



AFTER THE fires

THE IMPACTS OF THE 2019-20 BLACK SUMMER BUSHFIRES ON THE WELLBEING OF EMERGENCY SERVICES PERSONNEL WAVE 1 EXECUTIVE SUMMARY



Lawrence D, Ridders W, Houghton S, Hunt A, Bartlett J, Lawn S, Van Hooff M (2021) *After the Fires: The impacts of the 2019-20 black summer bushfires on the wellbeing of emergency services personnel*. Perth: Graduate School of Education, The University of Western Australia.

EXECUTIVE SUMMARY

The bushfires of the 2019-20 Australian *Black Summer* fire season saw widespread destruction caused by fires of unprecedented 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. All Australian states and territories were affected, with the most significant impact felt in New South Wales, Victoria, South Australia and Queensland. With a warming and drying climate, there is increasing risk of future extreme fire seasons. One important aspect of preparing for future fire seasons is ensuring the wellbeing of personnel who are called on to respond to the fires and protect our communities.

After the Fires aimed to investigate the impacts of the bushfires on emergency services personnel, address key gaps in knowledge about how to foster resilience and coping, and investigate how to deliver effective support for mental health and wellbeing to Australian bushfire first responders. Over 4,000 personnel across fire and rescue, rural fire and state emergency service (SES) agencies across Australia participated in the *After the Fires* survey. Survey data have been weighted to represent the full population of emergency services personnel in Australia.



Involvement in responding to the fires

- *After the Fires* estimated that 82,480 personnel were involved in responding to the Black Summer bushfires, including 64,500 volunteers and 17,980 employees, with volunteers representing 78% of responders.
- 66,300 personnel were directly involved in firefighting including 53,200 volunteers and 13,100 employees.
- Volunteers spent on average 3 weeks and employees on average 4 weeks responding to the fires. In addition, 30% of employees volunteered additional time, contributing on average an additional 3 weeks.
- 72% of volunteers and 73% of employees spent at least one night away from home, with volunteers spending on average 9 nights away from home and employees on average 14 nights away from home.
- 13,800 volunteers and 3,100 employees travelled interstate to help fight fires.

Mental health and wellbeing of personnel involved in the Black Summer bushfires

- Among personnel responding to the 2019-20 bushfires, 4.5% of volunteers and 5.1% of employees had probable PTSD at the time of the survey, representing an estimated 2,900 volunteers and 920 employees.
- 4.6% of volunteers and 5.5% of employees had very high psychological distress indicative of serious mental illness, representing an estimated 3,000 volunteers and 1,000 employees, compared with 4.0% of the Australian population.
- Additionally, 10.5% of volunteers and 14.5% of employees had high psychological distress indicative of less severe mental illness which would benefit from treatment, compared with 8.0% of the Australian population.
- 4.6% of volunteers and 4.9% of employees had seriously considered ending their own life in the year following the fires, 1.6% of volunteers and 2.3% of employees had a suicide plan, and 0.2% of volunteers and 0.3% of employees had attempted suicide. Rates of suicidal ideation and suicide plans were about twice as high as in the general population.

Experience of traumatic or life-threatening events

- 31% of volunteers and 25% of employees had felt there was a time when their life was threatened when responding to the 2019-20 bushfires.
- 22% of volunteers and 19% of employees had experienced one or more traumatic events that affected them deeply in the course of the 2019-20 bushfires.
- Overall 4,150 volunteers and 1,040 employees who were exposed to traumatic or life-threatening events during the bushfires had indicators of high need for mental health support – either probable PTSD, very high psychological distress or suicidal ideation. This is 2,540 and 520 personnel more than would have been expected to have such needs in the absence of the bushfires.

Support for mental health and wellbeing

- 58% of volunteers and 52% of employees with high need for mental health support – either probable PTSD, very high psychological distress or suicidal ideation – had not received any mental health treatment in the 12 months following the fires.
- Of those who received help, 32% of volunteers and 31% of employees reported that the help they received was provided through their organisation and the remainder obtained help outside of their organisation.
- Only 16% of volunteers and 22% of employees with high need for mental health support felt they received as much help as they needed.
- There are over 5,000 people who faced traumatic or life-threatening events while responding to the bushfires who have high need for mental health support, more than double the rate that would be expected. Around 1,000 of these have received a sufficient level of support for their needs.

Australia is highly dependent on volunteers to respond to major bushfires. While almost all available paid personnel were involved in the response to the 2019-20 bushfires, 78% of responding personnel were volunteers. It is likely that volunteers will continue to play a major role in responding to major bushfires in the foreseeable future. A challenge for our future bushfire preparedness is sustaining a volunteer workforce of sufficient size and capacity to be able to respond to large-scale events without overtaxing volunteers to the point where they are at risk of burnout or mental ill-health.

Over 5,000 personnel responding to the fires have high needs for mental health support, more than double the number that would be expected in the absence of events of this nature. While all emergency services agencies have policies and procedures in place to support the wellbeing of their personnel and provide support to those with mental health issues, an important issue to consider is how to build a capacity to scale up the level of support available following major disasters. In many areas available mental health supports are at or above capacity in ordinary times and have limited or no spare capacity to provide additional support when needed in the wake of major disasters. With a drying and warming climate increasing the likelihood of future significant fire events which could lead to increased workload and potential for exposure to trauma for volunteers, it is important to ensure that organisational capability to support wellbeing is increased proportionately.

As mental health concerns can emerge two years or more after the initial traumatic fire events, *After the Fires* research will continue over 2021-22 with a second wave of the survey and additional focus groups and interviews.

Implications

While almost all available paid personnel were involved in the response to the 2019-20 bushfires, 78% of responding personnel were volunteers, demonstrating that Australia is highly dependent on volunteers to respond to major bushfire events. It is likely that volunteers will continue to play a major role in responding to major bushfires in the foreseeable future. As such, a critical part of planning for future major fire events is ensuring that Australia has a sustainable volunteer workforce. The Royal Commission into National Natural Disaster Arrangements (2020) emphasised the importance of planning for and ensuring enhanced preparedness for responding to natural disasters. A series of recommendations have been made and are currently being progressed by government to ensure that procedures, equipment and skills are upgraded to ensure an enhanced level of preparedness for future disasters. The results from *After the Fires* also highlight the importance of supporting mental health and wellbeing as part of preparedness for future disasters.

Intense work demands sustained over a long period can also pose a risk to wellbeing. One of the many challenges of the 2019-20 fires was their duration and intensity, which saw many volunteers undertaking challenging levels of work for long periods of time. This can both expose people to risk of burnout and also negatively impact people if they don't have time to process the experience of one event before moving on to the next. One of the findings of *Answering the Call* was the importance of taking a break after attending a particularly traumatic or intense event before going on to the next job. In large-scale disasters, it is not always possible to take time out, and first responders will keep working as long as they are needed and are able to. A challenge for our future bushfire preparedness is sustaining a volunteer workforce of sufficient size and capacity to be able to respond to large-scale events without overtaxing volunteers to the point where they are at risk of burnout. This means both maintaining the existing volunteer workforce through providing the support, training and resources they need, and recruiting and training new volunteers in recognition of the increasing demands being placed on existing volunteers through more intense fire seasons.

The study has found that over 5,000 personnel responding to the fires, mostly volunteers, have PTSD, very high psychological distress or suicidal ideation indicating high needs for mental health support. This was more than double the number that would be expected in the absence of events of this nature. While all emergency services agencies have policies and procedures in place to support the wellbeing of their personnel and provide support to those with mental health issues, an important issue to consider is how to build a capacity to scale up the level of support available following major disasters. In many areas, available mental health supports are at or above capacity in ordinary times and have limited or no spare capacity to provide additional support when needed in the wake of major disasters.

Another factor that needs to be considered in future planning is how the changing nature of bushfires in Australia might contribute to the impact of cumulative trauma. *Answering the Call* has shown that it is often the repeated exposure to major traumatic events rather than just the impact of isolated traumatic events that is the major risk factor for developing mental health issues, a finding confirmed by many other studies (e.g. Centre for Traumatic Stress Studies, 2017). If the frequency and intensity of bushfires continues to increase, there is the potential for personnel involved in the 2019-20 fires to be involved in more fire events in the future. The high proportion of available personnel who were involved in the fires, and the high numbers that experienced traumatic events during the fires, could increase the number of personnel experiencing cumulative traumas over their careers in the event of subsequent disasters.

The nature of emergency services work means that it is not always possible to shield personnel from exposure to traumatic events. How teams and organisations respond in the wake of traumatic events can also have a significant impact on wellbeing. There are some encouraging signs in the *After the Fires* results of some overall improvements in mental health amongst the



DFES Incident Photographer Wade Ranson

paid workforce, along with improvements in workplace culture. Organisations should be encouraged to continue with reforms in this area to seek further improvements. In contrast there was little evidence of overall change in wellbeing among volunteers. To date, organisations with predominantly paid workforce have been better equipped and have more programs and resources to support employee wellbeing than has been the case in the volunteer sector, as historically there were differences in the level of intensity and amount of engagement with major fires between volunteers and paid staff. Particularly in light of the high reliance on volunteers in responding to the 2019-20 bushfires, it may be appropriate to consider how supports that are provided to paid firefighters can be extended to be more available to volunteers.

The nature of volunteer firefighting has been considered by other groups that have investigated the 2019-20 bushfires and the response to those fires. There is a recognition that the time commitment of volunteers is increasing and that it is important to ensure that volunteers have access to appropriate equipment and infrastructure, and suitable training opportunities. As the nature of volunteer firefighting evolves, it is also important to ensure that organisational capability to support wellbeing is increased proportionately.

The study results also highlight the need to continue investigating some of the barriers to obtaining appropriate support for people with emerging mental health issues. That only about 20% of those with indicators of high needs for mental health support have received a sufficient level of help, hardly changed from *Answering the Call* three years previously, indicates that there is still substantial progress to be made in this area. Both *Answering the Call* and *After the Fires* found that many personnel are concerned about adverse career impacts and being taken away from operational work if they raise mental health concerns. The emergency services continue to have a culture of personnel believing that they need to be strong and impervious to the situations they experience in order to support their communities in times of need and that mental health issues would undermine this appearance of strength. In reality, the overwhelming majority of volunteer and paid firefighters do the work they do because they want to serve their communities and help in times of need. Naturally, they care about their communities and are likely to be impacted, as anyone would be, when they witness disasters befalling their communities. Changing this longstanding culture will be a slow process, but it is a vitally important step to supporting the wellbeing of firefighters and other first responders. Ignoring emerging mental health issues, waiting to see if they go away, or if they can be handled informally, can lead to worsening symptoms, higher levels of functional impact, greater levels of impairment and longer recovery times and reduced likelihood of complete recovery when people finally do seek help.



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