Subject: Integrating Disaster Medicine Expertise into National Crisis Response: A Comprehensive Approach

Dear Senator Watt,

I appreciate the opportunity to engage in a discussion about enhancing Australia's disaster management capabilities, particularly in light of the challenges posed by increasing natural disasters and complex crises.

As a disaster specialist, I believe that integrating disaster medicine expertise is a crucial step towards building a comprehensive and effective national crisis response system.

Australia's recent experiences with the black summer bushfires and the COVID-19 pandemic have underscored the need for a robust disaster management approach.

These events have revealed gaps in our current system and highlighted the importance of prevention, mitigation, preparedness, response, and recovery.

While there have been calls for greater involvement of the Australian Defence Force (ADF) in disaster response, as an Army Reservist myself, I feel it's important to strike a balance that ensures the ADF can fulfil its primary responsibilities while addressing emerging threats.

I concur with the concerns raised by opponents of extensive ADF involvement, as diverting the ADF from its core defence duties might compromise its readiness. However, the healthcare sector, including disaster medicine (though there is little in way of formal training here in Australia), presents a unique opportunity to strengthen disaster response without undermining defence preparedness. By leveraging the existing expertise and resources within the healthcare system, we can develop a specialized Disaster Medicine Corps (DMC) that works collaboratively with the ADF, state and territory governments, and other relevant stakeholders.

The DMC could consist of healthcare professionals who either possess disaster medicine knowledge and skills, or are trained up to a basic/ advanced disaster life support level, enabling them to provide immediate and targeted medical support during crises.

This approach aligns with global trends, where healthcare specialists play a critical role in disaster management. These professionals are already trained to operate in challenging environments, making them well-suited to respond effectively to disaster

situations though I note NEMA has little to no medical presence in their current ORG structure.

To address concerns about a military-first mentality and ensure optimal disaster response, the proposed Disaster Medicine Corp of Disaster Reserve Force (DRF) could adopt different entry standards and focus on disaster response as a primary mission. This hybrid approach would attract healthcare professionals who are passionate about contributing their expertise to disaster preparedness, response, and recovery. Such a force could also double as local community leaders during non-operational periods, providing education and guidance on disaster preparedness.

The success of organizations like Team Rubicon and Disaster Relief Australia (I am one of the founding members ofr DRA), which harness veterans' skills for disaster deployments, demonstrates the potential of this approach. The DRF would provide a platform for veterans to utilize their experience in austere environments while fulfilling a crucial societal need.

As we discuss the financial viability of these proposals, it's important to remember that investments in disaster preparedness yield significant cost benefits. The economic losses from recent disasters emphasize the urgency of proactive measures.

In conclusion, integrating Disaster Medicine expertise into Australia's crisis response system through the establishment of a Disaster Medicine Corps/ Disaster Reserve Force presents a balanced and effective solution. This approach capitalizes on the unique skills of healthcare professionals, enhances disaster preparedness, and addresses national security threats without compromising ADF readiness.

I have previously published an academic opinion piece on the establishment of an Australian Disaster Response Workforce:

https://www.sciencedirect.com/science/article/pii/S0735675720309372?via%3Dihub

Thank you for considering these perspectives. I look forward to contributing further to this important discussion and working towards a safer and more resilient Australia.

Sincerely,

A/Prof Derrick Tin

Faculty Disaster Medicine
Beth Israel Deaconess Medical Center

Harvard Medical School

email:

Global Ambassador National Preparedness Leadership Initiative Harvard University

web: https://npli.sph.harvard.edu

Associate Professor Department of Critical Care Medicine University of Melbourne

email:

ARTICLE IN PRESS

American Journal of Emergency Medicine xxx (xxxx) xxx

Contents lists available at ScienceDirect

American Journal of Emergency Medicine

journal homepage: www.elsevier.com/locate/ajem



The Case for an Australian Disaster Reserve Force

The black summer bushfires and the current COVID-19 pandemic have accelerated the establishment of Disaster Medicine (DM) into a mainstream medical subspecialty. The systematic healthcare flaws exposed by these two unprecedented events have reiterated the importance of disaster prevention, mitigation, preparedness, response, and recovery. As a result, there have been calls for changes to Australia's disaster management system and specifically for greater involvement of the Australian Defense Force (ADF) to combat this existential national security threat [1].

Opponents to these suggestions have argued that putting ADF members at the frontline of natural disasters and pandemics diverts their focus away from their primary responsibilities of national defense and training for war [2]. Suggestions to expand the ADF's firefighting capabilities were also met with strong opposition, with many pointing out that Australia's fire services have vast experience and expertise in coordinating across states and territories. [3]. Furthermore, the deployment and training of military-first assets, compared to their civilian equivalent, is an expensive venture [2].

Health however, as another core agency in disaster responses, is unique. Primary healthcare, pre-hospital and emergency medicine, trauma and surgical care, infectious disease, and many other subspecialties, are already deeply embedded within the existing structures of the ADF and other global militaries. The Australian bushfires as well as the COVID-19 pandemic have exposed a number of issues: the lack of involvement of primary healthcare workers in all phases of the disaster cycle, limited access to disaster zones, fragmented coordination and redistribution of the healthcare workforce, as well as a lack of surge coordination, especially within the private sector, which houses 35% of Australia's intensive care beds. [4-6].

While there has been a recent call to establish a national physician network for disaster response, DM is more complicated than simply placing doctors on alert [7]. There are complex logistical challenges that require education, leadership training, setting and maintaining disaster resilience and readiness standards, mobilizing large multi-disciplinary workforces and equipment, and other operational complexities which are firmly the expert domain of militaries around the globe. DM provides the civilian-military interface to mount the optimal response and effect the best outcome in large, complex disasters. DM also provides additional subspecialized capabilities in dealing with the security concerns around intentional, manmade disasters such as terrorism events [8].

An Australian Member of Parliament suggested establishing a Civil Defense Corps that would operate as a national disaster response reserve, following the model of the current Australian Defense Force Reserves [9]. A large medical workforce embedded within such an organization and able to leverage the unique expertise of the military could be a viable solution.

Joining the Australian Reserve Force often necessitates a "soldier-first" mentality which can be at ethical odds with the healthcare profession. However, a civilian-military hybrid Disaster Reserve Force (DRF) which adopts different neutrality and entry standards, as well as a "disaster responder-first attitude" might attract an otherwise sidelined workforce. A surge-capable, on demand healthcare workforce that is trained in disaster response could also serve as local community leaders in disaster preparedness during normal operational periods, and fill an education gap in their local communities. Organizations such as Team Rubicon and Disaster Relief Australia have shown great success in utilizing willing veterans' unique skills in disaster deployments, and a DRF could provide a similar platform for veterans to maintain purpose and share leadership skills with a workforce unfamiliar with austere environments [10].

Much of these discussions and proposals will come down to funding and financial viability, but it's worth remembering that every dollar spent in disaster preparedness returns a multifold cost benefit. With an estimated 100 billion dollars lost in the Australian bushfires of 2019, and a further 170 billion lost as a result of the COVID-19 pandemic in Australia alone, such numbers should put the financial concerns around disaster risk reduction programs into perspective. [11,12].

The National Critical Care and Trauma Response Center in Australia, established after the 2002 Bali bombings, currently provide much of the response needs. The Australian Medical Assistance Team (AUSMAT), for the first time in a domestic setting, deployed eight specialists to provide medical support to people evacuated from bushfire-affected communities in 2020 [13]. In the US and around the globe, disaster medical assistance teams (DMAT) provide similar capabilities in responding to international and domestic disasters [14].

Disasters are not unique to Australia. Climate events are escalating at an unprecedented pace and terrorism remain a threat. Policy-makers need to anticipate and mitigate disaster risks. Militaries around the world possess the logistical skills and equipment needed to respond but must also maintain warfighting readiness as a priority. The creation of a Disaster Reserve Force dedicated to neutrality, and equipped with institutional logistical capability, would provide a valuable resource in disaster prevention, mitigation, preparedness, response, and recovery.

References

- Australia fires: climate change, our greatest threat, is overlooked by defence expenditure [Internet]. [cited 2020 Oct 1]. Available from: https://www.smh.com.au/ national/our-greatest-security-threat-is-climate-change-so-mobilise-the-adf-20200115-p53rm7.html.
- [2] Putting troops on the frontline of pandemics, natural disasters means less time to train for war - ABC News [Internet]. [cited 2020 Oct 1]. Available from: https:// www.abc.net.au/news/2020-08-27/troops-on-pandemic-bushfire-frontline-canttrain-for-war/12593126.

https://doi.org/10.1016/j.ajem.2020.10.041 0735-6757/© 2020 Elsevier Inc. All rights reserved.

ARTICLE IN PRESS

D. Tin, A. Hart and G.R. Ciottone

American Journal of Emergency Medicine xxx (xxxx) xxx

- [3] Fighting fires is not the Australian Defence Force's job | The Strategist [Internet]. [cited 2020 Oct 1]. Available from: https://www.aspistrategist.org.au/fighting-fires-is-not-the-australian-defence-forces-job/.
- [4] RACGP GPs should be central to disaster relief: RACGP [Internet]. [cited 2020 Oct 1]. Available from: https://www1.racgp.org.au/newsgp/professional/gps-should-be-front-and-centre-of-disaster-relief.
- [5] Private hospitals warn they will be forced to close, nurses stood down [Internet]. [cited 2020 Oct 1]. Available from: https://www.smh.com.au/politics/federal/private-hospitals-warn-they-will-be-forced-to-close-nurses-stood-down-2020032 8-p54etz.html.
- [6] Speeding up the process to get doctors to bushfire-affected communities|Health Portfolio Ministers [Internet]. [cited 2020 Oct 1]. Available from: https://www. health.gov.au/ministers/the-hon-greg-hunt-mp/media/speeding-up-the-process-to-get-doctors-to-bushfire-affected-communities.
- [7] National doctor network for disasters will be considered after fires [Internet]. [cited 2020 Oct 1]. Available from: https://www.smh.com.au/politics/federal/national-doctor-network-for-disasters-will-be-considered-after-fires-20200108-p53pu4.html.
- [8] Tin D, Hertelendy AJ, Ciottone GR. What we learned from the 2019–2020 Australian Bushfire disaster: making counter-terrorism medicine a strategic preparedness priority. Am J Emerg Med [Internet]. 2020 Sep;0(0) [cited 2020 Oct 1]. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0735675720308664.
- [9] Labor MP urges war-like national mobilisation to tackle Australia's existential threat of climate crisis|Bushfires|The Guardian [Internet]. Available from: https://www. theguardian.com/australia-news/2020/jan/06/labor-mp-urges-war-like-national-mobilisation-to-tackle-australias-existential-threat-of-climate-crisis; cited 2020 Oct 1.
- [10] Vets who still serve: after disasters, Team Rubicon picks up the pieces [Internet]. [cited 2020 Oct 7]. Available from: https://www.forbes.com/sites/howardhusock/2015/0 9/10/vets-who-still-serve-after-disasters-team-rubicon-picks-up-the-pieces/#7c2e91 af3869
- [11] With costs approaching \$100 billion, the fires are Australia's costliest natural disaster [Internet]. [cited 2020 Oct 1]. Available from: https://theconversation.com/with-costs-approaching-100-billion-the-fires-are-australias-costliest-natural-disaster-129433.
- [12] Coronavirus Australia: COVID-19 to cost country \$170 billion, women to bear the brunt [Internet]. [cited 2020 Oct 1]. Available from: https://www.smh.com.au/ politics/federal/covid-19-to-cost-australia-170-billion-and-women-will-bear-thebrunt-20200625-p5561f.html.
- [13] Medical support from AUSMAT for bushfire evacuees|Health Portfolio Ministers [Internet]. [cited 2020 Oct 8]. Available from: https://www.health.gov.au/ministers/

- the-hon-greg-hunt-mp/media/medical-support-from-ausmat-for-bush fire-evacuees.
- [14] Arziman I. Field organization and disaster medical assistance teams [Internet]. Vol. 15, Turk J Emerg Med. Wolters Kluwer – Medknow Publications; 2015 [cited 2020 Oct 8]. p. 11–9. Available from: /pmc/articles/PMC4910129/?report=abstract

Derrick Tin MBBS, GradDipDisMedSenior Fellow Disaster Medicine aFellowship in Disaster Medicine, Department of Emergency Medicine, Beth Israel Deaconess Medical Centre, Boston, MA, USA

bDepartment of Emergency Medicine, Harvard Medical School, Boston,
MA, USA

MA, USA

*Corresponding author at: Department of Emergency Medicine, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA LISA

E-mail address: derrick@tacmedaustralia.com.au

Alexander Hart MD

aFellowship in Disaster Medicine, Department of Emergency Medicine, Beth Israel Deaconess Medical Centre, Boston, MA, USA bDepartment of Emergency Medicine, Harvard Medical School, Boston, MA, USA

Gregory R. Ciottone MD, FACEP, FFSEM

aFellowship in Disaster Medicine, Department of Emergency Medicine, Beth Israel Deaconess Medical Centre, Boston, MA, USA

bDepartment of Emergency Medicine, Harvard Medical School, Boston, MA, USA

> 14 October 2020 Available online xxxx