

# After the Fires

The impacts of the 2019-20 *Black Summer* bushfires on the mental health and wellbeing of emergency services personnel who responded to the fires

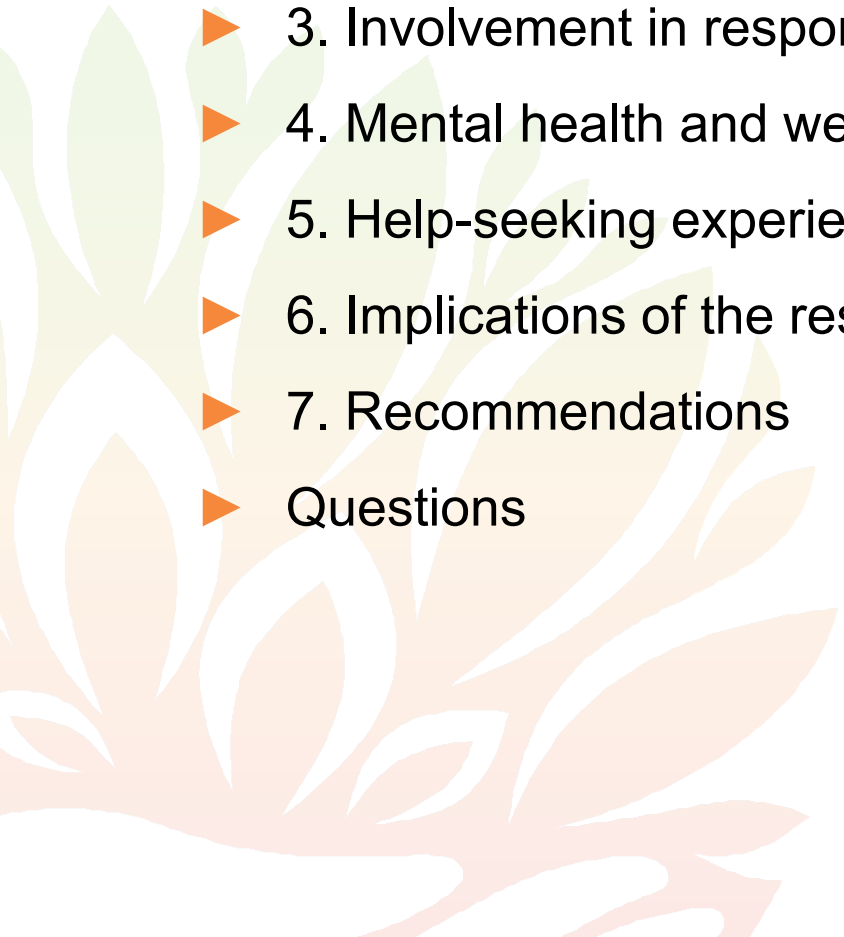
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Speaker:  
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14 November, 2023

# Acknowledgement of Country

Acknowledgement that this meeting is being held on the traditional, unceded lands of the Noongar people.

# Contents of presentation

- ▶ 1. Background to *After the Fires*
  - ▶ 2. Understanding the fire and rescue sector
  - ▶ 3. Involvement in responding to the 2019-20 Black Summer bushfires
  - ▶ 4. Mental health and wellbeing impacts
  - ▶ 5. Help-seeking experiences, including barriers to help seeking
  - ▶ 6. Implications of the research findings
  - ▶ 7. Recommendations
  - ▶ Questions
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# 1. Why was *After the Fires* conducted?

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## The study sought to:

- ▶ quantify the short- and long-term impacts of direct and indirect exposure to the 2019-20 bushfire events on the wellbeing and resilience of emergency services personnel
- ▶ assess their need for support and use of support services
- ▶ identify factors associated with resilience and effective coping and
- ▶ determine the best strategies to protect mental wellbeing in the face of future large-scale natural disasters

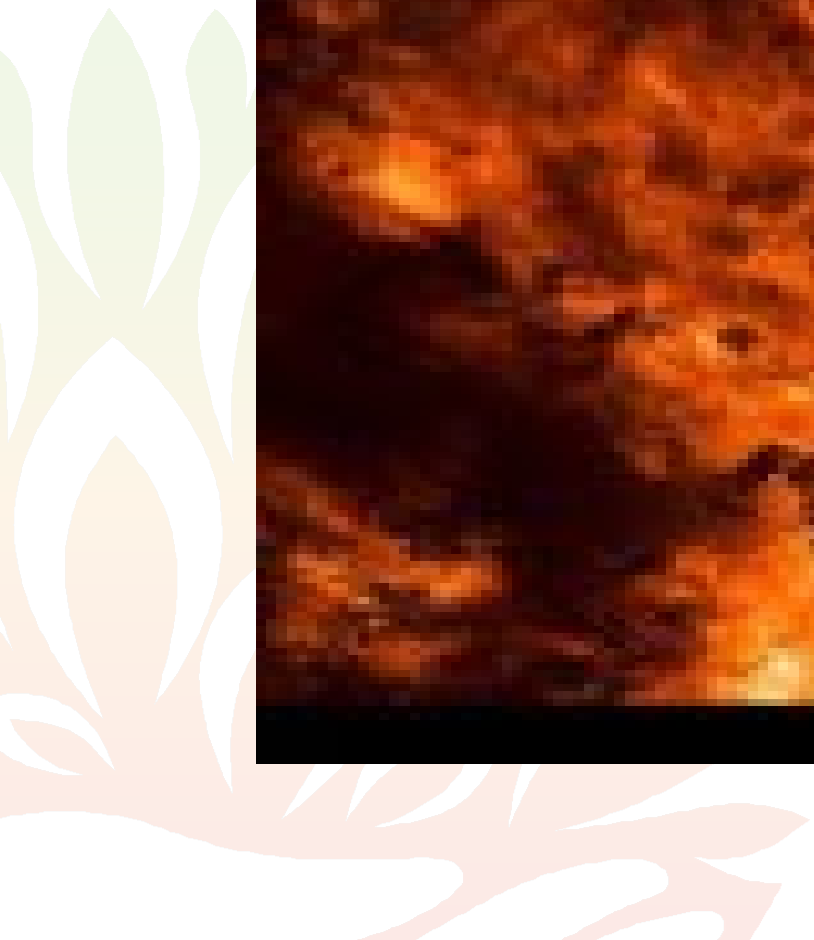
The 2019-20 *Black Summer* fire season was one of the most intense and sustained fire seasons ever experienced in Australia.

### *After The Fires surveys*

- Wave 1 - online administration of survey. Questionnaire length \* 20-25 minutes
- Wave 2 – focus groups and individual interviews in selected affected areas

### **Study Components:**

- ▶ *After the Fires surveys*
- ▶ Scope: volunteers and employees in 19 (of 23) Fire and Rescue, Rural Fire and State Emergency Services agencies in Australia.
- ▶ Two waves of data collection.
- ▶ Over 4,000 personnel participated in Wave 1
- ▶ 1,000 personnel participated in Wave 2

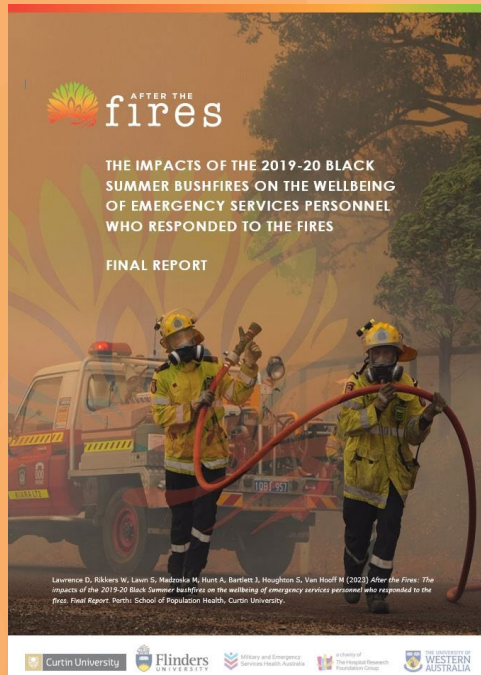


## 2. Who is in the fire & rescue, and state emergency services sector?

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# Estimated volunteers and employees across the sector



221,800

Volunteers across the fire and rescue, rural fire, and SES sectors

22,240

Employees across the fire and rescue, rural fire, and SES sectors

18,200

Estimated operational firefighters





# Demographic characteristics

1

## Gender differences

- ▶ Just under a fifth (18%) of volunteers and employees in the sector are female

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## Age differences

- ▶ In contrast to the Australian population, volunteers have an older age distribution.
- ▶ 25% of volunteers in the sector are aged 65 years or over (compared to 16% of the general Australian population).

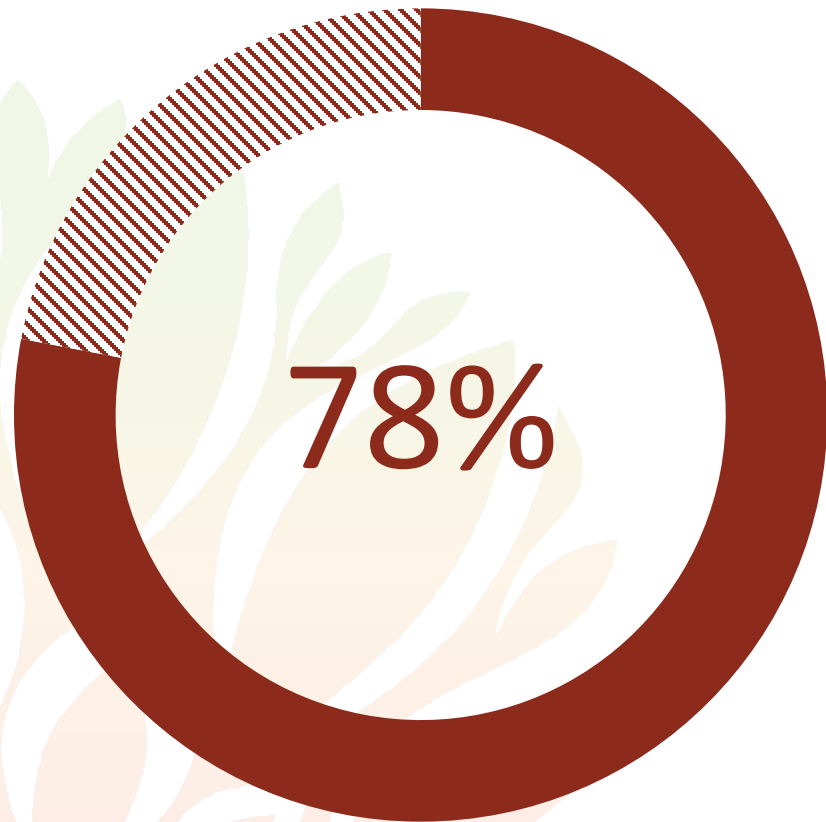
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## Years of service

- ▶ Many people commit to extended careers in the service, with 34% of volunteers and 39% of employees having over 20 years' service
- ▶ 26% of volunteers and 29% of employees have approximately 11-20 years of service.

# 3. Involvement in responding to the 2019-20 Black Summer bushfires

# Australia's dependence on volunteers



## Australia is highly dependent on our volunteers

- ▶ After the Fires estimated that 82,480 personnel were involved in responding to the Black Summer bushfires.
  - ▶ 64,500 volunteers
  - ▶ 17,980 employees
- ▶ **78% were volunteers**

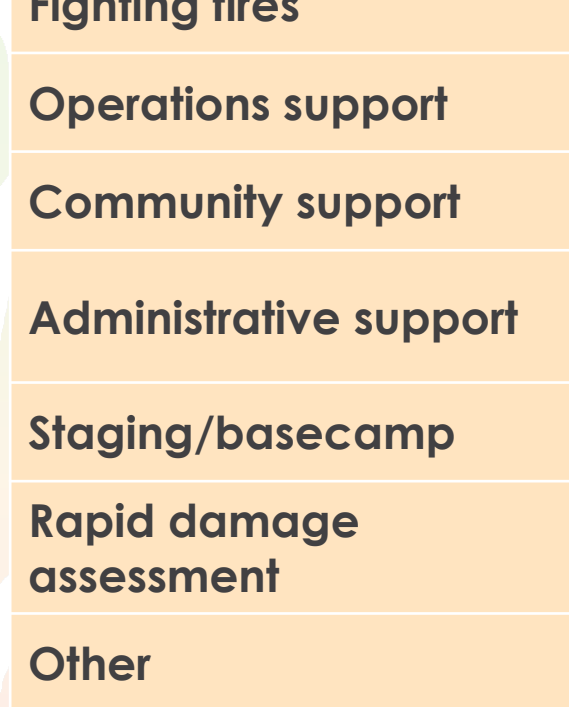
# People who were actively involved in responding to the 2019-20 bushfires

<b>Sector</b>	<b>Estimated number</b>
<b>Volunteers</b>	
Fire and Rescue (including Rural Fire)	57,800
State Emergency Service	6,700
<b>Total</b>	<b>64,500</b>
<b>Employees</b>	
Fire and Rescue (including Rural Fire)	17,300
State Emergency Service	680
<b>Total</b>	<b>17,980</b>

## Estimated value of volunteer labour contributed to responding to the Black Summer bushfires (\$millions)

Age	Estimated value of paid leave	Estimated value of unpaid leave	Estimated value of unpaid labour for those self-employed or no longer working	Total estimated value of volunteer labour
<b>Volunteers</b>				
<b>65 years or less</b>	139.2	106.8	175.8	421.8
<b>Over 65 years</b>	4.3	9.7	141.1	155.1
<b>Total</b>	\$143.5	\$116.5	\$316.9	\$576.9
<b>Employees</b>				
<b>Total</b>				\$60.3
<b>Volunteer labour of volunteers and employees combined</b>				
<b>Total</b>				\$637.2

# Engagement with the fires



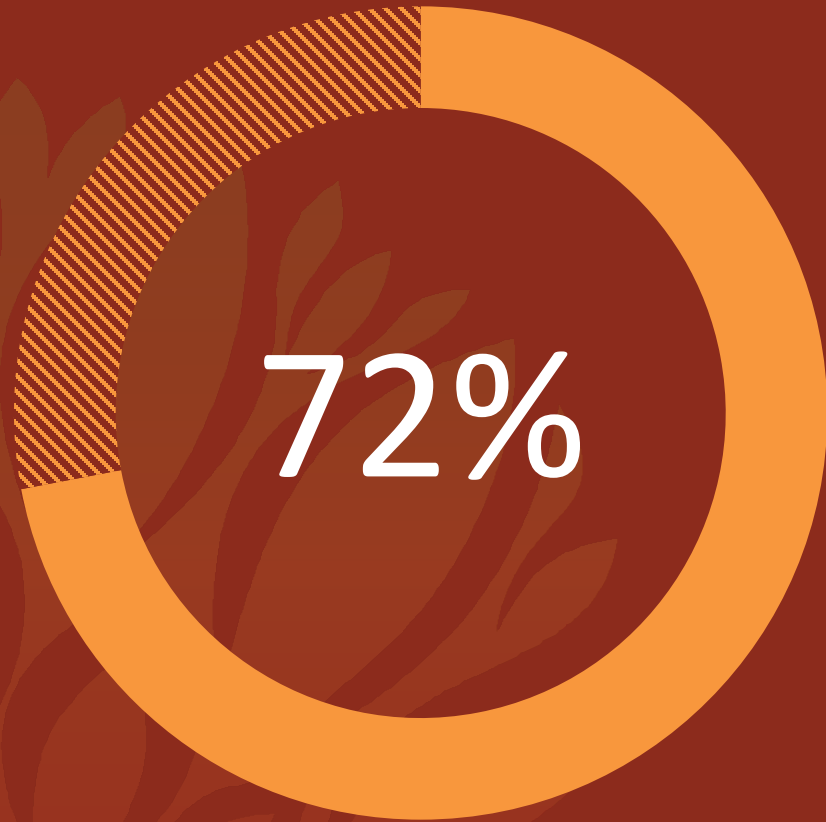
Role	Volunteers (%)	Employees (%)
Fighting fires	83	73
Operations support	41	46
Community support	28	17
Administrative support	16	19
Staging/basecamp	13	11
Rapid damage assessment	3	10
Other	6	9

# 4. Time commitment

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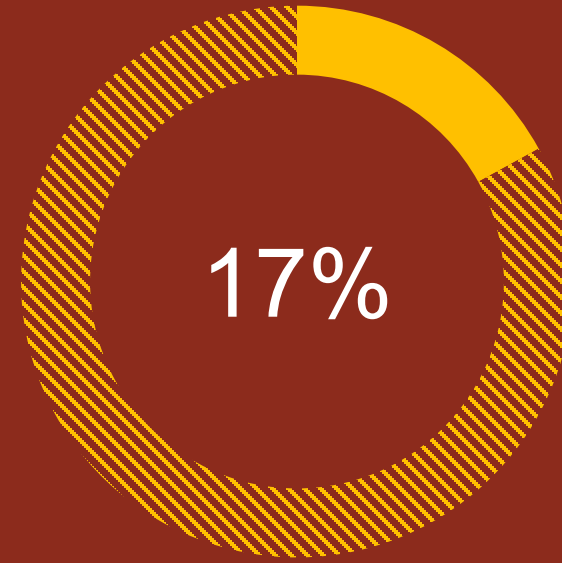


# Time away from home - volunteers



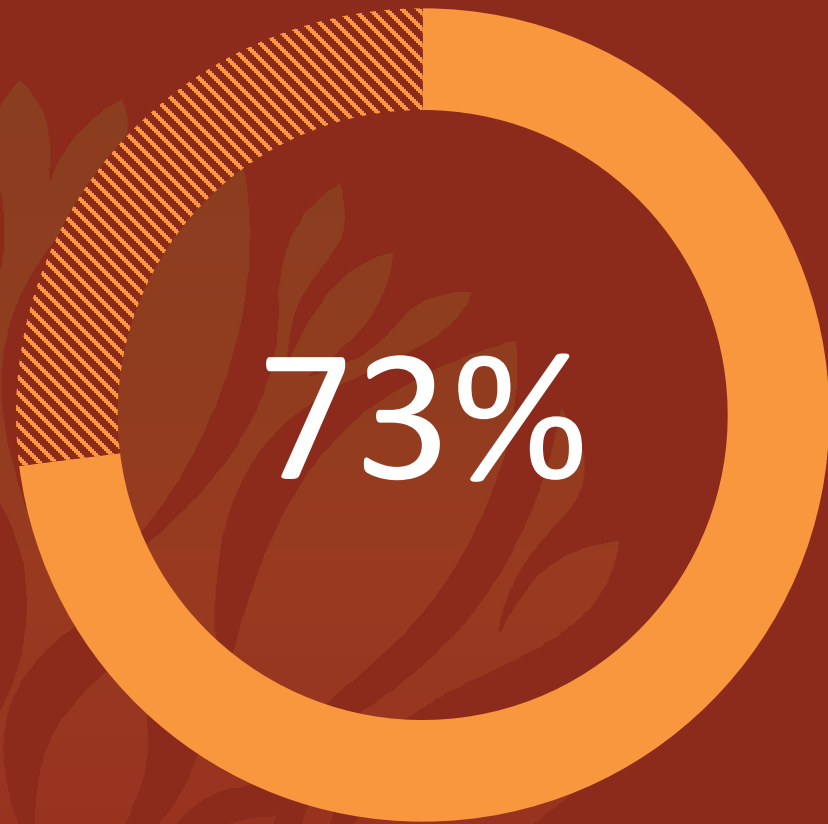
**72%** Of volunteers with active involvement spent one or more nights away from home while responding to the fires, spending an average of nine nights away from home

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**17%** Of volunteers were away from home for more than 14 nights over the fire season

# Time away from home - employees



73%

Of employees with active involvement spent one or more nights away from home while responding to the fires, spending an average 14 nights away from home

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10%

10%

Of employees were away from home for more than 30 nights over the fire season

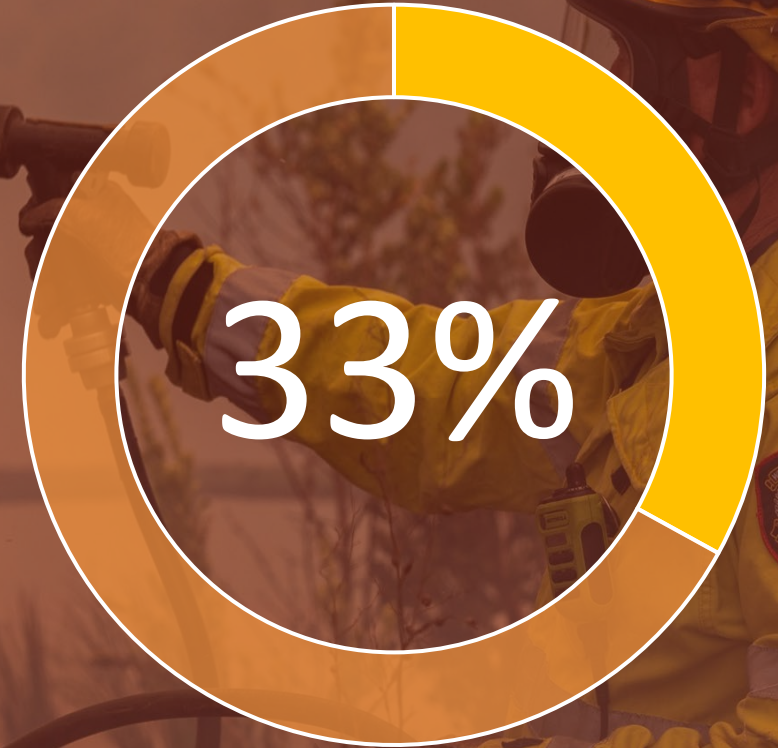
# Leave for volunteering

Of the 64,540 volunteers involved in responding to the 2019-20 bushfire bushfires:

- ▶ 66% were in other paid employment
- ▶ **22%** were **not** provided with leave from their paid employment
- ▶ **26%** were provided with leave, but **not paid.**

Access to paid or unpaid leave to participate in volunteering is not universally available.

**33%** of volunteers were provided with paid leave



# Commitment to volunteering

Commitment to volunteering was strengthened for a substantial portion of volunteers after the fires, with a much smaller proportion indicating their commitment has lessened.

- ▶ Younger volunteers were more committed, with:
  - ▶ 60% of volunteers under 25 years and
  - ▶ 40% of volunteers aged 25-34more committed to volunteering after the 2019-20 bushfires.




# 5. Preparedness

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The  
Guardian



# Preparedness



Level of preparedness	Volunteers (%)	Employees (%)
<b>Physically—</b>		
Not at all prepared	2	1
Somewhat prepared	27	22
Well prepared	56	54
Very well prepared	15	23
<b>Psychologically—</b>		
Not at all prepared	4	4
Somewhat prepared	25	26
Well prepared	53	50
Very well prepared	19	20
<b>Technical skills—</b>		
Not at all prepared	1	1
Somewhat prepared	12	13
Well prepared	57	54
Very well prepared	30	32



# Impact of COVID-19 pandemic

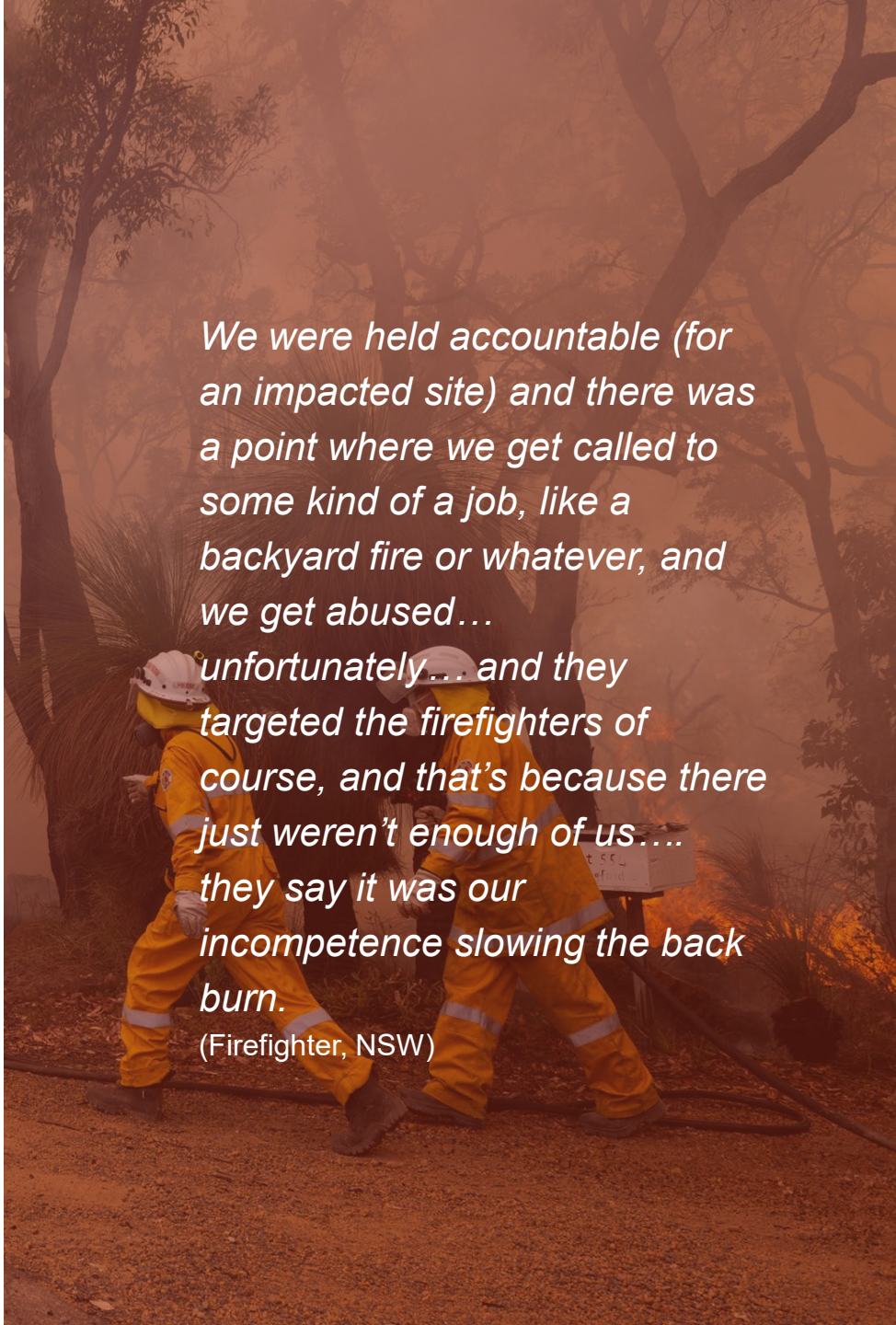
Respondents were asked about the impact of the COVID-19 pandemic on their mental health and wellbeing and on their income.

- ▶ 36% of volunteers and 40% of employees indicated a small negative impact.
- ▶ 7% of volunteers and 6% of employees indicated a large negative impact.
- ▶ An estimated 31% of volunteers and 25% of employees reported reduced income.



# Community criticism

- ▶ Volunteers were asked about experiences of conflict with the community after the bushfire season.
- ▶ 11,000 volunteers (17%) reported they had experienced criticism from members of the community
- ▶ 2,300 volunteers (3.5%) reported they experienced a lot of stress or extreme stress as a result

A photograph of two firefighters in yellow protective gear working in a smoky, orange-tinted environment. They are positioned in the lower half of the frame, with one firefighter in the foreground and another slightly behind. The background is filled with thick smoke and the silhouettes of trees, creating a somber and intense atmosphere.

*We were held accountable (for an impacted site) and there was a point where we get called to some kind of a job, like a backyard fire or whatever, and we get abused... unfortunately... and they targeted the firefighters of course, and that's because there just weren't enough of us.... they say it was our incompetence slowing the back burn.*

*(Firefighter, NSW)*

# 6. Mental health and wellbeing

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# Mental health and wellbeing at Wave 1

Measures

	<b>Probable PTSD</b>	<b>High psychological distress</b>	<b>Very high psychological distress</b>	<b>Suicidal ideation</b>
<b>Employees</b>	5.2	14.3	5.5	4.9
<b>Volunteers</b>	4.5	10.5	4.6	4.6

# Life-threatening experiences during the 2019-20 bushfire season

31%

of volunteers

25%

of employees

22%

of volunteers

19%

of employees

reported that there was a time when their life was threatened

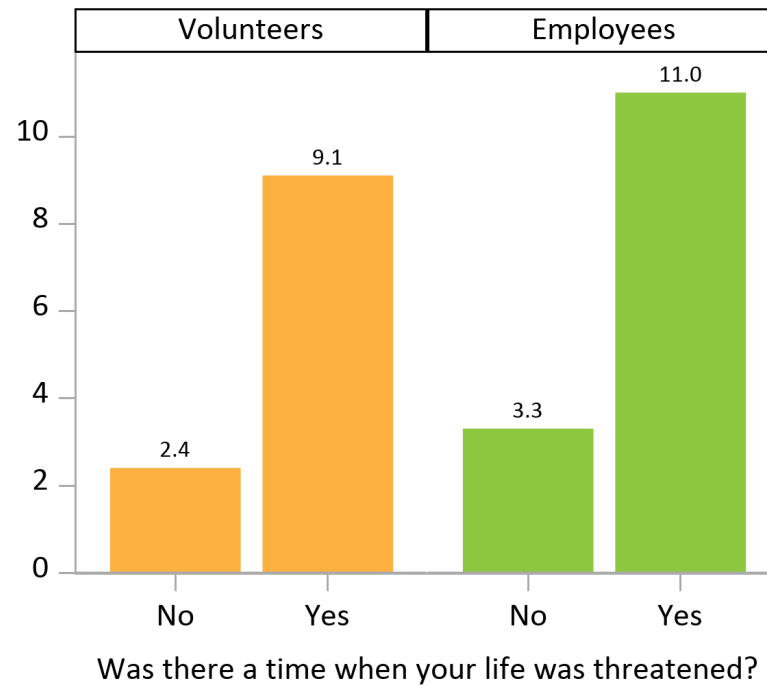
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reported experience of a traumatic event that affected them deeply

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# PTSD and life-threatening experiences during the 2019-20 bushfire season

Probable PTSD



Probable PTSD



# Prevalence of mental health issues in volunteers exposed to either a life-threatening situation or a traumatic experience

Wellbeing indicator	Estimated number of cases	Expected number based on those with no trauma exposure	Excess number of cases
PTSD	2260	450	1810
Very high psychological distress	1900	720	1180
Suicidal ideation	1820	770	1050
PTSD, Very high psychological distress or suicidal ideation	<b>4150</b>	<b>1610</b>	<b>2540</b>

# Prevalence of mental health issues in employees exposed to either a life-threatening situation or a traumatic experience

Wellbeing indicator	Estimated number of cases	Expected number based on those with no trauma exposure	Excess number of cases
PTSD	610	210	400
Very high psychological distress	520	280	240
Suicidal ideation	500	200	300
PTSD, Very high psychological distress or suicidal ideation	<b>1040</b>	<b>520</b>	<b>520</b>

## Changes in mental health and wellbeing from Wave 1 to Wave 2

*We were pretty convinced that they sent us down to die.*

(Volunteer firefighter, SA)

- Mental health problems persisted up to 2 years after the Black Summer bushfires.
- Certain behaviours contributed to this outcome.



# Changes in mental health between Wave 1 and Wave 2

Of personnel with probable PTSD, psychological distress, or suicidal ideation



# Change in psychological distress between Wave 1 and Wave 2

Among personnel experiencing psychological distress after the fires:

4.4%

of volunteers

4.3%

of employees

16.8%

of volunteers

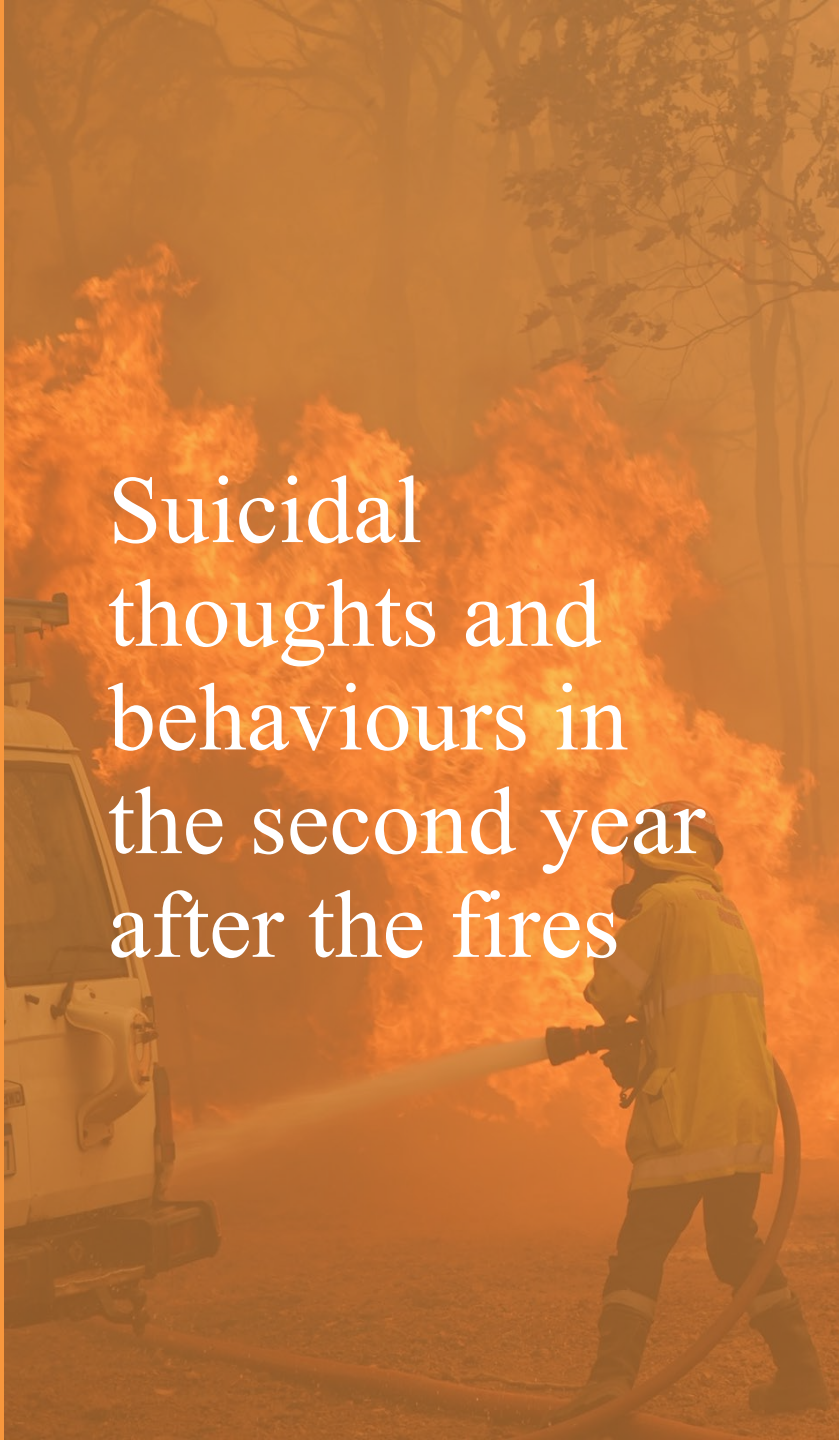
10.0%

of employees

felt their feelings had much improved

felt their feelings were much worse

▶ The challenge to associate with rebuilding communities and financial hardships are contributing factors to distress associated with the fires.



Suicidal thoughts and behaviours in the second year after the fires

	<b>Volunteers (%)</b>	<b>Employees (%)</b>
<b>Suicidal ideation</b>	3,550 (5.5%)	1,020 (5.7%)
<b>Suicide plan</b>	1,800 (2.8%)	400 (2.3%)
<b>Suicide attempt</b>	120 (0.2%)	50 (0.3%)

# Protective and risk factors for mental health and wellbeing

## Those with improved mental health

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- ▶ Exercise regularly
  - ▶ Have a supervisor or colleagues who were supportive
  - ▶ Have an inclusive workplace
  - ▶ Have someone they can open up to
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## Those with worsened mental health

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- ▶ High levels of binge drinking
  - ▶ More likely to drink alcohol to manage their feelings or help them forget about problems
  - ▶ High levels of anger issues
  - ▶ Low levels of social support
  - ▶ Very or extremely lonely
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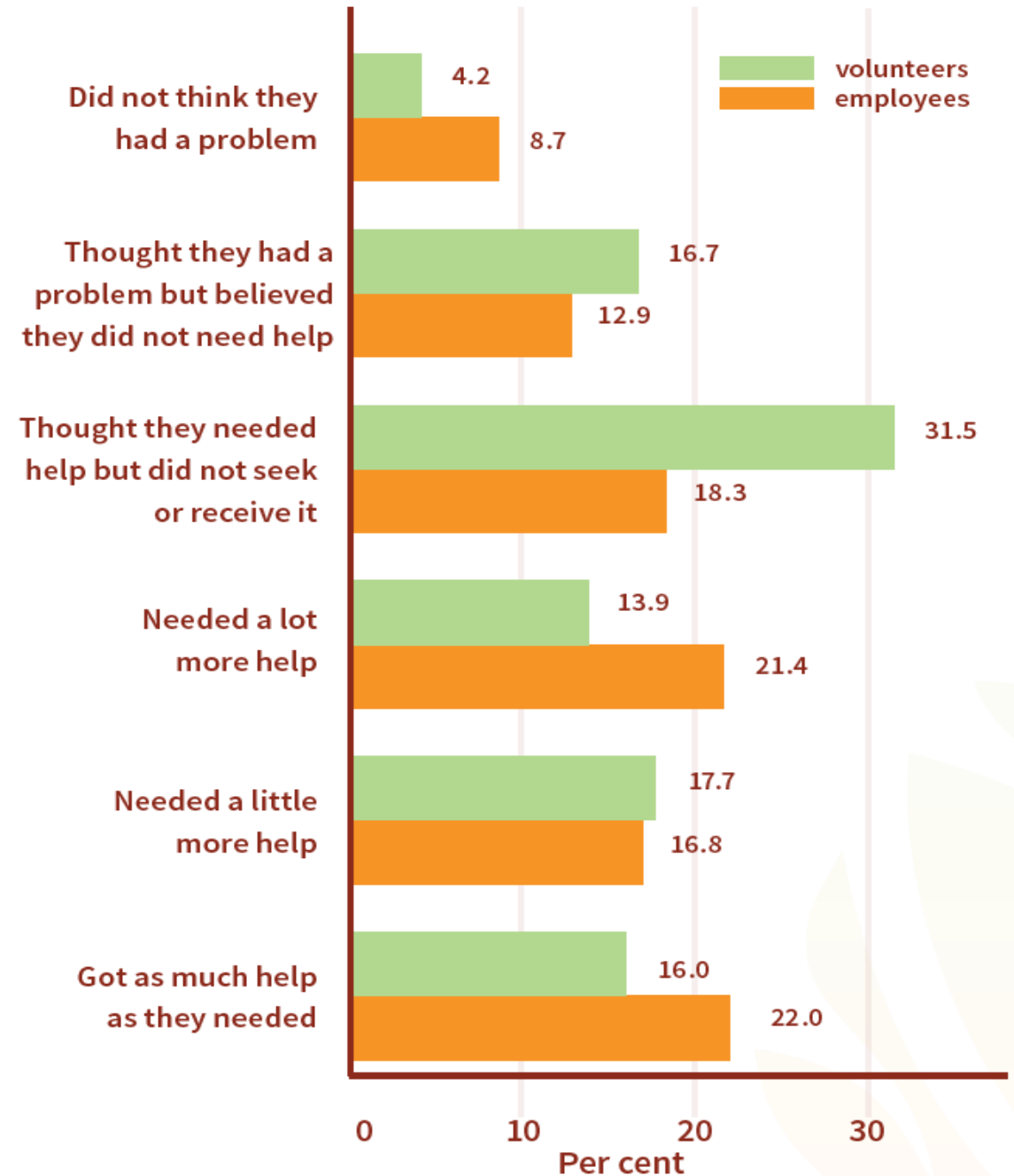
# Cumulative trauma

- ▶ Increase in number of people exposed to individual traumatic situations
- ▶ High mobilisation of the volunteer and paid workforce during the *Black Summer* fires.
- ▶ Increase in numbers of large-scale events
- ▶ Long-term tenures – pose a potential problem for maintaining a sustainable volunteer workforce in the future.

# 7. Perceived need for help

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Perceived need for help for personnel with probable PTSD, very high psychological distress, or suicidal ideation



# Help seeking two years post fires by personnel who needed help one year after the fires

	Proportion at Wave 1 (1%)	Received help by Wave 2		
		None (%)	Some but needed more (%)	Received sufficient help (%)
<b>Needed help at Wave 1</b>				
<b>Help received—</b>				
<b>None</b>	48	<b>78</b>	14	8
<b>Some but needed more</b>	27	36	43	<b>21</b>
<b>Received sufficient help</b>	26	Continued receiving help: 58%		

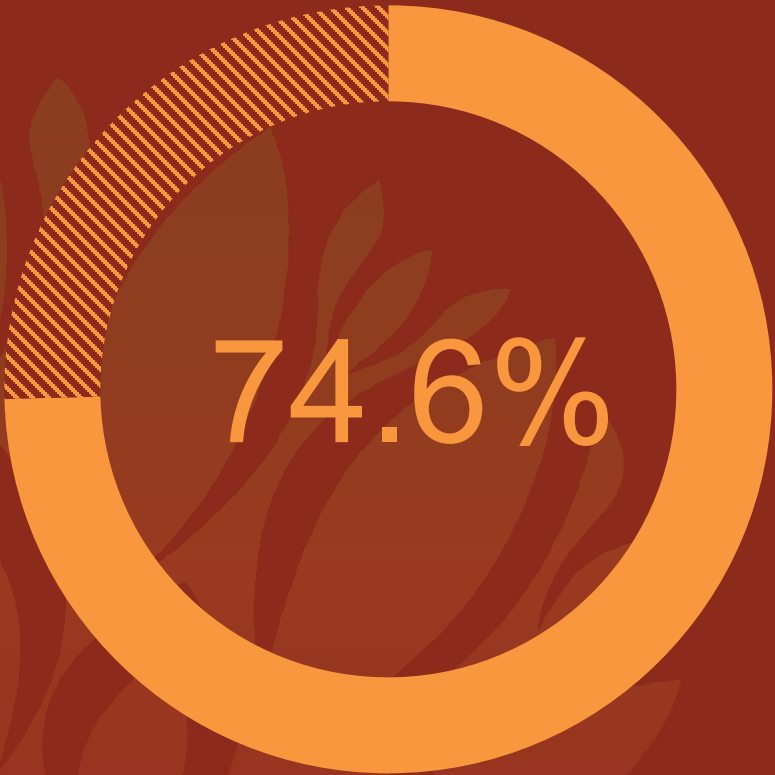


# 8. Barriers to help seeking

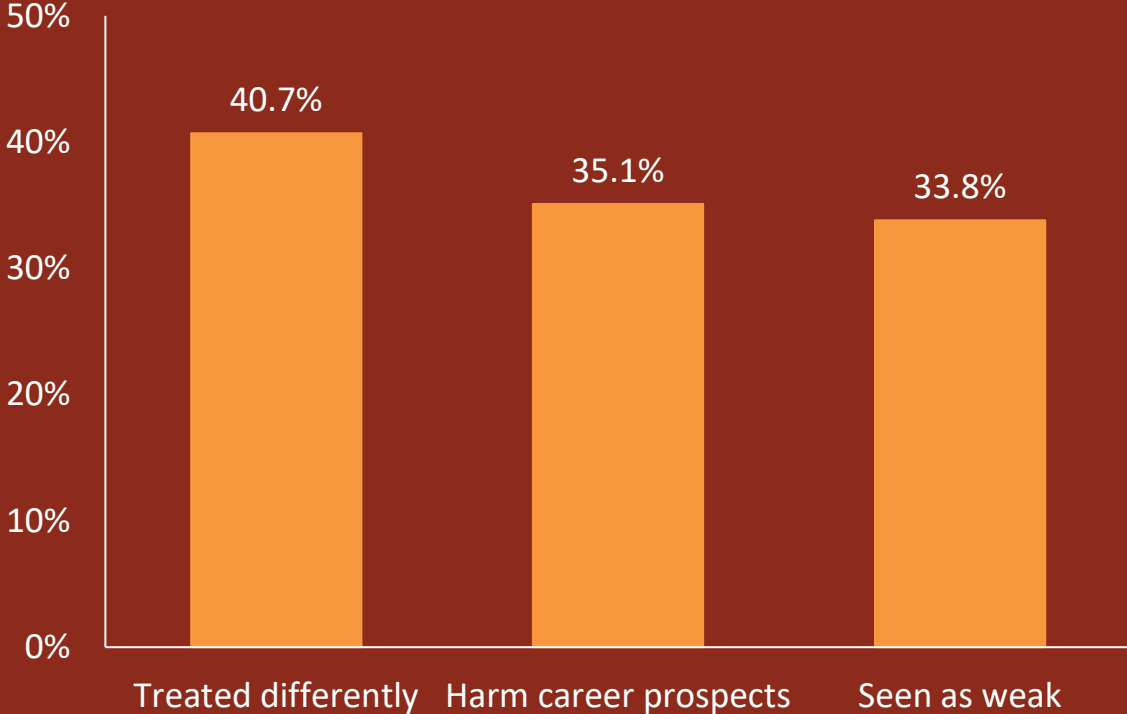
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“Volunteers are the stronger, more determined people in your community, so they tend to want to look after their problems themselves. They will resist getting help, because it’s a sign of weakness, isn’t it?”

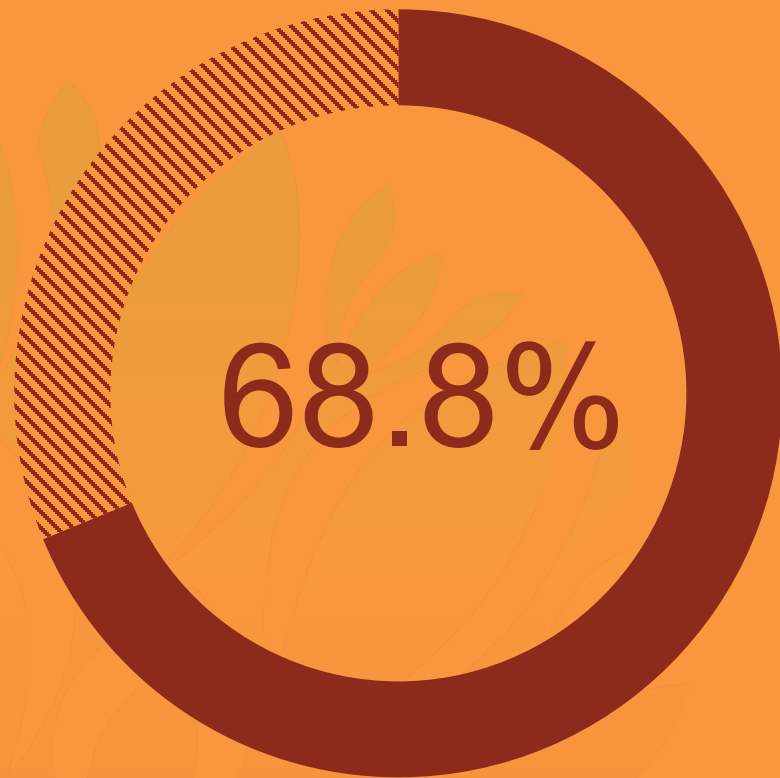
# Barriers to help seeking - employees



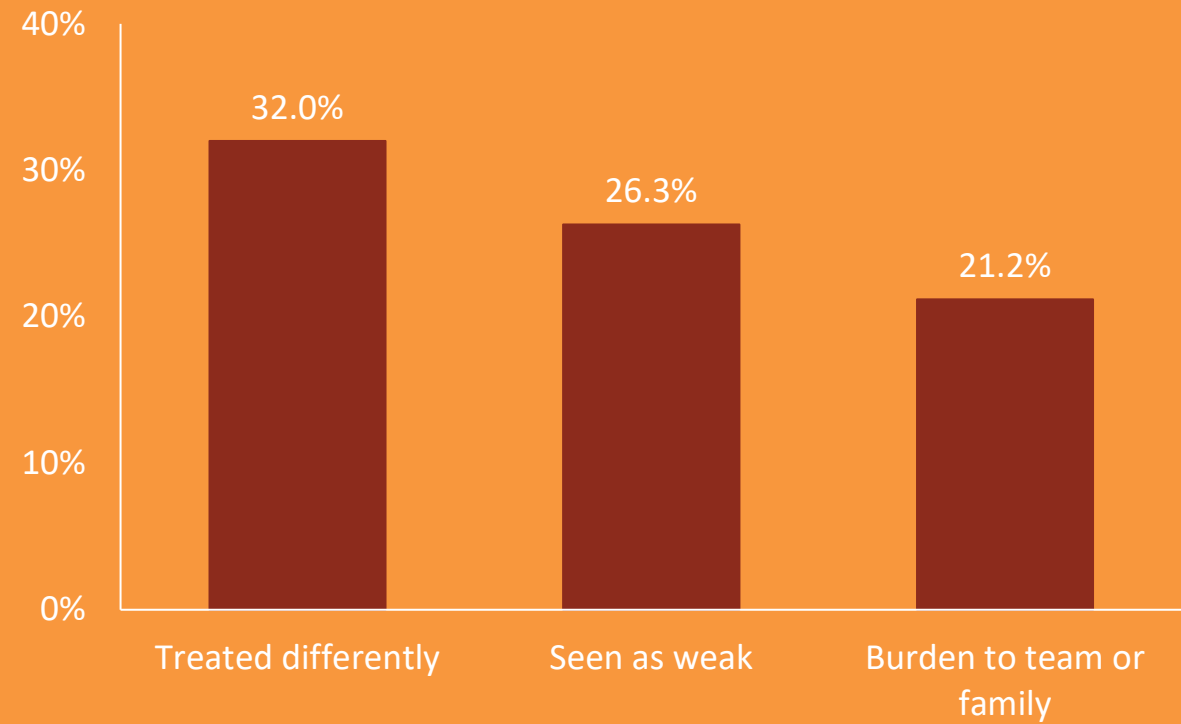
**74.6%** Of employees would prefer to deal with problems informally



# Barriers to help seeking - volunteers

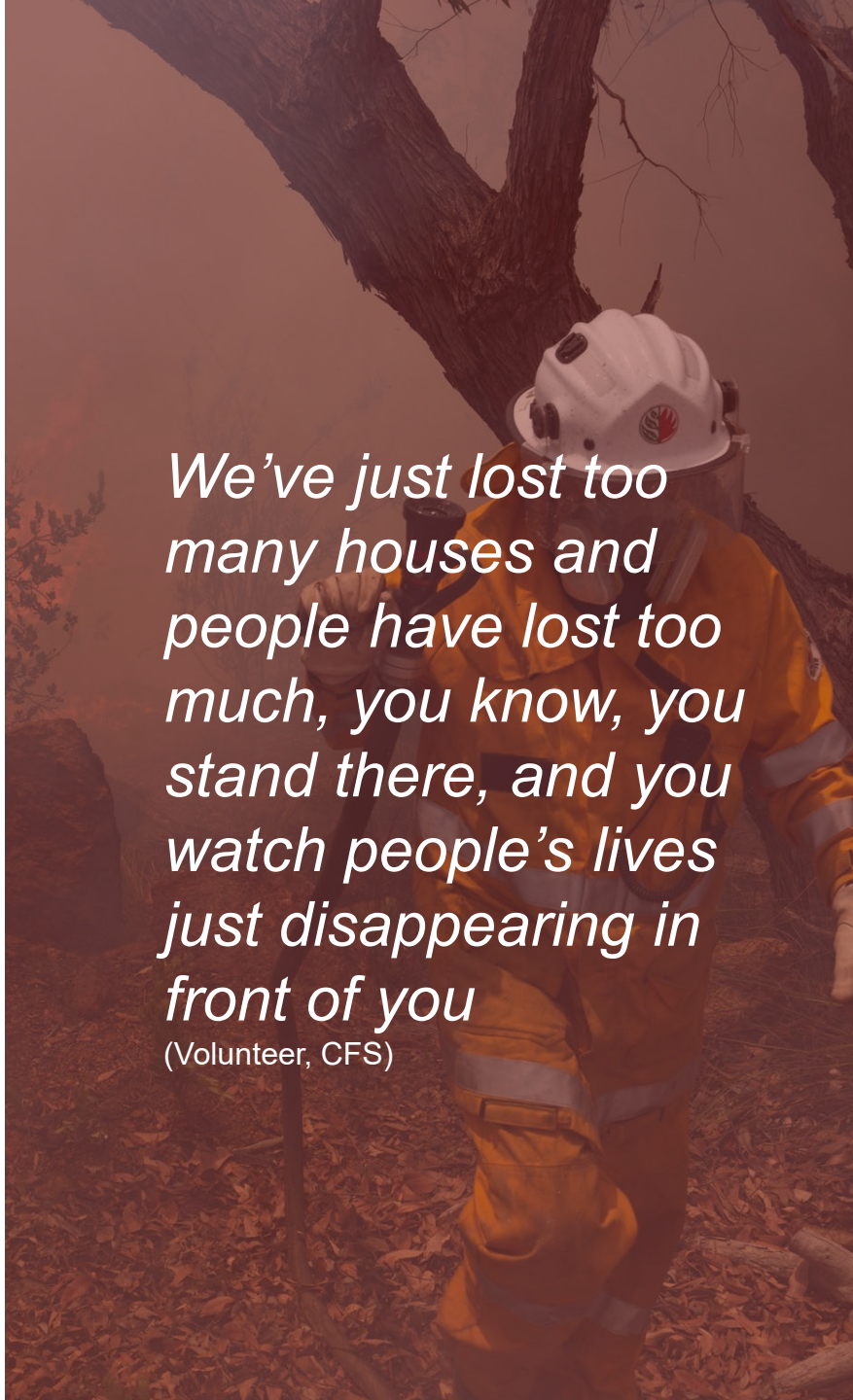


**68.8%** Of volunteers would prefer to deal with problems informally



# Agency support for mental health two years post fires

	Volunteers	Employees
Agency supports mental health of its personnel	94%	96%
Implemented changes since bushfires	45%	41%
Average rating of mental health support (from 1 to 7)—		
Prior to the 2019/20 bushfires	5.7	5.5
Now	6.3	6.0
Change	+0.6	+0.5



*We've just lost too many houses and people have lost too much, you know, you stand there, and you watch people's lives just disappearing in front of you*

(Volunteer, CFS)

# 9. Implications

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# Implication 1 – Keeping our volunteer workforce sustainable

Increased frequency of large-scale natural disasters means:

- ▶ Greater reliance on volunteer workforce, but impacts of cumulative trauma from more frequent/severe disasters may impact viability
- ▶ Need to prepare for future disasters to ensure the wellbeing of personnel who are called on to protect our communities.
  - ▶ More needs to be done to increase levels of help-seeking as soon as symptoms occur
  - ▶ Managers and supervisors need to improve mental health literacy
  - ▶ Organisational culture needs to improve
- ▶ Better training and greater levels of preparedness required for large scale events
- ▶ Greater number and increased accessibility of mental health supports and services, particularly in regional areas

## Implication 2 – Reducing stigma and encouraging openness to discuss emotional concerns

- ▶ People are concerned about adverse career impacts and being taken away from operational work if they raise mental health concerns.
- ▶ Emergency services personnel believe they need to be strong and impervious to the situations they experience.
- ▶ Ignoring emerging mental health issues, waiting to see if they go away, or if they can be handled informally, can lead to:
  - ▶ worsening symptoms, greater levels of impairment, longer recovery times, and reduced likelihood of complete recovery when people finally do seek help.



## Implication 3 – Creating opportunities for time out

- ▶ People are at risk of burnout if they don't have time to process the experience of one event before moving on to the next.
- ▶ Important to take a break after attending a particularly traumatic or intense event before going on to the next job.
- ▶ Not always possible to take time out during large-scale disasters

## Implication 4 – Scaling up the capacity to provide adequate and timely support services

- ▶ Mental health supports are at or above capacity in ordinary times and have limited capacity to provide additional support in the wake of major disasters.
- ▶ Emergency services agencies need to consider:
  - ▶ How to build capacity to scale up the level of support available following major disasters.
  - ▶ Predominantly paid workforces have been better equipped and have more programs and resources to support employee wellbeing.
  - ▶ May be appropriate to consider how supports that are provided to paid firefighters can be extended to volunteers.

# 10. Recommendations

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# Recommendation 1 – Intervention and prevention of mental health conditions

- ▶ Emergency service agencies should consider a multifaceted approach, including:
  - ▶ Training on the early warning signs of mental distress, self-care strategies, and when to seek help.
  - ▶ Peer support.
  - ▶ Regular check-ins.
  - ▶ Counsellors with lived experience or knowledge of emergency services.
  - ▶ Family involvement in both training and educational workshops.

## Recommendation 2 – Continue encouraging self-care and taking breaks

- ▶ Firefighting agencies should continue building 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.
  - ▶ A rotation system to ensure individual firefighters are not physically or mentally overloaded.

# Recommendation 3 – Scaling up mental health support services

- ▶ Scaling up mental health support services for volunteer firefighters is a critical step in promoting well-being and resilience. This should include:
  - ▶ Establishing partnerships with other community organisations in order to expand the range of services available during large-scale disasters.
  - ▶ Training more volunteers to become peer supporters, equipping them with the skills to recognize the early warning signs of distress and how to respond.
  - ▶ Regular check-ins with volunteer firefighters for at least 2 years following a major disaster, conducted by professionals or trusted peers with the appropriate training.

# Recommendation 4 - suggestions from the focus groups

## Agencies need to improve how volunteers are:

- ▶ recognised for their expertise
- ▶ recognised & valued for their contribution
- ▶ acknowledged for the mental health toll that comes with volunteering over time
- ▶ provided with ongoing mental health support, and
- ▶ adequately prepared for large scale events



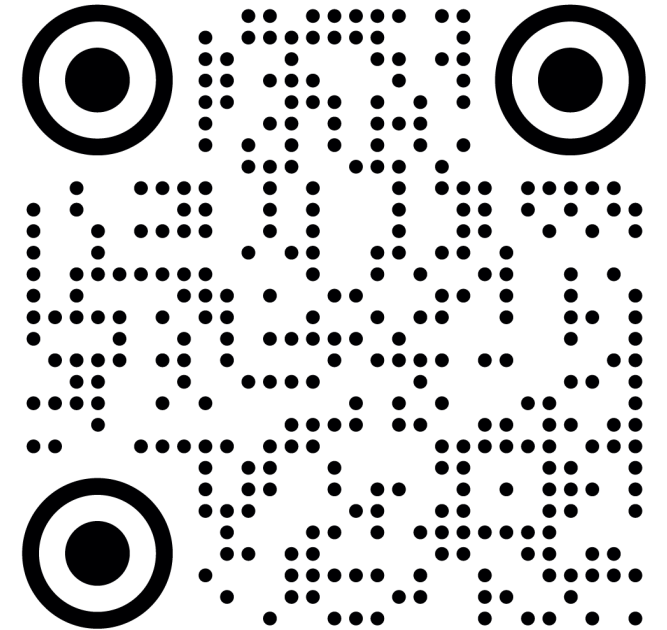
# Summary

- ▶ Over 5,000 volunteers and employees across the sector have high need for mental health support i.e. PTSD, high or very high distress, or suicidal ideation
- ▶ So far only about 1,000 have received sufficient support
- ▶ Challenge: How to scale up mental health supports when major incidents occur



# Access to support

- ▶ National Emergency Worker Support Service
- ▶ Confidential mental health support is available now for emergency service workers and volunteers across Australia.
- ▶ Take a quick online mental health check and receive a report that identifies your symptoms and provides recommendations for support.
- ▶ Book up to 12 sessions with leading, trauma-informed clinicians via telehealth or face-to-face. Free of charge, with no Medicare or GP referral required.
- ▶ Access information and resources to help manage your symptoms.
- ▶ Visit the website [nationalemergencyworkersupport.org.au](https://nationalemergencyworkersupport.org.au)



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# AFTER THE fires

[research.curtin.edu.au/research-areas/healthy-communities/after-the-fires/](https://research.curtin.edu.au/research-areas/healthy-communities/after-the-fires/)

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**Thank you**

Make tomorrow better.

Q&A?

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