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Evaluation of the Victorian Government heatwave framework

Executive summary

January 2011

Report by Access Economics Pty Limited in conjunction with the
National Ageing Research Institute for
Department of Health Victoria

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
VMIAAC	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.

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 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.

The planning guide

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 organisations other than local councils in considering heat responses in their all-hazards approach to emergency management.

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.

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 care 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**

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