



# FEELING THE HEAT:

HEATWAVES AND SOCIAL VULNERABILITY IN VICTORIA

MARCH 2013



# Acknowledgments

## Feeling the heat: Heatwaves and social vulnerability in Victoria

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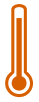
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## Executive summary

Not all emergencies are dramatic events like bushfires and floods – they can also strike quietly, such as in the summer of 2009 when an estimated 374 Victorians died as a result of a heatwave. This was a greater toll than our worst bushfires and placed Victoria's health and emergency services under intense strain.

Heatwaves cause more deaths in Australia each year than any other natural disaster,<sup>1</sup> and have a greater negative impact on population health than any other natural hazard.<sup>2</sup> Over recent years Australia has experienced unprecedented heatwaves, and the frequency and intensity of extreme heat events is likely to increase as our climate changes.

Yet heatwaves are not included under Victoria's emergency management provisions, even though the Department of Health recognises they require emergency responses. This means state and local governments, emergency services and local community sector organisations cannot effectively plan and respond, particularly when heatwaves often correspond with code red fire danger days.

### The impact of heatwaves

Heatwaves affect people in a number of ways. The direct effects of extreme heat can cause heat stress, exacerbate the symptoms of existing or underlying illness and, in extreme cases, cause long-term impairment or death.

Heatwaves also affect infrastructure and services, which in turn can further affect health and wellbeing. This includes power failures, breakdowns in the public transport system, cessation of some support services and overstretching of health and emergency services.

A number of social, medical, economic and built environment factors place people at higher risk of adverse health and wellbeing outcomes during periods of extreme heat. Many of these risk factors are highly likely to co-occur. People who are older and/or suffer from chronic health issues are most at risk, especially if they are unable to keep cool and hydrated.<sup>3</sup>

Also at greater risk are people who are homeless or live in poor quality housing, those who lack the capacity – for a range of social and personal reasons – to change their circumstances or behaviour in extreme heat events, and people who are socially isolated.

### Addressing those impacts

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*I know of two community housing providers that made it their policy to go and knock on at least the older people's doors at least once a week ... when they got a call or heard that someone was worried about someone else, they would kind of draw straws over who would go and knock on the door. They were all afraid someone would be dead, because it was happening so regularly...*

*– Community Sector Organisation*

---

Following the 2009 Victorian heatwave the Victorian Government undertook an extensive process of policy development and community engagement. This included the development of the *Victorian Statewide Heatwave Plan*, a heat alert system, work with the aged care and supported accommodation sectors and provision of funding to local governments to prepare heatwave plans, with assistance from the *Heatwave Planning Guide*.

Since 2010 there has been very limited further investment in preparing for heatwaves. There are also concerns that significant numbers of Victorians, many of them disadvantaged and socially isolated, continue to be at risk from extreme heat.

This Issues Paper examines heatwave research literature from Australia and internationally to identify and describe the risks to health and wellbeing from heatwaves. It also reports on the experiences of community sector organisations working with high-risk groups, the impact of the 2009 heatwave, and ongoing issues and challenges for vulnerable individuals and groups.

These organisations reported a range of alarming stories about how some Victorians face extreme heat, including:

- Vulnerable people living in public housing properties, rooming houses and caravans that were described by staff as 'hot boxes' and who had no access to cooling or cool areas
- Lifts out of action in high rise accommodation because of heat-related power shortages
- Vulnerable people having to walk in extreme heat due to inadequate public transport and risking fines because they could not afford transport costs to medical or other appointments.
- Landlords who did not allow air-conditioning or fans because of operating costs
- Lack of monitoring for vulnerable people, such as those with mental health or alcohol and drug issues who risk heat stress or sunburn and sunstroke by wearing inappropriate clothes or being out in the sun
- Lack of access to drinking water, particularly for people who are homeless and sleeping rough, as well as those living in accommodation that restricts access to kitchens and bathrooms.

#### VCOSS recommends the following actions:

- Put heatwaves on the same emergency planning level as bushfires and floods by linking the Statewide Heatwave Plan to emergency management planning.
- Ensure local and regional heatwave planning is adequately resourced and well coordinated to avoid duplication and ensure that people do not fall through the gaps.
- Introduce legislated standards to improve the thermal efficiency of the homes of those Victorians who are most vulnerable in heatwaves, particularly those with disabilities, medical conditions and chronic illnesses.
- Increase financial support such as Heat SAVVI (Supporting Accommodation for Vulnerable Victorians Initiative) to improve the quality, thermal efficiency and cooling of low cost housing options.
- Ensure that publically accessible cool spaces are available in all communities and public housing estates, and that these locations are promoted to high risk groups.
- Adequately resource local government and community sector organisations to include heatwave in risk management and business continuity strategies.
- Engage high risk communities in developing heatwave strategies.
- Develop, distribute and evaluate the effectiveness of targeted heatwave information about how to reduce heatwave risk for high risk groups.
- Invest in strategies to connect high risk groups to health services and social opportunities.
- Assist community sector organisations to ensure greater direct monitoring of at risk groups – especially people who are homeless, living in general public housing and in rooming houses.
- Provide targeted material assistance to at-risk groups including water, public transport tickets, sunscreen, 'heatwave packs' and, where appropriate, cooling appliances.



## Introduction

Over recent years Australia has experienced unprecedented heatwaves, including one in January 2009 that is estimated to have caused at least 374 deaths in Victoria alone.<sup>4</sup> The frequency and intensity of heatwaves is highly likely to increase as climatic conditions change.<sup>5</sup>

As well as causing more deaths each year in Australia than any other natural disaster, and having a greater negative impact on population health than any other natural hazard, heatwaves also affect infrastructure and services. They cause power failures, breakdowns in public transport, interruptions to some support services and overstretching of health and emergency services,<sup>6</sup> which can then have additional detrimental effects on vulnerable people.

Extreme heat is also likely to occur during periods of extreme bushfire risk, as occurred during the 2009 Victorian Bushfires, adding further strain to services and reducing capacity to respond.

According to Victoria's Chief Medical Officer, during the January 2009 heatwave Victoria experienced:

- a 25 per cent increase in total ambulance emergency cases and a 46 per cent increase over the three hottest days
- a 12 per cent overall increase in emergency department presentations and a 37 per cent increase in those aged 75 years or older
- an almost three fold increase in patients who were declared dead on arrival at hospital (69 per cent of whom were 75 years or older).<sup>7</sup>

Immediately following that heatwave, VCOSS – as the peak body of the community sector in Victoria – asked members for feedback on what had occurred for their clients and their services. Early information detailed concern about:

- the efficacy and relevance of health information
- poor quality buildings and lack of access to cooling for high risk individuals

- power and equipment failure further restricting access to cooling or essentials like mobility aids
- an uncoordinated service response including the cancellation of some critical services to highly vulnerable groups.

It was clear that a number of vulnerable groups, including the aged, people with chronic illnesses, and those who were homeless or living in insecure or unsafe accommodation, faced multiple risks in heatwaves.

While both state and Australian governments have begun to address some risks, VCOSS remains concerned that targeted approaches to assist the most vulnerable groups are not being sufficiently identified or implemented in Victoria.

That concern has led to this report, which is informed by:

- Australian and international heatwave research literature with a focus on social risks and resilience and identifying a range of factors which may be relevant in Victoria
- interviews with nine key community sector organisations working in public housing, rooming houses, emergency housing and Supported Residential Services (SRS) as well as with people experiencing homelessness
- further consultation with VCOSS members and other stakeholders
- the release of the Chief Medical Officer's report into the 2009 heatwave
- an assessment of government responses to heatwaves.

Heatwave and emergency management policy is a dynamic policy environment in Victoria and this work is intended to contribute to ongoing efforts to generate knowledge about what happens during these events and to policy and practice so as to minimise the loss of life and negative health and social impacts.

This report seeks to explore what can be done by state and local governments, community sector organisations and the wider community to reduce risks and boost protective factors around heatwave impacts.

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The research undertaken by VCOSS is intended to begin identifying areas where issues may exist. It has also sought to capture knowledge of people working on the ground who may have insights into the risks that people face which may not be apparent in the statistics. This can assist us to design and better evaluate strategies and interventions that can, ultimately, save lives.



## Heatwaves: The current policy context

The current Australian and *Victorian heatwave policy framework* is fragmented and lacks consistency. Heatwave is included in a variety of policy areas from climate change and public health through to emergency management. The current policy framework lacks coordination and a focus on long-term strategies such as cultural and structural change.

All three levels of government are involved in heatwave policy development, with differing departments developing differing and sometimes conflicting policies. This chapter specifically focuses on the policy context at the Victorian Government level in relation to heatwave and considers the important role of local government. It also outlines some of the work being undertaken by the Australian Government.

### The Victorian Government

#### Victorian Heatwave Framework

The Victorian Department of Health developed the *Victorian Heatwave Framework* to provide an integrated response to heatwaves in Victoria. The Framework's *Heatwave Planning Guide*<sup>8</sup> and *Heatwave Plan Review Tool*<sup>9</sup> are designed to assist local governments develop plans to connect local services and local people to address the health impacts of extreme heat, particularly for those most at risk. The plan complements the state's *Emergency Management Manual Victoria*.<sup>10</sup> It is critical to note that heatwave is not considered an emergency event under Victoria's current emergency management framework, which further compounds the lack of a coordinated approach.

The Department of Health also provides a Heat Health Alert System for registered users and provides a series of online resources to assist communities during extreme heat periods.

A number of other Victorian Government departments and agencies have policies on extreme temperature. These include the Department of Education and Early Childhood

Development (DEECD), which has policies on extreme heat for schools, and WorkSafe, which has a number of policies aimed at protecting workers from the stress of high temperatures. The Departments of Human Services and Primary Industries also have policies on extreme heat.

### Local government

Following the 2009 Victorian heatwave, the Victorian Government undertook an extensive process of policy development and community engagement, including the development of the *Victorian Statewide Heatwave Plan*, a heat alert system, work with the aged care and supported accommodation sectors and provision of once-off funding to local governments to prepare heatwave plans supported by the development of the *Heatwave Planning Guide*.

Most local governments in Victoria received funding in 2009 to develop a local heatwave plan. However, no further funding has been provided to evaluate, update or indeed implement local government heatwave plans. This is a significant concern. International research on best practice for heatwave planning suggests that this is essential to effectively reduce health risks to include evaluation and regular revision of plans.<sup>11</sup>

### The Australian Government

The Australian Government does not have a policy in place for heatwave events. In 2011 PricewaterhouseCoopers (PWC), with support from the Australian Government, published a report – *Protecting human health and safety during severe and extreme events* – containing advice on the effectiveness of heatwave response systems in the various emergency management frameworks across Australia.<sup>12</sup> The report provided recommendations on areas for improvement and/or developments to identify and address gaps, including developing:

- a national definition of what constitutes a heat event
- a nationally consistent approach to measuring and predicting heat events
- a comprehensive assessment of heat event risks



- an Australian heat event strategy falling under the national Strategy for Disaster Resilience.

The Climate Commission recently launched a report into heatwaves: *Off the charts: Extreme Australian summer heat*.<sup>13</sup> This report indicates that good community understanding of climate change risks is critical to ensure appropriate action is taken to prepare for, and respond to, extreme weather.

A Senate Inquiry, *Recent trends in and preparedness for extreme weather events*, is currently underway with a report due by 31 March 2013.<sup>14</sup> The Australian Council of Social Service (ACOSS), in consultation with VCOSS, made a submission to the inquiry, focusing on the community sector and its role in assisting disadvantaged people and communities to manage and recover from extreme weather events such as heatwave.



## Heatwave risks

### What is a heatwave?

Australians are used to dealing with hot weather and, as a community, have developed many strategies to cope with the heat. Heatwaves, however, are periods of extreme heat outside the normal range which can rapidly overwhelm the community's ability to cope, especially when critical infrastructure and services are affected.

The Victorian Department of Health currently defines heatwaves as 'a period of unusual and uncomfortably hot weather that can affect anybody'. It further advises that a heatwave alert is issued when the mean temperature exceeds the designated threshold of a mean temperature of 32 degrees Celsius on two consecutive days. The mean temperature is calculated by averaging the overnight minimum temperature and the following day's maximum temperature.

The suddenness with which heatwaves occur can also contribute to their impact, as acclimatisation allows us to adapt to heat both physically and in our behaviour. A heatwave which occurs early in summer or after a period of cooler weather is therefore expected to have more impact.

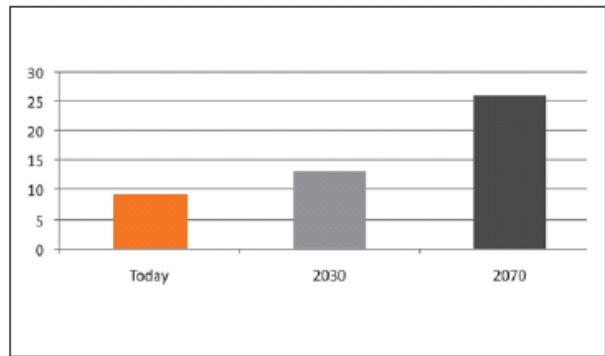
Longer periods of extreme heat can have cumulative effects.<sup>15</sup> If heat overwhelms health, emergency systems and other essential infrastructure, as occurred in Victoria in January 2009, this can also create greater impacts. Infrastructure such as air-conditioning, which may work well for short periods of extreme heat, may break down if worked over capacity for prolonged periods. There was anecdotal evidence of this occurring in January 2009.

The frequency and intensity of heatwaves are anticipated to increase in Victoria. For example, Melbourne is predicted to see a doubling of days over 35 degrees over the coming decades. January 2009 saw the highest temperatures on record with a peak of 46.4 degrees in Melbourne. Significantly high temperatures were also recorded in rural and regional Victoria during the same period – for example, the peak in Hopetoun,

in north-west Victoria, was 48.8 degrees on Black Saturday.<sup>16</sup>

Australia has just experienced its hottest summer in history, including a 40.3 degrees average temperature across the country on 7 January 2013.

### Number of days over 35 degrees in Melbourne.



Source | Victorian Department of Sustainability and Environment, *Climate change in Victoria: 2008 summary*, Victorian Government, Melbourne, June 2008. \*Projections based on current greenhouse gas emissions trajectory.

The likelihood of more frequent and extreme heatwaves with temperatures exceeding historical records increases heatwave risks. At the same time, Victoria is experiencing rapid growth in people at higher risk from heat as the population ages.

## Heatwaves: health risks and social impacts

While heat stress is a diagnosable condition, most people who suffer health effects during a heatwave do so because heat exacerbates an underlying health condition such as heart or kidney disease, respiratory illness or mental health issues. Some medications or substance use can also impair the body's ability to cope with extreme temperatures.<sup>17</sup>

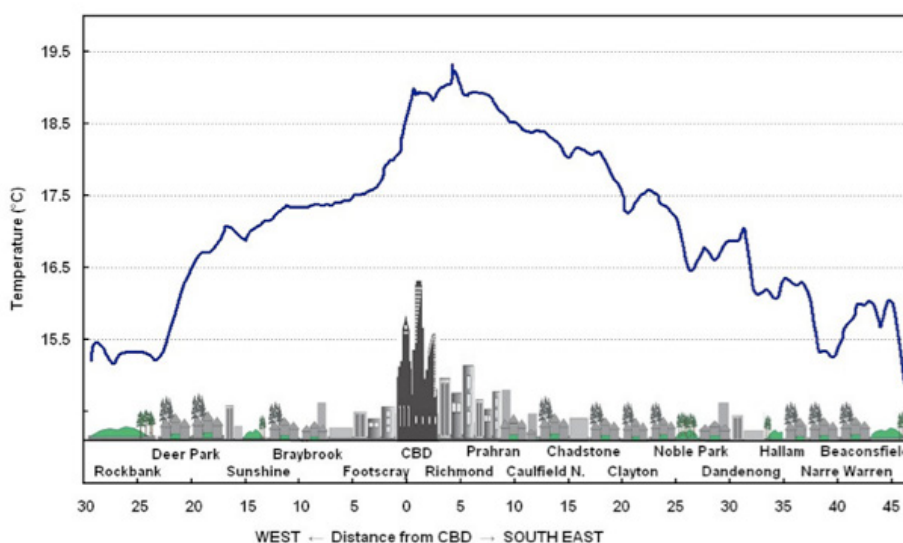
Extreme heat has a number of direct and indirect health, economic and social impacts ranging from discomfort and disruption to daily life to severe health impacts including death. There is growing understanding that some people in the community are more likely to be affected by such emergency events and less able to respond due to factors such as low income, social isolation, mental illness, living in poor quality housing or experiencing homelessness. This was clearly articulated in the *Heatwave Planning Guide* developed by the Department of Human Services to support local government planning in Victoria:

*vulnerability to extreme hot weather is increased in individuals with compromised physiological responses to excessive heat, those who have reduced ability to modify their behaviour in order to care for themselves or reduce their exposure to hot weather conditions, and those who have limited access to resources such as air-conditioners, shelter, transportation, cool spaces, and drinking water.*<sup>18</sup>

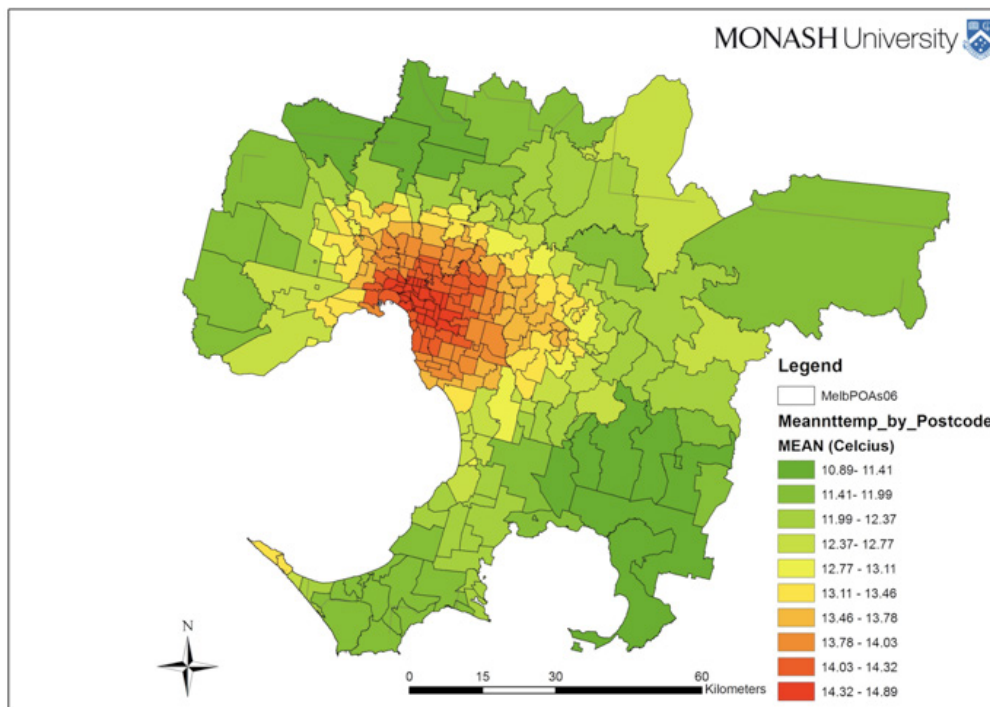
Most heatwave research focuses on extreme health impacts through the analysis of mortality and hospital admission data following extreme heat events and has been used to identify broad personal, social and environmental risk factors including:

- age
- pre-existing medical condition or disability
- quality of housing and the built environment
- geography
- low socioeconomic status
- social circumstances such as isolation and lack of access to medical services.<sup>19</sup>

These risk factors can be broadly categorised as relating to built environment, medical, social and economic factors. They will be examined in more detail below.



Source: AM Coutts, L Beringer and N Tapper, "Changing urban climate and CO2 emissions: implications for the development of policies for sustainable cities", Urban Policy and Research, 2010 (First published online: 6 January 2010 DOI:10.1080/08111140903437716.)



Source: ME Loughnan , N Nicholls and N Tapper, A spatial vulnerability analysis of urban populations to extreme heat events in Melbourne, Report for the Victorian Department of Health, 2009.

## Impact of the built environment

One of the most commonly discussed effects of the built environment on exposure to extreme heat is the ‘urban heat island’ effect. The mass of heat-absorbing materials such as concrete and road paving in dense urban environments, combined with lack of green space and natural shade, can lead to much higher day and night-time temperatures in urban areas.<sup>20</sup>

In addition to higher average temperatures, high overnight temperatures are a significant contributor to health impacts of heatwave. Inner city areas are also less likely to cool down at night.<sup>21</sup> Lack of shading and green spaces, which is more prevalent in lower income areas, contributes to higher temperatures.<sup>22</sup>

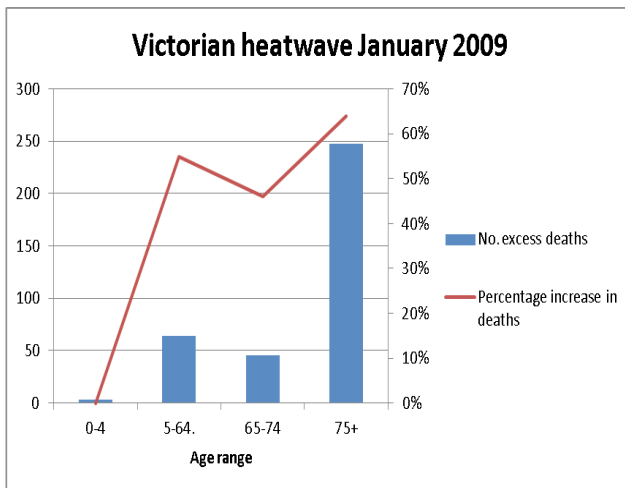
The quality of housing is also a significant risk factor. Housing which is poorly ventilated, unshaded and does not have cooling increases exposure to high temperatures. Living on the top floor of multi-story dwellings or sleeping under the roof are also associated with higher risk of death.<sup>23</sup>

## Medical factors: age, pre-existing conditions, mental health

### Age

The most commonly identified medical risk associated with heatwaves is age – with people over 65 years at higher risk.<sup>24</sup> This is due to decreased ability to thermo-regulate as well as higher prevalence of pre-existing medical conditions. Dependence on others for basic life tasks, as indicated by using home nursing and home help services, is strongly associated with increased risk of death during a heatwave, as is being confined to bed.<sup>25</sup>

Age was clearly a high risk factor in the high numbers of excess deaths experienced in Victoria in 2009. However, while the absolute number of excess deaths recorded was highest among people aged over 75, the percentage increase in the number of deaths was similar across all age groups except 0-4 years, varying from 46 per cent for those aged 65-74 years to a 64 per cent increase for those aged over 75 years. There was also a 55 per cent increase in the number of deaths in the 5-64 years age range.



Source: J Carnie, January 2009 heatwave in Victoria: an assessment of health impacts, Department of Human Services, Melbourne, 2009.

These figures point to the need for further focus on the risk profile of younger age groups in heatwaves and are reinforced by international heatwave experiences. For example, United States research found that younger age groups, especially those with additional risk factors such as mental illness, were at significant risk in heatwaves in Chicago.<sup>26</sup> Following the 1995 Chicago heatwave, a city-wide response plan was put in place largely directed towards older people. During another heatwave event four years later, a surprisingly high rate of mortality was found in people under 65 years. This study suggests that while older people (over 75 years) continue to be the proportionally highest risk group, other groups at risk should be targeted to minimise heatwave deaths, including younger people with mental illness and cognitive impairment, and their carers.<sup>27</sup> Other research found a significant population of younger people who had died in heatwaves in Arizona, with most having additional risk factors, including homelessness.<sup>28</sup>

### Pre-existing medical conditions

Pre-existing medical conditions, in particular coronary and kidney disease, are also significant risk factors during extreme heat.<sup>29</sup> Such chronic health conditions are more prevalent in older and disadvantaged population groups.

It is sometimes suggested that deaths which occur during extreme heatwaves are largely limited to people who 'were going to die anyway' rather than preventable deaths. However there is limited research which suggests that this effect is significant.<sup>30</sup> Rather, researchers often conclude to

the contrary: that deaths occurring in heatwaves are unexpected. For example, US research concluded that in Chicago, "the heatwave... did not kill people whose deaths were imminent, but hastened the demise of vulnerable residents who were likely to have survived if the crisis had not occurred."<sup>31</sup>

### Mental health issues

People experiencing mental illness have been shown to be at higher risk of illness or death during heatwaves for a number of reasons. The illness itself may be exacerbated by heat or may compromise a person's ability to take protective measures.<sup>32</sup> In addition, extreme heat can exacerbate behavioural issues associated with mental illness.

*For those pre-disposed to acute or chronic mental problems, failure to gain relief from the heat for extended periods of time may trigger irritability and episodic psychological distress, accompanied by risk behaviours such as excess alcohol consumption, violence and aggression.*<sup>33</sup>

Medications commonly prescribed to people with a range of mental health conditions increase vulnerability to heat by affecting the body's ability to regulate temperature.<sup>34</sup>

People with serious mental health conditions are also more likely to experience poor general health, which again increases risk. In addition, having a mental illness may increase the likelihood of social isolation, financial hardship, or living in poor quality housing. In findings of higher risk of death for people with schizophrenia during heatwaves, research has highlighted that:

*consequential factors of living with such a debilitating mental illness include socioeconomic deprivation, solitary lifestyle, poor general health, and chronic illness, all of which are risk factors for heat-related mortality.*<sup>35</sup>

### Socioeconomic factors

Low socioeconomic status is often identified as a heatwave risk factor. Low income and disadvantaged groups are more likely to live in

poorer quality housing, and have less capacity to 'climate proof' their homes by installing insulation, shading and cooling systems, including air-conditioning.<sup>36</sup> In Australia, this is especially true for low income people living in rental properties, temporary accommodation or low cost housing options such as caravans and rooming houses. The costs of running an air-conditioner have been identified as an additional barrier to cooling, even when air-conditioning is installed.<sup>37</sup>

Low socioeconomic status has been linked to reduced access to medical care.<sup>38</sup> Limited access to transport, also associated with living on a low income, is also a heatwave risk factor as people without private transport may be unable to travel to access cool spaces or access medical assistance.<sup>39</sup>

### Social and behavioural factors

Health research and policy is increasingly focused on the inter-relationship between social, environmental and physical factors in individual and community health.<sup>40</sup>

However, in research on the impacts of heatwave:

*often neglected is an examination of how social and economic factors may also affect individual health in the face of both short and extended periods of elevated temperature.*<sup>41</sup>

In addition to physiological and environmental risks, social, economic and personal factors can limit people's ability to adapt to extreme heat by changing the conditions of their environment or their behaviour.<sup>42</sup> These risk factors include social isolation, low income, poor quality housing, limited access to transport and limited access to services.

*Anything that facilitated social contact, even membership in a social club or owning a pet, was associated with a decreased risk of death.*<sup>45</sup>

In particular, a number of studies discuss social isolation as a significant risk factor using indicators such as living alone and not leaving the house daily.<sup>43</sup> Conversely, social contact has

been identified as a protective factor during heatwave.<sup>44</sup>

### Multiple risks

Many of the risk factors identified above are highly likely to co-occur, placing individuals at higher level of risk with limited adaptive capacity. People with a range of social and medical risks are over-represented in the lowest income levels and, as such, are also over-represented in poor quality housing.

This means that particular sectors of the community are likely to experience clusters of risk factors.

Yet the 'top down' nature of much heatwave research makes it difficult to assess the contribution of different risk factors to health and wellbeing outcomes during heatwaves, or the interaction of multiple risk factors where they occur. For example, very little is known about the relative impact of living in social conditions which present barriers to seeking or receiving support or assistance during the heatwave.<sup>46</sup> There is also little heatwave research on social risks and protective factors in specific contexts, including in Australia, or research which documents the impacts of heat on broader wellbeing. This information is vital in planning and implementing effective local responses.

In addition, research literature notes that the most marginalised people affected by heatwaves are often excluded from studies as investigators are unable to gather information on their lives and the circumstances of their deaths.<sup>47</sup>

*It has been argued that one of reasons why heatwaves receive less attention than other natural disasters in spite of claiming more lives is that many victims of extreme heat live isolated lives on the fringes of society.*<sup>48</sup>

As a result, very little is understood about how the interaction of social, medical, economic and built environment factors affect heatwave risk here in Victoria or how initiatives designed to reduce risk interact with these factors.



## Risks to vulnerable Victorians

This research project interviewed nine Victorian community sector organisations providing support to people likely to be experiencing multiple heatwave risk factors. They included organisations working with residents of rooming houses, Supported Residential Services (SRS) and public housing, and with people experiencing homelessness.

### Community Sector Organisations (CSO) interviewed for this report:

- Tenants Union Of Victoria
- North Yarra Community Health
- Inner South Community Health
- Western Region Health Centre
- Port Phillip Community Group
- Royal District Nursing Service

Interviewees were asked to identify the effects they had observed during incidents of extreme heat, in particular the 2009 Victorian heatwave. They were also asked to reflect on the risks they felt people using their services may be exposed to during extreme heat events, based on their overall experience.

Most reported that they had directly observed only limited health impacts from extreme heat, but had been aware of higher rates of illness, hospitalisation and death amongst those using their services.

*We had numerous deaths in community and private rooming houses during that intense summer ... there are always deaths and they can't necessarily be attributed to heatwave but it would seem that they were more common... - CSO*

Concerns were raised about the impact of extreme heat on existing chronic health issues:

*I suppose people having undiagnosed mental health issues, even diagnosed mental health issues ... extreme temperatures can exacerbate the symptoms and I suppose that medication and that sort of thing, the side effects might be more obvious. - CSO*

Some interviewees reported a high level of anxiety about the health impacts of heat in some population groups:

*Older people and people with disabilities in public housing particularly seemed really concerned about their own health and articulated frequently that they felt especially vulnerable and that there should be special measures put in place to help protect them. - CSO*

In reflecting on risk exposure, three major themes emerged from the responses of interviewees:

- housing quality and tenure type
- capacity to adapt – personal, financial and living situation
- social isolation.

### Housing quality and tenure type

Interviewees in this study worked with people in a range of low-cost accommodation including public housing, rooming houses, SRS and caravans as well as people experiencing homelessness and living on the streets.

## Access to cooling

A key concern was lack of access to cooling or cool spaces across a range of accommodation types. While some SRS were reported to have cooling, at least in common areas, the majority of public housing properties and rooming house accommodation for older people did not. Both public housing properties and rooming house accommodation were described as 'hot boxes'.

Widespread lack of cooling as well as poor thermal efficiency and lack of ventilation in low cost accommodation was seen as creating greater primary exposure to heat.

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*All of the effects that we see are directly related to the quality of housing occupied by our clients... - cso*

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*Some of them [SRS] are really hot - unbearably hot as you can imagine. - cso*

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*With the big heatwave in 2009, the very bad one, there were a number of people who did come down and talk about how their flats were unbearable, that they couldn't really be there during the afternoons. - cso*

---

A number of interviewees raised particular concerns about the heat exposure of people living in rooming houses and caravans.

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*Rooming houses tend to be quite poor in terms of their thermal efficiency; caravans by their very nature even more so... - cso*

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*They [caravans] are just so small ... they are just those old fashioned round ones, the windows are really small, the doors are small, there is no way you can get significant airflow ... and often there are women and children living in those environments too. - cso*

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*Rooms don't necessarily have windows ... they just partition sleeping spaces... - cso*

---

In addition to lack of cooling in individual rooms or apartments, many low-cost housing options also lacked even an air-conditioned common area. Several interviewees reported having protracted

discussions with the Victorian Office of Housing (OoH) to try to secure cooling in common areas.

---

*Last summer we managed to get air-conditioning into all of our community rooms [in public housing estates] which was quite a to-do ... we just pushed and pushed...*

*- cso*

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*One thing we suggested as a compromise was to at least air-condition the community rooms ... at least people would know that was a cool place that they could go to.*

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Some conflicting views on how often this cooling should be employed were also raised.

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*I noticed over this last summer when we had that high humidity with one of the high rises (there were) signs up saying they won't turn the air-conditioning on until it's 36 degrees but when you've got between 30-33 (degrees) and high humidity, those guys really do get hot. - cso*

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It was widely viewed that residents would prefer cooling which would allow them to stay comfortably in their homes. However concerns were raised about the high costs of running air-conditioning units and the difficulties that this could cause for people on low and fixed incomes.

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*Really what residents would prefer is air-conditioning in their flats ... but that is a much bigger demand... - cso*

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## Equipment failure

Discussion with VCOSS members following the 2009 heatwave indicated that air-conditioning in both private residences and those provided by community sector organisations had been prone to failure due to the extended period of extreme heat. Concerns were also raised about the risks of equipment failure in high density public housing.

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*The more serious incidents that we had in one of our [older person] high rises was where power went out, which meant the lifts didn't work. Typically there is meant to be an emergency generator which doesn't allow both lifts to be out of action even if there is a power shortage in the building, but that wasn't the case that particular time. Both were out of action, it was only out for a couple of hours ... (but) people relied on some of the more assertive residents contacting the Office of Housing directly ... That had pretty high risks. – cso*

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## Location of low cost housing

The location of some low cost housing, in particular rooming houses and in areas with poor access to transport was raised as another risk during extreme heat.

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*Suburban caravan parks and many of the new private rooming houses tend to be located where property values are lowest ... Location and the extremes of temperature have a direct impact on people's capacity to access the services that they need ... If it's really hot and you need to go to the doctor or the chemist, but it's a 3 kilometre walk and the bus doesn't run on Sundays, you stay home, and so there is a really distinct geographical effect there – the geography of rooming houses and the climate interact. – cso*

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## Lack of control over living situation

In addition to the physical condition of properties and their location, the living conditions associated with particular housing types were also highlighted as both increasing risk and limiting capacity to respond effectively to extreme heat.

For example, overcrowding and lack of common space in rooming houses could lead to increased conflict during prolonged hot weather.

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*Increasingly, rooming houses in ordinary suburban areas don't have any communal areas, so even the lounge room will be converted to a bedroom. So you can have severe over-crowding of an ordinary suburban property without a communal area and, when it's hot, people are much more likely to seek refuge outside their bedroom so that increases the risk of conflict. – cso*

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Tenants in low cost housing options were less able to exercise control over their housing circumstances. Using fans and portable air-conditioners to keep cool, for example, could be compromised by both unsafe wiring and pressure from landlords or SRS operators to keep electricity prices down.

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*The breakdown of the wiring systems in properties due to overload ... happens in both summer and winter ... but it's also when you've got four households in one house; they are always generally in poor condition, you've got four fridges running, it doesn't take much, if you add a couple of fans into the mix ... it becomes unstable very quickly. – cso*

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*In the previous summer, in rooming houses where people were running cooling devices, we did see operators basically coming around to the residents and saying you've got to stop using your air-conditioning because it's costing me too much ... they would issue very strict and harsh instructions about the use of air-conditioners. – cso*

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*It has been reported as an issue that [SRS] proprietors will only want the air-conditioning or the heating on if it's really necessary, to keep bills down as much as possible. – cso*

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The complexity of tenure arrangements in these properties, where tenants of individual rooms may have no contact with or indeed knowledge

of the property owner, can also make timely repairs extremely difficult.

Housing insecurity and limited affordable housing options make moving to a cooler, more thermally efficient property impossible for many people on low incomes. This may be a problem even for public housing residents. For example, one interviewee spoke of a case where an elderly resident had been refused a housing transfer despite medical documentation stating that he was at risk from extreme heat in his northwest-facing public housing flat.

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*One person in particular put in an application for a transfer... He's over 80 (years). His flat is northwest-facing so pretty much has full-on heat all day ... He put in for a transfer and was rejected despite letters from his medical practitioner, plus we wrote a support letter...He appealed but that was rejected as well ... - cso*

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After noting that SRS accommodation was relatively comfortable compared to rooming houses, one interviewer reflected that:

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*People do pay for it, when they are staying at a pension level SRS ... you are typically paying up to 90 per cent of your pension to live there, so you're making sacrifices, giving the rest of your disposable income for the privilege of having an air-conditioner in place ... That's always an ongoing issue for people living in SRS, though; they would have been feeling pretty comfortable, comparatively, during that heatwave period. - cso*

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## ■ Capacity to adapt – personal, financial and living situation

Adaptation to extreme heat involves altering behaviour to reduce exposure to heat and maintain hydration, as well as being able to access assistance should heat exposure lead to health impacts. Effective strategies include staying in air-conditioned spaces, keeping hydrated, wearing light clothing and seeking medical assistance early if required.<sup>49</sup>

Interviewees for this report identified a range of factors, both personal and circumstantial, which limit the ability of many people living in low cost housing to successfully adapt during heatwaves.

### Personal capacity

A number of interviewees expressed concerns that people living with mental illness, cognitive impairment or substance use issues may have limited capacity to monitor their own wellbeing during extreme heat and take action to protect themselves from health impacts.

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*Personal health is sometimes not the first priority for people living in chaotic circumstances so people might be more likely to behave in ways that put themselves in danger. - cso*

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A commonly raised concern was the likelihood that people with impaired cognitive function may spend long periods of time outside and be inappropriately dressed even in extremely hot weather.

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*There are a couple of others who will go walking and they'll wear jumpers...and not take water bottles ... They need monitoring and prompting by people who are really thinking about these things. - cso*

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Communication difficulties linked to cognitive or communication disabilities were also seen as issues.

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*They are sometimes unable to tell the proprietor or the PC (personal carer) that they are unwell if they find it very difficult to explain what is wrong with them. Their self reporting abilities are really low so unless you have really shrewd workers... because it's a complex thing to say 'I'm dehydrated'.... - cso*

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## Living circumstances

For people living on the street, living circumstances can make it too difficult for even simple strategies to help mitigate the effects of extreme heat.

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*Strategies given to people [are] to drink more fluids, have a number of showers, wear light clothing and these can all be things that homeless people would struggle to deal with. It's not unusual for people to have difficulty accessing showers, soap and towels. At any given time people struggle to meet their basic needs around food and fluids, so if it is extremely hot they've got that added burden... - cso*

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*So it's about all those strategies that homeless people don't necessarily get. I would guess that very few homeless people go swimming at St Kilda because there is a requirement about taking your clothes off; if all your worldly possessions are represented in what you've got on you are not going to take them off. - cso*

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Reduced access to public space and public amenities contribute to these difficulties.

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*If you walk around Melbourne you would have to go out of your way to find water fountains and you certainly have to go out of your way to find toilets. Street people would probably have to wash in [public] bathrooms or toilets if they are quick and that's probably one the places that you can get access to water too ... - cso*

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Difficulties enacting basic protective behaviours were also reported as a factor for some people living in poor quality SRS accommodation. One interviewee reported that:

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*There was no water in this SRS. This has since been addressed ... there is a water machine now, but clients had to knock on the locked door of the kitchen to get a glass of water. - cso*

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## Income

Lack of disposable income also affects the opportunities to deal with heat, including being able to afford cooling devices such as fans or to access cool spaces.

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*So it's about where can people go to be cool; people go to the pictures but someone who is homeless cannot afford (to)... - cso*

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Being unable to afford public transport could mean at-risk people don't access the services they need, risk a public transport fine, or risk high heat exposure by having to walk.

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*Some people, if they don't go out, they are not going to eat. often people don't have money to pay for public transport so then they either take the risk of getting on it (and facing a fine) or they walk. - cso*

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*A lot of them don't even have money to have a daily bus ticket so they are walking everywhere, so they don't go out (in extreme heat)... - cso*

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For people with separate energy metering, higher energy costs associated with cooling and in particular air-conditioning were potential issues, especially given existing difficulties in managing utilities bills.

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*There is an issue of the instability of people's ability to pay for their energy ... a big chunk [of income] is going towards rent. - cso*

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## Access to medical assistance

There was concern that people living in low-cost housing would not only face greater health risks from their housing and other circumstances, but also have less access to medical assistance.

Many people living in rooming houses and SRS or living on the street were seen as having little contact with health services in general and so be less likely to present for assistance in a heatwave.

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*I would imagine that people who are perhaps feeling the early signs of heat stress would be less likely to seek assistance. They don't want to go to the (Royal Prince) Alfred because then they will sit in Emergency for the next six hours... - cso*

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*Well they have difficulty accessing hospitals (anyway) so at what point do you go to a hospital because you are feeling unwell if it's hot - cso*

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*They wouldn't go and would miss the appointment unless (support workers) took them – proprietors don't have the time and they are not insured to drive them and it's not their role - cso.*

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*They might not have the money to buy a (public transport) ticket and they certainly can't afford a taxi; they will often not have a phone or not have credit on their phone ... and they might not have the energy to take public transport and walk around anyway ... They often don't have a feeling of wellbeing anyway so that they might not feel that much different. - cso*

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There was concern that lack of staff and lack of staff training in SRS would mean insufficient monitoring and support for people who could not identify or communicate themselves that they have become unwell.

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*The provider, the manager, probably wouldn't notice anything – not unless they knocked on the door or the carer would say that this person is not too well today... [there is] one personal carer between 30 odd people. - cso*

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*It's just chronically under-resourced... historically there have never been outreach services to these SRS. - cso*

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*[The staff] are under-qualified... They are not the ones who are going to pick up if someone is unwell or needs an ambulance...*

*- cso*

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## ■ Social isolation

Interviewees in this study highlighted concerns about vulnerable people living in low quality accommodation where social conditions and fear of violence contribute to social isolation. These concerns reflect high-risk conditions reported in the heatwave literature. Rooming house residents were significantly over-represented in heatwave deaths in Chicago for example.<sup>50</sup>

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*I heard some very horrible stories from rooming houses of people having died and it not being noticed for two or three weeks and the only reason people had noticed was that people had seen the flies at the window. So despite the fact that people are living door-to-door and next to each other, there is not necessarily a consciousness of who's well, who's not and not really a culture of looking out for one another because of that feeling of 'better not get in anyone's business'. - cso*

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*People in rooming houses have a prevailing attitude that you've got to keep your head down, keep out of trouble, or otherwise you will be in trouble so that generally will mean isolation in their rooms. - cso*

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By contrast, residents in public housing were seen as being at lower risk due to the protection offered by informal social networks, targeted services and relatively accessible and usable communal areas. Residents of Older Persons High Rise communities, for example, have also been the targets of heatwave health activities, including welfare checks and health promotion activities.

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*People within the buildings, on the whole, look out for each other. - cso*

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*Some (high rise residents) keep to themselves but if they haven't been seen around for a couple of days someone will come and say (so)... but then there are some people who do pass away and nobody finds them so it's just being aware of your neighbours. – cso*

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However there was concern about older people and other potentially vulnerable people living in general public housing estates where they may be more isolated and may not experience the same level of personal security or informal social monitoring from neighbours.

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While there was general agreement amongst interviewees that hot weather would likely be linked to increased alcohol consumption, irritability and potential for violence, there were few direct reports of increased violence during extreme heat. The risks of living in situations where violence and intimidation are normalised were seen as far greater.



## Effective responses in Victoria

This research found that awareness of heatwave risks and actions to take, such as staying hydrated, reduces risk, as does having strong social contact.<sup>51</sup> Access to a cool thermal environment, in particular to air-conditioning, has a big impact on reducing heat-related deaths.<sup>52</sup> This includes access to cooling in common spaces such as the lobbies of apartment buildings.<sup>53</sup>

In the interviews, the most common observed responses to reduce heatwave risk were:

- dissemination of heat health information
- distribution of material assistance including fans, drinks and heatwave kits
- increased monitoring of residents perceived as vulnerable.

Services supporting SRS residents also commented on State Government improvements to the quality and thermal conditions of SRS, through the Supporting Accommodation for Vulnerable Victorians Initiative (SAVVI), and specifically the Heat SAVVI funding program.

### Information provision

Most interviewees were aware of heat health information materials produced by the Department of Human Services and, in some instances, by local government. In some cases this information was seen as a useful resource for residents and support workers.

*The info was really helpful, we displayed all that and we would see people looking at the flyers and they gave us some tips that we could use when we called people... - cso*

*Hints to keep cooler, I think those things have been useful....simple stuff like putting your feet in a bucket, keeping the blinds down during the day ... just those sort of handy hints ... - cso*

*Because we have a lot of Russian tenants we put the Russian and English versions up. - cso*

It was stressed however that information needs to be in a format appropriate and relevant for the target audience – and there were concerns that this was not the case, and that health information was not being made available to residents.

*I got some very basic posters like ‘slip slop slap’ and put them on the wall, posters that actually spoke to the residents. I think some came from the department but I never saw them up in the SRS, they were kept in the proprietor’s office. - cso*

*They have to be appropriate. - cso*

In one case, in response to this issue, tailored health messaging was developed for rooming house residents in consultation with the residents themselves.

### Material assistance

The assistance provided by a number of community sector organisations to those they were working with during extreme heat included the purchase of cooling appliances, in particular fans.

*We don’t subsidise buying air-conditioners but we will buy fans. - cso*

*We have certainly brought a few fans, just standing fans, during that time. - cso*

*One of the SRS went out and bought one of these portable air-conditioners – he has more of a client focus than some I suppose. - cso*

Others commented on strategies to ensure that people had access to water and sun protection.

*I did notice that one of the proprietors made sure that there was always water available and if they were going out on day trips or whatever he would make sure that they had sunscreen on and hats - cso*

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*We handed out those pamphlets about staying cool and also checking up on the really vulnerable people and on the really, really hot days we just had extra water down in the community rooms and icy poles if they wanted them. – cso*

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*Like any population group there will always be a proportion of our clients who are really struggling with chronic health issues or dying in an active sort of way, so at that point it is really important that we make sure that we can get fans; we do buy fridges and we do buy fluids and in the midst of that high heat we went out and brought a whole lot of spray bottles so that was at least one of the things people could do was to spray themselves. – cso*

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## ■ Monitoring

Direct monitoring of people at high risk was the strategy seen as most effective to reduce the risks of extreme heat. This included both one-on-one visiting, phone calls and encouraging people to spend time in communal space, which ideally was cooled, where workers could encourage them to stay hydrated and notice if they became affected by the heat. While more resource intensive, this ensures that heat health information can be delivered directly to people..

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*We would be very aware of people who are or are not at risk so across the organisation there is a critical alert [on their file]. – cso*

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*What we've done with each of the case managers, we've got a database set up of any of their elderly or frail people that they keep an eye on, and if they are away we can access that just to make sure. – cso*

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*Our main concerns were around some of the more isolated residents in the Older Persons High Rise building... we have a bit of a list of residents in the building that are known to be more isolated and vulnerable and with fewer social supports and often multiple chronic health issues as well... so we made particular note of catching up with those people during that time. We would try and encourage people to come*

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*down to the community room... to an area where we could make sure that people were getting some fluids into them and, at those opportunities, if we were doorknocking the isolated residents we would take the opportunity to remind them of ways to keep themselves cool... – cso*

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I didn't lose anybody and nobody ended up in hospital but it was just a matter of making sure they realised it was really, really hot and that they had to drink adequate fluids and keep cool and then making phone calls to make sure that they were OK.

Within rooming houses however, where there may not be staff onsite, monitoring became more difficult.

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*I know of two community housing providers that made it their policy to go and knock on at least the older people's doors once a week or something, but that, when they got a call or something, that someone was worried about someone they would kind of draw straws on who was going to go and knock on the door because they were all afraid that someone would have died because it was happening so regularly ... – cso*

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Interviewees raised concerns that uncoordinated visiting and contacting of people deemed to be at risk was both a poor use of resources and might result in people becoming frustrated and ceasing to respond.

Concerns were also raised that at-risk residents in general housing did not receive the same level of support as people living in Older Persons High Rise estates (see below).

## ■ Property improvements

Funding available from the Heat SAVI program was seen by a number of interviewees as having lifted the quality of pension-level SRS facilities to provide a safer environment during heatwaves. A range of modifications were mentioned including upgrading, repairing or installing cooling systems, installing shade sails in communal outdoor areas, installing insulation and blinds as well as the purchase of summer clothing and lighter bed

linen. It was felt these changes would not have been made without that funding due to the business models of pension level facilities (ISCH-SRS).

Concern was raised that such funding should be ongoing to ensure that further improvement can be made.

While Victoria saw a high number of additional deaths during the January 2009 heatwave, reporting requirements at the time made it impossible to identify where people had indeed died from exposure to extreme heat.<sup>54</sup>

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Changes in police reporting and other health data requirements are only just beginning to put in place a system that will allow individuals whose health, or life, has been severely affected by exposure to heat to be identified. This will lead to greater knowledge about the circumstances in which people become unwell, and by extension what could be done to prevent health impacts.





## Ways to better protect vulnerable Victorians

### Housing quality and built environment

The best way to reduce the impacts of extreme heat on population groups with multiple risk factors is to reduce their exposure to extreme heat. This addresses the central cause of heat related ill-health and related wellbeing impacts.

Central to this is addressing the quality of accommodation that people on low incomes with multiples risk factors live in. This can be achieved through both legislative levers and direct investment.

*Improve the standards of the properties that they live in... a lot of them just live in housing that is completely inappropriate... you need to improve the quality of rooming house stock by a legislative response. – cso*

People living in low-cost housing or who are homeless face much higher health risks during extreme heat events due to an interaction of personal and circumstantial vulnerabilities.

A consistent theme through interviews undertaken for this paper was that this group is disproportionately affected by all environmental and economic stresses – due to high underlying risk and low adaptive capacity. Therefore reducing risk during extreme heat can have multiple social and health benefits. Similarly, broader social, health or built environment policies and programs may contribute to reduced heatwave risk.

*Policies and programs that address the issues of building design, urban planning, social isolation, poor housing conditions and economic deprivation of the elderly also contribute to minimising harm during heatwaves.<sup>55</sup>*

For example, improving the thermal quality of low cost housing reduces health risks from both extreme heat and cold while also reducing the ongoing costs of energy for people in the

community who have very limited disposable income.

Interviewees working with residents of rooming houses and SRS spoke of the need to improve the standards of these facilities and increase investment in retrofits and upgrade measures to reduce heat exposure for residents.

For SRS, continuation of the Heat SAVVI grant funding was seen as an appropriate mechanism to achieve this change. However, ensuring that proprietors have access to advice, and that standards are clearly articulated and enforced, was also seen as important.

*The guidelines set by DHS are very loose... They are not prescriptive in any way and they don't necessarily refer to heatwave or adverse conditions. – cso*

*In an ideal world it would be great if someone could go round, an expert, and make an assessment of what is needed rather than relying on the proprietors. – cso*

*I think there should be a legal obligation for community-run and other rooming house operators that there are regular check-ins and that... there is at least a plan in the next five years or something to improve insulation and air flow and whatever... [as well as] air-conditioned community spaces. – cso*

This points to the need for direct investment to improve the quality of low-cost accommodation in conjunction with legislative reform to drive improved standards.

### Availability of cool spaces

There were mixed views on how to ensure that residents living in all types of low-cost housing have access to cooling. While many felt that individual access to air-conditioning would be preferred by residents, there were concerns about the individual cost of this investment.

*If [air-conditioners] were able to be provided or installed you would need some way of making the bills manageable. – cso*

All interviewees agreed an essential first step was ensuring that residents of all low-cost housing types have access to appropriate and supervised cool community spaces. This would provide respite both from the heat and from social isolation while allowing unobtrusive monitoring of people's wellbeing and provision of assistance and information.

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*We would like to have this community room open, so that people can come in, in terms of it being cooler in itself, and so we can have more communal activities; a lot of people in summer watch the tennis or the cricket so they could actually come down here and do that ... in a cooler environment and with other people too if that's what they would like. – cso*

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*There should be spaces that people can go... people could hang out in the lobby of the council building... and there should be outreach workers saying 'hey you know you can go and hang out there'. – cso*

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Ensuring that people living in low cost accommodation options have access to cool and supervised spaces will require investment in cooling for common areas in public housing estates as well as investment in the quality of SRS and rooming houses as identified above. This may also involve the identification and promotion of appropriate cooled public spaces to at risk groups.

## ■ Capacity for a coordinated response

There was as strong feeling that, while significant progress had been made through the development of local government plans and the wider heatwave response by DHS, lack of coordination remains a significant issue. Coordinated planning was seen as essential to avoid duplication and ensure that people do not fall through the gaps.

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*To be honest I think there needs to be a more coordinated approach because, with everybody going off and doing their own thing, there are going to be people who fall through the gaps... I really think because DHS has done stuff, we've done stuff... all the councils, and everybody has done things... you have to be able to have it simple and not complicated. – cso*

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*The overall plan is not there; my experience has been that you have to push and make people accountable to say what are they going to do for homeless people. – cso*

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*Until you get that coordinated response, it's all a bit hit and miss isn't it? – cso*

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Greater emphasis on engaging and planning coordinated strategies to reduce risks for vulnerable groups was seen as key.

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*Everyone I believe should be required to include homeless people ... as a special needs group and they should be required to develop strategies around that and what that would mean... That would escalate down to local agencies and those local agencies could get together to say 'what do we think would work, what do we need in this area?' and God forbid they could actually go and talk to some of their residents who just happen to be homeless; they are still residents nonetheless. – cso*

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Interviewees also commented on the need to ensure that effective strategies developed by local government and community sector organisations can be disseminated to make the most of good ideas and minimise duplication of effort. It was felt that different and innovative approaches would be needed to engage particularly marginalised communities and that community sector organisations could play a role in this work.

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*With the state planning there should be brokerage for meaningful and relevant initiatives that are innovative... [work could be] contracted out to community sector organisations as they are better placed to work with communities to figure out their own strategies. – cso*

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Further work is required to ensure that systems which support people at high risk from heatwaves are able to provide effective assistance during these times. This would include assisting community sector organisations to incorporate heatwave events in risk management and business continuity strategies and develop shared approaches to risk assessment to support coordinated responses.

An important start is to link the *Statewide Heatwave Plan* to emergency management planning in Victoria. Currently heatwaves are not included under Victoria's emergency management provisions, even though the Department of Health recognises they will require emergency responses. This means state and local governments, emergency services and local community organisations cannot effectively plan and respond, particularly when heatwaves often correspond with code red fire danger days.

The *Statewide Heatwave Plan* better coordinates an integrated response to heatwaves in Victoria, as does funding for local governments to develop heatwave strategies. This plan should be connected to broader emergency management frameworks, particularly to support vulnerable Victorians.

### Community engagement

There is a narrative in Australian culture which normalises extreme heat and sees responses as 'common sense'. A related risk minimising narrative was found in a United Kingdom study<sup>56</sup> of the heatwave perceptions of independent living older people:

*Unless those at risk are able to identify themselves as such and feel able to take action, merely disseminating information about preventative strategies has limited value.*<sup>57</sup>

Building community capacity and resilience to respond to extreme heat requires a common understanding of risk and appropriate responses by both people with high vulnerability and their formal and informal support networks.

For people living in high-risk low-cost accommodation who may be disengaged from

mainstream information sources or may have limited capacity or interest in preventative health, engagement about the risks of heat is likely to be more successful if community development and peer education approaches are used.

These approaches can both ensure that issues of concern and barriers to risk mitigation for vulnerable groups are correctly identified and fed into responses. Ensuring community 'ownership' of strategies increases the likelihood that they will be adopted by target groups.<sup>58</sup>

### Relevant and targeted information

There is currently limited information in Victoria about how different groups in the community, as well as their carers and social support networks, assess risk and in turn respond to heat health messaging. This is a particular concern for the most at-risk groups, including people experiencing homelessness.<sup>59</sup> Research indicates effective heatwave information is linked to pre-existing community understanding about heatwave risk<sup>60</sup> and that social networks can act to reinforce misinformation about risks.<sup>61</sup> A number of comments made by interviewees in this study point to gaps in current communication approaches.

One is the conflict and potential distress caused when perceptions of vulnerability do not match capacity to act. As awareness of heat health risks increases in the community in response to public health messaging, the inability of some groups in the population to take recommended protective actions due to their living conditions may become an increasing source of distress. This was seen as a particular issue for older public housing residents who do not have access to cooling.

This reinforces the need for health information to be accompanied by concrete strategies to reduce exposure to extreme heat for people at high risk.

Many interviewees commented on the need for heat health information to be targeted and relevant for different audiences.

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*Material that is aimed at the client group, not necessarily at the proprietors, so that they can understand and perhaps going in and talking to the clients. – cso*

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There was a particular focus on information that is produced by peers, targeted to the particular context, and delivered face-to-face. It was also stressed that different information may be required for marginalised people, their carers, and for organisations which support them.

### ■ Assistance during extreme heat

Many interviewees indicated that face-to-face and proactive assistance to people at high risk during heatwaves was likely to work best in reducing heat related deaths. This was seen to be particularly important for people living in high social isolation and with limited on-site support such as rooming houses and public housing outside the OPH designated estates.

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*It's okay for people in the high rises and we have got support workers but it's the people out in the general community that might not see their neighbours at all. Who is going to keep an eye on them? –cso*

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Proactive outreach strategies to provide assistance to people who are experiencing homelessness were also seen as critical.

A coordinated response across a range of service providers was seen as the best option. However, these strategies need to take into account people's right to privacy and avoid overwhelming them with contact from a range of different organisations.

While 'welfare checks' are important, they were seen as only part of a set of measures required to reduce risks. Other measures include community awareness, informal support and practical measures to reduce exposure to heat.

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*You can check somebody today but they might be gone tomorrow.*

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Building increased access to health services as a wider preventative strategy was also seen as

important, especially for people with chronic health issues including mental illness.

Provision of appropriate material assistance, including distribution of heatwave packs was identified as a strategy which could be expanded to different population groups – potentially as part of a wider health promotion strategy, but accompanied by wider strategies to increase access to essentials such as water and cooling for at risk groups.

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*It would not be hard... people would donate drinks to them but I also believe that we just need more water fountains on our streets. –  
cso*

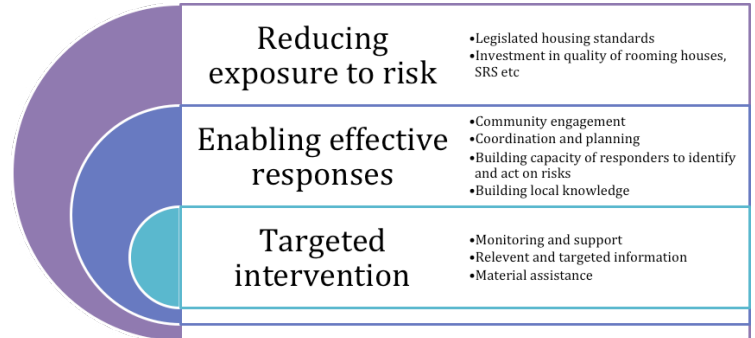
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## Recommendations

Based on the research and findings of this report, VCOSS recommends a range of policy changes, program development and investment to address the risks that extreme heat presents to Victorians experiencing multiple risk factors.

Broadly, Victoria needs to develop a range of approaches (see Figure 3) to reduce adverse health and wellbeing outcomes during extreme heat events that need to include:

- long term strategies such as modifications to the built environment to reduce heat exposure
- medium term investment in capacity, coordination, community engagement to enable effective responses and adaptation
- direct targeted intervention during heatwaves.



These responses need to actively engage at-risk groups as well as their formal and informal support networks.<sup>62</sup>

Figure 3: Framework of recommendations to reduce heatwave risks for people with multiple risk factors

### VCOSS recommends the following actions:

- Put heatwaves on the same emergency planning level as bushfires and floods by linking the Statewide Heatwave Plan to emergency management planning.
- Ensure local and regional heatwave planning is adequately resourced and well coordinated to avoid duplication and ensure that people do not fall through the gaps.
- Introduce legislated standards to improve the thermal efficiency of the homes of those Victorians who are most vulnerable in heatwaves, particularly those with disabilities, medical conditions and chronic illnesses.
- Increase financial support such as Heat SAVVI (Supporting Accommodation for Vulnerable Victorians Initiative) to improve the quality, thermal efficiency and cooling of low cost housing options.
- Ensure that publically accessible cool spaces are available in all communities<sup>6</sup> and public housing estates, and that these locations are promoted to high risk groups.
- Adequately resource local government and community sector organisations to include heatwave in risk management and business continuity strategies.
- Engage high risk communities in developing heatwave strategies.
- Develop, distribute and evaluate the effectiveness of targeted heatwave information about how to reduce heatwave risk for high risk groups.
- Invest in strategies to connect high risk groups to health services and social opportunities.
- Assist community sector organisations to ensure greater direct monitoring of at risk groups – especially people who are homeless, living in general public housing and in rooming houses.
- Provide targeted material assistance to at-risk groups including water, public transport tickets, sunscreen, 'heatwave packs' and, where appropriate, cooling appliances.



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