Introduction

A natural disaster disrupts cities and communities and has been considered a social determinant of health due to the lasting impacts.[1-3] Australia, due to its unique geography, is at risk of disasters that are caused by the changing climate seen recently such as fires, cyclones, droughts, floods and heatwaves with greater scale, frequency and impact.[3, 4] The changes are not uniform across the country. As seen recently, rural areas are primarily affected by these changes.[4] Rural disasters are characterised by isolation, delay in aid, long term damage, shortage of health care and a more vulnerable population.[5] Rural Australia has a vast area of land populated by a small population (28% of the overall population). This unique features increases the consequences of potential disasters on these regions.[6] Effective adaptation is required and public policy has shifted to prioritise the ability of local communities to respond adequately to disasters.[7] This is increasing the emphasis the role of rural General Practitioners (GPs) within the disaster management process. This essay will consider the role of the rural GPs in disaster and the limiting factors of that role in the current framework. This will lead to possible improvements that can be made for the future.

Role of the GP in a disaster

The role of the GP in a disaster can be defined across three main phases, prevention and preparedness phase, response phase and recovery phase.[2] The main focus of disaster management is often on the response phase. However, the importance of GPs in prevention and preparedness phase and recovery phase and the importance of such phases to the health outcomes of the patients is understated.[2] It is crucial that disasters are addressed as best as possible for the survival of the rural communities of Australia.

The prevention phase is the delivery of appropriate primary care for patients. This ensures they have well managed conditions with recorded history and the appropriate equipment and preparation in the event of a disaster.[2]

The role of rural GPs in the response phase, though not often mentioned in reports on disaster, is that of first responders in a disaster.[2] They are often the main source of healthcare in a rural area, particularly due to the distance and unavailability of higher levels of care.[8, 9] Despite the GPs themselves being affected by the disaster, most respond in several ways such as extending consulting hours and lengths and engaging in outreach activities for their known patients at risk.[2, 10]

The recovery phase is where the role of GPs in a disaster is crucial. They are the only disaster responders who are part of the community and remain in the community after the disaster. They are responsible for the physical and psychosocial wellbeing of their community.[2] The impacts of a disaster will be seen for extensive periods of time and access to adequate primary health care has been shown to improve health outcomes. [3, 10]

Disaster presentations and primary care

Disasters are increasingly associated with issues that are dealt with by primary health care as seen increasingly in the reports of several disasters. Most survivors of the Japan Tsunami from rural areas were elderly and had ongoing chronic conditions. Furthermore, the patients presenting new complaints were mostly infective such as influenza, gastrointestinal and pneumonia which can be attributed to the living conditions in temporary shelter.[11] All these are usually managed by GPs within the community. The

hurricane that ravaged Puerto Rico was only directly responsible for 64 deaths. However, nearly 5,000 deaths in the following months have been associated with the cyclone.[4]

GPs can manage these acute exacerbations of chronic conditions. This would free the specialist response team. The triage and treatment can be effectively undertaken at GP practices to avoid overwhelming hospitals.[12] Recovery phase also sees a significant increase in mental health issues. After Ash Wednesday bushfires, 40 per cent of those affected showed levels of impairment equivalent to psychiatric cases. Furthermore, a 300 per cent increase in mental illness and a 200 per cent increase in psychosomatic disorders were observed.[1] More severe presentations will also follow disasters such as Post-Traumatic Stress Disorder (PTSD), survivor syndromes and bereavement syndromes.[1]

Issues with GP integration in disaster planning

As demonstrated, medical presentations as a consequence of disasters are often related to primary health care needs.[2] This has often not been addressed in disaster management policies, resulting in a lack of involvement of GPs. Primary care can play a much greater role in the recovery of their communities as shown by the the involvement of GPs in response to the Victorian 2009 bushfires.[13] In rural communities they are often the frontline health workers, not only for primary care but also inpatient services for rural hospitals as well as emergencies.[2, 14] In addition to providing care, they can fill a greater advocacy role by breaking down barriers to accessibility and brokering and building further capacity for care. It is essential to further involve primary care in the disaster planning and management, particularly in anticipation of future climate-related disasters.[13]

In rural and remote communities of Australia that do not have access to other levels of care, the GP is central to all aspects of a disaster unfolding.[9] The role of the GP in a disaster is poorly defined and can be attributed to the lack of integration within the disaster system as well as a lack of communication to emergency services.[12, 15] The difficulty in communication is partly due to the several bodies and layers of government involved in disaster management in Australia. This is also due to the non-existence of a formal communication process between GPs and emergency services. This proved successful in the US during Katrina.[12] A whole of system integrated approach is crucial to have a resilient health system to face future challenges. This must include the GP population of Australia which represents 32,000 medically trained professionals.[2, 4] Of that population more than 6,000 are rural GPs that are routinely called to assist in retrieval, transport and stabilisation and nearly 1,000 GPs have extensive procedural skills that allow them to work in hospitals.[9, 16]

Improvements needed for the future

A major improvement needed is the integration of GPs within the emergency response process. There is currently no database in any local jurisdiction of primary health networks of GPs willing to assist in such situations. There are GPs who hold a Major Incident Medical Management (MIMM) qualification and those that are part of the Australian Medical Assistance Teams (AUSMAT). However these are done on a volunteer basis and represents a minority of practitioners.[12] It has been advocated that a national rural responder network should be formally established similarly to the United Kingdom and New Zealand, despite these two countries not having an established procedural rural workforce such as Australia and much shorter distances between major centres.[9] This would prove essential in a time of disaster to add to the capacity of government response.[9] This would also facilitate trauma situations that are very

common in rural Australia, with 65% of motor vehicle accidents occurring in rural Australia and the presence of significant other hazards.[16]

Improvements have occurred at local levels following a disaster. The Nepean-Blue Mountains Local Health District formally linked GPs to their disaster planning following the 2013 NSW Bushfires.[8, 10] This demonstrates that this disaster sparked improvements in the planning and integration of all health services for that local health district. This example should be followed by broader state and federal planning without the need for further disasters to incite change. Individual GP practices are also encouraged to prepare for response and recovery via different initiatives such as through the colleges and professional bodies. However, the level of implementation will inherently differ between practices.[12, 17]

Conclusion

Disasters in Australia are becoming increasingly common and affecting rural Australia disproportionately. The main effects of disasters are an increase in the need for primary health care. GPs are the major providers of healthcare in rural Australia and as a result will be involved in all aspects of disasters, prevention and preparedness, response and recovery. Therefore, it is crucial that GPs across Australia are integrated within the disaster management system and the greater health network. This will facilitate response and the resilience of rural communities to disasters.

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