



“After the Fires”: study of the impacts of Black Summer on the wellbeing of emergency services personnel

Lawrence D, Ridders W, Lawn S, Madzoska M, Hunt A, Bartlett J, Houghton S, Van Hooff, M. 2023, ‘The impacts of the 2019-20 Black Summer bushfires on the wellbeing of emergency services personnel’ Perth: School of Population Health, Curtin University.

[Summary booklet](#), [Full report](#), [Interview data](#).

Background Info

Introduction: In the summer of 2019-2020 all Australian states and territories were affected by a fire season that was extreme in magnitude, duration, and intensity. In total, 33 lives were lost, more than 3,000 homes were destroyed, wildlife was decimated, and over 20 million hectares of community and farming land and national parks were burnt.

How many personnel? Around 82,000 ES personnel were involved in the fire response. The average time spent responding was 3 weeks for volunteers and 4 weeks for paid employees.

Research questions: This study asked what the mental health and wellbeing (MH & W) impacts were of the fires on emergency services (ES) personnel in relation to:

- Long- and short-term impacts of direct and indirect exposure?
- The need for support, and use of support services?
- What the best strategies were/are to protect their wellbeing?

Methodology: Over 4000 responded from fire and rescue, SES, and rural fire to surveys conducted at two-time intervals: wave 1 was conducted one year after the fires and wave 2, two years after.

Who did the research? *Lead* - David Lawrence, Curtin University. *Funded by:* Australian Government Medical Research Future Fund. *Partners:* Flinders University, Military and Emergency Services Health Australia (MESH), The University of Western Australia, Roy Morgan Research, and the Bushfire and Natural Hazards Cooperative Research Centre.

Data and Findings

Life threatening experiences and traumatic events

- 25% of employees and 31% of volunteers felt their life was threatened during the fires.
- Rates of probable serious mental illness and suicidality were 2 to 4 times greater among those whose life was threatened.
- 22% of volunteers and 19% of employees experienced a traumatic event during the fires that affected them deeply.



Prevalence of mental illness and suicidality:

- At 12 months following the fires, 4.2% of volunteers and 7.0% of employees had very high psychological distress. 5.5% of volunteers and 5.6% of employees reported suicidality, 2.8% and 2.3% made a suicidal plan, and 0.2% to 0.5% had attempted suicide.
- At 2 years following the fires, Rates of serious mental illness remained stable for both volunteers (4.2%) and employees (7.0%). Rates of suicidality remained stable for volunteers (5.5% at 1 year, and 5.6% at 2 years), but decreased slightly among employees (5.7% to 4.0%). These rates were still twice as high as for the general Australian population.
- 7.5% of the population perceived that their mental health had worsened between the 1st and 2nd survey (1 year apart). 5.7% perceived that their mental health had improved.

Predictors of serious mental illness and suicidality: Low levels of social support was most strongly associated with a probable serious mental illness or suicidality. Other predictors were, low levels of preparedness (for employees), being insufficiently trained for a role they were asked to undertake during the fires (for volunteers), experiencing a time when their life was threatened, and experiencing a traumatic event that impacted them deeply (more so for volunteers).

Mental health support and help-seeking: Over 5000 personnel were deemed to be in high need of mental health support. Of these, 52% of volunteers and 40% of employees had not received any help 1 year following the fires. There was little change in levels of help received between 1 and 2 years after the fires with less than one in five personnel having received sufficient help for their needs two years post-fires.

Only 16% of volunteers and 22% of employees felt they received as much help as they needed.

Barriers to accessing mental health support: Includes fear of career prospects being damaged; preferring to deal with problems informally; counselling and treatment options seen to not understand ES work, fear of stigma or being misunderstood; feeling vulnerable in unfamiliar settings, organisational 'red tape' that undermined their attempts to connect with support services.

Infographics: I will paste images at the end of this digest as an FYI

Implications and Recommendations

The study highlighted three areas of concern, with corresponding recommendations.

1. **STIGMA** - ES personnel were found to be concerned about adverse career impacts if they raise mental health concerns, especially the thought of being taken away from operational work.

Recommendation for reducing stigma: Emergency service agencies should consider a multifaceted approach to early intervention and prevention of mental health conditions that includes: training on the early warning signs and when to seek help; peer support, regular check-ins, access to professionals with the cultural expertise and experience to understand service life, educational workshops about the potential impacts of cumulative trauma exposure, and family involvement in training and educational workshops.



2. **TIME OUT** – By doing difficult work for long periods of time, ES personnel were found to be at high risk of burnout. Without time between events for processing experiences, they were also at risk of mental health injury.

Recommendation for creating opportunities for time out: Agencies should encourage a workplace culture that recognizes the importance of self-care and taking breaks as a key aspect of operational performance, including strategically planned scheduled breaks in a designated rest zone, and a rotation system to ensure individuals are not physically or mentally overloaded.

3. **SCALING SUPPORT** – MH services/supports are at or above capacity at the best of times, they are especially hard to access at times of disasters and this was found to be especially the case for volunteers.

Recommendation for scaling capacity to provide post-disaster support services that are adequate and timely. This should include establishing partnerships with other community organisations in order to expand the range of services available during large-scale disasters; training volunteers to become peer supporters equipping them with the skills to recognise the early warning signs of distress and how to respond, regular check-ins with volunteers for at least 2 years following a major disaster, conducted by professionals or trusted peers with the appropriate training.

INFOGRAPHICS

N.B. Wave 1 and 2 refers to 1st and 2nd survey, with survey 1 done 1 year after the fire, and survey 2 done 2 years after the fires

Changes in probable serious mental illness or suicidality of emergency services personnel

	Volunteers		Employees	
	Wave 1 (%)	Wave 2 (%)	Wave 1 (%)	Wave 2 (%)
Probable PTSD	4.2	4.2	5.1	7.3
Psychological distress (a)	13.0	16.8	19.9	20.5
Suicidality—				
Ideation	5.5	5.6	5.7	4.0
Plan	2.8	2.3	2.4	1.9
Attempt	0.2	0.5	0.3	0.3

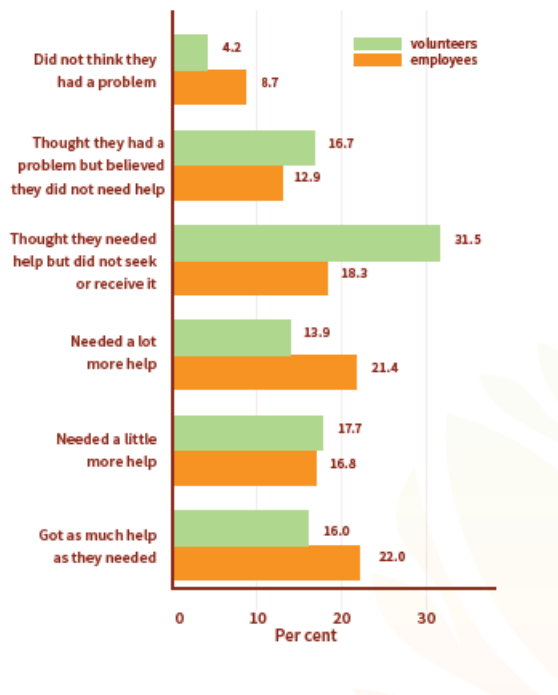
(a) high or very high psychological distress



Probable PTSD after one year by exposure to traumatic events in the bushfires and other workplace exposure to trauma



Self awareness and helpseeking: Paid versus Vols



Changes in wellbeing between Wave 1 and Wave 2

7.5%

had worsened mental health

12.4%

had ongoing poor mental health

5.7%

had improved mental health



Mental health of personnel who felt their life was threatened during the 2019-20 bushfires

	Was there a time when you felt that your life was threatened?			
	No (%)		Yes (%)	
Volunteers				
Proportion of volunteers	68.9		31.1	
Wellbeing indicator—	Wave 1	Wave 2	Wave 1	Wave 2
Probable PTSD	2.4	2.6	9.1	8.8
Psychological distress—				
High	7.3	9.1	17.6	19.3
Very high	3.4	4.5	7.3	7.6
Suicidal behaviours—				
Suicidal ideation	3.2	3.4	7.6	7.2
Suicide plan	1.0	1.2	2.9	2.2
Suicide attempt	0.0	0.0	0.5	0.7
Probable serious mental illness or suicidality	11.7	15.8	20.4	23.4
Employees				
Proportion of employees	74.9		25.1	
Wellbeing indicator—	Wave 1	Wave 2	Wave 1	Wave 2
Probable PTSD	3.3	4.5	11.0	12.2
Psychological distress—				
High	12.4	12.8	20.1	22.6
Very high	4.5	4.9	8.6	8.0
Suicidal behaviours—				
Suicidal ideation	3.9	2.8	7.8	6.1
Suicide plan	1.8	1.6	3.9	3.0
Suicide attempt	0.2	0.0	0.6	0.7
Probable serious mental illness or suicidality	16.5	17.1	27.3	25.9



Of those with high need for mental health support for either probable PTSD, very high psychological distress, or suicidal ideation

52% & **40%**
of volunteers of employees

had not received any help one year after the fires

Of those who received mental health support

16% & **22%**
of volunteers of employees

felt satisfied with the level of care received