consider commissioning further research on the impact of humidity and pollution (as per the recommendation by Nicholls et al, 2008). Research currently being undertaken by the BOM may restrict the extent to which the foundation for the threshold can be changed even if more evidence on the impact of humidity and/or pollution combined with heat on health becomes available. The department therefore needs to liaise closely with the BOM if it decides to pursue further research in this regard. If the department decides to pursue

evidence of correlation between temperature, pollution and health, the Environment Protection Authority Victoria should also be consulted.

The BOM in South Australia is developing an excess heat index in conjunction with the South Australian emergency management committee. The BOM advised that the index is similar in concept to the US Heat Index, although humidity appears to have been excluded by the BOM. While the science is under development, the index would be based on the mean of the daily maximum and overnight minimum temperature. A benchmark may be set at the 95th percentile of the index.[2] 'Excess heat' (measured by the index) would accumulate according to the length of time the index was forecast to exceed this benchmark. As an illustration, the BOM may send out warnings if the index is forecast to remain above the benchmark for 3 days or more. The excess heat index will possibly provide the basis for a national heatwave warning service operated by the BOM. In considering further changes to the alert thresholds, the department should consult the BOM about its intentions for the index and associated timeframes for implementation.

A HHA is distributed when the threshold is exceeded on any one day based on the analysis of Nicholls et al (2008) and Loughnan et al (2009). A number of stakeholders consulted suggested alerts should be based on a prolonged period of heat (i.e. the threshold is forecast to be exceeded for more than one day — see for example Table 4.1). This is not supported by the current evidence for mortality (see below), but may be relevant if the foundation for the threshold was changed. The foundation for the threshold needs to be appropriately matched to the objective of the alert and its target audience. For example, if the objective of the alert was to provide advance warning to an emergency department (ED) of a peak in activity, the threshold would need to be based on an analysis of the correlation between heat and attendances at ED (rather than mortality). We understand analysis of the impact of heat on health service provider throughput is currently being undertaken by the HHISS team. This research is important, and the findings should be discussed with key health service providers such as Ambulance Victoria. Further consultation with Ambulance Victoria on this issue is important for the acceptability of HHAS. The department may also wish to revisit the main objectives/functions of the HHA (for example by reviewing the program logic associated with it).

Nicholls et al (2008) found a correlation between temperature and excess deaths among people aged 65 years or over in Melbourne. Importantly, they concluded:

- When mean temperature (mean of today's maximum temperature and tonight's minimum temperature) reaches or exceeds a threshold of 30℃, the average daily mortality of people aged 65 years or more is about 15–17% higher than usual.[3]
- Similar numbers of excess deaths also occur when overnight minimum temperatures exceed 24℃ (increases of 19–21% over expected deat h rate).
- There is no strong correlation between deaths and daily maximum temperatures.
- A single day/night with temperatures exceeding the threshold is correlated with excess deaths, rather than requiring a prolonged period of heat over multiple consecutive days.

Additional research for the department by Loughnan et al (2009) examined whether similar thresholds existed for the rest of Victoria, looking at the major population centres of Bendigo, Wodonga, Latrobe Valley, Horsham, Hamilton, Ballarat, Shepparton, Lakes Entrance, Mildura

[2] The 95th percentile will be calculated using 30 year climate averages for the period 1960-1990 (a period recognised internationally for averages), however, the BOM may consider using the 1970-2000 data at some stage in the future and this could increase the benchmark in some areas (around 0.5-1°C) (email, Branch Head, Weather and Ocean Services, BOM, 4 September 2010).

[3] Long term and seasonal trends were removed from the deaths data.

and the Geelong region. The thresholds for each assessed region and the associated percentage increase in mortality on days exceeding the threshold are shown in Table 4.4.

The data in Table 4.4 are generally consistent with views expressed by councils about the appropriateness of the thresholds — that is, in southern and coastal regions, thresholds tend to be lower than those in the North-Western part of the State and the percentage increase in excess deaths tends to be higher. However, rather than linking this directly to acclimatisation as many stakeholders tended to do, Loughnan et al (2009) suggested the reasons could reflect socio-demographic differences, access to health care and health status and differences in social capital.

Table 4.4: Threshold temperatures for the major population centres included in the Loughnan et al (2009) analysis

Major population centre (Statistical District[(a)])	Threshold (mean of daily max and overnight min)	% increase in mortality on days exceeding the threshold
Bendigo (Loddon)	32	18
Wodonga (Hume)	30	None identified
Latrobe Valley (Gippsland)	30	18
Horsham (Grampians)	32	10
Hamilton (Western District)	34	7
Lakes Entrance (East Gippsland)	30	7
Geelong (Barwon)	28	15
Shepparton (Goulburn)	30	15
Ballarat (Central Highlands)	28	18
Mildura (Mallee)	35	10

[(a)] The Australian Bureau of Statistics deaths data were provided for statistical districts – not council regions. Source: Loughnan et al (2009)

The department should consider disseminating the following conclusions and views from Nicholls et al (2008) and Loughnan et al (2009) among councils because they dispel some commonly expressed 'myths':

- A single day/night with temperatures exceeding the thresholds is correlated with excess deaths, rather than requiring a prolonged period of heat over multiple consecutive days. (Moreover, this finding reinforces that effective public health messaging targeted to those at risk is a very important component of the framework because death can occur quickly in response to heat.)
- Regional populations outside metropolitan Melbourne are vulnerable to heat related illness.
- While older people living in the more temperate eastern side of the State are more vulnerable to heat events than those living in the warmer western regions, this may reflect socio-demographic differences, access to health care and health status, and differences in social capital (not necessarily acclimatisation).

For practical reasons (including to avoid confusion across neighbouring councils that aligned to different forecast locations), rather than adopting the Loughnan et al (2009) thresholds in Table 4.4, the department adopted a more standardised approach where the same temperature threshold (30 degrees) was applied to all areas of the State except Mildura. Views expressed by two non-council participants in this evaluation which operate across council boundaries lend support to the department's decision to standardise. However, the decision to standardise is not wholly supported by councils or regional offices. A significant proportion of the councils expressing views on this issue to the evaluation were not happy with either their threshold or

forecast location group (see section 4.2.1). This was confirmed by regional offices. (Forecast location groups are discussed later in section 4.3.2) Therefore the department may wish to consider reviewing the decision to standardise the thresholds.

Since Mildura was singled out as the one region to have a different threshold (reflecting its hotter climate), it is worth aligning its threshold with the evidence from Loughnan et al (2009) at 35 degrees. This would provide a more transparent footing for the threshold and improve the acceptability of the framework to councils in this forecast location group.

Councils and regional offices expressed a desire to be informed about the evidence basis for the HHT and the alert. It is important to engage councils and regional offices by providing them with information at key stages of development of the HHAS, and the excess heat index. Reinforcing that the alert is advisory and councils can determine a response based on local conditions should also allay some council concerns about the thresholds and forecast location groups.

4.3.2 Weather forecast location groupings for alerts

The Environmental Health Unit[4] suggested a three tier approach to thresholds and location groups — coastal, inland and northern. This aligns well with most of the feedback from councils, although its application to the North-East and East-Central areas of Victoria is unclear, and more research is required — in particular given the desire of councils and regional offices to understand the evidence base for the thresholds and location groups.

Changes in forecast location groups should be based on advice from the BOM and, if necessary, a cluster analysis to group councils with similar temperatures. The starting point for the cluster analysis could be clusters suggested by councils themselves, given their knowledge of local conditions. This would contribute to their engagement with the heatwave framework.

Expanding the councils included in the Mildura forecast location group to include Campaspe may improve the buy-in by Campaspe to the heatwave framework. However, this may create dissent among other councils who also requested a change (see section 4.2.1). There is limited evidence on which to make any changes (either for Campaspe or any other councils) at this point in time. The promise of further research and analysis as suggested above is likely to mitigate the concerns of these councils to some extent. Thus it is important that the department share with councils any decision to undertake further analysis, and the expected timeframes for this.

4.3.3 Did the alert trigger appropriate responses?

The consultations demonstrated uncertainty among some councils and possibly regional offices about whether or not councils were obligated to activate their plans on receipt of an alert or whether councils have discretion to respond to an alert in accordance with local conditions. On re-reading the State Plan, the evaluation team is of the view that the descriptions of the alert may have contributed to this uncertainty, and the department could revisit these descriptions to ensure they are clear.

The department should confirm the nature of the alert with councils and regional offices, including in the next State Plan. Uncertainty around this issue may also have implications for individual council heatwave plans. The specifications around plan activation should therefore be an area for councils to revisit during plan reviews. The department should also advise councils that they need to consider their response to alerts and the criteria for plan activation when reviewing their heatwave plans. This could be included in the evaluation section of the Planning Guide or plan review templates if developed.

[4] Meeting with Department of Health, 16 July 2010.

A number of councils are monitoring the CFA and BOM websites for local conditions. The BOM provides 6km grid maps for 7 day temperature forecasts at <http://www.bom.gov.au/forecasts/graphical/sectors/VIC_central.php>, which are easily accessible by councils. This site also enables councils to select the forecast location they consider most appropriate (e.g. Corangamite Council uses the Colac weather station for monitoring, but its formal forecast location group is Hamilton). This is of particular benefit to councils with varied landscapes for whom one threshold alone would not suit all areas within council boundaries. The department may wish to ensure relevant staff in councils and regional offices are aware of this site.

4.3.4 Did the alerts reach the target audience?

The departmental HHA contact list is comprehensive and includes all of the expected departmental staff, councils and other heatwave framework stakeholders. However, it is not clear whether those on the list who are expected to forward the alert to their networks are doing so. Where this is not occurring, it may reflect a lack of clarity around the responsibilities for alert distribution.

All of the council representatives had received the alerts, although some HACC providers indicated they were not aware of it.

Uncertainty about responsibilities for alert distribution has led to duplication because of concerns about gaps in the network and an inability to determine whether or who might be missing out. However, with duplication there is a consequent danger of alert fatigue. A protocol for the distribution of alerts which explicitly allocates responsibility for alert dissemination needs to be developed and widely promoted to departmental personnel, council staff and other contacts on the list. The protocol needs to clarify both State Government and local government responsibilities for distribution, and needs to cover local, State and Commonwealth funded organisations which operate locally across regions and who may benefit from receipt of an alert (hospitals, residential aged care, supported residential care, veterans services etc).

A number of those consulted (mostly non-government organisations) expressed interest in receiving the alert and supported the idea of an opt-in register. Relatively cheap options that the department may wish to consider for an opt-in service includes:

- Establishing an email subscriber service for heat health alerts. These allow users to subscribe and unsubscribe. There is generally a fixed cost of $5 to $6,000 and then a cost per email sent (just under 10cents per email).
- Including heat health alerts on the Chief Health Officer alert site (http://www.health.vic.gov.au/chiefhealthofficer/current-alerts.htm) enabling organisations to receive alerts via Rich Site Summary feeds.

These types of options obviate the need to update the alert register for those who opt in. However, there needs to remain a subset of key stakeholders in the framework to whom the department distributes alerts each summer (i.e. councils and other key stakeholders as per the current alert contact list). Currently there appears to be no formal system to update the HHA contact list for councils and key stakeholders each year.

4.3.5 Potential for conflict/confusion?

CSOs receive alerts from councils and other sources, without necessarily being familiar with the framework or the nature of the alert. They need to be included in education about the alert and what it means, and on the set of appropriate responses to a HHA. In establishing an alert protocol, the department should include instructions for councils or others on the contact list who are expected to forward alerts that they need to ensure those receiving the alert understand what it means.

Those consulted were generally unsure about the potential for conflict or confusion between the bushfire and heat health alert systems. Most likely this reflects recent developments in relation

to bushfire and the fact that heatwave alerts have only been in place for one summer and (moreover) the summer in question was relatively cool. Two people consulted were not aware of the basis for the fire alert and how it differed from the HHA. Given there was also some confusion about the derivation of HHTs and the meaning of heat health alerts, the department should continue to educate stakeholders about these issues.

A significant minority of councils mentioned that other parts of council receive notifications about hot weather from the Department of Education and Early Childhood Development (DEECD) and that this can be confusing and adds to alert fatigue. The department should talk to the DEECD about opportunities to ensure consistency in heat related messages.

4.4 Recommendations

1. Given the evidence available at present, the current reliance on temperature as the foundation for alerts is appropriate. However, the department may wish to consider commissioning further research on the impact of humidity and pollution (as per the recommendation by Nicholls et al, 2008).

   Department of Health response

   The department will continue to monitor the latest evidence about thresholds for heat health alerts to determine the most appropriate threshold for Victoria.

2. A number of stakeholders consulted suggested that alerts should be based on a prolonged period of heat (i.e. when the threshold is forecast to be exceeded for more than one day). This is not supported by the current evidence for mortality, but may be relevant if the alert was used to provide advance warning to health service providers of a peak in activity. We understand the HHISS team is undertaking analysis of the impact of heat on health service provider throughput. This research is very important, and the findings should be discussed with key health service providers such as Ambulance Victoria. Further consultation with Ambulance Victoria on this issue is important for the acceptability of HHAS. The department may also wish to revisit the main objectives/functions of the Heat Health Alert (HHA) (for example by reviewing the program logic associated with it).

   Department of Health response

   The department has analysed further data that strongly indicates increased morbidity and mortality within 24 hours of the onset of an extreme heat event. This information has been shared with data custodians including Ambulance Victoria.

3. Disseminating the evidence base for the derivation of the threshold, the level at which it is set and the forecast location groups is important in promoting the acceptability and sustainability of the heatwave framework. Recommendations to this end are as follows:
   a. The department needs to educate councils about how the threshold is derived (and how it differs from the fire danger index).
   b. The department should consider disseminating relevant conclusions and views from Nicholls et al (2008) and Loughnan et al (2009) which dispel some commonly expressed council and stakeholder 'myths'.

   Department of Health response

   The department will continue to work with councils and other stakeholders to increase understanding of the heat health threshold. Additional information titled *Heat health alert system information and guidance* has been developed and distributed to councils to clarify the derivation of the threshold, the forecast locations and the research basis for the heat health thresholds.

4. The threshold for Mildura should be aligned with the evidence from Loughnan et al (2009) at 35 degrees.

Department of Health response

In reviewing the heat health alert thresholds for Victoria, the department has considered a wide range of information including recent HHISS data. Following consultation with experts, including those from Monash University and the Bureau of Meteorology, the department has increased the heat health threshold in Mildura to 34 degrees, the average temperature threshold at which increases in morbidity and mortality are observed.

5. In considering further changes to the threshold levels, the department should consult the BOM.

Department of Health response

The department considers the Bureau of Meteorology a key stakeholder in the heatwave framework. The department has consulted with the Bureau of Meteorology and other key stakeholders in revising heat health thresholds, and will continue to work with the Bureau into the future.

6. Changes in forecast location groups should be based on advice from the BOM and, if necessary, a cluster analysis to group councils with similar temperatures.

Department of Health response

The department has realigned forecast location groups and associated heat health thresholds in consultation with the Bureau of Meteorology. The Bureau's climatic analyses were the basis for assigning three heat health temperature bands in Victoria. The heat health threshold forecast location districts now also align with total fire ban districts, fire danger boundaries and council boundaries.

7. It is important to engage councils and regional offices by providing them with information at key stages of development of the heat health thresholds and the forecast location groups. Reinforcing that the alert is advisory and councils can determine a response based on local conditions should also allay some council concerns about the thresholds and forecast location groups.

Department of Health response

The department is continuing to work with councils to provide information on developments to heat health thresholds. The department has provided additional; information to accompany heat health alerts to inform councils and other alert recipients of the heat health thresholds and forecast districts in Victoria. The information reinforces the message that alerts are to provide information about forecast hot weather to enable services to consider taking action in accordance with their local plans and arrangements.

8. A protocol for the distribution of alerts needs to be developed, allocating responsibility for alert dissemination. This would improve transparency, allowing gaps to be identified and would reduce duplication. The protocol needs to be widely promoted.

Department of Health response

The *Heat health alert system information and guidance* document outlines the direct departmental distribution of the alerts so services are aware of which organisations are receiving the alerts and may forward the alert if appropriate.

9. Community service organisations receive alerts from councils and other sources, without necessarily being familiar with the framework or the nature of the alert. They need to be included in education about the alert and what it means, and on the set of appropriate responses to a HHA. In establishing an alert protocol, the department should include instructions for councils or others on the contact list who are expected to forward alerts that they need to ensure those receiving the alert understand what it means.

Department of Health response

In continuing the roll out of the heat health alert system, the department is working to improve community service organisations' understanding of the function of the heat health alert system and is developing a guidance note for organisations to clarify their responsibilities to clients and staff in service provision during periods of extreme heat.

10. The department could consider developing an opt-in register for organisations that wish to receive an alert, while maintaining a separate list of key heatwave framework stakeholders (such as Departmental staff and councils) who, of necessity, require the alert.

Department of Health response

The department's long term goal in relation to heat health alerts is to encourage organisations to be aware of their local heat health thresholds and to check local weather forecasts independently as a trigger for actions. In the interim, the department is continuing to issue emailed heat health alerts and has also provided alerts on the department's website as a downloadable file and through an opt-in subscription to a really simple syndication (RSS).

11. A formal system needs to be developed to ensure the key stakeholder contact list for alerts is updated each year.

Department of Health response

The department undertakes a process to check contact details for each stakeholder prior to summer and issues a test heat health alert to ensure receipt of alerts.

12. The department should talk to the DEECD to ensure consistency in heat related messages.

Department of Health response

The department considers DEECD a key stakeholder in heat health messaging. The department will continue to consult with the relevant program areas within DEECD to ensure consistent heat health messaging.

5 The processes and supports for local council plans

5.1 Introduction

The processes and supports for local council plans included:

- Funding of 13 pilot projects involving 22 councils. The experience from these pilot projects was used to develop the *Heatwave Planning Guide*.
- Funding grants to support the remaining 57 councils to develop and implement a heatwave plan.
- Preparation and distribution of the *Heatwave Planning Guide* to assist councils to plan for heatwaves.
- Heatwave information forums provided by the department for councils.
- Quickplace — a centralised electronic information resource provided by the department and accessible by councils to provide them with publications, resources and the opportunity for online discussion.

The planning guide is discussed separately in section 6.

5.2 Consultation findings

5.2.1 Councils

Supports for council planning

The pilots, grants, planning guide, information days and online forum were considered useful (Table 5.1).

Table 5.1: What councils found useful for planning

Survey question	Response content	Total(a)	Y	N
5.c	The pilots were useful	7	6	1
	The planning guide was useful	13	11	2
	The information day/education forum was useful	8	8	0
	The grants (funding) were useful for engagement and production of plans	8	8	0

(a) The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

(b) A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

At least six councils which specifically commented on the pilots, considered the pilots were useful and there was evidence that a number of councils not involved in pilots drew on the pilots in developing their plans. While a minority of pilot projects did not culminate in finalised plans for the councils involved, they identified broader heat health issues for their area that contributed to useful knowledge more broadly.

Many councils acknowledged the helpfulness of the information day/education forum that the department provided as part of the planning process. This was also acknowledged to be an

effective mechanism for continued engagement of councils and for information sharing. Some councils were very enthusiastic about the information forums.

The planning grants appeared to be a key factor in the realisation of council plans for the 2009-10 summer. The funds were used to develop communication resources, appoint consultants to prepare plans, appoint project officers (to enable council staff to go off line to prepare their plan), train staff, consult the community and/or to fund other promotional activities (Table 5.2). Two councils mentioned they were unhappy with the plan produced by their consultants. This appeared to be in part an ownership issue, and reflected that the councils were seeking a plan more tailored to their municipality than initially provided by the consultant.

Ten councils stated that the planning guide, State Plan and communication resources were released late in the process, and six councils mentioned that the delay in release of the State Plan led to additional work for councils or meant that expectations were not clear.

Table 5.2: How councils used their grants

Survey question	Response content	Total(a)	Y	N
4.b	Appoint consultants to prepare the plan	12	12	0
	Appoint project officers	4	4	0
	Train staff	7	7	0
	Consult the community/community agencies	8	8	0
	Develop communication resources	11	11	0
	Fund other resources (e.g. neck ties, thermometers, water bottles, promotional events)	8	8	0

(a) The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

(b) A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

Barriers to planning

Competing priorities and the tight timeframes experienced by some councils were mentioned as barriers to the finalisation of heatwave plans (Table 5.3). A number of councils expressed concern about the added responsibility of heatwave and the lack of ongoing funding to support plan updates, community engagement, staff training and local awareness strategies.

Table 5.3: Barriers to planning

Survey question	Response content	Total(a)	Y	N
5.b	The requirement to develop a heatwave plan coincided with requirements to develop Municipal Emergency Management Plan (MEMP) and Health and Wellbeing plan (H&WP). This created particular difficulties for small councils with few resources	2	2	0
	The timing with the MEMP and H&WP also created opportunities for synergies	1	1	0
	Affected by the bushfires and had limited scope to develop heatwave plans/made it difficult get heatwave message out	6	6	0
	Tight timeframes were challenging (e.g. made it difficult to engage other council staff and the community)	12	12	0

Survey question	Response content	Total(a)	Y	N
	Staff turnover has been a barrier to planning	1	1	0
	Smaller councils are under-resourced for this sort of work	6	6	0

(a) The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

(b) A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

Revising plans for this summer

Most councils intended to review their plans before next summer, while a few had already undertaken this task (Table 5.4). One council commented that their review would take place in three years time, as part of the review of their H&WP, of which the heatwave plan is a sub-set. A small number of councils (three) considered that a review was not necessary or possible yet as their plans weren't tested because of the relatively cool 2009-10 summer.

Table 5.4: Councils intentions for future review of plans

Survey question	Response content	Total(a)	Y	N
7	Has procedure in place for revising their plan	18	15	3
	Has already reviewed their plan	3	3	0
	Intends to review the plan before next summer/annually	13	13	0
	Has scheduled a review for some other time in the future (e.g. as part of H&WP review)	1	1	0
	Don't believe review is necessary/possible as plan wasn't tested last summer	3	3	0

(a) The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

(b) A response means either an answer to the survey question or a direct verbal response during a consultation meeting. A non-response indicates either that the survey question was left blank, or there was no direct verbal response at the consultation meeting.

Many councils believed that the planning guide, a plan review checklist or a central clearinghouse of successful initiatives would be useful tools for helping them to review their plans in the future. Facilitating communication between councils about what works would also assist plan reviews.

While informal networks between councils exist and have been used for communication during the development of heatwave plans, it was emphasised by a number of councils that use of existing formal communication networks may be helpful for information sharing in the future. Communication frameworks have been mentioned elsewhere in this evaluation report.

QuickPlace was also mentioned as a useful way to share information. Ten councils were aware of QuickPlace, four considered it useful and three councils suggested that ease of access could be improved.

How to continue council engagement with heatwave

The Chief Health Officer's (CHO) report (DHS 2009) and the grants for heatwave plans were probably the two most important factors in engaging councils with the framework. Council awareness of the CHO report was extremely high. The report also assisted councils to engage organisations in their local areas.

Suggestions for promoting continued engagement in heatwave included an annual heatwave forum conducted by the department, the distribution of information to councils about what works (either as part of the forum, or through Quickplace or through existing communication networks), the dissemination of analysis of morbidity, mortality and health service use disaggregated by Local Government Area (LGA) so councils can track patterns (noting the importance of the CHO report in engaging councils and members of their community), and the formal incorporation of heatwave plan reviews into the council work cycle.

5.2.2 Regional Environmental Health Officers (REHOs)

From the REHO's perspective, the planning processes and supports were informative and useful and resulted in most councils having final drafts or completed plans for last summer.

One REHO noted that some councils chose to use the resources provided for heatwave plans more broadly for their Municipal Public Health Plans which worked well. Two other REHOs questioned the foundation for the heatwave planning grants noting that no funds were provided to facilitate other types of plans such as pandemic planning. One REHO argued the department should be congratulated on the provision of funding as this enabled the work to be appropriately resourced and valued.

One REHO suggested that provision of funding through the regional offices may have enabled coordination. There was some duplication of effort with three councils engaging the same consultant who was paid three times for a very similar plan.

One REHO suggested the staging was not ideal and the planning guide, State Plan and communication resources would have been even better if distributed earlier. Another REHO suggested the supports were timely.

Barriers to development of plans

Some of the barriers to plan development mentioned by REHOs included: a new area to plan in; gaining commitment and interest from partners; broadening council thinking from an internally focused approach to broader partnership development; competing priorities with bushfire reviews and issues, pandemic planning, and public health planning. One REHO noted that smaller rural councils tended to struggle due to an absence of a strong planning capacity.

Regional office views about adequacy of plans to date

Many plans are adequate and provide a solid foundation for refinement over time. Some plans still require more work before they can be implemented in the 2010-11 summer. In general, plans tend to be focussed on council clients and in particular, Home and Community Care (HACC) clients. Other possible area for improvement include

- development of partnerships with external agencies; and
- active identification of the need for evaluation.

Two REHOs suggested there is a need for external evaluation of each council's heatwave plan.

Ensuring the framework endures

Suggestions for ensuring the framework endures included:

- Garnering commitments from councils to evaluation and plan review;
- Forums — including a forum to discuss the findings of this evaluation;
- Training;
- Consider further funding, particularly for smaller rural councils;
- Provision of information and research on impact of heatwaves; and

- An annual heatwave report similar to the CHO's 2009 heatwave report (DHS 2009).

5.2.3 Other stakeholders

Analyses of individual council plans were out of scope for this evaluation. However, in its submission to the evaluation, VCOSS described the findings of its preliminary analysis of nine local government heatwave plans. VCOSS suggested that while some vulnerable groups were identified as at high risk in the plans, this did not necessarily translate into targeted communication or actions to address risks for these groups. Of the nine plans examined, four or fewer identified homeless people, those in public housing, caravan residents, drug and alcohol users as vulnerable, and only one had targeted communication to some of these groups. VCOSS suggested that councils could be assisted with information about how to approach these groups. VCOSS further suggested that councils could be assisted to extend the range of local agencies with which they had partnerships. Evaluation of initiatives for targeted risk reduction, and the dissemination of outcomes and learnings from evaluation was recommended by VCOSS.

5.3 Conclusions and recommendations

The planning processes and supports worked well. Nevertheless it is possible that earlier release of the planning guide and State Plan would have increased their value given the body of comments on timing of the release of these two documents. Grants for developing plans were particularly important in council engagement and in achieving a high completion rate for the 2009-10 summer — especially given competing priorities.

A number of councils expressed concern about the lack of ongoing funding for heatwave planning. Continued provision of supports such as annual heatwave information/discussion forums, Quickplace and use of existing communication networks to disseminate information and raise specific issues related to the framework will facilitate the endurance of the framework and its ongoing evolution. Together with these supports, encouraging regular plan reviews, in part by providing a simple checklist/proforma to assist reviews, is also likely to embed continuous improvement. Concentrated efforts by the department to facilitate communication with and between councils through existing communication forums (as per recommendation 6 in chapter 3 relating to the evaluation of the state plan) will also assist councils to clarify their role and what is expected of them.

The CHO's report (DHS 2009) was very important in engaging councils and other organisations with the framework. Further research on the impact of heatwave and dissemination of research findings would also support continued engagement with the framework.

An area for further development of the framework over time is to raise awareness among community members who are at risk of heat related illness but who are not currently directly receiving services — in particular, this might include people with a mental illness, people with a disability, homeless people and others mentioned elsewhere in this report. The department might consider ways in which it can provide information to agencies representing these groups, for example by designating this for discussion at a heatwave information forum to promote swapping of ideas and approaches between these agencies, councils and other service providers.

5.4 Recommendations

1. Continued provision of supports such as annual heatwave information/discussion forums, Quickplace and use of existing communication networks to disseminate information and raise specific issues related to the framework will facilitate the endurance of the framework and its ongoing evolution. Together with these supports, encouraging regular plan reviews in part by providing a simple checklist/proforma to assist reviews is also likely to embed continuous improvement. Concentrated efforts by the department to

facilitate communication with and between councils through existing communication forums will also assist councils to clarify their role and what is expected of them.

Department of Health response

The department will continue to provide support to organisational heatwave planning and review through a range of communication mechanisms.

2. The department might consider ways in which it can assist councils to contact and provide information to agencies representing groups of people who are at risk of heat related illness but who are not currently directly receiving services.

Department of Health response

The department will continue to work with councils and peak organisations to facilitate broad information sharing regarding heatwave planning to best meet the needs of community members.

6 Evaluation of the Heatwave planning guide

6.1 Introduction

The *Heatwave planning guide* was designed to assist local councils to address the risks associated with heatwaves at their community level. The planning guide was developed after the pilot projects were undertaken and the Heat Health Alert System (HHAS) was instigated. As summarised in the Guide's executive summary, it "provides local councils with:

- information about heatwaves and municipal planning;
- guidance on how to develop a heatwave plan;
- examples of stakeholders and partners to consider in the planning process;
- actions recommended for local councils to implement; and
- advice on developing a communication strategy."

(Quoted from *Heatwave planning guide*, p. vii)

Evaluation of the planning guide considered how useful it was in helping councils that were not involved in pilot projects to develop their own heatwave plans; what other resources they had available to assist with development of their plans; and the potential for the guide to have any further place in heatwave plan development.

6.2 Consultation Findings

6.2.1 Councils

The planning guide was perceived as useful by the majority of councils that were consulted. However, the usefulness of the planning guide was impacted somewhat by the staging of the document as it was released after some councils had completed their plan. Of the 13 councils who responded on the issue 11 indicated that they found the guide useful. Of two councils who did not find the planning guide useful (see Table 5.1), one thought it was too simplified and covered information about which councils were already very familiar. The other council noted that it was received after the first draft of their strategy was completed, and therefore the timeliness of distribution could have been improved.

The inclusion in the planning guide of concrete examples from the plans of other councils was perceived as extremely useful. However many plans were written by consultants rather than council staff and so few of those involved in the consultations were able to comment on the planning guide. Two councils suggested the planning guide was not successful in promoting a common approach to heatwave across all councils.

Of the 13 councils who responded on the issue, 10 indicated that the Guide has a useful role to play in revising council plans in the future. Other suggestions by councils for future assistance in revising plans (e.g. an annual forum for information sharing or simple checklist) could act as a complement to or substitute for the planning guide for this purpose.

6.2.2 REHOs

One REHO suggested the planning guide still has a role because planning is a cycle and the focus on implementation and review is important.

6.3 Discussion

As all councils now have at least initial heatwave plans, the original objective of providing a document with advice on starting a heatwave plan has been achieved. In future development of plans, the document has some capacity to be added to in order to assist further, particularly in reviewing and updating plans. The planning guide may be a useful repository of information including guidelines for plan reviews and examples of best practice if it is revised as a guide to future heatwave plans. It has the potential to enhance consistency of approach across councils, and may be useful to other organisations than local councils in considering heat responses in their all-hazards approach to emergency management.

6.4 Recommendation

1. Consider adding to the planning guide to include guidelines for heatwave plan reviews and examples of review activities in local councils.

Department of Health response

The department is committed to supporting councils and other service providers to best meet the needs of community members. The department plans to develop additional information resources to assist councils to review and further develop their heatwave plans within the planning framework of their council.

7 Evaluation of the communication resources

7.1 Introduction

A number of communication resources were produced in December 2009/January 2010 by the department in order to raise community and service provider awareness. Hard copies of the resultant poster, brochure and telephone script were widely distributed. A template for a promotional label suitable for use as fridge magnets or other promotional uses was made available. In addition a fact sheet for clinicians was developed primarily for general practitioners, emergency physicians and some other health practitioners. The resources were all available on the department's website as pdf documents for downloading. Newspaper advertisements were produced by the department, together with information to be circulated during seniors week as advertisements. Resources were translated into nine languages initially: Arabic, Cantonese, Croatian, Greek, Italian, Macedonian, Mandarin, Turkish and Vietnamese. Subsequently other translations have been made, including Polish, Russian and Dutch.

The communication resources were posted on the department website at the end of December 2009 and beginning of January 2010. In January 2010 all local councils and all divisions of General Practice Victoria received multiple hard copies of the poster, brochure and telephone script produced by the department (see Appendix M Table M.1; Buchan 2010 listed all organisations that were targeted for distribution). Translated and English versions of the resources were also provided to SBS radio. Altogether, over 232,500 brochures, 22,620 posters and 497 telephone scripts were distributed to local councils and HACC services. In addition 168,700 brochures and 16,870 posters were distributed to general practice divisions (see Appendix M Table M.2). Resources were made available in electronic form for downloading on the departmental website. Resources were also available in translations on the departmental website. Some examples of council distribution of communication resources are in Table 7.1.

Table 7.1: Council distribution of communication resources

Council	Organisations receiving communication resources from councils
Boroondara	Health, Ageing and Disability Services clients
Campaspe	Doctors, community centres, shire service centres, CSOs (children's services, Murray Darling Division GP, local hospitals, council service centres, neighbourhood houses)
East Gippsland	All local media and community organisations
Glen Eira	Community groups, libraries, maternal and child health centres, home and community care clients, senior community register, Jewish Care
Port Phillip	Rooming house residents, community centres, aged people receiving council assistance
Stonnington	Inner South Community Health Service, Caulfield Community Health Service, Cabrini Health, New Hope Foundation, MECWA, Jewish Care, Prahran Mission, RDNS, GP Division, Office of Housing, Port Phillip Community Group
Strathbogie	Not yet done

7.2 Consultation findings

7.2.1 Local council consultations

The following narrative summary of consultations has been derived from transcripts and notes taken during consultations with local councils and other stakeholders (see Appendix A for full methodological detail).

Getting the message across

In group discussions, councils agreed that awareness of heat health was higher since the introduction of the heatwave plan than before the initiative. Councils considered themselves to be appropriate vehicles to disseminate information as they have the local knowledge and know the local towns and areas best. One council did not recall receiving any hard copies of the resources (probably due to staff turnover) but the majority of councils that were consulted indicated that they received the resources and distributed them to appropriate sections of their council, although there were no quantitative records available to indicate how many resources were distributed to which organisations within local councils.

Councils indicated that part of their plan for the coming summer was to distribute resources and that they were being innovative in the way they were distributing resources and communicating the heat health messages. Newsletters, local newspapers, local TV and radio, maternal and child health handouts at visits, and Raising Children's Network were mentioned as vehicles for getting the messages across. Other distribution was via senior citizens clubs, HACC workers, schools - via immunisation staff, and children's services. Nine councils mentioned using local media messaging to distribute the messages.

Local newspaper advertisements were mentioned by seven councils for distribution of heatwave messages. Latrobe Council produced a show bag for clients that included drink bottles, brochures, and thermometers. Smaller councils such as Yarriambiack expressed enthusiasm for these innovative ideas, but indicated that they did not have the resources to provide them for their citizens. Brochures were also used to educate council staff who were then passing on the information to their clients. Four councils were appreciative of having the department's resources as they did not have the funding to produce their own. Yarriambiack council sent the brochure out with accounts and had distributed a lot of brochures.

Several councils (Banyule, Bendigo, Kingston, Moira, Shepparton) mentioned or had used the 'Beat the Heat' resource developed by the City of Yarra as part of the pilot heatwave projects, and the pictorial nature of the resource was considered more desirable, compared with the department's resources which used more word-based messaging. Moira council continued to use the 'Beat the Heat' resource after the department's resources became available, and have received favourable feedback about the resource. Three councils use the ARC 'Redi-plan' (an all hazards household emergency plan proforma) instead of department's resources.

Councils discussed the images used in the resources as being important to the effectiveness of getting the message across. One council (Baw Baw) liked the image being used in another council's plan (child in a hammock) and preferred that image to those used in the department's resources. Some discussion ensued about modernising the images (three councils). One council thought that the messages were too busy. The 'know your neighbour' message was favoured by five councils, in the context of citizens taking some responsibility for their own safety. Six councils wanted to focus on building community resilience, rather than council taking on further responsibility.

Timing of the department's resources being distributed when other resources were already available was an issue that was discussed in group discussions. Because the department's resources came out after some councils had started developing their own resources, they were then reluctant to switch to the department's resources. For example Baw Baw developed their own and then used the department's resources to supplement their own resources.

Table 7.2: Number of councils indicating that they had developed their own heatwave resources[(a)]

Resource type	Number of councils
Posters	3
Brochures	2
Book marks	1
Water bottles	4
Thermometers	2
Fridge magnets	3
Neck ties	3
Maps of water fountains/cool places	2
Hand held fans	2

[(a)] The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

The Traralgon group discussion indicated that any changes to the resources should be instigated by end of October at the latest in order to be implemented for the coming summer period. Two councils (La Trobe, Whittlesea) queried why the department is changing the colours of the resources when people would recognise the colours of last year's resources.

Access to heatwave messages for CALD groups was discussed by local councils. Resources translated into different languages were acknowledged as being useful and readily available on the department's website. Extra languages were suggested for translations to cover other CALD communities in Victoria – Afghani, Sudanese, Hindi, and Iranian. 'Easy English' brochures were suggested by one council (Whittlesea) as being a useful extension of the current brochures – for example, Redi-plan is a preferred resource because of its readability. However radio messaging was considered problematic for CALD communities who may be linked in to international news and radio with broader news coverage rather than local specific news in their own language. The example was given of CALD people concerned about bushfires after hearing about them on international news.

Councils made a number of suggestions for extending the department's resources to assist them in distribution of the heatwave messages (see Table 7.3 and Table 7.4). Ideas such as a standard newspaper advertisement for addition to the local newspaper; a standard script to be played as an 'on hold' message when people ring the council'; an advert to put in the school newsletter; and generic messages for community radio were discussed by two councils (Mansfield, Hume). Messaging printed on council bills was preferred by Whittlesea rather than adding brochures into council bill envelopes, so that standardised messaging in that format would also be preferred.

Televised messaging was discussed by a number of councils and considered to be very important by at least five councils. For example Baw Baw suggested that broader education on television would enable the message to get out to groups not in contact with local councils, such as sporting groups and the wider public. Mildura council have already sent out messages about heatwaves through WIN news and newspapers, but television reception coming from regions other than the one they are located in on some days was raised as a barrier to using TV for alerts about extreme weather in specific regional areas (for example, Yarriambiack sometimes receive television reception from Ballarat). Televised messaging was considered more appropriate as a state responsibility rather than local council responsibility.

Councils requested further guidance on how to distribute resources and also to be more aware of who else was distributing resources. One council (Whittlesea) suggested building a dissemination strategy into the state plan, to avoid duplication of distribution of messages. Duplication of effort was also mentioned in the context of adding heatwave messages onto

council websites (Whittlesea) – the department could provide more scripted messaging to add onto council websites so that they were not 're-inventing the wheel'.

Table 7.3: Council suggestion for where to display communication resources

Good locations for displaying resources
Chemists
General Practices
Churches
Supermarkets
Pubs
Swimming and leisure centres
Backpacker accommodation for fruit pickers and itinerant workers
Day centres
Maternal and child health centres
Libraries
Senior citizens clubs
Schools via immunisation staff

Table 7.4: Council suggestions for future extensions to communication resources[(a)]

Suggested extension	Number of councils
Worksafe – Working in the Heat	1
Large print resources	1
Nightly heat health message with TV weather report (similar to fire and smog alerts)	5
Other TV advertising	1
'On hold' script for local council telephones	1

[(a)] The questions were not mutually exclusive so it is not possible to add up the responses to obtain a total. In addition, not all survey respondents or councils consulted answered every question.

7.2.2 Other stakeholder consultations

During consultations with CSOs and service providers for vulnerable groups we received feedback on the appropriateness of the departmental communication resources for the groups they represent (such as people with a disability, people with a mental illness, people with problematic alcohol and/or other substance use, homeless people and people living in community housing). The overwhelming message was that these resources are aimed at a level of literacy that is too high and that more pictorial resources need to be developed to effectively reach these groups.

The VPTA favoured the Beat the Heat resource developed by City of Yarra Council as part of its funded heatwave pilot project.

The effective distribution of communication resources was also an issue for discussion. One organisation commented that resources need to be available in places that will reach people who do not have access to a television. Suggested locations were supermarkets, bottle shops, libraries and other public spaces. As an alternative means of raising awareness of heatwave health issues, it was suggested by another organisation that water bottles be distributed to vulnerable groups, for example through soup kitchens, methadone dispensers and needle exchanges. Providing tangible products such as cool neck ties and water bottles to more

marginalised groups such as those in rooming houses may be an effective way of getting messages through.

During these consultations, it was identified that awareness of heatwave needs to be developed on two levels. The first is a continual education process, whereby the community is informed of the dangers of heat related illness, actions that can be taken on hot days and that people need to be aware of others who may be vulnerable. The second is the message that alerts people that it is a hot day and to take care.

The sample of organisations consulted representing people with a mental illness, disability, alcohol and/or drug problem or people living in public or community housing were not aware of the departmental communication resources prior to our contact with them. When shown the communication resources, their strong advice was that picture based communication was preferable. VALID noted that all of their own communication resources are pictorial. The VPTA favoured the Beat the Heat resource. A rooming house provider noted that they found cartoons most effective.

Images such as the young boy drinking from a bubbler and the open window with flowing curtains were considered too abstract. It would be useful to include a person with a disability in one of the pictures to improve acceptability.

Two organisations at separate meetings declared that the wording used in the poster was closer to the level of literacy required, but still too literate. It was suggested that the department consult a specialist in easy-English for the production of suitable communication resources and that these would be particularly useful for registered disability services.

Some organisations suggested that the departmental flyers had a strong brand and this may be less effective for some groups.

It was suggested that rather than using terminology such as ‘look after others’ (for example in the label) the message should be ‘keep in touch with others’ as the latter connotes greater independence.

The resources should note that some medications can be affected in extreme heat. In addition, a comment was made that the message not to drink alcohol in the heat may alienate people with an alcohol problem and a more effective message for this group might be to drink less alcohol and drink more water.

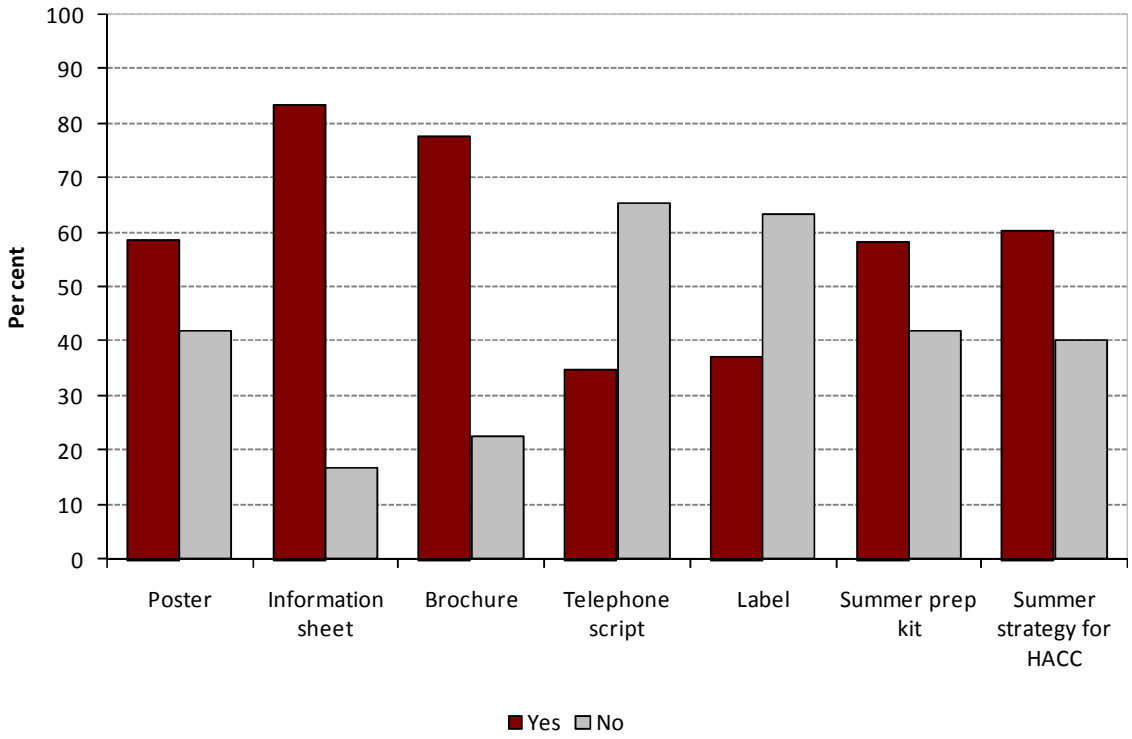
Yooralla suggested that Facebook and Twitter are effective mechanisms for reaching some people with a disability, particularly those with a severe physical disability but with no cognitive impairment, as this is an important medium through which they engage with the community.

7.2.3 Home and community care provider survey

One hundred and nine HACC providers responded to the written survey asking them about awareness of communication resources (see Appendix C for copy of survey; Appendix F for the list of providers who completed the survey (see Appendix A for further methodological detail). When HACC providers were asked about awareness of the communication resources, the following results were found.

The percentage of HACC providers aware of resources was highest for the information sheet (83.3%) and brochure (77.4%) while to a lesser extent providers were aware of the poster (58.3%). Sixty percent of providers were aware of the summer strategy for home and community care, and 58.1 percent were aware of the summer preparedness kit. Lower percentages of HACC providers were aware of the telephone script (34.6%) or promotional label (36.9%) (see Chart 7.1).

Chart 7.1: Percentage of HACC providers aware of the department's communication resources



Most (76.1% of 108) HACC providers thought that they remembered hearing or seeing media reports on keeping safe in heatwaves last summer.

When the figures were broken down by whether respondents were HACC providers from local councils or non-council HACC providers such as not for profit organisations, it was clear that awareness of resources was higher among council HACC providers for all the types of resources. For the poster, 79% of HACC providers were aware, while only 51.4% of non-council providers were aware ($p<0.01$, chi square = 6.683; see Table 7.5).

Table 7.5: Percentage of council and non-council HACC providers that were aware of the department's poster, 'Staying healthy in the heat'

		Poster awareness		
		No	Yes	Total
Council	Count	6	23	29
	% within councils	20.7	79.3	100.0
Non-councils	Count	35	37	72
	% within non-councils	48.6	51.4	100.0
Total	Count	41	60	101
	% within total	40.6	59.4	100.0

The information sheet and brochure were most well known among HACC providers. For the information sheet, more council HACC providers were aware of the sheet than non-council HACC providers (93.3% compared with 81.6%; see Table 7.6) but the difference was not significant.

Table 7.6: Percentage of council and non-council HACC providers that were aware of the department's information sheet, 'Preventing heat related illness fact sheet'

		Information sheet awareness		
		No	Yes	Total
Council	Count	2	28	30
	% within councils	6.7	93.3	100.0
Non-councils	Count	14	62	76
	% within non-councils	18.4	81.6	100.0
Total	Count	16	90	106
	% within total	15.1	84.9	100.0

For the brochure, council HACC providers again were more aware than non-council HACC providers, but the difference was not statistically significant (see Table 7.7).

Table 7.7: Percentage of council and non-council HACC providers that were aware of the department's brochure, 'Heatwave: important health information for summer'

		Brochure awareness		
		No	Yes	Total
Council	Count	3	27	30
	% within councils	10.0	90.0	100.0
Non-councils	Count	19	55	74
	% within non-councils	25.7	74.3	100.0
Total	Count	22	82	104
	% within total	21.2	78.8	100.0

For the telephone script, council HACC providers were significantly more aware of the script than non-council HACC providers ($p<0.01$, chi square = 7.01; see Table 7.8).

Table 7.8: Percentage of council and non-council HACC providers that were aware of the department's telephone script, 'Preventing heat related illness'

		Telephone script awareness		
		No	Yes	Total
Council	Count	13	16	29
	% within councils	44.8	55.2	100.0
Non-councils	Count	53	20	73
	% within non-councils	72.6	27.4	100.0
Total	Count	66	36	102
	% within total	64.7	35.3	100.0

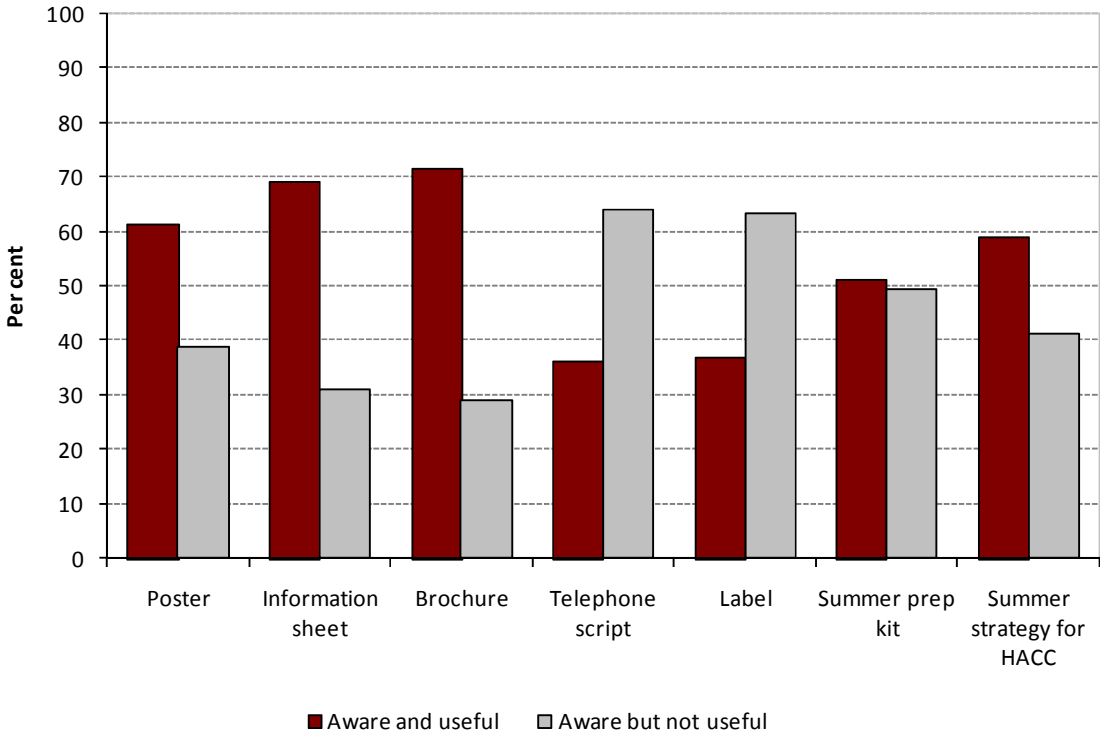
For the promotional label, council HACC providers were significantly more aware of the promotional label than non-council HACC providers ($p<0.05$, chi square = 4.198; see Table 7.9).

Table 7.9: Percentage of council and non-council HACC providers that were aware of the department's promotional label, 'Staying healthy in the heat'

		Promotional label awareness		
		No	Yes	Total
Council	Count	13	15	28
	% within councils	46.4	53.6	100.0
Non-councils	Count	50	23	73
	% within non-councils	68.5	31.5	100.0
Total	Count	63	38	101
	% within total	62.4	37.6	100.0

When asked whether each resource was useful, HACC providers indicated the brochure was most useful, followed by the information sheet and poster. The least useful resources were the promotional label and telephone script (see Chart 7.2).

Chart 7.2: Percentage of HACC providers aware of each resource and whether they found the resource useful



When HACC providers were asked whether they thought that the department's resources were effective in raising awareness of their clients, 80.4% of 97 providers agreed that the resources were effective in awareness raising. 87% of 100 providers thought that the resources were effective in raising awareness of their staff.

Ten HACC providers targeting culturally and linguistically diverse communities (n=8) or Aboriginal and Torres Strait Islander communities (n=2) responded to the mail out survey. While numbers were too small to make statistical comparisons, it appeared that CALD organisations were less likely to be aware of the department's poster than generalist HACC organisations (33.3% of CALD organisations compared with 63% of other organisations). CALD organisations were slightly less likely to be aware of the department's brochure than generalist

HACC providers (67% compared with 77% respectively) but CALD organisations were more aware of the information sheet (90% compared with 83%).

When HACC providers were asked how they thought the resources could be improved, 55 providers made suggestions.

Three comments complimented the department on the resources:

> *"The brochures were most useful as we were able to print items as required. An update each summer period should reflect the current heatwave position."*
>
> *"Good as they are"*
>
> *"Very good - visual, plain language. Information was readily able to be incorporated into agency client / staff information and procedures."*

Thirteen suggestions for improvement were about keeping the messages simple, using plain English, more pictures and less words:

> *"Bigger writing and more basic – not as detailed"*
>
> *"Needs to be basic, directed by a medium that the target group utilises"*

Seven other comments were about targeting the messages to more specific groups such as specific CALD communities, individuals in their own homes, region specific resources:

> *"There could be created a few categories of resources, depending on the role of the person: focused on clients, volunteers / paid staff, carers etc"*

Nine comments were made about widening the variety of formats for resources, especially using television and the media to distribute messaging, use of emails and websites, larger font resources for vision impaired people, and production of DVDs to watch at home. Four comments suggested reviewing the administration of the resources in the following areas:

- timeliness of production;
- clarification of the roles of community care providers;
- consolidation of various sources as there are multiple types of information available from different sources; and
- distribution directly to clients rather than via service providers.

When HACC organisations were asked which people might be missing out on heatwave messages, suggestions included:

- CALD communities (seven organisations);
- people with dementia and their carers (six organisations);
- elderly residents (six organisations);
- people who are homeless, socially isolated or out of reach of radio, TV, newspapers (12 organisations);
- volunteers and staff (seven organisations);
- people who are illiterate (one organisation);
- people who are in hospital, on holidays or in respite during the heatwave (one organisation); and
- people in public housing (one organisation).

7.2.4 Supported Residential Services survey

According to a 2008 census of supported residential services in Victoria, SRS tend to provide services to two main categories of residents (Van Dyke 2008). Pension-level facilities tend to provide support to younger males with psychiatric, intellectual, acquired-brain injury or drug/alcohol disabilities. Above-pension level facilities tend to support older females with age-related frailty, dementia or physical disabilities. The mean age of residents in all SRS was 70 (range 19-110) while the most common age was 80-89 age range. Twenty six SRS organisations responded to our written survey asking them about awareness of communication resources (see Appendix G for copy of survey; Appendix H for the list of organisations who completed the survey (the full list of organisations who received the survey is available on request; see Appendix A for further methodological detail).

Twenty-five of the SRS respondents reported that they take some action during a heatwave. Sixteen of them said they use either verbal or written communication with their residents both before and during a heatwave to inform them of what they should be doing to keep cool and safe. The types of communication most commonly used were daily verbal communication, handouts, newsletter, articles, brochures, memos (n=7); noticeboards, posters (n=6); communicating to residents during mealtimes (n=3); and other suggestions such as resident meetings, digital television, PA system (n=3). Some facilities had more than one type of communication.

Respondents reported that they take certain actions during a heatwave, such as turning on the air conditioner or overhead fans, keeping the windows and curtains closed, and providing adequate fluids to residents and also ensuring they drink plenty of fluids throughout the day.

> *"Heat resistant blinds in living areas and bedrooms installed and residents advised to keep these drawn on days of high temperature"*

One facility reported that they educate staff about heatwaves and another stated *"management and staff awareness of dangers ensure policy procedures in place are activated on these days of extreme heat"*.

Supported residential services did not receive the *Residential aged care services heatwave ready resource* or the heatwave checklist but they were sent copies of the *Residential aged care bushfire ready resource*. Of 26 SRS facilities that responded to our survey, 84.6% reported that they remembered seeing or hearing media reports on how to keep safe in heatwaves last summer. Most facilities (69%; 18 facilities) had a heatwave plan or policy but most (73%; 19 facilities) were not aware of the local council's heatwave plan and about half (46%; 12 facilities) were not aware of the state heatwave plan. Most department resources were familiar to the supported residential service respondents. Of the department's resources, the bushfire ready resource and information sheet were most well known, while the heatwave checklist, promotional label and summer preparedness kit was less well known (see Table 7.10).

The *Residential aged care services heatwave ready resource* was produced to support residential aged care service providers in putting together heatwave plans. The resource was designed to be used in conjunction with the *Residential aged care services bushfire ready resource* (Department of Health, 2009) and other relevant information. The bushfire ready resource was distributed to SRS providers, but the *Residential aged care services heatwave ready resource* was not distributed to them. The resource included sections on heatwaves, health and older people, heatwave planning, heatwave planning in residential aged care, and a heatwave checklist for residential aged care. Given the high levels of awareness of the department resources and their effectiveness it would be useful to distribute the heatwave ready resource to SRS providers as well.

Table 7.10: Percentage of SRS providers aware of department's resources

department resource	Awareness (%)	Number Aware	Total Number
Poster 'Staying healthy in the heat'	79.2	19	24
Information sheet 'Preventing heat related illness fact sheet'	88.0	22	25
Brochure 'Heatwave: Important health information for summer'	82.6	19	23
Promotional label 'Staying healthy in the heat'	62.5	15	24
'Summer preparedness kit'	62.5	15	24
'Residential aged care bushfire ready resource'	87.0	20	23
'Residential aged care heatwave ready resource'	68.2	15	22
'Heatwave checklist for residential aged care providers'	61.9	13	21

Respondents indicated that the resources were effective in raising awareness, particularly among staff (see Table 7.11).

Table 7.11: Percentage of SRS providers indicating that department resources were effective in raising awareness among residents or staff

	Yes effective (%)	No not effective (%)	Number
Residents	80.0	20.0	25
Staff	96.0	4.0	25

Similar answers to those from HACC respondents were found when SRS respondents were asked who might be missing out on heatwave messages:

- residents with dementia/cognitive impairment (four facilities);
- casual staff or family members (two facilities); and
- people with vision or hearing impairments or people with acquired brain injury (one facility).

Suggestions for improving the resources again reflected those suggestions from HACC staff, but also included supplementing written advice with 'on the ground' advice and training for staff on a regular basis prior to each summer period. Two facilities suggested better support from their local council, such as what actions are expected from an SRS in an emergency. With an additional facility reporting that some on the ground local advice or direction would be more useful than just receiving written materials from numerous organisations. However, another two facilities reported they had adequate communication via email, mail outs, phone or fax from the department and local council prior to and during the heatwave.

> *"Rather than just receiving an influx of written materials etc, some on the ground local advice / direction would have been more useful."*

> *"Put all the manuals / info in DVD format for all residents and staff"*

7.2.5 Community registers survey

The Office of Senior Victorians was funded for the establishment of 35 community registers, 25 new registers and funding to enhance 10 existing registers. Registers are still in the process of becoming operational and laminated telephone scripts were not yet received at the time of writing. In this context, it is not surprising that awareness of the department's communication

resources would be low at this stage of development. Nine community registers responded to an e-survey requesting information about their awareness of resources and some basic operational questions (see Appendix I for the list of community registers that responded to the e-survey; the complete list of community registers contacted is available in Appendix I).

Because of the small number of responses to this survey, this information may not be representative of all community registers. Among the nine registers that responded, there was reported to be an average of 1,000 clients on the register (ranging from zero to 4,000; one register did not supply a figure). Four registers were aware of the HHAS, four were aware of their local council heatwave plan and six were aware of the State Plan. Five registers were aware of the poster, five were aware of the brochure, four were aware of the telephone script, three were aware of the summer preparedness kit and two were aware of the 'Summer strategy for HACC funded organisations'. Six out of eight indicated that they did not use the resources. One register used the department's brochure, but the telephone script was considered common sense and nothing new:

> *"We felt it was basically common sense and it reflects what our volunteers have been saying to our clients for many years."*

There is an opportunity to provide registered clients with more department resources as seven out of the eight registers that responded to the e-survey and were operational were sending material out to clients when they registered.

7.2.6 Older Victorians' perspectives

Five focus groups of older Victorians were conducted to discuss the communication resources, key messages and appropriate ways to get the messages across. In general comments were positive about the resources. Respondents especially liked the detail provided in the brochure. A number of suggestions were made about where to display resources, how to get the message across, and additional messages that are important for the community to be aware of in hot weather. Very few participants recalled actually seeing the brochure or poster displayed anywhere.

> *"The brochure is good because it provides more detailed information. Whereas the Poster is very simple. The poster has positive messages about what people should do, but it doesn't tell people what they shouldn't be doing e.g. going out walking – and people need to be reminded about this" Traralgon focus group participant*

Air conditioning

A theme emerging from the discussions was about air conditioning. There was some concern over the 'spend time in cool or air conditioned building' message as this may require people to go out in the heat to get there, plus they then need to get back into a hot car once the building, shopping centre etc closes to go home. It was suggested that an additional message was what to do if going back in to the heat after spending time in air conditioning. Nevertheless, a key message that has been given to people in Wangaratta is that if they are 'up the street' and don't feel well because of the heat, then they should go to the library or an air conditioned shop. What to do about getting into hot cars would be a good message to add.

Air conditioning at home was also discussed. Recommendations about putting coolers on early in the morning when you know it is going to be hot, before it heats up, were suggested by the Traralgon group. Older people should be encouraged to have some sort of cooling in their home, and to use it despite the cost. Cost issues were a sub-theme within the theme of cooling. The extra cost of air conditioning encouraged some older people not to use it to keep cool. Ceiling fans were mentioned as an additional option as they are good at circulating air and cost less to run. Hand held fans are another option that could be mentioned or handed out with a health promotion message written on them.

Related to the theme of air conditioning, some concern was expressed about power outages and their effect on older people's ability to keep cool. This theme was especially expressed in the Mildura group, which gave an example of a serious power outage in the Red Cliffs area last summer that caused significant distress in the local community. Therefore messages about how to keep cool in a power failure are especially important to older people.

Water

Another theme discussed was the role of water in keeping cool. As emphasised in the resources, keeping hydrated was acknowledged as important on hot days, although some older people are not in the habit of drinking water. Encouraging people to take water out with them was suggested, as there are not many drinking fountains readily available.

It was suggested that a picture of someone carrying a water bottle rather than using a drinking fountain would be more realistic as there are not always drinking fountains available. A drink bottle could be included with the umbrella picture on the poster. Some people cannot drink too much fluid, and the link to medical advice was considered important. People with continence issues may be reluctant to drink, especially if they are going out for any length of time. It was suggested that we need to work out a way for the issue to be addressed sensitively, perhaps by encouraging people to discuss this issue with their doctor, or making a statement about not avoiding drinking even though it may cause more toilet stops. The participants recommended that it is emphasised that people take water with them when they go out, and reinforce that soft drink and caffeinated drinks are not as good as water.

It was agreed that using water to stay cool conflicted with the 'save water' message, and perhaps this conflict should be acknowledged. The message about using damp towels was liked but needed to be explained more by suggesting that towels around the neck were a good idea. Sitting with feet in cool water, and running cold water over wrists were other suggestions for keeping cool with water.

Changing habits

Another important theme for older people was changing habits and behaviours to accommodate the weather.

> *"Older people should know what to do in a heatwave because they have been doing it for years, but it is important to remind people though." Traralgon group*

The clothing message was considered important. Some people are not affected by the heat or cold, and therefore do not think to wear appropriate clothing for the weather, even though they should. It was suggested to change this message to address the issue that some people may not feel the heat and therefore wear lots of clothes, but do need to be careful that they do not overheat. Everyone should wear hats and loose fitting clothing is a must, but some older women are reluctant to wear a hat. Groups liked the 'using an umbrella' message on the poster.

The message of 'look after your neighbours' was considered very good. Having an arrangement with your neighbour in hot weather would be good – blind up you're ok, blind down at a certain time of day and the neighbour needs to check on you. Another suggestion was to include a sentence in the total fire ban alerts, such as 'please check on your elderly neighbours and relatives' as this would be a more cost effective approach than doing it separately.

A number of people suggested that a key message to get out to older people is that they may need to change their habits – go down the street early to run their errands, or do things before it gets too hot, or change appointments or schedules during heatwaves. Not doing sport (including golf and bowls) in the heat of the day needs emphasising to older people. One suggestion was that people should be advised to always carry ID on them during hot weather,

especially if they are engaging in sports. An added message would be "*if you go out alone in the heat, always have good ID on you*". Moving around slowly was considered good advice.

> *"Encourage people to follow the weather forecast and prepare accordingly – people need to take some responsibility for their own actions" Wangaratta group*

Getting the messages across

The various formats for getting messages across were discussed by participants. Phone and computer were not considered good ways to get the messages out as many older people do not like telemarketing phone calls, and many do not use the computer or have access to a computer of their own. As noted above, the brochure was liked by all groups except OSV MAC. A good way to get key messages out was considered use of the media – TV, radio, prior to news alerts, and newspapers. Caution was suggested so that messages were not over done or exaggerated, and not too sensationalised.

One group suggested that we should focus on community organisations to assist in getting the messages out, especially within ethnic communities. A good way of informing people would be through community discussions, perhaps with guest speakers at community functions, experts attending town meetings or clubs. Ethnic radio and the Supported Access Pilot Projects program were suggested by the Office of Senior Victorians Ministerial Advisory Committee as good venues for distribution of resources. For Aboriginal and Torres Strait Islander communities, TV and radio would be necessary to get the message across. Health workers from HACC and council would also convey the message. Verbal messages are important for illiterate people.

Some specific comments were made about the messages (see Table 7.13). A possible omission is that it does not include babies the messages or images, and they are particularly vulnerable in the heat. A number of groups were concerned that the messages are targeted to younger people as well as older people. One group recommended that sports people could also be included as undertaking sporting activities in hot weather was dangerous. The pictures on the poster do not tell a story. The neighbour in the picture should have a light coloured top on which looks cooler. And the picture of curtains should show them closed rather than open with the curtain blowing in the breeze. The heading on the poster needs to stand out more. Availability of posters in other languages was discussed.

Table 7.12: Good places to display messaging according to older persons focus group participants

Good places to display messaging
General practitioners
Pharmacies
Senior citizens centres
Library
Probus clubs
RSLs
Centrelink offices
Supermarkets
Shire offices
Schools
Tourist information bureaus
Motels
Caravan parks
Day care centres (both children and adults)
Universities of the third age (U3As)
Sporting clubs
Carers Association

Table 7.13: Additions to key messages suggested by older Victorians

Suggestions
Change the time of day that you do sport
Install ceiling fans
Look after animals
If you must go out, do it early in the day – avoid going out in the middle of the day
If you go out alone in the heat, always have good ID on you

7.3 Discussion

The department's communication materials were useful in raising awareness and generally received high praise for addressing the goal of raising awareness about heat health and what to do in a heatwave. The introduction of new health messages has required some adjustment to existing messaging, and while some councils were reluctant to adopt department messages rather than their own, in general the councils acknowledged that they did not have the resources to develop their own messages and appreciated using department resources instead. Awareness among HACC service providers was high and supported residential services also indicated that they were aware of the communication resources.

While focus group participants on the whole had not seen the communication resources before, they approved of the messages and appreciated being reminded about health messages even though they considered that they knew what to do in the heat. The detail provided was especially welcome, and the majority of participants particularly liked the detail provided in the department's brochure.

Respondents made a number of suggestions for extension of the messages and different formats for distribution in the coming summer season. Some groups that may be missing out on messages were identified. Some conflict in messaging was identified, for example between water use and water conservation, and concern was expressed about the level of English

literacy, understanding, and accessibility of messaging which may not be penetrating lower socio-economic status groups or those not accessing mainstream media.

Therefore overall the evaluation found that the communication tools and mechanisms implemented to increase community and home and community care provider awareness about heat health impacts were largely successful. Some specific recommendations on improvement for the coming summer season are provided below.

7.4 Recommendations

1. Broaden the formats of communication resources being distributed, to include proformas for newsletters, 'on hold' phone messages, newspaper advertisements, and radio messages to assist councils.

   Department of Health response

   The department agrees that consistent messaging from multiple sources assists in reinforcing heat health messages to the community. The department will continue to develop a range of communication formats to assist councils and community service providers.

2. Consider producing televised messaging especially broadcast near news or weather reports.

   Department of Health response

   The department agrees televised messaging can be an effective mechanism to provide heat health information to the community. The department will continue to work with key agencies including the Bureau of Meteorology and Ambulance Victoria to ensure televised messages in relation to heat health are consistent.

3. Broaden the audience targeted by communication resources to include sporting groups, children, further CALD and Aboriginal and Torres Strait Islander groups (acknowledging that the department has already developed a number of resources for CALD groups), people with cognitive impairment or dementia, people experiencing homelessness, volunteer workers, and people in public housing — and consider providing resources tailored for these groups.

   Department of Health response

   The department is working to broaden the target audiences for heatwave communication resources. Additional languages have been included in translations. Decisions on additional languages for translation have been based on census information indicating levels of English proficiency and age groups. The department is working with organisations such as Raising Children Network, to ensure information is available through existing networks for parents with young children. The department is committed to ensuring heatwave messaging is appropriate for target audiences.

4. Consider producing a pictorial resource without words. Abstract images (such as curtains against an open window) should be avoided.

   Department of Health response

   The department is working closely with the Department of Human Services, Disability Services to develop communication resources that are appropriate for people with a cognitive disability.

5. Facebook and Twitter are effective mechanisms for reaching some people with a disability who may be less mobile.

Department of Health response

The department plans to increasingly use social media to reach different population groups. The department's Better Health Channel contains a number of information pages on heat health and has also has Facebook and Twitter interface. The Chief Health Officer's web page also has Twitter interface.

6. Images used should include a person with a disability.

Department of Health response

The department seeks to develop information that is as inclusive as possible. Images in the revised heatwave plan include people with disabilities. The department is working with Disability Services in the Department of Human Services to develop information suitable for people with a cognitive impairment

7. The resources should note that some medications can be affected in extreme heat.

Department of Health response

The *Staying healthy in the heat* information brochure has been revised and includes a tip to check that medication is stored at the correct temperature.

8. Emphasise the 'know your neighbour' message.

Department of Health response

Caring for one's self and looking out for others is a key message of the heatwave communication strategy. Individuals, government and communities need to work together to provide support for people who are most vulnerable to the health impacts of heatwave.

9. Circulate and share ideas from councils and other organisations on places to display messaging.

Department of Health response

The department agrees that networking and forum opportunities provide councils and other service providers the opportunity to share ideas and innovations in disseminating heat health information.

10. Consider producing additional posters suitable for distribution to CALD communities; consider promoting local meetings with CALD and Aboriginal and Torres Strait Islander organisations to get the message across to these sections of the community.

Department of Health response

The department is committed to providing heat health messages that are accessible to a range of population groups. The department has increased the languages the poster has been translated into - the poster is currently available in 17 community languages.

11. Provide larger font resources for vision-impaired people, and DVD resources for training and home viewing.

Department of Health response

The department has been working with Vision Australia to ensure heatwave information resources are accessible for people with vision impairment. Electronic versions of heatwave communication resources on the department's website are now available in

html format allowing those with vision impairment to access the information more easily via computer. The department will continue to work with Vision Australia to ensure a range of accessible formats of heatwave information is available to people with vision impairment.

12. Distribute the *Residential aged care services heatwave ready resource* and heatwave checklist to Supported Residential Services, especially to above-pension-level facilities where the resident profile is largely older people.

Department of Health response

The department agrees the Residential aged cares services heatwave ready resource has application to a broader range of services. The department has re-issued the resource to residential aged care services and has increased the distribution to include supported residential services.

13. Distribute hard copies of resources to community registers for forward distribution to new clients.

Department of Health response

The department is working closely with the Department of Planning and Community Development to ensure community registers are provided with heatwave resources for use in discussions with their clients and for direct distribution. Resources have been distributed to community registers in the 2010-11 summer and will continue to be distributed.

8 Evaluation of the Heat Health Information Surveillance System (HHISS)

8.1 Introduction

The heat health information surveillance system (HHISS) is a tool for monitoring temperature, including heatwave events, associated mortality and demand for health services in Victoria. The aim of the HHISS is to satisfy departmental requirements for real time information on morbidity and mortality associated with heatwaves and for in depth statistical analysis of the impact of heat on health. As expressed in the State Plan, the goal of the HHISS is to:

- monitor and assess the human health impact of a heatwave; and
- provide a report on the human health impact of heatwaves over the 2009-2010 summer (Victorian Government Department of Health 2009, p.22)

The HHISS was established in November 2009 and is in its formative stages.

The evaluation of the HHISS was guided by the evaluation objectives and questions in Table 8.1, and was based on:

- a review of relevant literature including grey and peer reviewed reports;
- consultation with the epidemiologist within the Prevention and Population Health Branch;
- examination of examples of HHISS reports;
- a survey of three HHISS report end-users (Appendix L);
- discussions with the Senior Epidemiologist from the Centre of Epidemiology and Research, and Senior Policy Analyst for Pests, Environmental Health, at the NSW Department of Health about the NSW Syndromic Surveillance System; and
- desktop analysis.

Evaluation questions in relation to the HHISS are in Table 8.1.

Table 8.1: Guide to evaluation of the HHISS

Objective for Evaluation	Evaluation questions
• Does the HHISS allow adequate monitoring and assessment of the human health impact of a heatwave? • Does the HHISS data enable review post summer of the heatwave plan and responses?	• What use has been made of the HHISS to date by the department? • Was the information from the surveillance system useful? • Is the information helpful in planning and preparedness for response to future heatwave events? • Does the surveillance system assist in determining the impact of heat on health service systems and levels of mortality and morbidity?

8.2 Discussion

8.2.1 Data sets and variables currently incorporated in the HHISS

For the 2009-10 summer, HHISS data were collected between 1 November and 30 April.

Historical data (three to ten years) are also available from the HHISS. These were requested from data custodians when the HHISS was established.

The HHISS contains primary care data, secondary care data, mortality data and temperature.

8.2.2 What use has been made of the HHISS to date?

Data for HHISS reports were provided to key departmental personnel involved in heatwave and emergency response planning.

End users who responded to the survey used the HHISS reports for preparation of briefing notes for the Secretary and Minister and to note trends in the data. Reports at weekly intervals were considered sufficient except during extended periods of high temperatures when daily reports were useful. The format of the reports was adequate except one end user requested the addition of a short commentary. All commented that the previous summer was relatively cool and as with other components of the framework, the HHISS remains untested. One end user questioned the need for reports to continue through to April and suggested they stop at the end of March.

One end user suggested adding a year-to-date graph that compared current year data with the last 5 years.

While users found the reports helpful for monitoring conditions, there was no chance to assess whether the information available was adequate during a heatwave event given the relatively cool summer in 2009-10.

Use of the HHISS for real time surveillance

The WHO (2009) recommended that collection of real time data needs to be within 48 hours. Together with temperature, the information collected should span primary care, secondary care and mortality. The information collected by HHISS met this benchmark.

Some of the HHISS data sources report on heat-related activity only and others included total activity. Both types of information are important to collect because while heat related information measures the direct impact of temperature on human health, the number of cases is generally small.

HHISS reports included appropriate caveats alerting readers to data fluctuations caused by administrative anomalies (for example processing delays due to public holidays). However, while not of explicit concern to HHISS end-users, it may also be useful to incorporate other influences on service use, morbidity and mortality that are correlated with heat such as pollution, humidity, large public events or infrastructure failures such as power outages. These are likely to assist in interpreting and assessing severity of the heatwave event.

Use of the HHISS for more in depth analysis

Analysis of HHISS data is currently underway to examine heat health impacts at a regional level, test the heat health thresholds and the impact of heat on service demand. The HHISS end-users were aware that analysis on thresholds and trigger points is underway and are keen to be informed of the findings.

As a surveillance tool, the HHISS does not allow in-depth analysis of the type undertaken by DHS (2009) and Nitschke et al, (2007) but can be used to produce reports on key learnings at the end of each summer. A report on key learnings from the surveillance period is currently being prepared by the department for public release.

8.2.3 Other potential uses for the HHISS

All three end users considered the current objectives (outlined in Table 8.1) remained valid. One noted that while the use of the HHISS to achieve these objectives is limited, they remain valid in light of requests for information about the impact of severe heatwaves.

Other potential uses of the HHISS data include the following — each of which is discussed further below.

- Undertaking analysis of the impact of heatwaves that can be disseminated to promote engagement with the framework;
- Assisting with health and community service planning; and
- Assisting with further refinement of components of the heatwave framework such as heat health thresholds.

Dissemination of research on heatwaves to promote engagement with the framework

Dissemination of detailed HHISS data and findings is restricted at present by the nature of agreements covering access to the data.

Those consulted for this evaluation expressed interest in information about the impact of heatwaves, and will welcome the department's report on key learnings from the surveillance period currently being prepared as noted above.

As an example of the type of report that would be welcomed by those interested in more information, the Chief Health Officer's report (DHS 2009) substantially improved awareness of the impact of heat on health, and was extremely important in engaging stakeholders with the heatwave framework. Local councils routinely referred to the Chief Health Officers' report (DHS 2009).

Assisting with service planning

One end user within the department suggested the HHISS be used to assist in predicting and monitoring potential surges in demand for service providers. The Evaluation understands that this analysis is underway by the HHISS team. Understanding and identifying the impact of heat on the activity of service providers would be useful to assist service providers to plan, and to engage them with the framework.

Assisting with further refinement of the framework

The HHISS has the potential to assist in further refining components of the framework. Information from the HHISS may be useful in understanding the sequence and timing of health events during a heatwave as well as assisting in identifying those most vulnerable to the effects of heatwaves. The HHISS may also be useful in testing and modifying heat health thresholds for Victoria.

8.2.4 Other potential secondary data sets to incorporate into HHISS

The most useful real-time data according to the WHO (2009) appear to be all-cause mortality, emergency calls, emergency department visits, hotlines and general practitioner records, but the data need to be available within a maximum of one to two days. The HHISS broadly covers all the data areas recommended by the WHO (2009). The HHISS stands up well in comparison

to other international heat health data surveillance systems, especially given it is still in its infancy. It is possible that other data sources could be incorporated, however, we would recommend consolidating the current system rather than adding more data sources at this stage.

In considering whether additional data sets would add value to the HHISS, a set of criteria should be developed to ensure that additional data meets the aims and objectives of both the HHISS and the framework more generally.

In the future, consideration may be given to adding information on air pollution and relative humidity. Relative humidity and air pollution may combine with heat to worsen health outcomes.

8.2.5 Further development of the HHISS

The HHISS is potentially very valuable and a number of uses for HHISS data were outlined in section 8.2.3.

Automation of the manual HHISS system has significant potential to improve efficiency of reporting within the department and should be considered in the longer term. Automation could be considered should a decision be made to implement the HHISS permanently.

8.3 Conclusions

It is apparent from the consultations and WHO (2009) that most surveillance systems are more broad based than the Victorian (fledgling) HHISS. Other systems have been established for a variety of reasons, including to monitor outbreaks of diseases such as gastroenteritis or influenza, and to defend against bioterrorism. Heat related health codes are incorporated in these as part of the broader system which monitors a number of different health conditions. Notably, the WHO (2009) concluded that the cost of real time surveillance systems does not justify a focus on a single syndrome or health outcome, but it is useful to expand existing systems to incorporate heat related conditions (WHO 2009, p. 49).

While other data sets may add value to the HHISS we do not recommend adding more data at this stage, preferring a period of consolidation. In considering whether additional data sets would add value to the HHISS, a set of criteria should be developed to ensure that additional data meets the aims and objectives of both the HHISS and the framework more generally.

It would be useful to place a near term (three or four year) sunset on the HHISS at which time a formal evaluation of this component of the heatwave framework would take place. The department could consider setting some specific and realisable goals for the HHISS leading up to its evaluation, together with a budget allocation for achieving these goals. .

8.4 Recommendations

1. Consider placing a near term (three or four year) sunset on the HHISS at which time a formal evaluation of this component of the heatwave framework would take place. The department could consider setting some specific and realisable goals for the HHISS leading up to its evaluation, together with a budget allocation for achieving these goals.

   Department of Health response

   The department agrees that detailed consideration of the direction and goals of the HHISS is important to ensure this component of the heatwave framework continues to best meet the need for information regarding impact of heat on service demand, mortality and morbidity.

2. That the department consider releasing a regular report of the key learnings from the surveillance period.

Department of Health response

The department agrees that regular reporting of key information trends from data from the HHISS will be of value to councils and service providers in better understanding the impact of heat on health service demand.

9 Summing up: the heatwave strategy

The Victorian Heatwave Strategy was an initial planning document for the Department of Health, developed in October 2007. It had the following objectives (as outlined in the Heatwave Plan for Victoria 2009-2010):

- provide a framework to support an ongoing multi-agency and multi-sectoral heatwave preparedness and response across Victoria in order to minimise heat related morbidity and mortality;
- build the capacity of communities and individuals to self manage their response to heatwaves;
- develop a system to provide an appropriate level of coordinated support from health, community and emergency services;
- identify and carry out required additional research to support these objectives in the longer term; and
- host a national conference on climate change and human health.

Nine actions were identified as part of the strategy:

- Better understand the impacts of heatwaves on mortality and morbidity;
- Develop a heatwave warning system;
- Pilot development of local heat wave response plans;
- Develop a guide to local heatwave response plans;
- Fund development of local heatwave response plans;
- Evaluation of implementation of heatwave strategy;
- Host a major conference into health effects of climate change during the second half of 2007 featuring the impacts of heatwaves;
- Work with emergency services organisations and other agencies to raise their awareness about the potential of heatwaves to cause significant community impact; and
- Provide community messages about heatwaves and health.

This evaluation has provided some evidence for the initiation of most of these actions (with the exception of Action 7, to host a major conference, which was outside the scope of the evaluation) (Table 9.1). Without re-iterating results that are detailed in other sections of this report, this final section summarises the evaluation as a whole.

Table 9.1: Victoria Heatwave Strategy Actions, Implementation and short term outcomes as identified in this evaluation

Action	Implementation	Short Term Outcomes
Better understand the impacts of heatwaves on mortality and morbidity	Heat Health Information Surveillance System initiated	Seven secondary data sources identified; reports for monitoring conditions provided; end-users aware of in-depth analysis underway
Develop a heatwave warning system	Heat Health Alert System established	Stakeholder list compiled; Heat Health Alerts communicated since 2007;

Action	Implementation	Short Term Outcomes
Pilot development of local heat wave response plans	Thirteen pilot projects funded in 22 council areas	Council heatwave plans established; increased awareness of heatwave planning
Develop a guide to local heatwave response plans	Planning guide written on the basis of pilot project experiences	Planning guide document distributed to local councils; councils used planning guide; some councils used external consultants to develop their plans
Fund development of local heatwave response plan	Local councils invited to develop heatwave plans by deadline	All local councils have heatwave plans
Evaluation of implementation of heatwave strategy	This evaluation	Evaluation report to be provided December 1 2010
Host a major conference into health effects of climate change during the second half of 2007 featuring the impacts of heatwaves	Outside scope of this evaluation	The conference was conducted and information about it is available on the department's website.[5]
Work with emergency services organisations and other agencies to raise their awareness about the potential of heatwaves to cause significant community impact	Stakeholder involvement documented	Evidence for awareness of heatwave impacts being raised as a result of strategy activities; stakeholder discussions initiated; expansion of stakeholders identified
Provide community messages about heatwaves and health	Community resources developed	Community resources distributed via local councils and other media such as GPs and pharmacies; resources accepted; evidence for acceptability of messages

There was no feedback that indicated that the Victorian Heatwave Strategy was not warranted, and on the contrary, stakeholders contacted throughout this evaluation approved of the work put into place so far in planning for heatwaves which is perceived as an important area of concern. Twelve councils indicated that the Victorian heatwave framework had increased community awareness of the issues, and ten councils indicated that the framework had increased council awareness. Eight councils indicated that the framework has increased health and community service provider awareness of the issues. One council indicated that awareness increased as a result of the January 2009 heatwave, and one council indicated that awareness change could not yet be determined.

The evidence brought to light in this evaluation indicates that the Victorian heatwave strategy has been successful in achieving its objectives. While the strategy and framework are still in the early stages and there are a number of areas where further development is warranted, the work that has been put into place so far has produced some tangible outcomes and raised community and stakeholder awareness of the potential impact of heatwaves.

This evaluation has been undertaken at a relatively early stage in the development of the strategy and framework, and the table of program logic (Table 9.2) below puts the objectives into a longer term view. For each section of the strategy being evaluated, we have covered

[5] http://www.health.vic.gov.au/environment/climate/conference_07.htm

gaps, suggested improvements, discussed ways to increase information to assist with planning and preparation, and discussed additional research that would be useful. As the development of the plan is an iterative process, it is expected that activities associated with the heatwave strategy/framework will continue to be modified in response to local requirements. In subsequent years as the plan is consolidated, further evaluation will identify whether long term objectives are being achieved.

Table 9.2: Victorian heatwave framework — program logic

Main components (inputs)	State Heatwave plan	Heat health alert system	Local govt heatwave plans	Planning guide	Communication resources	Heat Health Information Surveillance System
Process objectives	To provide a guide to state-wide response to heatwaves To set out roles and responsibilities of the Vic govt, local councils, emergency mgt and HACC sector	To monitor climate conditions To notify councils, departmental program areas, hospitals and HACC providers of impending heatwaves	To develop a council heatwave plan	To provide councils and their officers with templates, strategies and background information with an emphasis on identifying and protecting 'at risk' populations	To produce an information sheet, brochure, poster, label and telephone script To provide advice on staying healthy during a heatwave To provide advice on strategies to care of oneself and others during heatwaves	To compile information on heat-related morbidity and mortality
Short term outcome objectives	To facilitate coordinated response to heatwaves and planning across regions	To raise awareness of the potential need to activate heatwave plans and responses	To implement a heatwave plan	To assist councils to plan for heatwaves at a community level using existing municipal planning frameworks with which to align planning	To raise awareness of advice about staying healthy during a heatwave To raise awareness of the impact of extreme heat on human health	To monitor and assess the human health impact of a heatwave; To provide a report on the human health impact of heatwaves over the 2009-2010 summer
Medium term outcome objectives	To raise awareness about heatwave planning To improve	To raise awareness of the potential need to activate heatwave	To provide coordinated support by health, community and	To produce a local heatwave plan	To change behaviour during a heatwave	To satisfy departmental requirements for real time

	preparedness for heatwaves	plans and responses	emergency services within the local council			information on morbidity and mortality associated with heatwaves To provide in depth statistical analysis of the impact of heat on health
Long term outcome objective	To reduce morbidity and mortality associated with heatwaves in Victoria					

9.2 Recommendation

1. Further consolidation and development of the Victorian Heatwave Strategy and Framework activities as detailed in this evaluation will facilitate the achievement of its longer term objectives of reducing morbidity and mortality associated with heatwaves.

Department of Health response

The department is committed to continue working toward reducing and preventing the health impacts of heat in the Victorian community.

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Appendix A: Evaluation approach and methods

This evaluation constitutes action 6 of the framework (see Figure 1.1).

Objective

The aim of the evaluation was to assess the success of the processes, tools and mechanisms implemented in 2009-10 heatwave framework in increasing the community's, and health and community service providers' awareness about the health impacts of heatwaves and strategies for preventing heat-related illness.

A requirement was the inclusion of specific recommendations on improvement that included an assessment of the feasibility, effectiveness, acceptability, costs and sustainability for each recommendation.

Strengths and limitations

The advantage of conducting an evaluation at this stage of the implementation of the framework is that early modification in the rollout of the framework may lead to more appropriate implementation and ultimately a more cost effective program. In later years subsequent evaluations can address long term impacts or outcomes.

The evaluation was nevertheless limited by its timing in the course of implementation of the heatwave framework. Therefore the department indicated a lesser weight on end users (efficacy and reach). While consumers were involved directly through a small number of focus groups and indirectly through consultation with peak bodies, extensive consumer consultation and surveys of the general public's awareness of the heatwave framework was outside the scope of the current evaluation.

The complete elements of the framework have only been in place for one year, with components being implemented from 2007. The evaluation is not therefore able to comment on the long term impacts or outcomes, for example, whether councils and service providers maintain their plans or whether behavioural change of the population during heatwaves endures over the long term.

Heatwaves in the 2009-10 summer had a short duration and did not reach emergency heatwave levels. This meant the evaluation could not extensively assess the success of the framework in guiding effective responses to a heatwave of an emergency level. Nevertheless, a number of heat health alerts were issued and the evaluation canvasses with stakeholders their thoughts about whether they were prepared to respond to a heatwave.

With a view to understanding the breadth and depth of issues raised during the evaluation, the departmental Senior Project Manager attended consultation meetings. This may have affected the independence of the evaluation and potentially affected discussants' ability to speak freely at meetings. However, a close working relationship with the department provided the evaluators with access to the Senior Project Managers' detailed knowledge of the framework — its underpinning logic the processes for its development — which were valuable given the timeframe for this evaluation.

Scope of the evaluation

The evaluation encompasses the:

- The Victorian Heatwave Strategy 2007;

- The *Heatwave Plan for Victoria 2009-2010*;
- The Heat Health Alert System;
- The *Heatwave Planning Guide*;
- The processes and supports provided for the finalisation and implementation of local council plans and their integration into municipal planning process;
- Communication resources; and
- The Heat Health Information Surveillance System (HHISS).

The evaluation of individual council plans was not in scope.

Reporting processes

The evaluation team reported directly to the Environmental Health Unit, and was guided by a reference group comprising:

- Miranda Fraser-Adams, Senior Project Manager, Community Health Risk, Environmental Health, Department of Health (Chair)
- Rodney Dedman, Acting Assistant Director, Environmental Health, Department of Health
- Julie Hoy, Manager, Community Health Risk, Environmental Health, Department of Health
- Christy Boucher, Senior Project Officer, Environmental Health, Department of Health
- Simon Slota-Kan, Senior Medical Advisor, Environmental Health, Department of Health
- De Gilby, Acting Public Health Manager, Loddon Mallee Regional Office, Department of Health
- Catherine Thompson, Manager Service Development, Aged Care Branch, Department of Health
- Michael Gibbs, Manager Wellbeing and Practice Improvement, Disability Services, Department of Human Services
- Julian Meagher, Manager, Emergency Management, Department of Health
- Alysha Batty, Project Leader, Sector Quality and Workforce Development, Mental Health and Drugs, Department of Health
- Kay Hourigan, Project Manager, Client Services, Office of Housing, Department of Human Services
- Sue O'Sullivan, Senior Project Officer, Emergency and Trauma Program, Ambulance and Emergency Programs, Performance, Acute Programs & Rural Health Branch,
- Sam Ludolf, Manager, Ambulance and Emergency Programs, Performance Acute Programs and Rural Hospital and Health Service Performance, Department of Health
- Becky-Jay Harrington, Acting Senior Policy Adviser, Planning Unit, Emergency Management Branch, Department of Human Services
- Tracy Beaton, Senior Nurse Advisor, Mental Health, Department of Health
- Emma Fitzclarence, Policy Adviser, Municipal Association of Victoria (MAV)
- Jeannine Jacobson, Manager HACC and Assessment, Aged Care Branch, Department of health
- Sylvia Supelak, Senior Project Officer, Emergency and Trauma Program, Department of Health

Evaluation design

In line with the departmental request, the evaluation design concentrated on formative and process evaluation, to provide information for recommendations about reviewing the processes of the program while it is happening; and including evaluation of awareness, usage, perceived value and quality.

Mixed methodologies were used to address the objectives of the evaluation. Both quantitative and qualitative data were collected, but the main body of information was qualitative. Semi-structured interviews were undertaken together with detailed analysis of written summaries. Changes in awareness, attitudes and knowledge were examined through key informant interviews and surveys of professional groups. Consumers were involved in the evaluation through focus group discussions.

Qualitative interviews and survey data were analysed wherever possible through an inductive approach. Inductive analysis means that the patterns, themes and categories of analysis are drawn from the information collected, emerging from the data rather than being superimposed by the evaluators. For focus groups and group interview analysis, evaluation team members separately read transcripts and meeting notes entirely several times to familiarise themselves with the data and to identify emerging themes by which the data could be grouped. Findings were discussed to resolve differences. On the basis of these analyses, the evaluators developed a thematic framework and discussed the results to fully reach consensus, refining themes and identifying subthemes.

The formats for consultation included all of: letter, email, group interviews, face to face interviews, telephone interviews, focus groups, and invitation to provide submissions. The domains for consultation were:

- The Victorian Heatwave Strategy 2007;
- The *Heatwave Plan for Victoria 2009-2010: Protecting health and reducing harm from heatwaves*;
- The Heat Health Alert System;
- The *Heatwave Planning Guide: Development of heatwave plans in local councils on Victoria*;
- The processes and supports provided for the finalisation and implementation of local council plans and their integration into municipal planning process;
- Communication resources; and
- The heat health information surveillance system.

All fieldwork was conducted according to ethical standards of the Australasian Evaluation Society and the Centre for Disease Control. Fieldwork under the auspice of NARI and involving consumer level data collection was approved by Melbourne Health Human Research Ethics Committee.

Evaluation activities

Councils were the major focus of the evaluation. Selected other stakeholders, including those providing health and community care services to people at risk of heat related illness, and representatives of people at risk of heat related illness, were also invited to participate.

In brief, our approach included:

- Publicising the evaluation;

- Consultation with local councils via face to face meetings, teleconferences, and surveys;
- Mixed group meetings with councils and other stakeholders;
- Consultation with regional environmental health offices as representatives of regional department offices more generally;
- Consultation with health and community service providers and other stakeholders via face to face meetings, teleconferences, and surveys;
- Five focus groups with older Victorians (including Office of Senior Victorians Ministers Advisory Committee);
- Surveys of HACC and SRS providers;
- Survey of community registers; and
- Consultation with key departmental staff.

Publicising the evaluation

In view of the importance of engaging stakeholders, the evaluation was publicised through:

- Attendance at Municipal Association of Victoria (MAV) workshop for home and community care (HACC) coordinators, 23/06/10.
- Attendance at Office of Senior Victorians Ministerial Advisory Council (OSV MAC) of Senior Victorians meeting, 30/06/10.
- Advertising in the MAV weekly bulletin 02/07/10. MAV emailed chief executive officers (CEOs) requesting contact details for relevant council personnel and provided the evaluation with these contacts.
- Uploading information about the evaluation, and guidance on making a submission onto the department website.

Consultation with local councils

Councils were consulted via face to face meetings, teleconferences and via a survey. Councils were also given the opportunity to make voluntary submissions. Overall, feedback was received from 58 councils — 33 via meetings, 13 via surveys and 28 councils responded to the survey of HACC providers outlined below (some of which also attended meetings or filled out the council survey).

Councils were selected for group and individual interviews based on indicators drawn from the set in Table A.1. A table listing the data against most of these indicators for the councils consulted can be found in Appendix A.

Table A.1: Indicators for selecting local councils

Heatwave Plan
Whether participant in pilot program
Status of the council plan
Heat health alerts
Forecast location group
Number heat health alerts issued 2009-10
Number of times temperature threshold exceeded 2009-10
Fire risk
Shires in which 52 towns identified as high fire risk are located (information provided by MAV)

Council size

Population size

Rate-paying population size (proxied by people aged 18-64)

Community at risk of heat related illness

% population infants

% population 65 and older

ABS Socio-Economic Indexes For Areas (SEIFA) (Index for disadvantage) decile ranking (in Victoria)

Voluntary submission process

Councils were given the option of making a submission, responding to the survey or simply emailing their views to the evaluation team. Guidance on making a submission was prepared and uploaded onto the department website, and all councils were emailed with the submission guide together with a survey. Councils not involved in consultation meetings were actively emailed and phoned encouraging them to contribute their views.

- The survey and submission guide were emailed to 62 councils not yet consulted on 28 July 2010.
- A reminder notice was emailed to councils who had not responded on 18 August 2010.
- Follow up phone calls to councils not involved in direct consultations and who had not already provided a submission commenced on 26 August 2010.

A voluntary submission or survey was received from 13 councils.

Face to face or teleconference meetings

Face to face/teleconference consultations with councils involved both group and individual meetings. At general meetings where all issues were discussed, the following council staff were invited:

- emergency management planning and/or public health planning officers;
- environmental health officers (EHOs);
- coordinator of HACC services and/or other aged care services;
- meal delivery coordinators; and
- coordinator of maternal and child health services.

Four initial meetings were held with three individual councils in metropolitan Melbourne to test the script and questions, and understand the types of issues raised. The findings from these meetings were used to refine our approaches to subsequent consultations. During the second phase, meetings were held with individual councils and groups of councils. Four group meetings were also held combining councils with other stakeholders.

A list of councils consulted is in Appendix E. Meetings were attended by 33 councils.

Mixed group meetings with councils and other stakeholders

Four group meetings were held throughout Victoria with representatives from local councils and other key stakeholder organisations. These meetings were held in Wangaratta, Traralgon, Mildura and metropolitan Victoria. Initial contact was made with the key local council heatwave contacts provided from MAV from the three regional locations to ensure that they were able to attend the group meeting on the scheduled days and to get assistance to arrange the meeting. Following that, representatives from the local councils and other stakeholder organisations were

invited by phone and/or email to attend the group meeting. All potential attendees were provided with a list of the questions that were going to be covered prior to the meeting. They were requested to complete some of the questions prior to attending the group meeting, due to the limited time available in the meeting to cover all questions.

Appendix E shows a list of the organisations (both local council and other stakeholder organisations) that were invited to the group meeting and also indicates which ones attended the group meetings.

Wangaratta Group Meeting:

Seventeen organisations were invited to attend the Wangaratta group meeting. Nine representatives from five local councils and one other stakeholder organisation attended. The local council representatives that attended this meeting included people from the following areas:

- Environmental Health.
- Community Services.
- Community Sustainability.
- Maternal and Child Health, and
- Aged Care & HACC Services.

The Primary Care Partnerships that were invited stated that they only had minimal input into the heatwave plans and felt that the local councils that were invited would be more suited to comment on the heatwave plans. Rural Ambulance Victoria stated that they have a state wide approach and because the Rural Ambulance Victoria stated they have a state-wide approach and because Ambulance Victoria had already been consulted there was no need for them to be involved.

Following the group meeting, both Alpine Shire Council and Wodonga City Council responded to the HACC survey, and a telephone interview was conducted with a representative from Mansfield Shire Council.

Traralgon Group Meeting:

Of the 11 councils/other stakeholder organisations that were invited, four representatives from three local councils attended the group meeting in Traralgon. These four representatives were from the areas of:

- Community Health and Wellbeing.
- Child and Family Services.
- Community Care and Development, and
- Emergency Management.

Similar to the Wangaratta meeting, the PCPs that were invited to this meeting felt that they had little to add to the evaluation in addition to what the local council representatives could provide.

Even though South Gippsland Shire Council did not attend the group meeting, they responded to the general evaluation survey.

Mildura Group Meeting:

Only two local councils and one other stakeholder organisation were represented at the Mildura Group Meeting. The local council representatives were from Environmental Health and HACC services.

Of the three local councils that did not attend the group meeting in Mildura, two of them responded to the HACC survey and one responded to the general evaluation survey.

Metropolitan Group Meeting

Only three representatives from two local councils were able to attend the metropolitan group meeting. One of these was from Aged Services and Public Health, and the other two were from Health Services. As a follow up from the metropolitan group meeting, a telephone interview was conducted with Moonee Valley City Council.

Consultation with regional department offices

A meeting was held with five Regional Environmental Health officers (REHOs) on 27 August at the Department of Health, which was also attended by the evaluation project manager.

A survey of REHOs was also conducted to which four regional offices responded. The survey instrument is available in Appendix K.

Consultation with health and community service providers and other stakeholders

There are a large number of (non-council) stakeholders in the framework including:

- Those who were consulted during preparation of the *Heatwave Plan for Victoria 2009-2010;*
- Those who are listed as stakeholders in the *Heatwave Plan for Victoria 2009-2010;*
- Stakeholders that the Buchan consulting report recommended for engagement for summer 2010-2011;
- Organisations representing HACC providers;
- Organisations representing groups at risk of heat related illness (for example, the Victorian Council of Social Service (VCOSS), groups representing people with a disability, people with a mental illness, homeless people etc); and
- Special interest organisations such as the Bureau of Meteorology.

Stakeholders were selected for consultation on advice from the department and with a view to covering health and community service providers as well as groups in the community at particular risk of heat related illness.

Those consulted are listed in Appendix E.

Focus groups with older Victorians

The focus group component of this evaluation was approved by the Melbourne Health Human Research Ethics Committee.

Five focus groups were conducted with older people over the age of 60 years. The first focus group was held during the “Publicising the evaluation” stage of the Evaluation with the Office of Senior Victorian’s Ministerial Advisory Committee (OSV MAC) on Wednesday 30th June 2010.

Eleven members of the OSV MAC attended this focus group, which was held as part of one of their regular committee meetings. The OSV MAC members were from both metropolitan and regional Victoria, and there were representatives from a range of backgrounds, including culturally and linguistically diverse representatives and a representative from an indigenous community. Appendix E details the members of the group that were in attendance.

The other four focus groups were conducted in Wangaratta, Traralgon, Mildura and Parkville (see Table A.2).

Table A.2: Focus groups with older people — demographics

Group	Recruitment strategy	N recruited	Demographic characteristics
Wangaratta	Wangaratta Senior Citizens Centre	12	Mean age – 76 years 4 male, 8 female
Traralgon	Latrobe Valley University of the Third Age (U3A)	2	Mean age – 83 years 1 male, 1 female
Mildura	Mildura Senior Citizens Centre (focus group held after one of the weekly activities to maximise attendance)	7	Mean age – 74 years 4 males, 3 females
Parkville	NARI volunteer database	8	Mean age – 77 years 3 males, 5 females
Total		29	Mean age – 76 years 12 males, 17 females

Of 28 participants who provided demographic details, the mean age was 76 (range 63 to 86).

- 39 % were male, 61% female.
- 79% were born in Australia, 11% were born outside Australia.
- 74% left school between the ages of 13 and 16.
- 50% were married, the remainder widowed or separated/divorced.
- 39.3% lived alone.
- 57% mostly used a car to get around.
- 69.3% rated their health as good to excellent, and 30.8% rated their health as fair.

Surveys of HACC and SRS Providers

HACC providers

A survey was mailed out to 465 HACC providers. The survey asked respondents about their awareness of the communication and planning resources, and whether they were useful, the Heat Health Alert System, identification of “at risk” clients, and heatwave plans within their organisation and their local council. A copy of the survey is in Appendix C. A reply paid envelope was also sent with the survey as a means of improving the response rate.

One hundred and nine surveys were returned as of Friday 17th September 2010, a response rate of 23.4%.

Supported Residential Services

A survey was mailed out to 178 Supported Residential Services within Victoria. The survey asked respondents about their awareness of the communication and planning resources, and whether they were useful, identification of "at risk" clients, and heatwave plans within their organisation and their local council. A copy of the survey is in Appendix G. A reply paid envelope was also sent with the survey as a means of improving the response rate. As of Friday 17th September 2010, 26 surveys had been returned from Supported Residential Services, a response rate of 14.6%.

Survey of community registers

A survey was emailed to 42 community registers from an email list provided by the Office of Senior Victorians. The survey is in Appendix I. It asked respondents questions about their community register (such as number of clients and how they find out about it), the communication resources, the Heat Health Alert System and heatwave planning. Respondents were asked to either email the completed survey back or print it out and post it back. As of Friday 17th September 2010, 9 surveys had been returned from community registers, a response rate of 21.4%.

Domains and questions

Domains discussed with each stakeholder are shown in Table A.3. As with all qualitative evaluations, the exact questions considered under each domain varied depending on the responses of the participants and stakeholders. Not all domains were appropriate to be discussed with all stakeholders.

Table A.3: Domains and stakeholders

Question domain	Department of Health	Local council	HACC	SRS	Other	Alert contacts	Older Victorians
Strategy		✓	✓	✓	✓	✓	✓
Plan		✓		Summer preparedness kit	✓	✓	✓
Alert	✓	✓	✓		✓	✓	✓*
Guide		✓					
Processes for local council plans		✓	✓		✓		
Communication resources		✓	✓	✓	✓		✓
HHISS	✓						

*Did they hear about the alert (radio/ TV)?

A set of standard questions was developed which was then tailored to specific stakeholders.

Detailed questions on the components of the framework are in Table A.4.

Table A.4: Questions within each domain

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]
Victorian heatwave framework		
• To provide a framework to support an ongoing multiagency and multisectoral heatwave preparedness and response across Victoria in order to minimise heat related morbidity and mortality. • To build the capacity of communities and individuals to self manage their response to heatwaves. • To identify and carry out required additional research to support these objectives in the longer term.	• Were Agencies and sectors prepared and able to respond to heatwaves in a way which minimised heat related illness and death? Are knowledge gaps identified and filled by research? • Does research continue to expand understanding of the best way to limit heat related illness and death?	• Do you think community awareness has increased as a result of the framework? • Do you think LGA staff awareness has increased a result of the framework? • Do you think health and community service provider awareness has increased as a result of the framework? • Are there issues with the framework or gaps that still need to be addressed? • How could the framework be improved? • Do you need more information to assist with planning or preparation? What research would assist?

[6] The questions listed were those directed at councils in consultations. These were refined for stakeholder consultations according to what was relevant for the stakeholder in question. This applies to all sections except the Heat Health information Surveillance System, which was only raised in consultation with the Department's Prevention and Population Health Branch.

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]
Heatwave Planning Guide		
• To assist councils to plan for heatwaves using existing municipal planning frameworks. • To provide councils and their officers with templates, strategies and background information with an emphasis on identifying and protecting 'at risk' populations.	• Did the Guide assist councils to plan using existing municipal planning frameworks? • Did the Guide assist councils and their officers to identify and protect at risk populations? • Were the templates, strategies and background information in the Guide useful in identifying and protecting at risk populations?	• Did you use the *Planning Guide*? • Do you think the *Planning Guide* has a role now that plans have for the most part been completed? If so, what role? • Do you have any other comments on the *Planning Guide*?

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]
Local government heatwave plans and pilot projects		
• Funding was provided so that councils would develop and implement a heatwave plan as part of their municipal planning processes. • The aim of the pilot projects was to provide experience for use in developing the *Heatwave Planning Guide*. • The aim of the local council heatwave plans is to ensure adequate heatwave preparation and responses occur at a community level.	• Did councils develop heatwave plans as part of their municipal planning processes? • Were the pilots useful in developing the *Heatwave Planning Guide*? • Do councils believe that implementing their plan would adequately prepare those in their purview for a heatwave?	• What progress have you made on your plan? • Which area within council is responsible for heatwave (e.g. emergency management, aged care …?) • If you were not involved in a pilot, you would have received a grant to assist in writing a heatwave plan: a) What is your understanding of the conditions that were associated with the grant? b) What did you do with the grant money? • Did the planning process work well? • Did the staging work well? (i.e. pilots and grants 2008, second round grants 2009, planning guide July 2009, educational forums, and Statewide plan Dec 2009) • What difficulties or barriers did you experience (if any) in developing your plan? • Were the supports (pilots, grants, planning guide, forums and Statewide plan) provided by the department to help you write your plan useful? • What was most useful? • How did you use this support? • If not useful, what sort of assistance would have helped? • Are there formal frameworks for information sharing about heatwave planning to assist you to access information and learnings from other councils? • If so, what are these frameworks? • If not, are formal information sharing frameworks necessary for heatwave and if so, how should they be implemented? (who, where, when and how frequently) • Will you revisit your plan before next summer? • Do you think your plan needs to be adjusted? If so how? • Is there further information or guidance that you would find useful to update your plan? • What resources did you use to develop your plan? Do you have any other comments on the processes for local council planning?

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]
Heatwave Plan for Victoria 2009-2010		
• To guide the department and the Chief Health Officer in the response to heatwaves. • To outline the roles and responsibilities of the Victorian Government, local councils, emergency management and the health and community services sector. (Plan:14)	• Do all components of the framework set out by the plan work well individually and together? • Are the roles and responsibilities outlined in the plan clear?	• Are you familiar with the Statewide Plan? • Are the roles and responsibilities outlined in the plan clear? a) Roles and responsibilities of local councils b) Roles and responsibilities of the department c) Roles and responsibilities of other stakeholders such as Red Cross • Did the Plan work well last summer? What worked well? • Does any aspect of the plan need to be modified for the 2010-2011 summer version? • In addition to councils, the emergency management sector, KidSafe, Personal Alert Victoria, the Red Cross, pharmacists, GPs, nursing services ambulance, the Office of Senior Victorians, areas within the department responsible for hospitals, disability services, mental health and drugs were all engaged with the framework: Are there other stakeholders that need to be engaged at a high level? How could they be better engaged?

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]
Heat Health Alert System		
• To monitor climate conditions • To notify councils, departmental program areas, hospitals and health and community service providers of impending heatwaves and to activate their heatwave plans and responses.	• Were climate conditions monitored adequately? • Did all necessary stakeholders receive the notification? • Did these stakeholders understand what was expected of them in response to the notification? • Were the plans activated in response to the notification?	• Are you aware of the alert system? • What did you do when you received the alerts? • Who did you send alerts to? • Were the alerts useful/timely/easy to understand? • Was the method of communicating alerts appropriate? • Are there any organisations outside the alert system that need to be included? • Did the alerts trigger appropriate responses? • Are there any modifications needed to the alert system? • Is the alert necessary? • What are the alternatives to the current alert system? • Do you have a business continuity plan? What happens when an alert is received on the weekend or when staff are on holidays over summer? • Is the threshold set at an appropriate level for your community? • Are there modifications to the alert or threshold that would help services to prepare for heatwave? • Are the forecast location groupings for alerts appropriate? • Do you have any other comments on the Heat Health Alert System or suggestions for improvement? • Do you think there is potential for confusion or conflicting messages? e.g. councils using different terminology in communicating with their community, different recommendations for staying healthy in the heat, different messages from different organisations (e.g. Commonwealth v State, education department v health department), different alerts for different issues — bushfires, water use during drought etc?, Other (if so please explain) • How could this risk of confusion or conflict be minimised or removed?

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]
Communication resources		
• To encourage and educate individuals and the community to be aware of the impact of extreme heat on human health. • To promote knowledge of strategies to care for oneself and others during heatwaves.	• Did the communication resources promote awareness of health impacts of heat? • Did the communication resources promote awareness of strategies to maintain health of self and others during heatwaves?	• Did you use the departmental communication resources? • Which departmental resources did you use? • Were the departmental resources useful in educating the community? • Are there other forms of communication that should be included? • Is there a need for more tailored messages and if so for whom? • What was your approach to communicating with the community? • Did you use media messaging? • Who did you distribute communication resources to? • Are there any gaps in communication? • Did those who are not receiving recognised support services get the message? • What mechanisms for awareness raising would be effective for groups currently missing out? • How could communication be improved?
Heat Health Information Surveillance System		
• To monitor and assess the human health impact of a heatwave. • To use the data collected to conduct a review of the heatwave plan and responses post summer to continue improvement to the statewide and local response to heatwaves (Plan:22)	• Does the HHISS allow adequate monitoring and assessment of the human health impact of a heatwave? • Does the HHISS facilitate Departmental resource planning and allocation and was this one of the aims? • Does the HHISS data enable review post summer of the heatwave plan and responses?	• Questions about the HHISS were addressed during consultation with the department's Health Information epidemiologist, a short survey of HHISS end-users (Appendix L).

Aim of this component of framework	Objective for evaluation	Questions addressed in consultations[6]

Additional questions addressed in consultations

- What process did you use to identify people at risk in your community?
- Which risk groups are you currently focusing on?
- Which local organisations or service providers did you contact during planning?
- Who in your community might be missing out? How can they be better engaged?
- How should we ensure at risk groups get messages?
- How do community registers fit into the framework and into your LGA plan?
- What role should community registers have?

Appendix B: Survey of councils

Instructions

Please answer questions by writing in the box next to each question. So long as you respond to all of the highlighted questions, please feel free to answer any or all of the other questions. Remember to save your response and email it back to us before Friday 3 September:

Heatwaveevalation@accesseconomics.com.au

Thank you for your valuable input.

Gwen Cruise and Penny Taylor
Access Economics
Colleen Doyle and Marcia Fearn
National Ageing Research Institute

Your name and phone number	
Your Council	

Council planning processes

What progress have you made on your plan?	
• **Which area within council** is responsible for heatwave? (e.g. emergency management, aged care …?)	
If you were not involved in a pilot, you would have **received a grant** to assist in writing a heatwave plan.	
o What is your understanding of the conditions that were associated with the grant?	
• What did you do with the grant money?	

Did the planning process work well?	
o Did the **staging work well**? (ie pilots and grants 2008, second round grants 2009, planning guide July 2009, educational forums, and Statewide plan Dec 2009)	
o What difficulties or barriers did you experience (if any) in developing your plan?	
o Were the supports (pilots, grants, planning guide, forums and Statewide plan) provided by the Department of Health to help you write your plan useful?	
• What was most useful?	
• How did you use this support?	
• If not useful, what sort of assistance would have helped?	
Are there **formal frameworks for information sharing** about heatwave planning to assist you to access information and learnings from other councils?	
o If so, what are these frameworks?	
o If not, are formal information sharing frameworks necessary for heatwave and if so, how should they be implemented? (who, where, when and how frequently)	
Will you **revisit** your plan before next summer?	
o Do you think your plan needs to be adjusted?	

If so how?	
o Is there further information or guidance that you would find useful to update your plan?	
What resources did you use to develop your plan?	
Planning Guide	
o **Did you use the *Planning Guide*?**	
o Do you think the **Planning Guide** has a **role** now that plans have for the most part been completed? o If so, what role?	
o Do you have any **other comments** on the *Planning Guide*?	
Do you have any **other comments** on the processes for local council planning?	

Identifying those at risk

What **process** did you use to **identify** people at risk in your community?	
Which risk groups are you currently focusing on?	
Which local organisations or service providers did you contact during planning?	
Who in your community might be **missing out**?	

• How can they be better engaged?	
How should we ensure at risk groups get messages?	
Community registers	
How do community registers fit into the framework and into your LGA plan?	
What role should community registers have?	

The Heat Health Alert system

Are you aware of the alert system?	
What did you do when you received the alerts?	
Who did you send alerts to?	
Were the alerts useful/timely/easy to understand?	
Was the method of communicating alerts appropriate?	
Are there any organisations outside the alert system that need to be included?	
Did the alerts trigger appropriate responses?	
Are there any modifications needed to the alert system?	
Is the alert necessary?	

What are the alternatives to the current alert system?	

Business continuity

Do you have a business continuity plan? • What happens when an alert is received on the weekend or when staff are on holidays over summer?	

Heat health threshold for alert

Is the threshold set at an appropriate level for your community?	
Are there modifications to the alert or threshold that would help services to prepare for heatwave?	
Are the forecast location groupings for alerts appropriate?	

Other comments or suggestions

Do you have any other comments on the Heat Health Alert System or suggestions for improvement?	

Confusion or conflicting messages

Do you think there is potential for **confusion or conflicting messages?**	
o e.g. councils using different terminology in communicating with their community	
o e.g. different recommendations for staying healthy in the heat	

o e.g. different messages from different organisations (e.g. Commonwealth v State, education department v health department)	
o e.g. different alerts for different issues — bushfires, water use during drought etc?	
o Other (if so please explain)	
How could this risk of confusion or conflict be minimised or removed?	

The communication resources

Did you use the departmental communication resources?	
o Which departmental resources did you use?	
o Were the departmental resources useful in educating the community?	
o Are there other forms of communication that should be included?	
o Is there a need for **more tailored** messages and if so for whom?	
What was your approach to communicating with the community?	
Did you use media messaging?	
Who did you **distribute** communication resources to?	

Are there any **gaps** in communication?	
Did those who are **not receiving recognised support services** get the message?	
What mechanisms for awareness raising would be effective for groups currently missing out?	
How could communication be **improved**?	

The Heatwave Plan for Victoria 2009-2010

We would like your views on the **Statewide Plan**.

Are you familiar with the Statewide Plan?	
Are the **roles and responsibilities** outlined in the plan clear?	
o Roles and responsibilities of local councils	
o Roles and responsibilities of the department Vic	
o Roles and responsibilities of other stakeholders such as Red Cross	
Did the Plan work well last summer?	
• What worked well?	
Does any aspect of the plan need to be modified for the 2010-2011 summer version?	
In addition to councils, the emergency management sector, KidSafe, Personal Alert	

Victoria, the Red Cross, pharmacists, GPs, nursing services ambulance, the Office of Senior Victorians, areas within the Department of Health responsible for hospitals, disability services, mental health and drugs were all engaged with the framework. Are there **other stakeholders that need to be engaged** at a high level? • **How** could they be better engaged?	

The overall Victorian Heatwave Framework

Do you think **community awareness** has increased as a result of the framework?	
Do you think **LGA staff awareness** has increased a result of the framework?	
Do you think **health and community service provider awareness** has increased as a result of the framework?	
Are there issues with the framework or gaps that still need to be addressed?	
How could the framework be improved?	
Do you need more information to assist with planning or preparation? What **research** would assist?	

Do you have any other issues you wish to raise?

Any other issues – please raise them here?	

Please return your response via email before Friday 3 September:

Thank you. Remember to save your response and email it back to us. **Heatwaveevalation@accesseconomics.com.au**

Appendix C: Survey of HACC providers

Evaluation of the heatwave framework for Victoria 2009-2010

Survey for Home and Community Care providers

Dear Manager,

The Victorian Government Department of Health has appointed Access Economics and the National Ageing Research Institute to evaluate its heatwave framework.
More information about the Victorian heatwave framework and resources can be found at:
http://www.health.vic.gov.au/environment/heatwave/
http://www.health.vic.gov.au/bushfire/health_comm/prepare.htm

We would like to know whether HACC providers have been made aware of parts of the heatwave framework and so are inviting you to complete the attached survey. Answer questions by writing in the box next to each question. Return the completed survey in the envelope provided.

Individual responses will be kept confidential. Only summary results will be included in our evaluation report.
Any queries please contact: Marcia Fearn – m.fearn@nari.unimelb.edu.au - phone 8387 2305.

Thank you for your input. We hope that the results of this evaluation will help to make next summer safer for the community.

Yours sincerely,

Dr Colleen Doyle
Principal Research Fellow

Organisation name	
Name of person completing this survey	

Contact details if any clarification needed	

Communication and planning resources about heatwaves			
Are you aware of the following resources from the Victorian Department of Health (DH)? If you are aware, is the resource useful in your service? Tick the appropriate box for each resource below.			
Resource	No, not aware – tick below	Yes aware – tick below	Yes useful – tick below
Poster 'Staying healthy in the heat'			
Information sheet 'Preventing heat related illness fact sheet'			
Brochure 'Heatwave: Important health information for summer'			
Telephone script 'Preventing heat related illness'			
Promotional label 'Staying healthy in the heat'			
'Summer preparedness kit'			
'Summer strategy for home and community care organisations'			

Communication resources about heatwaves	
Were the DH resources above effective in raising awareness for your clients?	❑ no ❑ yes
Were the DH resources effective in raising awareness for your staff?	❑ no ❑ yes
Do you remember hearing or seeing any media reports on keeping safe in heatwaves last summer?	❑ no ❑ yes *PLEASE TURNOVER*
How could the resources about heatwaves be improved?	

Heat Health Alert System	
Are you aware of the 'Heat Health Alert System'?	❑ no ❑ yes
Was this system useful for your service?	❑ no

Heat Health Alert System	
	❑ yes
Are there any problems with conflicting messages, e.g. bushfire alerts, water use etc?	❑ no ❑ yes
Do you have any comments about the 'Heat Health Alert System?	

Identifying clients at risk during heatwaves	
Does your organisation have a process to identify clients at risk during heatwaves?	❑ no ❑ yes
What is your organisation's approach to communicating about heatwaves with clients?	
Does your organisation have a process to identify staff/volunteers at risk during heatwaves?	❑ no ❑ yes
Who in your organisation or among your clients might be missing out on messages about heatwaves?	
Heatwave planning	
Does your organisation have a heatwave plan or policy?	❑ no ❑ yes
Will your organisation revise its plan or policy before next summer?	❑ no ❑ yes
Are you aware of your local council's heatwave plan?	❑ no ❑ yes
Do you have any comments about the local council's heatwave plan?	

What further information or guidance about heatwaves would you find useful?

Comments on the "Heatwave plan for Victoria 2009-2010"	
Were you aware of the "Heatwave Plan for Victoria 2009-2010" before we contacted you?	❑ no ❑ yes
The following stakeholders have been engaged so far in planning for heatwaves: In addition to local councils, the emergency management sector, KidSafe, Personal Alert Victoria, the Red Cross, pharmacists, GPs, nursing services ambulance, the Office of Senior Victorians, areas within the Department of Health responsible for hospitals, disability services, mental health and drugs. What other stakeholders should be involved at a high level? List them here:	

Any other comments about the Victorian heatwave framework? THANK YOU

Return your completed survey to:
Marcia Fearn
National Ageing Research Institute
PO Box 2127
Royal Melbourne Hospital
3050

Appendix D: Characteristics of councils consulted

Table D.1: Councils consulted

Council	Forecast location group	Department of Health region	Pilot (✓✖)	No. HH alerts issued (No. times threshold exceeded)	Total popn	% infants	% ≥65	SEIFA Index, decile rank[7]
Alpine	Wodonga	Hume	✖	10 (2)	12,690	1.1	19.9	5
Banyule	Melbourne	North & West	✖	5 (1)	121,409	1.4	15.0	9
Ballarat	Ballarat	Grampians	✖	3 (0)	91,787	1.3	14.4	4
Bass Coast	Latrobe Valley	Gippsland	✓	3 (0)	28,802	1.2	22.6	4
Baw Baw	Latrobe Valley	Gippsland	✓	3 (0)	40,114	1.3	15.3	6
Bayside	Melbourne	Southern	✖	5 (1)	94,618	1.2	16.3	10
Benalla	Shepparton	Hume	✖	10 (2)	14,021	0.9	19.5	3
Brimbank	Melbourne	North & West	✖	5 (1)	181,115	1.5	10.7	1
Boroondara	Melbourne	Eastern	✖	5 (1)	165,393	1.0	13.9	10
Buloke	Mildura	Loddon Mallee	✖	10 (4)	7,051	1.1	22.8	3
Campaspe	Bendigo	Loddon Mallee	✖	7 (3)	38,339	1.3	17.3	4
Central Goldfields	Bendigo	Loddon Mallee	✖	7 (3)	12,766	1.0	23.3	1
Corangamite	Hamilton	Barwon-South Western	✖	3 (2)	17,270	1.4	17.9	5
East Gippsland	Sale	Gippsland	✖	3 (0)	42,742	1.1	21.2	2
Gannawarra	Mildura	Loddon Mallee	✖	10 (4)	11,630	1.2	20.5	3
Glen Eira	Melbourne	Southern	✖	5 (1)	133,807	1.4	15.0	10
Glenelg	Hamilton	Barwon-South Western	✓	3 (2)	20,871	1.3	9.5	2

[7] Socio-economic indexes for areas (SEIFA) applied to rank of local government area (LGA) in Victoria with 1=most disadvantaged and 10=least disadvantaged

Council	Forecast location group	Department of Health region	Pilot (✓✖)	No. HH alerts issued (No. times threshold exceeded)	Total popn	% infants	% ≥65	SEIFA Index, decile rank[7]
Golden Plains	Ballarat	Grampians	✖	3 (0)	17,681	1.3	14.6	8
Greater Bendigo	Bendigo	Loddon Mallee	✓	7 (3)	100,054	1.6	13.7	5
Greater Dandenong	Melbourne	Southern	✖	5 (1)	135,243	1.3	16.0	1
Greater Geelong	Geelong	Barwon-South Western	✖	3 (1)	211,841	1.6	13.7	5
Greater Shepparton	Shepparton	Hume	✖	10 (2)	61,014	1.4	14.3	3
Hindmarsh	Horsham	Grampians	✓	4 (2)	6,179	1.0	24.6	2
Hume	Melbourne	North & West	✓	5 (1)	162,260	1.3	21.2	2
Indigo	Wodonga	Hume	✖	10 (2)	15,710	1.2	11.5	7
Kingston	Melbourne	Southern	✖	5 (1)	143,727	1.4	15.5	8
Latrobe	Latrobe Valley	Gippsland	✖	3 (0)	73,982	1.9	11.4	1
Loddon	Bendigo	Loddon Mallee	✖	7 (3)	8,073	0.8	5.9	1
Macedon Ranges	Bendigo	Loddon Mallee	✖	7 (3)	40,939	1.4	14.6	9
Manningham	Melbourne	Eastern	✖	5 (1)	116,983	1.0	17.1	10
Mansfield	Shepparton	Hume	✖	10 (2)	7,691	1.1	16.6	7
Maribyrnong	Melbourne	North & West	✖	5 (1)	69,825	1.3	10.6	1
Maroondah	Melbourne	Eastern	✖	5 (1)	104,297	1.4	14.1	9
Melbourne	Melbourne	North & West	✓	5 (1)	89,759	1.2	19.9	9
Mildura	Mildura	Loddon Mallee	✖	10 (4)	53,122	1.0	18.6	2
Mitchell	Shepparton	Hume	✖	10 (2)	33,374	1.3	15.1	6
Moira	Shepparton	Hume	✖	10 (2)	28,752	0.8	31.8	3
Monash	Melbourne	Eastern	✖	5 (1)	172,740	1.1	16.5	9
Moreland	Melbourne	North & West	✖	5 (1)	145,900	1.6	15.5	5
Mount Alexander	Bendigo	Loddon Mallee	✖	7 (3)	18,116	1.1	18.7	4

Council	Forecast location group	Department of Health region	Pilot (✓✖)	No. HH alerts issued (No. times threshold exceeded)	Total popn	% infants	% ≥65	SEIFA Index, decile rank[7]
Moyne	Hamilton	Barwon-South Western	✖	3 (2)	16,405	1.2	17.4	7
Murrindindi	Shepparton	Hume	✖	10 (2)	14,369	1.2	16.4	7
Nillumbik	Melbourne	North & West	✖	5 (1)	41,534	1.2	7.8	10
Pyrenees	Ballarat	Grampians	✖	3 (0)	6,800	1.0	19.5	1
Queenscliffe	Geelong	Barwon-South Western	✖	3 (1)	3,256	1.3	14.6	9
Southern Grampians	Hamilton	Barwon-South Western	✓	3 (2)	17,451	1.3	10.9	6
South Gippsland	Latrobe Valley	Gippsland	✖	3 (0)	27,165	1.1	18.2	6
Stonnington	Melbourne	Southern	✓	5 (1)	97,711	1.14	13.96	10
Strathbogie	Shepparton	Hume	✖	10 (2)	9,855	0.88	22.65	3
Surf Coast	Geelong	Barwon-South Western	✖	3 (1)	24,442	1.4	13.2	10
Swan Hill	Mildura	Loddon Mallee	✖	10 (4)	21,765	1.5	15.4	2
Wangaratta	Wodonga	Hume	✖	10 (2)	28,117	1.0	24.0	5
Warrnambool	Hamilton	Barwon-South Western	✖	3 (2)	32,712	1.3	14.4	6
West Wimmera	Horsham	Grampians	✓	4 (2)	4,597	0.9	20.4	4
Whittlesea	Melbourne	North & West	✖	5 (1)	139,250	1.3	15.3	4
Wyndham	Melbourne	North & West	✖	5 (1)	132,793	1.8	6.3	8
Yarra Ranges	Melbourne	Eastern	✖	5 (1)	146,886	0.9	19.5	8
Yarriambiack	Horsham	Grampians	✓	4 (2)	7,658	1.3	17.3	2

Appendix E: Consultation Attendees

Table E.1: Councils and other organisations invited to one on one consultations

Invited council/organisation	Date of meeting
MAV workshop with HACC coordinators	23 June 2010
OSV MAC	30 June 2010
Department of Health, Prevention and Population Health Branch Senior epidemiologist	8 July 2010
Yarra Ranges Council	14 July 2010
ARC (Head Office)	15 July 2010
DHS Disability Services Division	16 July 2010
Ambulance Victoria (Head office)	16 July 2010
Melbourne City Council	19 July 2010
VCOSS	19 July 2010
Maribyrnong City Council	20 July 2010
Pharmaceutical Society (Victorian Branch)	20 July 2010
Pharmacy Guild (National Office)	21 July 2010
Campaspe Council	23 July 2010
Maribyrnong City Council (follow up as key staff member absent for first consultation)	23 July 2010
Pharmacy Guild (State Office)	26 July 2010
Department of Health Environmental Health Unit	26 July 2010
ARC (Head Office)	26 July 2010
Greater Dandenong Council	27 July 2010
Southern Grampians Council	29 July 2010
MAV	29 July 2010
Glenelg Council	30 July 2010
General Practice Victoria	2 August 2010
NSW Health re: syndromic surveillance system	23 August 2010
Department of Health Regional Environmental Health Officers (REHOs)	27 August 2010
NSW Health re: syndromic surveillance system	27 August 2010
Mansfield Council	30 August 2010
BOM	31 August 2010
Mooney Valley Council	9 September 2010
OSV (Head Office)	12 September 2010
Royal District Nursing Service (RDNS)	17 September 2010
Nurse-on-Call	17 September 2010
Personal Alert	12 October 2010

Table E.2: Councils and organisation invited to group meetings

Invited council/organisation	Attended (✓✖)
Geelong (30 July 2010)	
Geelong City Council	✓
Ballarat Council	✓
Golden Plains Council	✓
Surf Coast Council*	✖
Colac Otway Council	✖
Moorabool Council	✖
Queenscliffe Council	✓
Wyndham Council*	✖
Wangaratta (2 August 2010)	
Alpine Council*	✖
Benalla Council	✓
Greater Shepparton Council	✓
Indigo Council	✓
Mansfield Council*	✖
Moira Council	✓
Wangaratta Council	✓
Wodonga Council	✖
Benalla & District Support Group for Children with Special Needs	✖
Central Hume Primary Care Partnership	✖
Goulburn Valley Family Care Inc	✖
Mungabareena Aboriginal Corporation	✖
ARC – North East	✓
Rumbalara Aboriginal Co-operative Limited	✖
Rural Ambulance Victoria	✖
Upper Hume Primary Care Partnership	✖
Wangaratta RDNS	✖
Warrnambool teleconference (2 August 2010)	
Warrnambool Council	✓
Moyne Council	✓
Corangamite Council	✓
Traralgon (9 August 2010)	
Bass Coast Council	✓
Baw Baw Council	✓
Latrobe Council	✓
South Gippsland Council*	✖
Wellington Council	✖
Central West Primary Care Partnership	✖
Gippsland Multicultural Services Inc	✖

Invited council/organisation	Attended (✓✗)
Glenwood (SRS)	✗
Quantum Support Services Inc	✗
South Coast Primary Care Partnership	✗
Yallambee Traralgon Village for The Aged Inc	✗
Bendigo (12 August 2010)	
Greater Bendigo Council	✓
Loddon Council	✓
Mount Alexander Council	✓
Macedon Council	✓
Mitchell Council	✓
Mildura (16 August 2010)	
Hindmarsh Council*	✗
Gannawarra Council*	✗
Mildura Council	✓
Swan Hill Council*	✗
Yarriambiack Council	✓
Mallee Accommodation and Support Program	✓
Mallee Track Health and Community Services	✗
Northern Mallee Primary Care Partnership	✗
Red Cross	✗
Metropolitan (24 August 2010)	
Moreland Council*	✗
Moonee Valley Council	✗
Whittlesea Council	✓
Hume Council	✓
Stakeholders representing vulnerable groups (30 August 2010)	
Action for Community Living/Disability Emergency Management Advocacy (DEMA)	✓
Anex	✗
Annecto	✗
Australian College of Mental Health Nurses	✗
Australian Psychological Association	✗
Carers Network	✗
Community Housing Federation Victoria	✗
Council to Homeless Persons	✗
Homeground	✗
Mental Illness Fellowship	✓
NDS Victoria (who extended invitation to all members)	✗
Port Phillip Community Group	✓
Psychiatric Disability Services of Victoria (VICSERV)	✓
Sacred Heart Mission	✗

Invited council/organisation	Attended (✓✗)
SANE Australia	✗
Tenants' Union Victoria	✗
Victorian Advocacy League for Individuals with Disability (VALID)	✓
Victorian Alcohol and Drug Association (VAADA)	✓
Victorian Mental Illness Awareness Council (VMIAC)	✗
Victorian Public Tenants Association (VPTA)	✓
Disability Service Providers (15 September 2010)	
EW Tipping Foundation	✓
Scope Victoria	✓
Yooralla	✓

*Subsequently submitted a survey, written response or participated in a follow up consultation.

Appendix F: Organisations that completed the HACC survey

Table F.1: Organisations that completed the HACC survey

Organisation
Adult Day Service - Swan Hill District Health
Alamein Neighbourhood and Learning Centre
Albury Wodonga Health
Alpine Shire Council Home Care
Amicus
Ararat Neighbourhood House
Ballarat and District Aboriginal Cooperative Ltd
Ballarat District Nursing and Healthcare
Balwyn Welfare Association
Banyule city council
Baptcare
Bayside City Council
Bellarine Community Health Ltd
Benetas
Borough of Queenscliffe
Bridges Connecting Communities
Brimbank City Council
Brotherhood of St Laurence
Buloke Shire Council
Caladenia Dementia Care
Care Connect
Celas - Spanish Latin American Welfare Centre
Central Gippsland Health Service
Central Goldfields Shire Council
Chinese Community Social Services Centre
City of Greater Dandenong
City of Greater Geelong
City of Monash
City of Wodonga
Clota Cottage Neighbourhood House Inc
Cohuna District Hospital
Combined Pensioners
Corangamite Shire
Cypress Community of Melbourne & Victoria
Dingee Bush Nursing Centre

Organisation
Diversitat
Docare Geelong Co-op
Doutta Galla Community Health
Doveton Neighbourhood Learning Centre
Eastern Volunteer Resource Centre Inc
EGHS - District Nursing
Glencare
Grampians Community Health
Greater Shepparton City Council
Hindmarsh Shire Council
John Macrae Centre
Knox Hungarian Senior Citizens Club Inc
Kyabram District Nursing
Kyneton District Health Service
Latrobe City Council
Loddon Mallee Housing Services
Lorne Community Hospital
Mallee Accommodation and Support Program
Maltese Community Council of Vic
Maroondah City Council
Melbourne City Mission
Melbourne Lithuanian Pensioners Association
Merri Community Health Service
Mitchell Community Health Service
Mitta Valley Activity Centre
Moe Meals on Wheels
Monash Volunteer Resource Centre
Murrindindi Shire Council
Nathalia District Hospital
Nillumbik Shire
No name provided
No name provided
North Richmond Community Health
Old Courthouse Community Centre
Ovens & King Community Health Service
Pathways
Polish Community Council of Victoria
Polish Community Council of Victoria
Pyrenees Shire
Regional Information & Advocacy Council
Rochester and Elmore District Health Service
Rosanna Fire Station Community House

Organisation
Rural Northeast Health
Salvation Army Support in Public Housing
Seymour Health
Shekinah Homeless Services
Shire of Campaspe
South Easter Region Migrant Resource Centre
South Gippsland Shire Council
South West Healthcare
Span Community House
Spectrum MRC
St John of Kronstadt Russian Welfare Society
Strathbogie Shire Council
Sunassist Volunteer Helpers Inc
Sunbury CHC
Surf Coast Shire
Swan Hill Rural city Council
Terang & Mortlake Health Service
Tabulam and Templer Homes for the Aged Inc (TTHA)
Uniting Care Ballarat
Uniting Care East Burwood Centre
Upper Yarra Community House Melba Community Support Program
Villa Maria
Warrnambool City Council
Wavlink Inc
West Wimmera shire Council
Western District Health Service
Wimmera Health Care Group
Winda-Mara Aboriginal Corporation
Wyndham City Council
Yarra Ranges Council - Home and Community Support Dept
Yarriambiack Shire Council
Yea District Nursing Service

Appendix G: Survey of SRS providers

Evaluation of the heatwave framework for Victoria 2009-2010

Survey for Supported Residential Services

Dear Manager,

The Victorian Government Department of Health has appointed Access Economics and the National Ageing Research Institute to evaluate its heatwave framework.
More information about the Victorian heatwave framework and resources can be found at:
http://www.health.vic.gov.au/environment/heatwave/
http://www.health.vic.gov.au/bushfire/health_comm/prepare.htm
http://www.health.vic.gov.au/agedcare/publications/racsheatwave/index.htm

We would like to know whether SRS providers have been made aware of parts of the heatwave framework so we are inviting you to complete the attached survey. Answer questions by writing in the box next to each question. Return the completed survey in the envelope provided.

Individual responses will be kept confidential. Only summary results will be included in the evaluation report.
Any queries please contact: Marcia Fearn – m.fearn@nari.unimelb.edu.au - phone 8387 2305.

Thank you for your input. We hope that the results of this evaluation will help to make next summer safer for the community.

Yours sincerely,

Dr Colleen Doyle
Principal Research Fellow

Organisation name	
Name of person completing this survey	
Contact details if any clarification needed	

Communication and planning resources about heatwaves			
Are you aware of the following resources from the Victorian Department of Health (DH)? If you are aware, is the resource useful in your service? Tick the appropriate box for each resource below.			
Resource	No, not aware – tick below	Yes aware – tick below	Yes useful – tick below
Poster 'Staying healthy in the heat'			
Information sheet 'Preventing heat related illness fact sheet'			
Brochure 'Heatwave: Important health information for summer'			
Promotional label 'Staying healthy in the heat'			
'Summer preparedness kit'			
'Residential aged care bushfire ready resource'			
'Residential aged care heatwave ready resource'			
'Heatwave checklist for residential aged care providers'			

Communication about heatwaves	
Were the DH resources above effective in raising awareness for your residents?	❑ No ❑ yes
Were the DH resources effective in raising awareness for your staff?	❑ no ❑ yes *PLEASE TURN OVER*
How could the communication resources be improved?	
Do you remember hearing or seeing any media reports on keeping safe in heatwaves last summer?	❑ no ❑ yes

Identifying clients at risk during heatwaves
What is your organisation's approach to communicating about heatwaves with your residents?
Who in your facility might be **missing out on messages about heatwaves**?

Heatwave planning	
Does your organisation have a heatwave plan or policy?	❑ no ❑ yes
Are you aware of your local council's heatwave plan?	❑ No ❑ yes
Do you think your local council should revise its plan before next summer?	❑ no ❑ yes
What further information or guidance about heatwaves would you find useful?	

Comments on the "Heatwave plan for Victoria 2009-2010"	
Were you aware of the "Heatwave Plan for Victoria 2009-2010" before we contacted you?	❑ no ❑ yes

The following stakeholders have been engaged so far in planning for heatwaves: In addition to local councils, the emergency management sector, KidSafe, Personal Alert Victoria, the Red Cross, pharmacists, GPs, nursing services ambulance, the Office of Senior Victorians, areas within the Department of Health responsible for hospitals, disability services, mental health and drugs.

What other stakeholders should be involved at a high level? List them here:

Any other comments about the Victorian heatwave framework? THANK YOU

Return your completed survey to:
Marcia Fearn
National Ageing Research Institute
PO Box 2127
Royal Melbourne Hospital
3050

Appendix H: Organisations that completed the SRS survey

Table H.1: Organisations that completed the SRS survey

Organisation
Athewrye SRS
Aveo Balwyn Manor
Aveo Templestowe Manor
Bentleys Aged Care
Blue Willows Residential Aged Care
Brooklea
Burwood Lodge
Caulfield House
Delaney Manor
Dunelm SRS
Galillee SRS
Glenelg Shire
Glenville Lodge
Golden Gate Lodge - Ararat
Queens Lodge SRS
Queenscliff Retirement Lodge
Sheridan Hall Brighton
St James Terrace
Sunbury Gardens
SunnyHurst Gardens
Sydenham Grace
Templestowe Orchards
Victoria House Koroit
Westley Garden SRS
Woodford Gables SRS
Anonymous response

Appendix I: Survey of community registers

Instructions

The Victorian Government Department of Health has appointed Access Economics and the National Ageing Research Institute to evaluate its heatwave framework. More information about the Victorian heatwave framework and resources can be found at:

http://www.health.vic.gov.au/environment/heatwave/
http://www.health.vic.gov.au/bushfire/health_comm/prepare.htm

We would like to know whether community register coordinators have been made aware of parts of the heatwave framework. Can you please take a few minutes to complete the attached survey either by:
Saving the document to your hard disk, complete electronically and email back to us as an attachment
Or
Print out the attached survey, complete in hard copy and mail back to us.

Answer questions by writing in the box next to each question. Return the completed survey in the envelope provided.
Individual responses will be kept confidential. Only summary results will be included in the evaluation report.

Queries? Phone Marcia Fearn 03 8387 2305 or email m.fearn@nari.unimelb.edu.au

Community register location	
Name of person completing this survey	
Contact details if any clarification needed	
1. How many clients are currently on the register?	
2. How do clients find out about the register?	
3. How often are client details updated in the register?	
4. What information/resources do clients receive when they put their names down on the register?	
Communication resources about heatwaves	

1. Are you aware of the communication resources produced by Victorian Department of Health (DH)? - Poster 'Staying healthy in the heat'	❑ no ❑ yes
2. - Brochure 'Heatwave: Important health information for summer'	❑ no ❑ yes
3. Telephone script from DH	❑ no ❑ yes
4. Have you used any of these departmental communication resources?	❑ no ❑ yes – which ones?
5. Do you have any comments about the telephone script for your clients?	
6. Were the departmental resources effective in raising awareness for your clients?	❑ no – go to Q7 ❑ yes
7. Do you remember hearing or seeing any media reports on keeping safe in heatwaves last summer?	❑ no ❑ yes
8. How could the community register system be improved?	
Heat Health Alert System	
1. Are you aware of the 'Heat Health Alert System'?	❑ no ❑ yes
2. Was this system useful for your service?	❑ no ❑ yes
3. Do you have any comments about the 'Heat Health Alert System?	
4. Are there any problems with conflicting messages, e.g. bushfire alerts, water use etc?	❑ no ❑ yes
Heatwave planning	
1. Are you aware of the 'Summer preparedness kit'?	❑ no ❑ yes
2. Was this resource useful for your service?	❑ no ❑ yes

3. Are you aware of the 'Summer strategy for Home and Community Care funded organisations'?	❑ no ❑ yes
4. Was this resource useful for your service?	❑ no ❑ yes
5. Are you aware of your local council's heatwave plan?	❑ no ❑ yes
6. Do you think your local council should revise its plan before next summer?	❑ no ❑ yes
7. What further information or guidance about heatwaves would you find useful?	

Comments on the "Heatwave plan for Victoria 2009-2010"	
1. Were you aware of the "Heatwave Plan for Victoria 2009-2010" before we contacted you?	❑ no ❑ yes

The following stakeholders have been engaged so far in planning for heatwaves: In addition to local councils, the emergency management sector, KidSafe, Personal Alert Victoria, the Red Cross, pharmacists, GPs, nursing services ambulance, the Office of Senior Victorians, areas within the Department of Health responsible for hospitals, disability services, mental health and drugs.

2. What other stakeholders should be involved at a high level? List them here:

Any other comments about the Victorian heatwave framework?

Either save this document and email to:
m.fearn@nari.unimelb.edu.au
or
Return your printed completed survey to:
Marcia Fearn
National Ageing Research Institute
PO Box 2127
Royal Melbourne Hospital
3050

Appendix J: Community Registers that completed the survey

Table J.1: Community registers that completed the survey

Community register location
Brimbank City Council, McCracken Street, Sunshine
Croydon Police Station, 171 Mt Dandenong Road, Croydon Victoria
Location not provided
Moorabool
Oakleigh Senior Citizens Register Oakleigh Police Station
Ocean Grove Police Station
Rosebud Police Senior Citizens Register Inc
Shire of Campaspe (Echuca)
Warrnambool & Moyne Shire

Appendix K: Survey of departmental regional offices

Instructions

Attached is a list of questions that we would like to discuss at the meeting. The purpose of sending them to you now is to give you a chance to think about your responses. We may not have time to cover all questions at the meeting so you can also think about which topics are most important to discuss.

If you are not able to attend the meeting, please fill out this survey by typing into the box next to each question. Please remember to save your responses. Please e-mail your responses to us at either:

HeatwaveEvaluation@AccessEconomics.com.au
or
Gwen.Cruise@AccessEconomics.com.au.

Thank you for your valuable input. We hope to see you at the meeting.

Gwen Cruise and Penny Taylor
Access Economics

Your name and phone number	
Your Regional Office	

The Heatwave Plan for Victoria 2009-2010

Are you familiar with the State Plan?	
Are the roles and responsibilities outlined in the plan clear? • Roles and responsibilities of local councils • Roles and responsibilities State and regional offices? • Roles and responsibilities of other stakeholders	
Did the Plan work well last summer? • What worked well?	
Does any aspect of the plan need to be modified for the 2010-2011 summer version?	
Are there other stakeholders that need to be engaged at a high level? • How could they be better engaged?	

Role of regional departmental officers

Was communication between the Central Office and Regional Offices effective on heatwave?	
Were the roles and responsibilities of regional departmental officers within the framework appropriate?	
What should their roles and responsibilities be?	
How and where should this be communicated?	
Could Central Office work better with regional departmental officers in relation to heatwave? If so, how?	
Could regional offices work better with councils in relation to heatwave? If so, how?	

Council planning processes

Did the planning process work well?	
Did the staging work well? (ie pilots and grants 2008, second round grants 2009, planning guide July 2009 and Statewide plan Dec 2009)	
What difficulties or barriers did councils experience (if any) in developing plans?	
Was the support to develop a plan provided by the Department of Health useful? • What was most useful? • How was the support used? • If not useful, what sort of assistance would have helped?	
What is your view of the adequacy of council plans to date?	
Have councils allocated responsibility for heatwave to the most appropriate area within council?	
Were the departmental criteria and conditions associated with grants and pilots clear and appropriate?	

Are there formal frameworks for information sharing about heatwave planning to assist councils to access information and learnings? o If not, what formal frameworks might be appropriate?	
Will councils appropriately revisit their plans before next summer? o Do plans need to be adjusted? If so how? o What sort of information or guidance might councils find useful to update their plans?	
Was the Planning Guide useful? o Do you think the Planning Guide has a role now that plans have for the most part been completed? If so, what role? o Do you have any other comments on the Planning Guide?	
Do you have any other comments on the processes for local council planning?	

Identifying those at risk

What processes were available to councils to identify people at risk in their local community?	
Which local organisations or service providers were contacted during planning?	
Which risk groups are councils focusing on?	
Who in the community might be missing out? How can they be better engaged?	
How should we ensure at risk groups get messages?	
Community registers	
How do community registers fit into the heatwave framework and into council plans?	
What role should community registers have?	

Do you have any other comments on community registers?	

Council engagement with heatwave

How could councils be better engaged to ensure community preparedness for heatwave endures and community resilience is maintained over time?	

The Heat Health Alert system

Are you aware of the alert system?	
What did you do when you received an alert?	
Who did you send alerts to?	
Were the alerts useful/timely/easy to understand?	
Was the method of communicating alerts appropriate?	
Are there any organisations outside the alert system that need to be included?	
Did the alerts trigger appropriate responses?	
Are there any modifications needed to the alert system?	
Business continuity	
Is business continuity for council services a problem in respect of heatwave?	
Heat health threshold for alert	
Is the threshold set at an appropriate level for each community?	
Are there modifications to the alert that would help services to prepare for heatwave?	
Are the forecast location groupings for alerts appropriate?	
Other comments or suggestions	
Do you have any other comments on the Heat Health Alert System or suggestions for improvement?	

Is the alert necessary?	
What are the alternatives to the current alert system (if any)?	

Confusion or conflicting messages

Do you think there is potential for confusion or conflicting messages? • Due to different alert systems (eg bushfire/heatwave)? • Due to different heat health terminology from Commonwealth Govt, State government departments and local councils? • Due to different campaigns — bushfires, water use during drought, climate change and use of electricity etc?	
How could this risk of confusion or conflict be minimised or removed?	

The communication resources

Were councils aware of the departmental communication resources? • Were the departmental resources useful in educating the community? • Are there other forms of communication that should be included? • Is there a need for more tailored messages and if so for whom?	
Were communication resources distributed to appropriate groups?	
Are there any gaps in communication?	
Did those who are not receiving recognised support services get the message?	
What mechanisms for awareness raising would be effective for groups currently missing out?	
How could communication be improved?	

The overall Victorian Heatwave Framework

How can the departmental make sure the framework endures?	

Could the framework be made more cost effective?	
Do you think community awareness has increased as a result of the framework?	
Are there issues with the framework or gaps that still need to be addressed?	
How could the framework be improved?	

Do you have any other issues you wish to raise?

Please save your response and email back to us at either:

Heatwaveevalation@accesseconomics.com.au

or

Gwen.Cruise@accesseconomics.com.au

Appendix L: Survey of HHISS end users

The Department of Health appointed Access Economics and the National Ageing Research institute to evaluate the heatwave framework. The Heat Health Information Surveillance System (HHISS) is one of the components of the framework to be evaluated.

As users of the HHISS reports, your feedback to the five questions below would be extremely valuable. We would be grateful for your response before the end of July. A brief response via email is all that is required.

1. Were the reports from the HHISS provided to you last summer useful and did the reports meet all of your needs in terms of**:**
    a. Frequency of reporting
    b. Information provided
    c. Format
    d. Other?

2. How did you use the HHISS reports provided last summer?

3. Would you like to modify the reports in any way next summer? If so what modifications would you like to make?

4. What are your expectations of the HHISS for the future? What changes need to be made (if any) to the HHISS to meet these expectations?

The state-wide heatwave plan specified the objectives of the HHISS as:

- To monitor and assess the human health impact of a heatwave.
- To use the data collected to conduct a review of the heatwave plan and responses post summer to continue improvement to the state-wide and local response to heatwaves (Plan:22)

5. Do these objectives need to be modified? If so how?

Appendix M: Communication resource distribution

Table M.1: Number of communication resources provided to individual councils (including HACC services) by Department of Health

Council	Brochure	Poster	Script
Alpine Shire Council	1,500	200	5
Ararat Rural City Council	1,500	200	5
Ballarat City Council	4,000	500	10
Banyule City Council	4,500	500	10
Bass Coast Shire Council	2,500	300	10
Baw Baw Shire Council	2,000	200	5
Bayside City Council	3,500	300	5
Benalla Rural City Council	1,500	200	5
Boroondara City Council	4,500	500	10
Brimbank City Council	4,500	500	10
Buloke Shire Council	1,000	100	2
Campaspe Shire Council	2,000	200	5
Cardinia Shire Council	2,000	200	5
Casey City Council	5,500	500	10
Central Goldfields Shire Council	1,500	200	5
Colac Otway Shire Council	2,000	200	5
Corangamite Shire Council	1,500	200	5
Darebin City Council	5,500	500	10
Glenelg Shire Council	2,000	200	5
Golden Plains Shire Council	1,000	100	2
Greater Bendigo City Council	4,500	500	10
Greater Dandenong City Council	4,500	500	10
Greater Geelong City Council	8,000	500	10
Greater Shepparton City Council	2,500	300	5
Knox City Council	4,000	500	10
Latrobe City Council	4,000	500	10
Macedon Ranges Shire Council	2,000	200	5
Manningham City Council	2,500	500	10
Mansfield Shire Council	500	100	2
Maribyrnong City Council	2,500	300	5
Maroondah City Council	3,500	300	5
Melbourne City Council	2,000	200	5
Melton Shire Council	2,000	200	5
Mildura Rural City Council	2,500	300	5
Mitchell Shire Council	1,500	200	5
Moira Shire Council	2,000	200	5
Monash City Council	4,500	500	10

Council	Brochure	Poster	Script
Moonee Valley City Council	4,000	500	10
Moorabool Shire Council	1,500	200	5
Moreland City Council	5,500	500	10
East Gippsland Shire Council	3,500	300	5
Frankston City Council	4,500	500	10
Gannawarra Shire Council	1,500	200	5
Glen Eira City Council	4,500	500	10
Hepburn Shire	1,500	200	5
Hindmarsh Shire Council	750	100	2
Hobsons Bay City Council	2,500	300	5
Horsham Rural City Council	1,500	200	5
Hume City Council	4,000	500	10
Indigo Shire Council	1,000	100	2
Kingston City Council	5,500	500	10
Loddon Shire Council	1,500	200	5
Mornington Peninsula Shire Council	6,000	500	10
Mount Alexander Shire Council	1,500	200	5
Moyne Shire Council	1,500	200	5
Murrindindi Shire Council	1,000	100	2
Nillumbik Shire Council	1,500	200	5
Northern Grampians Shire Council	1,500	200	5
Peninsula Health	25,000	20	20
Port Phillip City Council	2,500	300	5
Pyrenees Shire Council	750	100	2
Queenscliffe Borough	750	100	2
South Gippsland Shire Council	2,000	200	5
Southern Grampians Shire Council	2,000	200	5
Stonnington City Council	2,500	300	5
Strathbogie Shire Council	1,000	100	2
Surf Coast Shire Council	2,000	200	5
Swan Hill Rural City Council	2,000	200	5
Towong Shire Council	500	100	2
Wangaratta Rural City Council	2,000	200	5
Warrnambool City	2,000	200	5
Wellington Shire Council	2,000	200	5
West Wimmera Shire Council	750	100	2
Whitehorse City Council	5,500	500	10
Whittlesea City Council	3,500	300	5
Wodonga City Council	2,000	200	5
Wyndham City Council	2,500	300	5
Yarra City Council	2,500	300	5
Yarra Ranges Shire Council	4,000	500	10
Yarriambiack Shire Council	1,500	200	5

Table M.2: Number of communication resources provided to general practice divisions

Suburb	Postcode	No of practices in each Division (approx)	Brochures (Kx100)	Posters (Kx10)
Wodonga	3689	25	2500	250
Ballarat West	3350	27	2700	270
Cheltenham	3192	46	4600	460
Gisborne	3437	41	4100	410
Bendigo	3554	40	4000	400
Moe	3825	31	3100	310
Dandenong	3175	90	9000	900
Bairnsdale	3875	31	3100	310
Lilydale	3140	59	5900	590
Shepparton	3632	27	2700	270
Geelong	3220	56	5600	560
Inverloch	3996	20	2000	200
Oakleigh	3166	78	7800	780
Bayswater	3153	43	4300	430
Mildura	3500	26	2600	260
Blackburn	3130	168	16800	1680
Carlton	3053	152	15200	1520
East Bentleigh	3165	58	5800	580
Cohuna	3568	20	2000	200
West Heidelberg	3081	69	6900	690
Mount Beauty	3699	30	3000	300
Broadmeadows	3047	96	9600	960
Preston	3072	89	8900	890
Camperdown	3260	33	3300	330
Frankston	3199	75	7500	750
Prahran	3181	73	7300	730
Ararat	3377	33	3300	330
West Footscray	3012	100	10000	1000
Hoppers Crossing	3029	51	5100	510
Total		**1687**	**168700**	**16870**