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- Victorian Department of Health
- Australian Red Cross
- Australian Rotary Health
- Australian Government Department of Human Services (Centrelink)
- Phoenix Australia: Centre for Posttraumatic Mental Health
- Central Hume Primary Care Partnership
- Bendigo Loddon Primary Care Partnership
- North East Primary Care Partnership
- Outer East Primary Care Partnership
- Central West Gippsland Primary Care Partnership
- Lower Hume Primary Care Partnership

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CONTENTS PAGE

7	INTRODUCTION	16	CHILDREN
8	RESEARCH TEAM	17	FAMILIES
10	WHY & HOW DID WE CONDUCT THIS RESEARCH?	17	SOCIAL TIES
11	WHO PARTICIPATED?	18	MOVING AFTER A BUSHFIRE
12	WHAT DID WE FIND OUT?	18	SERVICE SUPPORT
12	MENTAL HEALTH	19	NATURAL ENVIRONMENT
13	MAJOR LIFE STRESSORS	19	ONLINE ENVIRONMENT
13	BEREAVEMENT	21	RECOMMENDATIONS
14	POSTTRAUMATIC GROWTH	21	ADVICE FOR INDIVIDUALS & FAMILIES
14	ANGER	22	RECOMMENDATIONS TO GOVERNMENT & SERVICE PROVIDERS
14	PHYSICAL HEALTH	25	REFERENCES
15	WELLBEING & LIFE SATISFACTION	26	APPENDIX 1: BEYOND BUSHFIRE PUBLICATIONS
15	SEPARATION	27	APPENDIX 2: RELATED CONFERENCE AND SEMINAR PRESENTATIONS TO DATE
15	COMMUNITY	30	APPENDIX 3: RELATED PHD STUDIES





INTRODUCTION

The Beyond Bushfires: Community Resilience and Recovery study was conducted to examine the impacts of the Black Saturday and related bushfires of February 2009 on community members' physical and mental health and wellbeing. The research also aimed to build understanding of the interplay between individual, social and community-level recovery. The six year study involving over 1,000 participants across Victoria was conducted by The University of Melbourne in partnership with community members and a range of community, academic, government, emergency, and health agencies [1].

The results showed individual and community capacity to recover from a disaster experience and subsequent disruptions, and to adapt to changed lives and environments. There was progressive recovery at community level over time but there was also evidence of delayed impacts on individual mental health and extended impacts at five years post-bushfires. The results highlighted the influence of close friends and family, social networks and community groups, and natural environment on resilience and recovery. There are clear opportunities to use these findings to inform individual decision making, community-level strategies to strengthen resilience, and targeting and timing of recovery services.

The research findings are being shared through a range of outlets including website, facebook, twitter, academic journals, scientific conferences industry and community seminars to ensure that the learnings from this event can help those who were directly impacted and also help others to prepare for future disaster events. We have worked in close partnership with key government, emergency and community agencies to use the research findings to improve planning, response and recovery services – and we continue to seek funding to support this ongoing work.

This report presents an overview of the findings and key recommendations. Links to detailed academic papers arising from the study can be found on the Beyond Bushfires website – www.beyondbushfires.org.au

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**Vale Prof Elizabeth
Waters**
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The late **Professor Elizabeth Waters**, previous Principal Investigator, is acknowledged for her leadership role in establishing this study. The investigators gratefully acknowledge the generosity of the research participants in sharing their time and experiences, and the support from community organisations and local governments. The study was funded by initial seed funding from The University of Melbourne and an Australian Research Council (ARC) Linkage Grant (LP100200164) including financial and in-kind contributions from ARC Linkage partners: Victorian Department of Health, Australian Red Cross, Australian Rotary Health, Australian Government Department of Human Services (Centrelink), Phoenix Australia Centre for Posttraumatic Mental Health, and six Primary Care Partnerships: Central Hume, Bendigo Loddon, North East, Outer East, Central West Gippsland, Lower Hume. Additional salary support for Lisa Gibbs and Elizabeth Waters from The Jack Brockhoff Foundation is also acknowledged, as is investigator support from the University of New South Wales, Swinburne University, Flinders University, and University of Sydney. The Social Research Company was commissioned to conduct recruitment and quantitative data collection.

WHY DID WE CONDUCT THE STUDY?

The February 2009 Victorian bushfires led to tragic loss of life and far-reaching damage to the Victorian landscape and rural communities. One hundred and nine communities self-identified as being impacted by the bushfires. There were 173 fatalities, 3,500 buildings (2,133 houses) damaged or destroyed, and major disruptions in the everyday lives of those living in the affected communities. Although a lot of research had already been done about the short term mental health impacts of natural disasters, much less was known about how individual recovery was affected by social and community level changes over time [1]. The University of Melbourne and partner organisations held discussions with the networks of health service providers in affected areas (the Primary Care Partnerships) and it was agreed that increased understanding of these issues would support recovery and future preparedness.



HOW DID WE CONDUCT THE STUDY?

From the beginning, we approached this study as a partnership. We believed that was the only way to ensure the research utilised the range of expertise (community, service provider, academic and government) needed to capture the complexity of the post disaster environment and to achieve results that would generate meaningful outcomes. We invited a range of communities with different profiles to participate in the study [1]. They varied in level of bushfire impact (from no direct impact to high levels of impact), size of community, distance from Melbourne, and the average income and education of residents. This helped us when we were analysing the results to recognise what was arising from the bushfire impact and what may reflect the influence of other factors. We visited key community groups in each location to discuss the study and tried to keep in contact throughout. This helped us to recognise similarities and differences between communities, and the things we learnt and the feedback we received influenced decision making at each stage of the study.

There were also a number of linked PhD research studies conducted to further our understanding of bushfire resilience and recovery.

WHO PARTICIPATED?

We circulated a survey from December 2011 to January 2013 to people living in the selected communities and those who had relocated, and 1,056 people participated either by phone interview or online. At the end of the survey, 966 agreed to be recontacted, resulting in 736 completing the survey again in 2014. We also conducted 35 indepth interviews with people aged from 4-66 years in 2013 and 2014. In our interviews, we asked people to show us what was important to them in their communities and walked with them around their homes, properties, local parklands and towns as they shared their stories [2].

Participants in the main study did not differ between high, medium and low impact communities in terms of sex, age, country of birth, or employment status.

The vast majority of the respondents were glad they had completed the survey even among the small proportion who felt distressed while they were doing it.

Survey participants

Baseline n=1056

GENDER

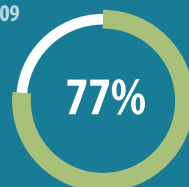


AGE



RESIDED IN BUSHFIRE AFFECTED AREA IN 2009

N= 811



IDENTIFIED AS ABORIGINAL OR TORRES STRAIT ISLANDER



0.7%



0.2%

Follow up n=736

GENDER

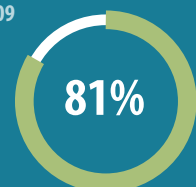


AGE



RESIDED IN BUSHFIRE AFFECTED AREA IN 2009

N= 597



IDENTIFIED AS ABORIGINAL OR TORRES STRAIT ISLANDER



0.5%



0.1%

WHAT DID WE FIND OUT?

MENTAL HEALTH

Three to four years after the bushfires, participant responses indicated that the majority of people were resilient to the disaster experience and its aftermath. However a significant minority were reporting symptoms which indicated mental health problems that were beyond levels likely to be manageable and may require professional support [3]. This is approximately twice the levels you would expect in a population not affected by disaster.



Severe psychological distress was predicted by fear for one's life in the bushfires and death of someone close to them in the bushfires.

Two years later, i.e. five years after the fires, those mental health rates had significantly reduced to 21.9% in high-impact communities but were still higher than national levels [4]. While many people showed signs of improved mental health over time, there were others with delayed onset of mental health problems such as posttraumatic stress disorder.



MAJOR LIFE STRESSORS

It was not just the fire event itself that affected people. Experiencing major life stressors after the bushfires (i.e. change of income, change in accommodation or change in personal relationships) impacted on ongoing mental health [3].

It became clear that there were varied approaches to recovery that co-existed because the ultimate aim among people and groups was different. Depending on how the impact of the bushfire event and aftermath was experienced, some people aimed to reclaim their lives and others needed to reinvent their lives [5].



BEREAVEMENT

Our study mostly included people who had experienced loss through death of friends and community members in the fires, rather than direct family members. We found that the loss arising from the death of friends and community members was predictive of poor mental health outcomes, demonstrating the community-level impact of loss [6].

“I went to four funerals in that week and there were two I didn’t get to go to because I was at others... And none of those first four were for one person”



POSTTRAUMATIC GROWTH

Posttraumatic growth refers to people's positive experiences after traumatic events – appreciation of life, new possibilities, personal strength, relating to others and spiritual change. We found women were more likely to report these changes. People from medium-high affected communities and those experiencing more posttraumatic stress, were also more likely to be reporting posttraumatic growth.

ANGER

Our research showed that anger can be both a motivator and a barrier to recovery, and tends to be influenced by the social context and service provider response [7].

“Well sometimes you need it to get out of bed. I mean if you're sitting on that sort of precipice and **blank depression** on one side and **feisty anger** on the other, it might be that you need to tip over into anger to prevent yourself from going the other way...I think that it had a really important place initially”

However, regularly experiencing intense, explosive anger three to four years after the fires was shown to be associated with poorer mental health outcomes. This held true even after the influence of major life stressors after the fires was taken into account [8].

PHYSICAL HEALTH

Self-assessed general health appeared to be lower (poorer) than that of the general population, however, factors such as socioeconomic status and rural residence are not controlled for and these may well influence the scores, particularly since there was no difference between high, medium and low bushfire impact communities. There was no significant change in self-assessed health between time 1 and time 2.

It was difficult to determine the impact of bushfire experiences on particular physical health conditions because anomalies in responses suggested the data was not accurate. For example there were many people who responded 'yes' at time 1 to the question “have you ever been told by a doctor that you have any of the following health conditions?” and then responded 'no' at time 2 to the same question. After adjusting for this, the rate of 'new' incidences of cancer, respiratory, circulatory, and muscular conditions that were reported at time 2 were no different between medium-high impact communities and low impact communities.

WELLBEING & LIFE SATISFACTION

Increased bushfire exposure and impact was associated at time 1 with decreased subjective wellbeing but increased sense of community. Over time there were shifts in the different factors contributing to the measure of subjective wellbeing. Specifically, there were: improvements in mental health; no change in self-rated physical health; and reduced life satisfaction. Overall, there was increased subjective wellbeing over time but decreased sense of community. This may reflect a 'return to normal' levels of community engagement or it could indicate negative experiences of community engagement over time in a post disaster environment.

SEPARATION



Separation from close loved ones, during and immediately after the fires, was a risk factor for subsequent mental health problems for people who tend to feel anxious about their relationships [9, 10].

COMMUNITY

Involvement in community groups was protective. As an individual's number of group memberships increased, their mental health improved but there was a curvilinear relationship between group membership and concurrent mental health (PTSD and depression) so that at a certain point membership to additional groups became detrimental to mental health. This was particularly true for men at time 1 and applied to both men and women at time 2.

Living with someone else was protective, but the risks of living alone appeared to be offset by group involvement. This was particularly true for those who were retired.

This suggests that a healthy community is characterised by having many groups with high levels of participation spread across the community, so that the majority of people participate in several groups.

CHILDREN

The reality of the disaster and its aftermath formed the ongoing backdrop of children's daily lives. Children from a very young age through to older youth experienced anxieties and upheavals at home, in school, in sport, in friendship groups and in the community [11].

“She had so much trouble going back to school. She couldn't think, concentrate at all. Everything seemed irrelevant that she was doing and they tried so hard. They were very helpful but she had a lot of trouble with just fitting in with the kids that she knew before there. They weren't understanding her and she just felt that all their problems were very trivial.”

This prompted families to make adjustments to help to restore the children's sense of safety and stability [11]. Children were involved in the decision making. Typically, they either sought familiarity in the community context or conversely a move away from disaster affected environments.

“Well there's lots of new and nice people and it's not as much, well I don't know, it's not black, it's more better and nice.”

Grandparents, school staff and community members provided important additional support to the family efforts to provide a stable environment for children.

Recovery funded services for young people tended to focus on older youth, with few examples of programs for preschool children and very little focus on safety and stability [12].

FAMILIES

There were many examples of family members responding differently to the experience of the bushfires and the aftermath. This meant that measures to support one family member's needs sometimes conflicted with other family member's needs - e.g. the decision about whether to relocate out of the disaster-affected area or stay connected to their community.

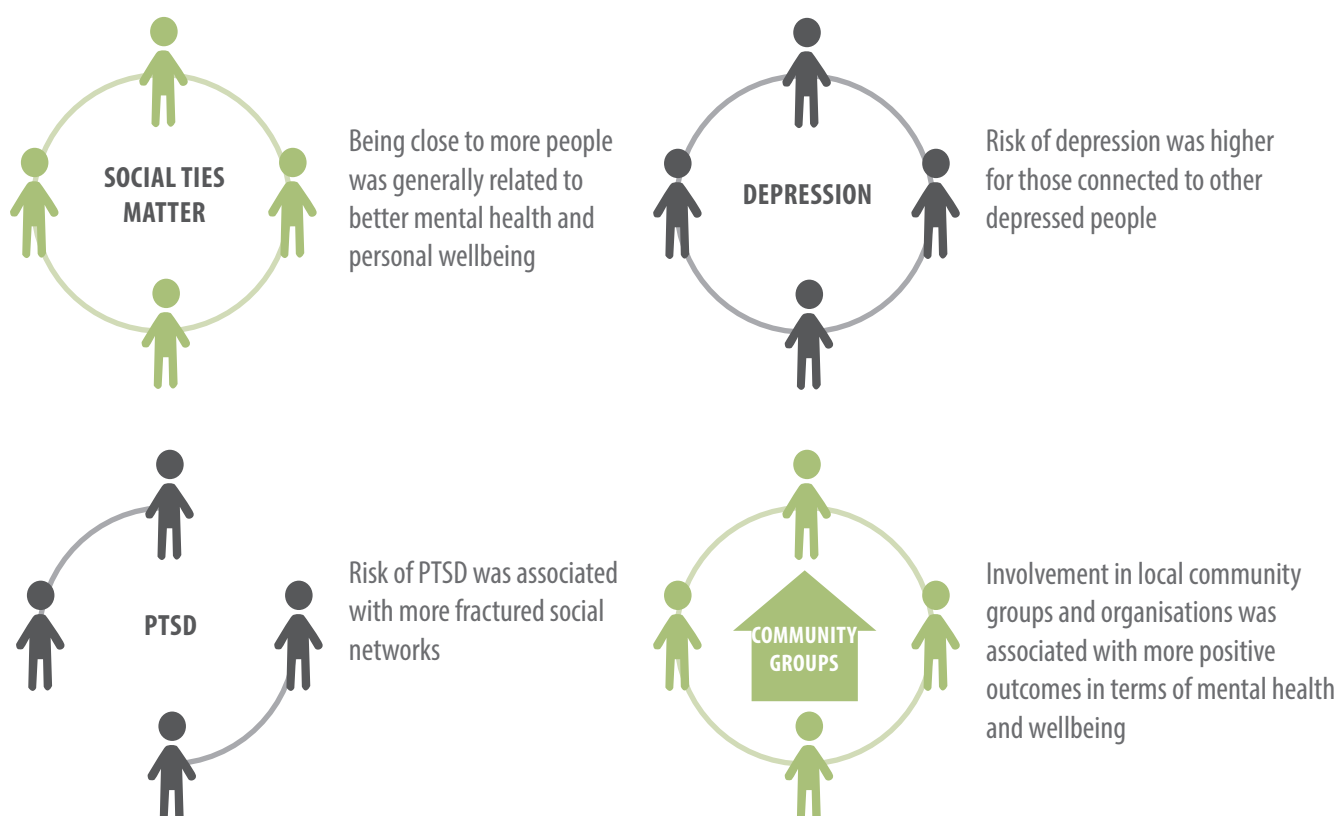
Attachment insecurities within couples were linked to their individual mental health outcomes. For example, self isolation and avoidance in relationships by one partner (particularly men) was likely to be associated with poor mental health for both partners [13].

Parents spoke of parenting situations they never expected to face. Finding ways to manage the trauma reactions experienced by their children often required new understandings, skills or strategies. Valued aspects of parenting, like patience and tolerance or having the answers in difficult times, were compromised by demands of rebuilding and recovery that were competing for their time and energy as well as parents' own trauma responses. While changes to parenting were often accompanied by feelings of loss, sadness, and at times helplessness, there were also positives in the opportunities to model recovery and resilience for their children [14, 15].

SOCIAL TIES

One of the strongest predictors of outcomes was social ties. Being connected with many people was generally protective but it also meant a higher likelihood of losing someone close in the bushfires.

We had a closer look at social ties to understand how it related to individual outcomes [16].



MOVING AFTER A BUSHFIRE

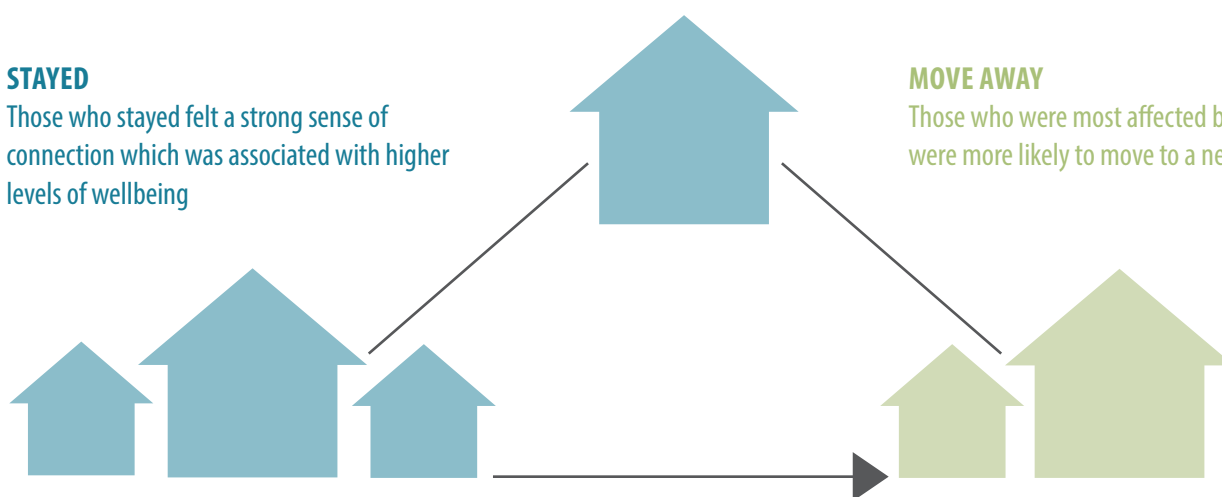
There was a lot of anxious speculation in communities about whether it is a good idea or not to relocate after the disaster. We found that the wellbeing of those who stayed in the community and those who chose to relocate was similar but they had different experiences [17].

STAYED

Those who stayed felt a strong sense of connection which was associated with higher levels of wellbeing

MOVE AWAY

Those who were most affected by the bushfires were more likely to move to a new community



DEPRESSION risk was higher for those who stayed and were connected to people who had left their community

MAJOR LIFE STRESSORS

The impact of subsequent financial and relationship difficulties was often lessened, for those who moved away.

SERVICE SUPPORT

Family members were seen to be the main source of support, over and above any formal support services.

The emergency response overall was reported as the second most helpful source of support, followed by friends and the community.

Many men and women were allocated a case manager, and most found this helpful.

All of these supports were identified as being sources of difficulty at times too.

Communication and caring were identified as two critical factors in disaster recovery [18]:

- Clear and regular communication was essential for making informed decisions
- A caring manner in the delivery of services and support was repeatedly reported as a positive influence on recovery.

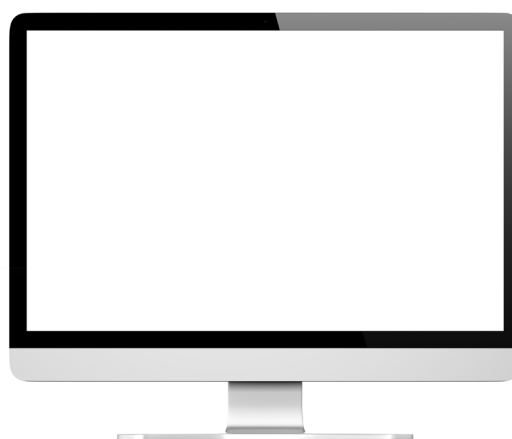
NATURAL ENVIRONMENT

Self-reported attachment to the natural environment appeared to be consistent over time and to have a protective effect in terms of life satisfaction, mental health outcomes, resilience, posttraumatic growth and community attachment.



ONLINE ENVIRONMENT

People found the online environment helpful for peer-to-peer interactions, 'insider information', insights into coping and managing of psychosocial consequences related to the disaster, and to further their overall understanding of disaster recovery. They were less likely to use the online environment to access formal support services [19].





RECOMMENDATIONS

ADVICE FOR INDIVIDUALS AND FAMILIES

Consider mental health planning – When planning for bushfire emergencies, be mindful that your decision will impact on both your physical and mental health. Exposure to a bushfire for you and your family can increase risk of mental health problems.

Plan ahead for how to find each other – Separation from family members during a disaster is highly stressful. This stress can have a lasting impact, even when everything turns out (relatively) okay. Have a plan about where or how you will reconnect, especially if communication and road systems are affected. The Australian Red Cross provides the Register Find Reunite service.

Be kind to yourself and others – It can take more than five years for some people to recover from a disaster experience and its aftermath, particularly in high impact communities.

Be open to the possibility of positives – Positive outcomes can come from a disaster experience, even for those who have had the most severe losses. This is referred to as posttraumatic growth.

We are all different – People can respond differently to the same experience and have different recovery needs, including within families.

Remember the children – Even very young children can be affected by the disaster and what is happening around them for years afterwards. Ensure children and young people of all ages feel safe and stable, and involve them in recovery decisions and activities in age appropriate ways.

Adaptive parenting – You may find parenting changes as you accommodate your own and your child's reactions to the disaster trauma and subsequent disruptions. Remember other parents have felt this way too, sometimes it's about doing the best you can in tough situations.

Community groups can make a difference – Being involved in community groups leads to better mental health outcomes. However, share the load: Don't leave it to just a few people to make sure these local groups keep going. Local groups need leaders and members to survive, and those who do "too much" might become overburdened.

Relocating can help for some – The decision to stay living in a disaster affected community or to move somewhere else is offset by two contrasting forces in peoples' lives: connection to the community, and post-disaster disruption. Those who decide to stay are likely to feel more connected to their community. For those who decide to move away from the disaster affected community, the impacts of post-disaster disruptions to income, accommodation and relationships are likely to be lessened.

Changes in the natural environment can influence recovery – Many people find watching the bush regrow and recover helpful for their own wellbeing.

Go online – Many people find online connections a helpful way to gather information and share experiences.

RECOMMENDATIONS TO GOVERNMENT AND SERVICE PROVIDERS

Government mental health and wellbeing planning – Department of Health and Human Services (DHHS) include consideration of disaster impacts in the broader mental health and wellbeing support service planning, including the 10 year Mental Health Plan.

Government disaster planning for schools – Department of Education and Training maintain the current working group of senior staff and key academics to ensure emerging evidence in relation to the impact of disasters on children, staff and schools is incorporated into government emergency planning and resilience building activities and resources for schools.

Something for parents – Municipal Association of Victoria, in collaboration with the Department of Health and Human Services and Emergency Management Victoria, provide a guide to local government on how to provide additional post-disaster support to parents through existing services such as immunisation sessions, maternal and child health, and mobile libraries. Providing childcare will enable parents to participate in recovery activities as well as taking time for their own wellbeing. Department of Education and Training provide evidence-informed, timely services and support to parents through schools and early childhood settings.

Communication register – A communication register be established of people who relocate from disaster affected communities and others who are not community members but are highly impacted (e.g. family members of those who died). Australian Red Cross to consider the potential for this to be coordinated through the Register Find Reunite Service.

Five year recovery plan – Emergency Management Victoria include psychosocial recovery up to five years post-disaster in the Relief and Recovery Reform Strategy. Consultation with the DHHS Emergency Management Psychosocial Reference Group is recommended in development of this aspect of the Reform Strategy. Mental health risk screening and referral to individual, social and community level support services should be available within affected communities for managing trauma and for anger management, as well as providing specific services to reduce the impact of major life stressors (e.g. loss of income, change in accommodation and relationships). Support in managing trauma should be extended to those not living in affected communities – with information disseminated through the proposed communication register (see above).

Involvement of local government and community – Government disaster recovery taskforces engage with Municipal Association of Victoria on the best way to recognise and involve local government and community in decision making and service delivery to ensure continuity beyond the immediate recovery period.

Local emergency management plans – Local governments engage different sectors of the community in emergency planning and recovery processes, including children and young people, and account for psychosocial impacts in addition to physical safety and asset protection.

Online information – Emergency Management Victoria provide timely information about emergency management and services online and through social media throughout response and recovery periods to support community members in making informed decisions. Government departments and agencies involved in providing recovery support services also provide online information but continue to deliver services by phone and in person.

Screening for risk – Phoenix Australia: Centre for Posttraumatic Mental Health provide training to trauma and recovery service providers in recognising and addressing key risk factors for poor mental health outcomes including living in a high impact community, fear of dying at the time of the disaster, loss of someone close (including friends and community members), separation from family members at the time of the disaster, experiencing major life stressors after the disaster, intense anger, and living alone.

Invest in community groups – Department of Health and Human Services, Emergency Management Victoria, Municipal Association of Victoria and local government continue to recognise and support community groups as critical influences on social connection and individual and community level recovery, and to promote inclusion and facilitate wide participation.

Recognise community leaders – Local government continue to recognise community leaders as an important resource to guide local action and communication, and this connection be recognised and supported by state and national agencies including Emergency Management Victoria, Department of Health and Human Services, Australian Red Cross and Municipal Association of Victoria in any locally based preparedness, response or recovery initiatives.

Parks and recreation facilities – Local governments and Parks Victoria prioritise restoration of community parks and recreation facilities as an important post-disaster support to mental health and wellbeing.



For further information:

Beyond Bushfires website: www.beyondbushfires.org.au

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APPENDIX 1: BEYOND BUSHFIRES PUBLICATIONS TO DATE

1. Bryant RA, Gallagher HC, Waters E, Gibbs L, Pattison P, MacDougall C, Harms L, Block K, Baker E, Sinnott V, Ireton G, Richardson J, Forbes D & Lusher D. Mental Health and Social Networks Following Disaster. *American Journal of Psychiatry*, in press.
2. Gallagher HC, Lusher D, Gibbs L, Pattison P, Forbes D, Block K, Harms L, MacDougall C, Kellett C, Ireton G & Bryant RA. Dyadic effects of attachment on mental health: Couples in a postdisaster context. *Journal of Family Psychology*, in press.
3. Gallagher HC, Richardson J, Forbes D, Harms L, Gibbs L, Alkemade N, MacDougall C, Waters E, Block K, Lusher D, Snowdon E, Bryant R. Mental health following separation in a disaster: The role of attachment style. *Psychological Medicine* 2016. 29: 1-9.
4. Richardson JF, Snowdon E, Gallagher HC, Gibbs L, Block K, Lusher D, Kellett C, MacDougall C, Smith M. Separation and reunification in disasters: the importance of understanding the psycho-social consequences. In Adenrele Awotona (Ed). *Planning for Community-based Disaster Resilience Worldwide: Learning from Case Studies in Six Continents*. Ashgate Publishing Limited. 2016: 357-372.
5. Forbes D, Alkemade N, Waters E, Gibbs L, Gallagher H C, Pattison P, Lusher D, MacDougall C, Harms L, Block K, Snowdon E, Kellett C, Sinnott V, Ireton G, Richardson J, & Bryant R. Anger and major life stressors as predictors of psychological outcomes following the Victorian Black Saturday bushfires, *Australian and New Zealand Journal of Psychiatry* 2015; 49(8); 706-713. DOI: 10.1177/0004867414565478 (IF 3.76).
6. Gibbs L, Block K, Harms L, MacDougall C, Snowdon E, Ireton G, Forbes D, Richardson J, Waters E. Children and young people's wellbeing post-disaster: Safety and stability are critical. *International Journal of Disaster Risk Reduction*. 2015; 14(2): 195-201. <http://dx.doi.org/10.1016/j.ijdrr.2015.06.006>.
7. Gibbs L, Gallagher HC, Block K, Snowdon E, Bryant R, Harms L, Ireton G, Kellett C, Sinnott V, Richardson J, Lusher D, Forbes D, MacDougall C, Waters E. Post-bushfire relocation decision-making and personal wellbeing: A case study from Victoria, Australia. In Adenrele Awotona (Ed). *Planning for Community-based Disaster Resilience Worldwide: Learning from Case Studies in Six Continents*. Ashgate Publishing Limited. 2016: 333-356.
8. Gibbs L, Harms L, Howell-Meurs S, Block K, Lusher D, Richardson J, MacDougall C, Waters E. Measuring community wellbeing: applications for a disaster context. *Australian Journal of Emergency Management*. 2015. 30 (3); 20-24 <https://ajem.infoservices.com.au/items/AJEM-30-03-06>.
9. Harms L, Gibbs L, Bryant R, Lusher D, Richardson J, MacDougall C, Block K, Snowdon E, Gallagher C, Sinnott V, Ireton G, Forbes D, & Waters E. Conceptualising post-disaster recovery: Incorporating experiences of grief and loss. *British Journal of Social Work*. 2015; 45(supl1): i170-i187.
10. van Kessel G, Gibbs L & MacDougall C. Strategies to enhance resilience post natural disaster: A qualitative study of experiences with Australian floods and fires. *Journal of Public Health*. 2015, 37 (2), 328-336 doi:10.1093/pubmed/fdu05.
11. van Kessel G, MacDougall C, Gibbs L. The Process of Rebuilding Human Resilience in the Face of the Experience of a Natural Disaster: A Multisystem Model. *IJEMHHR*, 2015; 17(4), 678-687.
12. van Kessel G, MacDougall C, Gibbs L. Public testimony as a source of naturally occurring data: An ethical and rigorous approach to investigating resilience in the face of a natural disaster. *SAGE Research Methods*, in press.
13. Block K, Gibbs L, Snowdon E, & MacDougall C. Participant guided mobile methods: Investigating personal experiences of communities following a disaster. *SAGE Research Methods Cases*. 2014, DOI: 10.4135/978144627305014536373.
14. Bryant R, Waters E, Gibbs L, Gallagher C, Pattison P, Lusher D, MacDougall C, Harms L, Block K, Snowdon E, Sinnott V, Ireton G, Richardson J, Forbes D. Psychological Outcomes Following the Victorian Black Saturday Bushfires. *Australian and New Zealand Journal of Psychiatry*. 2014 48(7) 634-643. <http://anp.sagepub.com/content/48/7/634>.
15. Gibbs L, Snowdon E, Block K, Gallagher HC, MacDougall C, Ireton G, Pirrone-Savona A, Forbes D, Richardson J, Harms L, Waters E. Where do we start? A proposed post disaster intervention framework for children and young people. *Pastoral Care in Education*. 2014; 32 (1): 68-87.
16. Gibbs L, Waters E, Bryant R, Pattison P, Lusher D, Harms L, Richardson J, MacDougall C, Block K, Snowdon E, Gallagher H C, Sinnott V, Ireton G, Forbes D. Beyond Bushfires: Community, Resilience and Recovery – A longitudinal mixed method study of the medium to long term impacts of bushfires on mental health and social connectedness. *BMC Public Health*. 2014; 14:7; 634-643 doi: 10.1177/0004867414534476.
17. van Kessel G, MacDougall C, Gibbs L. Resilience - rhetoric to reality: a systematic review of intervention studies following natural disasters. *Disaster Medicine and Public Health Preparedness* 2014 DOI: 10.1017/dmp.2014.104 (http://journals.cambridge.org/repo_A93n0pss).
18. Gibbs L, MacDougall C, Harden J. Development of an appropriate methodology for post-bushfire research with children. *Health Sociology Review*. 2013. 22(2): 114–123.

APPENDIX 2: RELATED CONFERENCE AND SEMINAR PRESENTATIONS TO DATE

2016

1. Gibbs L, Findings of the Beyond Bushfires Research Study. Long Term Recovery Issues After Disasters. Kinglake Ranges, 9th November 2016 - invited presentation.
2. Block, K. Beyond Bushfires: Community, Resilience and Recovery – An Overview and Key Findings, Carlton Rotary Club, Melbourne, 12 April 2016 - invited presentation.
3. Gallagher HC, Richardson J, Forbes D, Harms L, Gibbs L, Alkemade N, MacDougall C, Block K, Lusher D, Bryant D. Separation during bushfires: The impact on adult mental health. Australian Psychological Society Conference 2016.
4. Gibbs L, Gallagher HC, Block K, Baker E, Bryant R, Harms L, Ireton G, Kellett C, Sinnott V, Richardson J, Lusher D, Forbes D, MacDougall C, Waters E. Relocation post-bushfire: I still talk about it as home. People in Disasters Conference, Christchurch NZ, February 2016.
5. Gibbs L, Gallagher HC, Block K, Van Kessel G, MacDougall C, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, Baker E, Sinnott V, Kellett C, Pattison P. Community resilience post disaster – Implications for planners, responders and service providers. Floodplain Management Australia Conference Nowra May 2016 - invited presentation.
6. Gibbs L, Block K, MacDougall C, Baker E, Harms L, Ireton G, Pirrone A. Understanding the post disaster recovery needs of children and youth. People in Disasters Conference, Christchurch NZ, February 2016.
7. Harms L & Alston M. Social work interventions post-disaster: Applying research learnings to practice. Joint World Conference on Social Work, Education and Social Development, Seoul, 29 June 2016.
8. Kosta L, Harms L, Gibbs L, & Rose D. Post-disaster parenting: Experiences following the 2009 Australian bushfires. Paper presented at the 8th International Conference on Social Work in Health and Mental Health, Singapore. June 2016.
11. Gibbs L. Growing up with disaster risk or reality. Jan L. Tucker Memorial Lecture Annual meeting of the International Assembly of the National Council for the Social Studies, New Orleans, November 2015 - invited presentation.
12. Gibbs L, Block K, Snowdon E. Exploring children's sense of agency in response to bushfire scenarios. Qualitative Methods Conference, Melbourne, 28-30 April 2015.
13. Gibbs L, Waters E, Gallagher HC, Block K, Baker E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, MacDougall C, Sinnott V, Kellett C, Pattison P. Beyond Bushfires: Learnings for disaster resilience and recovery services. 9th Health Services and Policy Research Conference. Melbourne, December 2015.
14. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Social influences on disaster recovery. 2nd International Symposium on Disaster Management. CDMPs. Melbourne, Victoria, October 2015.
15. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Social influences on disaster recovery. CIMA Conference - Crisis Responses across the Community: Learning from Experience. Melbourne, Victoria, November 2015.
16. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Risk and protective factors for bushfire resilience and recovery. AFAC and Bushfire & Natural Hazards CRC Conference 2015 Adelaide Sep 2015.
17. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Social ties matter – experiencing and recovering from bushfires. Australian Red Cross staff seminar, July 2015 - invited presentation.

2015

9. Block K. Beyond Bushfires: Community, Resilience and Recovery – Key Findings, Australian Rotary Health Conference, Melbourne, 5 May 2015 - invited presentation.
10. Block K, Gibbs L, Snowdon E. Uncovering diverse experiences following disaster using participant-guided mobile methods, Qualitative Methods Conference 28-30 April, Melbourne 2015.
18. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Social ties matter – experiencing and recovering from bushfires. Yarra Glen community symposium, June 2015 - invited presentation.
19. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Social ties matter – experiencing and recovering from bushfires. Australia and New Zealand Disaster Management Conference, Queensland May 2015.

APPENDIX 2: RELATED CONFERENCE AND SEMINAR PRESENTATIONS TO DATE CONT.

20. Harms L, Alston M, Kellett C, Kosta L, Abotomy R, Hazeleger T & Hargreaves D. Translating post-disaster research into practice: Improving social work interventions. Symposium presented at the Australian Association of Social Workers National Symposium, Sydney, November 2015.

2014

21. Block, K. Gibbs, L. Snowdon, E. Ireton, G. Harms, L. Responding to diverse needs in disaster-affected communities: Qualitative findings from the Beyond Bushfires Study, Joint World Conference on Social Work, Education and Social Development, Melbourne, 9-12 July, 2014.
22. Gallagher C, Pattison P, Lusher D, Gibbs L, Richardson J, Block K, Snowdon E, Ireton G, Harms L, MacDougall C, Waters E. Social Connectedness and Mental Health in a Post-disaster context: The case of Bushfires in regional Australia. International Sunbelt Social Network Conference XXXIV. Florida USA Feb 2014.
23. Gibbs L, Gallagher H C, Snowdon E, Harms L, Block K, Sinnott V, Ireton G, Kellett C, Richardson J. Post-disaster relocation and its impact on personal wellbeing. APRU X Multi-Hazards International Symposium. Santiago, Chile, November 2014.
24. Gibbs L, Block K, MacDougall C, Snowdon E, Harms L, Ireton G, Pirrone-Savona A. Children and youth: Alignment of recovery services with increased understanding of needs. APRU X Multi-Hazards International Symposium. Santiago, Chile, November 2014.
25. Gibbs L, MacDougall C, Block K, Snowdon E, Ireton G. Children's worlds framed by disaster: a qualitative study of the ongoing impacts of the Black Saturday fires. 49th Australian Psychological Society Annual Conference, Hobart, Sep 2014.
26. Harms L, Gibbs L, Bryant R, Lusher D, Richardson J, MacDougall C, Block K, Snowdon E, Gallagher C, Sinnott V, Ireton G, Forbes D, & Waters E. Beyond Bushfires - Grief and bereavement: Recovery pathways (Symposium 3). The 18th Australasian Conference on Traumatic Stress, Melbourne, 12 September 2014.
27. Gibbs L, Block K, Snowdon E, Nelsson C, Gilbert J, Cook A, Sia K-L. Critical assessment of the relevance and integrity of the Community Fireguard Program. Australian Community Engagement and Fire Awareness (ACEFA) Conference, Wollongong May 2014.
28. Gibbs L, Waters E, Gallagher HC, Block K, Snowdon E, Harms L, Bryant R, Lusher D, Forbes D, Ireton G, Richardson J, MacDougall C, Sinnott V, Kellett C, Pattison P. Black Saturday – 5 Years On. Monash University Disaster Resilience Forum. March 2014 – invited presentation.

29. Gibbs L, MacDougall C. Sustainability and disasters: Thinking about the involvement of children. Ninth International Conference on Environmental, Cultural, Economic and Social Sustainability. Croatia, January 2014.

2013

30. Block K. Beyond Bushfires: Understanding the Ongoing Impact of a Disaster Experience. Australia Disaster Management Platform/Natural Disaster Management Research Initiative Seminar Series, 2013 - invited presentation.
31. Gibbs L. Citizen Child. Festival of Ideas. University of Melbourne October 2013 – invited presentation.
32. Gibbs L, Block K, Snowdon E, Gallagher H.C, Ireton G, Brady K, Richardson J, Sinnott V, Waters E. Mapping shifting community recovery issues over the 4 years post bushfires. National security knowledge and lessons management. Australian Emergency Management Institute 2013 – invited presentation.
33. Gibbs L, MacDougall C, Block K, Gallagher C, Snowdon E. Where do we start?: Young people as disaster citizens. Emergency Management Conference. Melbourne July 2013 – invited presentation.
34. Gibbs L. Increased understanding of life beyond bushfires. Regenerating...people...preparedness... Kinglake May 2013 – invited presentation.
35. Gibbs L, Waters E, Gallagher C, Forbes D, Harms L, Ireton G, MacDougall C, Block K, Snowdon E, Sinnott V. Beyond Bushfires: Understanding the ongoing impacts of a disaster experience, AFAC 2013. Melb Sep 2013.
36. Gibbs L, Block K, Snowdon E, Gallagher H.C, Ireton G, Brady K, Richardson J, Sinnott V, Waters E. Mapping shifting community recovery issues over the 4 years post bushfires. Australian & New Zealand Disaster and Emergency Management Conference. Brisbane, May 2013.
37. Harms L, Gibbs L, Block K, MacDougall C, Lusher D, Waters E. Beyond bushfires: Individual and community resilience in the aftermath of a natural disaster. 7th International Conference on Social Work in Health and Mental Health, Los Angeles, USA, Jun 2013.

2012

38. Block K & Gibbs L, People and Recovery – Beyond Bushfires: Community Resilience and Recovery, The Rotary Foundation Conference, Melbourne, 23rd- 25th March 2012 - invited presentation.
39. Gallagher C. Evidence Landscapes: Scoping for a Systematic Review in Post-Disaster Health, 2007-present. Evidence Aid Conference. Brussels Oct 2012.
40. Gallagher C, Gibbs L, Pattison P, Lusher D, Harms L, MacDougall C, Forbes D, Bryant R, Block K, Snowdon E, Waters E. Beyond Bushfires: Community networks and recovery post-disaster. Communities and Resilience: A focus on social networks for preparedness. Melbourne October 2012.
41. Gibbs L, MacDougall C. Investigating responses to the 2009 Victorian bushfires: What can Canterbury learn? Learning from Disasters seminar. Christchurch NZ November 2012 – invited presentation.
42. Gibbs L. Beyond Bushfires: Community Resilience and Recovery. NDMRI seminar series, August 2012, Melbourne.
43. Gibbs L. Beyond Bushfires: Community Resilience and Recovery. School of Population Health, July 2012, Melbourne.
44. Gibbs L, Waters E, Harms L, Lusher D, MacDougall C, Block K, Richardson J. Investigating individual, social and community level factors in post-bushfire recovery. Australian & New Zealand Disaster and Emergency Management Conference, Brisbane, 16 - 18 April 2012.
45. Gibbs L, Waters E. Disasters: Recovery and People. Carlton Connect Conference Feb 2012 - invited presentation.
46. Gibbs L, Waters E, MacDougall C, Block K. Critical Debates in Public Health – Bushfires. University of Melbourne. October 2012 - invited presentation.
47. Gibbs L, Waters E. Disasters: Recovery and People. Carlton Connect Conference Feb 2012 - invited presentation.
48. Gibbs L, Waters E, MacDougall C, Block K. Critical Debates in Public Health – Bushfires. University of Melbourne. October 2012 - invited presentation.

2011

49. Gibbs L, MacDougall C, Waters E, Block K. The importance of political reflexivity in disaster related research: a case study of bushfire related research. 7th APRU Research Symposium on Multi-Hazards around the Pacific Rim. Physical and Human Dimensions: From Research to Practice. November 2011 Auckland, New Zealand.
50. Gibbs L. Multi-level dimensions of resilience in post-bushfire communities. Victorian Disaster Resilience Taskforce Meeting 27 Oct 2011 – invited presentation.
51. Gibbs L, Disaster Response, Social Connectedness and Mental Health. Community Connections: Social Inclusion Conference, Regional Victoria May 2011 - invited presentation.

APPENDIX 3: RELATED PHD STUDIES

Kate Brady. What supports recovery from emergency events (in high income, developed countries) from the perspective of people affected by emergencies. (2013-2017). Supervisors: Lisa Gibbs, Louise Harms. APA scholarship.

Connie Kellett. Anger, and anger support, for individuals and communities affected by the 2009 Black Saturday bushfires. (2011-2017). Supervisors: Louise Harms, Lisa Gibbs. APAI scholarship through the Beyond Bushfires ARC Linkage Grant.

Lauren Kosta. Parenting after a disaster: Experiences since Black Saturday. (2013-2017) Supervisors: Louise Harms, Lisa Gibbs, David Rose. STRAPA scholarship through the Melbourne Social Equity Institute.

Marian Lok. A Network Society: The study of the use of Information and Communication Technology in long-term disaster recovery. (2011-2015). Supervisors: Louise Harms, Lisa Gibbs. Faculty Research Scholarship and the IBES top-up scholarship. (Successful completion).

Gisela van Kessel An exploration of the interventions perceived to influence the resilience of adult populations to the effects of natural disasters. (2011-2013). Professional Doctorate. School of Public Health, Flinders University, Supervisors: Colin MacDougall, Lisa Gibbs. (Successful completion).

