

## Protecting the people of regional, rural and remote Australia in the next phase of the COVID-19 pandemic

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### Introduction

Australia is a global leader in the delivery of advanced, complex healthcare services to non-metropolitan populations, but supply and demand are closely balanced in a delicate network which spans vast distances. The unique vulnerabilities of regional, rural and remote populations and the difficulty of servicing a sudden spike in healthcare demand mean that significant efforts must be made to keep COVID-19 out of such areas and exhaustive preparations need to be undertaken against the eventuality that such measures fail and an outbreak occurs. As Australians prepare to live in communities with fewer restrictions increasing travel – but potentially higher circulation of COVID-19 – the strain on rural and remote health systems from outbreaks of COVID-19 must be considered.

Some of the remotest communities in Australia have the highest rates of illness / comorbidity and the [shortest lifespans](#) in the country. This puts them at higher risk of [severe outcomes](#) for COVID-19.

Almost 30 percent of all Australians reside in areas classified as [rural](#), regional or remote (hereafter referred to as “regional Australia”). The vast distances in regional Australia means many health services do not have neighbouring services 'just down the road' where they can direct patients. Health services in regional Australia rely on being able to send complex patients to metropolitan health services. This relies on limited specialised patient transport systems.

Increased movement of people between major cities and regional Australia after relaxation of public health measures, particularly when vaccination rates are lower in many non-metropolitan populations, poses a considerable risk of overwhelming rural and regional health services.

The current vaccines substantially reduce the risk of death and serious complications of COVID but these effects wane after about six months. Additionally, vaccination levels vary across regional Australia and are generally lower than in metropolitan areas. Underserved populations in rural, regional and remote areas – including Aboriginal and Torres Strait Islander peoples and their communities, the elderly, socially disadvantaged, and remote populations – have not had the same access to vaccinations through primary care, mobile services or regional vaccination hubs. The size and location of these healthcare delivery networks means that once the virus does start to circulate, even small numbers of cases will place these services under extreme pressure.

Risks for rural, regional and remote health include:

- Significant outbreaks in rural, regional and remote communities in the setting of reduced testing capacity, primary care and hospital services, lack of appropriate safe air ventilation, fitted N95 masks and other controls.
- Threat to the provision of air ambulance, Careflight, Royal Flying Doctor and other medical evacuation services.
- Impacts from sick leave of pilots, medical, nursing, administrative and engineering staff, and other ground support including pickup crew, refuelling provision and maintenance.
- Capability to deliver services decreases as increased time and resources required for transport of patients with suspected or confirmed Covid-19 infection.
- Collapse of community medical services due to service overload and exposed healthcare workers becoming sick or quarantining as close contacts.
- A collateral impact on non-COVID-19 medical services such as maternity services, paediatric services, cancer services, screening programs, cardiovascular services and trauma and emergency care.
- Border towns where the closest hospital is interstate may have less access to care for COVID and non-COVID care, if border restrictions are in place
- During holiday periods, non-metropolitan populations swell to large numbers due to out-of-town holiday makers thus placing additional demand on health services.

In this document the word Aboriginal refers to Aboriginal and Torres Strait Islander populations. We respectfully recognise the diversity of identities, cultures, perspectives and experiences of the First Peoples of Australia

**What constitutes “rural and remote”?**

Various definitions exist for what constitutes rural and remote areas of Australia, but, for the purposes of this advisory document, “rural and remote” is taken to mean areas served by facilities where the immediate care needs are provided by a rural or remote health service which has one doctor on emergency duty at a time, a nurse-only inpatient facility or clinic, or a regional hospital. These services function as a first referral centre for very large areas and can be overwhelmed in the event of a sudden increase in patient load. Many of these same facilities routinely look after admitted patients over nights and days, although their official names may include terms, such as “health campus” or “multi-purpose service”.

Rural and remote Australia is uniquely vulnerable due to the vast distances between regional towns and rural and remote communities. Additionally, Aboriginal communities in these areas also have a younger age profile, with more children under the age of 12 (who are ineligible for vaccination) and therefore at risk for transmission. If a regional hospital is overwhelmed, there will be fewer acute care options for areas serviced. An added complication is that some regional areas are near state borders with the closest hospital in another jurisdiction. Many of these same areas are preferred destinations for holidaying visitors, which adds significantly the locale burden.

The recommendations in this document are divided into two sections:

## **Prevention of infection and serious illness; and management of COVID-19 outbreaks.**

### **Prevention of infection and serious illness**

#### **Vaccination**

Achieving high rates of vaccination is critical. Current vaccines are extremely effective at preventing serious illness and death, though variable at preventing infection and transmission (depending on vaccines used). The highest levels of vaccination are therefore essential to safeguard individuals against COVID-19, yet many remote communities, and especially Indigenous communities, have [very low levels of vaccination](#). Vaccination is one among a series of necessary mitigation measures to prevent infection, illness and hospitalisation ([VaccinesPLUS strategy](#)). The efficacy of vaccines [waned](#) over time for [several vaccines](#). Vaccination alone will be insufficient to prevent ongoing transmission, infection and illness, so safe indoor air, masks and other public health measures are also required.

Anecdotally in some sizable Aboriginal communities in the Kimberley region of Western Australia the vaccination rate is as low as 1.5% while in others it can be as high as 85%. Some of these discrepancies may be due to some communities remaining under the influence of significant [anti-vaccination campaigns](#) and misinformation. Some messaging has been seen to leverage long-

standing fears about government intervention and coercion, feeding into fears about further limits on freedom and self-determination for Aboriginal people and the community services that support them.

**Recommendations:**

- Ensure all achieve high levels of vaccine protection (more than 90% of 12 years and older population fully vaccinated) before travel of city people to regions is allowed. A similar policy is being used by Tasmania and New Zealand and has been called for by the National Aboriginal Community Controlled Health Organisation, the Aboriginal Medical Services of the Northern Territory and the Central Australian Aboriginal Congress.
- Restrict movement of city populations to regional and remote areas until very high levels of vaccination (90% 12 years and up for each LGA fully vaccinated), higher than city targets, as their health systems have less equipment and staff to cope with outbreaks. Regions should open up LGA by LGA when vaccination targets are met. The same call has been made by [Rural Doctors Association of Australia](#) in their media release “80 percent roadmap is 80 percent OK”.
- Offer repeated opportunities for vaccination, aiming for vaccination rates above 90% of those eligible, using a community-driven approach and community champions. We refer to the [OzSAGE advice on community partnerships](#).
- Prioritise and fund work in partnership with local and Indigenous groups to identify local sources of vaccine disinformation and agree on and implement targeted, localised strategies to counter it.
- Use narratives and stories to counter disinformation, because [“Great stories by anti-vaxxers may undermine strong facts”](#). The National Aboriginal Controlled Health Organisation has published [resources](#) that can be utilised.
- Set up local vaccination events similar to the successful New Zealand model [“Super Saturday Vaxathon”](#) which included a cultural program, food, giveaways and activities for the entire community, and ensure the support and presence of local leaders / role models (who should be reimbursed / paid to attend). Tie “Vaxathon” events in with appropriate, well supported local events where possible.
- Where vaccination rates persistently lag, consider door-to-door vaccination drives led by trained local community champions, health care workers, Aboriginal liaison workers, and other relevant professionals to reach unvaccinated people.
- Prioritise the approval of vaccines for the 5-11 year age group and the implementation of a vaccination program in this age group in rural and remote areas. This may need additional funding for extra nursing and administrative support.
- Prioritise the offering of the third dose for eligible people at the earliest appropriate interval in rural and remote areas. This may need additional funding for extra nursing and administrative support.

### **Recognise the role of airborne transmission**

1. Prioritise improved ventilation in regional public facilities, in accordance with the OzSAGE [advice on ventilation](#).
2. Create and install clear culturally appropriate public health signage to include information about airborne transmission and ventilation.
3. Much of the infrastructure in regional areas is legacy infrastructure, and where ventilation improvements are not feasible, then portable HEPA filtration units must be made available to reduce infectious risk.
4. Implement educational programs and materials to help people understand COVID-19 mitigation measures. Produce linguistically and culturally appropriate materials through community partnerships. Consider the use of community-driven storytellers, puppet shows or other means of telling stories.
5. Refer to OzSAGE [advice on keeping schools safe](#). Consider implementing community driven programs in schools driven by teachers, parents and children. [Examples of school children peer-led health promotion](#) can be used as models for peer sharing of knowledge and monitoring of mitigation measures within schools (e.g., windows open, masks-on, HEPA filter in place, etc.).
6. Ensure uniform access to airborne personal protective equipment and adequate stockpiles for regional and remote healthcare facilities to prevent isolated healthcare facilities being placed out of commission by illness and quarantine of staff.
7. Normalise the role of community masking in preventing transmission in outbreak areas through publicity programs. Ensure that high quality, effective masks available to regional and remote communities. Refer to the OzSAGE [advice on masks](#).

### **Management of COVID-19 outbreaks**

#### **Institute local movement restrictions triggered by publicly understood thresholds**

The paucity of healthcare and other services in non-metropolitan areas, and the lack of reserve health system capacity, means that it is less feasible to “live with” circulating COVID-19, than in metropolitan areas. A plan should be in place for testing, tracing, mask mandates and local movement restrictions in the event of a local outbreak, with concomitant infrastructure support (see points below).

#### **Prepare local healthcare resources ahead of time**

It is too late to begin preparations after an outbreak has occurred. The following measures need to be in place, the information disseminated, and any actions regularly rehearsed in anticipation of an outbreak occurring:

1. ISOLATION PLAN - Prevention of spread within households in non-metropolitan areas will require the capacity of individuals, families and communities to be able to isolate. It is important to acknowledge, for example, cultural challenges presented in Indigenous communities by the fact that the mode of life is not individualistic, but rather revolves around communal living, with extended family-based child rearing. Authorities must work in [partnership with communities](#) to help people stay safe and isolate in ways that works in the local community, e.g., consider provision of caravans or other suitable housing options. Set up shaded outdoor areas with open-air ventilation and markings for social distancing to assist with community members being able to see each other in a safer way. A clear plan of how to provide these facilities should be put in place before it is needed. The inability to procure food in the [recent Wilcannia outbreak](#) was a significant problem. It is important to recognise that any such plan must support normal daily living requirements.
1. RESPIRATORY ESCALATION PLAN - The rapidity with which oxygen can run out cannot be underestimated in a large outbreak. A detailed plan of how oxygen supply can be scaled must be in place and widely understood. Consider increasing the availability of non-invasive and invasive ventilators and appropriate medications, while recognising that these need specialist staff to operate them, that such provision may be quickly overwhelmed and that they are no substitute for rapid evacuation of such patients, even from the relatively large regional hospitals to which this document refers. Ensure pulse oximeters are available for rapid deployment to patients in the home setting and put in place additional support to monitor, and where necessary escalate patient care.
2. PALLIATIVE CARE PLAN - Sufficient supplies of palliative drugs and pumps must be available at short notice, along with decision support for both clinicians and health care workers, and for patients, carers and families.”
3. DECISION-SUPPORT FOR CLINICIANS AND HEALTH CARE WORKERS WHEN FACED WITH CARE RATIONING – Since the earliest days of the pandemic, clinicians and health care workers have been faced with the moral choice of determining which patients will receive care (care rationing) from overburdened health resources. Both frontline workers and patients need a clearly communicated plan to outlining the process for determining care rationing in the acute healthcare setting. [Clinicians may have questions](#) about any legal consequences of denying patients access to health services.
4. TRANSPORT ESCALATION PLAN - In the event of a significant outbreak in a regional area, aeromedical evacuation services may rapidly become overwhelmed. This is especially the case as transport capacity is immediately diminished by 50% due to the extra time required for COVID infection prevention precautions during the transport process. Details of any plans to rapidly scale up patient transportation to regional centres, if they exist at all, have hitherto been opaque to frontline healthcare staff and this has been a source of stress. Any such plans are

likely to involve bringing in aeromedical assets from other regions and/or RAAF transport aircraft and ADF/Ausmat medical teams. These plans should be disseminated, the process of which, far from causing alarm, will reduce anxiety amongst remote staff. As part of this, resilience of the aeromedical transport network should be tested and strengthened as much as possible - e.g., plans made for segregation of flight, medical and engineering crews to try and prevent service collapse through cross-infection.

5. PPE - Ensure sufficient supplies of airborne PPE, so that all patient-facing staff can wear fit-tested airborne PPE (P2 or N95 respirators) for a protracted period. This means a regular program of fit-testing in rural and remote areas. Emergency plans to switch to reusable elastomerics should be in place. There must be ample provision and fit-testing of airborne PPE to private medical facilities such as general practices. Where possible, COVID positive inpatients should be in KN95 masks or above. The use of masks with high fit test pass rates should be prioritised. For the community, refer to the OzSAGE [advice on masks](#).
6. SAFEGUARD VULNERABLE FACILITIES - Facilities such as community dialysis units and aged care units should be audited to ensure that in the event of an outbreak they are not compromised by cross-infection from other, co-located facilities. This requires ventilation audits and mitigations as appropriate and plans to segregate staff in the event of an outbreak. COVID-safe plans for essential services such as dialysis should be in place.
7. INCREASE TELEHEALTH PROVISION (Video Call or Telephone Call) - The demands of the pandemic have shown us just how much can be achieved through Telehealth. Increased use of Telehealth not only helps contain an outbreak, but helps prevent an outbreak occurring by reducing movement through healthcare facilities. State governments and the AMA should work with Medicare to formulate an appropriate plan to support increased use of Telehealth through the MBS, including for previously unsupported items such as GP Management Plans. Importantly, this must include funding that covers both telephone calls and video calls with patients, the choice of which is most often determined by the socio-economic needs of the patient rather than frontline clinicians.
8. EMERGENCY SERVICE ESCALATION PLAN - It is critical that a clear multi-service escalation plan is agreed upon, stress tested (i.e., “war-gamed”) and disseminated widely ahead of time. It should be regularly revisited and should include all relevant agencies - e.g., local health district, aeromedical evacuation service, ADF/Ausmat, RAAF, police, ambulance service, SES, community leaders, the ABC and other community media outlets. One important aspect of such a plan, which is easily implemented but often overlooked, is the maintenance of a directory of all relevant local contacts, so that contact can be made quickly when required.
9. FORMAL CROSS BORDER ARRANGEMENTS FOR COVID-19 PATIENTS – for areas close to state and territory borders, where the closest hospital may be interstate, formal agreements for interstate transfer of COVID-19 patients need to be available. OzSAGE notes that increased

health system demand as a result of COVID-19 patients will have impacts on the provision of non-COVID care including non-COVID patients requiring cross-border non-COVID care.

OzSAGE is preparing advice for care of cancer patients.

10. ENHANCED CENTRAL COORDINATION OF ACUTE CARE - Provide better centralised coordination to enable flow of time critical patients (COVID-19 and non-COVID-19 diseases) to rapidly identify available beds at receiving hospitals and ensure timely transport. Assist local health systems to design and supply separation pathways for COVID and non-COVID care.
11. SURGE WORKFORCE - Provide adequate surge workforce capacity to non-metropolitan areas in event of a regional, rural and remote health services being overwhelmed.
12. PLANS FOR TRANSIENT POPULATION SURGE – in regional areas which receive large numbers of tourists, ensure surge capacity in the health system to manage additional demand on the health system, especially over long holidays such as December-January.

## Appendix A

Illustrative list of rural and remote health services

**Examples** of all the above types of rural and remote facilities are given for illustrative purposes:

*Regional hospital, often without an intensive care unit, which risks being overwhelmed by a large increase in cases*

Broome Hospital, WA

Thursday Island Hospital, QLD

Katherine Hospital, NT

Broken Hill Hospital, NSW

Mt Isa Hospital, QLD

Gove District Hospital, NT

Karratha Hospital, WA

*Hospital which has only one doctor on emergency duty at a time*

Walgett Hospital, NSW

Fitzroy Crossing Hospital, WA

Cunnamulla Hospital, QLD

Dorrigo Hospital, NSW

Bright Hospital Victoria

Finley Hospital NSW

*Nurse-only hospital or partially nurse-only with emergency doctor services provided by telehealth*

Narembeen Hospital, WA

Collarenebri Hospital, NSW

*Nurse-only clinic, often very remote and in Indigenous communities*

Lajamanu, NT

Goodooga, NSW

Mulan, WA

Mer Island, QLD