

Disaster planning in general practice

Rowena Ivers, Catherine Pendrey,
Penelope Burns, Duncan McKinnon,
Charlotte Hespe, Declan Mulvaney

Background

Climate change means that disasters such as bushfires, heatwaves, storms and floods are becoming more frequent and severe, and thus having greater impact on general practices and communities.

Objective

To provide a concise introduction to disaster planning for those who are new to Australian general practice or to general practice ownership.

Discussion

The Standards for General Practice, published by The Royal Australian College of General Practitioners (RACGP), provide guidance on business continuity, including during disasters. As part of practice accreditation, practices are required to prepare a disaster plan, which should be based on local research regarding likelihood of hazard or disaster scenarios, and contain information on disaster coordination and communication and an emergency contact list. Planning should also involve preparation of an emergency kit, provisions for different hazards, practising the disaster plan and clear communications to trigger the disaster response. Plans should be rapidly implemented during disasters and reviewed following disaster events.

CLIMATE CHANGE means that climate-related hazards such as bushfires, heatwaves, storms and floods are becoming more frequent and more severe. These events are having more substantial impacts upon general practices and the communities they serve. Less common hazards, including earthquakes and tsunamis, also have the potential to disrupt general practice service provision and the health of local populations.

Aim

To prepare general practices for responding to disasters, including bushfires, heatwaves, storms and floods.

Climate change and natural disasters

Climate change is driving greater frequency and intensity of disasters such as bushfires, heatwaves, floods and storms.¹ During recent years, Australian communities have experienced a series of events previously considered unprecedented in their scale. The Black Saturday bushfires, Black Summer bushfires and Lismore floods are examples of what has become a steady succession of disaster events.

Other disaster hazards include landslides, which can be triggered by storms, and earthquakes. Earthquakes can, in turn, trigger

tsunamis that are exacerbated by sea-level rise related to climate change. Although response to pandemics forms part of disaster planning, it is not discussed here, due to the significant variation in response strategies and consequent need for a separate plan.²

These events have direct impacts on the health of individuals and communities. These events also disrupt the ability of local health services to respond to these increased health demands. Health infrastructure and workforce can be impacted by disaster events, including in general practice. General practices provide care that is patient-centred, continuous, comprehensive, coordinated, of high quality and accessible.³ General practitioners (GPs) work in primary care settings across all of Australia, in communities that might be affected by a range of disasters. General practice care is especially important during disasters, both in collaborating with local coordinated disaster and Primary Health Network (PHN) responses, and in managing disaster health impacts in general practice settings. For GPs working in regional, rural and remote areas, health services and infrastructure are often more limited and delays might occur before specialised emergency response services arrive. Bushfires, floods and storms might result in the isolation of entire communities for potentially prolonged periods, until infrastructure and access are restored.



General practice clinics might be directly damaged by disaster events. Where clinics are not directly impacted, operations might be disrupted by interruptions to power supply, communications systems, fresh water supply, sewerage systems or the provision of supplies including food and medications. Disasters can thus impact general practice business continuity

and the ability to provide healthcare. The community might have an increased need for care as a result of the disaster; for example, inhalation of smoke or exacerbations of chronic airways disease (bushfires), exacerbation of cardiac failure (heatwaves), traumatic injuries from debris (cyclones) or skin infections (floods), as well as the psychological impacts of

disasters both acutely and in the longer-term. Although disasters might sometimes contribute to morbidity from communicable disease (such as increased Japanese encephalitis transmission following a flood event), disasters predominantly impact non-communicable diseases, which constitute the majority of the disaster-related health burden.⁴

Table 1. Stages of disaster planning for general practice

Stage

1. Pre-planning

1.1 Appoint an emergency management coordinator/committee	<ul style="list-style-type: none"> • Staff member with knowledge of emergency systems • Develop practice emergency response plan • Communicate with practice team members • Train and support practice team • Oversee annual emergency response drill • Communicate with a PHN and local emergency services
1.2 Undertake local research	<ul style="list-style-type: none"> • Emergency coordinator to research and document previous disaster events in the region, previous flood levels, flood warning systems, bushfire risks, bushfire warning systems, cyclone warning systems • Consider vulnerable local communities/patients (RACF residents, pregnant women, people with addictions, older people) • Consider local services (ambulance, pharmacist, community nursing)
1.3 Practice layout	Consider and document location of: evacuation/assembly points, fire extinguishers, shut-off valves for water and gas, heating/air conditioning equipment, electrical master switch, hazardous material, the emergency kit, first aid equipment, water taps and hoses, security and fire alarm systems, underground or overhead power lines
1.4 Practice equipment and supplies	<ul style="list-style-type: none"> • Create hard copy and electronic log of practice equipment • Create log of practice supplies (including pharmaceuticals and immunisations) in case they need to be replaced

2. Design and develop your plan

2.1 Compile key contact information	<ul style="list-style-type: none"> • Compile a hard copy and an electronic copy of team member contact details, circulate them to the team, encourage storage of key phone numbers in mobile phones • Establish an emergency communication tree (triggered by the emergency coordinator) • Compile a list of other contacts, including PHN, hospital contact details, telephone/information technology supplier details • Insurance policies should be stored as hard copy and electronic copy in a secure location that is offsite
2.2 Maintaining communication channels	<ul style="list-style-type: none"> • Register for the emergency coordinator to receive notification of potential/imminent disasters • Ensure that mobile phones are charged in case of telecommunications outages, and charged power packs are available • Check National Broadband Network (NBN) functionality during blackouts, consider back-up internet options (mobile or satellite data) • Keep hard copies of essential information (patient contact details, appointments, Medical Benefit Schedule fee summary) • Ensure a radio and batteries are in the emergency kit

Table continued on the next page

Table 1. Stages of disaster planning for general practice (cont'd)

Stage	
2.3 Planning for business continuity	<ul style="list-style-type: none"> • Consider other potential clinic premises if infrastructure is damaged (eg community halls, schools, shops) • Seek a Medicare provider number for the new location • Ensure indemnity protects the new location • Consider staffing (reduced capacity is likely) • Document the process for interruption of power supply to vaccine fridges (arrange to relocate supplies to a local pharmacy or hospital using insulated polystyrene containers or use a back-up battery) • Computers and equipment: document the process for relocating all to a safe zone, reviewing function after the disaster event and the process for reloading software (securely store passwords and logins) • Practice information should be backed-up daily and stored off-site (including emails, documents, clinical and practice software). A hardcopy list of all patients should be kept • Regular recovery checks should also be performed, as well as a test plan to verify data integrity (eg searching for patient X to confirm their history and demographics are correct)
2.4 Planning for loss of utilities	<ul style="list-style-type: none"> • Power might be disrupted. Uninterrupted power supply (UPS) can provide back-up in the short term • Diesel generators or solar panels and batteries can provide longer-term supply • Ensure there is battery powered lighting for exit signs, torches • Disruption to water supply: turn off the water main and ensure there is a supply of bottled drinking water
2.5 Insurance	Ensure adequate building, contents and business insurance
2.6 Infrastructure and contents protection	<ul style="list-style-type: none"> • Bushfires: remove rubbish, leaves, ensure there are no flammable building materials, clean gutters, remove branches, ensure there is a firebreak, install sprinklers • Cyclones: remove debris, fit windows with shutters or screens, tape windows • Floods: ensure equipment is not on the floor, secure objects, sandbag the clinic • Earthquake: remove heavy objects from shelves, secure equipment
3. Practise and review your plan	
3.1 Provide staff education and training	Discuss and review the disaster plan at clinic meetings
3.2 Test your plan	Test the plan annually
3.3 Review your plan	Review, monitor and update your plan
4. Activate your plan	
4.1 Assess the situation and seek advice	<ul style="list-style-type: none"> • The emergency coordinator activates the plan • Review state or territory emergency department sites, review information on emergency news bulletins • Attend community information briefings
4.2 Respond and act	<ul style="list-style-type: none"> • Consider the need for evacuation • Divert practice phone lines to the emergency back-up telephone • Communicate with patients via social media, practice website, local media
4.3 Entering the practice after an emergency	The emergency coordinator and practice team might need to coordinate with a building engineer or emergency services to establish it is safe to enter the building

Adapted from The Royal Australian College of General Practitioners (RACGP). Managing emergencies in general practice: A guide for preparation, response and recovery. RACGP, 2017. Available at www.racgp.org.au/running-a-practice/practice-management/managing-emergencies-and-pandemics/managing-emergencies-in-general-practice, with permission from the RACGP.⁷

PHN, Public Health Network; RACF, residential aged care facility.

For general practices, ensuring they have an up-to-date emergency or disaster plan is essential to mitigate disaster impacts, maintain business continuity and the provision of critical health services during disasters, and to ensure business sustainability in the long term.

The Royal Australian College of General Practitioners (RACGP) has developed the Standards for General Practices (fifth edition)⁵ to improve the quality and safety of health services. These include standards that apply to ensuring that practices provide continuity of care and comprehensive care. The RACGP Standards include standards that relate to practice preparedness for disasters. This includes maintaining a communication policy to 'manage and triage incoming communication during a crisis, emergency or disaster' and deliver to patients 'open, timely and appropriate communication about their healthcare during a crisis, emergency or disaster' (Standard Section C1.2A) and 'maintaining a business continuity and information recovery plan, including operating a server back-up log that

stores back-ups offsite in a secure location' (Standard Section C6.4D).

The RACGP Summer Toolkit⁶ and the Managing Emergencies in General Practice RACGP guide⁷ provide a comprehensive guide to preparation for all-hazard disasters, including climate-related disasters.

Table 1 provides information on the stages in developing and implementing a practice disaster plan.

As part of disaster planning, a practice should create a practice emergency kit (refer to Table 2), for which most items are low cost.

The RACGP joined with Healthpoint ANZ in 2014 to develop the Emergency Response Planning Tool (www.racgp.org.au/running-a-practice/practice-management/managing-emergencies-and-pandemics) (ERPT). This is a subscription cloud-based tool that assists general practices to develop a localised emergency response plan.

General practice can disseminate information about disaster preparedness to their community through practice newsletters, social media or local media channels (refer to the case study in Box 1).⁸

They can also reduce the risk of disaster impacts on patients by adopting a person-centred approach to disaster preparedness. This includes having verbal conversations about disaster readiness tailored to each patient's social and medical situation.⁹ Documenting such plans in a chronic disease management plan can assist patients in responding to disasters. Special attention might be required for high-risk patients, such as frail older people, infants or children, those with mental health conditions, those requiring specialised health services/resources (eg dialysis) and those with intellectual disabilities.¹⁰ The Red Cross provides an online tool that consumers can use to prepare their own emergency plan ('Protect what matters most' - www.redcross.org.au/emergencies/resources).

GPs are able to play a role at the local, state and national levels of disaster management to enhance disaster planning and preparedness. Systematic, sustained integration of GPs into disaster management systems is both feasible and valuable.¹¹ For example, PHNs or Local Health Districts host disaster planning committees that might have GP members. HealthPathways provides localised pathways for responding to different types of disasters.

Planning for disaster prevention and response should involve a coordinated cross-sectoral response (health, environment, town planning, housing). This is especially important to prepare for more frequent and extreme disasters. Disaster planning should involve stakeholders including culturally and linguistically diverse community members, Aboriginal and Torres Strait Islander community members, individuals living in rural and remote locations, the aged and socioeconomically

Box 1. Case study: Black Summer fires, Bega Valley

A general practice in Bega, New South Wales, having dealt with previous bushfires, had established a practice WhatsApp group and Disaster Plan. During the bushfires of February 2020, the practice activated their plan. The practice first confirmed the safety of staff. The team then was able to support the designated Evacuation Centre, which was crowded with 3000 evacuees, many without medications, with injuries and/or exacerbations of chronic disease. General practitioners and nurses provided advice and treatment to those not requiring an emergency department review, as well as providing a drop-in service at the practice. The practice created a new WhatsApp group to include other local medical practices, local pharmacies, the Bowling Club bus service and the St Johns Ambulance team at the evacuation centre.

The practice now has installed a solar storage battery and generator, and a 6000 L water tank and pump. The practice is considering a National Broadband Network connection for the practice manager to allow the server to be relocated to enable telehealth and remote access to practice medical records for clinicians should the premises become inoperable.

Table 2. Components of a practice emergency kit

Disinfectant and hand sanitiser	Bottles of clean water	Mobile phone and charger	Office stationery, prescription pads, manual Medicare slips
Detergent	Non-perishable food	Fire extinguisher and fire blanket	Emergency contact list
First aid kits	Battery powered radio and batteries	Doctor's bag	Gloves, boots
Garbage bags	Torch and batteries	Medications	Consider solar panels and battery for general power

disadvantaged community members.¹²

In September 2022, the Commonwealth Government created the National Emergency Management Agency (NEMA) to respond to emergencies, assist communities in recovery and to prepare for future disasters.

During disasters, GPs are likely to find themselves collaborating with local emergency and health services and should store these contact details in their emergency contact list (Table 3).

Conclusion

With increasing frequency and severity of extreme weather events,¹ there is an urgent need for GPs to plan for disasters, both for business continuity and for the health of the community. GPs can also play a role in broader advocacy for interventions to prevent and ameliorate climate change. This includes taking action in a personal capacity, professional capacity and by advocating for whole-of-society change to reduce greenhouse gas emissions in energy, food and transport systems. This is especially important from a health promotion perspective, as many initiatives to reduce fossil fuel use also have direct health benefits (eg reduction in air pollution). The RACGP has a range of resources to guide GPs.¹³

Key points

- Climate change is causing more frequent and more intense extreme weather events.
- General practices should prepare a practice disaster plan and practise it.
- A disaster coordinator or committee should be appointed to develop a localised plan.
- Practices should stock a disaster kit.
- Practices should coordinate with emergency agencies and PHNs before disasters.

Authors

Rowena Ivers MBBS, FRACGP, MPH, PhD, FAICD, Professor, Graduate School of Medicine, University of Wollongong, Wollongong, NSW

Catherine Pendrey MBBS (Hons), BMedSci (Hons), DCH, GDipEcon, FRACGP-RG, MPhil (AppEpi), Chair, RACGP Climate and Environmental Medicine Specific Interest Group, Melbourne, Vic

Penelope Burns BMed, MPHTM, PhD, Co-Chair, World Association Disaster and Emergency Medicine Primary Care Special Interest Group; Associate Professor, Academic Department of General Practice, The Australian National University, Canberra, ACT; Deputy Chair, RACGP Disaster Management Specific Interest Group; General Practitioner, Sydney, NSW

Duncan McKinnon MBBS, DA, MRCGP, FRACGP, FACRRM, Senior Lecturer, Rural Clinical School, ANU School of Medicine and Psychology, Bega campus, Bega, NSW; General Practitioner, Bega Valley Medical Practice, Bega, NSW

Charlotte Hespe AM, PhD, MBBS (Hons), DCH (Lon), FRACGP, FAICD, GCUT (UNDA), Head, General Practice and Primary Care Research, School of Medicine, The University of Notre Dame Australia, Sydney, NSW

Declan Mulvaney MBBCh, BAO, MRCGP, FRACGP, Honorary Senior Lecturer, Graduate School of Medicine, University of Wollongong, Wollongong, NSW; General Practitioner, Milton Medical Centre, Milton, NSW

Competing interests: RI is on the *AJGP* Editorial Advisory Committee.

Funding: None.

Provenance and peer review: Commissioned, externally peer reviewed.

Correspondence to:

Rowenalvers@bigpond.com

Acknowledgements

The authors acknowledge the RACGP Climate and Environmental Medicine Special Interest Group for oversight of the articles within this issue.

References

1. Commonwealth Scientific and Industrial Research Organisation (CSIRO). Climate projections for Australia. CSIRO, 2022. Available at www.csiro.au/en/research/environmental-impacts/climate-change/state-of-the-climate [Accessed 20 September 2024].
2. The Royal Australian College of General Practitioners (RACGP). Managing pandemic influenza in general practice. RACGP, 2024. Available at www.racgp.org.au/running-a-practice/practice-management/managing-emergencies-and-pandemics/managing-pandemics-in-general-practice [Accessed 20 September 2024].
3. The Royal Australian College of General Practitioners (RACGP). Vision for general practice and a sustainable healthcare system. RACGP, 2019. Available at www.racgp.org.au/getattachment/e8ad4284-34d3-48ca-825e-45d58b2d49da/The-Vision-for-general-practice.aspx [Accessed 20 September 2024].
4. Ryan B, Franklin RC, Burkle FM Jr, et al. Identifying and describing the impact of cyclone, storm and

Table 3. Emergency contact details

Source	Phone number	Website
Life-threatening emergency	000	
State Emergency Services (SES)	132 500	State/territory SES websites (eg www.ses.nsw.gov.au)
Summary of weather warnings issued in each state		www.bom.gov.au/australia/warnings
Fire location		www.rfs.nsw.gov.au/fire-information/fires-near-me or equivalent state service
Local Public Health Unit	1300 066 055	www.health.nsw.gov.au
Emergency bulletins		www.abc.net.au
Telecommunications updates		www.nbnco.com.au/learn/what-happens-in-a-power-blackout
Local utility services including electricity, gas and water		
Disruptions in power supply to immunisation cold chain		https://immunisationhandbook.health.gov.au or state public health units

- flood related disasters on treatment management, care and exacerbations of non-communicable diseases and the implications for public health. *PLoS Curr* 2015;7:7. doi: 10.1371/currents.dis.62e9286d152de04799644dcca47d9288.
5. The Royal Australian College of General Practitioners (RACGP). Standards for general practices (5th edn): A benchmark for quality care and risk management in Australian general practices. RACGP, 2023. Available at www.racgp.org.au/getattachment/ece472a7-9a15-4441-b8e5-be892d4ffd77/Standards-for-general-practices-5th-edition.aspx [Accessed 20 September 2024].
 6. The Royal Australian College of General Practitioners (RACGP). Response planning tool. RACGP, 2024. Available at www.racgp.org.au/running-a-practice/practice-management/managing-emergencies-and-pandemics/emergency-response-planning-tool [Accessed 20 September 2024].
 7. The Royal Australian College of General Practitioners (RACGP). Managing emergencies in general practice: A guide for preparation, response and recovery. RACGP, 2017. Available at www.racgp.org.au/running-a-practice/practice-management/managing-emergencies-and-pandemics/managing-emergencies-in-general-practice [Accessed 20 September 2024].
 8. Eckert S, Sopory P, Day A, et al. Health-related disaster communication and social media: Mixed-method systematic review. *Health Commun* 2018;33(12):1389–400. doi: 10.1080/10410236.2017.1351278.
 9. Khorram-Manesh A, Gray L, Goniewicz K, et al. Care in emergencies and disasters: Can it be person-centered? *Patient Educ Couns* 2024;118:108046. doi: 10.1016/j.pec.2023.108046.
 10. Anikeeva O, Cornell V, Steenkamp M, Arbon P. Opportunities for general practitioners to enhance disaster preparedness among vulnerable patients. *Aust J Prim Health* 2016;22(4):283–87. doi: 10.1071/PY15156/.
 11. Burns PL, FitzGerald GJ, Hu WC, Aitken P, Douglas KA. General practitioners' roles in disaster health management: Perspectives of disaster managers. *Prehosp Disaster Med* 2022;37(1):124–31. doi: 10.1017/S1049023X21001230.
 12. Vardoulakis S, Matthews V, Bailie RS, et al. Building resilience to Australian flood disasters in the face of climate change. *Med J Aust* 2022;217(7):342–45. doi: 10.5694/mja2.51595.
 13. The Royal Australian College of General Practitioners (RACGP). Climate change and health. RACGP, 2024. Available at www.racgp.org.au/advocacy/advocacy-resources/climate-change-and-health [Accessed 20 September 2024].