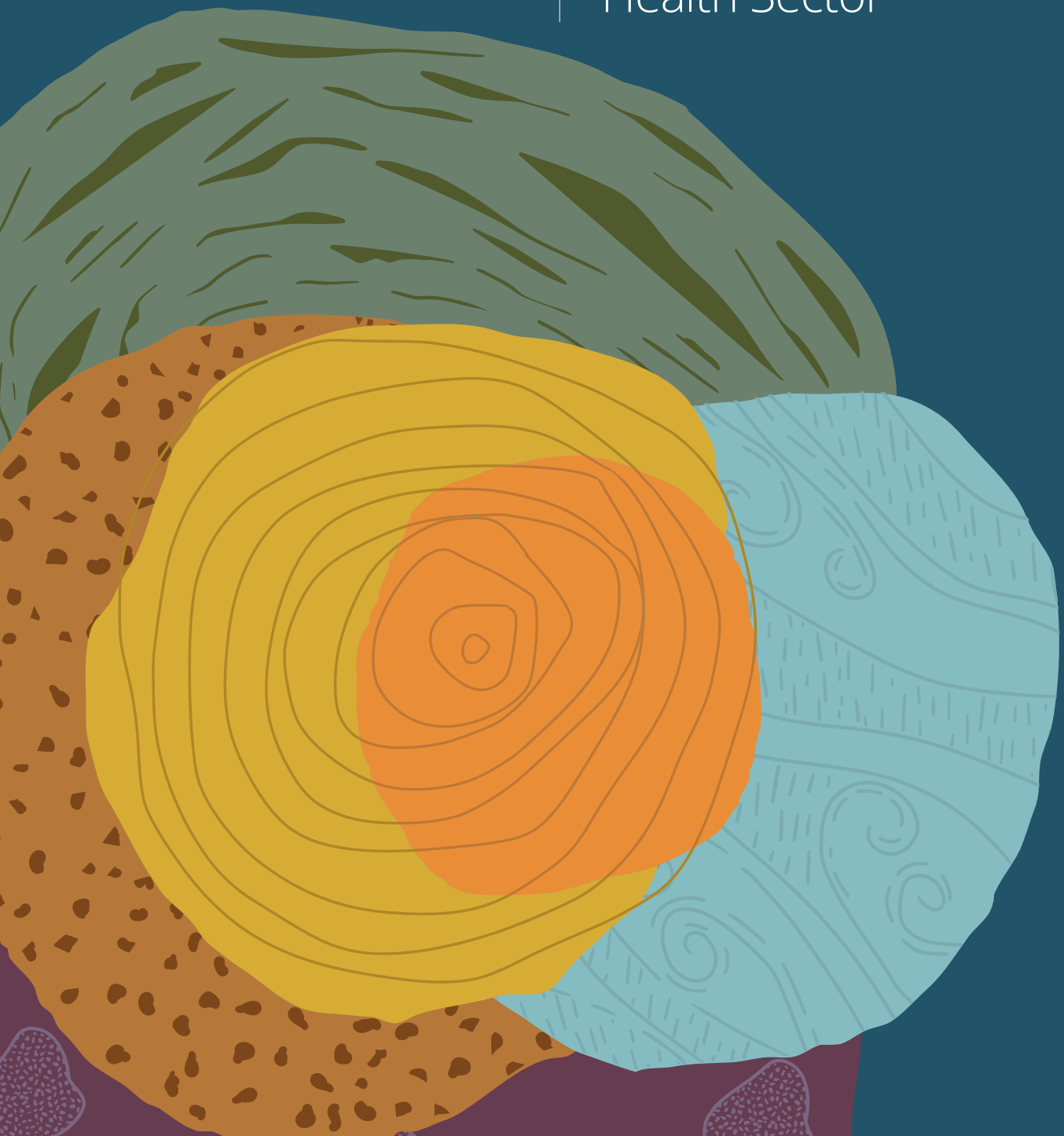
Aboriginal Health Council of Western Australia

COVID-19 Response Review

by the WA Aboriginal Community Controlled Health Sector



We acknowledge the Whadjuk people of the Noongar Nation as the custodians of the land that AHCWA is located on and we pay our respects to all Elders, past, present, and future.

Artwork: Ashley Spratt, 2023

Disclaimers

A. The term 'Member Services' is inclusive of all Aboriginal Community Controlled Health Services (ACCHS) in WA.

B. The word 'Aboriginal' has been used throughout this document. When referring to 'Aboriginal' we are referring to all Aboriginal and Torres Strait Islander peoples.

Executive Summary

The work of the Aboriginal Community Controlled Health Services (ACCHS) in Western Australia (WA) during the COVID-19 pandemic emergency was remarkable—in both scope and scale. For almost three years, the ACCHS Sector worked relentlessly to reduce the impact (both direct and indirect) on Aboriginal families and communities across the State.

For the first two years, the focus was on preventing exposure to the virus through strict border controls, closure of remote Aboriginal communities and the use of traditional Public Health and Social Measures (PHSMs) – particularly physical distancing (also known as social distancing) and personal hygiene. In the second year of the pandemic, the COVID-19 vaccine roll-out became the added priority. When the border reopened in the beginning of the third year, prompt diagnosis and treatment became the principal aim.

Although the WA Government led the COVID-19 response for the whole population, the ACCHS Sector played an indispensable role from the outset. ACCHS complemented the State's response by providing culturally safe and accessible alternatives (for information, vaccination, testing and treatment); and they filled multiple gaps where there was no Government service available. Crucially, and despite immense challenges retaining staff (often due to the border closures), ACCHS maintained their delivery of essential, comprehensive primary healthcare.

Within days of the declaration of a pandemic emergency, the Sector had begun producing and sharing, through their established networks, a range of appropriate and effective messages to keep communities informed. ACCHS clinics were transformed to meet new infection control standards (while still maintaining their trademark welcoming atmosphere); and new outreach strategies were developed to meet the needs of their most clinically and socially 'at risk' clients. Within weeks, remote ACCHS had begun using Polymerase Chain Reaction (PCR) point-of-care-testing to facilitate prompt diagnosis of COVID-19; and access to many specialist medical services had transitioned to telehealth. Vehicles for transporting patients to the clinic or hospital had been fitted with Perspex safety shields to protect both drivers and passengers; and supplies of hand sanitiser and disinfectant, for community use, had been sourced through philanthropic partners.

When vaccination rates were lower than Government targets, ACCHS rolled out community-wide "vaxathons" with entertainment, barbeques and incentives; and when the State launched its online 'mainstream' COVID Care at Home program, the ACCHS responded with a culturally safe and clinically comprehensive version of their own.

Despite the remarkable responsiveness of the ACCHS, their work throughout the pandemic was often fraught with frustration and came at a cost. The Sector had not been a part of WA's pandemic planning (or testing) process and had no formalised role in the outbreak response. Many Government systems were based on mainstream assumptions about digital access, Government plans (and databases) were held behind digital firewalls, and decision-making was highly centralised. As the virus swept through WA in 2022, many Aboriginal families struggled to access Government support during mandatory isolation and, once again, the ACCHS stepped in to assist.

This COVID-19 Response Review calls for the work and expertise of the ACCHS Sector to be fully recognised and acknowledged by governments; and for future pandemic planning (including system design and testing) to be done in true partnership— where ACCHS have decision-making power and access to both funding and data.

Recommendations

Recommendations are grouped in line with the four Priority Reforms of the National Agreement on Closing the Gap. Under each Priority Reform, there is an overarching recommendation relating to health emergency prevention, preparedness, response and/or recovery, followed by several specific recommended actions.

1 FORMAL PARTNERSHIPS AND SHARED DECISION MAKING

Governments must ensure that authentic partnerships with Aboriginal people and organisations are established both prior to and during health emergencies. Partnerships are necessary at all levels of government (Commonwealth, state and local) and across all stages of emergency management (Prevention, Preparedness, Response and Recovery). Partnerships must respect Aboriginal leadership and expertise; and decision-making must be genuinely shared. Decentralised planning and locally-led solutions must be supported.

1. Urgent discussions are needed between the ACCHS Sector and the WA State Government to determine how the Sector can be best integrated into WA's high-level health emergency planning and response structures.
2. ACCHS should be invited to participate in local and regional/district inter-agency emergency standing committees (Local Emergency Management Committee, District Emergency Management Committee and WA Country Health Service-led) and be included in the development and testing of local and regional plans. Governments should strive to maintain the positive local and regional interagency partnerships that flourished during the COVID-19 pandemic.
3. Roles and responsibilities during health emergencies (for all participating agencies and at all stages of health emergency management) need to be negotiated early; and arrangements must be clear and transparent.
4. Local and regional health emergency plans should include practical guidance on how to reduce risks for Aboriginal people (and other priority populations).
5. Consideration should be given to the development of a WA state level health emergency plan specific to Aboriginal people and communities. Such a plan needs to be genuinely co-designed with Aboriginal organisations, including the ACCHS Sector.

2 BUILDING THE COMMUNITY-CONTROLLED SECTOR

Governments must recognise the unique skillset and expertise of the WA ACCHS, and acknowledge the indispensable, wide-ranging roles they performed during the COVID-19 pandemic. It is inevitable that the Sector will perform these roles (and others) in future health emergencies; and this work (together with the ongoing delivery of critical primary healthcare service) needs to be appropriately funded and supported, in a timely way.

6. Mechanisms must be established to ensure that, from the outset of a health emergency, ACCHS have the necessary funds for their work—including in public health (such as testing and contact tracing), in public communications (including the development of culturally appropriate resources), for logistics (including deliveries) and for the provision of community support.
7. Governments need to formally recognise the ACCHS Sector as a workforce priority (in line with hospitals and other essential industries) and work with the Sector to maintain capacity during health emergencies. Consideration should be given to interagency staffing models and the facilitation of cross-border travel.
8. ACCHS must be given access to Personal Protective Equipment (PPE) and fit-testing—in line with the provisions within government health facilities.
9. Governments must recognise ACCHS' innovative ways of working, and strengthen and align with these during health emergencies—including, for example, the use of point-of-care PCR testing, direct access to medications and the use of outreach and community-based service delivery.
10. ACCHS must be supported, as necessary, to maintain their delivery of critical comprehensive primary healthcare services during health emergencies.

3 TRANSFORMING GOVERNMENT ORGANISATIONS

Governments must ensure that the needs of Aboriginal people, families and communities (urban, regional and remote) are properly considered and addressed at all four stages of health emergency management (Prevention, Preparedness, Response and Recovery). Mainstream services during health emergencies must be culturally safe, accessible and prioritised according to need. Pandemic planning must address the social determinants of health—particularly housing.

11. Prior to the next pandemic, there must be increased investment in housing for Aboriginal families. Planning and implementation should incorporate a contemporary, Aboriginal-led understanding of housing and household occupancy pressures.
12. Mainstream systems and processes developed for health emergencies must undergo usability testing by Aboriginal people (including in remote locations) as part of quality assurance. For example, the 13 COVID 'helpline' and online Rapid Antigen Test (RAT) registration should have been tested during development and again when launched.
13. There needs to be sustained investment in digital connectivity infrastructure in regional and remote locations, building on progress made during the COVID-19 pandemic. This infrastructure needs to be accompanied by investment in digital literacy education. Effective non-digital options must also be made available.
14. The WA Government must urgently develop transparent plans for health emergency welfare support (including provision of food, accommodation and necessities) in partnership with the ACCHS Sector. Welfare responses must be culturally safe, timely and accessible throughout the state (including in remote communities).
15. Where health experts have prioritised Aboriginal people due to recognised risk factors, this 'priority status' must be maintained throughout a health emergency despite the extra government resources required. This applies particularly to vaccination roll-outs.
16. External providers, contracted by governments to deliver health services to Aboriginal communities during health emergencies, must be trained in cultural safety; and contracts must allow for appropriate flexibility in service provision.
17. Where external providers cannot provide a safe and accessible service for Aboriginal people, ACCHS should be formally invited to fill that gap.
18. Plans for accessible, safe and culturally appropriate isolation and quarantine options in all WA regions are urgently required before the next pandemic.
19. Where specific responsibilities within an emergency health response are divided between the Commonwealth and State or Territory Governments, this should be clearly articulated and communicated publicly.
20. Aboriginal leadership and expertise within government departments (and especially the Department of Health) must be formally recognised.

4 SHARED ACCESS TO DATA AND INFORMATION AT A REGIONAL LEVEL

Governments must ensure that Aboriginal communities have access to Aboriginal data to enable informed shared decision-making. An essential role of Aboriginal people and organisations (including ACCHS) in planning is to ensure the appropriate collection, management and use of Aboriginal data during health emergencies. Indigenous Data Sovereignty principles must be adhered to.

21. Disaggregated health data (including, for example, case numbers, hospitalisations and vaccination data) should be transparently shared in real-time with ACCHS and Aboriginal communities at the local level.
22. Methods for vaccination coverage reporting must be reviewed, including auditing the accuracy and timeliness of uploads to the Australian Immunisation Register.
23. Where ACCHS are requested to collect data on community outbreaks, they must be provided with efficient systems to minimise the extra workload for ACCHS staff.
24. Support is required to ensure that there is equity in electronic health record software upgrades during health emergencies to ensure that ACCHS have the same ability to capture and retrieve data as mainstream general practices.

Contents

Foreword

Vicki O'Donnell OAM
Chairperson, Aboriginal Health Council of Western Australia

This COVID-19 Response Review bears witness to the remarkable strength of Aboriginal communities, and of the Aboriginal Community Controlled Health Sector (ACCHS). The ingenuity, agility, and dedication of the WA ACCHS during unprecedented times, as they adapted swiftly to provide safe, accessible healthcare in the midst of a pandemic emergency, was nothing short of exceptional.

In addition to essential and wide-ranging public health work, including stepping in to fill multiple gaps in Government service provision, ACCHS staff assumed new roles, learned new skills and worked long hours to guide their communities through the pandemic. They worked to develop original, culturally safe strategies to increase vaccine uptake; and created new approaches to growing workforce capacity and expand vaccine access.

When COVID-19 surged in WA in 2022, WA ACCHS worked together with Aboriginal communities and public health authorities to respond rapidly and intensively, supporting COVID-19 testing, providing essential support for households during mandatory isolation, offering comprehensive clinical monitoring and treatment, and maintaining a steady flow of clear and trustworthy information to communities as Government rules and recommendations changed.

The advocacy of the Aboriginal Health Council of Western Australia (AHCWA) on behalf of Aboriginal communities and ACCHS resulted in tangible change, including additional funding for ACCHS to deliver much needed COVID-19 clinical care to those in isolation, and improving access barriers including to COVID-19 vaccination.

We are immensely grateful to our Member Services for the tremendous work done in keeping our people safe; and to AHCWA's Medical Advisor Dr Marianne Wood for her leadership during the COVID-19 pandemic—and in the writing of this important Review.

The development of this comprehensive Review was conceived by AHCWA, and supported by Chief Executives from ACCHS across WA. The work catalogues the experience of these ACCHS throughout the pandemic, offering compelling analysis of our State's pandemic plans as they relate to the specific needs of Aboriginal people. The Review presents unequivocal evidence for the urgent need for plans that support local solutions, which are culturally appropriate and helpfully consider the needs of Aboriginal people across WA. It highlights how ACCHS assistance to Government was vital to the success of the pandemic response, and presents the case for meaningfully valuing ACCHS expertise and knowledge to support the communities they serve.

The Review makes serious recommendations for both the WA State and Commonwealth Governments, and for the ACCHS Sector, to ensure that the lessons learnt during the COVID-19 pandemic are not lost, and that the strong collaborative partnerships developed during that time are built upon to ensure we are fully prepared for future health emergencies.

Introduction

“We have all come out of this a lot better than we went into it. I think there will be a lot of learning from this. No one wants to be on the back foot and no one wants to be copping criticism because we didn’t learn the lessons that this COVID-19 pandemic provided.”

“What is the greatest lesson for government? It is to listen. To actually be in touch with the people on the ground, with the people themselves. It is easy to make decisions at the distance; but listen to what communities are saying. Listen to the comments that are coming out from people on the ground.”

“Let the ACCHS take control and give us the resources we need to do it for ourselves. Give the Sector the resources to manage these things for our own people.”

BACKGROUND

The Aboriginal Community Controlled Health Services (ACCHS) Sector in WA has been providing culturally safe, comprehensive, holistic care to Aboriginal people and communities for more than 50 years. From simple beginnings in 1973, the Sector has grown to include 23 independent organisations with 86 service delivery sites across most of the State(1,2).

The Sector is very diverse geographically and culturally—from the large urban ACCHS in metropolitan Perth to small remote clinics in the vast Western Desert region (see map on page 7). Despite their diversity, ACCHS share a common Model of Care (see Figure 1), have a shared vision of health equity for Aboriginal people, and all are community-led through elected Boards[1]. AHCWA is their peak body and exists to support and act on behalf of the Sector—through support, advocacy, and influence(3).

Although ACCHS are often described as primary healthcare services, their scope of practice far exceeds that of traditional General Practices. The scope varies by location, and extra services provided by ACCHS in WA include residential aged care, dialysis clinics, sobering up shelters, public ambulances, environmental health, drug and alcohol rehabilitation, occupational health, dental clinics, exercise gyms, homeless healthcare (including the provision of showers and clothing) and school health. All ACCHS host visiting medical specialists and allied health workers to ensure that comprehensive care is accessible and culturally safe. Several are Registered Training Organisations (RTOs). Perhaps most importantly, all ACCHS in WA are actively engaged with their communities beyond the walls of their clinics - through community groups, public advocacy, and outreach support for those in need. Culture, country, and community are at the heart of the Sector's service delivery.

Figure 1. The ACCHS Model of Care

[1]Most Board Members are Aboriginal community members.

In early 2020, the ACCHS Sector across the country faced an enormous and unprecedented challenge. A new coronavirus (SARS-CoV-2) had emerged in China and started to spread across the world. The virus was responsible for a new life-threatening disease (COVID-19)[2], and within weeks of its discovery, the World Health Organization (WHO) had declared a Public Health Emergency of International Concern[3](4).

Early media reports from overseas described shocking scenes of overflowing Intensive Care Units (ICUs) and makeshift morgues; and Aboriginal leaders and health experts feared a catastrophic impact on Aboriginal communities if the virus were to spread unchecked within Australia(5).

This Review tells the story of how the ACCHS Sector in WA responded to the threat of COVID-19—from the early weeks of 2020 until WA's state of emergency ended on 4 November 2022. It describes how the Sector's unique Model of Care was readily adapted for each stage of the pandemic—meeting the needs of Aboriginal communities and filling multiple gaps in Government service delivery. It highlights the Sector's remarkable resilience, flexibility, responsiveness and innovation. Above all, it describes the Sector's absolute commitment to Aboriginal people, not just locally but throughout the State.

PURPOSE

The Review has four principle aims:

- **To provide a detailed written record of the work done by the WA ACCHS Sector throughout the almost three years of the COVID-19 emergency.** Although the Sector's work was critical for meeting the needs of Aboriginal people at all stages of the pandemic, much of this work was self-initiated, non-contractual and unfunded. Few details have been captured in Government reporting. This report documents and draws attention to the Sector's extraordinary contribution to the State's pandemic response.

FOOTNOTES AND REFERENCES

Footnotes - are indicated by numbered superscript throughout the document - example[1]

References - are indicated in bracketed numbers at the end of sentences and are listed by chapter at the end of this document - example(1)

[2]Abbreviation for Coronavirus Disease 2019 (the disease was first identified in late 2019).
[3]The declaration was made on 30 January 2020.

- **To highlight the unique qualities that the ACCHS Sector brings to WA's healthcare provider landscape.** The success of the ACCHS Sector's response to the pandemic stemmed in large part from a unique set of core strengths—including Aboriginal leadership, cultural and place-based expertise and a holistic, comprehensive Model of Care. These strengths (and others) shaped the Sector's pandemic response and should be formally recognised in future health and emergency planning.

- **To describe how decisions by the WA State Government[4] (both prior to and during the pandemic) impacted on WA ACCHS and the Aboriginal communities they serve.** While many Government decisions had an overall positive impact, others were inadequately thought through, or poorly implemented, which at times resulted in avoidable risk and hardship for ACCHS and their patients.

- **To provide guidance for WA's emergency planners—to ensure that during the next pandemic/health emergency there is an appropriate focus on the needs of Aboriginal people and recognition of the ACCHS Sector as an essential partner.** WA's pandemic planning, particularly for Aboriginal people, was wholly inadequate prior to the emergence of COVID-19; and five years later, few overt changes have been made. This Review offers practical guidance for planners and decision-makers at all levels of government and within the Department of Health.

METHODS

The Review is based on semi-structured interviews with senior staff—CEOs, clinical leads or both—from all ACCHS across the state. Half the interviews were conducted by an Aboriginal social research company contracted by AHCWA; half by senior AHCWA staff. The interviews commenced in late 2022. Follow-up discussions were held to clarify points or to obtain additional detail. Drafts of the Review were provided to all ACCHS for additional feedback prior to publication.

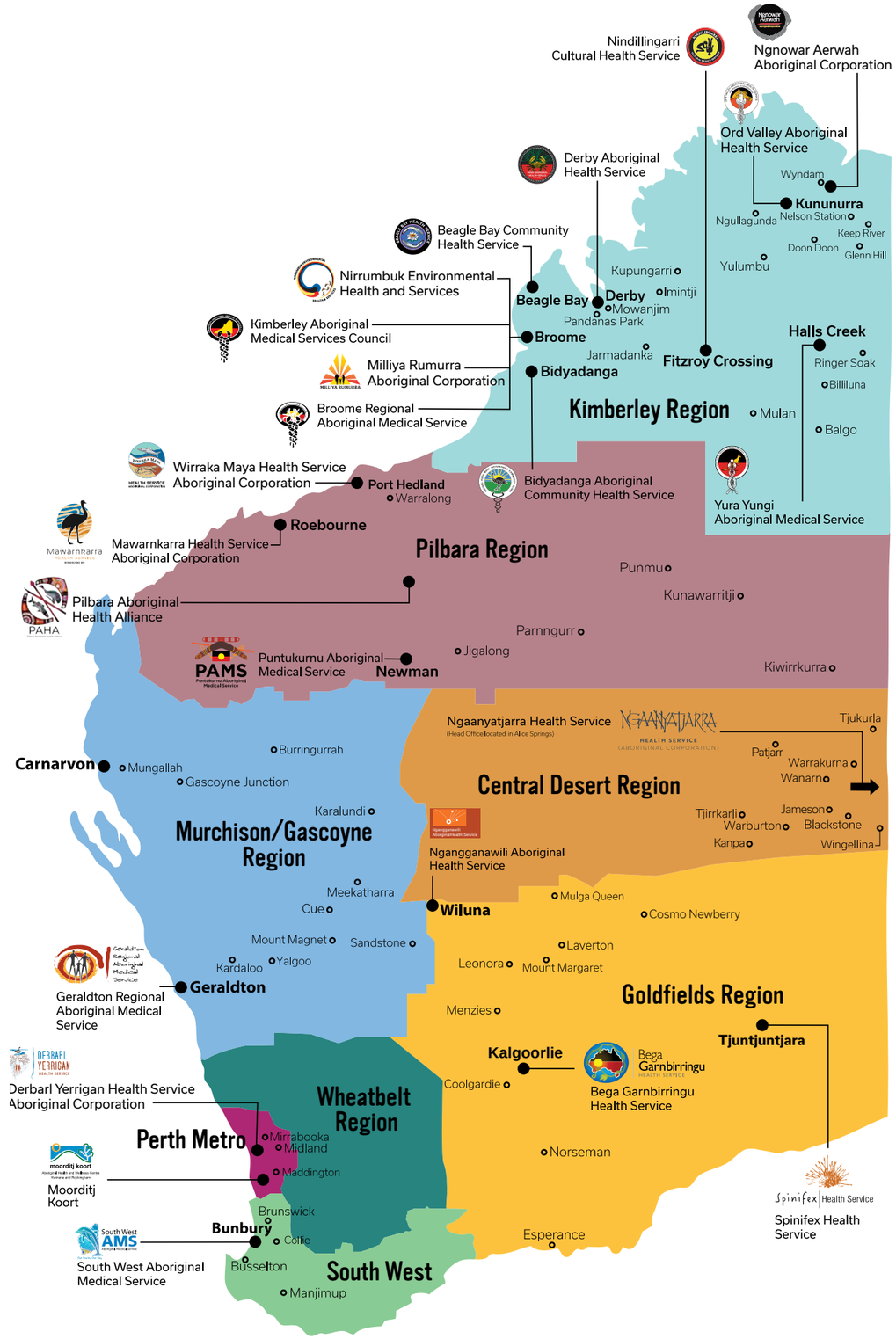
During the interviews, participants were asked to reflect on their experiences through different stages of the COVID-19 pandemic emergency. They provided details of the extra work done by their services, described their interactions (positive and negative) with Government departments and openly expressed their frustrations at the barriers encountered. Participants were also asked for their recommendations for a solutions-focused way forward.

To supplement this lived experience, the Review uses extensive documentary evidence from publicly available government plans, government reports, research papers and media reports. Disappointingly, several relevant government documents were removed from the internet while the report was being drafted.

STRUCTURE

The Review is written in a narrative style and is structured as much as possible around quotes from the interviewees to ensure a direct 'voice'. Quotes from the Sector are bolded and in purple and, for confidentiality, are not attributed to any individual or ACCHS. Where quotes are from different participants but share the same theme, they are grouped together for emphasis.

[4]Including WA Health, the designated Hazard Management Agency for human epidemics.



Direct quotes from media reports and other publications are italicised and in teal. Care has beentaken to ensure that voices from across the whole State have been included; and although the Review focuses on shared experiences, it also acknowledges that experiences sometimes differed significantly between ACCHS (and regions) and changed over time. The five chapters of the Review follow a chronological order, starting with pre-pandemic planning and ending with the outbreak response, when the WA border opened and the "Living with COVID-19" phase commenced.

The Review includes a section on Recommendations. Recommendations are grouped in line with the four Priority Reforms of the National Agreement on Closing the Gap(6). This major Agreement was signed on 27 July 2020 by the Coalition of Aboriginal and Torres Strait Islander community-controlled peak organisations, by all Australian Governments (Commonwealth, State and Territory) and by the Australian Local Government Association. *The Priority Reforms commit governments to new partnerships with Aboriginal and Torres Strait Islander communities*

Figure 2. Priority Reforms of the National Agreement on Closing the Gap

Source: Australian Government National Agreement on Closing the Gap(6).

across the country; strengthen community-controlled organisations to deliver Closing the Gap services; address structural racism within government agencies and organisations; and improve sharing of data and information with Aboriginal and Torres Strait Islander organisations to support shared decision-making(7).

SCOPE

The Review focuses on the specific experience of the ACCHS Sector in WA, including interactions with State Government departments. Although the Commonwealth played a critical role throughout the pandemic[5], the WA Government's operational response had a much greater direct 'day to day' impact on the ACCHS Sector in WA.

The Review is both highly detailed in places (particularly around access to digital systems) and clearly limited in others. The detailed sections were considered necessary to provide practical guidance (rather than broad generalities) for future Government planners. The limitations are due to the impossibility of capturing, in a document this size, the full breadth and scale of a pandemic emergency that lasted almost three years[6].

Aspects of the pandemic that have not been covered include the State Government's mandatory vaccination policy and a detailed description of funding sources for pandemic-specific work during the emergency. Mandatory vaccination was controversial within the Aboriginal community but its direct impact on most ACCHS was limited[7]. Funding is only touched upon due to the diversity of sources and complexity of arrangements across the Sector.

Finally, the Review takes a 'strengths-based' approach—unapologetically focusing on what the Sector did well. ACCHS and AHCWA recognise that the Sector's response was not perfect and that they have work to do to minimise the impact of the next pandemic—including reducing their reliance on an interstate workforce.

Similarly, while we offer critique of Government policies and programs, particularly where they did not work well for the communities where ACCHS provide services, this critique is never of individuals, but of systemic processes and barriers. The chief learnings are in the Sector's accomplishments and the underlying qualities that made these accomplishments possible—a unique Model of Care and an attitude of persistence, innovation, responsiveness and commitment to the Aboriginal community.

> ***"We lived and breathed it. Just did it."***

DEFINITIONS

Department of Health - led by the Director General, provides leadership and management of the health system as a whole, ensuring the delivery of high quality, safe and timely health services(8).

WA Health - consists of the Department of Health, Child and Adolescent Health Service, North Metropolitan Health Service, South Metropolitan Health Service, East Metropolitan Health Service, WA Country Health Service, Health Support Services, PathWest and the Quadriplegic Centre(8).

Mainstream - is a term commonly used by Aboriginal organisations to describe services and systems designed for the general population.

[5]Including the provision of MBS telehealth items, vaccination teams and direct supply of COVID-19 medications.
[6]Additional detail can be found in ACCHS own published annual reports.
[7]Some ACCHS lost staff because of the policy but most did not.

Abbreviations

ABBREVIATION	MEANING
ACCHS	Aboriginal Community Controlled Health Service(s)
AHCWA	Aboriginal Health Council of Western Australia
AHP	Aboriginal Health Practitioner
AHPC	Australian Health Protection Committee
AHW	Aboriginal Health Worker
AIHW	Australian Institute of Health and Welfare
AMS	Aboriginal Medical Service
ANAO	Australian National Audit Office
ATAGI	Australian Technical Advisory Group on Immunisation
BBQ	Barbeque
BRAMS	Broome Regional Aboriginal Medical Service
CDCD	Communicable Disease Control Directorate (within WA Department of Health)
CEO	Chief Executive Officer
CHO	Chief Health Officer
CLG	Clinical Leadership Group
COVID-19	Coronavirus disease
DEMC	District Emergency Management Committee
DPC	Department of Premier and Cabinet
DYHS	Derbarl Yerrigan Health Service
FIFO	Fly-in-fly-out
GP	General Practice or General Practitioner
GPMP	GP Management Plan
GPRC	GP Respiratory Clinic
HSP	Health Service Provider
ICU	Intensive Care Unit
IDEMP	Infectious Disease Emergency Management Plan
IPC	Infection Prevention and Control
KAMS	Kimberley Aboriginal Medical Services
LEMA	Local Emergency Management Arrangement
LEMC	Local Emergency Management Committee
LGA	Local Government Area
MBS	Medicare Benefits Schedule
MHR	My Health Record
NACCHO	National Aboriginal Community Controlled Health Organisation
NATSIHP	National Aboriginal and Torres Strait Islander Health Protection (subcommittee of AHPC)
NCIRS	National Centre for Immunisation Research and Surveillance
NSW	New South Wales
NT	Northern Territory
OASG	Operational Area Support Group
PAHA	Pilbara Aboriginal Health Alliance
PBS	Pharmaceutical Benefits Scheme
PCR	Polymerase Chain Reaction
PFR	Particulate Filter Respirator
PHEOC	Public Health Emergency Operations Centre
PHN	Primary Health Network
PHSMs	Public Health and Social Measures
PHU	Public Health Unit
POCT	Point Of Care Testing
PPE	Personal Protective Equipment
RAAHS	Remote Area Aboriginal Health Services (Program)
RACGP	Royal Australian College of General Practitioners
RAN	Remote Area Nurse
RAT	Rapid Antigen Testing (or RATs - Rapid Antigen Tests)
REOC	Regional Emergency Operation Centre
RFDS	Royal Flying Doctor Service
RIDER	Respiratory Infectious Disease Emergency Response (Plan)
RPH	Royal Perth Hospital
RSV	Respiratory Syncytial Virus
RTC	Regional and Tertiary Collaborative
SA	South Australia
SEMC	State Emergency Management Committee
SEWB	Social and Emotional Wellbeing
SHICC	State Health Incident Coordination Centre
STI	Sexually Transmitted Infection
SWICC	State Welfare Incident Coordination Centre
TGA	Therapeutic Goods Administration
TTIQ	Test, Trace, Isolate, Quarantine
WA	Western Australia
WAAAG	WA Aboriginal Advisory Group on COVID-19
WACHS	WA Country Health Service
WAGPP	WA Government Pandemic Plan
WAPHA	WA Primary Health Alliance
WHO	World Health Organization

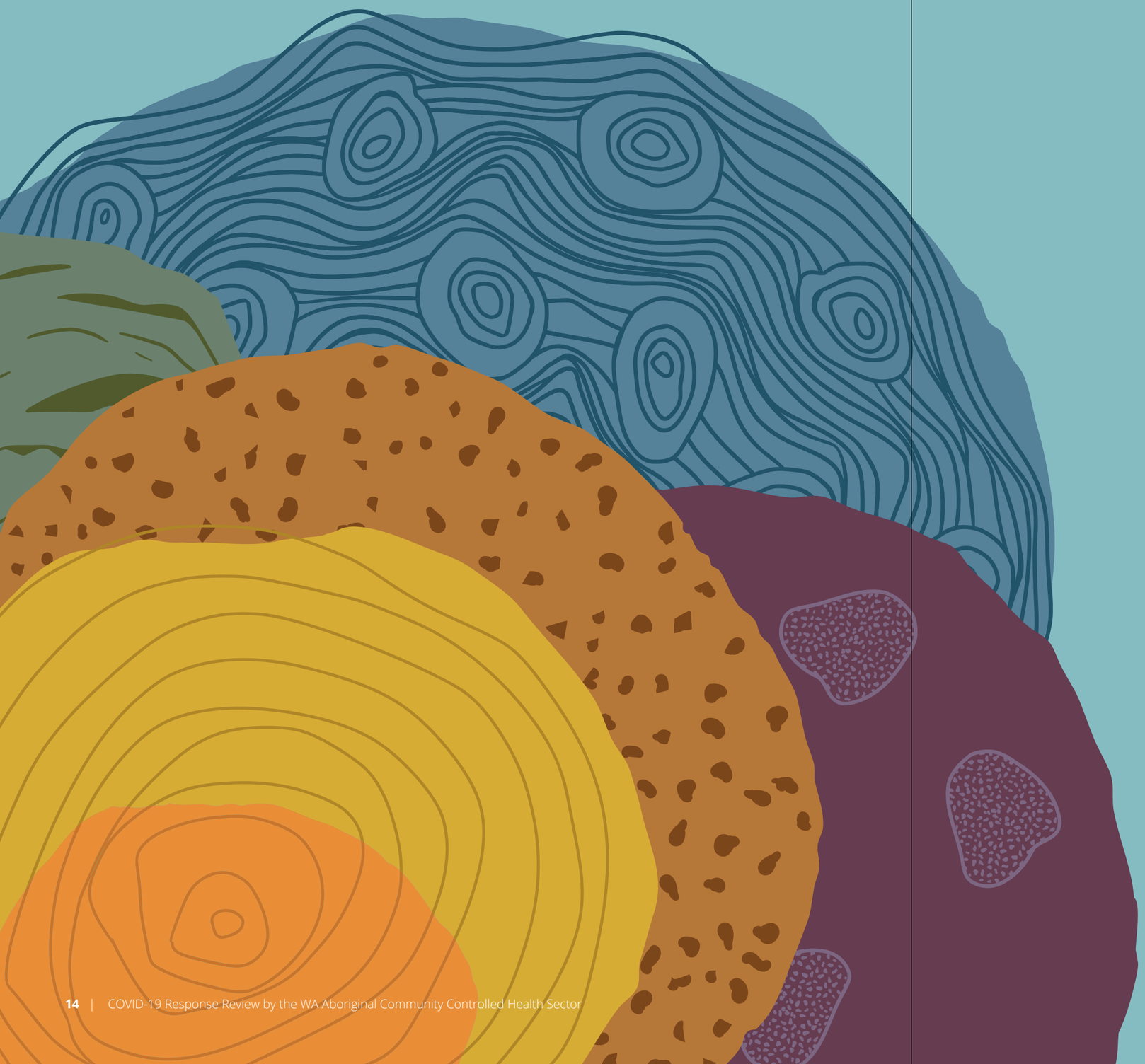
WA COVID-19 Timeline

DATE	EVENT
31 Dec 2019	Cluster of pneumonia cases reported by China, later identified as COVID-19
25 Jan 2020	Australia reports its first confirmed case of COVID-19
18 Feb 2020	Australian Health Sector Emergency Response Plan for Novel Coronavirus (COVID-19) published
21 Feb 2020	WA reports its first case of COVID-19 in a passenger evacuated from a cruise ship
31 Mar 2020	Management Plan for Aboriginal and Torres Strait Islander Populations published as part of the Australian Health Sector Emergency Response Plan for Novel Coronavirus
10 Mar 2020	Opening of first public COVID testing clinic at Royal Perth Hospital
10 Mar 2020	WA Government Pandemic Plan published (updated from Influenza Plan)
11 Mar2020	World Health Organization declares COVID-19 a worldwide pandemic
15 Mar 2020	WA declares a State of Emergency under the Emergency Management Act (2005)
16 Mar 2020	WA declares a Public Health State of Emergency under the Public Health Act (2016)
16 Mar 2020	Commonwealth orders overseas travellers to self-quarantine for 14 days
18 Mar 2020	Commonwealth declares a human biosecurity emergency under the Biosecurity Act 2015
19 Mar 2020	First regional COVID testing clinic opens in Bunbury
19 Mar 2020	Commonwealth mandates hotel quarantine for overseas travellers
19 Mar 2020	WA issues a WA Remote Aboriginal Communities Direction to restrict movement into remote communities throughout the state
20 Mar 2020	Australia closes its international border to non-residents and non-citizens
22 Mar 2020	National restrictions on social gatherings commence
24 Mar 2020	WA commences progressive closure of its border with other Australian states and territories. All travellers entering WA are ordered to self-isolate for 14 days
26 Mar 2020	Commonwealth implements the Commonwealth Biosecurity Determination restricting travel into a zone that includes the whole of the Kimberley, parts of the East Pilbara, and the Shire of Ngaanyatjarraku
31 Mar 2020	WA introduces inter-regional travel restrictions, including additional restrictions between the four local government areas in the Kimberley
6 Apr 2020	WA border closes (few exemptions)
17 Apr 2020	COVID-19 testing becomes available through private laboratories (testing had only been possible through PathWest to this point)
18 Apr 2020	WA inter-regional travel restrictions begin to ease
21 Apr 2020	First Commonwealth GP Respiratory Clinic opens in Geraldton
27 Apr 2020	WA begins easing of social gathering restrictions
21 May 2020	COVID-19 Point of Care Testing program utilising GeneXpert platforms commences in remote ACCHS
5 Jun 2020	WA inter-regional travel restrictions fully lifted; Commonwealth Biosecurity Determinantion also lifted
27 Jul 2020	The National Agreement on Closing the Gap signed and comes into effect
1 Nov 2020	COVID-19 wastewater surveillance testing commences
14 Nov 2020	WA transitions to a controlled interstate border, allowing entry from select jurisdictions

LEGEND

- *COVID-19 cases and management*
- *Key plans*
- *COVID-19 testing*
- *Key regulatory/government declarations, including border controls*
- *Key COVID-19 vaccination milestones*

7 Jan 2021	Australia's COVID-19 National Vaccine Roll-out Strategy released
25 Jan 2021	The TGA provissionally approves the Pfizer COVID-19 vaccine for use in Australia
31 Jan 2021	Mandatory mask wearing introduced in WA (Face Covering Directions under the Emergency Management Act 2005)
31 Jan 2021 - 29 Jun 2021	WA implements three brief (three to five day) lockdowns affecting Perth, Peel and the South West
15 Feb 2021	The TGA provisionally approves the AstraZeneca COVID-19 vaccine for use in Australia
22 Feb2021	Phase 1a of the national vaccination roll-out begins in WA, which prioritises frontline workers
22 Mar2021	Phase 1b of the national vaccination roll-out begins, which includes Aboriginal and/or Torres Strait Islander people aged 55 years and over (AstraZeneca only)
29 Mar 2021	First COVID-19 vaccine given by a WA ACCHS at Derbarl Yerrigan Health Service
29 Mar 2021	First WA community (Government) COVID-19 vaccination clinic opens in Perth at the Claremont Showgrounds (bookings only)
30 Mar 2021	First COVID-19 vaccine given in a remote WA Aboriginal community by Kimberley Aboriginal Medical Services in the Beagle Bay Community
8 Apr 2021	ATAGI issues advice about the risk of blood clots with the AstraZeneca vaccine and recommends people under 50 years receive the Pfizer vaccine preferentially
28 Apr 2021	'Roll up for WA' campaign launched by WA Government
10 Jun 2021	First WA regional community (Government) COVID-19 vaccination clinic opens in Bunbury
14 Jun 2021	Vaccinations with Pfizer commence in the Kimberley ACCHS
12 Jul 2021	Vaccinations with Pfizer commence in the Ngaanyatjarra Lands ACCHS
1 Aug 2021	Five months after the 1b roll-out began, Pfizer vaccine reaches Tjuntjunjara, the last of the ACCHS communities in WA to receive its first doses
24 Aug 2021	WA Government appoints a Special Vaccine Commander
9 Sep 2021	Midland community COVID-19 vaccination clinic opens (walk-ins allowed)
18 Oct 2021	Armadale community COVID-19 vaccination clinic opens
20 Oct 2021	WA Government announces that a mandatory COVID-19 vaccination policy will be introduced for most occupations and workforces in WA in a phase approach
11 Jan 2022	WA Government prohibition on Rapid Antigen Testing lifted
20 Jan 2022	COVID-19 oral anti-virals granted provisional approval by the TGA (Paxlovid and Lagevrio)
Jan 2022	First locally acquired case of COVID-19 reported in an Aboriginal person in WA, followed by first remote Aboriginal community outbreak three weeks later
31 Jan 2022	The WA COVID Care at Home program commences
1 Feb 2022	WA Government free Rapid Antigen Testing program commences
5 Feb 2022	WA delays its planned border opening due to the Omicron variant
3 Mar 2022	WA border reopens
15 Jun 2022	WA Remote Aboriginal Communities Direction lifted
4 Nov 2022	State of Emergency declaration for the COVID-19 pandemic ends in WA



Chapter 1

Preparedness – Plans, Processes, and Partnerships

“Next time we need a plan in the beginning that everyone knows about and has contributed to. A plan that supports local solutions.”

“Respect that Aboriginal Community Controlled Health Services know what they are doing and that the decision they make are based on knowledge and expertise.”

“We have a relationship with the communities and the contacts and the networks and we are best placed to drive and guide and advise. They need to listen to us and we need to have that authority.”

Introduction

Prior to the arrival of COVID-19, Australia had been preparing for a pandemic emergency for decades. A complex hierarchy of standing plans and committees was in place, with state and territory governments having the primary operational responsibility(1). There was (and remains) a requirement for these strategic and operational plans to be both regularly reviewed and tested through exercises(2,3).

Following the 2009 H1N1 (swine flu) pandemic, during which the mortality rate for Aboriginal people was more than five times that of other Australians(4), Aboriginal leaders and researchers called for changes to both national and jurisdictional pandemic plans to address the specific needs of Aboriginal people(5–8). They stressed that pandemic plans should recognise the heightened risk for Aboriginal people (due to the social determinants of health, poorer access to health services, and a higher burden of chronic disease)[1], and urged that Aboriginal people and organisations be genuinely involved throughout the pandemic planning process itself. They also called for the development of detailed localised plans.

Ten years later, when COVID-19 emerged as an international threat in January 2020, few changes had been made in WA to address these recommendations[2]. Most key WA plans (Figure 1) identified Aboriginal people and people living in remote communities as "at-risk" and there was some recognition of the importance of tailor-made communications.

However, there was little practical guidance on how to reduce the risks for Aboriginal people, no acknowledgement of Aboriginal organisations and leadership, and no regional or local pandemic plans were publicly available[3,4].

> ***"There was no pandemic plan for the region and there was a lot of stuff being written to catch up [when COVID-19 arrived]."***

Most importantly for this Review, WA's ACCHS Sector was invisible within the State's standing pandemic/epidemic plans and planning processes. ACCHS had not been involved in the development or review of the plans, had not participated in Government-led scenario testing exercises (even when the exercises had involved remote towns with large Aboriginal populations) and they had no "agreed role(s)" in the pandemic response(11–13). They were not even identified as a stakeholder.

[1]Both the heightened risk of transmission and of severe disease are related to the social determinants of health. Inadequate housing, in particular, increases the risk of virus transmission.
[2]Other states, notably New South Wales (NSW) and Queensland, had made major steps to include Aboriginal people and organisations in their pandemic planning(9,10).
[3]The WA Department of Health had started work on a new plan - the Respiratory Infectious Disease Emergency Response Plan (RIDER) - just prior to COVID-19, but the plan was not finalised and published. The Aboriginal Health Council of WA (AHCWA) was on the original working committee for the plan's development.
[4]WA has 137 Local Governments. Not every Local Government Emergency Plan was reviewed for this report but targeted sampling did not find any specific local government pandemic plans.

Figure 1. WA Principal Pandemic Emergency Plans in Late 2019

- State Emergency Management Committee (SEMC) State Emergency Management Plan(3)
- WA Government Human Influenza Pandemic Plan 2014 (Unpublished draft)[5,6](15)
- Infectious Disease Emergency Management Plan 2017 (IDEMP)[7](16)
- WA State Emergency Welfare Plan 2016 (Interim)(17)
- SEMC Human Biosecurity State Hazard Plan(14)

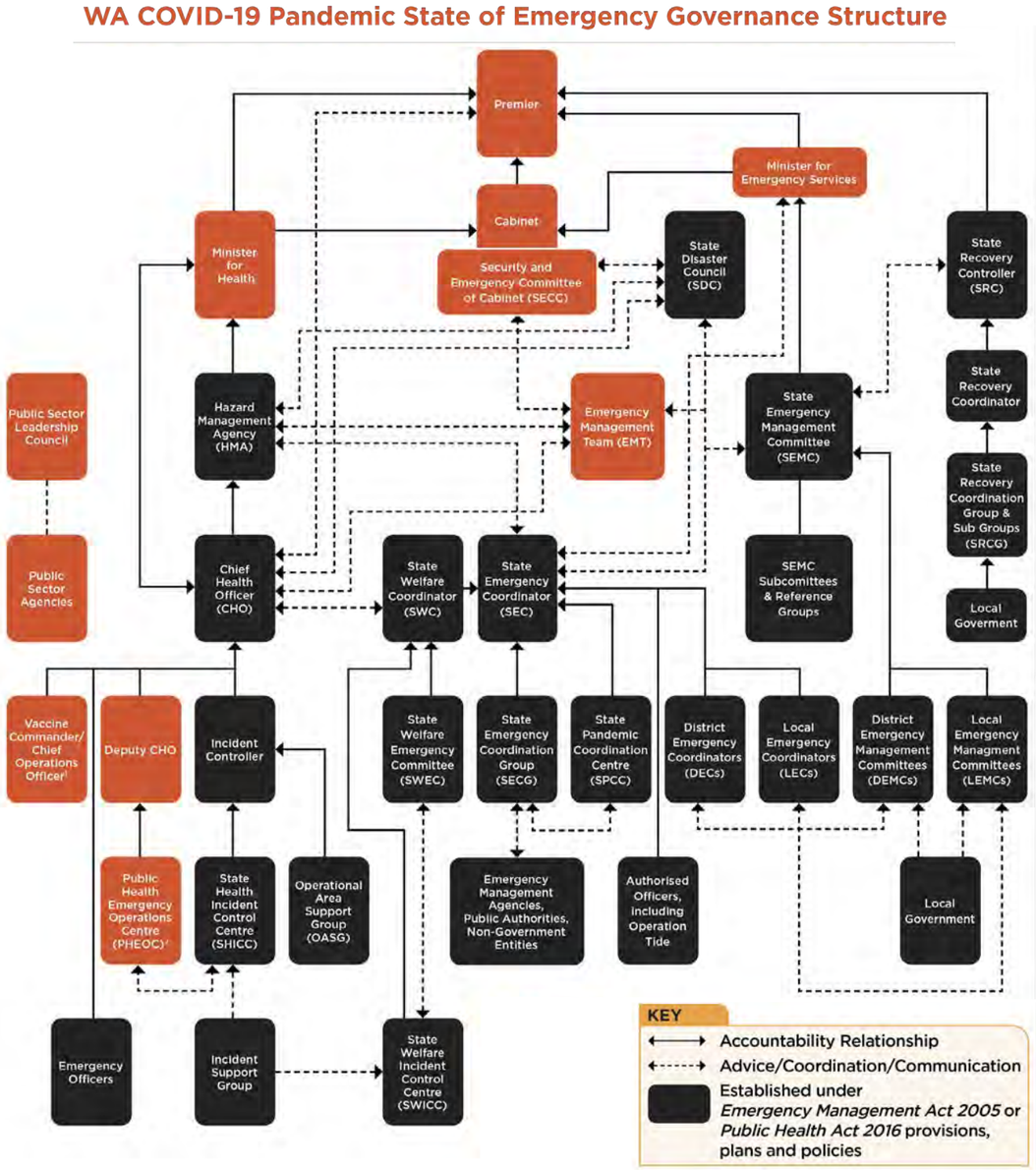
In mid-March 2020, WA declared a state of emergency[8], activated the *Human Biosecurity State Hazard Plan* and *IDEMP*, and stood up the complex and opaque network of operational committees and support groups that form the State's pandemic emergency governance structure (see Figures 2 and 3). The *WA Government Human Influenza Pandemic Plan (2014)* was quickly reviewed and rebadged as the *WA Government Pandemic Plan (WAGPP)* – but still without any input from, or reference to, the ACCHS Sector(18).

These plans were highly government-focused and, in accordance with standard emergency management policy, they followed a "command and control" model(3). Responsibility for ongoing planning was centralised within the "planning cell" of the State Health Incident Coordination Centre (SHICC) in the Department of Health – including planning for outbreaks in remote Aboriginal communities and other "high risk settings"[9](19). The Department of Health's Public Health Emergency Operations Centre (PHEOC) led the public health response from Perth.

At the regional level, WA Country Health Service (WACHS) stood up "in house" Regional Emergency Operation Centres (REOCs) to manage the regional operational response, and brought together large, multi-agency Operational Area Support Groups (OASGs) to provide "support and advice." Membership of these OASGs was ad hoc and, although most ACCHS volunteered to join these groups, none of the WACHS (or State) policy documents included an explicit recommendation (or suggestion) to include them (3,20).

[5]The 2014 plan was never finalised or published. The 2008 version is the most recent accessible version.
[6]The Influenza Pandemic Plan was revised and reissued as the WA Government Pandemic Plan in March 2020.
[7]IDEMP is an internal WA Health plan that supports the Biosecurity Hazard Plan.
[8]Under both the *Emergency Management Act 2005* and the *Public Health Act 2016*.
[9]High risk settings included: remote Aboriginal communities, residential aged care facilities, prisons, hospitals, schools, congregate living centres, mining and offshore facilities and commercial vessels.

Figure 2. The WA COVID-19 Pandemic State of Emergency Governance Structure[10]

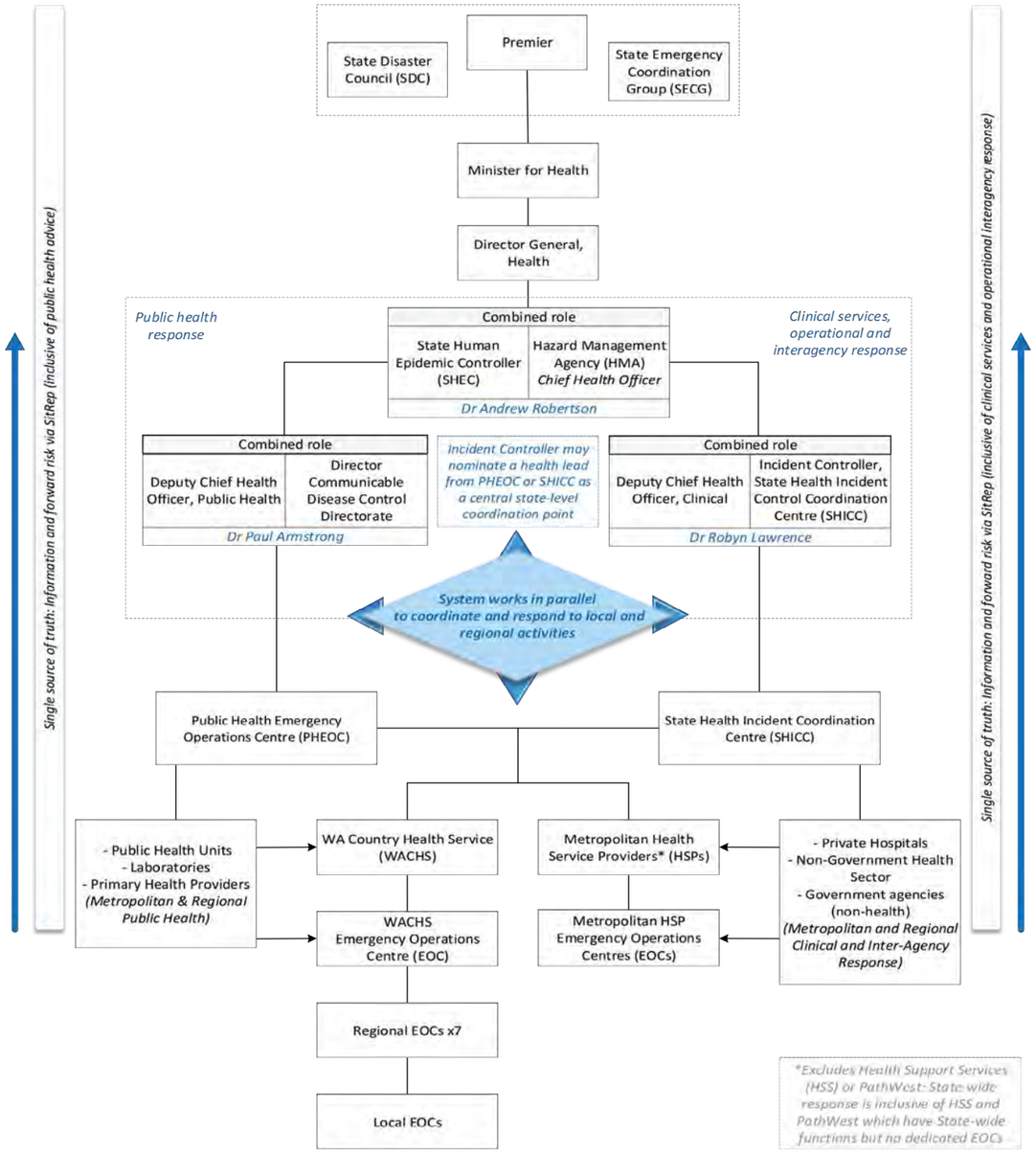


1. Vaccine program initially reported to the SHICC, then the Vaccine Commander, then the Chief Operations Officer.
2. PHEOC merged with SHICC in November 2021.

Source: Review of Western Australia's COVID-19 Management and Response(22).

[10]This governance structure does not extend down to include WA Health Service Providers (HSPs) or the WA Country Health Service (WACHS) regional and local committees. The regional and local committees are shown in Figure 3.

Figure 3. The WA Department of Health's Governance Structure for COVID-19



Note: Regional EOCs were generally referred to as REOCs and local EOCs as LEOCs. The multi-agency OASGs and ISGs are not included in his plan.

Source: COVID 19: WA Integrated Outbreak Containment and Response Plan, 2020(23).

WA Police, the Department of Communities and regional and local governments played coordinating and support roles, further complicating pandemic governance structures. ACCHS were often, but inconsistently, invited to join these supporting committees(21).

As the unprecedented scale and severity of the pandemic became clear, it was quickly apparent that WA's existing pandemic plans were inadequate and that more detailed COVID-19-specific plans were needed—particularly to protect groups that were at highest risk. It was also clear that the State Government would need the ACCHS Sector to assist, both with ongoing planning and with the response itself—as outlined in the Commonwealth's newly released COVID-19 plans(24,25).

The Sector did not hesitate. For two years, as the pandemic evolved, AHCWA and ACCHS across the State voluntarily gave their time to sit on a multitude of government (and non-government) committees, provided feedback on multiple drafts of government-authored plans, and assisted communities on the ground to develop their local plans. ACCHS advocated relentlessly for the needs of Aboriginal people at every opportunity—even as they were stretched by the extra demands of their primary care service delivery.

This 'unofficial' (and often undocumented) planning work was critical to the success of the pandemic response for Aboriginal people in WA; but it came at a cost. It was very time-consuming for ACCHS' CEOs, clinic managers and clinicians, and often intensely frustrating when their cultural and place-based knowledge was ignored or rejected by the 'experts' in Perth[11] or sought too late.

> ***"The Government attempted to communicate with us, involved us in meetings. We felt, however, that they didn't listen to us [or understand] the holistic needs of our patients."***

> ***"The departmental agencies didn't seem to realise that their rules wouldn't work for remotes and they were resistant to our suggestions."***

> ***"They didn't think everything through and their solutions brought new problems."***

Other chapters of this Review describe the extraordinary wide-ranging work done by ACCHS throughout the pandemic, including the multiple systemic barriers they had to overcome along the way due to poor 'mainstream' planning decisions. This chapter voices their frustration with State's pandemic planning system itself—in particular, its narrow focus on government agencies, its top-down approach, and its long-standing neglect of local pandemic planning. It calls for authentic and sustained involvement of the ACCHS Sector at all levels of the State's emergency and pandemic planning processes—in line with the State's own emergency management principles of "community engagement," "shared ownership," and "local knowledge and experience" and with the four Priority Reforms of the National Agreement on Closing the Gap[12](26,27).

[11]The level of frustration was particularly high during the COVID-19 vaccine roll-out and planning for COVID Care at Home.
[12]The National Agreement on Closing the Gap was signed by WA in July 2020.

Box 1. Emergency Management Principles as Outlined in the WA State Emergency Management Plan

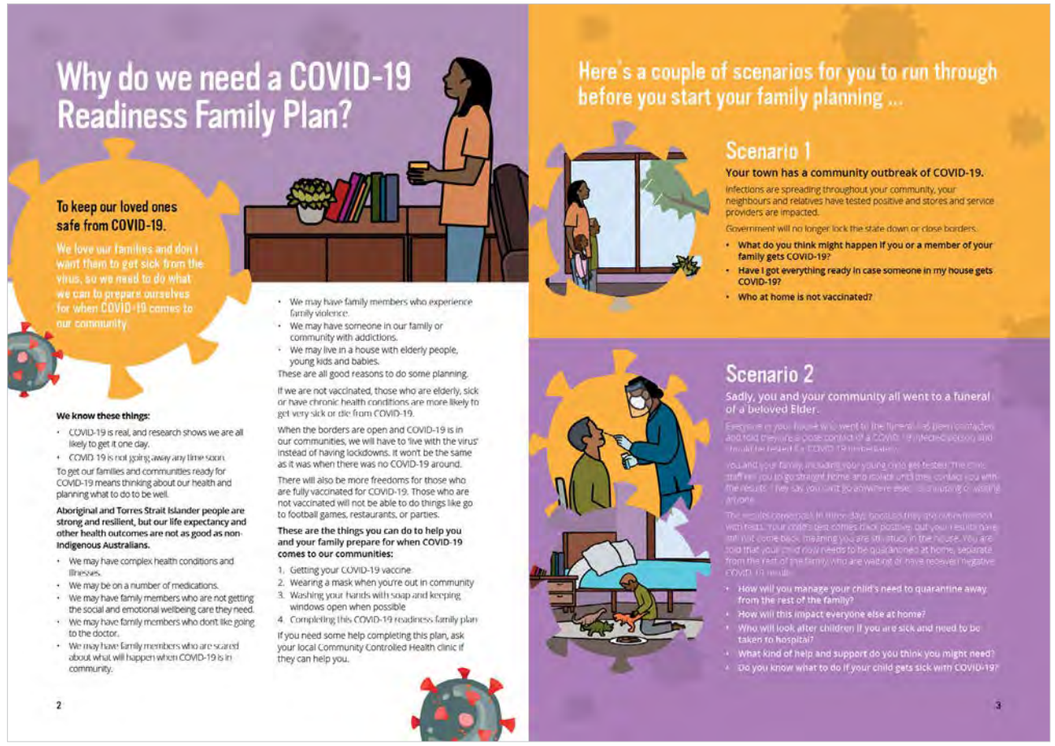
Emergency management arrangements in WA are underpinned by the following emergency management principles:

- risk management approach
- shared responsibility for resilience
- all-hazard approach
- graduated approach
- all-agencies coordinated and integrated approach
- continuous improvement
- community engagement
- integrated information management

This chapter also looks at some of the respectful trusted partnerships, both within and outside the health system, which helped overcome deficiencies in the Government's planning and response. These long established relationships amplified the ACCHS voice centrally and enabled culturally safe solutions locally.

> ***"The networks were great and made us feel part of the plan."***

ACCHS worked tirelessly to assist Government and non-government committees and help communities with local COVID readiness plans. Pictured: AHCWA's COVID-19 Readiness Family Plan (2022)



Government-focused Pandemic Planning

A key principle of emergency management is the *"'all-agencies coordinated and integrated' approach [which] recognises that no single agency can address all of the impacts of a particular hazard"*(20). Agencies can be *"drawn from across all levels of government, non-government, volunteer organisations, and the private sector" and there is a clear acknowledgement that "shared capabilities and skills [are] required to manage hazards"*(22).

Despite this multi-agency principle, the State's pandemic planning was (and still largely is[13]) highly State Government focused. The "responsible organisations" or "agencies" listed in the standing plans were limited to government departments and contracted agencies such as PathWest, Royal Flying Doctor Service (RFDS), and St John Ambulance. The "WA health system" is, by definition, limited to the Department of Health, the State's Health Service Providers (HSPs), and contracted providers. The pandemic plans excluded not only the ACCHS Sector but primary care, more widely, including the Primary Health Networks (PHNs)[14,15](28).

This blinkered approach is starkly illustrated in the WAGPP's section on preparedness for regional and remote WA, where the focus is entirely on services provided by the Government: *"A number of State agencies have a role in the development and implementation of plans to manage a pandemic affecting remote Aboriginal communities in WA. The Department of Health provides primary health care for Aboriginal and Torres Strait Islander people in many remote communities. The Department of Communities manages housing for remote communities in WA, [and] also has direct access into these communities"*(10). Nowhere in the 37-page plan is there any mention of the ACCHS who have provided comprehensive primary care services to a large number of remote communities for decades, and who became a critical part of the pandemic response within a week of this plan's publication.

While the ACCHS Sector in WA recognises that emergency planning processes may be limited by legislation, it was nonetheless extremely frustrating to be 'outside the loop' in this way. In addition to having a limited voice, it meant there were no clearly defined channels of communication between the Sector and the planners in Perth, no formal access to State Government resources[16] or funding, and no data sharing arrangements.

The Sector was also shut off from potentially valuable pieces of information (including regional plans[17]), which were stored behind WA Health's "firewall" in internal systems such as "HealthPoint." These systems require a log-in and are only accessible to WA Health staff with an Health Employee (HE) number. Remote community plans were similarly stored on the inaccessible Department of Communities internal database.

In the absence of data-sharing arrangements, ACCHS had to rely on information from publicly available sources and unofficial 'back channels.' Regional Public Health Units (PHUs) were very supportive but 'their hands were tied.' The WA Aboriginal Advisory Group on COVID-19 (WAAAG) within the Department of Health's Aboriginal Health and Policy Directorate (AHPD) was a vital conduit for communication but it too had no formal standing within the governance structure and was limited in what it could share with the ACCHS Sector.

[13]Although additional plans (for example remote community plans) developed during the pandemic made reference to ACCHS, these plans are now "expired." As of early 2025 the pre-pandemic plans still stand.
[14]The Commonwealth plans refer to the "health sector" which does include primary care.
[15]Since this COVID-19 Review was drafted the Human Biosecurity State Hazard Plan has been revised to include engagement and consultation with the ACCHS Sector and the PHNs have been given specific roles and responsibilities. AHCWA participated in the review process.
[16]For example, although ACCHS were expected to supplement WA's COVID-19 testing system they had no access to Personal Protective Equipment (PPE) from the state.
[17]For example the WACHS Overarching Model of Care for the COVID-19 Pandemic.

Being 'outside the loop' was not just frustrating. It limited the ACCHS' ability to respond to the pandemic in a timely and efficient way. "Integrated information management" is a core principle in emergency management and the lack of access to a shared database meant that ACCHS struggled for real-time data during outbreaks, particularly in remote communities(3). The data flow was one way. ACCHS were expected to provide detailed information to PHEOC on local cases and contacts (as discussed in Chapter 5) but were not given appropriate visibility of the 'bigger picture.'

A lack of designated State funding meant that ACCHS had to respond to the immediate need on the ground (including the production of localised communications, vaccine initiatives, and COVID-19 case management) with no guarantee of reimbursement.

> ***"We encountered continuous roadblocks to access critical data about positive cases in the community."***

> ***"It felt like the government was doing things behind the scenes but not sharing information. The Department of Health must be open to share information with the Sector and not wait for us to beg for it. Give up the constant need for secrecy – deciding what we need to know."***

> ***"When we request information, listen to us and give us what we need."***

The lack of formal integration of the ACCHS Sector within the pandemic planning system (both before and during the pandemic emergency) also meant that the Sector's unique expertise and community links were not utilised when designing whole-of-state ('mainstream') systems.

While there was acknowledgement, early in the pandemic, that the ACCHS Sector needed to be involved in planning, this was largely limited to "Aboriginal-specific topics"—particularly outbreaks in remote communities. The failure to engage the ACCHS Sector (and other Aboriginal expertise) in wider system-level planning resulted in the implementation of many systems and processes that disproportionately disadvantaged Aboriginal people. The over-reliance on digital systems was a case in point. As discussed elsewhere in this review, online requests for isolation supports, online vaccination bookings, digital proof of vaccination, and online registration of Rapid Antigen Tests (RATs) were barriers for many Aboriginal people due to their limited access to digital technologies; but other Western Australians were also affected.

ACCHS input into the design (and testing) of many 'mainstream' systems would have highlighted potential concerns for Aboriginal people and benefitted the whole state.

> ***"Systems that are designed to work well for Aboriginal people, usually work well for other people too."***

ACCHS stepped in with workarounds and alternative programs, but many problems could have been avoided or minimised through early, and genuine, involvement of the Sector in early system design and testing.

> ***"Involve us in the planning. Consult with us before you design your responses."***

Finally, without any formal role in the pandemic response, much of the work of the ACCHS during the COVID-19 emergency was undocumented by the State Government and, therefore, remains largely invisible, both within Government itself and to the general public. This is clearly illustrated in the WA Government's own published *Review of Western Australia's COVID-19 Management and Response*(22), which, while offering brief praise of ACCHS in its conclusion, completely overlooks the extensive and complex work of the Sector in the body of the document[18].

"From small businesses and venues navigating vaccination checks and mask mandates, to Aboriginal community-controlled organisations working relentlessly to support vulnerable people, the remarkable efforts of Western Australians played a significant role in reducing transmission of the virus and protecting those most at need"

– Review of Western Australia's COVID-19 Management and Response(22).

It is notable, but disappointing, that the Sector's work that has received the most public recognition is that done in formal partnership with government and external agencies, such as the Point of Care Testing (POCT) program discussed in Chapter 2 and the GP Respiratory Clinic (GPRC) initiative (Chapter 3).

A major purpose of this review is to document both the scale and scope of the ACCHS Sector's COVID-19 response, with a particular emphasis on the unfunded and *non-contractual* work, which has flown under the radar.

> ***"We had to step in and help with a lot of things that were taken for granted by the Government."***

> ***"The Government seemed to be relying on the AMSs but not really admitting it."***

This Review provides no specific recommendations on how the ACCHS Sector should be integrated into WA's high-level pandemic/epidemic planning and response structure. Rather, it calls for urgent discussions with the Sector—before the learnings of COVID-19 are lost and long before the next pandemic emergency. Discussions should be in the spirit of true partnership and should be undertaken long before draft plans are written. Requests for feedback on government-authored plans are wholly inadequate.

[18]There is one mention of Aboriginal health organisations - in relation to working with WA Health on their "Keeping culture safe and strong" COVID-19 vaccination program.

Enabling a Local Response to Meet Local Needs

> ***"Everywhere is different."***

> ***"Don't make unilateral decisions from Perth."***

> ***"Support local solutions and don't come in over the top of them."***

Under its State Emergency Management Framework, WA follows a "command and control" structure with a formal hierachical system of planning levels—state, regional/district[19], and local(3). WA Health, the lead agency for pandemic emergencies[20], follows a similar structure(20,28).

Local governments are required to develop Local Emergency Management Arrangements (LEMAs) and WA Health is required to develop both regional and local emergency plans[21](3,28). In theory, this emergency plannning is underpinned by the established principle of *"community engagement"* with plans that are "based on local knowledge and experience"(3) (see Box 2).

In practice, when the COVID-19 emergency began, there were few, if any, publicly available local or regional pandemic plans. Local governments had focused their planning[22] over the preceding years on more frequent emergencies such as bush fires, cyclones, and floods; and (with notable exceptions[23]) few local or regional committees had included ACCHS in their regular planning groups[24](29).

WACHS' regional and local plans were stored behind the WA Health digital 'firewall' and were unavailable to the public(20). In all likelihood, these WACHS plans were (and continue to be) operational and focused primarily on their hospital settings; and it is doubtful that there had been input from local ACCHS during their development. Notably, of the high level WACHS plans that are publicly available, the *WACHS Emergency (Disaster) Management Arrangements Policy* makes no mention of ACCHS or other primary care partners, and the *WACHS COVID-19 Emergency Management Framework* openly states that the *"policy does not stipulate the cultural or clinical needs of Aboriginal people"*(20,30).

Box 2. Planning for Emergencies outlined in the WA State Emergency Management Plan

State emergency management plans are to be developed based on:

- best practice principles
- technical and scientific knowledge
- research, including historical data and post-incident analysis
- local knowledge and experience

Source: WA Government State Emergency Management Plan (Page 22)(3).

When the state of emergency was declared in mid-March 2020, the absence of any local or regional pandemic plans, genuinely built on local knowledge and community engagement, was felt immediately. Planning was centralised in Perth and, as discussed in other chapters of this Review, the top down approach led to many poorly-informed decisions. ACCHS on the ground struggled to be heard—even as they stepped in to fill gaps and 'pick up the pieces.'

[19]T The State Emergency Management system uses the term "district." WA Health uses the term "region." There are nine districts/regions across the state.
[20]Technically the Hazard Management Agency (HMA).
[21]The district (regional) emergency management committees (DEMCs) are not required to develop plans. They provide support to Local Governments.
[22]Known as Local Emergency Management Arrangements (LEMAs).
[23]Particularly in the Kimberley.
[24]Under SEMC policy there are no regional plans. District Emergency Management Committees have a support role.

> ***"The Government made a lot of blind responses—sending out directives without really understanding the impacts or the way the region works."***

> ***"In the beginning, it was very confused. A nightmare."***

> ***"They did not listen to our concerns or take our advice."***

> ***"They didn't really trust local responses."***

ACCHS responded immediately to the Government's centralised decision-making and the lack of meaningful local plans by strengthening or building local coalitions. Many joined existing local and regional emergency planning groups, Local Emergency Management Committees (LEMCs), and District Emergency Management Committees (DEMCs)[25]. Most became members of the newly formed WACHS-led OASGs[26] and Local Incident Support Groups (ISGs)[27].

ACCHS also created informal and independent local alliances of their own—bringing together other Aboriginal organisations and both government and non-government allies. Many of these groups were ACCHS-led.

> ***"PAHA [Pilbara Aboriginal Health Alliance] took the role of organising regional meetings. [At the height of main outbreak in 2022] we were meeting sometimes five to six per week—often two meetings per day."***

> ***"Our team met regularly with stakeholders, including WA Country Health Service, Western Desert Lands Aboriginal Corporation, Kanyirninpa Jukurrpa rangers, East Pilbara Independence Support, and the local shires."***

> ***"[Here in Perth] we partnered with the Langford Aboriginal Association and Homeless Healthcare."***

> ***"KAMS [Kimberley Aboriginal Medical Services] created the Kimberley Aboriginal COVID-19 Taskforce. It was seen as the way everyone could collaborate and it became a true interagency group with everyone wanting to be on it."***

> ***"We found that communication only really improved when ACCHS took the lead."***

In areas prone to natural disasters, some ACCHS were already members of the standing inter-agency emergency committees and, therefore, 'two steps ahead.' Elsewhere, trusted partnerships had to be built as the pandemic progressed. It is pleasing that many of these new relationships (especially in DEMCs) have continued; and AHCWA welcomes the recent work of of the SEMC to be more inclusive of Aboriginal people people and organisations within its committee structures(31).

> ***"We have an [emergency] group committee, because of the cyclone season, so we are in a good position to meet all sorts of incidents or events. We have regular meetings and we all know one another—the stakeholders based in the community, the police, the school, the clinic. We already have those relationships. In early 2020 we were in the middle of our cyclone season, so we were meeting for that, and pandemic preparedness got tacked onto our meetings. The cyclone committee evolved into the COVID committee."***

[25]Sometimes ACCHS's CEOs were invited and sometimes they had to advocate for their inclusion in committees and groups.
[26]OASGs are part of the state's formal emergency response structure stood up in an emergency. They are multi-agency and advisory.
[27]WACHS-led Local ISGs were networked across each region (according to the remote communities plan).

> ***"In areas where relationships are good, where organisations know each other and know the area our local responses worked much better."***

> ***"The emergency management structure worked well."***

In regional WA, relationships with local WACHS offices were particularly important. While there was frustration with Perth-based planning decisions, there was considerable praise for the local offices and for the PHUs in particular. These relationships strengthened over time and were critical during the vaccination and "living with COVID" phases.

> ***"We worked exceptionally well with WACHS."***

> ***"At the beginning the relationship with WACHS was not great. We clashed—mostly because the two organisations had different ways of working. There were issues about releasing information in a timely way. Over time there were joint meetings and it got better. They created a position to liaise directly and that started to streamline things."***

> ***"Everyone came together for the same goal. There was a bit of tension between services as we worked out how to collaborate but we were meeting three times a week and we worked it out. We never worked better with WACHS than at this time."***

The ACCHS' involvement in local and regional planning was intense and extremely time-consuming. For the duration of the pandemic emergency, ACCHS CEOs, managers, and senior clinicians voluntarily brought vital cultural, place-based knowledge to the planning process across the state. They did this essential work without additional funding and with little recognition. Most of the Government plans they helped develop have now 'expired' and have been removed from public access via the internet (if they were ever public in the first place).

Although strong, respectful coalitions formed and flourished, there remained throughout the pandemic, a constant frustration with the 'top-down,' 'mainstream' approach and the failure of government departments to truly listen.

Now that the COVID-19 emergency is over, the overwhelming advice from the ACCHS Sector to the WA State Government as it plans for the next pandemic is:

> ***"Don't centralise. Provide general help and guidance but no micromanaging."***

> ***"Have more faith in regional areas. If there are systems already working, use them."***

> ***"Let us design, plan, and respond together. Talk to the people who are going to be experiencing it and plan with them. Share information and co-design a response. It's the stuff we say all the time. Consult with us before you design your responses."***

> ***"The greatest lesson is to listen—to actually be in touch with the people on the ground, with the people themselves. It is easy to make decisions at a distance but they may not be the best decisions."***

Planning for Remote Communities

Very early in the COVID-19 pandemic, there was a strong focus on the heightened risks and challenges for people living in remote Aboriginal communities (see Box 3) due to their poorer access to hospital care, local staff shortages, and higher rates of underlying chronic disease. Aboriginal leaders in WA, and across the country, publicly called for an urgent and coordinated response to address these challenges(32).

Box 3. Remote Communities in WA

WA has more than 200 remote Aboriginal communities[28] across its four northern and eastern regions[29] with an estimated population of 12,000(33). More than 80 per cent of these communities are in the Kimberley. ACCHS provide some level of services (clinical, environmental, or health promotion) to most of these communities.

Although most[30] of WA's standing State level pandemic and emergency plans recognised the heightened potential risk of a pandemic for people living in remote Aboriginal communities, there had been little, if any, specific planning with these communities prior to COVID-19. Remote ACCHS had pandemic/emergency plans for their own clinics, in line with Royal Australian College of General Practitioners (RACGP) accreditation requirements(34); but under the *Emergency Management Act 2005*, responsibility for community planning lay with government—including local governments(16).

As COVID-19 reached regional WA in mid-March 2020, it was rapidly apparent that not only were there no remote community pandemic plans in place, but also a very poor understanding by Government of the needs and response capacities of individual communities. Existing databases on population numbers, underlying health needs, housing stock (and capacity to isolate), and service access were substantially out of date(35). In the University of Notre Dame's report *Really proper dangerous one: Aboriginal responses to the first wave of COVID-19 in the Kimberley* the authors state:

"The inadequacy of data collected by government relating to numbers of Aboriginal people across the Kimberley, their distribution, and characteristics, undermined government's capacity to target areas of high risk quickly, or to put in place plans and contingency plans around where people live, and patterns of mobility. This was compounded both by a neglect of remote community infrastructure, as well as inadequate data as to the state of that infrastructure(35)*."*

Government departments (Department of Communities, Department of Premier and Cabinet (DPC) and the Department of Health) hurried to gather local information and develop plans, checklists, and guidance for communities(36,37). The challenges of directing this work from Perth—in the midst of a lockdown and with poor telecommunications—were enormous and ACCHS were inevitably called in to assist. They had (or could gather) the detailed, current knowledge on the ground and had the necessary trusted relationships.

> ***"We have the networks and local knowledge."***

> ***"We did all that mapping—seven spreadsheets —airstrips, community stores, all the houses, buildings that might be used for isolation, the services, the number of pregnant women …. Everything."***

> ***"We know the gaps in services because we live with those very same gaps and risks in our own families."***

Although ACCHS willingly gave their time to assist with the Government's remote communities planning process, the top-down approach and the disorganised shifting of responsibility between government departments was immensely frustrating. The Department of Health's *COVID-19: Outbreak Response Plan Remote Aboriginal Communities "intended for use by all agencies and responders"* was both unnecessarily complicated and lacking in detail. The desktop exercises[31], which 'tested' the plan, raised far more questions than answers and left ACCHS participants with little confidence in the government's willingness and ability to respond adequately[32].

ACCHS had given up a lot of time to contribute to the Government's "Remote Communities Database" but it was never clear who 'owned' this information, where it was stored, who had access to it, and how it would be used.

Ultimately, ACCHS relied on their own plans and their own scenario-testing exercises. In the Kimberley, the regional peak Aboriginal Community Controlled Health Organisation (ACCHO) led the way by developing and facilitating a series of regional multi-agency desktop exercises (in partnership with WACHS), to test COVID-19 response plans and communication processes. (Figure 4). These exercises were first held in May 2020, just prior to the relaxation of intrastate travel restrictions—and well before the WA Department of Health began holding its desktop exercises from its offices in Perth. Key findings from these exercises included the importance of local partnerships and the urgent need to facilitate the sharing of key response plans, such as those developed by WACHS. These desktop exercises also highlighted the complexity of the WA emergency response structure, and the absence of ACCHS within the formal arrangements.

ACCHS across the State also held internal exercises and 'practice drills' to test their own organisational COVID-19 response capacities (Figure 5). This was particularly helpful where Point of Care Testing (POCT) became available from May 2020. These exercises helped to ensure ACCHS staff had a clear understanding of policies and protocols in place for responding to a case of COVID-19 and helped to identify any gaps.

It is important to note that while the targeted focus on remote Aboriginal communities by the WA Government was important, specific attention should also have been given to Aboriginal people living in regional and urban settings. More than 40 per cent of WA's Aboriginal population lives in metropolitan Perth alone; and throughout the pandemic many of these families faced severe financial and housing stress and inadequate access to culturally safe health and support services[33](38).

[28]Some of these communities are occupied on a seasonal basis only.
[29]Kimberley, Pilbara, Goldfields, and Midwest.
[30]The Biosecurity Hazard Plan does not mention remote communities.

[31]Held in Perth with virtual access for remote participants.
[32]Questions on where external support staff would stay, and how food would be provided to communities were never satisfactorily answered.
[33]Perth covers a large area and the local ACCHS provided regular care to about half the Aboriginal population.

Figure 4. Kimberley Desktop Exercises from 2020 held at Kimberley Aboriginal Medical Services

Figure 5. Remote Community Clinic Operational Drill to Test and Practice Response to a COVID-19 Case Diagnosed in a Remote Community

The Importance of Established Partnerships

"The most important point about developing a plan is not what's sitting on the shelf at the end of it all, but it's the journey along the way and the relationships you make with the people you need to deal with when the actual emergency happens."

– Paul Armstrong, Director of Communicable Disease Control, Department of Health, WA(39).

Although ACCHS were not part of WA's State or regional pandemic planning prior to the arrival of COVID-19, they did have many strong, trusted pre-existing relationships, both within and outside government agencies. These relationships were critical to the success of the pandemic response for Aboriginal people. They helped strengthen the influence of the Sector, and provided support and encouragement.

While this section highlights only three of these relationships, the Sector acknowledges that there were a great many other individuals, organisations, and agencies who supported the work of the ACCHS during the pandemic. Many of these relationships are referred to in other chapters of this Review.

RFDS was an important partner in vaccine delivery

ACCHS SECTOR RELATIONSHIPS

During the pandemic, the most important relationships for ACCHS were those within the Sector itself. ACCHS have a shared Model of Care and the united goal of improving health outcomes for Aboriginal people(40). In WA, ACCHS have worked closely together for decades—sharing ideas, concerns, and information, and providing a strong collective voice for advocacy. AHCWA's role, as the peak body, is to *"support and act on behalf of our (ACCHS) across the state, offering support, advocacy, and influence..."*(40).

The Sector in WA had (and continues to have) a robust and highly effective state-wide networking and communications system that includes both regular CEO Network[34] and Clinical Leadership Group (CLG) meetings[35,36]. When COVID-19 arrived in early 2020, this established networking system was quickly and easily adapted to focus on the pandemic. The network provided a mechanism for the two-way sharing of critical and timely information, but also helped reduce the sense of isolation for individual ACCHS.

> ***"We had a forum to share ideas and support each other. It was so stressful and AHCWA and other ACCHS were instrumental in alleviating some of that stress."***

> ***"It made all the difference being able to reach out and be part of those conversations. It gave the opportunity for us to be able to talk about our issues and to hear that other health clinics are dealing with similar issues. It was really informative... and also reassuring."***

[34]CEOs meet every two months at a two day face to face to meeting. During the pandemic meeting frequency increased as needed.
[35]Clinical leads meet monthly (virtually), with two of these meetings being held face to face each year.
[36]Both groups are facilitated AHCWA. The CEO meetings are chaired by a CEO Member. The CLG meetings are chaired by the AHCWA Public Health Medical Officer.

> ***"AHCWA was brilliant at seeking intelligence, proactively providing information, advocating for the Sector, and securing resources. The team was always available providing support and making sure everyone was connected."***

The National Aboriginal Community Controlled Health Organisation (NACCHO) played an essential leadership role at the national level—working with the Commonwealth Government and advocating for the needs of the Sector. They were instrumental in convening (and co-chaired) the National Aboriginal and Torres Strait Islander Advisory Group on COVID-19, which in turn helped develop a range of national management plans and guides specifically for Aboriginal people(25,41–43). They advocated for funding, facilitated culturally appropriate public communications, and led discussion groups at the national level.

ABORIGINAL HEALTH POLICY DIRECTORATE - WA DEPARTMENT OF HEALTH

The Aboriginal Health Policy Directorate (AHPD) within the WA Department of Health was also a key partner prior to COVID-19. The AHPD had worked closely with the ACCHS Sector in WA for many years and during the pandemic was the Sector's main ally within the Department of Health. Although the AHPD was not part of WA's formal pandemic response structure (which arguably it should have been), the Director and her team were a vital conduit for escalating concerns to SHICC, PHEOC, and the Chief Health Officer (CHO).

The main mechanism for communication was the WAAAG. Established by the AHPD in March 2020, this advisory group paralleled the National Aboriginal and Torres Strait Islander Advisory Group on COVID-19 and its establishment was a recommendation within the "communications" section of the IDEMP(16). The WAAAG brought together Aboriginal leaders from within WA Health, and other WA Government departments, and included representatives from AHCWA and the ACCHS (metropolitan, regional, and remote). The group, which met regularly, had little authority and its role was largely reactive—providing feedback after problems or gaps had been identified. It was, nonetheless, a vital forum for sharing information, concerns, and ideas.

Consideration needs to be given to (re)establishing this group as a permanent structure, in line with the transitioning of the National Aboriginal and Torres Strait Advisory Group on COVID-19—now the National Aboriginal and Torres Strait Islander Health Protection (NATSIHP) sub-committee of the Australia Health Protection Committee (AHPC).

WACHS PUBLIC HEALTH UNITS

Prior to the arrival of COVID-19, most ACCHS in the regions had a close working relationship with their regional PHUs. Over the years, they had worked together on other infectious disease outbreaks, such as mumps and meningococcal disease, and had shared responsibility for sexual health. In particular, ACCHS and PHUs closely collaborated on the syphilis outbreak response across several WA regions.

Throughout the pandemic, these relationships grew closer. In one region, the WACHS public health physician co-chaired regular meetings with the four local ACCHS; in another, an ACCHS staff member was seconded to work full-time in the PHU to facilitate communications.

> ***"We worked very closely with WACHS. The collaboration really worked. Population Health in [town] were fantastic."***

> ***"We already had a good relationship with the regional Public Health Unit and it got better."***

> ***"We had fantastic support from WACHS, particularly from the Public Health Unit and we could consult with the public health physician at any time."***

Conclusion

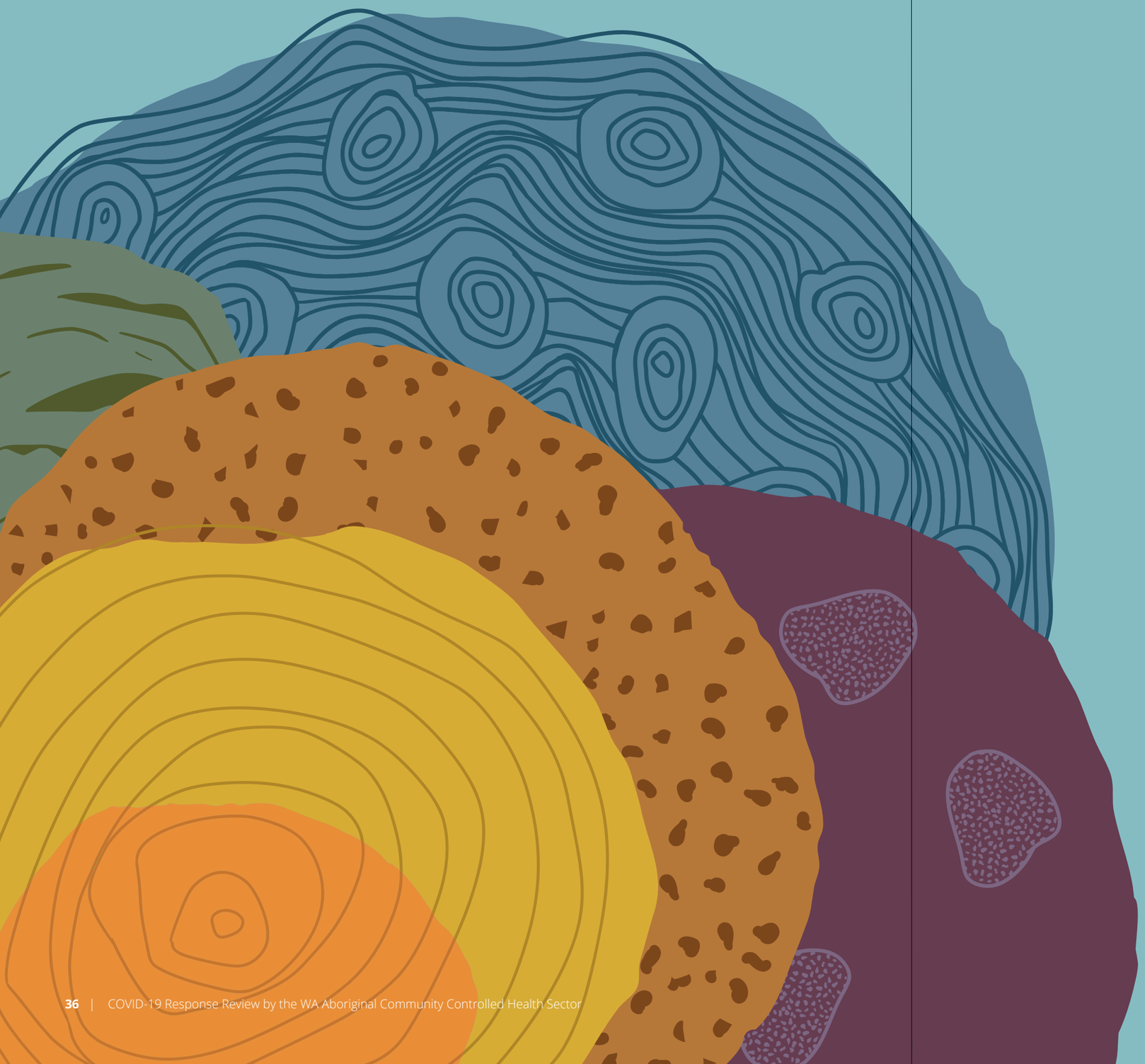
At the start of the COVID-19 pandemic in 2020, ACCHS had no identified role within WA's pandemic emergency planning or response processes. WA's plans and systems were highly centralised and government-focused. Most regional and local plans, where they existed, were not publicly available; and, while most central plans identified the potential heightened risk for Aboriginal people, there were no obvious arrangements in place to mitigate these risks.

Despite their 'invisibility' within the system, AHCWA and the ACCHS willingly provided their expert advice—attending Government meetings, providing feedback on Government-authored plans, and strongly advocating for a culturally appropriate, localised approach. When their advice was ignored, or rejected, ACCHS took the lead and designed their own responses.

In early 2025, five years after the emergence of COVID-19 and more than two years after the pandemic emergency ended, it appears that the leadership and expertise of the ACCHS Sector has been forgotten. Many partnerships remain strong but plans that were developed during pandemic have 'expired'; and the system has largely returned to pre-pandemic status quo. Of the five major pandemic plans, only one (the State Hazard Plan - Biosecurity) has been revised to include a role for the sector—and even then the role is consultative only. The ACCHS Sector remains invisible within WA's standing pandemic plans.

WA Premier Mark McGowan wears and AHCWA branded facemask during a press conference, 2021.

Source: Nine News.



Chapter 2
The Public Health Response

“We kept the virus out for a long time.”

“It was so important having a direct voice to the community … people they actually knew giving the message … a trusted source.”

“We had huge information sessions, community meetings, radio, Facebook. We taught hygiene and were really locked down.”

Introduction

COVID-19 emerged as a serious new infectious disease in Wuhan, China in late 2019 and began spreading internationally in early 2020(1). Australia announced its first confirmed case on 25 January 2020 after an overseas visitor became ill in Victoria(2). Four weeks later, on 21 February 2020, WA registered its first case when an Australian passenger was flown home for treatment from a cruise ship docked in Japan[1](3).

A rapid rise in cases in WA soon followed, driven by overseas arrivals[2] and their close contacts (see Figures 1 and 2)(4). By 20 March 2020, cases had been detected in regional WA and the first cases acquired locally through transmission in the community had been confirmed(5). Several hospital workers were among the notified cases(5).

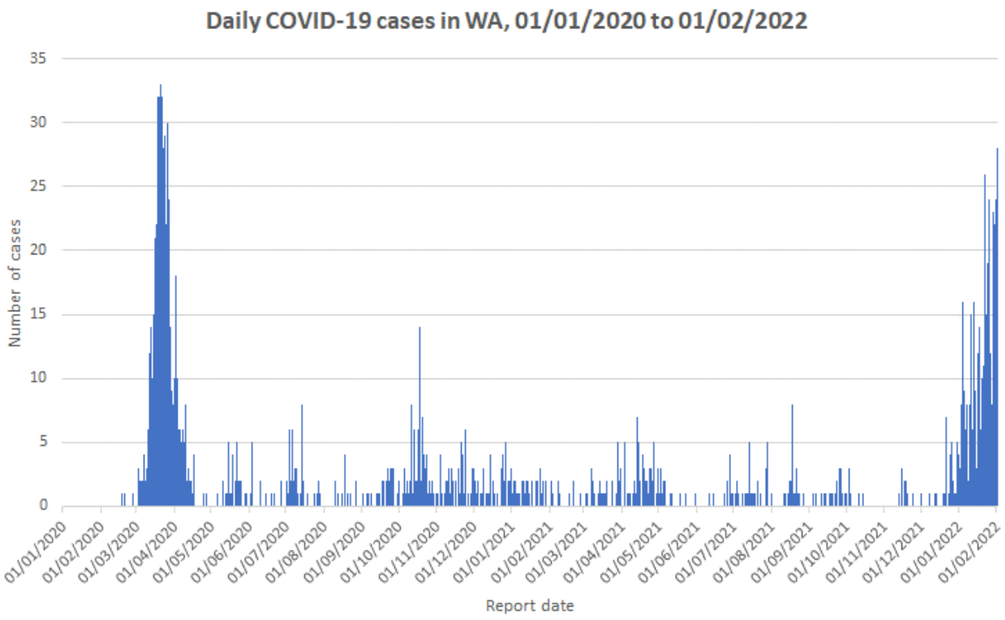


Figure 1. Daily COVID-19 Notifications in Western Australia from January 2020 to February 2022

Source: WA Department of Health. Supplied by Communicable Disease Control Directorate – Surveillance and Disease Control.

[1]The first case was diagnosed in Darwin but arrived in WA for treatment on 21 February 2020.
[2]Including from several cruise ships.

Figure 2. The Artania Cruise Ship (which at the time was responsible for 81 of WA's 544 cases of COVID-19)

Source: ABC News(6).

Both the State and Commonwealth Governments responded swiftly to the escalating crisis by implementing travel restrictions and mandated "public health and social measures" (PHSMs)—including quarantine requirements and limits on gathering sizes(4). On 15 March 2020, the WA Government declared a state of emergency[3](7).

The initial aim of these public health measures was to slow the spread of the virus, 'flatten the curve,' and prevent the hospital system from being overwhelmed(8). The measures were so effective that by late April 2020, the 'first wave' had been fully controlled and transmission of the virus within the WA community had been eliminated[4](7).

In May 2020, the State entered its almost two year-long "suppression" phase, with the new aim of keeping the community COVID-free, while awaiting the development, and widespread roll-out, of effective COVID-19 vaccines and/or treatments[5](7).

This chapter documents the essential and wide-ranging public health work done by ACCHS in WA during the first two years of the pandemic, including advocating for the needs of Aboriginal people and stepping in to fill multiple gaps in government service provision(12,13). The chapter focuses on public communications, border controls (including for remote communities), "Test, Trace, Isolate and Quarantine" (TTIQ), and community-based infection control. It describes the work done by the ACCHS, but also discusses the direct impact of the public health measures on the ACCHS themselves—particularly the major impact of the State border closure on the retention and recruitment of staff.

The ACCHS' major public health roles (in communications, testing, and quarantine support) after the border opened on March 2022, are detailed in Chapter 5.

Box 1. COVID-19 Suppression in WA

Eliminating the virus, and keeping WA (almost) COVID-free until March 2022 when the border reopened, was an immense public health undertaking; and the WA ACCHS Sector played a major and indispensable role from the very outset. The results were remarkable. During the 'first wave' in March and April 2020, the State's overall COVID-19 case number was limited to 551(9). By the end of 2021, this number had risen to only 1161, with very few cases acquired locally(10). Most remarkably, and despite several very close calls[6], none of WA's reported COVID-19 cases during 2020 and 2021 were Aboriginal people or workers in the ACCHS Sector(11).

[3]15 March 2020 a state of emergency under the WA *Emergency Management Act 2005*; 16 March 2020 a Public Health Emergency under the *Public Health Act 2016*.
[4]Existing positive cases were all in secure managed isolation.
[5]COVID-19 vaccine development started in mid-March 2020.
[6]Particularly in the Kimberley where there were 17 reported cases including some hospital staff in the first wave.

Communications and Public Messaging

In late 2019, prior to the emergence of COVID-19, WA's emergency pandemic plans all contained sections on public communication, with most plans highlighting the need for targeted messages for at-risk groups, and stressing the importance of two-way communication. The WA State Emergency Plan states:

"Communities threatened by or experiencing an impact from an emergency have an urgent and vital need for information and direction. They need to know what is likely to happen (or has happened), what to do, and what to expect. They also need to know what the authorities are doing"(14).

Although Aboriginal people were identified as a population at-risk, there was no specific guidance on communication with Aboriginal families and communities in any of the plans; and no identified role for the WA ACCHS Sector[7](14–17).

As COVID-19 emerged in early 2020, ACCHS rapidly and proactively stepped in to fill this major gap in communication. The ACCHS' connection to WA's Aboriginal communities was unparalleled; and the Sector had many years of experience producing high quality and effective health messages and resources (often in partnership with WA Health[8]). AHCWA and several of the larger ACCHS had dedicated communications (or health promotion) staff.

As mainstream reports (and rumours) started to circulate, ACCHS used their networks and media expertise to ensure that reliable, timely information and advice was readily accessible to Aboriginal communities across the state(18). Critically, they culturally translated information to make it clear, trustworthy, and meaningful[9](19).

ACCHS' communications followed official government content requirements; but the messages themselves were simple, engaging, community focused, and locally relevant. Messaging emphasised cultural values such as "protecting our Elders" and was personalised through the use of local imagery and delivered by familiar, trusted voices. A wide range of media methods were used and, wherever possible, information was translated into local languages. See examples in Figures 3 to 18.

> ***"At the beginning, people couldn't understand the messages. They were not tailored to Aboriginal communities, not in language, not pitched at the level people could really understand."***

> ***"The Health Department information was very generic."***

> ***"...much of what was available lacked cultural sensitivity."***

> ***"We created our own local resources so that the information was clear and accurate."***

> ***"We used stickers, posters... messages on the radio... videos... even a film on TV."***

[7]National plans had a role for National Aboriginal Community Controlled Health Organisation (NACCHO).
[8]For example, child health, sexual health, and immunisation.
[9]ACCHS and affiliates in other states did the same.

Figure 3. Our Elders are At Risk Poster

Source: South West Aboriginal Medical Services(20).

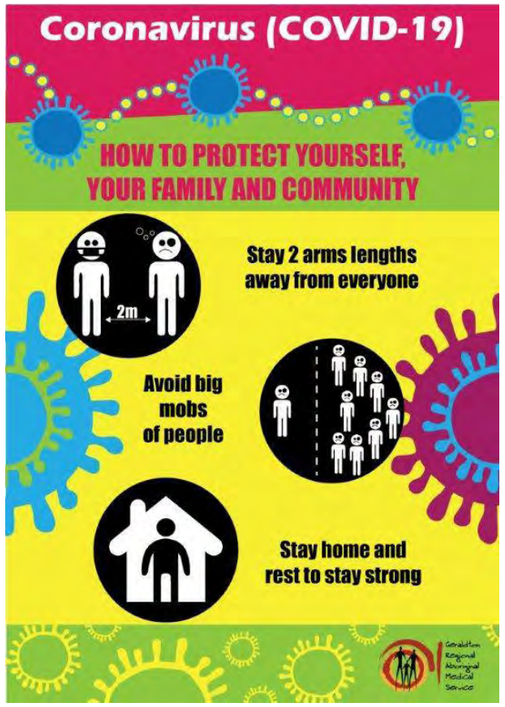


Figure 4. COVID-19: How to Protect Yourself, Your Family and Community Poster

Source: Geraldton Regional Aboriginal Medical Services Facebook page(21).

> ***"We worked with the Elders and kept fine-tuning until we got it right."***

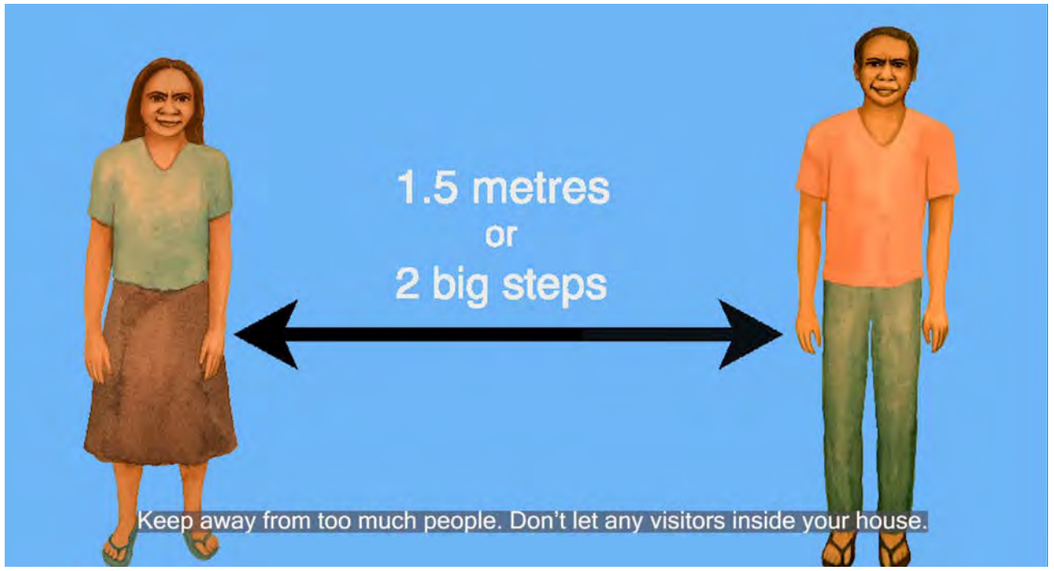
> ***"Social distancing, for example, was a very foreign term. Within days of the state of emergency being declared, we had made and posted a video, translating it as staying 'two big steps' away from others. That worked really well and the phrase was picked up and used elsewhere."***

Figure 5. Stills from Social/Physical Distancing Kriol Advice Video

Source: Kimberley Aboriginal Medical Services(22).

Figure 6. Still from Kimberley Coronavirus Animation

Source: Nirrumbuk Environmental Health and Services and Kimberley Aboriginal Medical Services(23).



The messaging needs for Aboriginal communities in WA changed throughout the pandemic and the ACCHS adapted their approach accordingly. The initial messaging focused on government rules about travel restrictions and limits to gathering sizes, advice about hand washing, cough etiquette and social distancing, and symptom recognition.

Detailed local, practical information was key—coupled with a strong positive focus on social and emotional wellbeing.

Figure 7. Pictorial Graphic for COVID-19 Symptoms

Source: Wirraka Maya Health Service Aboriginal Corporation COVID-19 Update(24).

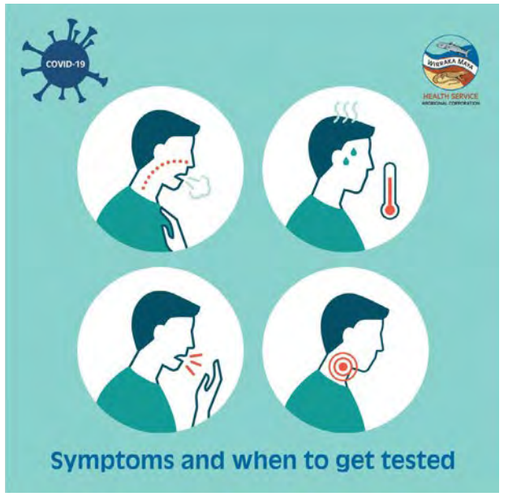


Figure 8. Graphics Describing Limits on Social Gatherings from the Kimberley Bulletin (a collaboration of Kimberley Aboriginal Medical Services, Binarri-Binyja Yarrawoo, and Empowered Communities)

Source: Kimberley Bulletin(25).

Figure 9. COVID-19 Prevention: Look After Yourself and Your Community

Source: Aboriginal Health Council of Western Australia(26).

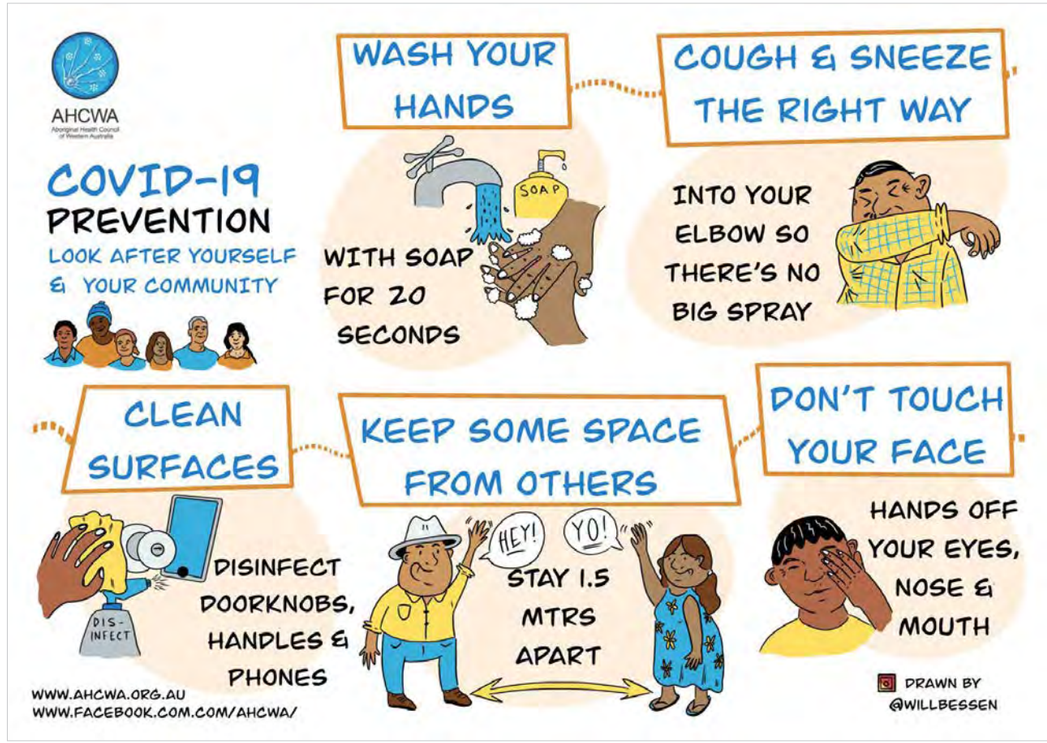


Figure 10. Coronavirus Update for the Fitzroy Valley

Source: Nindilingarri Cultural Health Services Facebook Page(27).

FACE TO FACE COMMUNICATIONS

Communications early in the pandemic relied primarily on 'arm's length' methods (radio, television, newsletters, printed posters, flyers, and Facebook posts), in keeping with strict physical distancing requirements.

Once the restrictions on public gatherings were relaxed in mid-2020, face-to-face and interactive methods were added to the mix—including public forums and in-person 'Q and A' yarning sessions. In-person ***"direct messaging was particularly useful where there had been an erosion of trust from rumours and messages from outside sources"*** and was vital during the vaccine roll-out. Specific COVID-19 vaccine messaging is discussed in Chapter 4.

Figure 11. Delivery of Service Notice

Source: Broome Regional Aboriginal Medical Services Facebook Page(28).

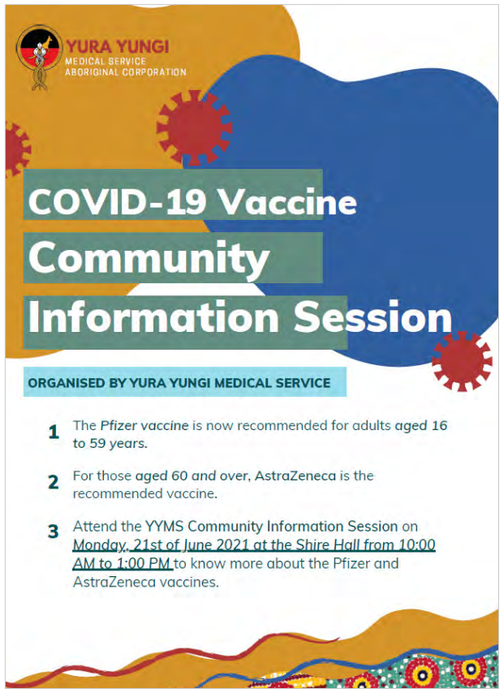


Figure 12. COVID-19 Vaccine Community Information Session

Source: Yura Yungi Medical Service Aboriginal Corporation(29).

These community education sessions were a unique feature of the ACCHS' COVID-19 communications strategy.

Print media was, again, important prior to the reopening of the border, with many ACCHS producing their own localised booklets containing advice, checklists, and essential contact numbers.

> ***"The demand was huge. We had to upgrade our photocopier to a publishing machine to cope with the workload."***

As the reopening of the border approached, government restrictions were re-introduced and the need for information and strong public messaging intensified.

Figure 14. Masks and Rapid Antigen Test Guidelines Social Tile

Source: Yura Yungi Medical Service Aboriginal Corporation Facebook page(31).

Figure 13. COVID-19 Readiness Family Plan Front Page

Source: South West Aboriginal Medical Service(30).

Figure 15. Mask Guidelines Poster

Source: Mawarnkarra Health Service(32).

TWO-WAY COMMUNICATION

Two-way communication (described as a key communication principle in many pandemic plans) was an integral feature of the ACCHS grass-roots approach(15,33). ACCHS' close and trusted relationships with communities not only assisted them in honing their standard messages, but also gave them important insight into specific community (and individual) concerns. This nuanced understanding enabled staff to respond more effectively to the flood of global COVID-19 misinformation disseminated via social media. Few, if any, Aboriginal communities were immune from this 'infodemic'—even in places with limited digital infrastructure(34,35).

> ***"There was a lot of fear and anxiety; a lot of myths going around."***

Myths varied widely—from the ***"apocalyptic... everyone is going to die"*** to ***"it is only white fellas that get COVID"***—and each needed its own tailored response. ***"With our direct voice to the community we could squash rumours and give really reliable information and provide reassurance. We tried to be clear with our messaging and stick with credible sources—acknowledge the rumours and extreme conspiracy theories, but come back to the messages coming from the Commonwealth and Health Department."*** ACCHS created 'myth buster' flyers, Facebook posts and videos, and called community meetings to discuss what they were hearing.

> ***"Our long-standing staff would go out and yarn with some families directly."***

Figure 16. Excerpt from KAMS' Kimberley Bulletin – Myth Busting

Source: Kimberley Bulletin(18).

Myth Busting!

If you hear or read something and you're not sure, check the facts: www.kams.org.au

1. Is coronavirus the same as the normal flu?

X No, coronavirus is not the same as the normal flu. Not long ago, this virus had never been heard of. No human immune system had seen it before January, so no one has any natural defense or immunity. It's more contagious than the flu — about twice as contagious, perhaps more; the numbers are still being worked out.

Unlike the flu, there's also currently no vaccination for coronavirus and because it's so new, a lot of the facts about coronavirus are still being worked out. A regular flu shot will not protect you from coronavirus, but will protect you from the regular/seasonal flu.

2. Coronavirus is a white fella disease and won't get to us, right?

X Unfortunately, this is far from the case. Coronavirus can infect all humans, regardless of their background and where they live. For Aboriginal people we need to be more careful because many of our people have diabetes or heart problems. Clinic mob (KAMS) are very worried about how this virus will hurt our people.

3. I got told that I can just drink a hot cup of tea to kill the virus? Or taking a hot shower?

X A cup of tea, or drinking anything won't prevent the virus from making you sick if you get the virus. When the virus is in your body, there's no way of killing it and your body just needs to fight it off. Taking a hot shower will not prevent you from catching COVID-19.

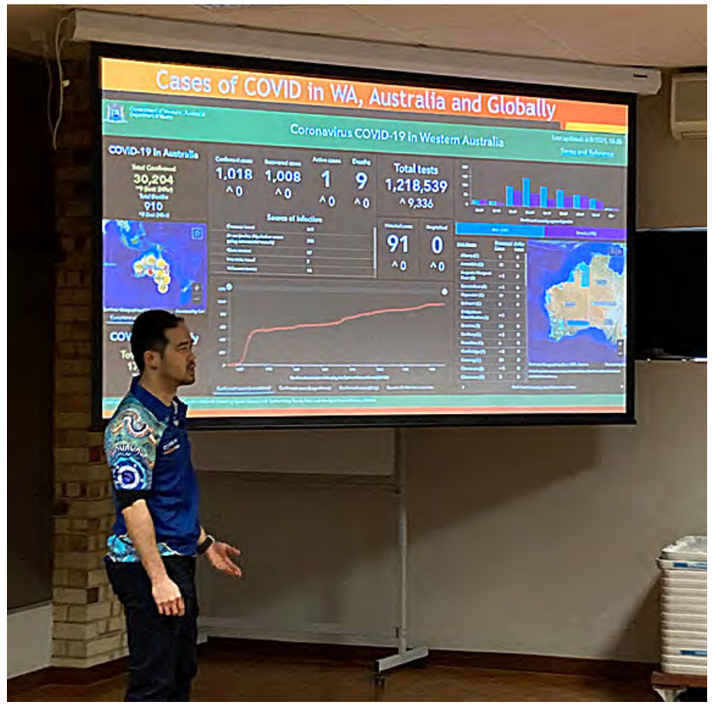


Figure 17. An ACCHS GP provides an update on COVID-19

Source: South West Aboriginal Medical Service (36).

Occasionally, the Sector was able to cut off a myth at its source. Early in the pandemic, community members alerted AHCWA to a newly circulating Facebook post, claiming that COVID-19 testing in schools was being used to steal Aboriginal children from their families. Remarkably, AHCWA staff were able to identify the international source of the story and effectively counteract it online before the post spread beyond the region.

COLLABORATIONS

The Sector's essential 'public communications' work was very labour intensive and ACCHS often partnered with other local Aboriginal organisations to share resources and increase their reach. WA ACCHS borrowed and adapted materials from other Aboriginal organisations across the country (particularly ACCHS in other jurisdictions and NACCHO) and they happily shared their own resources in return. It was a genuine collective effort.

The Sector (AHCWA in particular) also worked very closely with WA Health, through the Aboriginal Health Policy Directorate (AHPD). Many resources were jointly developed and co-branded and the AHCWA website became a 'go to' public repository for Aboriginal COVID-19 resources (ACCHS, State and Commonwealth)(see Figure 17).

The reach of WA ACCHS' COVID-19 resources was extensive—and went far beyond Aboriginal communities. Posters were used (and continue to be used) throughout the state by government health services, schools, the social services sector, roadhouses, and tourist attractions.

> ***"Everywhere I go I see the first poster we developed. It is still amazingly popular."***

Figure 18. Poster Produced Early in 2020 by Kimberley Aboriginal Medical Services and used in ACCHS and non-ACCHS settings

Source: Kimberley Aboriginal Medical Services(37).

This "mainstream" popularity is a testament to the clarity of the messaging and the exceptional quality and appeal of the design imagery. Some of the talented Aboriginal graphic artists working in the Sector during the pandemic have subsequently been hand-picked to work at bigger organisations.

Box 2. ACCHS Indispensable Communications Role

> The WA ACCHS Sector played an indispensable 'public communications' role throughout the pandemic due to a unique set of strengths—close and mutually respectful connection to local Aboriginal communities, deep cultural knowledge, media expertise and experience, and State-wide networks. ACCHS were also free from the bureaucratic red tape and sluggish approval processes of government and could respond swiftly to emerging needs and changing advice.

WA Border Controls and Travel Restrictions

The cornerstone of WA's public health response to COVID-19 was its early and sustained border control, including specific measures to protect Aboriginal communities (see Figure 19). This multi-layered (international, interstate, and intrastate) approach to limit spread of the virus was one of the strictest in the world, and ultimately proved highly effective in reducing hospitalisations and deaths(39).

ACCHS in WA were very supportive of the border controls and travel restrictions, and contributed significantly to their success through their public messaging and comprehensive support of remote communities.

There was, however, a significant price to pay. The interstate (and international) travel restrictions had a major impact on ACCHS staff recruitment, retention, and wellbeing; and intra-state restrictions complicated patient care. For most ACCHS there was a significant increase in paperwork and a direct financial cost.

BORDER RESTRICTIONS IMPACTING WA

Aboriginal leaders recognised very early that COVID-19 posed a major and disproportionate threat to Aboriginal people(40). During the most recent prior pandemic in 2009 (the H1N1 swine flu), Aboriginal people in WA were seven times more likely to be hospitalised than non-Aboriginal people, and accounted for 17 per cent of the state's influenza deaths[10](41).

Figure 19. WA Border Closure Factsheet

Source: Government of Western Australia(38).

[10]Aboriginal people in 2009 were approximately 3.1% of WA's population.

A young Aboriginal man from a remote WA community was the first person in Australia to die from the disease in 2009(42).

As news arrived of the emerging worldwide COVID-19 threat, Aboriginal leaders urged governments to take immediate action, with an initial focus on preventing spread of the virus into remote communities due to their poorer access to specialist health services, higher rates of underlying chronic illness, and often inadequate housing quality and maintenance(13,43,44).

In early March 2020, several remote Aboriginal communities, including some in WA, took independent action and closed their access roads to non-residents (see Figure 20)(45–48).

A few days later, on 19 March 2020, the WA State Government followed the community's lead and issued a legally binding Remote Aboriginal Communities Direction to protect all remote communities in WA from unauthorised visitors(50). Penalties applied for non-compliance[11]. Although there was no mandatory quarantine associated with this Direction, remote Aboriginal communities were entitled to apply their own rules, and some did. This Direction remained in force for over two years until 16 June 2022—three months after WA reopened its border(51).

Figure 20. Beagle Bay Community Closed the Road to Non-residents, 2020.
Source: ABC News(49).

[11]Up to $250,000 for body corporates.

On 26 March 2020, the Commonwealth (with support from the WA Government) implemented a wider travel restriction zone to further protect remote Aboriginal communities. Under the Commonwealth Biosecurity Determination, this zone covered the whole of the Kimberley (including the towns), parts of the East Pilbara, and the Shire of Ngaanytjarraku[12] (see Figure 21)(45). The Determination included a strict requirement to self-isolate for 14 days before entry into the zone[13](45,52,53). Following consultation with Aboriginal leaders, the Determination was lifted 10 weeks later on 5 June 2020, on the grounds that "elimination" of the virus had been achieved and WA was in its "suppression" phase(54).

In addition to introducing formal restrictions on visitor travel into remote Aboriginal communities (through the WA Direction and the Commonwealth Determination), both Governments encouraged Aboriginal people to return to their communities where they would be less likely to be exposed to the virus. Ben Wyatt, Treasurer of WA, stated on the 19 March 2020 that *"The safest place for Aboriginal Western Australians during these times is in their communities"*(56). Travel support for this voluntary 'return to communities' initiative was made available by the State Government(57).

Also during March 2020, WA implemented strict international and interstate border restrictions (with quarantine requirements) to protect the whole WA population. These controls lasted, with some brief variations[14], for two years until 3 March 2022.

Figure 21. Map of Designated Biosecurity Areas in WA
Source: Government of Western Australia(55).

On 31 March 2020, as a further measure to reduce spread within the State during the first wave, a restriction was placed on travel between all WA regions and between each of the four Kimberley shires[15] (there was no quarantine requirement for eligible travel between regions, except for entry into the Kimberley[16]). This regional travel ban was progressively eased from 18 May 2020, and fully lifted on 5 June 2020, when the first COVID-19 wave had been fully controlled(58).

[12]Announced by the Prime Minister on 20 March 2020.
[13]Also announced by the Prime Minister on 20 March 2020.
[14]There were periods when WA was open to other "zero virus" states and briefly to New Zealand.
[15]During the first wave new cases peaked on 24 March 2020; active cases peaked on 29 March 2020.
[16]And for other parts of the state under the Commonwealth Biosecurity Determination.

Box 3. Timeline of COVID-19 Border Events in WA

11 March 2020	World Health Organization (WHO) declares COVID-19 a worldwide pandemic(59).
15 March 2020	WA declares a state of emergency[17].
16 March 2020	Commonwealth orders overseas travellers to self-quarantine for 14 days.
17 March 2020	Department of Foreign Affairs and Trade urges Australians to return home as soon as possible.
18 March 2020	Commonwealth declares a Human Biosecurity Emergency *(Biosecurity Act 2015)*(60).
19 March 2020	Commonwealth mandates hotel quarantine for overseas travellers.
19 March 2020	WA issues a WA Remote Aboriginal Communities Direction to restrict movement into remote communities throughout the state(61,62).
20 March 2020	Australia closes its international border to non-residents and non-citizens[18].
24 March 2020	WA commences progressive closure of its border with other Australian states and territories. All travellers entering WA are ordered to self-isolate for 14 days[19](63,64).
26 March 2020	Commonwealth implements the Commonwealth Biosecurity Determination restricting travel into a zone that includes the whole of the Kimberley, parts of the East Pilbara, and the Shire of Ngaanyatjarraku[20].
31 March 2020	WA introduces inter-regional travel restrictions, including additional restrictions between the four local government areas in the Kimberley[21] (58,65–67).
6 April 2020	WA border closes (few exemptions).
2021	WA implements three brief (three to five day) lockdowns affecting Perth, Peel, and the South West[22](7).

[17]A declaration was made under the Public Health Act the following day.
[18]Lifted for WA on 3 March 2022.
[19]There was temporary relaxation of the border with some states during 2020 and 2022, dependent on case numbers. Restrictions fully lifted 3 March 2022.
[20]Lifted 5 June 2020(58).
[21]Fully lifted 5 June 2020(58).
[22]Three brief lockdowns. The first was from the 31 January – 5 February 2021 for Perth, Peel and Southwest. The remaining two, 24 April – 27 April 2021 and 29 June – 3 July 2021, only involved Perth and Peel regions.

IMPACTS OF INTERSTATE AND INTERNATIONAL BORDER CONTROLS ON ACCHS

The prolonged closure of WA's border with the rest of Australia (and the world) had a major impact on the usual flow of people, goods, and services. The consequences were particularly severe for remote ACCHS in the east of WA who had strong cross-border cultural connections with the Northern Territory (NT) and South Australia (SA), and routine supply routes that crossed those State borders.

There were, however, implications for all ACCHS in WA who employed or recruited staff from outside the state.

Retention and Recruitment of Staff

Prior to COVID-19, WA had a significant health workforce shortage, particularly in regional areas, and especially with respect to nurses, doctors, and allied health professionals. Many ACCHS had adapted to this local shortage by recruiting some of their staff from other states or internationally, and by using short-term travelling locums. Most remote ACCHS clinics relied on a regular fly-in-fly-out (FIFO) model—with staff travelling from Perth, interstate, and overseas (especially New Zealand). Many of these FIFO staff had worked in the Sector for years, some for decades.

> ***"We have a moving workforce."***

Kununurra, Western Australia

The impact of WA's COVID-19 border restrictions on the ongoing availability of this mobile workforce was profound. For some interstate and international staff based in WA, the anxiety and uncertainty generated by the pandemic was too great and they returned home to be with their families.

> ***"We lost our overseas doctors."***

> ***"The practice manager and a senior GP left to go back home."***

For some FIFO staff, the bureaucratic hurdles associated with re-entry applications, and the repeated periods of hotel quarantine, became unsustainable.

> ***"We lost dedicated staff who had worked with us for years."***

Replacing these staff members was almost impossible during the pandemic.

> ***"We found it very difficult to get staff even before COVID so it was even more difficult when COVID hit."***

> ***"All the locums in WA were fully stretched and there were no doctors coming in from interstate."***

> ***"The hard borders meant that getting staff from anywhere was almost impossible. We had a big staff shortage."***

ACCHS also had to compete for workers with higher paying government health services and other industries.

> ***"We found that mining companies took our staff, leaving us operating with a skeleton workforce."***

Maintaining the safe delivery of essential comprehensive primary healthcare was the Sector's major priority throughout the pandemic, and ACCHS in WA went to great lengths to retain and recruit staff. Some remote ACCHS offered incentives for staff to remain in WA while they were on leave.

> ***"All the nurses in remote areas were FIFO (six weeks on three weeks off) and we were able to get many of them to take their leave in town rather than go interstate and not be allowed back in. We supported them to stay in nice [coastal] accommodation."***

In some locations, FIFO staff generously offered to stay in their remote locations for months at a time.

> ***"Some stayed for the duration of the pandemic."***

> ***"We had no permanent doctor and the locum ended up staying at the service throughout."***

Some remote ACCHS switched almost entirely to a telehealth model of care for their GP consultations to minimise (or eliminate) the need for FIFO GPs to cross the State border[23].

Protecting Aboriginal communities from COVID-19 was vital; and ACCHS readily accepted the need for strict border controls and the quarantining of arrivals. They were, however, extremely frustrated by the opaque, bureaucratic processes associated with permissions for 'essential worker' travel.

> ***"Getting people over the border was a major ordeal, a logistical nightmare."***

[23]This worked particularly well for GPs living across the border in Adelaide and Alice Springs but depended on Aboriginal Health Workers or nurses being on site with the patient.

Derbarl Yerrigan Health Service staff prepare food boxes for COVID-19 patients.

> ***"Each application had to be approved, and there were delays and confusions all the time. It was time consuming and frustrating."***

> ***"We had to explain over and over why staff [including nurses and aged care staff] were essential workers and needed to be let in."***

Applications were rejected repeatedly and often required several resubmissions (after slight tweaks to the wording). A number of interstate ACCHS staff flew into Perth, in good faith, only to be turned back at the airport—forced to return home on the next flight. Clinics were left short-staffed due to futile and time-consuming flights back across the continent, and patient care was put at risk.

Quarantine rules were also inconsistent and often seemed irrational. There were situations when staff members could have travelled quite safely from the airport to their remote community accommodation for quarantine, but were forced instead to stay in costly hotel rooms in Perth.

It was a learning curve for everyone; and the application process for entry into WA ***"got easier as time went on."*** ACCHS administrative staff got better at wording applications, successful application strategies and tips (including letter templates) were shared across the Sector, and helpful allies were identified within government agencies. The staff of the Chief Health Officer (CHO) and some regional senior police officers were particularly supportive.

Box 4. The Cost of Border Restrictions

The cost to the WA ACCHS Sector of the interstate border restrictions, and associated 14-day mandatory quarantine, was substantial. Although ACCHS were able to partially offset the wages of those in quarantine by providing alternative work—***"we got people to do audits, community mapping and a lot of administration work from their hotel rooms", "doctors and nurses did video-consults and paperwork"***—the cost of hotel accommodation was far outside ACCHS' usual operating budgets. The biggest costs, however, were the loss of valued long-term staff and the stress from overwork for those who remained.

Disruption to Supply Lines for Goods and Services and Interstate Medical Care

WA's easternmost ACCHS faced additional challenges because of WA's strict interstate border restrictions. Two ACCHS in WA had long-standing collaborative clinical arrangements with hospitals and healthcare providers across the border[24]. One service had relied for over a decade on regular monthly visits from an interdisciplinary specialist and allied health team from Adelaide, and another worked closely with the dialysis service and hospital in Alice Springs(68). These collaborations provided travel efficiencies, but more importantly, they recognised and respected the strong cultural networks that, for many WA desert communities, extend east into the NT and SA.

With the closure of the State border, access to these interstate health services ceased abruptly, seriously disrupting patient care and wellbeing. Dialysis patients had to be transferred from Alice Springs back to WA, and the ability of patients discharged from hospitals in Adelaide to return to their communities was severely compromised. Some visiting allied health and specialist services were able to transition to telehealth, but most were suspended for at least two years(69). Some support services, such as access to hostel beds in Alice Springs, have been lost permanently.

For several remote communities and clinics, the regular supply lines for goods and essential services also ran directly from SA or the NT (See Figure22)(70). Fortunately, some continuity was maintained (e.g. for groceries and for maintenance and repair of fire and safety equipment and broadband infrastructure); but the paperwork for approval to cross the border was immense(71). Entry permits were required together with detailed risk management plans, and often this work (which benefitted the whole community) became the responsibility of ACCHS office staff[25].

In some cases, cross-border access to an essential service provider was denied (such as the servicing of four-wheel drive ambulances) and alternative providers had to be sourced in WA, hundreds of kilometres further away, causing delays and added costs.

[24]Supply routes were by road and air.
[25]Risk management plans required details on how the visiting technician would mitigate the risk of transmitting COVID-19 while visiting.

Figure 22. Truck Delivering Food to Tjuntjuntjara *Source: ABC News(70).*

Remote Border Surveillance

Some remote ACCHS also played an unofficial but important role in WA's State border surveillance. WA's border with SA and the NT stretches 1,862 kilometres, most of it across one million square kilometres of sparsely populated desert. Aboriginal people have travelled this desert, uninterrupted, for tens of thousands of years; and for many, ***"a border between states means nothing. There is nothing actually there. It is arbitrary."***

When WA closed its interstate border on 24 March 2020, police checkpoints were established at the State's only two bitumen road entry points (near the towns of Kununurra in the north and Norseman in the south) and at the Perth airport. Access into WA through these checkpoints required a permit (G2G pass) for which an application had to be made online. The dirt tracks crisscrossing the vast desert in between remained largely unpatrolled, and some Aboriginal families continued to travel across their land using these traditional routes.

Respecting cultural rights and obligations, while also guarding against the importation of the virus from SA or the NT, was a major challenge. ACCHS did not want a policing role but instead supported remote Aboriginal communities to mitigate the risk in a culturally safe way. They kept communities informed about virus activity in the adjacent states, and communities themselves discouraged family members from crossing the border to visit(72). If people did arrive, they were tested by clinic staff according to established protocols and supported to quarantine as much as practicable.

> ***"The communities were great."***

> ***"Everyone was hyper vigilant."***

Ultimately, this community-led surveillance proved effective and led to the very early detection and successful management of WA's first remote community COVID-19 outbreak (73).

IMPACT OF INTRASTATE TRAVEL RESTRICTIONS AND MOVEMENTS ON ACCHS

Early in the pandemic, WA implemented three specific measures to restrict travel within the state—the WA Remote Communities Direction, the Commonwealth Biosecurity Determination, and a general ban on travel across regional borders[26](74,50). The first two were specifically to protect Aboriginal people.

All three measures were considered effective in eliminating the spread of COVID-19 within WA during the initial wave; but, as with the interstate border controls, they came at a cost(75). Permits were required for the movement of staff, goods, and services; and some remote communities required non-residents to be screened on arrival[27]. The greatest impact, however, came from the Commonwealth Biosecurity Determination (in place from 26 March – 5 June 2020), which required 14 days of quarantine before entry into the Biosecurity zone[28](53).

Patients Discharged from Hospital

The quarantine requirements of the Commonwealth Biosecurity Determination were frustrating (and expensive) for returning ACCHS staff; but they were extremely distressing, and potentially unsafe, for Aboriginal people who needed to travel for urgent medical care to major hospitals outside the Biosecurity Zone (primarily to Perth, Kalgoorlie, and South Hedland).

Figure 23. Excerpt from the COVID-19 Travel Restrictions Frequently Asked Questions

Coronavirus (COVID-19) **WA.gov.au**

- **Travel between all regions in Western Australia is restricted under the Prohibition on Regional Travel Directions**
- **Travel into Western Australia from interstate or overseas is restricted under the Quarantine (Closing the Border) Directions.**
- **Travel to designated areas (the entire Kimberley region, parts of the East Pilbara and the Shire of Ngaanyatjarraku) is subject to a higher level of restrictions issued by the Federal Government under the *Biosecurity Act 2015* (Cth)**
- **Travel between shires in the Kimberley region is also restricted under the Emergency Management Act 2005 (WA).**
- **Travel to remote Aboriginal communities is subject to additional restrictions under the Remote Aboriginal Communities Directions. You should contact the community before travelling**

Source: Freight and Logistics Council(55).

[26]The Commonwealth measure was implemented jointly with WA.
[27]Each community determined its own rules for access and there was considerable variation. Some required 14 days quarantine in the early weeks of the pandemic.
[28]There were exceptions for some essential workers.

After discharge from hospital, patients from the Kimberley, East Pilbara, and Ngaanyatjarra Lands were required to quarantine for 14 days—typically alone in a hotel room, with no opening windows and no outside sitting area – before being allowed home to their communities. Some patients were frail and elderly, some were young mothers with newborn babies, and many had serious chronic illnesses that needed close monitoring.

It appeared that little or no planning had been done by the responsible government agencies to ensure that these patients from remote communities received appropriate follow-up medical care and other supports during their post-discharge period of quarantine[29]. Predictably, ACCHS stepped in to assist.

> ***"It was terrible."***

> ***"We got distraught phone calls from people locked up in hotel rooms in [the regional] town."***

> ***"We had to organise for necessities to be dropped off; and provided regular support by phone."***

> ***"The doctors and nurses would follow up with phone calls and telehealth."***

The need for patient support was particularly great in Perth, and the metropolitan ACCHS provided an extraordinarily responsive service.

> ***"We had a lot to do with country patients who were quarantining in hotels after hospital discharge."***

> ***"The first patient we saw was in a shocking state. Staff visited the hotel room in full PPE and had to start immediate antibiotics and arrange for further hospital review. We had to help him understand the new medications that had been commenced in hospital... and buy him clothes for his journey home."***

The Commonwealth Biosecurity Determination lasted only 10 weeks; and during that time, AHCWA and the ACCHS worked closely with WA Government agencies to improve the hospital discharge processes and quarantine requirements[30]. While some progress was made, it was clear that although the Department of Communities was responsible[31] for providing quarantine support, their capability to support Aboriginal people with complex medical and other needs was extremely limited(76). This experience, early in the pandemic, was a clear warning of the quarantine frustrations that would occur two years later when the border opened and COVID-19 swept through the state (detailed in Chapter 5).

The Voluntary 'Return to Communities' Initiative

Early in the pandemic, as international and interstate travel restrictions were being introduced, and people across WA were being advised to "stay at home," both the Commonwealth and State Governments encouraged Aboriginal people to return to their remote communities(77–79). Over 2,000 people heeded this advice(80,81).

[29]The Department of Communities was responsible for quarantine supports; the discharging hospital was responsible for a safe discharge.
[30]For example, changes to rules, which allowed for quarantine within the Kimberley rather than in Perth.
[31]Under the state's emergency response arrangements.

An email from Department of Communities staff to remote communities on 23 March 2020 stated, *"Right now, your people are safest in their home community, not in town. Therefore, the State Government is supporting community members to return to their community. We want to ensure that community members who are currently in other towns or regions can return home"*(81).

While well-intended, given the expected poorer outcomes for Aboriginal people contracting COVID-19, this sudden, large repatriation caused significant additional pressure on housing and other resources within communities and on ACCHS clinics[32].

> ***"There was overcrowding in some houses and it caused a lot of stress".***

> ***"Families weren't set up for extra people."***

> ***"There was a scramble for everything."***

Clinics reported outbreaks of gastroenteritis, an increase in skin diseases, and a much greater demand on environmental health services(81). Many returnees had complex chronic conditions, and accessing their medical records and ensuring ongoing supplies of medications was a logistical challenge. Disruption and dislocation increased the need for supports for those at risk of family and domestic violence, and for mental health and addiction services(81).

The WA 'return to communities' initiative was ***"complex"*** and the outcomes varied. In some places, the community felt safer and it was a positive experience; but elsewhere, ***"there were loads of issues"***(81).

> ***"It felt to us that the town was trying to clear all the itinerants."***

> ***"Some people were reluctant to move, and in the end it was hard to see, even at the time, the benefit of bringing people back."***

Ultimately, the initiative was short-lived.

> ***"We were told everyone had to go back to their community but almost immediately they had to be brought back to town."***

While the benefits of the 'return to communities' initiative were controversial, there is no dispute that, for several weeks, the workload for remote ACCHS was increased. ***"A lot was happening around the same time."*** The clinical caseload increased, the Department of Communities was requesting that community pandemic plans[33] be written; new infection, prevention and control (IPC) measures, and training were required for primary healthcare services; and staff were leaving due to the international and interstate border restrictions(82).

> ***"It was intense."***

[32]In the Kimberley, Pilbara and Goldfields.
[33]An email was sent by the Department of Communities to all remote communities on 23 March 2020 requesting that community pandemic plans be written as a matter of urgency. ACCHS assisted remote communities with that process(81).

Test, Trace, Isolate and Quarantine (TTIQ)

For the first two years of the pandemic, WA's border controls were complemented by a strict program of Testing, Tracing, Isolation, and Quarantine (TTIQ) (83,84). The aim of TTIQ was to limit community spread of COVID-19 by rapidly identifying and isolating any sporadic cases (arising from border control failures), and by identifying and quarantining their contacts. Border controls and the associated mandatory quarantine were extremely effective but not perfect(85–87).

TTIQ was the responsibility of WA Health and the Department of Communities. WA Health established public COVID-19 testing sites across the State[34], set the eligibility and technical criteria for testing[35], and formed a specialised contact tracing unit within the Public Health Emergency Operations Centre (PHEOC) in Perth. Under the "State Support Plan – Emergency Relief", Department of Communities was responsible for providing support for individuals in isolation or quarantine, if required(88).

From the first days of the COVID-19 pandemic emergency, it was clear that ACCHS would need to play a key role in the WA Government's TTIQ program to ensure that the program adequately met the needs of Aboriginal people across the state. It was also clear that this would be a considerable strain on ACCHS' resources.

TESTING

Testing options evolved over the course of the pandemic. During the first few weeks, WA Health took full control of the State's COVID-19 testing[36](89). PathWest in Perth was the State's single laboratory facility with testing capacity, and nasopharyngeal sample collection was only available through WA Health services (including dedicated COVID clinics[37])(90). The notable exception was allowing nasopharyngeal swab collection by ACCHS, Royal Flying Doctor Service (RFDS), and Silver Chain in country areas(91). From 17 April 2020, testing became available through private laboratories[38]; and WA's first Commonwealth GP respiratory clinic (GPRC) opened in Geraldton on 21 April 2020(92–95).

Figure 24. Excerpt from Clinician Alert Regarding Changes to Testing Criteria

Source: WA Department of Health(89).

IMPORTANT CHANGE TO THE TESTING CRITERIA

Testing in Metropolitan Perth is ONLY to be done at COVID clinics or on hospital inpatients that strictly meet the below guidelines for testing; GPs in Perth Metro area are NOT to test for COVID-19. Tests ordered by metropolitan GPs will not be processed.

In country areas testing can only be undertaken by hospitals, health centres and remote health clinics operated by the WA Country Health Service, Silver Chain, Aboriginal Medical Services or RFDS. ALL services are to strictly apply the below guidelines for testing.

Test for COVID-19 in patients with a clinically compatible illness who have **documented proof of travel** overseas in the last 14 days OR are a **known close contact** of a confirmed case

Testing is to be done using a SINGLE SWAB for both THROAT then NOSE SWABBING

[34]Testing through private labs became available from May 2020.
[35]Eligibility criteria for testing evolved during the early weeks of the pandemic. In the early weeks epidemiological risk factors needed to be met. By May 2020, clinical criteria were sufficient.
[36]Primarily due to shortage of testing supplies.
[37]The first COVID-19 clinic opened at Royal Perth Hospital (RPH) on 10 March 2020. The first regional clinic opened at the Bunbury Health Campus on 19 March and a clinic opened in Broome on 8 April 2020.
[38]With drive-in testing from 4 May 2020.

While early inclusion of ACCHS as COVID-19 testing sites was a clear recognition of their vital role in ensuring access for Aboriginal people in regional and remote WA, it was also a big responsibility. Taking swabs required strict infection control, including the use of full Personal Protective Equipment (PPE)—which was in short supply and not available from the State Government.
The bigger challenge, however, was ensuring that patients self-isolated while results were pending(96). Throughout the pandemic, anyone undergoing a COVID-19 test was classified as a "suspected case" and required to self-isolate while awaiting the result. In the early months, results could take up to five days to become available.

> ***"Early on, testing was a nightmare. Tests had to go to Perth and the person had to stay home for several days while waiting for results to come back. Police had to enforce."***

> ***"It put a big strain on staff."***

In some communities, particularly where accommodation for isolation was not available, "suspected cases" had to be flown or driven out for testing.

> ***"Hundreds had to come to [the regional centre] and isolate in hotels and wait for test results to come back."***

Point Of Care Testing - GeneXpert

In late May 2020, the arrival of the Commonwealth-funded GeneXpert Point Of Care Testing (POCT) program was a game-changer(97). This program used small clinic-based polymerase chain reaction (PCR)[39] testing machines (Figure 25), with laboratory-quality results available after only 45 minutes[40]. Remote WA ACCHS were Australia's earliest adopters of this program as they had been using the technology for some years, testing for sexually transmitted infections (STIs)[41]. Staff were familiar with the GeneXpert system; and many ACCHS had machines already in place.

Figure 25. GeneXpert System

Source: Cepheid(98).

[39]PCR was the "gold standard" for laboratory COVID-19 tests.
[40]Capacity for four tests at a time.
[41]Through a program managed by the Kirby Institute and Flinders University.

Figure 26. GeneXpert SARS-CoV-2 Testing Cartridge *Source: ABC News(99).*

Although it would be almost two years before any COVID-19 POCT in WA yielded a positive result (by which time Rapid Antigen Tests (RATs) had become available and the State was transitioning to "living with COVID"), the program provided great reassurance to communities, ACCHS, and WA Health[42]. COVID-19 could be rapidly ruled out in people presenting with respiratory symptoms, and FIFO staff could be screened when returning from potential hot-spots. The need for several days in isolation while awaiting results was eliminated.

A comprehensive independent report of the national POCT program estimated that *"between $337 million and $1.8 billion in health costs were avoided in the first 40 days, with more savings accruing over the life of the Program"*(101).

POCT did have its limitations, however. There were not enough machines to have them placed in all remote clinics, and in some locations, samples had to be driven to the nearest machine some hours away[43]. The testing itself was also labour intensive, and although the testing materials were funded, labour costs were not reimbursed. ***"There were still a lot of staff resources doing point of care testing as we had to supervise people for 45 minutes while waiting for results"*** and ***"everything had to be thoroughly cleaned afterwards."***

Training was required to use the machine, and although it could be delivered online, it required a significant time commitment by staff, which was challenging to complete amongst competing clinical priorities. Quality assurance requirements were rigorous and time consuming, which again was a challenge in ACCHS relying on a FIFO workforce, where there was a high turn-over of staff or a reliance on locums.

[42]WA Health also introduced GeneXpert POCT in some of its regional hospitals and joined the Commonwealth program in some remote locations served by state-run clinics(100).
[43]POCT machines were in short supply internationally and had to be rationed by the Commonwealth.

Due to their scarcity, POCT machines were available only in remote locations. This was frustrating for Aboriginal communities in metropolitan Perth and WA's two biggest regional centres where, for some people, the ability to isolate was no less challenging than in remote communities.

The use of the POCT machines also had a flow-on effect for the delivery of routine primary care and testing for STIs. Although it was theoretically possible to continue using the machines for both COVID-19 and STI testing, in practice, the COVID-19 infection control requirements were a significant barrier for STI testing. ***"Having the machine in the special COVID-19 testing area meant that it was away from routine clinical flow"*** and ***"the extra cleaning meant that tests couldn't be run until the end of the day."***

Despite these drawbacks, the COVID-19 POCT program within the ACCHS Sector was one of the great success stories of the pandemic. The availability of rapid PCR testing in remote clinics was an important line of defence for COVID-19 detection in the north and east of the State; it prevented the cost and disruption of putting people into isolation while results were pending. In February 2022, POCT detected the State's first cases of COVID-19 crossing the porous border into WA from the NT, and led to a very successful containment response by the local ACCHS and WA Health.

In June 2022, the COVID-19 POCT Program increased its utility by transitioning to 4-Plex testing which included the simultaneous detection of three additional respiratory illnesses—influenza A and B, and respiratory syncytial virus (RSV)(101).

Testing through General Practice Respiratory Clinics (GPRCs)

By mid-2020, WA's COVID-19 testing options had expanded to include private pathology laboratories and Commonwealth-endorsed GPRCs. The Commonwealth's national GPRC program was designed to provide alternative services for the assessment and testing of people with mild respiratory illnesses; and to relieve the pressure on other healthcare providers including hospitals(103). All general practices, including ACCHS, were invited to participate. Nationally, 150 GP practices signed on, including 14 in WA(104). Remarkably, of the 14 GPRCs in WA, four (29 per cent) were run by ACCHS. Two of these ACCHS GPRC clinics were in metropolitan Perth[44] (Figure 27) and were able to provide a culturally safe COVID-19 testing option for the largest Aboriginal population in the State(105).

> ***"There were a lot more patients coming in. We found that they weren't being tested at the state-based services. They didn't feel safe or comfortable."***

Several other WA ACCHS ran similar respiratory clinics but, for a range of reasons, chose not to be part of the formal Commonwealth program[45]. Nonetheless, they provided accessible and culturally safe COVID-19 testing for large numbers of Aboriginal people.

[44]The two GPRCs in Perth were run by a single ACCHS.
[45]One reason was that COVID-19 testing in regional and remote areas was already permitted in ACCHS.

Figure 27. A GP Respiratory Clinic at Derbarl Yerrigan Health Service.
Source: DYHS Annual Report 2020-2021(102).

Rapid Antigen Testing (RAT)

In early November 2021, as the pandemic accelerated in the eastern states of Australia, the Therapeutic Goods Administration (TGA) approved a number of COVID-19 RAT kits(106). Although less accurate than PCR tests, these self-tests were already widely used in countries with high transmission, such as the United Kingdom. WA ACCHS, particularly those in remote and regional areas, could see their potential role in outbreak situations where GeneXpert POCT would be unsustainable[46], and for screening visitors and staff.

Despite a WA State Government prohibition on their use at that time (due to the State's low case numbers[47]), several ACCHS made the decision to purchase their own supplies (Figure 28). Some used their own funds; others received support from philanthropic partners. ACCHS were very mindful of the scramble for PPE at the beginning of the pandemic and didn't want to be caught short again. There was also concern that Aboriginal people and ACCHS would not be prioritised once government supplies were made available (as had been the experience during the vaccine roll-out described in Chapter 4).

[46]Due to time constraints and lack of cartridge capacity.
[47]The reliability of RATs is much lower in a low case environment.

Figure 28. Rapid Antigen Test

Source: WA Today(107).

ACCHS' concerns about access to Rapid Antigen Tests (RATs) were justified. On 11 January 2022, the WA Government lifted its prohibition on RAT(108); and in late February 2022, the State commenced its free household RAT delivery program. Access to this program required online ordering and postage (or airport collection), and supplies were limited to five RATs per household—making the program both inadequate and inaccessible for many Aboriginal families, particularly in remote communities.

> ***"There seemed to be no understanding of the logistics of getting supplies to remote communities; heat sensitive materials being sent to addresses where they might sit in a metal letterbox in 44 degree heat."***

There was also no consideration of large households.

In late March 2022, after intense lobbying by AHCWA and the ACCHS (via the WA Aboriginal Advisory Group led by the Aboriginal Health Policy Directorate (AHPD) and State Health Incident Coordination Centre (SHICC)), additional bulk supplies of RATs were made available to regional WA, with the Sector playing a major role in their distribution to communities and families(109). This logistics role was voluntary and not fully appreciated by government. ACCHS staff travelled thousands of kilometres, using their own vehicles, fuel, and staff to deliver RATs, with many deliveries made to communities outside their own clinical catchments.

RATs came with the additional challenge of the legal requirement to register a positive result with WA Health. The system was set up for online registration and there was an implicit expectation that the person doing the registration would have a mobile phone. This clearly posed major challenges for many Aboriginal people who lacked digital devices, credit, connectivity, or digital literacy. The role played by ACCHS to overcome the digital (and phone) divide for RAT registration is discussed in Chapter 5.

Wastewater Surveillance

While not technically part of TTIQ, wastewater testing was an important COVID-19 surveillance strategy. Testing of sewage was introduced in WA in November 2020, and could alert authorities to the presence of cases that may have slipped through the border and TTIQ systems(110). This testing was the responsibility of WA Health and in two very remote locations in the Kimberley and Goldfields; the sampling was outsourced to the local Aboriginal Community Controlled Environmental Health Service or ACCHS.

> ***"We did the waste sampling because no government agency could do that. Engaging with the community took a lot of legwork and it was only because of our footprint within the communities that we could do that."***

This sampling work was quite technical and logistically demanding due to the large distances travelled to collect samples and the time and temperature-sensitive transportation requirements of samples to Perth for testing(111).

CONTACT TRACING

Contact tracing during the first two years of the COVID-19 pandemic was a critical component of WA's COVID-19 response(112,113). Within days of the state of emergency being declared on 15 March 2020, ACCHS had volunteered to assist with contact tracing where required. Contact tracing limited spread of the virus by rapidly identifying individuals exposed to known infectious cases and by immediately quarantining those identified[48]. The process was labour-intensive, and a specialised unit was deployed within WA Health in Perth to follow up individuals by phone. Regional PHU staff provided support in rural and remote communities.

To further facilitate contact tracing in late 2020, WA introduced mandatory sign-in registers for businesses and launched the optional SafeWA app (see Figure 29)(114,115). "Exposure sites"[49] were publicised by the media and regularly updated on the HealthyWA website(116,117). Personal information from cases and contacts was stored in a dedicated WA Health electronic database (PHOCUS)[50](113).

Figure 29. Graphic Advertising in the Safe WA App to Enable Contact Tracing

Source: Government of Western Australia(118).

When the WA border opened in early March 2022, and the spread of the virus[51] escalated, routine contact tracing was no longer viable, and the process moved to an online voluntary questionnaire, with a more targeted focus for high-risk settings(119). The limitations of this online contact tracing survey, and the frustrations for ACCHS, are discussed in Chapter 5.

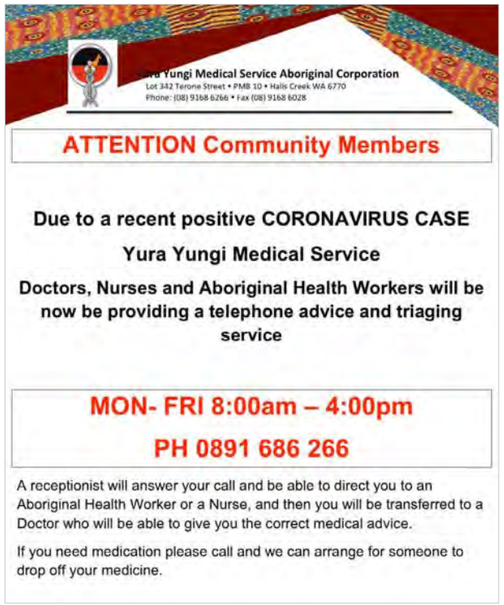
Although there was no explicit contact tracing role for ACCHS in the statewide pandemic plans[52], it was clear from the outset that support from the Sector would be vital[53]. ACCHS had unparalleled trusted relationships with Aboriginal communities, well-established communications networks, and the necessary public health expertise. For decades, regional PHUs and the WA Communicable Disease Control Directorate (CDCD) had partnered with ACCHS in contact tracing for other communicable disease outbreaks and there was a high level of mutual respect(120,121).

Almost immediately, the expertise of the ACCHS Sector was required. At the height of the first wave of the pandemic in March and April 2020, multiple cases of COVID-19 were detected (primarily in public hospital employees) in remote towns across the Kimberley(122). Support from the local ACCHS was essential for ruling out potential exposure for Aboriginal patients and the wider Aboriginal community, and for keeping the community informed(123). Routine services at one local ACCHS were temporarily scaled back to do this work.

[48]The definition of close contact changed over the course of the pandemic.
[49]Places visited by known positive cases.
[50]This database received some criticism from the auditor general regarding privacy controls.
[51]The omicron variant spread more rapidly and was more difficult to contain.
[52]Human Biosecurity Hazard Plan, Infectious Disease Emergency Management Plan, WA Government Pandemic Plan.
[53]ACCHS support for contact tracing is included in the WA Outbreak Response Plan for remote Aboriginal Communities first published in July 2020. The Commonwealth's Aboriginal COVID-19 plans also include ACCHS.

Figure 30. Community Notice Regarding a COVID-19 Case

Source: YYMSC Facebook page(124).



Once the first wave of COVID-19 had been controlled in WA, active involvement of the ACCHS in contact tracing was rarely required until early 2022. Travel restrictions and other effective public health measures (supported by ACCHS[54]) meant that throughout most of 2020, and all of 2021, Aboriginal families and communities in WA had minimal direct exposure to the virus.

Despite the low case numbers in the wider WA community during the suppression phase, ACCHS remained 'on call' for their local PHUs. They used the hiatus period to ensure that their staff had refresher training in contact tracing, and many remote clinics conducted scenario exercises to refine their processes(125).

When the first locally acquired Aboriginal cases were detected in early 2022, ACCHS and the regional PHU staff worked hand in hand to identify contacts and exposure sites, and the process was exemplary. There had been early concerns about centralised control by WA Health—***"We were clearly told we were to have nothing to do with contact tracing and it was to remain centralised"***—but the practical, multi-agency, localised approach prevailed when it mattered most.

It is worth noting that a November 2020 National Contract Tracing Review for Australia's National cabinet stressed the importance of local knowledge and a tailored approach—*"Local knowledge and community engagement are key to effective contact tracing, [and] the role of regional public health units is fundamentally important"*—*"No one size fits all"*—*"In contact tracing, having a contextualised knowledge of the area, people and resultant approach is a key to success"*(126).

ISOLATION AND QUARANTINE SUPPORT

Isolation of COVID-19 cases and quarantine of contacts were mandated under the E*mergency Management Act 2005* and continued until October 2022[55](127). Failure to adhere to the regulations was potentially punishable by a fine of up to $50,000, and throughout 2020 and 2021, WA Police actively monitored compliance(128).

For the first two years of the pandemic, individuals who tested positive to COVID-19 were required to isolate for a minimum of seven days[56] and close contacts were required to quarantine for 14 days(129,130). In February 2022, the quarantine period for contacts was reduced to seven days(131). Additionally, throughout the pandemic emergency, individuals awaiting COVID-19 laboratory test results were classified as "suspected cases" and had to isolate until they received a negative result, which could take up to five days in regional and remote areas.

[54]Particularly through public health messaging.
[55]Duration rules and contact definitions did evolve over the course of the pandemic.
[56]The requirements depended on symptoms and individual health risks.

The rules for those in isolation and quarantine[57] were strict. Individuals could only leave the house for emergencies or to seek urgent medical care[58] and were advised to stay apart from others in the household—including staying alone in a bedroom and using a separate bathroom(132).

For Aboriginal communities and ACCHS, isolation and quarantine mandates were, arguably, the most challenging element of the pandemic. COVID-19 exposed all the social determinants of health that disproportionately affect Aboriginal people, but it particularly exposed the lack of adequate safe housing, food security, and financial security— all of which were essential for safe isolation and quarantine. The Government's pandemic response was built on the assumption that most individuals could safely isolate within their homes and that most people could organise a two-week stockpile of necessities (or access additional emergency supplies through online shopping, or drop-offs by family or friends)(134).

For many Aboriginal people, these 'mainstream' assumptions were wildly inaccurate. Large, extended families frequently live in houses that are too small and cramped for their day-to-day needs and there is no "separate room". Many households do not have the financial flexibility to stock-up with food and essentials, and some people are homeless.

Figure 31. Posters Regarding Isolation Directions

Source: YYMSC Facebook page(133).

[57]Including those in quarantine because of travel (international, interstate and into the Biosecurity Zone).
[58]Including testing if contacts became symptomatic.

> ***"When we had our initial first cases...one of our first houses had 15 people isolating in one household. That's not something most people outside of a community can grasp."***(135)

In some remote communities, many houses are in urgent need of refurbishment and repair, and basic plumbing is not working.

> ***"It is not safe forcing people to stay inside in unsanitary conditions. They will just get more sick."***

The Government's pandemic response was also built on promises that safe alternative accommodation for isolation could, and would, be provided for those who needed it, and that food and other essential supplies would be readily available through the Department of Communities(88). Both of these promises were broken repeatedly throughout the pandemic. Appropriate alternative accommodation was often scarce due the competing demands from tourism and industry, and the digital and logistical barriers in accessing food and other essential were immense.

ACCHS identified these critical gaps at the outset of the pandemic emergency and did what they could to mitigate the risks. One remote ACCHS successfully worked with a mining company to install plumbed and serviced dongas to serve as isolation accommodation in its largest community(136). Elsewhere, ACCHS, including Aboriginal environmental health services, focused on improving the environmental safety of existing homes. On behalf of ACCHS across the State, AHCWA advocated relentlessly for greater responsiveness and transparency from the Department of Communities.

> ***"Department of Communities had 12 months to develop community plans for accommodation contingencies but even though there was quite a lot of lead time, it was not until March or April 2021 that they had put a plan together that was flexible and pragmatic."***

Figure 32. Dontated Donga Loaded for Transportation
Source: BHP Community Development Report(137).

ACCHS learnt from their experience during the first two years of the pandemic. A number of false alarms and their experience in supporting individuals awaiting laboratory test results or returning to the Commonwealth Biosecurity Zone after discharge from hospital made it abundantly clear that ACCHS would be required to take a major support role when cases finally occurred in 2022(135,138).

The story of the extraordinary work done by the ACCHS in providing isolation support as COVID-19 surged through the Aboriginal population in 2022 is discussed in Chapter 5.

Community and Household Infection Control

An article by UNICEF states *"Handwashing with soap, when done correctly, is critical in the fight against the novel coronavirus disease (COVID-19), but millions of people have no ready access to a place to wash their hands. In total, only three out of five people worldwide have basic handwashing facilities, according to the latest data"*(139).

Personal hygiene was a critical element in reducing COVID-19 transmission. At the start of the pandemic, many Aboriginal people in WA did not have access to the necessary supplies of soap, hand sanitiser, and household disinfectant. Soap was optional in school bathrooms and most did not supply it(140). In remote communities, household plumbing was often dysfunctional.

ACCHS backed up their public messaging about handwashing, cleaning, and later, mask wearing by accessing and supplying the necessary products for those who needed them.
Very early in the pandemic, AHCWA reached out to philanthropic agencies to access essential goods and ACCHS helped with their distribution. ***"We would get phone calls from all the different agencies. 'We have this to deliver. Can you do that? We had pallets of sanitizer, face masks, pallets of everything.'" "We were always delivering soap,"*** and people were ***"handwashing like you wouldn't believe."***
AHCWA also successfully lobbied, through the WA Aboriginal Advisory Group (WAAAG), for the mandatory supply of soap in school bathrooms.

Throughout the pandemic, ACCHS in WA 'walked the talk,' supporting both households and public gatherings, such as funerals, by making hand sanitiser and masks available and encouraging their use.

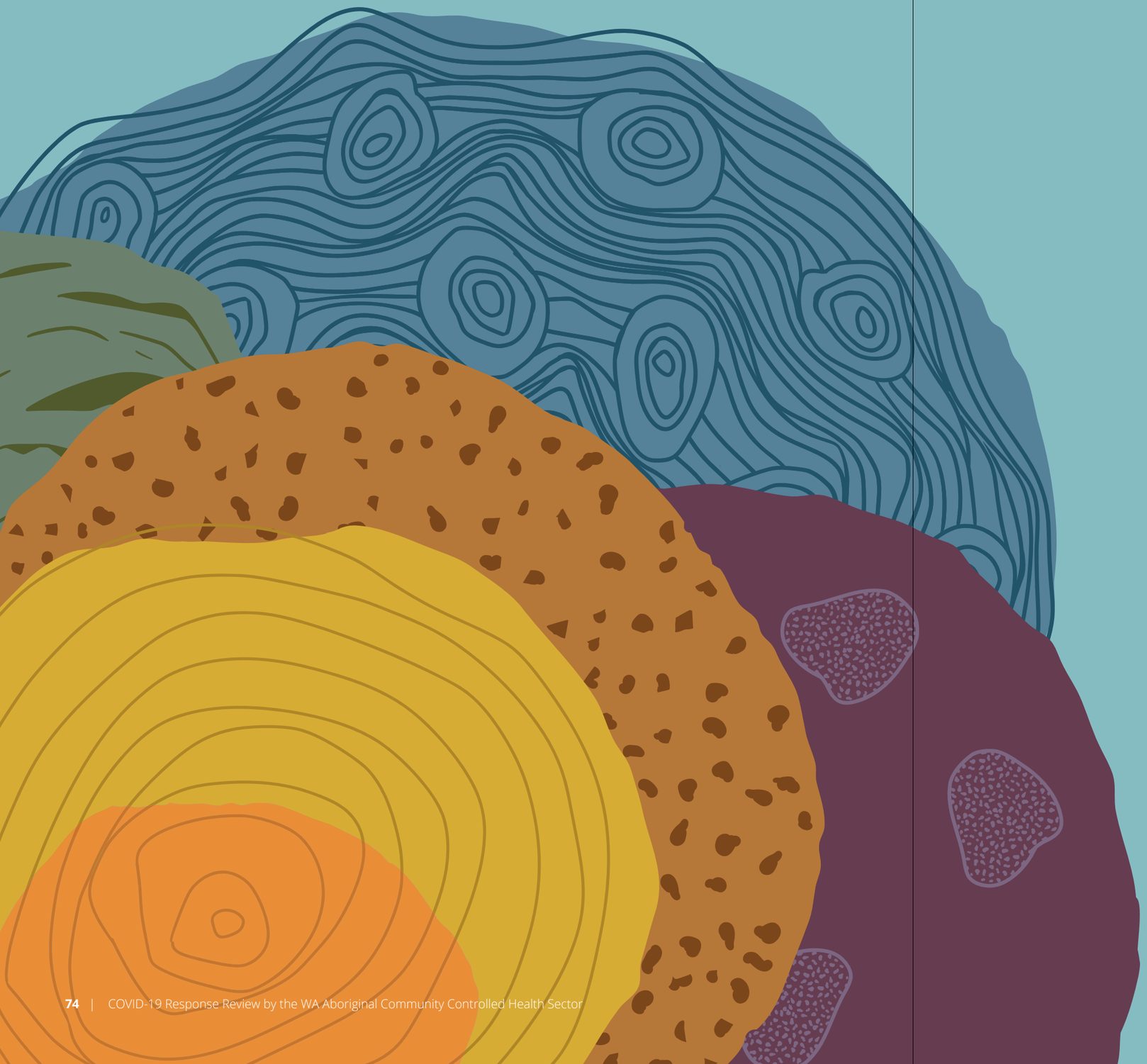
Conclusion

Both the elimination and the suppression phases of the COVID-19 pandemic required strong community engagement and the rigorous and sustained application of public health measures. ACCHS were there at every step. They worked to protect communities through the provision of culturally safe and accessible testing, facilitated access to isolation supports, enabled community infection control practices, and developed an exceptional array of reliable, accessible, and culturally appropriate COVID-19 messages and resources.

This work by the ACCHS filled manifest gaps in the State Government's public health response to the pandemic and was conducted in addition to the ongoing provision of essential comprehensive primary care for the Aboriginal communities they serve.

It was done despite the 'invisibility' of the ACCHS in WA's emergency management plans, despite immense staffing challenges due the border closures and with little or no additional funding.

COVID-19 resources developed by AHCWA's Communications Team, 2020.



Chapter 3

Maintaining Essential Primary Care Services

“We tried as much as possible to keep going and ensuring we didn’t turn people away… all through 2020 and 2021, we kept plugging away at chronic disease, and we are very proud of that.”

“Everyone just got multi-skilled and made do with what they had.”

“We lived and breathed it… just did it.”

“The work didn’t stop. We couldn’t just stop delivering services.”

Introduction

The core business of the ACCHS Sector is providing comprehensive, culturally safe primary healthcare for Aboriginal people, families, and communities(1). Throughout the COVID-19 pandemic emergency, the delivery of essential primary care remained a priority for ACCHS in WA and went hand in hand with their work to prevent the spread of the virus, protect individuals through vaccination, and support and treat cases.

Providing safe, accessible healthcare in the midst of a pandemic emergency was enormously challenging. It depended heavily on staff taking up new roles, learning new skills, and working longer hours. It also depended on innovative, flexible, and proactive ways of delivering care. The costs—in both financial and human terms—were major.

> ***"Coping with business-as-usual tasks and the new requirements for COVID-19 raised costs and stretched the budget."***

> ***"We had to do all this with little extra funding or resources—the burden of costs was on us."***

For three years, the workload was huge and at times, almost overwhelming.

> ***"Everyone is still exhausted."***

Despite the challenges, WA ACCHS did a remarkable job of maintaining their service capacity. Data from the 2023 Australian Institute of Health and Welfare (AIHW) report shows that WA ACCHS had no decline in their delivery measures over the four 12 month reporting periods between 2018 and 2022(2). In fact, there was a rise of 15 per cent in both "episodes of care" and "client numbers" in the period 2021–2022 (Table 1). This substantial rise in 2021–2022 likely reflects the ACCHS added role in COVID-19 specific care (vaccinations and COVID-19 case management) and a general increase in demand for culturally safe services during a time of heightened anxiety.

> ***"There were increased pressures and demands on us—many more people came to see us."***

Perhaps even more remarkably, WA ACCHS also maintained high levels of preventive and chronic disease care. Annual preventive health assessments and GP chronic disease management plans (GPMPs) fell by less than 10 per cent over the pandemic period(2).

	Episodes of care	Client numbers
2018–2019	413,325	56,212
2019–2020	414,139	56,685
2020–2021	416,052	55,364
2021–2022	489,650	67,790

Table 1. Number of Episodes of Care and Client Numbers by Reporting Period in WA ACCHS 2018–2022

Source: Australian Institute of Health and Welfare(2).

Bunbury, Western Australia

The COVID-19 pandemic emergency was a challenging time for all healthcare providers in the State—from public hospitals to private general practices. However, the cumulative challenge for ACCHS was perhaps more profound than for other primary care services. There was a 'triple storm' effect with high ongoing complex healthcare needs within Aboriginal communities; a local workforce at increased risk of poorer outcomes from COVID-19; and a fly-in fly-out (FIFO) workforce depleted by State border closures. Additionally, there was the major additional workload due to public health responsibilities (as discussed in Chapters 2, 4 and 5).

This chapter looks at some of the specific challenges faced by the ACCHS in WA in delivering ongoing safe, comprehensive primary healthcare during the pandemic and how they rose to meet those challenges. It discusses how ACCHS made their clinics physically safe, while remaining welcoming and culturally safe; how they worked to retain and support their staff; how they embraced telehealth despite the digital divide; and how they proactively reached out to priority groups and individuals during periods of heightened anxiety. It also discusses how ACCHS staff responded to the complex demands of the pandemic by multi-tasking, and acknowledges the major burden of associated training and upskilling.

Infection Prevention and Control

The Australian Commission on Safety and Quality in Health Care states: *"Effective infection prevention and control practices reduce the risk of transmission of infections between patients, healthcare workers, and others in the healthcare environment"*(3).

As COVID-19 threatened in March 2020, one of the first imperatives for ACCHS was ensuring that their services were as safe as possible for both clients and staff. There was an enormous sense of responsibility stemming from early concerns that the virus would devastate Aboriginal people; and the ACCHS' safety response was both rapid and extremely thorough(4).

In line with national guidelines, ACCHS quickly implemented a raft of infection, prevention, and control (IPC) measures including clinic front-door screening (with questionnaires and temperature checks), extra cleaning rotations, and physical distancing (also known as social distancing) in waiting rooms(3, 5). Premises were reconfigured to include separate isolation areas for potential cases, and fresh air outdoor clinic and waiting 'rooms' were set up on verandas or in tents. Staff were deployed from less urgent roles to assist with screening and cleaning, and everyone received training.

> ***"Every member of our staff (including non-clinical staff) completed the COVID-19 infection control online course that was made available by the Department of Health. Staff also completed additional training via the AMSED platform."***

AHCWA produced a standardised toolkit for guidance and kept ACCHS up to date with evolving recommendations[1]; there was widespread sharing of ACCHS resources back and forth across the country(6). Ultimately, each service developed its own detailed clinic protocols, reflecting the unique circumstances of their community. Some bigger town-based services adopted a phone booking system or a ***"hybrid system with half bookings and half walk-ins,"*** with services provided, where possible, by telehealth. Some used additional technologies. ***"We set up video-screening at the door for clients and an intercom system within the clinic"*** for staff. In remote communities, where ***"phone bookings [and remote screening] don't work,"*** there was a heavy reliance on physical distancing and outdoor consultations.

The stakes were high and throughout the pandemic, the WA ACCHS commitment to 'best practice' IPC was remarkable. Where IPC practices were 'recommended' by WA Health (such as screening staff), ACCHS invariably adopted them as protocol.

PERSONAL PROTECTIVE EQUIPMENT (PPE) AND HYGIENE SUPPLIES

Access to adequate supplies of PPE (masks, gloves, gowns) and cleaning products was a significant early hurdle for the implementation of IPC measures. During the first weeks of the pandemic, the sudden widespread demand for PPE led to a worldwide shortage and, like most non-government healthcare providers, ACCHS scrambled to access supplies. A few ACCHS (particularly those in areas prone to natural disasters such as cyclones) had good initial stockpiles; but even for those services, ***"it became evident early that the stores were not adequate for what we required."***

A tiny trickle of masks was made available by the Commonwealth through the WA Primary Health Alliance (WAPHA)[2]; but, very disappointingly, WA Health declined the ACCHS Sector's requests for support. In desperation, AHCWA reached out to its philanthropic partners. Some mining companies had been able to secure direct imports and agreed to provide ACCHS across the state with emergency stocks of surgical masks, gloves, hand-sanitiser, and cleaning products[3], until supplies were reestablished through standard routes. These initial supplies were an invaluable interim measure and a testament to AHCWA's years of work in relationship-building with local industry and the philanthropic sector(8).

ENHANCED SEPARATION OF PATIENTS THROUGH THE USE OF RESPIRATORY CLINICS

While separate "isolation rooms" were a minimum COVID-19 IPC requirement for primary care services, most larger ACCHS were able to set up independent "respiratory clinics" to ***"keep people with symptoms separate from business as usual."*** Some of these clinics were formal GP Respiratory Clinics (GPRCs), set up under Commonwealth and Primary Health Network (PHN) direction, as discussed in Chapter 2(9). ***"We set up the GP respiratory clinic early and that changed the way we ran the other clinic. It was a huge help. It meant we could separate the people with symptoms and test them within the respiratory clinic."*** Other ACCHS set up similar clinics using their own resources.

Most of these clinics were housed, eventually, in separate buildings; but in the early months, ACCHS used what they could.

> ***"We had a mobile truck outside the main clinic."***

> ***"We used a tent and a drive-through system."***

> ***"We used ambulance bays to keep people separate and triaged from there."***

Running two clinics was expensive and very labour intensive, particularly with respect to administrative staff, but it was an excellent way of separating routine care and making the community feel safer. ***"It was worth it. We wanted people to keep coming to the service [for their usual healthcare]."***

SAFE PATIENT TRANSPORT

The need for IPC measures extended beyond the confines of the clinic grounds. The provision of transport is a fundamental component of the ACCHS comprehensive Model of Care; travelling in cars, vans and four-wheel drives was recognised, early in the pandemic, as a risk for both drivers and passengers. Significant efforts were taken by all ACCHS to mitigate this risk.

[1]Government recommendations changed frequently as scientific understanding of COVID-19 transmission improved – e.g. the use of masks and other PPE.

[2]The Primary Health Network (PHN) for WA.
[3]Philanthropic organisations also supplied face shields and goggles.

> ***"Transport was a huge issue."***

> ***"There were big logistical problems transporting people to appointments and to hospital. Drivers had to wear PPE and the vehicles had to be cleaned after every use."***

> ***"We got (Perspex) barriers fitted to separate the drivers from the passengers. It was very costly."***

Many of the usual drivers were older workers with risk factors for severe COVID-19 disease and, even with these safety measures in place, some had to re-deploy to less risky jobs within the ACCHS. At a time of heightened anxiety, finding replacement drivers was often a challenge.

> ***"We had to find staff volunteers."***

SCREENING AND QUARANTINING OF STAFF

With almost all cases of COVID-19 occurring in Perth or regional towns, ACCHS were extremely mindful of the potential for FIFO health service staff to unwittingly transmit the virus on their return to remote communities after a period of leave. Staff travelling across the interstate border were subject to WA Government quarantine and testing requirements (as discussed in Chapter 2); but some communities required further quarantine and testing of staff after intrastate travel. Typically, FIFO staff needed a negative COVID-19 test before they boarded the plane in Perth, or regional centre, or as soon as they arrived in the community[4]. While not strictly within the testing eligibility criteria, screening on arrival was conducted under the Point Of Care Testing (POCT) exception clause "in the best interest of the community."

Once RAT kits became widely available in WA, most ACCHS throughout the state required staff to test regularly—in line with WA Health recommendations.

Derbarl Yerrigan Health Service's GPRC and vaccination clinics ensured respiratory assessments and COVID-19 swabs were accessible for Aboriginal people.

Source: DYHS.

[4]GeneXpert point-of-care testing was utilised where available prior to RATs.

Maintaining Cultural Safety

ACCHS are ordinarily open, relaxed places and the sudden need for surgical masks, social distancing, and front door restrictions was both confronting and confusing for many clients. ACCHS needed to act promptly to ensure that their services remained culturally safe and welcoming, despite the necessary IPC measures.

> ***"We did a lot of health promotion, letting the community know what we were doing and why."***

> ***"The community Elders were really great; and when changes were made, they helped us get the messages out to communities."***

> ***"Having Aboriginal staff on the front door was particularly effective."***

> ***"We used our Aboriginal Health Workers at the front door to reassure people"***

> ***"We had posters around the place of Aboriginal people wearing masks."***

> ***"We made the posters ourselves."***

> ***"We did Facebook messages for the community – 'We are still open and will help you! Call us on…'"*** (see Figure 1).

Figure 1. South West Aboriginal Medical Service Advise that their Services are Open Despite Lockdowns

Source: SWAMS Facebook page(10).

Outdoor spaces were also set up to be welcoming, with chairs placed (physically distanced) under trees and with bottles of water and ice made available in the hotter months. Many ACCHS set up poster-boards outside with locally designed COVID-19 information and advice.

After the initial shock, there was widespread acceptance of the IPC measures.

> ***"I think the community really appreciated the steps that we were taking to keep everyone safe."***

Caring for Staff

In addition to keeping communities safe, it was vital that the ACCHS' workforce remained safe and productive. Staff members are the backbone of the ACCHS Sector and successful outcomes throughout the COVID-19 pandemic depended on their remarkable resilience, adaptability, and commitment. The wellbeing of ACCHS staff was paramount.

At the outset of the pandemic, with Aboriginal people identified as a population group "at-risk," it was clear that there would be a significant impact on ACCHS staffing[5]. Many Aboriginal staff in the Sector were older and had chronic conditions that put them more at risk from COVID-19, and many younger staff lived in large households with older relatives who had risk factors.

> ***"We were very conscious of the vulnerability of some of our staff."***

The response of the Sector was immediate. Some staff with risk factors were re-deployed to non-client-facing roles within the clinics, and some were given the option of working from home, where that was possible.

> ***"We concentrated on our staff and keeping them and their families safe."***

> ***"We made staff safety a priority."***

> ***"Every staff member had to have a plan for their safety and for new work to do."***

> ***"We relocated computers and set up offices at home."***

> ***"Many staff members didn't really have offices in their home. It was quite a big impost."***

While there was a special commitment to protecting staff with risk factors, ACCHS were also very mindful of the safety of their entire workforce.

"It was a difficult time for everyone." "We were very concerned that we didn't have enough staff for everyday business; so we did everything to make sure the staff we had didn't get sick."

There was a huge sense of responsibility. If staff got sick, the clinics would not be able to support the community. Additionally, there was the constant concern that staff would inadvertently transmit the virus to patients.

Rigorous public health and IPC measures were the mainstays of staff protection—distancing, hand hygiene, PPE, and testing. Disappointingly, most ACCHS in WA did not have access to fit-testing for the more protective Particulate Filter Respirators (PFR) (for example, P2 and N95 respirator masks[6]) as recommended for WA Health staff working in higher risk settings(12). Commercial testing options were very expensive, especially in regional and remote WA, and it was unfortunate that WA Country Health Service (WACHS) was unable to offer testing to ACCHS staff when the testers were working in nearby WACHS hospitals.

[5]ACCHS are the second largest employer of Aboriginal people(11).
[6]Individuals required to wear the more protective N95 mask should be tested to see which product provides the best seal for their face. Such testing needs special equipment and expertise.

Supporting staff mental health and wellbeing was also crucial. The COVID-19 pandemic was a very stressful time and ACCHS held regular staff meetings to keep everyone informed and connected—with those working from home linked up via teleconferencing.

> ***"Meetings were convened with managers of various teams conducting daily 'check-ins' with their workgroup to both keep communication channels open and to ensure the wellbeing of staff."***

At the managerial level, ACCHS were part of wider regional and State-wide collectives—including the AHCWA-facilitated Chief Executive Officer (CEO) Network and Clinical Leadership Group (CLG).

> ***"The other ACCHS were fantastic and AHCWA provided a forum for us to share ideas and support each other."***

Some ACCHS were able to provide staff with assured COVID-19 leave (in case of enforced isolation or quarantine). This was very reassuring to staff who had no personal leave available and ***"could see the growing queues in the Centrelink line."*** Unfortunately, not all ACCHS had the financial capacity to make this commitment and in some cases, staff were lost to the public sector where COVID-19-specific entitlements were available(13).

On a more positive note, the ACCHS Sector successfully lobbied the State Government to allow ACCHS staff the same access to rapid lab-based COVID-19 testing and hotline support as was available for the WA Health workforce. This helped reduce the time ACCHS staff spent in self-isolation while waiting for results.

Staff at Derbarl Yerrigan Health Service in PPE.

Embracing Telehealth

At the outset of the pandemic (March 2020), the Commonwealth introduced a range of new Medicare Benefits Schedule (MBS) items to support and encourage the use of telehealth as an alternative to face to face visits(14). ACCHS in WA were very early adopters. Poor connectivity in some remote areas and limited access to personal devices (or insufficient phone credit) meant that it was not an option for everyone; but it nonetheless played a very important role and benefitted both patients and staff. "At-risk" patients could reduce their risk of exposure to COVID-19 by staying at home and receiving their healthcare by phone or video. Clinicians (Aboriginal Health Practitioners (AHPs), nurses and General Practitioners (GPs)), with their own COVID-19 risk factors, could deliver telehealth consults from their home offices. Staff forced into quarantine by travel restrictions could provide services from their hotel rooms. Some FIFO staff, stranded by the WA hard border, were able to deliver effective telehealth services from thousands of kilometres away—even from New Zealand[7](15).

> ***"We used telehealth a lot, as much as possible."***

> ***"It was a game-changer."***

Where connectivity was satisfactory but access to services was limited by cost (phone and data credit), ACCHS implemented 1800 free call numbers for their clinics and provided credit through phone cards. In some cases, they purchased basic phones for clients at high risk. This was particularly important when the virus started to spread in 2022, and patients needed close home monitoring. In the very remotest out-stations, where there was no mobile phone coverage, some ACCHS used satellite phones to keep in touch with clients and one purchased walkie-talkies (UHF radios).

ACCHS also successfully advocated for specialists at Royal Perth Hospital (RPH) to switch to telehealth to maintain service delivery during the pandemic.

Box 1. An Opportunity to Embrace Telehealth

Telehealth was not new to the WA ACCHS Sector when COVID-19 hit. Many remote and regional ACCHS were already moving to a telehealth model for hospital specialist consultations; but they were frustrated by poor connectivity and restrictive MBS rebates. AHCWA had been advocating for years for improved access to telehealth, and COVID-19 finally made that possible. Very early in the pandemic, ACCHS were able to access Commonwealth infrastructure expertise and philanthropic funding, and this support led to a rapid improvement in connectivity for many remote clinics.

"We bought new computer equipment that could be used in the clinics and in clients' houses. This enabled us to do telehealth appointments from basically anywhere."

"One of our doctors worked the whole time from Adelaide."

A raft of new MBS rebates for GP telehealth made this model of healthcare delivery financially viable.

The East Metropolitan Health Service Report 2022–23 states: *"RPH Medical and health specialists continued to reach Aboriginal patients in remote regions through video consultations with the help of local ACCHS in the Pilbara and Kimberley. Our Regional and Tertiary Collaborative (RTC) was set up in 2020, and is a major driver for improving coordination and access to culturally appropriate specialist outpatient care in the Kimberley and Pilbara. Since the start of the project, more than 1,700 video appointments have been delivered to Aboriginal patients at their local ACCHS as a result of care coordination"*(16).

[7]Child health nurses (no MBS claiming).

Increasing Access for Priority Groups Using Outreach

The provision of a COVID-safe clinic environment and the option of telehealth were not sufficient to meet the needs of all ACCHS clients, particularly during the early, uncertain months of the pandemic. ***"Many people were terrified"*** and became more isolated and more difficult to reach.

> ***"When people got scared, fewer and fewer people would come to the clinic."***

> ***"People wanted to be out in the bush where they felt safer."***

ACCHS responded by being more proactive and by providing a flexible range of outreach services. Most ACCHS made "at-risk" registers.

> ***"We did mobile community health checks to make sure the health and well-being of community members were still being attended to—dropping off medication and attending to our core business."***

> ***"We called all the vulnerable people we knew of—not only those with health vulnerabilities but people who had or were experiencing domestic and family violence—to ensure they knew what to do and who they should call."***

> ***"If we were concerned about someone, and hadn't heard from them, we would go and knock on their door."***

The needs of Elders, children, and people with chronic physical and mental health conditions were a particular focus.

> ***"When people went into the bush they stopped bringing their kids in for checks. We had to reach out."***

> ***"We set up a Family Health Unit where we could screen off the kids from contact with other patients."***

It helped families to feel safe.

> ***"Our mental health team met with 'at-risk clients' in gardens, parks, and backyards."***

> ***"We developed resources using social media—online video monologues—to provide people, and especially the more vulnerable younger people, with information and advice."***

> ***"There was increased loneliness and we kept in touch regularly for welfare checks, calling in to see how they were going."***

ACCHS recognised that many of their older clients had low levels of digital literacy and were not able to access the public health messages sent out via social media(17). Home visits were an essential way of reassuring people and keeping them informed. It also provided an opportunity to provide the holistic care that ACCHS pride themselves on, checking on Elders' wellness, and ensuring supplies of food and medicines were sufficient(18).

> ***"We contacted every Elder and made sure they had their own COVID care plan."***

The need for outreach services reduced during the second year of the pandemic, when case numbers in WA were minimal and the community felt safer and more comfortable attending the clinic in person. When the interstate border opened in 2022, and cases surged, the need for outreach escalated once again—for both clients in isolation or quarantine and for those with risk factors (Figure 2).

Figure 2. Bega Garnbirringu Health Service Social Support Staff Preparing Meals for Clients in Isolation for COVID-19 in 2022

Source: Bega Garnbirringu Health Service Facebook page(19).

Maintaining Chronic Disease and Preventive Care

Providing preventive and chronic disease care is 'core business' for ACCHS. Early in the pandemic, both took a brief 'back seat,' as they did in most mainstream healthcare services. There was an expectation that the virus would arrive within weeks, if not days; the priorities were to prepare for the upcoming outbreak, implement IPC measures, and provide urgent and acute care[8].

> ***"At the very beginning, we pared back our services into essential and non-essential."***

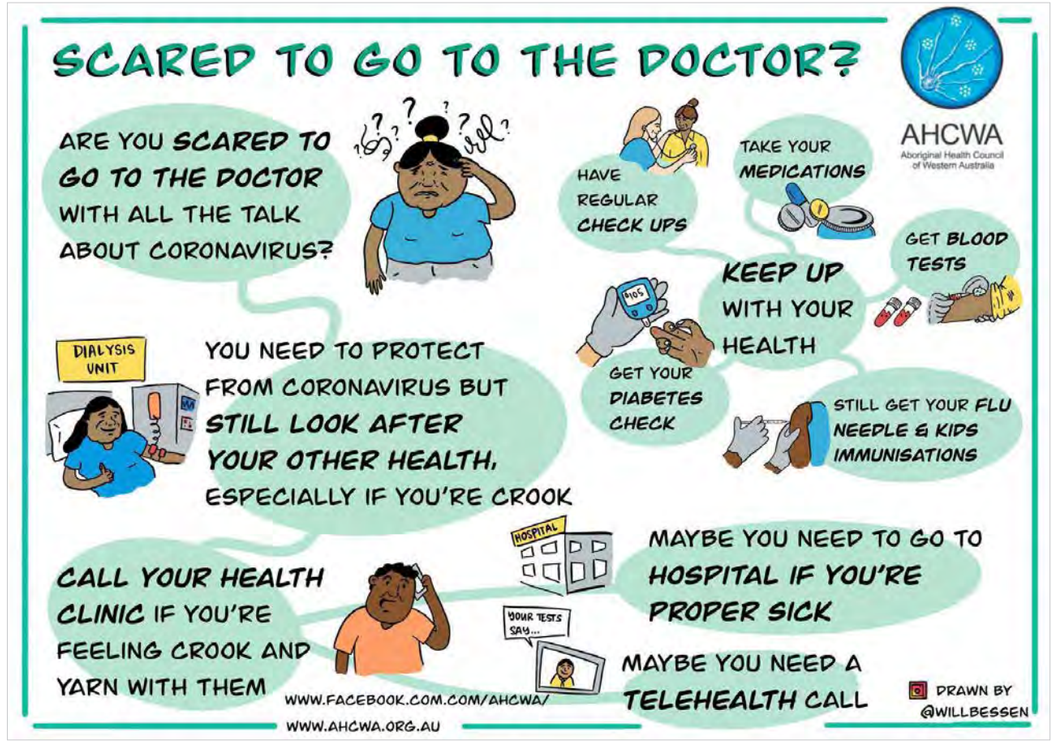
Many visiting services (allied health, eye health, and medical specialists) were cancelled due to intrastate travel restrictions, and at least one remote ACCHS lost their FIFO chronic disease program staff due to the interstate border controls.

It soon became apparent, however, that the arrival of the virus could take some time, and that routine checks could not be put on hold indefinitely.

> ***"Some of the 'non-essential' services became 'essential' after a few months or in some cases weeks."***

Figure 3. Scared To Go To The Doctor? Campaign Poster

Source: Aboriginal Health Council of Western Australia(20).



[8]The WA Health system did the same, for example, cancelling non-urgent surgery.

> ***"After three months we needed to begin rescheduling visits for things like foot checks for people with diabetes."***

Where chronic disease management staff had been lost, ACCHS re-deployed and trained other staff to fill those roles, and AHCWA successfully advocated for the continued provision (including by telehealth) of specialist and allied health services.

AHCWA also supported ACCHS with a widely shared health promotion campaign 'Scared to go to the doctor?' (Figure 3) to encourage people to attend for non-acute care, including vaccinations and check-ups.

The very high uptake of the influenza vaccine by Aboriginal people in WA in 2020 (soon after the first COVID-19 wave) is a measure of this commitment to ongoing proactive healthcare (Figure 4 and 5).

Figure 4. Influenza Vaccination Cumulative Percentage Coverage by Age Group – Aboriginal and Torres Strait Islander People, 2020

Source: The National Centre for Immunisation Research and Surveillance Australia(21).

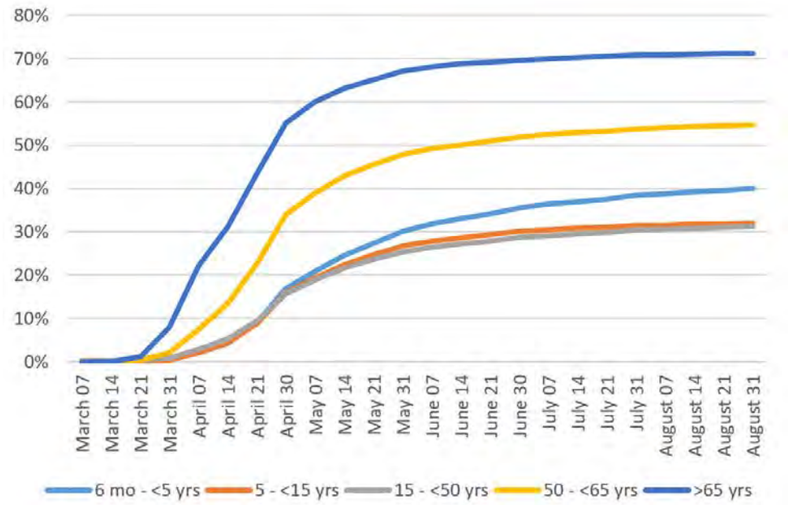
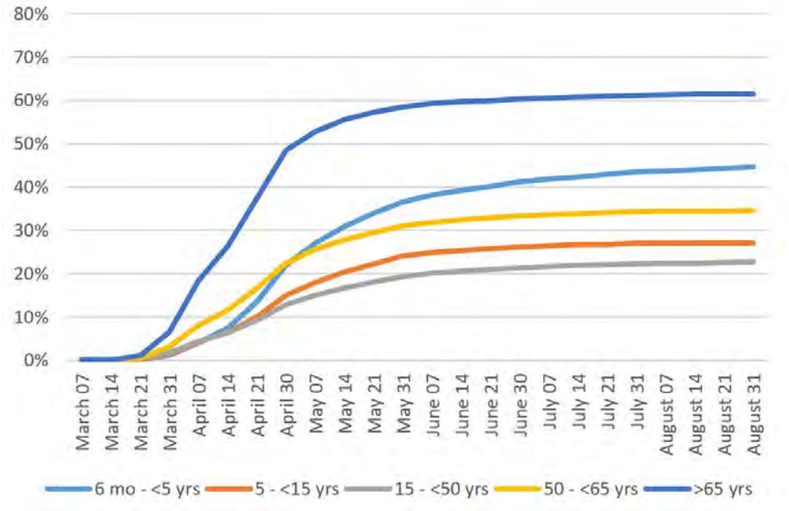


Figure 5. Influenza Vaccination Cumulative Percentage Coverage by Age Group – General Population, 2020

Source: The National Centre for Immunisation Research and Surveillance Australia(21).



Note: Figure 4 and 5 are from publicly available national data. WA-specific data shared by personal correspondence in 2020 with AHCWA showed a similar picture, with influenza vaccination coverage higher among Aboriginal and Torres Strait Islander people when compared to the general population.

New Roles and Multitasking

The workload for ACCHS staff throughout the pandemic was immense. Maintaining routine service delivery under strict IPC conditions (while also providing COVID-19 testing, vaccination, and case management) was only possible because staff were able, and willing, to multi-task.

> ***"People had to do roles that were not their roles."***

> ***"Everyone had multiple roles."***

> ***"Everyone had to multi-task."***

Administration and corporate staff, in particular, readily took on new responsibilities—including front-door screening and triage, and assisting with the huge burden of paperwork and data entry. The administrative burden was particularly onerous during the vaccination and outbreak phases.

> ***"The clinical team was under so much pressure, they didn't have time to record everything, so we created a special admin role. It was fantastic. They registered the RAT results and recorded everything the team could give them."***

In the Kimberley, ***"every person in administration learned how to enter data accurately into the electronic patient record system MMEx."***

The comprensive and holistic nature of the ACCHS Model of Care meant that new roles and additional duties were extremely diverse. Office staff were called upon to provide essential support to community members who faced digital access barriers—printing proof of COVID-19 vaccination certificates so that patients could continue their employment, and assisting in the compulsory online registration of RAT results. Most staff made up and delivered food and essentials packages for families in isolation and assisted with vaxathons and barbeques. Remote Area Nurses (RANs), normally accustomed to acute care, took on responsibilities for child health, chronic disease management, sexual health, and welfare checks.

Multi-skilling both increased capacity and minimised the risk of service gaps due to staff sickness.

> ***"Every nurse was trained to use telehealth, point of care testing, and other critical procedures."***

> ***"We employed a respiratory nurse specifically for the respiratory clinic, [but we also] trained all the nurses to run the respiratory clinic."***

This multi-tasking 'can do' approach is a key feature of the ACCHS Sector, and it stood in contrast to the working style of some of the vaccination and locum nurses brought in to help (particularly with vaccine drives). ***"The scope of practice of the agency staff was so limited, they could not assist with other nursing duties"*** even when the need was acute.

Training Needs

While multi-tasking brought efficiencies and reduced the risk of service gaps due to staff absences, it did require a time-consuming and costly investment in upskilling and training. This added significantly to the workload of an already stretched workforce.

Training needs evolved throughout the pandemic. In the first weeks, there was a focus on enhanced IPC, which for most staff (clinical staff, support staff, transport drivers, front-door screening staff, and cleaners) included the use of full PPE. Additionally, front door staff needed specific training in screening procedures, and all clinicians needed to be trained in the use of telehealth. The whole ACCHS workforce played a major role (formally or informally) in health promotion and needed to be well-versed in the rules and rationale of the Government's public health and social measures.

The arrival of POCT capability (through Cepheid GeneXpert systems) came with strict and lengthy training requirements, as did the vaccination rollout in 2021. The vaccination training (COVID-19 vaccine transportation, storage, drawing up of multi-dose vials, and administration) included a commitment to ongoing additional training in line with the evolving eligibility rules and availability of new vaccines. Some ACCHS were part of the AusVax vaccine safety surveillance program which required additional specific training(22).

Training for paperwork and data entry was also essential.

> ***"We trained everyone and about two thirds of staff were entering data."***

In some instances, data entry systems were so poorly designed and inefficient that training needed to include 'workaround' methods. This was particularly the case for WA Health online RAT registrations and survey questionnaires, as discussed in Chapter 5. Training in effective completion of WA border entry applications was also crucial.

In most cases, training went hand-in-hand with a raft of ACCHS-specific protocols and procedures documents, which were the responsibility of CEOs and senior managers.

Conclusion

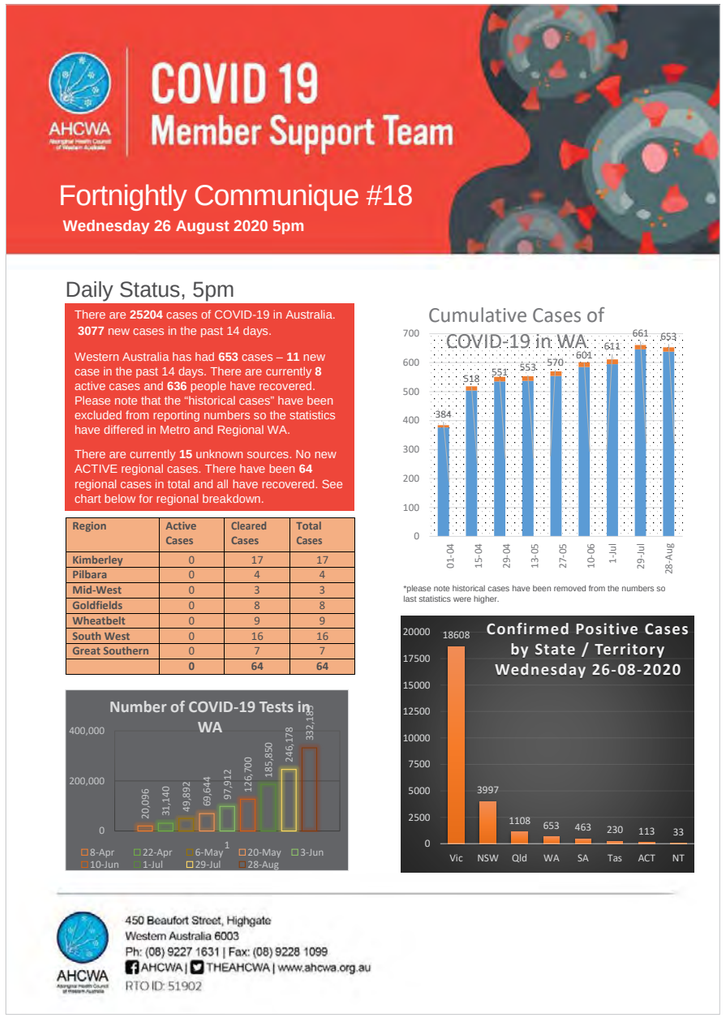
Maintaining the consistent delivery of holistic, comprehensive, culturally safe primary healthcare services throughout the two and half years of the COVID-19 pandemic emergency was a remarkable achievement by ACCHS across WA. This achievement was only possible through responsiveness, hard work, flexibility, innovation, and an unwavering commitment to the health and wellbeing of the Aboriginal community.

> ***"We agreed we had to keep operating for the community."***

> ***"People really stepped up."***

> ***"Everyone wanted to help— all the staff doing non clinical roles took on jobs so that the clinics could run."***

At the height of the pandemic in 2020, AHCWA distributed a weekly COVID-19 communique to ACCHS.



Chapter 4
Vaccination

We went knocking door to door, we had BBQs.

We used reserves [town-based community] to have breakfasts and provided a mobile clinic.

A lot of promotional work was done—with sausage sizzles and giving out milos to kids.

She went out and yarned. She is related to nearly everyone and she knows how every family is going to respond…what they are going to say. She just kept going back and back and back. So we had the highest vaccination rate in the whole area and the whole region, by far. Almost everyone was vaccinated by the time COVID came.

Introduction

The Australian COVID-19 vaccination roll-out commenced in early 2021, one year after the pandemic began. Vaccination offered a way to protect individuals and the community from the most severe health impacts of COVID-19 disease. A high rate of uptake offered a pathway to reopen the WA State border and return to nearer normal(1).

From the outset, it was clear that the COVID-19 vaccination roll-out would be complex and logistically challenging. It was a "whole of population" program[1], at least two doses were required[2], the vaccines were supplied in multi-dose vials[3], and there was a strong sense of urgency. The vaccines were also new, and communities needed reassurance about their safety. Despite these clear challenges, and their already overstretched workloads, ACCHS in WA were quick to sign up as vaccine providers.

Almost as soon as it had commenced, the vaccine roll-out faced a serious setback. Reports that the AstraZeneca vaccine (Vaxzevria)[4] caused rare but serious blood clots in some younger people led to a decision by the Commonwealth to switch to the Pfizer (Comirnaty) vaccine for those under 50 years of age(2). This switch caused major disruptions and delays. The Pfizer vaccine was in short supply and required ultra-cold chain systems that had never been used in primary care(3).

ACCHS in WA had to wait for three to four months before they could access supplies of the Pfizer vaccine, retrain staff, and recommence[5] vaccinating their younger high-risk patients. WA Health, meanwhile, focused its efforts on a small number of 'bookings only' mass vaccination clinics in Perth. The reports of blood clots also increased community concerns about the new vaccines, and helped drive a deluge of misinformation and international conspiracy theories via social media.

This chapter describes how ACCHS in WA developed innovative, culturally safe strategies to encourage vaccine uptake; how they worked with partner organisations to increase workforce capacity and expand access; and how they patiently and persistently reached out to Aboriginal communities and individuals to address fears and misconceptions.

The chapter begins with a chronological account of how the switch to Pfizer led the State to lose sight of Aboriginal people as a priority population and left ACCHS playing 'catch-up' in the second half of the year. The chapter concludes with a section on the importance of accurate vaccination data.

Ultimately, approximately 75 per cent of WA's Aboriginal population aged over 16 years had received at least two COVID-19 vaccines before the border opened in March 2022(4). The vaccination rate was significantly higher in those

[1]Initially ages 18 and over.
[2]This became more with booster doses.
[3]For many years, routine vaccines have been supplied in Australia in single dose vials. COVID-19 vaccines were supplied (worldwide) in multi-dose vials for efficient rapid manufacture. To minimise wastage during administration of the COVID-19 vaccines, individuals needed to be vaccinated in groups. Staff also needed training in the specific safety measures for multi-dose vials.
[4]Chosen originally as the principal vaccine, for community use, due to its ease of storage and local manufacture.
[5]Not all services had started.

From top left (clockwise): As part of AHCWA's COVID-19 vaccination drive, Sector Engagement Officer Ronda Clarke, Chief Executive Des Martin, Chair Vicki O'Donnell OAM, Medicare Benefits Scheme Jurisdictional Coordinator Veronica Walshe and Medical Advisor Dr Marianne Wood promote vaccination.

50 years and over, and greater than 90 per cent in several remote communities(5). In the ACCHS-run dialysis units in the Kimberley, the rate was almost 100 per cent[6]. While COVID-19 vaccination rates for Aboriginal people in WA did not reach the astonishingly high rates for the State as a whole(6)[7], they were still higher than in many European countries(7).

Despite frustrations with the roll-out, early hopes of the benefits of vaccination proved well-founded. A recent WA study of the whole population (including Aboriginal people) showed a three-dose vaccine effectiveness of 81.75 per cent against hospitalisation or death from COVID-19(8).

Australian rules footballer for the West Coast Eagles, Nic Natanui, promotes vaccination against COVID-19 as part of the State's vaccination campaign.

[6]Personal communication with Kimberley Renal Services.
[7]95% of the eligible population had received two doses of the vaccine.

The WA COVID-19 Vaccination Roll-out Timeline

In early 2020, when COVID-19 emerged as a global crisis, no effective vaccines or specific treatments were available for the disease. International vaccine companies (including in Australia) were quick to respond, and enormous resources were made available to ensure that vaccines could be rapidly and safely developed. Within a year, several products had been internationally authorised, but supplies were limited.

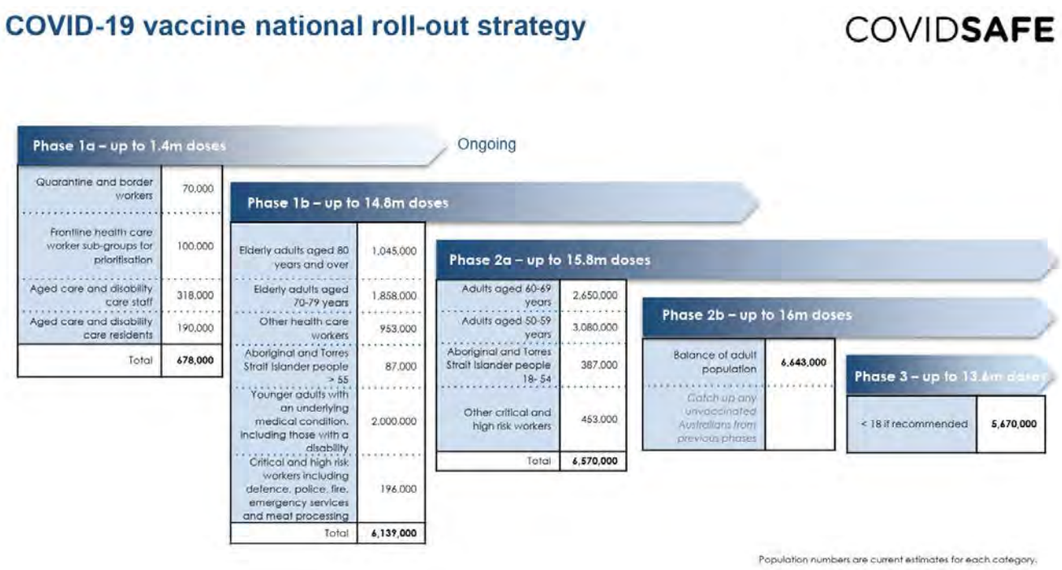
INTERGOVERNMENTAL PLANNING AND STRATEGY

Australia's COVID-19 vaccination program was the shared responsibility of the Commonwealth, State, and Territory governments, with the Commonwealth taking the lead. The Australian COVID-19 Vaccination Policy was endorsed by the National Cabinet[8] in late 2020, and Australia's COVID-19 Vaccine National Roll-out Strategy was released on 7 January 2021(9,10).

With initial, limited availability of the vaccine, the National Roll-out Strategy was based on a priority system. Eligibility was determined according to the risk of exposure to the virus and the risk of becoming seriously ill. Aboriginal and/or Torres Strait Islander peoples were clearly identified as an early 'priority' population[9]. The National Strategy also made it clear that ACCHS would have a major, but shared, role in administration of the vaccines(11).

Figure 1. Australia's COVID-19 Vaccine National Roll-out Strategy

Source: Australian Government(10).



[8]The National Cabinet, established on 13 March 2020, is a forum for the Prime Minster, Premiers and Chief Ministers to meet and work collaboratively.
[9]Based on Australian Technical Advisory Group on Immunisation (ATAGI) recommendations(11).

WA Health signed its WA COVID-19 Vaccination Program Implementation Plan on 9 March 2021. In this plan, it was agreed that *"The Australian Government and the WA Government will work closely together and with the ACCHS to support immunisation of Aboriginal and Torres Strait Islander people in metropolitan, regional, rural, and remote settings"*(12).

Also in March 2021, the Commonwealth released its Covid-19 Vaccination Program Implementation Plan for Aboriginal and Torres Strait Islander peoples, which stressed the importance of cultural safety, Community Control, and Aboriginal leadership(13). WA did not publish a State plan for Aboriginal people.

THE WA IMPLEMENTATION

Please refer to the WA COVID-19 Timeline on page 12.

On 22 February 2021, phase 1a of the vaccination roll-out (see Figure 1) commenced in WA and nationally. WA Health was responsible for vaccination of frontline hospital workers and those involved in quarantine and border control. Vaccination of aged care and disability care residents and staff was the responsibility of the Commonwealth, using teams of private contractors. The vaccine used for this first 1a phase was Pfizer, which was the first COVID-19 vaccine to gain provisional approval in Australia through the Therapeutic Goods Administration (TGA)(14). Initial supplies of the Pfizer vaccine (from the overseas manufacturer) were very limited and roll-out was gradual.

Phase 1b commenced on 22 March 2021, as supplies of the AstraZeneca vaccine became available for ACCHS and General Practices (GPs)(15). The AstraZeneca vaccine had been provisionally approved by the TGA on 15 February 2021. It was the vaccine brand chosen by the Commonwealth for administration by GPs across Australia due to its standard cold-chain and transportation requirements[10], and its much greater availability(17). The Pfizer vaccine was in very limited supply and was difficult to transport and handle due to fragility and initial ultra-cold (-90°C to -60°C) storage requirements(18).

Eligibility for phase 1b included Aboriginal and/or Torres Strait Islander peoples aged 55 and over, and younger adults with an underlying medical condition or disability. In remote communities, everyone aged over 18 was eligible to receive the vaccine under 1b (regardless of the health status), as part of a 'whole of community' approach to optimise logistics(19).

All ACCHS in WA were committed to being COVID-19 vaccine providers and most were well prepared and trained to begin the 1b roll-out. The first COVID-19 vaccine was given by Derbarl Yerrigan Health Service in Perth on 29 March 2021. The first vaccine in a remote community was given in Beagle Bay in the Kimberley the following day.

"Health workers had [already] spent about eight weeks visiting remote communities to discuss the vaccine and address any concerns, and there were queues of people wanting to get the vaccine. We were blown away by the enthusiasm; especially the older people." (From the West Australian)(20).

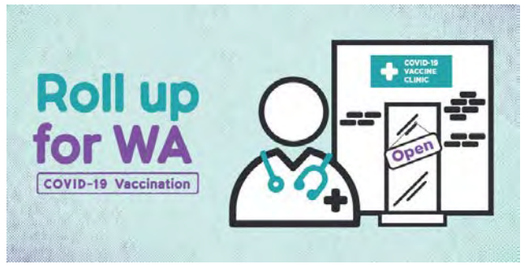
[10]Standard cold-chain (2°C to 8°C)(16).

Less than two weeks later, on 8 April 2021[11], the Australian Technical Advisory Group on Immunisation (ATAGI) issued advice about a risk of clots with the AstraZeneca vaccine and recommended that people under 50 receive Pfizer preferentially[12](2). This was a major problem for the ACCHS Sector, as many of their priority clients with underlying chronic conditions or disabilities were aged under 50, and there was no Pfizer vaccine available to give them. It was an even greater problem for remote Aboriginal communities who, for both cultural and logistical reasons, required a 'whole of community' approach. With no access to Pfizer for younger members of the community, the vaccine roll-out ground to a halt for everyone.

On 22 April 2021, the National Cabinet met to recalibrate the national vaccine roll-out strategy(21). Greater responsibility for COVID-19 vaccination was given to the states, with extra funding provided to set up state-run community vaccination clinics. At the start of the roll-out there had been an expectation that GPs and ACCHS would be the primary vaccinators; but with the switch to Pfizer for younger people, it was now expected that more Australians would receive their COVID-19 vaccinations through state-run clinics.

In late April 2021, the WA Government launched its community 'Roll up for WA' campaign (Figure 2) with public clinics established in Claremont and Kwinana. The AstraZeneca vaccine was available in these clinics to anyone aged 50 and over[13], and from 31 May 2021, there was some access to the Pfizer vaccine for younger medically at risk people(22,23). Bookings were required for both vaccines.

Figure 2. Roll Up For WA Campaign
Source: Government of Western Australia(24).



The Commonwealth, meanwhile, moved quickly to secure more Pfizer vaccine stocks from the overseas manufacturer and worked on the logistics of safely transporting the vaccine to ACCHS and GPs across the country. In May 2021, the Royal Flying Doctor Service (RFDS) was contracted to deliver Pfizer vaccine to remote clinics across the country using portable ultra-cold freezers on their planes and larger freezers in their airport hubs (Jandakot and Broome in WA)(23). Also in May, the TGA announced more "flexible storage conditions" which extended the allowable unopened thawed vial refrigeration period for the Pfizer vaccine from five to 31 days(25). This expanded on an earlier relaxation of the storage rules that had allowed a period of two weeks in a domestic freezer (-25°C to -15°C) for unthawed vials(26).

On 4 June 2021, several weeks before supplies of Pfizer vaccine had reached most ACCHS in WA, the Commonwealth and states met again and agreed to make Pfizer available to 40–49 year olds. On 10 June, the WA Government went one step further and announced that Pfizer would be available through its four metropolitan state-run clinics[14] and in Bunbury to anyone aged 30–50[15](27) (Aboriginal people over 16 were eligible, in line with the original 2a priority group strategy[16]).

[11]Reports of clots has already been circulating for some time.
[12]In those who had not already received a first dose of Astra Zeneca vaccine.
[13]Eligibility for 50–70 year olds in phase 2a was brought forward to utilise existing Astra Zeneca stocks.
[14]Claremont, Joondalup, Kwinana, Redcliffe (Perth Airport).
[15]This was amended a week later (17 June 2021) to those aged 30–60 after ATAGI announced a higher age restriction on the use of AstraZeneca vaccine due to the clotting risks.
[16]Aboriginal people over 18 were eligible in phase 2b in line with TGA approval of Astra Zeneca vaccine. Approval for Pfizer vaccine was lower at 16.

For most Aboriginal people, this expansion of the State's mass vaccination clinics did little to improve their access to the vaccine. Approximately 60 per cent of WA's Aboriginal population live in regional and remote parts of the state, and for many Aboriginal people living in Perth and the South West, these clinics had insurmountable geographical, logistical, and cultural barriers. An 'all comers' mass vaccination strategy in limited parts of Perth and the South West effectively replaced the original State-wide focus on groups most at risk. Access to Pfizer depended not on need but on where a person lived. Bookings (online or by calling 13COVID) were also required.

Almost three months after stage 1b of the roll-out began (prioritising Aboriginal people over 55 and younger adults with chronic illnesses), supplies of Pfizer vaccine finally started to reach ACCHS in WA.

By August 2021, there was growing national publicity about a significant gap in the COVID-19 vaccination rates between Aboriginal and non-Aboriginal people, and WA was identified as the worst performing state—with the widest gap and the lowest rate for Aboriginal people(30). WA was also the state with the lowest COVID-19 vaccination rate overall(31).

The WA Government's response was to appoint a special Vaccine Commander on 24 August 2021(31). The commander was responsible for delivery of the state's vaccination program as a whole and for *"stakeholder engagement to ensure specific hesitant groups are supported to take up the vaccine"*(32).

In the second half of August, a two-week vaccination 'blitz' was held across State-run clinics[19], with priority bookings for registered Western Australians in their 30s(33). Young people aged 16 and over also became eligible to book(34). In mid-September, the WA Government opened Pfizer vaccine up for people aged 60 and over to address hesitancy in that age group[20](35).

Remote ACCHS were the initial focus for the Commonwealth, and RFDS deliveries commenced in the Kimberley on 14 June 2021 for joint administration with local ACCHS.

On 12 July, the vaccine reached the Ngaanyatjarra Lands where ***"the response from staff and community members was overwhelming. The uptake was far bigger than we expected,"*** with 540 doses administered in seven communities over a five-day period[17](28). In late August 2021, five months after the 1b roll-out began, Pfizer vaccine arrived in Tjuntjunjara, the last of the ACCHS communities in WA to receive its first doses[18].

Regional and metropolitan ACCHS, together with mainstream GPs, became eligible for Pfizer vaccine supplies soon after the remote clinics, on 5 July 2021(29).

[17]Deliveries were made according to an RFDS booking schedule, which needed to factor in both first and second doses.
[18]An estimated 80 per cent of that community was vaccinated in that first visit.
[19]Claremont, Joondalup, Kwinana, Redcliffe (Perth Airport), Bunbury.
[20]Although the risk of clots with AstraZeneca was much lower in older people, many older Australians did not want to take the risk.

AHCWA had been calling for months for culturally safe and accessible State-run clinics to be set up in areas with high Aboriginal populations. Finally, on 6 September 2021, a public clinic opened in Midland, where for the first time, 'walk-ins' were offered and Aboriginal staff were in attendance. On 18 October 2021 (more than four months after 30-year-olds could be vaccinated in the wealthy suburb of Claremont), a State-run clinic was opened in Armadale for the people of Perth's south east(36).

Access to State-run clinics in regional WA was even poorer and slower, with the notable exception of the South West where a government clinic had been established in Bunbury in early June 2021.

In September 2021, the Kimberley Aboriginal Medical Services (KAMS) took the lead in organising the first regional mass vaccination event north of Perth, using a unique Aboriginal-focused multi-agency, whole of community "vaxathon" model(37,38). It was a resounding success; and similar multi-agency vaxathons, with ACCHS in leadership or partnership roles, were held in most other regions during the following two months.

> ***"It was amazing. People lined up and we were there to answer questions. The environmental health workers and staff from the AMSs sat with people and explained. They helped the people who were uncertain. At our high point we were vaccinating a thousand people per day across the region. It was a very big set-up. The AMSs, WACHS, and RFDS. Vaxathons were a great way of vaccinating a lot of people at the same time."***

On 22 November 2021, 10 months after the start of the COVID-19 vaccination roll-out and three months after the appointment of the WA vaccine commander, the WA Government commenced tailored five-week vaccination program specifically for Aboriginal people—'Keeping our culture safe and strong'(39,40). Its stated purpose was to *"make COVID-19 vaccinations more convenient for people in urban, regional, and remote areas of WA"* using *"a range of intensified in-reach programs [including] house-to-house visits and in-reach for hospital inpatients and outpatients."*

Disappointingly, the State Government blamed the Commonwealth for the "lag" in vaccination uptake in Aboriginal communities(40).

The Role of the ACCHS

While the WA Government took many months to focus on the COVID-19 vaccination needs of Aboriginal people, ACCHS played a vital and wide-ranging role from the very outset. They provided education and reassurance to thousands of individuals and groups, administered tens of thousands of vaccines, and were crucial partners in multi-agency collaboratives[21].

The ACCHS were also the innovators and testers of diverse delivery strategies—pop-up clinics, mobile clinics, door-to-door visits, and vaxathons—many of which were subsequently adopted by the State for other 'hard to reach' groups(41).

EDUCATION AND PROMOTION

The most time-consuming role for ACCHS during the vaccine roll-out was educational—explaining the vaccines, dispelling myths, and encouraging a sense of urgency. ACCHS staff were themselves vaccinated, and it was everyone's role to be informed advocates.

Face to Face Messaging

Much of the information sharing during the first public health-focused year of the pandemic (when social distancing rules were stricter) was through standard messaging—posters, radio programs, and social media posts. With the vaccination roll-out, there was a much greater need for two-way conversations. People had serious questions, and they wanted honest, respectful answers that they could understand and trust. ***"Posters are OK... but really it was talking to people that worked best."***

> ***"Talking to people was our biggest piece of work. Not just providing information... but hearing people's concerns and gathering information. Listening to people. At the beginning, people wanted to know why only the old people were getting the vaccine. Why not the kids too? Why not the whole family? ... That was a really big thing. Later it was 'we don't have COVID here, why do we need the vaccine?'"***

Figure 3. First Five Staff at Geraldton Regional Aboriginal Medical Service (GRAMS) to Receive Two Doses of COVID-19 Vaccine

Caption: "GRAMS team rolls up their sleeves for WA Congratulations to our 1st five staff members who have completed their two dose course of their COVID-19 vaccine. Well done to our amazing team for rolling up your sleeves twice and protecting yourselves and our community. Help keep our mob safe by rolling up your sleeves when it's your turn..."

Source: GRAMS Facebook page, July 2021(42).

[21] Almost 15,000 COVID-19 vaccines were administered through Derbarl Yerrigan Health Service clinics alone, up to the end of 2022.

Figure 4. COVID-19 Community Information Session in Beagle Bay

Source: Kimberley Aboriginal Medical Services Facebook page, March 2021(43).

> ***"We did lots of information sessions, and listening to people's concerns."***

> ***"We held public meetings. We used a loud speaker at the community shop and outside Woolies and we always invited questions."***

> ***"Everyone had heard about the clots."***

> ***"The whole community was really spooked."***

> ***"The biggest thing was overcoming the fear."***

> ***"Talking honestly."***

The needs of each community differed.

> ***"We created our own information and went house to house so that families could ask us questions and we could answer."***

> ***"We worked hard to localise messaging, using the language of the groups in the area."***

> ***"Explaining why people need two doses was really difficult. AHCWA made us an infographic that the nurses used when explaining to people."***

Aboriginal staff, CEOs, Board Members, and local Elders were the most powerful advocates. They had a unique reach into communities, and their 'lived experience' carried immense weight.

> ***"There were lots of community meetings and discussions with Elders and leaders."***

> ***"My thing was getting out there with the doctors—having meetings, talking to people."***

> ***"After the head of the family or Elder had the vaccine, everyone is like, 'I am having it too.'"***

> ***"As time went on, a lot of the communities saw that all the talk about reactions wasn't happening."***

Figure 5. Poster of Board Chairperson Receiving the COVID-19 Vaccine

Source: Derby Aboriginal Health Service Facebook page, May 2021(44).

Aboriginal staff also knew when and how to push.

> ***"I was honest and straight up. 'Look, this is a new outbreak. It's like flu, but much more dangerous. I know that it is killing people worldwide and I don't want that to happen to you, because you are my family.' I was humbugging, but they knew it was because I cared."***

Creating and Using Media

Media, including social media, supplemented face to face messages, and most ACCHS made their own resources to meet local needs. The messages were constantly reviewed and renewed to make sure they were accurate and effective.

> ***"If our messaging was misinterpreted or not working, we listened to people and we tweaked it."***

> ***"We made an animated video to show what is in the vaccine, and even did a major ad for TV(45)."***

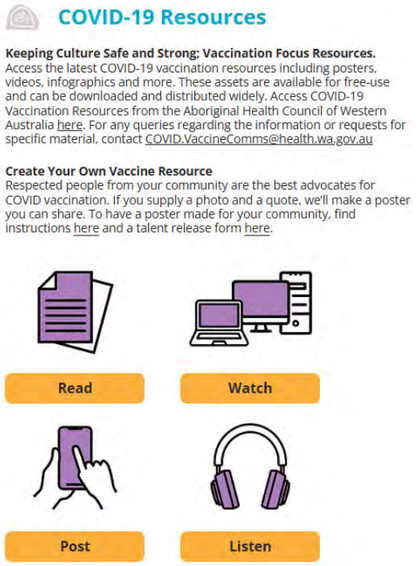
> ***"We made a video of us getting the vaccine, what it felt like... and then again on how we were feeling fine afterwards. We put it on Facebook."***

There was a lot of sharing and posting on Facebook, including the sharing of materials from both the State and Commonwealth.

AHCWA's website became a comprehensive repository of COVID-19 materials for Aboriginal people across the State, and WA Health encouraged community members to visit the site to *"access bespoke resources offering information and guidance"*(46).

Figure 6. AHCWA COVID-19 Resources Home Page

Source: Aboriginal Health Council of WA(47).



Facebook was used by the ACCHS not only to share materials but to challenge falsehoods.

> ***"We got a lot of information out on Facebook, ourselves, to try and deal with some of the confusing and misleading stuff which was creating hysteria."***

> ***"Everyone had heard all these stories and myths and whatever from the internet."***

> ***"There was some pretty nasty stuff being shared that was specifically encouraging Aboriginal people to not get vaccines. It came from a white supremacist group in the US."***

Fighting Misinformation

One of the greatest challenges was when anti-vax messages were coming from respected church leaders.

> ***"We had a local church that was preaching against vaccinations and that had a big impact. It eroded trust in the health service."***

> ***"One community was against vaccination, influenced by the church, and wouldn't let us in... so we brought them here and vaccinated people from the community in town."***

Keeping communities informed about what was happening elsewhere in the world, and in other Australian states, was also a constant need.

Box 4. Working with Religious Leaders to Fight Misinformation from Social Media

Misinformation was spread via social media by American-based preachers labelling COVID-19 vaccines 'evil'(48). To stop the spread of this misinformation, some ACCHS wrote to local church leaders seeking their support in providing correct vaccine information(49). This support from local religious leaders was vitally important; but the spread of misinformation from other religious sources online remained difficult to control(50).

WA was, in some ways, a victim of its own success at keeping the virus out, and communities needed to be persuaded that COVID-19 was still a threat.

> ***"We don't have it here, why should we vaccinated?"***

> ***"The virus won't come here."***

> ***"There was no sense of urgency. People had forgotten."***

INNOVATION AND FLEXIBLE PROGRAM DELIVERY

With the WA COVID-19 vaccination roll-out thrown into disarray by restrictions on the AstraZeneca vaccine for younger people—and delays in the delivery of Pfizer vaccine to primary care—the ACCHS were in 'catch up mode' from the middle of 2021. Once supplies became available, innovative strategies were urgently required to increase numbers, and with clinic staff already overstretched, most ACCHS needed to partner with external agencies.

In some places, large multi-agency vaxathon events worked best with music, barbecues, and sausage sizzles drawing in crowds.

Figure 7. Kimberley COVID-19 Vaxathon
Source: KAMS Facebook page, September 2021(51).

> ***"Vaxathons were a good way of vaccinating a lot of people at the same time."***

> ***"We had teams taking consents, checking vaccination records, and administering the vaccine. At the back of the station we had people drawing up the vaccine, and other people entering the data."***

> ***"The environmental health team helped by filling in forms for people. Some people needed a lot of help."***

Elsewhere, there were pop-up clinics, mobile vaccination buses, and weekend clinics. In some places, ***"our best strategy was going directly to households."***

> ***"We got our most experienced and trusted staff to go door to door explaining to people and vaccinating people at their home. We had a lot of success this way."***

Incentives were controversial, but worked well in many places. In the early weeks of the vaccination roll-out, the use of any sort of product promotion (including mention of vaccine trade-names and support events) was prohibited under the TGA's strict pharmaceutical advertising rules(52). These rules were a clear barrier to vaccine uptake, and the ACCHS Sector across the country advocated strongly for sensible changes. New guidelines were issued (specifically for COVID-19 vaccines) on 17 June 2021(53). Under this official guidance, healthcare providers were permitted to promote the vaccine (within limits) and most ACCHS in WA offered incentives such as ***"fuel vouchers, power cards, meat packs, supermarket vouchers, tee-shirts, and prizes"***(54). Philanthropic organisations and mining companies provided generous financial assistance to purchase these goods.

Figure 8. COVID-19 Vaxathon Poster

Source: Derbarl Yerrigan Health Service (DYHS) Facebook page, January 2022 (54).

PARTNERSHIPS

While ACCHS had the primary responsibility for promoting and administering the COVID-19 vaccines in their own communities, and some were fully independent, most ACCHS worked in partnership with WA Health and other agencies for at least part of the roll-out. RFDS played a big role in most remote clinics, particularly in vaccine supply, and WA Country Health Service (WACHS) was a major player in most regional vaxathon events. The Commonwealth filled gaps across the State, including in Perth, with teams of nurse vaccinators, and the National Indigenous Australians Agency (NIAA) played a role in the south.

> ***"The RFDS was our 'go to'. They were a known and trusted organisation. They brought the vaccines out to us and we worked together—they were the technicians and our staff did the yarning. We made sure that they did cultural training with us first; we insisted that the same staff come each time to increase trust."***

> ***"Collaboration between the ACCHS, KAMS, and WACHS was a big factor in the success of the vaccination."***

> ***"The mobile bus was a big presence. We all took part in vaccinations using the WACHS vaccination bus—it was collaborative and well-organised."***

> ***"We partnered with Homeless Health [in Perth] and did a lot of education through them. We vaccinated a lot of homeless people."***

> ***"The mining company was very supportive. They were able to fund incentives which really helped increase the vaccine uptake."***

COVID-19 Vaccination Data

As with other elements of the COVID-19 pandemic response, the vaccination roll-out presented significant challenges and frustrations for ACCHS with respect to data. Multi-agency teams and innovative 'off-site' (or 'in-reach') vaccination strategies brought logistical complexities for ACCHS' data entry; official government 'vaccine coverage'[22] reports were frequently at odds with the ACCHS' own clinic data; and the media announcements often felt negative and undermining.

> ***"There was a system failure with different sources of data that did not agree."***

This section documents these challenges and frustrations and calls for governments to critically examine potential sources of data inaccuracy to ensure greater confidence in their published reports. (The ACCHS Sector concurs with the recommendation of The Australian National Audit Office that the Department of Health and Aged Care *"establish processes to... ensure it regularly obtains and reviews assurance over the [vaccine] data quality"*[23](36). Priority should be given to Aboriginal vaccination data).

COVID-19 VACCINE RECORDING INTO AIR

The Australian Immunisation Register (AIR) is the national register that records the vaccines given to all people in Australia[24](55). The register was initially established in 1996 (as the Australian Childhood Immunisation Register), and was expanded in 2016 to include people of all ages(55). In 2021, reporting became mandatory for most vaccines, including for COVID-19 vaccines(56).

The accurate and timely reporting of COVID-19 vaccine doses to AIR was an essential element of the vaccination roll-out, and served both clinical and epidemiological purposes. The register gave COVID-19 vaccine providers (including ACCHS) access to patients' immunisation histories, which helped ensure the correct timing and number of doses for individuals. The AIR database provided governments with population level data for calculating vaccine coverage in different groups over time[25]. These coverage rates played a major role in determining the date for opening the WA border[26] and were used to identify 'areas of concern' where vaccination rates were low.

Figure 9. Mark McGowan Announces Plan for WA to reopen border at 90 per cent COVID-19 Vaccination Rate Reported by the ABC News.

Source: ABC News(57).

[22]Vaccine coverage is the percentage of people in the eligible population who have received the vaccine (one, two or three doses).
[23]The Australian National Audit Office (ANAO) wrote in its August 2022 audit of the Australian COVID-19 vaccine roll-out that: "Health...does not have adequate assurance over the completeness and accuracy of the data and third-party systems" and "Health has not quantified the inaccuracies in its internal or external data processes in the period examined"(36).
[24]Linked to Medicare.
[25]Typically by age, gender, Aboriginality and geographical location.
[26]The final target announced on 4 November 2021 was a double dose rate of 90 per cent for the overall population aged 12+ years.

The COVID-19 vaccine roll-out brought new risks and challenges for data capture. The scale and urgency of the vaccine roll-out was unprecedented, ACCHS worked in partnerships with multiple external agencies (RFDS, WACHS, and the Commonwealth-funded contractors) and vaccines were administered in novel off-site locations (in buses, homes, and public vaxathon venues). This new way of working required the establishment of clear clinical governance arrangements, roles, and responsibilities—and a major investment in training for new and redeployed staff.

Most larger ACCHS chose to take full responsibility for entering the vaccine information into their practice software and uploading it to AIR when working in multi-agency teams[27]. Each ACCHS developed their own system.

> ***"The most important thing was being effective and efficient and having the right administrative processes to capture the data. We had to be sure that the information was accurate and up to date."***

> ***"Every person in administration learned how to enter data accurately into [the practice software]."***

> ***"With the [multi-agency] vaxathon events, we did everything on paper first, ticking things off—checking and double checking. Once we had consent, we allowed people into the room, checked their vaccination records, and vaccinated at the vaccine station. Our own staff then entered the data onto [our practice software system]."***

> ***"[When going door to door], we had iPads with us so that we could check what people had been given, get consents, and enter data into [our system] on the spot. iPads allowed us to enter data in real time which increased its accuracy, but reliable Wi-Fi was vital."***

Figure 10. Puntukurnu Aboriginal Medical Services (PAMS) Vaxathon

Source: Puntukurnu Aboriginal Medical Service Facebook page, August 2021(58).

[27]In some places WACHS was the lead agency and took this responsibility.

Some smaller under-resourced ACCHS were forced to rely on the contracted external vaccine providers for data entry, and the outcomes were mixed. Where consistent well-trained teams were used it was generally very reliable[28], but there were some instances of inadequate data-entry practice.

> ***"Two contractor nurses from over east came for two days (not two weeks as we were told) and when they left we realized they had completed no paperwork, recorded no consents or dates of birth for any of the people they saw."***

Where the contractors failed, ACCHS did their best to match half-completed paper notes with electronic patient records.

Even without multi-agency teams and off-site locations, vaccine data entry is not always straightforward. Accurate electronic uploading[29] to AIR requires perfect matching of patient details (name, data of birth, address, and Medicare card details), and can be very challenging in mobile communities with poor birth records. Over the years, ACCHS have developed a deep understanding of the many potential pitfalls in this detailed matching process for Aboriginal people[30] and have put systems in place to minimise the risks(59).

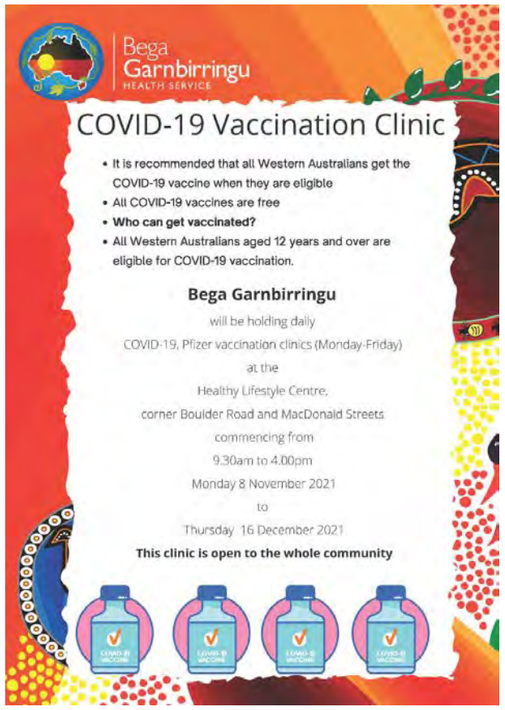
> ***"We understand the importance of entering accurate data."***

These checking systems were vital for the ACCHS 'open door' vaccination clinics. Non-regular clients had to be manually enrolled into the practice software system, and current Medicare card numbers and details often had to be sourced from Services Australia[31].

Labour-saving processes, taken for granted by mainstream services, such as online patient bookings and registrations (where details such as Medicare card numbers are entered in advance by the patient), were not a realistic option for ACCHS. Many patients had no access to personal digital devices, no access to the internet, or limited digital literacy. Additionally, many clients needed 'hands on' assistance completing the necessary paperwork for consent.

Figure 11. Bega Garnbirringu Health Service COVID-19 Vaccination Clinic Poster

Source: Bega Garnbirringu Health Service Facebook page, November 2021(60).



[28]RFDS staff were particularly highly regarded.
[29]Vaccinations are automatically uploaded to AIR via the practice electronic records system.
[30]For example, small discrepancies in the spelling of names and the absence of a postcode can cause an upload failure.
[31]People often turned up for vaccination without their Medicare cards.

For many ACCHS in WA, an added frustration was the process that had been developed by their practice software company to record sequential doses of the COVID-19 vaccine. Although in line with Government software compliance rules, the hastily developed system was clumsy to use; workarounds and extra staff training were needed to ensure safety and accuracy[32].

> ***"The data entry issues were terrible at the beginning."***

> ***"It was very hard to track what doses people had received."***

Some ACCHS followed tips from interstate colleagues.

> ***"We learned to use it—to get data out or in."***

Others chose to make their own local modifications to the software system to increase usability and minimise the risk of errors.

> ***"It was a lot of [extra] time and effort."***

> ***"We were on the phone to the helpdesk almost every day."***

> ***"We eventually produced our own training video to guide locum staff and visiting vaccinators."***

It is uncertain, but quite likely, that this problem would have been avoided through greater Government support for the small established software companies serving the ACCHS Sector. The same funding issue applied to vaccine safety data systems.

COVID-19 VACCINE SAFETY DATA

In addition to their major role as vaccine providers, several WA ACCHS signed up to be part of Australia's national vaccine safety system, AusVaxSafety, led by the National Centre for Immunisation Research and Surveillance (NCIRS) (61,62). Their involvement helped to ensure that Aboriginal people in WA were included in the national surveillance of adverse events following immunisation for COVID-19 vaccines.

Most WA ACCHS showed early interest in being part of AusVaxSafety, partly for the 'common good' and partly as a means of providing reassurance to their own patients. The preferred option, at the time, was to use the SmartVax tool but, unfortunately, the cost of integration into the ACCHS Sector practice software was either prohibitively expensive or not possible within the vaccine roll-out timeframe(5). Despite its more manual application and the significant extra work involved in explaining the program to clients, many ACCHS vaccination sites[33] agreed to use the alternative NSW-based Vaxtracker system[34](64).

Remarkably, during the vaccine roll-out, WA ACCHS numbered 18 of the 119 collaborating sites in WA (including GPs and pharmacies) and 18 of the total 31 ACCHO sites across Australia(65). This was a significant contribution to the country's understanding of COVID-19 vaccine safety for Aboriginal people[35].

[32]Excluding Kimberley sites for whom MMEX worked well.
[33]Mainly in the Kimberley.
[34]The AusVaxSafety surveillance system was voluntary for patients and required consent. Contact information was collected and those who participated received an SMS a few days after their COVID-19 vaccine with a questionnaire to record side effects. National data was summarised in reports and made publicly available online.
[35]The data showed that reported side effects from Pfizer were similar for both Aboriginal and non-Aboriginal people.

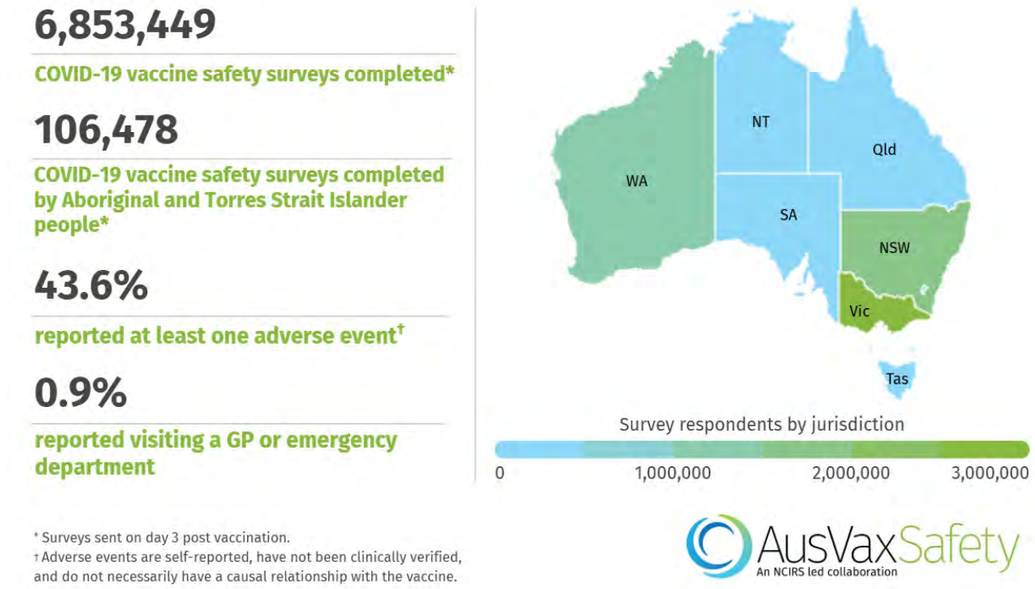


Figure 12. COVID-19 Vaccine Safety Data – Surveys Completed and Adverse Events Reported as at 13 May 2024, by jurisdiction

Source: AusVaxSafety(63). Used with permission. 2021(43).

COVID-19 VACCINE POPULATION LEVEL REPORTING

While WA ACCHS were confident about their own recording (and reporting) of COVID-19 vaccinations and the accuracy of their clinic data, they had serious doubts about the accuracy of many official government reports[36](36). For some remote Aboriginal communities, the government reports showed a coverage rate[37] that was less than half the rate calculated from ACCHS own records. ***"We were aware that the [population-level] AIR data was not reliable."***

The Commonwealth commenced regular[38] public reporting of COVID-19 vaccinations in April 2021[39], and from August 2021, reports included Indigenous coverage rates(66). From September 2021, the Commonwealth published "Indigenous vaccination rates" by more detailed location (SA4 and LGA)[40] and included additional reports on areas with the lowest vaccination rates—deemed "priority areas" and "LGAs of interest"[41](36,67,68).

[36]AIR is a Commonwealth database and most population coverage data came from the Commonwealth.
[37]Percentage of people in the eligible population who have received the vaccine (one, two, or three doses).
[38]Often weekly.
[39]Initially data was published on overall dose numbers and rates for aged care and disability residents.
[40]SA4 is Statistical Area 4, and LGA is Local Government Area.
[41]Note that although LGA reports for the whole population are still available online, these Indigenous reports are no longer available.

The publication of geographically granular rates for Aboriginal and/or Torres Strait Islander peoples was in response to calls from the ACCHS Sector nationally(69,70). There was justified concern that pockets of low vaccination rates were being missed by State level data, and that vaccination resources were not being directed to areas of greatest need(71–73). ACCHS in WA generally supported the Commonwealth's public data sharing initiative but were frustrated by the clear inaccuracies and inconsistencies in the official published reports, and by the different treatment of Indigenous and non-Indigenous data (see Box 5 for a summary of potential sources of error in vaccine coverage reporting). One particular frustration was the disregard, in the Indigenous tables, of the known inaccuracies in remote area geocoding. The weekly published "whole of population" reports, 'Local Government Area (LGA) COVID-19 Vaccine Rates', carried the explicit data caveat: *"The process of geocoding addresses in very remote areas and remote areas can lead to artificially low vaccine dose count records in those areas as addresses cannot be 'pinpointed' to a specific client location and therefore LGA"*(67). In these reports (see Figures 13 and 14), remote and very remote LGAs—shaded in brown—were left blank for the "whole of population" reports but inexplicably filled in for the Indigenous-specific reports. In WA, 36 per cent of LGAs belong to the remote or very remote category.

Additionally, the "whole of population" reports carried the statement that *"Population cell values less than 200 have been suppressed for privacy"*; but, again, this rule was not applied to the Indigenous reports.

Figure 13. Vaccination Coverage by Local Government Area (LGA) for whole of population, March 2022

Source: Department of Health and Aged Care(67).

State of Residence	LGA Name of Residence	% Received dose 1	% Received dose 2	% Eligible Received more than 2 doses	16 and over - LGA Population
Western Australia	Westonia (S)	N/A	N/A	N/A	262
Western Australia	Wickepin (S)	>95%	>95%	85.5%	564
Western Australia	Williams (S)	>95%	>95%	84.4%	780
Western Australia	Wiluna (S)	N/A	N/A	N/A	601
Western Australia	Wongan-Ballidu (S)	>95%	>95%	85.1%	987
Western Australia	Woodanilling (S)*	81.8%	79.1%	81.3%	335
Western Australia	Wyalkatchem (S)	>95%	95.0%	87.7%	419
Western Australia	Wyndham-East Kimberley (S)	N/A	N/A	N/A	5,515
Western Australia	Yalgoo (S)	N/A	N/A	N/A	320

* Indicates LGAs with apparent data issues resulting in coverage rates that may not be representative and should be treated with caution.
State and Local Government Area (LGA) are derived from AIR based on Medicare address for numerator and ABS 2020 ERP for LGA as denominator.
denotes LGAs with large 'very remote' and 'remote' areas where geo-coding addresses is difficult, often leading to artificially low counts

Figure 14. Vaccination Coverage by Local Government Area (LGA) for Indigenous population, March 2022

Source: Department of Health and Aged Care[42](74).

Medicare Address ASGS State Name	Medicare Address LGA 2020 Name	Indigenous AIR Population	Indigenous individuals received Dose 1 %	Indigenous individuals received dose 2 %	Indigenous individual received more than 2 doses %
Western Australia	Westonia (S)	<200	**	**	**
Western Australia	Wickepin (S)	<200	**	**	**
Western Australia	Williams (S)	<200	**	**	**
Western Australia	Wiluna (S)	<200	89.5%	82.1%	65.3%
Western Australia	Wongan-Ballidu (S)	<200	93.0%	83.7%	89.5%
Western Australia	Woodanilling (S)	<200	**	**	**
Western Australia	Wyalkatchem (S)	<200	**	**	**
Western Australia	Wyndham-East Kimberley (S)	2,221	84.4%	76.1%	70.9%
Western Australia	Yalgoo (S)	<200	89.2%	79.5%	63.2%

*** denotes likely additional issues regarding data accuracy*

[42]This data has since been removed from the website.

Remote community ACCHS staff and patients who have received their COVID-19 vaccination wait for 15 minutes outside the clinic after vaccination as per immunisation guidelines.

Another anomaly was that most published COVID-19 vaccine reports used different "eligible population" (denominator) sources for Aboriginal people and the "whole of the population"[43]. The Commonwealth reports used the AIR (Medicare) database for Indigenous people (Figure 14) but used the Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) for the overall Australian adult population (aged 16+) (Figure 13)(67). For all children, the AIR database was used. It is unclear why different rules applied to the general adult Australian population, particularly since all other official Government vaccination reports (including influenza vaccine coverage reports) use the AIR denominator for everyone(75).

The frequent 'mismatch' between Government COVID-19 vaccination reports and ACCHS own clinic data, together with these reporting inconsistencies, was both frustrating and undermining. AHCWA and individual ACCHS spent many hours unsuccessfully trying to reconcile their own clinic data with government reports which sometimes felt like ***"lies, damned lies, and statistics."***

The ACCHS Sector in WA understands the challenges in producing accurate population reports and the possible need for 'adjustments,' but this should be done with full disclosure and transparency.

[43]Vaccination reports generally show Aboriginal data and "Australian population" data. There are no specific non-Aboriginal reports.

Box 5. Potential Sources of Error in Vaccine Coverage Calculations

The accuracy of vaccine coverage measures depend on a number of variables. These include:

1. **The complete and timely uploading of vaccine data to AIR by all vaccine providers.**

   Despite the complexities of the COVID-19 vaccine rollout and the participation of many new and inexperienced vaccine provider groups, there has been no published assessment of reporting accuracy to AHCWA's knowledge.

   Studies of reporting to AIR prior to the COVID-19 pandemic show some justification for concern. A June 2021 report on pharmacy uploads to AIR (prior to the availability of COVID-19 vaccines) showed that 18 per cent of vaccines administered were not uploaded, and a 2018 study of overdue childhood vaccines showed a misclassification rate of 14 per cent(71,72). Neither of these studies specifically looked at vaccines given to Aboriginal people (particularly adults) for whom 'matching' of names, dates of births, and Medicare cards can be more complicated and, therefore, more prone to error uploads.

2. **The use of a consistent denominator that reliably reflects the eligible population and allows for accurate comparison across population groups.**

   Different denominators were used for the Aboriginal and non-Aboriginal populations for the Commonwealth's COVID-19 vaccination coverage data. The Indigenous AIR denominator was used for Aboriginal people; whereas the ABS ERP was used for non-Aboriginal people aged 16+(73). The AIR denominator was used for all children.

   An explanation regarding the use of different denominators is necessary, together with a thorough assessment of the reliability of the Indigenous AIR denominator. This assessment needs to include analysis by age cohorts and categories of remoteness. Potential sources of error include completeness of Medicare enrolment (particularly in remote areas where primary care services are provided by the state health rather than through Medicare), completeness of Indigenous identification (particularly in older cohorts), and frequency of duplicate Medicare cards.

3. **The ability to accurately assign a Medicare card address to a precise LGA location or community.**

   By the Commonwealth's own admission, accurately assigning an address is difficult. The COVID Shield vaccine coverage reports all carry a caveat about data inaccuracies in remote and very remote areas(61). The 'user guide' to the AIR data portal also states that "A person's address is derived from their geo-coded Medicare Address. This has resulted in around 25,000 'unknowns' which disproportionately impacts remote areas"(74). For some remote ACCHS, alignment of Medicare card addresses and LGA is further complicated because Medicare cards are addressed to the clinic.

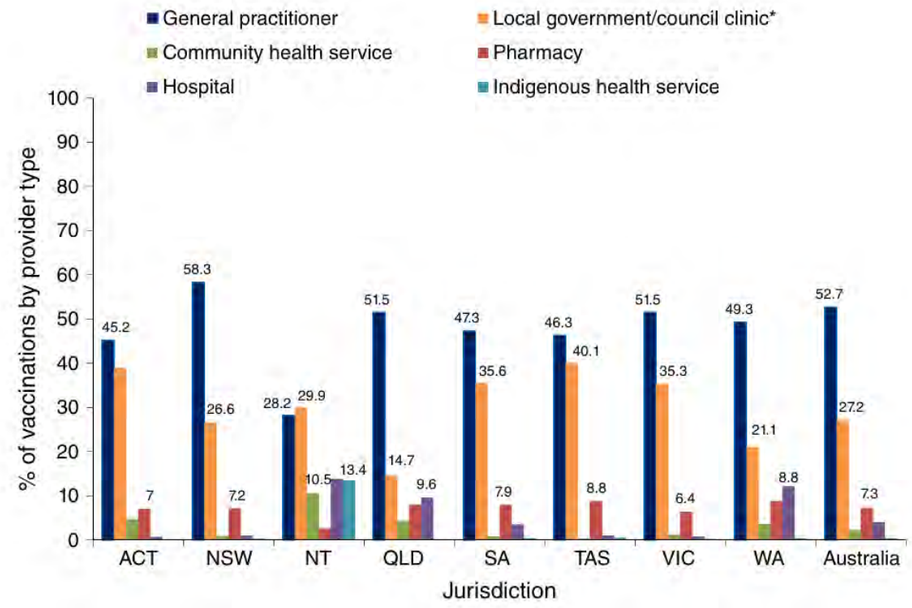
   The known cautions regarding location-specific coverage rates are likely to be particularly relevant for WA where 49/137 (36 per cent) of LGAs fall into the "remote" and "very remote" categories, and where postcodes cross State borders.

AIR PROVIDER TYPE DESIGNATION

An additional data concern identified by the ACCHS Sector in WA during the COVID-19 vaccine rollout was the major misclassification of vaccine "provider type." AIR uploads contain both details about the individual who has received a vaccine (age, gender, Aboriginality, and postcode) and details of the vaccine provider. "Provider types" include general practitioner, community health clinic, hospital, local government clinic, pharmacy, and "Indigenous Health Service"—and this information is automatically uploaded by the practice software. The data provided allows an assessment of the proportion of vaccines administered by different provider groups, and is included in public reporting as in Figure 9(76).

Unfortunately, for some years, the true number of vaccines given by the ACCHS in WA has been seriously under-reported in official reports due to administrative coding anomalies in some ACCHS[44]. AHCWA's estimate is that over 50 per cent of vaccines given by the WA ACCHS Sector have been miscoded under the "general practitioner" category. If the provider category data is taken at face value by Government—which publication of these reports suggests it is—the true work of the ACCHS Sector has been grossly underestimated.

This miscoding issue is currently being addressed by the sector with the support of Services Australia, which operates AIR.



* includes Public Health Units and State Health

Figure 15. Proportion of Vaccinations, including COVID-19 Vaccinations, Given to All Persons by Provider Type and Jurisdiction, 2021

Source: Australian Immunisation Register, data as of 3 April 2022(75).

[44]Some WA ACCHS upload to AIR using a GP provider number which automatically assigns the vaccination to the "general practitioner provider category." The more accurate method is to upload using the "Indigenous Health Service" category.

USE OF ABORIGINAL VACCINATION REPORTS BY GOVERNMENT AND MEDIA

While the original intent behind the publishing of granular data on Aboriginal COVID-19 vaccination rates was to identify areas of unmet need and to increase resourcing for those areas, there were unintended negative consequences in WA(69). Difficulties in reconciling the published 'official' data with the ACCHS own clinic data was one issue (as discussed above). Another was using the data, inadvertently or otherwise, to "name and shame" Aboriginal people and ACCHS in WA.

> ***"We were very proud of our set-up and the high rates of vaccination we were achieving, and then we were told that the Commonwealth data showed otherwise."***

> ***"We were made to feel that we were not doing our job."***

In addition to publishing COVID-19 vaccination rates at the LGA level by Aboriginality, the Commonwealth published two lists of targeted LGAs. The first was a list of 30 "priority areas" where the gap between the Aboriginal and "whole of population" vaccination was largest(69,77). The second was a weekly list of "LGAs of interest," which was essentially a league table of the country's LGAs with lowest overall vaccination rates for Aboriginal people(78). Remote LGAs in WA featured predominantly in this list. No such reports were produced for any other population group.

While ACCHS in WA support transparency and welcomed the extra resources they received from the Commonwealth, the regular negative reporting of vaccination rates for Aboriginal people in WA was often undermining. This was particularly so when picked up and magnified by the news media and public figures(30,79,80). For example:

"Mr. McGowan said the use of lockdowns could end once the 90 per cent rate was reached, with the exception of areas with low vaccinations including remote Aboriginal communities. He said authorities were doing all they could to encourage vaccination uptake across the whole State. 'Apart from grabbing people, holding them down, and vaccinating them, there's not much more we can do,' he said."(80)

"For some of these communities it's going to be a hard grind and they will have to be, I expect, locked down and we will not let people in there unless they're double vaccinated. People might complain about that but we will have to do it to protect the people, literally from themselves."
WA Police Commissioner Col Blanch APM.(80)

This negativity was in stark contrast to the positive, strengths-based narrative of the WA ACCHS and local media.

> ***"If anyone has any hesitations around it or any concerns, please still come down — no one is going to force anyone to do anything they haven't consented to do, but there will be lots of people available including GPs, registered nurses, and health staff that will be able to give updated, accurate information."***(81)

Figure 16. Social Media Post Congratulating Beagle Bay on reaching 90 per cent Fully Vaccinated

Caption: "Beagle Bay - the first remote community in WA to roll-out COVID-19 vaccines has reached 90 per cent full vaccination for ages 12+... Remarkable community leadership, great community engagement, and a clinic managed and heavily staffed by local Aboriginal people are without a doubt key factors for this incredible milestone. Congratulations Beagle Bay community!"

Source: KAMS Facebook Page, October 2021(82).

Professor Ted Wilkes AO and Dr. Christopher Blyth feature in a new AHCWA and Derbarl Yerrigan video resource to help dispel common COVID-19 misinformation

Conclusion

Vaccinations were key to reducing the morbidity and mortality from COVID-19 in WA's Aboriginal communities, and the ACCHS Sector played the dominant role in achieving high levels of uptake across the State.
The Sector was able to overcome widespread anti-vax propaganda and major delays in vaccine supply through their personalised, culturally appropriate messaging and by offering a wide range of innovative, open door vaccination venues.

There are many take away messages from the vaccine roll-out, including the importance of local Aboriginal leadership, the value of respectful multi-agency partnerships, and the need for acccurate vacination data.

West Coast Eagles Australian Rules Football club players promote COVID-19 vaccination as part of the Roll Up for WA campaign.

Chapter 5

The Outbreak Response

“We managed everything… mandatory isolation, welfare checks, and home visits to help with people’s anxieties. We did food and medicine drops and distributed RATs for families. When there were complications, like people scheduled to go to court but they were sick and isolating, we helped with that too… everything.”

“Our clinics provided daily check-ins with high risk COVID-19 positive patients, monitoring all their needs and providing COVID treatment if required. We had our own COVID hotline. We knew that care in home was something that had to be done by us locally.”

“Out of somewhere we found money for food, medication, diapers, bedding, anything people needed. People were asking for support so we just did it.”

Introduction

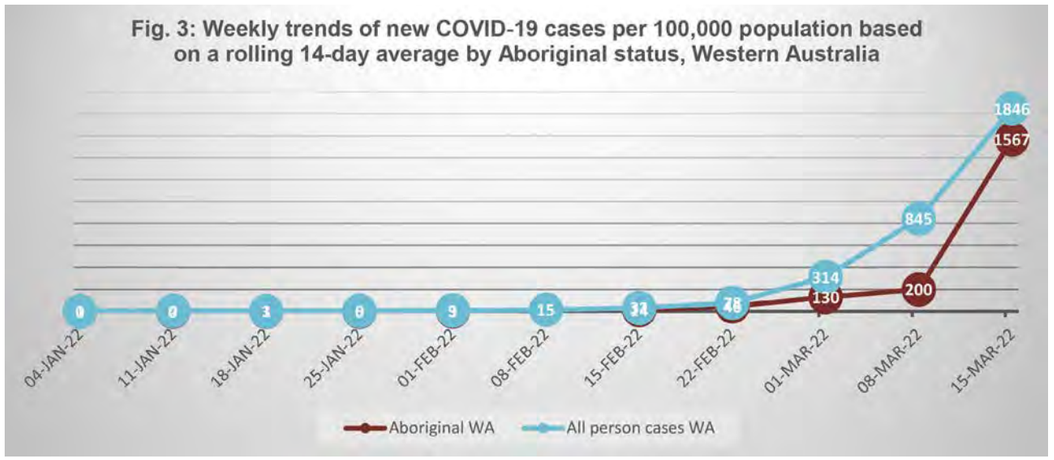
Aboriginal communities in WA remained free from COVID-19 until early 2022—two years after Australia's first confirmed case in January 2020(1). By 19 January 2022, Australia had recorded 1.5 million cases of COVID-19 with 1,300 cases (0.08 per cent) from WA(2). Nationally, 30,000 of these case cases (2 per cent) identified as Aboriginal or Torres Strait Islander but, remarkably, only four were from WA[1], and none were locally acquired(3).

WA's strict border controls and intensive test, trace, isolate, and quarantine (TTIQ) systems, including the work by the ACCHS Sector, were primarily responsible for the State's initial low case numbers; but this geographic isolation could not last indefinitely. By mid-January 2022, with COVID-19 surging in the rest of Australia, several cases of the more infectious Omicron variant had slipped across the WA border, and more widespread transmission became inevitable(4,5).

WA's Aboriginal population experienced its first locally acquired case in late January 2022; the State's first remote community outbreak occurred just three weeks later(6,7). In both settings, there was a rapid, intensive, and collaborative public health response involving the ACCHS, the local community, and the regional Public Health Unit (PHU)[2]. Transmission from these first Aboriginal cases was significantly less than what occurred, at the same time, from cases in the rest of the population (see Figure 1)(6,8).

Figure 1. Weekly Trends of COVID-19 Cases per 100, 000 Population Based on a Rolling 14-day Average by Aboriginal Status, Western Australia

Source: Government of Western Australia, Department of Health(8).



[1]Cases had WA addresses but had contracted COVID-19 overseas or interstate
[2]There was intensive testing and contact tracing in both settings and the remote community went into lockdown.

Box 1. First Remote Community COVID-19 Outbreak

The remote ACCHS was the lead organisation on the ground in the community but they had a whole multi-agency team working together to support them.

"The Public Health Unit provided two extra nurses who helped with testing, Department of Communities and the council helped with meals, and the police did everything that others didn't do. We all knew who was positive and who needed help. We all worked to sort it out together. Daily zoom meetings kept everyone informed."

With the 'flood gates open,' and the Government's public health response scaled back, COVID-19 spread rapidly—first to Perth and then to the regions. As predicted, the spread through the Aboriginal population was far swifter than through the non-Aboriginal population (see Figure 2), and by mid-April 2022, the rate of infection was almost three times higher(15,16).

By mid-February 2022, the WA Government had conceded that strict border controls and intensive TTIQ could no longer contain the virus(9). On 3 March 2022, the State reopened its international and interstate borders and entered its "living with COVID" phase[3](3).

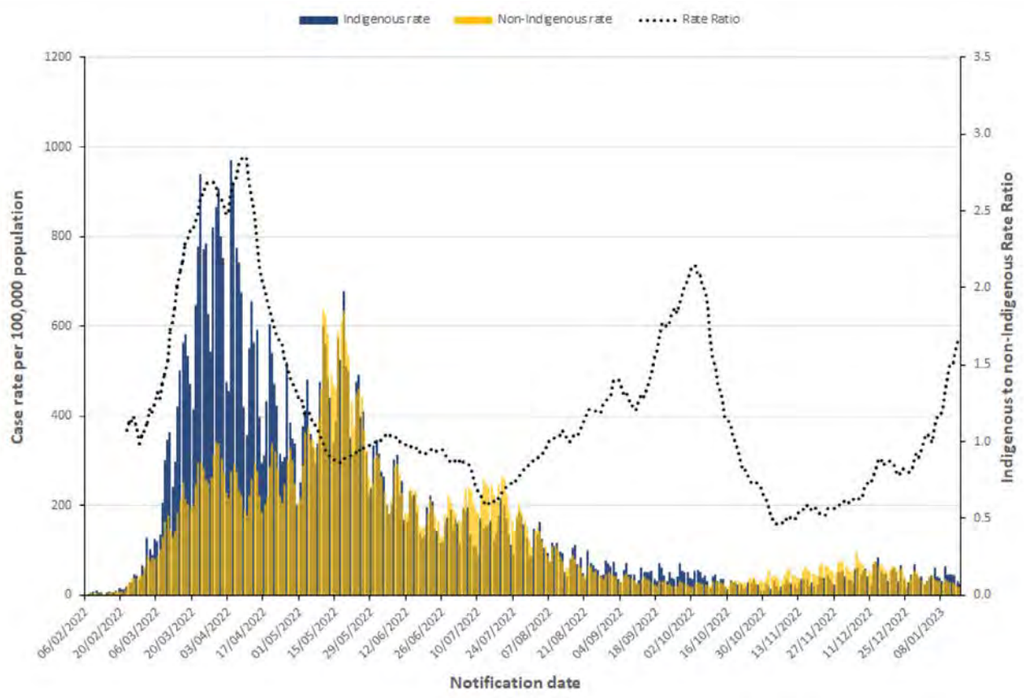
Testing, isolation, and quarantine requirements remained in place for the whole population in an effort to slow local transmission, but formal contact tracing and movement restrictions were limited to "high risk settings"[4]. In theory, remote Aboriginal communities were still considered 'high risk,' but in practice the Government focused on reducing transmission in aged care facilities and prepared for a surge in COVID-19-related hospital admissions(10–12). Responsibility for public health activities was largely handed over to the community, including in remote locations[5](3,13,14).

> ***"We were managing well until mid-March 2022, when we were absolutely smashed by the outbreak. It hit us on a Wednesday and by the following Sunday, most of the people in the community had the virus."***

[3]Arrivals needed to be fully vaccinated and undergo testing on arrival.
[4]PHUs no longer had the capacity for community TTIQ.
[5]Guidelines were published for community healthcare settings, workplaces and community organisations.

Figure 2. COVID-19 Case Rates per 100,000 Population and Rate Ratio by Indigenous Status and Notification Date, Western Australia, 8 February 2022 to 1 January 2023

Source: Government of Western Australia, Department of Health(15).



This chapter describes the work of WA's ACCHS as COVID-19 swept through the State during 2022. It outlines how they supported and increased access to COVID-19 testing, stepped in to provide essential support for households during mandatory isolation, provided comprehensive clinical monitoring and treatment, and kept communities informed during a period of rapidly changing rules and recommendations. The chapter also describes the frustrating time-consuming bureaucratic barriers that made this work more difficult than it could, and should, have been. These bureaucratic barriers are documented in considerable detail to help inform future pandemic planning.

As with earlier phases of the pandemic, the ACCHS Sector 'outbreak response' was uniquely proactive, coordinated, and culturally safe in keeping with their comprehensive Model of Care(17). The Sector filled gaps where mainstream services were unavailable or 'not fit for purpose,' and it met these needs with little or no funding.

> ***"There was a lot of Government rhetoric about caring for communities, but when it hit, it was us responding. It was a very high pressure time... we didn't get much help from Government."***

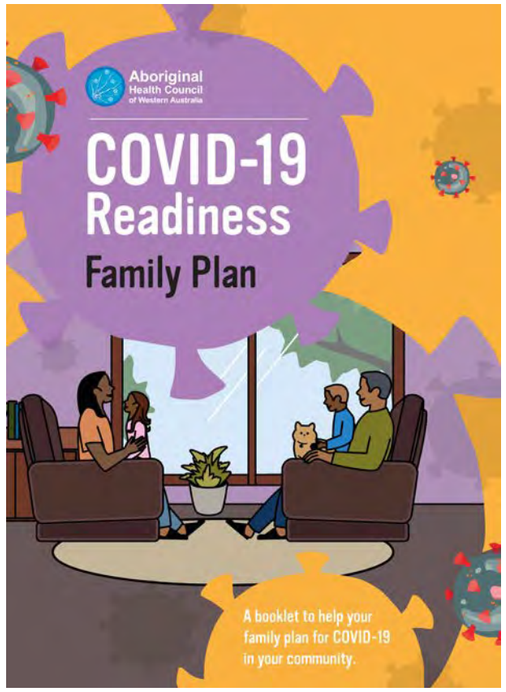
> ***"We needed funding for food and we could barely even get funding for ordinary medications such as ibuprofen. It seemed like we were always begging for money. We were constantly writing and putting up proposals... It was hard but we did it."***

Outbreak Information and Advice

The public communications role of the ACCHS Sector had been vital during the first two years of the pandemic, and it expanded further as the state entered its "living with COVID" phase. Rules about cases, contacts, and public health measures were complicated and constantly changing, and ACCHS continued ***"to keep communities up to date on developments through radio, television, newspaper, and social media"***(18,19). Family care plans were widely promoted (see Figure 3).

Figure 3. AHCWA's COVID-19 Readiness Family Plan

Source: Aboriginal Health Council of Western Australia(17).



There was also an urgent need for an accessible and culturally safe alternative to the WA Government's widely promoted 'helpline' (13COVID) for those needing individual advice and access to support services(20). Despite being operational for almost two years, 13COVID[6] remained unusable for many Aboriginal people when the border opened(21). The line was plagued by 'technical difficulties' with long wait-times, sudden disconnections, and circular rerouting of calls, particularly when trying to access the welfare support centre. Phone operators were based in Perth, with little knowledge of the specific circumstances of people in regional and remote locations and minimal understanding of cultural needs.

> ***"The [13COVID] support line was very hard to get through to... and very metro-centric. Not tailored at all to people in remote areas needing food or accommodation."***

At AHCWA's request, the Aboriginal Health Policy Directorate (AHPD) successfully pushed for improvements to the 13COVID telephonist script, and the Department of Communities did enable the rerouting of calls to better-informed regional offices. However, no dedicated Indigenous option was made available[7].

[6]13COVID was established in April 2020. In its own COVID-19 Review, the Government concedes problems with access for "some segments of the population" but does not specifically mention Aboriginal people.
[7]Other government agencies do have Indigenous support options, for example Centrelink's Indigenous Call Centre.

ACCHS inevitably filled this information gap by actively encouraging clients to phone them directly and by providing their own phone-in advice and support services. Typically, these culturally safe helplines doubled as a comprehensive screening service, which triggered immediate access to clinical care and social support if needed.

Figure 4. Derbarl Yerrigan Health Service Poster, advertising DYHS' COVID-care Phone Line

Source: Derbarl Yerrigan Health Service Facebook page(22).

> ***"[We provided] information and advice but also conducted a documented assessment of the medical, psychological, and social needs."***

Within a week of the border opening, the State's largest ACCHS (in Perth) had established its own comprehensive 'COVID-care' phone, voicemail and email support service (see Figure 4). This helpline ran seven days per week (including over Easter), and at the peak of the outbreak was ***"staffed by two doctors, an Aboriginal Health Worker, a nurse, and a transport driver."***

> ***"At the initial screen we made a call about administering antivirals and supporting people through food boxes while they isolated."***
>
> ***"The COVID-care line was very busy… and we spoke to over 1,000 patients."***

Registers and Care Coordination

In order to safely and efficiently meet the surging demand for COVID-19 support, ACCHS established databases within their practice software to log positive results, document needs, and track episodes of care.

> ***"We set up a register of positive patients across the region."***

> ***"All the AMSs that used MMEx were able to track how often patients were checked—for both physical and social needs while they were isolating—patients and their families too."***

> ***"We knew who was positive and who needed help."***

In line with emergency planning guidelines, these databases (or registers) were adapted from the well-established electronic systems that ACCHS in WA had been using for years for their comprehensive chronic disease management programs[8].

"It was incredibly busy" and coordination was key. Staff were redeployed into dedicated COVID-19 care teams led by ***"COVID coordinators,"*** and larger services had dedicated ***"welfare coordinators"*** focusing on mental health and isolation support needs. Some staff worked on the phones using telehealth, some made face to face home visits, and some did contactless drop-offs of food, medicines, and other essentials. Some did all three.

> ***"We developed a roster system, did welfare checks on the phone, arranged for medical follow up and review, advocated for what people needed—food, bedding …"***

> ***"We had three teams doing outreach, including two RNs and one logistics person throughout the outbreak and we hardly had time to do anything else."***

> ***"Drivers were vital."***

> ***"We found some people needed to be seen twice a day."***

With each scheduled patient contact, assessments were made of physical, mental, cultural, and social wellbeing—in line with the ACCHS holistic Model of Care(17). Needs assessments included the five relevant domains (emergency accommodation, emergency food, emergency clothing and personal requisites, personal support services, and financial assistance) of the State Emergency Welfare Plan[9](24), with clinical monitoring and medical care (routine and COVID-19 related) a major additional component.

[8]Using pre-established systems is a feature of emergency preparedness(23).
[9]The sixth domain, "registration and reunification services," was not very applicable during the pandemic.

Testing and Reporting

WA ACCHS had been actively involved in COVID-19 testing for "suspected cases" during the first two years of the pandemic through the GeneXpert Point-of-care Testing (POCT) program and by facilitating access to hospital and private testing sites[10]. The demand for testing sky-rocketed when the border opened—particularly the demand for on-site testing within ACCHS. As case numbers grew, many Aboriginal people were fearful of attending public testing sites and ACCHS offered an accessible and culturally safe alternative. ACCHS testing also ensured immediate access to isolation supports and treatment if required.

Each ACCHS responded to the sudden increased need for testing in its own way (see Figure 5).

> ***"We decked out another building away from the main clinic; really set it up as a respiratory clinic."***

> ***"We had drive-in testing which was good and well taken up."***

> ***"We set up a testing caravan with WACHS."***

> ***"We set up a RAT testing marquee."***

> ***"We went testing door to door."***

> ***"We drove the bus out to the communities."***

In the Kimberley, the Environmental Health and Health Promotion Aboriginal Community Controlled Health Organisations (ACCHOs) stepped in to increase local testing capacity and ensure cultural safety for remote communities reliant on state-run primary care services.

Box 2. Failure to Communicate Results to Primary Care

A major limitation of the public walk-in testing program (through public COVID-19 clinics and hospitals) was its failure to communicate results to GPs and/or upload them to the My Health Record (MHR)[11]. Despite repeated recommendations made by AHCWA, positive results were sent only to the tested individual (by SMS) and to the central public health unit (Public Health Operations) within the Public Health Emergency Operations Centre (PHEOC)[12]. Without access to results from public testing, the opportunity for ACCHS to provide support and/or treatment for their clients was lost or delayed, and this was critical for those who needed to commence antiviral medications within five days of their symptom onset(25).

"Notification about cases was a real issue [with the public testing sites]—we were not made aware of Aboriginal people who had tested positive."[13,14]

[10]Either by transporting patients or by transporting swabs.
[11]The MHR is an online health record that ordinarily contains a person's test results. GPs in ACCHS rely heavily on this shared record for important clinical information about their patients.
[12]ACCHS did sometimes receive results from public walk-in clinics but this was very inconsistent and unreliable.
[13]When ACCHS took swabs and sent them to the lab, or the patient presented to the hospital with a GP pathology referral, the routine pathology pathway applied and ACCHS received notification of results.
[14]AHCWA repeatedly requested for results be made available to ACCHS GPs and uploaded to the MHR but our requests were declined.

Figure 5. Broome Regional Aboriginal Medical Services (BRAMS) Social Tile advertising that BRAMS is now offering COVID-19 testing

Source: Broome Regional Aboriginal Medical Services Facebook Page(26).

THE USE OF RAPID ANTIGEN TESTING

The increased demand for COVID-19 testing coincided, conveniently, with the availability and legality[15] of RAT. ACCHS in WA had anticipated the adoption of RAT as a major testing tool and most had used philanthropic funding to purchase supplies pre-emptively in early 2022. As discussed in Chapter 2, these privately purchased supplies were vital, as Government-funded RATs were slow to reach Aboriginal people across WA(27).

Although RATs were not as accurate as Polymerase Chain Reaction (PCR) tests, the testing process was less labour intensive than for GeneXpert POCT; and for ACCHS who had been reliant on laboratory testing, the two to five day wait for results (with the associated mandatory isolation while awaiting results) was eliminated. RATs were also more versatile and could be used in a variety of settings including the clinic[16], by individuals self-testing in their own homes, and by staff and visitors to clinics as part of asymptomatic screening.

"At home" RAT use was actively promoted and supported by ACCHS, and a key feature of their promotion was the accompanying advice to notify the local ACCHS of a positive result to ensure prompt support and treatment if required.

> ***"Every RAT we gave out included the protocols for isolating and a handout on how to report, including advice to let us know if positive."***

> ***"We sent out group SMS messages to our patients through our practice software system asking them to let us know when they have a positive home RAT so we can arrange support—food packages, referral to Dept of Communities, and so on."***

[15]RATs were prohibited for use for COVID-19 testing by the Chief Health Officer (CHO) in WA until January 2022.
[16]Use in clinics includes use by clinic staff to facilitate testing for patients in their own homes, including as part of remote community outbreak responses.

Figure 6. Still from Ngangganawili Aboriginal Health Service's video which teaches community how to do RATs

Source: Ngangganawili Aboriginal Health Service Facebook page(28).

Quote from the video: *"Now that we have COVID in town, one of the most important tasks we all need to be doing is getting tested if you have been in contact with someone who has told you they are positive or you are feeling crook. We do that by taking a Rapid Antigen Test, called a RAT for short. This is how you do it, or call us on [clinic number] and we can help you with it."*

REPORTING OF RAT RESULTS

RAT use came with some clear advantages, but it also imposed a major bureaucratic burden on ACCHS. From February 2022 until October 2023, registration of a positive RAT with WA Health was mandatory, with a potential fine of $50,000 or 12 months imprisonment for those who failed to comply(29). The stated purpose of compulsory registration was to enable WA Health to collect data on COVID-19 case numbers and to track regional and demographic spread(21). A registered positive test result (either from a RAT or laboratory testing) was also a prerequisite for access to government support through Department of Communities.

Unfortunately, the RAT registration system did not take into account the circumstances of many Aboriginal people or the practicalities of RAT use 'at scale' in a clinic or community outbreak setting(30). The system had been designed, primarily, for online registration by self-testing individuals; it assumed access to the internet and a high level of digital literacy(31).

In theory, people without access to the internet could register a RAT result through the general 13COVID helpline(32). However, due to an internal 'glitch,' this phone line was not properly enabled for RAT registrations until several weeks after the border opened—and only then because of multiple complaints made by AHCWA and ACCHS(33). By the time that phone registration was made available, COVID-19 was already at its peak in WA's Aboriginal population. Even when the 13COVID phone registration system was technically up and running, it remained problematic.

> ***"Those forms were not friendly. They told people to ring up; but how many people can wait for an hour or two on the phone just to register? It's a horrible thing to do. Also, there is a language barrier. You are not necessarily going to understand, or be understood, at the other end of the phone."***

Predictably, ACCHS stepped in to provide a vital, culturally safe RAT registration 'support service' for their clients. Where clients self-tested at home, but needed assistance, ACCHS staff talked them through the process or did the online registration on their behalf. Where the RAT testing was performed in the ACCHS clinic (or at a home visit), ACCHS staff accepted responsibility for completing the registrations.

> ***"We ended up having to register all the RATs. It was a huge amount of extra work when we were so busy with clinical care and providing necessities."***

Box 3. Inefficient RAT Registration Systems

The extra workload for ACCHS due to RAT registrations was compounded by poor system design and inadequate considerations for 'real world' use. While online RAT registration was promoted as quick and easy—and that may have been the case for private individuals entering a single result—it was initially extremely inefficient for multiple entries(32). During the critical early weeks of use, the RAT registration website had to be reopened for each additional registration (navigating the "I am not a robot" each time), making it frustratingly slow and clumsy for clinics and large households. Slow internet speeds exacerbated the problem. To WA Health's credit, they did eventually respond to complaints by AHCWA and the ACCHS, and modified the system by providing the simple option—"To complete another registration click here." Once again, however, with the rapid rate of COVID-19 spread through the Aboriginal population, this basic improvement came too late.

THE WA COVID-19 "CONTACT TRACING SURVEY"

While the RAT registration system was challenging for ACCHS and their clients, WA Health's "contact tracing survey" process was even more so(29). From February 2022 (when most proactive contact tracing ceased except for "high risk" settings[17]), individuals who tested positive to COVID-19 (either by a RAT or a PCR[18]) were also requested to complete an online public health questionnaire (see Figure 7) (32,34).

A link to this survey was sent via SMS to the individual's nominated mobile phone with the statement—"This link is only for you. Please do not share it with others." This SMS was sent some time after a RAT registration (often hours later), and there was no advertised alternative process for individuals without a personal mobile phone or internet access.

Although completion of the survey was not mandatory (as was the case with RAT registrations), this was not made clear. The purpose and benefits of completing this additional online questionnaire were also poorly explained(31). Much of the information provided about support services (including a link to COVID Care at Home) had already been provided, or could have been provided, in the RAT registration process. The survey offered few details on eligibility for the delivery of further targeted support or how this support would be delivered[19].

[17]Remote Aboriginal communities were considered as "high risk" settings.
[18]By pathology laboratory or GeneXpert POCT.
[19]The survey form included a consent box for agreeing to be contacted by COVID-19 researchers.

Figure 7. Excerpt from "What to do when you test positive for COVID-19" Information Sheet

Source: Department of Health, Government of Western Australia(29).

3. Complete the contact tracing online survey

When you test positive for COVID-19 by PCR or RAT (this must be reported online), WA Health will send you an SMS with a link to a short survey.

The information you provide will enable WA Health to identify the settings and workplaces that need further support, and the people who need health and social support.

Box 4. Burdensome Contract Tracing Surveys with no Transparent Purpose

ACCHS acknowledge the vital role that contact tracing played during the "elimination" and "suppression" phases of COVID-19 pandemic in WA. However, the online survey, during the "living with COVID" phase, was seen as yet another unnecessary bureaucratic burden for their overstretched staff. At least one service advised their clients to ***"just ignore the [contact tracing] form."***

Most ACCHS initially tried to assist their clients to complete the survey but the system design (using SMS and an individual online link), together with the delay between registering a RAT and receiving the SMS, made it almost impossible. Early attempts by staff to enter their own mobile number when registering RATs online for patients resulted in a deluge of individualised survey forms to their personal phone—typically, long after the individuals had gone home to isolate. Some ACCHS used a dedicated work email address to receive the individual survey links (when this was made an option), but this too was difficult to manage.

PUBLIC HEALTH DATA COLLECTION IN REMOTE COMMUNITIES

Many remote ACCHS faced an additional data collection burden due to the designation of remote Aboriginal communities as "high risk settings." ACCHS were expected to provide the regional PHUs with detailed information on cases, contacts, and households; but no integrated user-friendly system had been developed for this data collection. The contact tracing databases used by PHUs (and the PHEOC in Perth) were not accessible to ACCHS staff and complicated spreadsheets had to be hurriedly developed ***"on the run."***

> ***"So much extra time was spent just sorting out how data had to be entered."***

Some remote ACCHS stood their ground and made their own independent decision about data collection. ***"Public Health tried to insist that we use their forms but we created our own... ones that suited us."*** It was incredibly busy, and clinical care and support took precedence.

> ***"At the height of testing, we just couldn't record all of the tests we did."***

RECIPROCAL DATA SHARING (COVID-19 CASE NUMBERS)

While ACCHS in WA went to great lengths to register COVID-19 results (from both self-administered and clinic-based RATs and GeneXpert POCT), they were frustrated by the failure of WA Health to reciprocate with meaningful local surveillance reports.

ACCHS greatly appreciated the efforts of WA Health's Aboriginal Health Policy Directorate (AHPD) in providing daily updates of case numbers (with regional data), but these reports[20] were classified "confidential" and could not be shared more widely. The reports were also insufficiently detailed and timely for local planning and response purposes—and were often manifestly inaccurate[21].

Some ACCHS successfully advocated for 'real time' data sharing arrangements with their local PHUs, but only after intense lobbying.

> ***"It was so frustrating. WACHS would not release data on outbreaks, and we had to escalate to state level and ministerial level to get access to data that would keep communities safe and allow us to implement response plans. Eventually, WACHS was directed to release the data."***

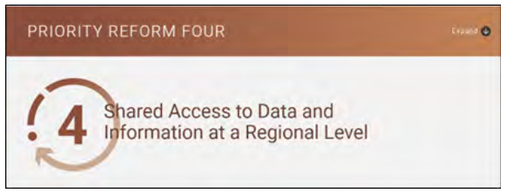
ACCHS were also frustrated by way the COVID-19 numbers were reported.

> ***"One thing I am critical about: not being able to get specific information that relates to directly where you are. Local community data. If someone from town was staying in the community and they tested positive, it was recoded as a town case."***

While some ACCHS were able to develop effective ad hoc arrangements, they were no substitute for what should have been an agreed and systematic approach to data sharing, in line the National Agreement on Closing the Gap, signed by the WA Government in July 2020. The Agreement includes a committment that *"Governments provide communities and organisations with access to the same data and information they use to make decisions"* (see Figure 8)(35,36).

Figure 8. Priority Reform Four of the National Agreement on Closing the Gap

Source: National Agreement on Closing the Gap(35).



Any public health system designed to collect information from individuals (or to provide specific information to them), must be: culturally safe and align with the data sharing principles of Priority Reform 4, be usable for individuals with limited digital access, have a "group" option for use by ACCHS, be efficient, and be beneficial.

[20] Provided by State Health Incident Coordination Centre (SHICC).
[21] ACCHS were often aware of cases that did not appear in the SHICC reports—largely due to the challenges with RAT registrations.

Supporting COVID-19 Cases and Contacts during Isolation and Quarantine

As discussed in Chapter 2, isolation of cases and quarantine of contacts were key measures for eliminating the spread of COVID-19 during the first two years of the pandemic. During the "living with COVID-19 phase," the primary aim was to slow the spread (flatten the epidemic curve) and prevent the WA hospital system from being overwhelmed(18).

Isolation and quarantine measures were mandated under WA's *Emergency Management Act 2005* at the beginning of the pandemic in March 2020, and remained in force until 14 October 2022. Failure to comply was potentially punishable by a fine of up to $50,000(37,38).

By the time the WA border reopened on 3 March 2022, the compulsory period of isolation for cases and quarantine for close contacts had reduced from 14 to seven days[22](5,39). Quarantine rules for contacts were relaxed a few weeks later, and from 29 April 2022 close contacts (household and intimate contacts) did not need to quarantine if they were asymptomatic and had negative daily RAT tests for seven days(40,41). While welcome, this easing of quarantine rules (and the associated reduced need for support services) came after cases had already peaked in the Aboriginal population in mid-April (see Figure 2).

From the outset of the pandemic, it was very clear to ACCHS in WA that many Aboriginal people would find COVID-19 isolation and quarantine extremely difficult(42). ***"Isolation was a 'privilege' not available to all"*** (see Figure 9)(43). Households were often large and multi-generational, some houses were in dire need of repair and refurbishment, and some individuals had no stable accommodation or were living rough. Few people lived in houses that could be partitioned off to provide separate living spaces and bathrooms, as recommended in quarantine and isolation guidelines(44). It was also clear that many households could not stockpile sufficient emergency food and supplies to last them for the duration of the isolation/quarantine period, and that many people would find isolation and quarantine extremely stressful(45).

> ***"Ten people in a three bedroom house with a couple of babies. All locked in. There was a lot of stress."***

Box 5. Many Households Did Not Have Capacity to Safely Isolate

In 2021, an Aboriginal-led study conducted in remote communities in WA found that ***"Most households had no capacity to safely isolate a person with COVID-19. Most households also had no capacity to safely quarantine a person who is a close contact of a person with COVID-19."***(42)

[22]It was a requirement for close contacts to do a RAT on days one and seven.

Figure 9. Vicki O'Donnell, Chairperson of AHCWA and CEO of KAMS, Delivering the 'Isolation is a Privilege' Media Statement

Source: Kimberley Aboriginal Medical Services Facebook page(46).

In theory, it was the responsibility of the WA Government to assist families needing isolation and quarantine supports. Under the State Welfare Plan, activated on 4 April 2020, the State Welfare Incident Coordination Centre (SWICC) was set up within the Department of Communities *"to identify, respond, and co-ordinate the provision of welfare services across the community, including those in self-isolation and quarantine"*(47). Eligible welfare services were grouped under six domains and included emergency accommodation, food and provisions, emergency clothing and personal requisites, personal support services (such as emotional support, advocacy, counselling, and psychological services), and financial assistance(47,48).

In practice, there were major barriers to accessing these necessary Government supports and ACCHS stepped in to assist—both facilitating access to Department of Communities supports and directly providing the supports themselves. It was an immense undertaking and came at a very significant cost to the ACCHS.

> ***"For patients who needed food and other physical resources, we found that it was better if they worked through us rather than going directly to the Department of Communities."***

> ***"The Department of Communities was supposed to provide necessities, but we did a lot ourselves."***

> ***"If we had waited for the government to respond, the community would have been a lot more vulnerable."***

EMERGENCY ACCOMMODATION

At the start of the COVID-19 pandemic, access to appropriate isolation and quarantine accommodation was considered vital, with the WA Government spending $15 million in the first two and a half months of the pandemic emergency on quarantining international flight arrivals and cruise ship passengers(49). For the duration of the pandemic, the Government's net spending on hotels for traveller quarantine was $170 million[23](50) with an additional $212 million

[23]The government paid hotel costs of $262 million up to the end of 2022 and were reimbursed $92 million from its "user pays" scheme.

for security. The report by the Office of the Auditor General where these costings are published also states that *"the hotel quarantine program was considered an essential part of WA's COVID-19 response and followed the national approach adopted for traveller quarantine"*(50).

While the State Government spent hundreds of millions to ensure safe quarantine and isolation for incoming travellers, access to Government-supported accommodation for those within the State had been difficult to access (see Chapter 2). When WA entered its "living with COVID-19" phase, the goalposts shifted even further. Isolation of cases and quarantine of contacts remained mandatory (with a potential $50,000 fine for breaches) but Government support was extremely limited. Households were still advised to isolate according to accepted safety standards but there was a tacit acceptance that this would not be possible for many people[24](51). In March 2022, the Government shifted its focus to protecting those most at risk, but the advice was also vague and non-committal. A WA Health guideline on "Congregate living and large households" (Figure 10) made it clear that eligibility for emergency accommodation was restricted to households with a member "at risk" (pregnant women, individuals over 50, and individuals with chronic conditions). However, it also stated that access to alternative accommodation was not guaranteed and may depend "on alternative available arrangements"(53). This lack of certainty was frustrating for ACCHS and communities.

> ***"We never really knew the extent of the support available."***

Box 6. Advice on Isolating at Home from Department of Health, WA

Source: Department of Health, Western Australia(52).

Advice on isolating at home:

- separate bedroom
- separate bathroom
- avoid use of common areas
- remain separate from any members of your household who are elderly, immunocompromised, or have medical conditions such as heart, lung, or kidney problems

Figure 10. Excerpt from "Congregate Living and Large Households"

Source: Department of Health, Government of Western Australia(53).

Escalation

If a person cannot isolate safely **and** there are people at higher risk of getting seriously ill living in the facility or household, it may be necessary to find alternative accommodation for either the case, close contact, or the person who is at higher risk of becoming seriously ill.

[24]Arguably, there was also a reduced imperative as the increased transmissibility of Omicron made isolation and quarantine less effective at reducing spread within households.

In practice, timely access to appropriate emergency accommodation through Department of Communities was extremely limited (or non-existent) and ACCHS did what they could to support their most 'at risk' clients[25].

> ***"It was extremely difficult. In some cases we were able to juggle accommodation, helping people move into other houses in the community—but usually the whole household had to stay put."***

> ***"We accepted early on that if one family member got COVID the whole household needed to be treated as if they had the virus."***

In some remote communities, ***"it was necessary to treat everyone in the community as one household … for everything."*** Sometimes ***"the housing in communities was so inadequate for safe isolation, and more general care, that people couldn't stay home and were forced to go to hospital."***

In the Kimberley, the environmental health ACCHO focused on the safe functioning of houses to mitigate the risk of overcrowding.

> ***"We did safe house checks… bathroom checks. We asked 'Are your taps working… the toilet working'…all of those things."***

> ***"We delivered soap, disinfectant."***

> ***"We were just making sure that the house was coping when it was designed for four people but had 16."***

FOOD AND ESSENTIALS

Although ACCHS had limited ability to address overcrowding directly, they played a major role in addressing other material needs during isolation and quarantine. Alone or in partnership with Department of Communities staff, ACCHS ensured that families had immediate access to both food and essentials—nappies, baby formula, bedding, cleaning, and personal hygiene products. They ensured that electricity supply was maintained—either through provision of pre-paid power cards or support to cover the bill; and they ensured that families could phone for assistance—through provision of phone cards (and basic mobile phones if necessary).

The process of providing essential items varied enormously across the state. In some locations, particularly in remote communities and small towns, there was a close and effective working relationship with the local Department of Communities office.

> ***"It made a huge difference having someone from Department of Communities actually in the community."***

> ***"As soon [as] a family member got a positive result, and had to quarantine, the clinic would contact the Department of Communities worker and she would contact the family, get the information she needed so that she could report back to the town office with what help that family would need. Approvals for food hampers, approvals to pay for power, all that kind of stuff."***

In some remote communities without Department of Communities staff, responsibility for the purchase and delivery of food and essential items was 'outsourced' by the Department to the ACCHS clinic.

[25]There are stories of accommodation being made available but this was the exception.

In most larger towns (and even in some remote communities), the Department of Communities expected individuals and households to make applications for support using the mainstream government processes. The barriers, however, were huge and ACCHS staff stepped in as navigators and advocates.

> ***"There was a lot of red tape put in the way of people getting what they needed."***

Applications need to be made online or by phoning the often inaccessible 13COVID helpline.

> ***"For a lot of families here, English is the second language, and they didn't feel confident speaking to the Health Department or the Department of Communities."***

> ***"Community members often couldn't understand the questions being asked and got very frustrated, increasing anxiety."***

Where there was no phone reception, ***"communities could not ring up for welfare support ...so we ended up doing all of that."***

There were demands by the Department of Communities for income statements from people who had no access to computers and printers, and ***"food vouchers were offered for Coles and Woolworths when the nearest shops were 400 kilometres away."*** Rules often made no sense.

> ***"So you have a household of 10. One person gets COVID but everyone has to isolate. But because only one person has registered positive, they only provide food for one."***

The process was humiliating for many people.

> ***"The dollars coming into that house... the Department know exactly what's happening there without waiting for them to plead for help."***

Some ACCHS gave up on accessing government supports altogether. They bypassed the Department of Communities and used their own funds (and those from philanthropic partners) to purchase goods, and used their own staff to pack and deliver boxes. One ACCHS used the kitchen of a local community facility to produce ***"nutritious meal packs"*** that were frozen and delivered to families in isolation. Another held weekend 'working bees' with friends and family to pack boxes of essential food toiletries and supplies.

> ***"The system the Government had for assessment was very difficult... it was easier to do it ourselves."***

Even in areas well supported by the Department of Communities, ACCHS often needed to step in with immediate support. Approvals took time to process and there were frequent logistical delays in the delivery of supplies.

> ***"We [were] able to respond quickly to the needs of our community—far quicker than existing alternative providers."***

Overall, ACCHS were very appreciative of the support provided by individual Department of Communities workers on the ground, but frustrated by the bureaucratic system. Over time, the system did improve as ACCHS called out the clear absurdities and stood their ground.

> ***"We didn't have much support from the Department of Communities in the early stages, but later there was more."***

At the beginning, ***"it appeared that the Department of Communities had no idea what to do"*** but ***"[they] did catch up."***

> ***"We just said it straight."***

> ***"That won't work. You need to do it this way."***

COVID CARE PACKS

In addition to ensuring access to food and essentials during isolation, ACCHS provided households with packs of COVID-specific necessities (COVID care packs) delivered to their door. Each ACCHS had its own version but typically, packs contained surgical masks, hand sanitiser, soap, gloves, sachets for making rehydration fluid, RATs, thermometers, simple analgesics, and oximeters. 'Safe isolation advice' brochures were commonly included, together with a list of contact numbers for local, culturally safe support services. For households with children, some ACCHS provided activity packs and toys (Figure 11).

A few ACCHS (particularly in Perth) also included ambulance coverage as a COVID-19 care item for their most "at risk" clients. ACCHS had serious concerns that some individuals with life threatening COVID-19 symptoms would be reluctant to call an ambulance because of the potential $1,000 or more fee. In April 2022, after urgent submissions made by AHCWA and Derbarl Yerrigan Health Service (and with the support of the AHPD at the WA Department of Health), WA Health agreed that fees for urgent ambulance call-outs due to COVID-19 would be waived for Aboriginal patients for an eight week trial, which was later extended for the duration of the pandemic emergency(56).

Figure 11. Kids COVID Activity Packs

Source: Broome Regional Aboriginal Medical Services Newsletter(55).

SOCIAL AND EMOTIONAL WELLBEING (SEWB) AND MENTAL HEALTH SUPPORTS

While Department of Communities played a significant (albeit variable) role in the provision of material supports for isolation and quarantine, responsibility for essential social and emotional wellbeing (SEWB) and mental health supports fell, almost entirely, to the ACCHS. Isolation and quarantine was a stressful experience for most people but was particularly difficult for people in crowded houses and for those used to being outdoors.

> ***"Normally, the way people cope is by doing things like going fishing or visiting. So, they are stuck in the house and that created tensions and just exacerbated things."***

> ***"Add tobacco and alcohol addictions to the mix."***

> ***"It was a very high stress situation."***

ACCHS responded as they had at the start of the pandemic, when there were high levels of stress due to lock-downs, travel restrictions, and a general climate of fear(57). They proactively and opportunistically reached out to individuals and families. Every food drop-off was an opportunity to have ***"a conversation, a yarn. How are you going? Can I help with anything?"*** In some communities, ***"nurses went every day to households to do welfare checks."***

> ***"We did mobile community health checks to make sure the health and wellbeing of community members were still being attended to, dropping off medication and attending to our core business."***

In bigger centres, telehealth was more widely used—with daily phone or video calls.

> ***"Our social and emotional wellbeing team put together isolation packs including mindfulness activities, positive messages, and did regular phone checks on patients who were experiencing mental health issues."***

Where necessary, referrals were made to the SEWB team within the ACCHS or to a trusted, culturally safe external provider.

MANAGEMENT OF ROUTINE CLINICAL CARE FOR COVID-POSITIVE PATIENTS AND CLOSE CONTACTS

Isolation and quarantine did not put a stop to the management by ACCHS of their patients' ongoing essential health care needs.
As much as possible, it was business as usual. Many patients still required close management of chronic conditions, pregnancies, and incidental acute illnesses. Regular medications needed to be delivered, and urgent tests needed to be done. ***"There were people with mental health issues like schizophrenia who still needed their injections,"*** and people with wounds that needed to be dressed. Renal haemodialysis sessions did not stop because the patient had COVID-19.

> ***"Managing COVID-19 positive patients required additional support to ensure the safe management of patients and staff. This included additional surface cleaning of equipment and transport vehicle following the collection and drop off of a patient."(58)***

Some ACCHS managed this regular care almost entirely using telehealth, with face-to-face visits only where necessary.

> ***"We bought phones and credit for those who needed it for telehealth."***

Some ACCHS preferred to manage their COVID-positive patients in the strict infection-controlled environment of their dedicated respiratory clinic. For many remote clinics, face-to-face home visits were the only viable option.

> ***"We did lots of home visits."***

> ***"Our staff spent many hours in full PPE in very hot conditions."***

ACCHS also continued to effectively promote and provide COVID-19 vaccinations for those who still needed them. During the four week period up until 22 March 2022, the first dose COVID-19 vaccination rate for Aboriginal people in WA rose to 80 per cent, and the double-dose vaccination rose by 7 per cent to 73 per cent[26](3,59).

[26]ACCHS were the principal vaccinators.

COVID-19 Monitoring and Clinical Care

When COVID-19 began its global spread in early 2020, the reported hospitalisation and mortality numbers[27] were horrifying. On 11 March 2020, the World Health Organization (WHO) Director General remarked, *"There are now more than 118,000 cases in 114 countries, and 4,291 people have lost their lives. Thousands more are fighting for their lives in hospitals"* (Figure 12)(60). There were no proven treatment options available (other than supportive care) and no vaccines. By 28 June 2020, reported deaths had risen to half a million(61).

Governments worldwide, including in WA, scurried to procure ventilators and prepare Intensive Care Unit (ICU) beds(62). Researchers hurried to develop vaccinations and effective therapies, and epidemiologists worked to understand the population groups most at risk.

Although Australia was able to limit total COVID-19 case numbers through border controls and other public health measures, hospitalisation and mortality rates in 2020 were still of major concern. Up to the end of 2020, there had been approximately 28,500 cases of COVID-19 and 900 deaths in Australia, and 12.5 per cent of people with COVID-19 had been admitted to hospital for treatment (see Figure 13)(63).

The age-standardised mortality rates were 2.6 times higher in the lowest socioeconomic group compared with the highest socioeconomic group(63). There were no deaths amongst the 150 confirmed cases among Aboriginal people, during 2020. However, 11 per cent of Aboriginal cases had been hospitalised(65).

Figure 12. COVID-19 Case Numbers by WHO region, Published June 2020

Source: World Health Organization Coronavirus Disease Situation Report #160(61).

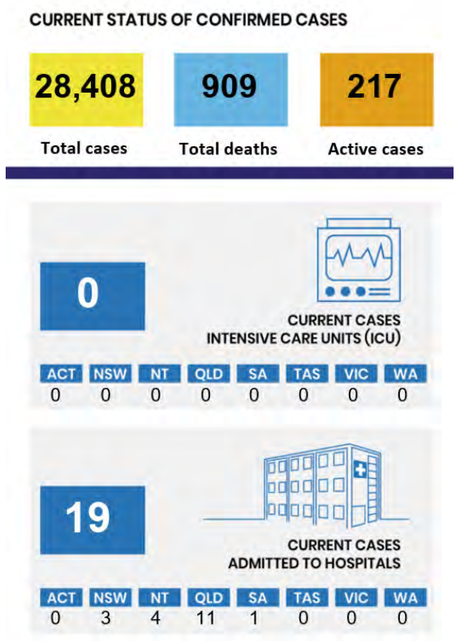
Total (new cases in last 24 hours)

Globally	9 843 073 cases (189 077)	495 760 deaths (4 612)
Africa	278 815 cases (10 713)	5 785 deaths (112)
Americas	4 933 972 cases (117 178)	241 931 deaths (3 169)
Eastern Mediterranean	1 024 222 cases (17 943)	23 449 deaths (485)
Europe	2 656 437 cases (16 586)	196 541 deaths (352)
South-East Asia	735 854 cases (25 399)	20 621 deaths (482)
Western Pacific	213 032 cases (1 258)	7 420 deaths (12)

[27]Actual rates were impossible to determine due to incomplete testing numbers.

Figure 13. Excerpt from Australian 'COVID-19 at a glance' up to 31 December 2020

Source: Department of Health, Australian Government(64).



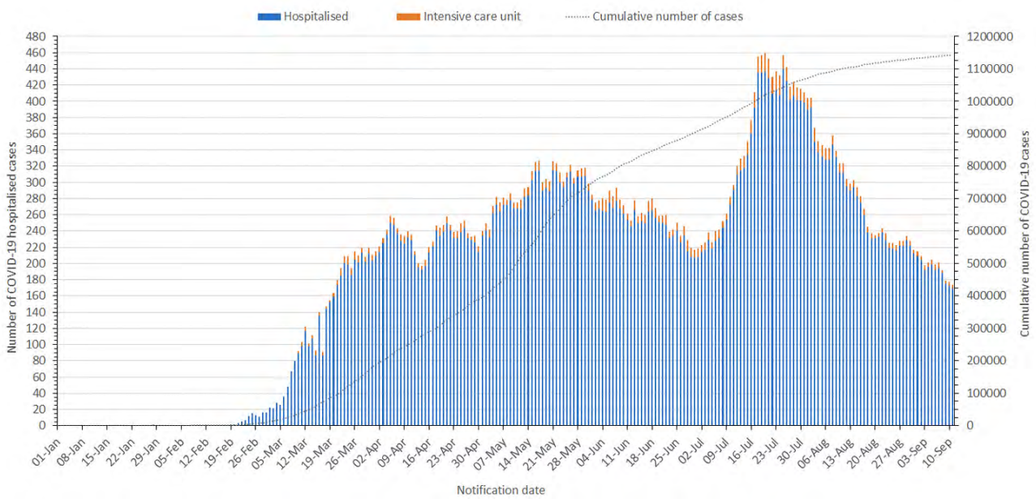


Figure 14. Number of Active and Cleared COVID-19 cases in Hospital and ICU, and Cumulative Number of COVID-19 Notifications, by Notification Date, 01 January to 11 September 2022

Source: Department of Health, Western Australia(68).

When WA entered its "living with COVID" phase in early March 2022, the risk of poor outcomes from COVID-19 was, fortunately, much reduced. Highly protective vaccines had been given to over 95 per cent of the population[28], a number of effective treatments were available, and the Omicron variant was less virulent.

Nonetheless, WA Health was predicting that nearly 5,500 people would be hospitalised with COVID-19 over six months, with 400 people in hospital during the peak, including almost 60 in ICU(67). This modelling proved to be remarkably accurate (see Figure 14)(68).

It was also expected that the impact would be greater for Aboriginal people and communities due to higher rates of socioeconomic disadvantage and chronic illness, lower rates of vaccination, and poorer access to high-level hospital care[29]. The experience of Aboriginal communities in other Australian states earlier in the pandemic had been sobering(69,70).

[28]Over the age of 16(66).
[29]Particularly for people living in rural and remote WA.

In order to reduce the impact on hospital emergency departments, WA Health implemented a virtual clinical monitoring program for those deemed most at risk—including older people, those with chronic illnesses, and pregnant women(71,72). AHCWA and ACCHS made extensive efforts over several months to influence the program design to ensure both cultural and clinical safety for Aboriginal people. Unfortunately, however, the Sector's recommendations, including the request for a partnership model, were largely ignored[30](72,73).

WA Health's virtual opt-in home monitoring program, COVID Care at Home, was launched on 31 January 2022, in line with initiatives in other states(72). The program, delivered by private eastern states-based companies (Medibank and Calvary), ran until 31 December 2022(74). Enrolment into the program was made online (or through 13COVID) and required both initial registration of a positive RAT (or PCR test) and completion of a questionnaire about underlying health conditions. Eligibility was determined by the program provider and restricted to those with specified risk factors including age, chronic conditions, and pregnancy. Monitoring of patients was by phone, video call, or SMS, with a letter sent to the GP *after* the patient had been discharged from the program.

The program was essentially 'stand alone.' COVID Care at Home providers had no direct access to patients' clinical records (including no access to the My Health Record) and there was no defined process for partnering with the usual GP(71). Remote communities were 'out of scope' for the program.

At its conclusion, the program had "successfully monitored" only 17,000 patients at an estimated contract cost of $40 million(74,75). To our knowledge, there has been no published audit of the program or any analysis of its effectiveness for Aboriginal people.

While ACCHS were initially hopeful that the Government's program would be of added benefit to their patients—especially 'after hours'—the feedback was remarkably negative, particularly around cultural and clinical safety and accessibility.

> ***"The Government program was very unrealistic and was never going to work for us."***

> ***"We realised right at the beginning we would have to do the care in the home ourselves."***

> ***"If we handed patients over to the program we would lose track of them."***

"It was too impersonal" and ***"The model didn't suit remote locations and different languages."***

[30]Elsewhere, State Governments provided an integrated model for Aboriginal people.

ACCHS AMBULATORY COVID CARE MODEL

The ACCHS responded immediately to this gap in care by developing their own comprehensive clinical monitoring and treatment services for 'at risk' COVID-positive clients. This alternative COVID-19 Ambulatory Care Model was place-based, culturally safe, accessible, and personalised. It was also highly efficient with minimal delays, and had a very broad reach within communities. It almost certainly reduced hospital admissions and other poor COVID-19 outcomes.

Eligibility for the ACCHS' program was determined by clinicians who knew the patients well, and care commenced as soon as the diagnosis of COVID-19 was made or received[31]. ACCHS staff (Aboriginal Health Practitioners (AHPs), nurses, and General Practitioners (GPs)) provided regular monitoring of 'at risk' clients—by phone, video call, or home visit. Drivers delivered oximeters and other monitoring supports to houses together with COVID Care packs[32]. Treatment with oral anti-viral medications was prescribed and delivered promptly to those who needed it, and clinical safety was greatly increased by having immediate access to current medical histories and medication lists[33].

> ***"Our AMS COVID Clinic GP conducted a telehealth/virtual hospital round each day for those who were COVID positive."***

> ***"Staff had iPads so that we could provide our own face-to-face home care service which was personal and tailored to the people in the community."***

> ***"The service we offered was very personal—built on trust and previous relationships."***

In marked contrast to the Government's siloed model, the ACCHS' Ambulatory COVID Care services were part of a comprehensive Model of Care which, as discussed above, included SEWB and mental health supports, practical supports for isolation, and ongoing routine primary care. This had life-saving consequences for some people.

Box. 8 COVID Ambulatory COVID Care Model – Case Study

> ***"One of our ACCHS doctors was doing a COVID-monitoring call and the patient said something, in passing, that sounded quite minor, but because he had the full medical history in front of him, he realised that there was an extremely serious underlying problem. The patient was quickly evacuated to Perth for emergency surgery. A day later and the patient would have needed ICU. I am sure that the problem would have been missed by an outside COVID care provider…"***

In April 2022, after extensive advocacy by AHCWA and ACCHS, the WA Government recognised the indispensable work done by the ACCHS in supporting, monitoring, and treating people with COVID-19 through their ambulatory care model. Funding support for ongoing provision of their programs was made available.

[31]Immediately where the RAT or POCT was done by the clinic.
[32]WA Health did provide oximeters.
[33]There were contraindications and important drug interaction with the anti-viral medications and a detailed knowledge of the patient's history and regular medications was essential for safe prescribing.

ACCESS TO COVID-19 TREATMENTS

Critical to the success of the ACCHS COVID Ambulatory Care Model was early access to two newly developed oral COVID-19 treatments. For the first two years of the pandemic, there were few effective specific treatments for COVID-19 and those that were emerging in late 2021 were intravenous preparations, primarily administered in the hospital setting.

On 20 January 2022, the Therapeutic Goods Administration (TGA) approved two new oral anti-viral medications Lagevrio (molnupiravir) and Paxlovid (nirmatrelvir + ritonavir)(76). Although it would be some weeks before these medications were listed on the Pharmaceutical Benefits Scheme (PBS) (and even longer before they were easily available in community pharmacies), governments made the extraordinary positive step of making supplies directly available to ACCHS through the National Medical Stockpile[34]. Initial pre-placement supplies were delivered by the Commonwealth to ACCHS in early March, just as the border was opening. Ongoing supplies were subsequently made available through both the State and Commonwealth(77).

Given the brief five day window after symptom onset for administering oral anti-viral medication, it was enormously beneficial having stock on hand. ACCHS leaped at the opportunity to treat their most 'at risk' patients, and after an initial period of training (and support from WA's Infectious Diseases physicians)[35], ACCHS quickly became the leading prescribers of COVID-19 anti-viral medication in WA. Derbarl Yerrigan Health Service alone reports treating over 200 patients in the first half of 2022, with the WA Country Health Service (WACHS) (with a population of 500,000 people) treating 800 for the comparative period(78).

ACCHS in WA were particularly well set-up to provide COVID-19 medication at the point-of-care due to their years of experience with the Remote Area Aboriginal Health Services (RAAHS) Program[36](79). Quality assurance systems were well-established for safe storage, stock management, and documentation. ACCHS' clinicians were also confident users of medications in clinically complex patients and in complex settings. Although there is no published data on the outcomes for Aboriginal people treated with oral anti-viral medication, a Victorian study[37] showed a significant reduction in the odds of both death (57 per cent) and hospitalisation (31 per cent)(80). The benefit was greatest for those treated early.

[34]Lagevrio went onto the PBS on 1 March 2022 and Paxlovid on 1 May 2022 but availability through community pharmacies was extremely limited for many weeks due to cost and limited supplies.
[35]The new medications had complicated eligibility criteria, contraindications and drug interactions.
[36]All ACCHS providing remote clinical services are part of this program.
[37]In vaccinated individuals aged over 70 years.

Outcomes

While the success of the ACCHS' intensive and comprehensive response during the "Living with COVID" phase is impossible to quantify, it is very clear that the hospitalisation and mortality rate for Aboriginal people in WA was far lower than originally expected, and only slightly higher than the state's whole population. Data from a Department of Health and Aged Care's Epidemiology Update in September 2022[38] shows 31 confirmed and probable deaths from COVID-19 within WA's Aboriginal population(81). This was less than 5 per cent of the total deaths (628) in the State.

Although any increased death rate for Aboriginal people is unacceptable, it is clear that significant progress has been made since 2009, when Aboriginal people accounted for 15 per cent of the deaths in WA from H1N1 (swine flu) and 19 per cent of hospitalisations(82). The critical role of the ACCHS' Sector in reducing that gap is indisputable.

[38]After the peak wave of COVID-19 infections see Figure 2.

COVID deliveries on their way

Conclusion

When the WA borders opened and COVID-19 started sweeping through the State (see Figure 2), it was clear that mainstream services and systems were inadequate or inaccessible for many Aboriginal people.

ACCHS stepped in immediately with their wraparound, holistic, and culturally safe Model of Care. They provided testing, treatment, and comprehensive follow up of COVID positive patients. They provided (or facilitated) isolation and quarantine support, and they ensured that communities were kept informed about the constantly changing 'COVID rules.' This work was alongside their ongoing provision of essential primary care services and the continued COVID-19 vaccine roll-out.

It was an extremely intensive few weeks for the Sector. The workload was exacerbated by multiple barriers from poorly designed digital systems, and there was no initial guarantee of funding. Staff were exhausted.

It was also a rewarding time that highlighted the remarkable strengths of the Sector—its resilience, innovation, and flexibility, and unwavering commitment to the health and wellbeing of Aboriginal communities.

> ***"Despite all the challenges of COVID, it brought people together to work in a collaborative way."***

> ***"Outside of the pandemic, ACCHS ask that government take time to get to know Aboriginal people in Aboriginal communities. Come and sit with us to gain an understanding of who we are and what we need. Sit down with our cultural people and Elders and hear from them to gain a place-based understanding."***

References

INTRODUCTION REFERENCES

1. Derbarl Yerrigan Health Service. History [Internet]. [cited 2025 Dec 5]. Available from: https://www.dyhs.org.au/about-us/history/
2. Aboriginal Health Council of WA. Member Services [Internet]. [cited 2025 Dec 5]. Available from: https://www.ahcwa.org.au/member-services
3. Aboriginal Health Council of WA. AHCWA. [cited 2023 Aug 18]. About Us – AHCWA. Available from: https://www.ahcwa.org.au/about-us/
4. World Health Organization. Archived: WHO Timeline - COVID-19 [Internet]. 2020 [cited 2025 Dec 5]. Available from: https://www.who.int/news/item/27-04-2020-who-timeline---covid-19
5. McAllister J. "If COVID-19 gets into our communities, we are gone": Indigenous leaders'. ABC News [Internet]. 2020 Mar 20 [cited 2024 Sep 26]; Available from: https://www.abc.net.au/news/2020-03-20/dire-warning-on-coronavirus-for-indigenous-communities/12076420
6. Australian Government. Closing the Gap. 2020 [cited 2024 Mar 7]. National Agreement on Closing the Gap. Available from: https://www.closingthegap.gov.au/national-agreement
7. National Aboriginal Community Controlled Health Organisation. New National Agreement on Closing the Gap marks historic shift to improve Aboriginal and Torres Strait Islander peoples' life outcomes [Internet]. 2020 [cited 2025 Dec 5]. Available from: https://www.naccho.org.au/new-national-agreement-on-closing-the-gap-marks-historic-shift-to-improve-aboriginal-and-torres-strait-islander-peoples-life-outcomes/
8. Government of Western Australia Department of Health. About us [Internet]. [cited 2025 May 14]. Available from: https://www.health.wa.gov.au/About-us#:~:text=WA%20Health%20is%20Western%20Australia's,by%20a%20single%20health%20authority.

CHAPTER 1 REFERENCES

1. Elphick K. Australian pandemic response planning: a quick guide [Internet]. Parliament of Australia Department of Parliamentary Services; 2020 [cited 2025 Feb 24]. Available from: https://parlinfo.aph.gov.au/parlInfo/download/library/prspub/7312891/upload_binary/7312891.pdf
2. Australian Health Protection Principal Committee. Emergency Response Plan for Communicable Disease Incidents of National Significance [Internet]. 2016 [cited 2025 Feb 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/07/emergency-response-plan-for-communicable-diseases-of-national-significance-cd-plan.pdf
3. State Emergency Management Committee. State Emergency Management Plan: A Strategic Framework for Emergency Management in Western Australia [Internet]. Western Australian Government; 2024 Mar. Available from: https://www.wa.gov.au/system/files/2024-03/state_emergency_management_plan_3.08.pdf
4. Goggin LS, Carcione D, Mak DB, Dowse GK, Giele CM, Smith DW, et al. Chronic disease and hospitalisation for pandemic (H1N1) 2009 influenza in Indigenous and non-Indigenous Western Australians. 2011;35(2).
5. Miller A, Durrheim DN. Aboriginal and Torres Strait Islander communities forgotten in new Australian National Action Plan for Human Influenza Pandemic: "Ask us, listen to us, share with us." Med J Aust [Internet]. 2010 Sep 20 [cited 2024 Nov 28];193(6). Available from: https://www.mja.com.au/journal/2010/193/6/aboriginal-and-torres-strait-islander-communities-forgotten-new-australian
6. Massey PD, Miller A, Saggers S, Durrheim DN, Speare R, Taylor K, et al. Australian Aboriginal and Torres Strait Islander communities and the development of pandemic influenza containment strategies: community voices and community control. Health Policy Amst Neth. 2011 Dec;103(2–3):184–90.
7. Chidgzey PJ, Davis S, Williams P, Reeve C. An outbreak of influenza A (H1N1) virus in a remote Aboriginal community post-pandemic: implications for pandemic planning and health service policy. Aust N Z J Public Health. 2015 Feb;39(1):15–20.
8. Crooks K, Massey PD, Taylor K, Miller A, Campbell S, Andrews R. Planning for and responding to pandemic influenza emergencies: it's time to listen to, prioritize and privilege Aboriginal perspectives. West Pac Surveill Response J [Internet]. 2018 Nov [cited 2025 Feb 24];9(5). Available from: https://ojs.wpro.who.int/ojs/index.php/wpsar/article/download/614/853?inline=1
9. NSW Health. NSW Health Influenza Pandemic Plan [Internet]. 2016 [cited 2025 May 3]. Available from: https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2016_016.pdf
10. NSW Health. Pandemic Preparedness and Response with Aboriginal Communities in NSW (Rescinded Guideline) [Internet]. 2019 [cited 2025 May 3]. Available from: https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=GL2019_009
11. Goldfields-Esperance District Emergency Management Committee. Goldfields-Esperance Emergency Management District Risk Assessment Report: "Highlighting potential disaster impacts" [Internet]. 2017 [cited 2025 Feb 24]. Available from: https://www.wa.gov.au/system/files/2024-07/goldfields_esperance_risk_report.pdf
12. Pilbara District Emergency Management Committee. Pilbara Emergency Management District Risk Assessment Report: "Highlighting potential disaster impacts" [Internet]. 2017 [cited 2025 Feb 24]. Available from: https://www.wa.gov.au/system/files/2024-07/pilbara_risk_report.pdf
13. Kimberley District Emergency Management Committee. Kimberley Emergency Management District Risk Assessment Report: "Highlighting potential disaster impacts" [Internet]. 2017 [cited 2025 Feb 24]. Available from: https://www.wagov.pipeline.preproduction.digital.wa.gov.au/system/files/2024-07/kimberley_risk_report.pdf
14. State Emergency Management Committee. State Hazard Plan Human Biosecurity. Government of Western Australia; 2024 Mar.
15. Legislative Council Western Australia. Legislative Council Question on Notice Tuesday 20 August 2024 [Internet]. 2024 [cited 2025 Feb 24]. Available from: https://parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4113677cede8148377f2250748258bb8002a217a/$file/tp-3677.pdf
16. Government of Western Australia Department of Health. Infectious Disease Emergency Management Plan, WA health system [Internet]. 2017 [cited 2025 Feb 25]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general%20documents/emergency%20disaster/PDF/Infectious-Disease-Emergency-Management-Plan.pdf
17. Government of Western Australian Department for Child Protection and Family Support. State Emergency Welfare Plan (Interim) [Internet]. 2016 [cited 2025 Feb 24]. Available from: https://www.sjshire.wa.gov.au/council-meetings/ordinary-council-meeting/ordinary-council-meeting-18-may-2020/470/documents/1043-attachment-5-state-emergency-welfare-plan-(sewp)-interim-final-june-2016.pdf
18. Government of Western Australia. Western Australian Government Pandemic Plan [Internet]. 2020 Mar [cited 2025 Feb 24]. Available from: https://www.wa.gov.au/system/files/2020-06/Western%20Australia%20Government%20Pandemic%20Plan.pdf
19. Armstrong P. COVID-19 Outbreak Response Planning [Internet]. 2020 Oct [cited 2025 Feb 24]. Available from: https://www.wa.gov.au/system/files/2020-11/1.%20Health%20-%20Outbreak%20Response%20Planning%20-%20For%20SCF.pdf
20. Government of Western Australia, WA Country Health Service. WACHS Emergency (Disaster) Management Arrangements Policy [Internet]. 2021 [cited 2025 Feb 24]. Available from: https://www.wacountry.health.wa.gov.au/~/media/WACHS/Documents/About-us/Policies/Emergency-Disaster-Management-Arrangements-Policy.pdf?thn=0
21. Edwards RF. State Emergency Management Committee Appearance [Internet]. 2020 [cited 2025 Feb 24]. Available from: https://www.parliament.wa.gov.au/parliament/commit.nsf/(Evidence+Lookup+by+Com+ID)/C7A372EA05E619AC482585E70014CE44/$file/20200929+-+GEN+-+Additional+information+following+hearing+-+Dr+Ron+Edwards+State+Emergency+Management+Committee_Redacted.pdf
22. Government of Western Australia. Review of Western Australia's COVID-19 Management and Response [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2023-08/reviewofwascovid19managementandresponseaccessible.pdf
23. Government of Western Australia Department of Health. COVID 19: WA Integrated Outbreak Containment and Response Plan. 2020.
24. Department of Health and Aged Care, Australian Government. Australian health sector emergency response plan for novel coronavirus (COVID-19) [Internet]. 2020 [cited 2024 Nov 28]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/02/australian-health-sector-emergency-response-plan-for-novel-coronavirus-covid-19_2.pdf
25. Australian Government Department of Health. Australian Health Sector Emergency Response Plan for Novel Coronavirus (COVID-19) - Management Plan for Aboriginal and Torres Strait Islander populations [Internet]. 2020 [cited 2025 May 3]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/07/management-plan-for-aboriginal-and-torres-strait-islander-populations.pdf
26. State Emergency Management Committee. State Emergency Management Policy [Internet]. Government of WA; 2023 [cited 2025 Feb 24]. Available from: https://www.wa.gov.au/system/files/2023-12/state_em_policy_v3.06.pdf
27. Australian Government. Closing the Gap. 2020 [cited 2024 Mar 7]. National Agreement on

Closing the Gap. Available from: https://www.closingthegap.gov.au/national-agreement

28. Government of Western Australia Department of Health. WA Health System Emergency Management Arrangements [Internet]. 2017 [cited 2025 Feb 26]. Available from: https://www.health.wa.gov.au/Articles/A_E/~/media/BE28CD6ADB56487292D5310E1DB29DB1.ashx
29. Government of Western Australia. District and local emergency management committees [Internet]. 2024 [cited 2025 Feb 27]. Available from: https://www.wa.gov.au/organisation/state-emergency-management-committee/district-and-local-emergency-management-committees
30. WA Country Health Service. WACHS COVID-19 Emergency Management Framework. 2022.
31. Government of Western Australia. DEMC Members Handbook [Internet]. 2022 [cited 2025 Jun 3]. Available from: https://www.wa.gov.au/system/files/2023-01/DEMC-Members-Handbook.pdf
32. McAllister J. ABC News. 2020 [cited 2025 May 3]. Indigenous leaders warn "if coronavirus gets into our communities, we are gone." Available from: https://www.abc.net.au/news/2020-03-20/dire-warning-on-coronavirus-for-indigenous-communities/12076420
33. Government of Western Australia. WA.gov.au. 2023 [cited 2025 May 3]. Remote Aboriginal communities. Available from: https://www.wa.gov.au/organisation/department-of-communities/remote-aboriginal-communities
34. Royal Australian College of General Practitioners. Standards for general practice 5th edn [Internet]. East Melbourne, Vic: RACGP; 2020 [cited 2025 May 3]. Available from: https://www.racgp.org.au/getattachment/ece472a7-9a15-4441-b8e5-be892d4ffd77/Standards-for-general-practices-5th-edition.aspx
35. Thorburn K, Golson K, Ridley C, Angus R, Marshall M. Really proper dangerous one: Aboriginal responses to the first wave of COVID-19 in the Kimberley (Nulungu Reports 3). Nulungu Res Inst [Internet]. 2022 [cited 2023 Nov 23]; Available from: https://researchonline.nd.edu.au/nulungu_reports/3/
36. Department Of Health, Western Australia. User Guide- outbreak preparedness and initial local response in remote Aboriginal communities [Internet]. 2021 [cited 2025 May 3]. Available from: https://www.laverton.wa.gov.au/documents/128/covid-19-remote-aboriginal-communities-outbreak-communications-package
37. Department Of Health, Western Australia. Aboriginal sector communication update [Internet]. 2020 [cited 2025 May 3]. Available from: https://www.health.wa.gov.au/-/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Aboriginal-communications-update-2.pdf
38. Australian Bureau of Statistics. Greater Perth 2021 Census Aboriginal and/or Torres Strait Islander people QuickStats [Internet]. [cited 2025 Apr 29]. Available from: https://abs.gov.au/census/find-census-data/quickstats/2021/IQS5GPER
39. Medlen P. Infectious disease expert Paul Armstrong reflects on WA's success in "obliterating" the COVID-19 curve [Internet]. 2020 [cited 2025 Jun 3]. Available from: https://www.abc.net.au/news/2020-05-31/wa-coronavirus-paul-armstrong-reflects-on-covid-19-response/12300216
40. Aboriginal Health Council of WA. AHCWA. [cited 2023 Aug 18]. About Us – AHCWA. Available from: https://www.ahcwa.org.au/about-us/
41. NACCHO. Aboriginal and Torres Strait Islander Advisory Group on COVID-19, 31 March 2020 [Internet]. 2020 [cited 2025 Jun 3]. Available from: https://www.naccho.org.au/aboriginal-and-torres-strait-islander-advisory-group-on-covid-19-31-march-2020/
42. Australian Government. National Guidance for Remote Aboriginal and Torres Strait Islander Communities for COVID-19 [Internet]. 2021 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/02/cdna-national-guidance-for-remote-aboriginal-and-torres-strait-islander-communities-for-covid-19.pdf
43. Australian Government. CDNA National Guidance for Urban and Regional Aboriginal and Torres Strait Islander Communities for COVID-19 [Internet]. 2020 [cited 2025 Jun 3]. Available from: https://www.health.gov.au/resources/publications/cdna-national-guidance-for-urban-and-regional-aboriginal-and-torres-strait-islander-communities-for-covid-19?language=en

CHAPTER 2 REFERENCES

1. Communicable Disease Control. Centers for Disease Control and Prevention. 2023 [cited 2024 Nov 12]. CDC Museum COVID-19 Timeline. Available from: https://www.cdc.gov/museum/timeline/covid19.html
2. Australian Government Department of Health and Aged Care. First confirmed case of novel coronavirus in Australia [Internet]. 2020 [cited 2024 Nov 12]. Available from: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/first-confirmed-case-of-novel-coronavirus-in-australia
3. Borrello E. First WA coronavirus case flown to Perth for treatment after evacuating Diamond Princess ship. ABC News [Internet]. 2020 Feb 21 [cited 2024 Nov 12]; Available from: https://www.abc.net.au/news/2020-02-21/first-wa-coronavirus-case-to-be-flown-to-perth-for-treatment/11988920
4. Department of Health, Western Australia. Agency Advisory #9 COVID-19 [Internet]. 2020. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general%20documents/Infectious%20diseases/PDF/Coronavirus/Agency%20Advisory%20092020%20COVID19.pdf
5. Laschon E. WA coronavirus community transmission begins as 17 new COVID-19 cases reported. ABC News [Internet]. 2020 Mar 19 [cited 2024 Nov 12]; Available from: https://www.abc.net.au/news/2020-03-19/coronavirus-community-transmission-wa-as-17-new-cases/12072092
6. Perpitch N. Artania cruise ship leaves Fremantle after fatal COVID-19 outbreak amid three more WA coronavirus cases. ABC News [Internet]. 2020 Apr 18 [cited 2024 Nov 12]; Available from: https://www.abc.net.au/news/2020-04-18/artania-cruise-ship-leaves-fremantle-after-coronavirus-outbreak/12161296
7. Government of Western Australia. Review of Western Australia's COVID-19 Management and Response [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2023-08/ reviewofwascovid19managementandresponseaccessible.pdf
8. Office of the Auditor General. Transparency Report: Current Status of WA Health's COVID-19 Report [Internet]. 2020 Sep [cited 2024 Oct 25]. Report No.: 5. Available from: https://audit.wa.gov.au/reports-and-publications/reports/health-transparency-report/findings/
9. Department of Health, Western Australia. COVID-19 update 30 April 2020 [Internet]. 2020. Available from: https://www.health.wa.gov.au/Media-releases/2020/COVID-19-update-30-April-2020
10. Department of Health, Western Australia. COVID-19 update 1 January 2022 [Internet]. 2022. Available from: https://www.health.wa.gov.au/Media-releases/2021/COVID-19-update-1-January-2022
11. Barry H. Halls Creek community leaders recall the day coronavirus entered the remote Indigenous community. ABC News [Internet]. 2020 Sep 26 [cited 2024 Nov 12]; Available from: https://www.abc.net.au/news/2020-09-27/halls-creek-coronavirus-remote-community-brink-disaster/12679968
12. Eades S, Eades F, McCaullay D, Nelson L, Phelan P, Stanley F. Australia's First Nations' response to the COVID-19 pandemic. The Lancet. 2020 Jul 25;396(10246):237–8.
13. Crooks K, Casey D, Ward JS. First Nations peoples leading the way in COVID-19 pandemic planning, response and management. Med J Aust [Internet]. 2020 Aug 17 [cited 2024 Nov 12];213(4). Available from: https://www.mja.com.au/journal/2020/213/4/first-nations-peoples-leading-way-covid-19-pandemic-planning-response-and
14. State Emergency Management Committee. State Emergency Management Plan: A Strategic Framework for Emergency Management in Western Australia [Internet]. Western Australian Government; 2024 Mar. Available from: https://www.wa.gov.au/system/files/2024-03/state_emergency_management_plan_3.08.pdf
15. Government of Western Australia. Western Australian Government Pandemic Plan [Internet]. 2020 Mar. Available from: https://www.wa.gov.au/system/files/2020-06/Western%20Australia%20Government%20Pandemic%20Plan.pdf
16. State Emergency Management Committee. State Hazard Plan Human Biosecurity. Government of Western Australia; 2024 Mar.
17. Government of Western Australia Department of Health. Infectious Disease Emergency Management Plan, WA health system [Internet]. 2017 [cited 2025 Feb 25]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general%20documents/emergency%20disaster/PDF/Infectious-Disease-Emergency-Management-Plan.pdf
18. Kimberley Aboriginal Medical Services, Binarri-binyja Yarrawoo, Empowered Communities. Kimberley Bulletin: COVID-19 (Coronavirus) Responses [Internet]. 2020 [cited 2024 Nov 12]. Available from: https://static1.squarespace.com/static/5a73dac1d0e62826b7a7521c/t/5e82e54a57dab90e5eb03b7e/1585636693520/COVID-19+%232+2020-03-31.pdf
19. Finlay S, Wenitong M. Aboriginal Community Controlled Health Organisations are taking a leading role in COVID-19 health communication. Aust N Z J Public Health. 2023 Feb 27;44(4):251.
20. South West Aboriginal Medical Service. Our Elders are at risk [Internet]. Poster presented at; 2022 Mar [cited 2024 Nov 12]. Available from: https://www.swams.com.au/wp-content/uploads/2022/03/Elders-at-risk.pdf

21. Geraldton Regional Aboriginal Medical Service. GRAMS free community posters now available [Internet]. Facebook. 2020 [cited 2024 Nov 26]. Available from: https://www.facebook.com/photo/?fbid=3077112738986604&set=pb.100049737735058.-2207520000
22. Social / Physical Distancing Kriol Advice [Internet]. 2020 [cited 2024 Nov 26]. (COVID-19). Available from: https://vimeo.com/401577888
23. Kimberley Coronavirus Animation [Internet]. 2020 [cited 2024 Nov 26]. (COVID-19). Available from: https://vimeo.com/407920895
24. Wirraka Maya Health Service. COVID-19 Update [Internet]. 2020 [cited 2024 Nov 26]. Available from: http://www.wmhsac.com/news/covid-19-update/44
25. Kimberley Aboriginal Medical Services, Binarri-binyja Yarrawoo, Empowered Communities. Kimberley Bulletin: COVID-19 (Coronavirus) Responses [Internet]. 2020 [cited 2024 Nov 26]. Available from: https://static1.squarespace.com/static/5a73dac1d0e62826b7a7521c/t/5eb0f45e084e3731c4bd9b09/1588655203850/COVID-19+%237+5-5-20.pdf
26. Aboriginal Health Council of WA. AHCWA COVID-19 Poster: COVID-19 Prevention [Internet]. 2020 [cited 2024 Nov 26]. Available from: https://ehq-production-australia.s3.ap-southeast-2.amazonaws.com/5a1e0241a3d70693b6dd49a4d421c23a821845b6/original/1585887787/Aboriginal_Health_Council_of_Western_Australia_COVID-19_Posters.pdf_8012671cc260c6c76dcc2728606de5bb?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA4KKNQAKIOR7VAOP4%2F20241126%2Fap-southeast-2%2Fs3%2Faws4_request&X-Amz-Date=20241126T062538Z&X-Amz-Expires=300&X-Amz-SignedHeaders=host&X-Amz-Signature=3c21d81a9e02f8d6d15a2c36625f6b0866e4eecd43ed66646e04016df518d83c
27. Nindilingarri Cultural Health Services. Corona Virus Update for the Fitzroy Valley [Internet]. Facebook. 2020 [cited 2024 Nov 28]. Available from: https://www.facebook.com/nindilingarrichs/photos/friday-8th-maycoronavirus-update-for-the-fitzroy-valleyremember-to-always-wash-y/1397536887096506/
28. Broome Regional Aboriginal Medical Service. Delivery Services [Internet]. Facebook. 2020 [cited 2024 Nov 28]. Available from: https://www.facebook.com/BROOME.BRAMS/photos/pb.100057523206224.-2207520000/221409139220663/?type=3
29. Yura Yungi Medical Service Aboriginal Corporation. YYMS is having a community meeting to talk about the COVID-19 vaccine. [Internet]. Facebook. 2021 [cited 2024 Nov 28]. Available from: https://www.facebook.com/2786656798043316/photos/a.2786853308023665/5655162194526081/?_rdr
30. South West Aboriginal Medical Service. COVID-19 Readiness Family Plan [Internet]. 2022 [cited 2024 Nov 28]. Available from: https://www.swams.com.au/wp-content/uploads/2022/02/COVID-19-Readiness-Family-Plan.pdf
31. Yura Yungi Medical Service Aboriginal Corporation. We would like to advise the public that MASKS must be worn when coming to YYMS Clinic and anyone who will be accessing our service will be subjected to a RAT Test. Thank you for your cooperation and keeping our community safe. [Internet]. Facebook. 2022 [cited 2024 Nov 28]. Available from: https://www.facebook.com/2786656798043316/photos/pb.100064673352066.-2207520000/7115990828443203/?type=3
32. Mawarnkarra Health Service. In keeping with government mask mandate across WA, anyone entering the clinic will be required to wear a face mask. If you don't have a mask Mawarnkarra can supply one. #mawarnkarra #mawarnkarrahealthservice #covid #CovidMandates [Internet]. Facebook. 2022 [cited 2024 Nov 28]. Available from: https://www.facebook.com/MawarnkarraHealthService/photos/pb.100057563683594.-2207520000/3195708764039370/?type=3
33. Department of Health and Aged Care, Australian Government. Australian health sector emergency response plan for novel coronavirus (COVID-19) [Internet]. 2020 [cited 2024 Nov 28]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/02/australian-health-sector-emergency-response-plan-for-novel-coronavirus-covid-19_2.pdf
34. World Health Organization. Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation [Internet]. 2020 [cited 2024 Nov 28]. Available from: https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation
35. Cellan-Jones R. Coronavirus: Fake news is spreading fast. BBC [Internet]. 2020 Feb 26 [cited 2024 Nov 28]; Available from: https://www.bbc.com/news/technology-51646309
36. South West Aboriginal Medical Service. 2020/2021 SWAMS Annual Report [Internet]. 2020. Available from: https://www.swams.com.au/wp-content/uploads/2022/01/SWAMS-2020-21-Annual-Report-FINAL-WEB-VERSION.pdf
37. Kimberley Aboriginal Medical Services. Health Promotion [Internet]. 2020 [cited 2024 Nov 28]. Available from: http://kams.org.au/resources/health-promotion/
38. Government of Western Australia. COVID-19 WA Border Closure Factsheet [Internet]. 2020 [cited 2024 Nov 28]. Available from: https://www.wa.gov.au/system/files/2020-06/COVID-19_WA-Border-Closure-Factsheet_250320.pdf
39. Cook DC, Fraser RW, McKirdy SJ. A benefit–cost analysis of different response scenarios to COVID-19: A case study. Health Sci Rep. 2021 Jun 4;4(2):e286.
40. Stanley F, Langton M, Ward J, McAullay D, Eades S. Australian First Nations response to the pandemic: A dramatic reversal of the 'gap'. J Paediatr Child Health. 2021 Dec;57(12):1853–6.
41. Communicable Disease Control Directorate. Disease Watch [Internet]. Department of Health Western Australia; 2009 Dec [cited 2024 Nov 28]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general-documents/Infectious-diseases/PDF/Statewide-ND-ann-reviews/2008-NotifiableDisease-annual_review.pdf
42. Miller A, Durrheim DN. Aboriginal and Torres Strait Islander communities forgotten in new Australian National Action Plan for Human Influenza Pandemic: "Ask us, listen to us, share with us". Med J Aust [Internet]. 2010 Sep 20 [cited 2024 Nov 28];193(6). Available from: https://www.mja.com.au/journal/2010/193/6/aboriginal-and-torres-strait-islander-communities-forgotten-new-australian
43. Allam L. 'The army is our friend' against coronavirus in remote communities, Aboriginal health group says. The Guardian [Internet]. 2020 Mar 16 [cited 2024 Nov 28]; Available from: https://www.theguardian.com/world/2020/mar/16/the-army-is-our-friend-against-coronavirus-in-remote-communities-aboriginal-health-group-says
44. McAllister J. 'If COVID-19 gets into our communities, we are gone': Indigenous leaders'. ABC News [Internet]. 2020 Mar 20 [cited 2024 Sep 26]; Available from: https://www.abc.net.au/news/2020-03-20/dire-warning-on-coronavirus-for-indigenous-communities/12076420
45. Maclean H, Brennan M. Parliament of Australia. 2020 [cited 2023 Nov 23]. COVID-19 Legislative response: Human Biosecurity Emergency Declaration - Remote Communities. Available from: https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/FlagPost/2020/April/remote_communities
46. Australian Government. National Guidance for Remote Aboriginal and Torres Strait Islander Communities for COVID-19 [Internet]. 2021 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/02/cdna-national-guidance-for-remote-aboriginal-and-torres-strait-islander-communities-for-covid-19.pdf
47. Mirage News. Access restricted to protect people living in Kimberley and remote Aboriginal communities [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.miragenews.com/access-restricted-to-protect-people-living-in-kimberley-and-remote-aboriginal-communities/
48. Australian Government National Indigenous Australians Agency. Australia - Designated Biosecurity Area [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2020-03/Australia%20-%20Designated%20Biosecurity%20Area%20-%20FINAL%20260330.pdf
49. Christian K. COVID-19 photo essay reflects on the day our lives changed forever three years ago. ABC News [Internet]. 2023 Mar 14 [cited 2024 Nov 28]; Available from: https://www.abc.net.au/news/2023-03-15/covid-photo-essay-reflects-on-how-the-virus-changed-our-lives/102039856
50. Dawson C. Emergency Management Act 2005 (WA) - Remote Aboriginal Communities Directions No. 2 [Internet]. 2020. Available from: https://www.transport.wa.gov.au/mediaFiles/about-us/ABOUT_US_G_RAP_Remote_Aboriginal_Communities_Dirtections_COVID19.pdf
51. Hayes J. Remote WA Indigenous communities reopen to visitors as COVID restrictions lift. ABC News [Internet]. 2022 Jun 16 [cited 2024 Nov 29]; Available from: https://www.abc.net.au/news/2022-06-16/remote-wa-indigenous-communities-reopen-covid-restrictions-lift/101156782
52. Australian Government Department of Health and Aged Care. Travel restrictions for remote areas commence tonight [Internet]. 2020 [cited 2024 Nov 29]. Available from: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/travel-restrictions-for-remote-areas-commence-tonight

53. Government of Western Australia. Biosecurity Designated Area Entry Form [Internet]. 2021 [cited 2024 Nov 29]. Available from: https://www.kimberleyports.wa.gov.au/forms-and-publications/documents/forms/2021/august/biosecurity-designated-area-form
54. Hunt G. Remote travel restrictions lifted in Western Australia [Internet]. 2020 [cited 2024 Nov 29]. Available from: https://www.greghunt.com.au/remote-travel-restrictions-lifted-in-western-australia/
55. Government of Western Australia. Biosecurity Zone FAQs [Internet]. 2020 [cited 2024 Nov 29]. Available from: https://freightandlogisticscouncil.com.au/wp-content/uploads/2024/01/Biosecurity-Zone-FAQ_s.pdf
56. ABC Pilbara. Facebook. 2020 [cited 2023 Nov 23]. All Remote Aboriginal Communities in Lock-Down. Available from: https://www.facebook.com/ABCPilbara/photos/a.10151775801736811/10156897126716811/
57. NITV. SBS. 2020 [cited 2023 Nov 23]. WA Govt steps in to help people get back onto country during COVID-19 crisis. Available from: https://www.sbs.com.au/nitv/article/wa-govt-steps-in-to-help-people-get-back-onto-country-during-covid-19-crisis/o02wb74hl
58. Laschon E. Coronavirus WA regional border restrictions to be lifted this Friday except for the Kimberley. ABC News [Internet]. 2020 May 25 [cited 2024 Dec 2]; Available from: https://www.abc.net.au/news/2020-05-25/coronavirus-regional-border-restrictions-to-be-lifted-in-wa/12283704
59. World Health Organization. Director-General's opening remarks [Internet]. Speech presented at: Media Briefing on COVID-19; 2020 Mar 11 [cited 2024 Oct 24]. Available from: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020
60. Maclean H, Elphick K. Parliament of Australia. 2020 [cited 2024 Dec 2]. COVID-19 Legislative response: Human Biosecurity Emergency Declaration Explainer. Available from: https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/Research/FlagPost/2020/March/COVID-19_Biosecurity_Emergency_Declaration
61. Western Australian Government. Updated Directions provide further clarity to remote Aboriginal communities [Internet]. 2020 [cited 2024 Dec 2]. Available from: https://www.wa.gov.au/government/media-statements/McGowan-Labor-Government/Updated-Directions-provide-further-clarity-to-remote-Aboriginal-communities-20200321
62. Banjima Native Title Aboriginal Corporation. WA Govt restricts access to remote Indigenous communities [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://bntac.org.au/news/wa-govt-restricts-access-remote-indigenous-communities
63. Government of Western Australia Department of Premier and Cabinet. New border controls to help protect Western Australia [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2020-03/New%20border%20controls%20to%20help%20protect%20Western%20Australia_0.pdf
64. Government of Western Australia Department of Premier and Cabinet. Temporary border closure to better protect Western Australians - Media Statement - Hon Mark McGowan MLA Premier [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.fedcourt.gov.au/media/online-file/NSD464of2020/Tab89.pdf
65. Department of Local Government, Sport and Cultural Industries. New intrastate travel restrictions from midnight, Tuesday 31 March 2020 [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.dlgsc.wa.gov.au/department/news/news-article/2020/03/28/new-intrastate-travel-restrictions-from-midnight-tuesday-31-march-2020
66. Government of Western Australia. Yamatji Marlpa Aboriginal Corporation. 2020 [cited 2024 Dec 2]. WA travel restrictions come into place from midnight Tuesday. Available from: https://www.ymac.org.au/2020/03/
67. Mochan K. WA adopts toughest COVID-19 travel restrictions in Australia as police enforce regional borders. ABC News [Internet]. 2020 Mar 31 [cited 2024 Dec 2]; Available from: https://www.abc.net.au/news/2020-04-01/coronavirus-travel-restrictions-in-wa-toughest-in-australia/12108868
68. Spinifex Health Service. Health Programs [Internet]. 2018 [cited 2024 Dec 2]. Available from: https://www.spinifexhealth.org.au/health-programs
69. NACCHO. Aboriginal and Torres Strait Islander Health News. 2021 [cited 2024 Dec 2]. Technology brings better heatlhcare to Tjuntjuntjara. Available from: https://nacchocommunique.com/2021/05/25/naccho-aboriginal-health-news-technology-brings-better-health-care-to-remote-communities/
70. Smith EJ, Bertoglio G. Outback truckie drives 28 hours every fortnight getting food to community's only grocery shop. ABC News [Internet]. 2023 Jan 6 [cited 2024 Dec 2]; Available from: https://www.abc.net.au/news/2023-01-07/kym-mozol-outback-truck-driver-ceduna-tjuntjuntjara-shop/101823528
71. Government of Western Australia. Emergency Management Act (2005): Transport, Freight and Logistics Directions (No 14). 2022.
72. Goodwin ST. Remote WA Aboriginal community on high alert with COVID-19 detected in wastewater over SA border. ABC News [Internet]. 2021 Dec 14 [cited 2024 Dec 2]; Available from: https://www.abc.net.au/news/2021-12-15/remote-aboriginal-community-warburton-covid-vaccinations-border/100691098
73. Government of Western Australia Department of Health. Outbreak declared in remote Aboriginal community [Internet]. 2022 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/Media-releases/2022/COVID-19-update-20-February-2022-Outbreak-declared-in-remote-Aboriginal-community
74. Department of Health, Western Australia. State Hazard Plan Human Biosecurity. 2024 Mar; Available from: https://www.wa.gov.au/system/files/2024-03/state_hazard_plan_human_biosecurity.pdf
75. Dr Andrew Robertson. Statement from WA Chief Health Officer: COVID-19 restrictions in Western Australia [Internet]. 2020 [cited 2024 Dec 2]. Available from: https://www.health.wa.gov.au/Media-releases/2020/Statement-from-WA-Chief-Health-Officer-COVID19-restrictions-in-Western-Australia
76. Government of Western Australia. COVID-19 coronavirus: State Welfare Emergency Plan [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.wa.gov.au/organisation/department-of-communities/covid-19-coronavirus-state-welfare-emergency-plan
77. Kimberley Aboriginal Medical Services, Binarri-binyja Yarrawoo, Empowered Communities. Kimberley Bulletin: COVID-19 (Coronavirus) Responses [Internet]. 2020 [cited 2024 Nov 26]. Available from: https://static1.squarespace.com/static/5a73dac1d0e62826b7a7521c/t/5e7d65265ed80a42198bc59b/1585276215026/COVID-19+10.30am+27-3-2020.pdf
78. Australian Government Department of Health and Aged Care. Government backs remote communities with COVID-19 support [Internet]. 2020 [cited 2024 Dec 2]. Available from: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/government-backs-remote-communities-with-covid-19-support
79. Department Of Health, Western Australia. Agency Advisory #14 COVID-19 [Internet]. 2020 [cited 2024 Dec 2]. Available from: https://www.health.wa.gov.au/-/media/Files/Corporate/general-documents/Infectious-diseases/PDF/Coronavirus/COVID19-Agency-Advisory-14-2020.pdf
80. Alderton K. Proposed Withdrawal from Covid-19 Regional Travel Restrictions Under Biosecurity Act 2015 [Internet]. 2020 [cited 2024 Dec 2]. Available from: https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4013610a929621e06c3d8ffd482585de000df910/$file/3610.pdf
81. Thorburn K, Golson K, Ridley C, Angus R, Marshall M. Really proper dangerous one: Aboriginal responses to the first wave of COVID-19 in the Kimberley (Nulungu Reports 3). Nulungu Res Inst [Internet]. 2022 [cited 2023 Nov 23]; Available from: https://researchonline.nd.edu.au/nulungu_reports/3/
82. Desborough J, Hall Dykgraaf S, Toca L, Davis S, Roberts L, Kelaher C, et al. Australia's national COVID-19 primary care response. Med J Aust. 2020 Aug;213(3):104.
83. Robertson A. Chief Health Officer Advice - Updated isolation, close contact and public health and social measures requirement [Internet]. Government of WA; 2022 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2022-09/Premier-Updated-Advice-PHSMs-and-TTIQ-01-September-2022.pdf
84. Government of Western Australia Department of Health. WA Safe Transition Plan - Modelling report by WA Department of Health [Internet]. 2021 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2021-11/Modelling_WAs_COVID-19_Transition_Plan.pdf
85. Grout L, Katar A, Ouakrim DA, Summers JA, Kvalsvig A, Baker MG, et al. Estimating the failure risk of quarantine systems for preventing COVID-19 outbreaks in Australia and New Zealand. Med J Aust [Internet]. 2021 Jul 9 [cited 2024 Dec 2];Online first. Available from: https://www.mja.com.au/journal/2021/estimating-failure-risk-quarantine-systems-preventing-covid-19-outbreaks-australia-and
86. Rachwani M. Covid: Perth lockdown announced, restrictions for south-east Queensland, 18 new cases in Sydney. The Guardian [Internet]. 2021 Jun 28 [cited 2024 Dec 3]; Available from: https://www.theguardian.com/australia-news/2021/jun/28/nsw-and-qld-covid-update-18-new-cases-in-sydney-and-restrictions-for-south-east-queensland
87. Law P, Zimmerman J. Coronavirus crisis: Returned traveller catches COVID-19 while in hotel quarantine at Pan Pacific Perth. The West Australian [Internet]. 2021 Jun 1 [cited 2024 Dec

3]; Available from: https://thewest.com.au/news/coronavirus/coronavirus-crisis-returned-traveller-catches-covid-19-while-in-hotel-quarantine-at-pan-pacific-perth-ng-b881888233z

88. State Emergency Management Committee. State Support Plan: Emergency Relief and Support [Internet]. 2022. Report No.: State Support Plan. Available from: https://www.wa.gov.au/system/files/2023-10/ssp-emergency-relief-support.pdf
89. Department Of Health, Western Australia. Clinician Alert #14 All Clinicians [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general-documents/Infectious-diseases/PDF/Coronavirus/COVID19-Clinician-Alert-WA-13-March-2020.pdf
90. Gubana B. Coronavirus COVID-19 clinics open in Perth hospitals for high-risk patients. ABC News [Internet]. 2020 Mar 10 [cited 2024 Dec 3]; Available from: https://www.abc.net.au/news/2020-03-10/coronavirus-covid-19-fever-clinics-open-in-perth/12041968
91. Government of Western Australia Department of Health. Clinician Alert #14 All Clinicians - COVID-19 [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general-documents/Infectious-diseases/PDF/Coronavirus/COVID19-Clinician-Alert-WA-13-March-2020.pdf
92. Government of Western Australia. Expanded testing programme for COVID-19 [Internet]. [cited 2024 Dec 3]. Available from: https://www.wa.gov.au/government/media-statements/McGowan%20Labor%20Government/Expanded-testing-programme-for-COVID-19-20200416
93. Barbas N. Test is done in the safety of the car. South Western Times [Internet]. 2020 May 6 [cited 2024 Dec 3]; Available from: https://www.swtimes.com.au/news/south-western-times/test-is-done-in-the-safety-of-the-car-ng-b881535288z
94. Government of Western Australia. Four more collection centres for COVID-19 testing to be established [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.wa.gov.au/government/media-statements/McGowan%20Labor%20Government/Four-more-collection-centres-for-COVID-19-testing-to-be-established-20200430
95. WA Primary Health Alliance. WA's first COVID-19 respiratory clinic opens in Geraldton [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.wapha.org.au/wp-content/uploads/2020/04/200421_Midwest-Respiratory-Clinic_final-002.pdf
96. Department of Health and Aged Care, Australian Government. Clinician Alert # 13 General Practitioners [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general-documents/Infectious-diseases/PDF/Coronavirus/COVID19-Clinician-Alert-WA-11Mar2020GP.pdf
97. Kirby Institute. Rapid testing for COVID-19 will deliver results on the spot for thousands of Aboriginal and Torres Strait Islander Australians [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.kirby.unsw.edu.au/news/rapid-testing-covid-19-will-deliver-results-spot-thousands-aboriginal-and-torres-strait
98. Cepheid. Cepheid website. 2024 [cited 2024 Dec 18]. GeneXpert Systems. Available from: https://www.cepheid.com/en-AU/systems/genexpert-family-of-systems/genexpert-system.html#:~:text=The%20GeneXpert%20System%20runs%20PCR,Nucleic%20Acid%20Amplification%20Test%20(CBNAAT)
99. Ralph O, Corvo S. Remote Aboriginal Medical Services mobilise rapid testing drives as COVID spreads west. ABC News [Internet]. 2021 Sep 19 [cited 2024 Dec 5]; Available from: https://www.abc.net.au/news/2021-09-20/remote-nsw-covid-clinics-rapid-testing/100405174
100. Government of Western Australia. New rapid COVID-19 test available for regional communities [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.wa.gov.au/government/media-statements/McGowan%20Labor%20Government/New-rapid-COVID-19-test-available-for-regional-communities-20200421
101. Department of Health and Aged Care, Australian Government, NOUS Group. Evaluation of COVID-19 point-of-care testing in remote and First Nations communities [Internet]. 2022 Dec [cited 2024 Dec 3]. Available from: https://www.health.gov.au/sites/default/files/2023-05/evaluation-of-covid-19-point-of-care-testing-in-remote-and-first-nations-communities_0.pdf
102. Derbarl Yerrigan Health Service. Annual Report 2021 [Internet]. Boorloo; 2021 [cited 2024 Dec 6]. Available from: https://www.dyhs.org.au/dywp/wp-content/uploads/2021/11/DYHS-Annual-Report-20-21.pdf
103. Australian Government Department of Health. Primary Care - Respiratory Clinics (Fact sheet COVID-19 National Health Plan) [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/03/covid-19-national-health-plan-primary-health-respiratory-clinics.pdf
104. Davis S, Roberts L, Desborough J, Dykgraaf SH, Burns P, Kidd M, et al. Integrating General Practice Into the Australian COVID-19 Response: A Description of the General Practitioner Respiratory Clinic Program in Australia. Ann Fam Med. 2022 May;20(3):273–6.
105. WA Primary Health Alliance. Two Aboriginal-led Respiratory Clinics open in WA [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://news.wapha.org.au/two-aboriginal-led-respiratory-clinics-open-in-wa/
106. Government of Western Australia Department of Health. PHEOC Bulletin #87 - COVID-19 [Internet]. 2021 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-PHEOC-Bulletin-87.pdf
107. Thompson H. WA Today. 2022 [cited 2023 Nov 23]. WA COVID: Friday brings 8000 new cases; state to send regions thousands of RATs. Available from: https://www.watoday.com.au/national/western-australia/friday-brings-8000-new-cases-free-rats-to-regions-20220325-p5a7yg.html
108. Government of Western Australia Department of Health. Clinician alert #77 - all clinicians [Internet]. 2022 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Clinician-Alert-WA-77.pdf
109. Thompson H. WA Today. 2022 [cited 2023 Nov 23]. WA COVID: Friday brings 8000 new cases; state to send regions thousands of RATs. Available from: https://www.watoday.com.au/national/western-australia/friday-brings-8000-new-cases-free-rats-to-regions-20220325-p5a7yg.html
110. McNeill H, Hondros N. WAtoday. 2020 [cited 2023 Nov 23]. WA starts testing wastewater as early warning system for undetected COVID-19. Available from: https://www.watoday.com.au/national/western-australia/wa-starts-testing-wastewater-as-early-warning-system-for-undetected-covid-19-20201110-p56dcw.html
111. Ngaanyatjarra communities to have wastewater COVID testing. Kalgoorlie Miner [Internet]. 2021 Dec 14 [cited 2024 Dec 3]; Available from: https://www.kalminer.com.au/news/regional/ngaanyatjarra-lands-communities-to-have-wastewater-tested-for-covid-19-c-4941111
112. Government of Western Australia. Health system key to Western Australia's COVID-19 response [Internet]. 2022 [cited 2024 Dec 3]. Available from: https://www.health.wa.gov.au/Media-releases/2022/May/Health-system-key-to-WA-COVID-19-response
113. Office of the Auditor General. COVID-19 Contact Tracing System [Internet]. Western Australia; 2022 May [cited 2024 Dec 3]. Report No.: 15. Available from: https://audit.wa.gov.au/reports-and-publications/reports/covid-19-contact-tracing-system-application-audit/
114. Government of Western Australia. Maintaining contact registers, a requirement to keep WA safe [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.wa.gov.au/government/announcements/maintaining-contact-registers-requirement-keep-wa-safe
115. Department of Local Government, Sport and Cultural Industries. SafeWA update [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.dlgsc.wa.gov.au/department/news/news-article/2020/12/15/safewa-update
116. Department of Health, Western Australia. COVID-19 update 31 December 2021 [Internet]. 2021 [cited 2024 Dec 3]. Available from: https://www.health.wa.gov.au/Media-releases/2021/COVID-19-update-31-December-2021
117. Carmody J. Full list of Perth COVID exposure sites includes Fremantle, Scarborough and Subiaco. ABC News [Internet]. 2021 Aug 4 [cited 2024 Dec 3]; Available from: https://www.abc.net.au/news/2021-08-04/perth-covid-exposure-sites/100350482
118. WA Government [@WAGovernment]. Now more than ever it is important to use the SafeWA app. SafeWA is the quickest way to identify people who may have come into contact with a confirmed case of COVID-19. Use the SafeWA app or the manual contact register provided. More info: https://wa.gov.au/organisation/covid-communications/covid-19-coronavirus-safewa https://t.co/wbgRLNGBHm [Internet]. Twitter. 2021 [cited 2024 Dec 3]. Available from: https://x.com/WAGovernment/status/1385576052374835201
119. Department of Health, Western Australia. Clinician Alert - Public Health #80 [Internet]. 2022 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Clinician-Alert-WA-80.pdf
120. Department of Health, Western Australia. Let's Yarn. [cited 2024 Dec 3]. Contact tracing: For Health Professionals. Available from: https://letsyarn.health.wa.gov.au/for-health-professionals/contact-tracing
121. Kimberley Aboriginal Health Planning Forum. Kimberley STI/BBV Contact Tracing Guidelines [Internet]. 2021 [cited 2024 Dec 3]. Available from: https://static1.squarespace.com/

static/5b5fbd5b9772ae6ed988525c/t/637475a24a480d58a034f61d/1668576678596/Contact%2BTracing%2BProtocol%2B2021.pdf

122. Kagi J. Coronavirus fears for Kimberley as two more healthcare workers test positive for COVID-19. ABC News [Internet]. 2020 Apr 9 [cited 2024 Dec 3]; Available from: https://www.abc.net.au/news/2020-04-09/kimberley-coronavirus-fears-as-more-health-workers-positive/12137044
123. Van Aken E. Kimberley COVID-19 cases double overnight. The Kimberley Echo [Internet]. 2020 Apr 1 [cited 2024 Dec 3]; Available from: https://www.kimberleyecho.com.au/news/the-kimberley-echo/kimberley-covid-19-cases-double-overnight-ng-b881507160z
124. Yura Yungi Medical Service Aboriginal Corporation. PLEASE STAY SAFE PEOPLE... STAY HOME!! [Internet]. Facebook. 2020 [cited 2024 Dec 3]. Available from: https://www.facebook.com/photo/?fbid=3676252695750384&set=a.2794327963942866
125. NACCHO. Tens of thousands train in contact tracing for the bush [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.naccho.org.au/tens-of-thousands-train-in-contact-tracing-for-the-bush/
126. Department of Health and Aged Care, Australian Government. National Contact Tracing Review, A report for National Cabinet. 2020 Nov;
127. Government of Western Australia. Mandatory COVID-19 isolation removed for positive cases and close contacts [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.wa.gov.au/government/announcements/mandatory-covid-19-isolation-removed-positive-cases-and-close-contacts
128. Turner R. WA Police have enjoyed extraordinary powers amid the coronavirus crisis. But will they last? ABC News [Internet]. 2020 Aug 24 [cited 2024 Dec 3]; Available from: https://www.abc.net.au/news/2020-08-25/wa-police-powers-widen-for-coronavirus-crisis-but-will-they-last/12584176
129. Government of Western Australia. COVID-19 isolation requirements to change [Internet]. 2022 [cited 2024 Dec 3]. Available from: https://www.wa.gov.au/government/announcements/covid-19-isolation-requirements-change
130. Carmody J. Mark McGowan says WA COVID spread means new quarantine rules will kick in Tuesday. ABC News [Internet]. 2022 Feb 7 [cited 2024 Dec 3]; Available from: https://www.abc.net.au/news/2022-02-07/mark-mcgowan-unveils-new-covid-isolation-rules-wa/100811220
131. Western Australia to slash quarantine period for those with COVID-19 and close contacts. SBS News [Internet]. 2022 Feb 7 [cited 2024 Dec 3]; Available from: https://www.sbs.com.au/news/article/western-australia-to-slash-quarantine-period-for-those-with-covid-19-and-close-contacts/wx47h5rzq
132. McLean K, Burton W. NewsGP. 2020 [cited 2024 Dec 3]. So you have been asked to self-isolate or quarantine. What now? Available from: https://www1.racgp.org.au/newsgp/gp-opinion/so-you-have-been-asked-to-self-isolate-or-quaranti
133. Yura Yungi Medical Service Aboriginal Corporation. Isolation guide [Internet]. Facebook. 2022 [cited 2024 Dec 3]. Available from: https://www.facebook.com/photo/?fbid=7248933338482284&set=a.2786853308023665
134. Healthdirect Australia. How and where to isolate [Internet]. Healthdirect Australia; 2023 [cited 2023 Nov 23]. Available from: https://www.healthdirect.gov.au/covid-clarity/isolating
135. Hayes J. Rising COVID-19 cases and overcrowded housing putting remote Aboriginal communities at risk. ABC News [Internet]. 2022 Mar 27 [cited 2024 Oct 24]; Available from: https://www.abc.net.au/news/2022-03-27/remote-communities-wa-covid-19-cases-rise-overcrowding-isolation/100942312
136. BHP. Pilbara News [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.bhp.com/news/articles/2020/07/-/media/publishing-author-media/pilbarra-newsletter-issue-4-1062020.pdf
137. BHP. Community Development Report [Internet]. Pilbara; 2020 [cited 2024 Dec 6]. Available from: https://www.bhp.com/-/media/documents/media/reports-and-presentations/2020/201125_bhp_waio_community-development-report_fy2020.pdf
138. Brennan B, Wellauer K. Omicron rips through remote Aboriginal communities, as leaders say governments' COVID response 'too late'. ABC News [Internet]. 2022 Feb 4 [cited 2024 Dec 3]; Available from: https://www.abc.net.au/news/2022-02-04/omicron-covid-19-infects-aborignal-communities/100802744
139. Unicef. Handwashing with soap, critical in the fight against coronavirus, is 'out of reach' for billions [Internet]. 2020 [cited 2024 Dec 3]. Available from: https://www.unicef.org/eap/press-releases/handwashing-soap-critical-fight-against-coronavirus-out-reach-billions-unicef
140. Stanford E, Taylor H. Pursuit | University of Melbourne. 2020 [cited 2024 Dec 3]. Schools must provide soap to maintain basic hygiene. Available from: https://pursuit.unimelb.edu.au/articles/schools-must-provide-soap-to-maintain-basic-hygiene

CHAPTER 3 REFERENCES

1. Aboriginal Health Council of Western Australia. About Us [Internet]. Aboriginal Health Council of Western Australia. [cited 2024 Sep 26]. Available from: https://www.ahcwa.org.au/about-us/
2. Australian Institute of Health and Welfare. Aboriginal and Torres Strait Islander specific primary health care: results from the OSR and nKPI collections, Data [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.aihw.gov.au/reports/first-nations-people/indigenous-primary-health-care-results-osr-nkpi/data
3. Australian Commission on Safety and Quality in Health Care. Infection prevention and control [Internet]. 2024 [cited 2024 Sep 26]. Available from: https://www.safetyandquality.gov.au/our-work/infection-prevention-and-control
4. McAllister J. 'If COVID-19 gets into our communities, we are gone': Indigenous leaders'. ABC News [Internet]. 2020 Mar 20 [cited 2024 Sep 26]; Available from: https://www.abc.net.au/news/2020-03-20/dire-warning-on-coronavirus-for-indigenous-communities/12076420
5. Australian Government Department of Health and Aged Care. Guidance on the use of personal protective equipment (PPE) for health care workers in the context of COVID-19 [Internet]. Australian Government Department of Health and Aged Care; 2022 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/resources/publications/guidance-on-the-use-of-personal-protective-equipment-ppe-for-health-care-workers-in-the-context-of-covid-19?language=en
6. Aboriginal Health Council of Western Australia. AHCWA coronavirus (COVID-19) response toolkit for member services [Internet]. Perth: Aboriginal Health Council of Western Australia; 2020 Mar [cited 2024 Sep 26]. Available from: https://wacoss.org.au/wp-content/uploads/2020/03/AHCWA-COVID-19-Response-Plan-Toolkit.pdf
7. WAPHA [Internet]. [cited 2024 Sep 26]. WA Primary Health Alliance. Available from: https://www.wapha.org.au/
8. BHP. A boost for Indigenous communities to combat COVID-19 [Internet]. 2021 [cited 2024 Sep 26]. Available from: https://www.bhp.com/news/articles/2021/12/a-boost-for-indigenous-communities-to-combat-covid-19
9. Australian Government Department of Health. Primary Care - Respiratory Clinics (Fact sheet COVID-19 National Health Plan) [Internet]. 2020 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/03/covid-19-national-health-plan-primary-health-respiratory-clinics.pdf
10. South West Aboriginal Medical Service. We are still open! We just ask that you call first on 9726 6000. [Internet]. Facebook. 2020 [cited 2024 Sep 27]. Available from: https://www.facebook.com/photo/?fbid=12910707544148528set=a.186071778248094
11. Australian Government Department of Health. National Aboriginal and Torres Strait Islander Health Workforce Strategic Framework and Implementation Plan 2021-2031 [Internet]. 2022 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/national-aboriginal-and-torres-strait-islander-health-workforce-strategic-framework-and-implementation-plan-2021-2031.pdf
12. Communicable Disease Control Directorate. Communicable Disease Control Directorate Guideline: Respiratory Protection Guidelines for Western Australian Healthcare Facilities [Internet]. Perth: Department of Health Western Australia; 2023 Jul [cited 2024 Sep 26]. Report No.: 0011. Available from: https://www.health.wa.gov.au/~/media/Corp/Policy-Frameworks/Public-Health/Personal-Protective-Equipment-in-Healthcare-Facilities-Policy/Supporting/Respiratory-Protection-Guidelines-for-WA-Healthcare-Facilities.pdf
13. Jenkins S. The Mandarin. 2020 [cited 2023 Nov 23]. WA introduces 'COVID-19 leave' for public servants. Available from: https://www.themandarin.com.au/127570-wa-introduces-covid-19-leave-for-public-servants/
14. Desborough J, Hall Dykgraaf S, Toca L, Davis S, Roberts L, Kelaher C, et al. Australia's national COVID-19 primary care response. Med J Aust. 2020 Aug;213(3):104.
15. The West Australian [Internet]. 2021 [cited 2023 Nov 23]. Telehealth helps improve care for remote areas. Available from: https://thewest.com.au/news/kalgoorlie-miner/telehealth-helps-improve-health-care-for-remote-town-after-covid-19-interrupts-fifo-medical-services-ng-b881882159z

16. East Metropolitan Health Service. East Metropolitan Health Service Annual Report 2022-23. Perth: Government of Western Australia; 2023 Oct p. 96–7.
17. Commonwealth of Australia. Indigenous Digital Inclusion Plan - Discussion paper - September 2021. 2021 Sep; Available from: https://www.niaa.gov.au/sites/default/files/publications/indigenous-digital-inclusion-plan-discussion-paper.pdf
18. South West Aboriginal Medical Service. 2019/2020 Annual Report [Internet]. Noongar Boodjar: South West Aboriginal Medical Service; 2020 p. 12–3. Available from: https://www.swams.com.au/wp-content/uploads/2020/12/SWAMS-2019-20-Annual-Report-FINAL-DRAFT-with-BLEED.pdf
19. Bega Garnbirringu Health Service. Our Social Support Team ready to deliver meals to our clients in isolation. [Internet]. Facebook. 2022 [cited 2024 Sep 27]. Available from: https://www.facebook.com/BegaGarnbirringu/photos/pb.100063680235602.-2207520000/4962368913800462/?type=3
20. Besson W, Aboriginal Health Council of Western Australia. Scared to go to the doctor? [Internet]. 2020 [cited 2024 Sep 27]. Available from: https://www.facebook.com/AHCWA/photos/a.261307820729076/1333673446825836/?type=3&source=57&_rdr
21. National Centre for Immunisation Research and Surveillance (NCIRS). Influenza Vaccination Coverage Data. 2024 [cited 2024 Sep 26]. Aboriginal and Torres Strait Islander people: 2020–2024 (YTD) | NCIRS. Available from: https://ncirs.org.au/influenza-vaccination-coverage-data/aboriginal-and-torres-strait-islander-people-2020-2024-ytd
22. AusVaxSafety. COVID-19 vaccines | AusVaxSafety. 2022 [cited 2024 Sep 26]. COVID-19 vaccines | AusVaxSafety. Available from: https://ausvaxsafety.org.au/vaccine-safety-data/covid-19-vaccines

CHAPTER 4 REFERENCES

1. Gillespie, James A., Buchanan, Gene, Schneider, Carmen H., Paolucci, Francesco. Covid 19 Vaccines and the Australian health care state. Health Policy Technol. 2022 Jun;11(2):100607.
2. Australian Government Department of Health and Aged Care. Australian Government Department of Health and Aged Care. Australian Government Department of Health and Aged Care; 2021 [cited 2023 Nov 24]. ATAGI statement on AstraZeneca vaccine in response to new vaccine safety concerns. Available from: https://www.health.gov.au/news/atagi-statement-on-astrazeneca-vaccine-in-response-to-new-vaccine-safety-concerns
3. Fahrni ML, Ismail IAN, Refi DM, Almeman A, Yaakob NC, Saman KM, et al. Management of COVID-19 vaccines cold chain logistics: a scoping review. J Pharm Policy Pract. 2022 Mar 2;15(1):16.
4. Australian Government Operation COVID Shield. COVID-19 Vaccine Roll-out [Internet]. 2022 [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/covid-19-vaccine-rollout-update-15-march-2022.pdf
5. Dudgeon P, Collova JR, Derry K, Sutherland S. Lessons Learned during a Rapidly Evolving COVID-19 Pandemic: Aboriginal and Torres Strait Islander-Led Mental Health and Wellbeing Responses Are Key. Int J Environ Res Public Health. 2023 Jan 25;20(3):2173.
6. Government of Western Australia. Review of Western Australia's COVID-19 Management and Response [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2023-08/reviewofwascovid19managementandresponseaccessible.pdf
7. European Centre for Disease Control. Infographic: COVID-19 vaccination in the EU/EEA as of 6 March 2022 [Internet]. 2022 [cited 2024 Aug 15]. Available from: https://www.ecdc.europa.eu/en/publications-data/infographic-covid-19-vaccination-eueea
8. Bloomfield LE, Ngeh S, Cadby G, Hutcheon K, Effler PV. SARS-CoV-2 Vaccine Effectiveness against Omicron Variant in Infection-Naive Population, Australia, 2022. Emerg Infect Dis [Internet]. 2023 Jun [cited 2023 Nov 24];29(6). Available from: https://wwwnc.cdc.gov/eid/article/29/6/23-0130_article
9. Australian Government. Australian COVID-19 Vaccination Policy [Internet]. [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/12/covid-19-vaccination-australian-covid-19-vaccination-policy.pdf
10. Australian Government. Australia's COVID-19 vaccine national rollout strategy [Internet]. [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2021/01/covid-19-vaccination-australia-s-covid-19-vaccine-national-roll-out-strategy.pdf
11. Australian Technical Advisory Group on Immunisation (ATAGI). ATAGI – Preliminary advice on general principles to guide the prioritisation of target populations in a COVID-19 vaccination program in Australia [Internet]. [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/11/atagi-preliminary-advice-on-general-principles-to-guide-the-prioritisation-of-target-populations-in-a-covid-19-vaccination-program-in-australia_0.pdf
12. Australian Government and the Western Australian Government. Western Australia COVID-19 Vaccination Program Implementation Plan - agreement between the Australian Government and the Western Australian Government [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2021-04/wa_vaccine_plan.pdf
13. Australian Government. COVID-19 Vaccination Program Implementation Plan: Aboriginal and Torres Strait Islander Peoples [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2021/03/covid-19-vaccination-program-aboriginal-and-torres-strait-islander-peoples-implementation-plan.pdf
14. Administration (TGA) TG. COMIRNATY | Therapeutic Goods Administration (TGA) [Internet]. Therapeutic Goods Administration (TGA); 2022 [cited 2023 Nov 24]. Available from: https://www.tga.gov.au/resources/auspmd/comirnaty
15. Australian Government Department of Health and Aged Care. Australian Government Department of Health and Aged Care. Australian Government Department of Health and Aged Care; 2021 [cited 2023 Nov 24]. Phase 1B COVID-19 vaccination rollout begins. Available from: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/phase-1b-covid-19-vaccination-rollout-begins
16. Queensland Health. COVID-19 Vaccination Training Module 2A Storage and handling of the Oxford-AstraZeneca COVID-19 Vaccine [Internet]. [cited 2023 Nov 24]. Available from: https://www.health.qld.gov.au/__data/assets/pdf_file/0012/1046100/covid-training-module-2a.pdf
17. Therapeutic Goods Administration (TGA). TGA provisionally approves AstraZeneca's COVID-19 vaccine [Internet]. Therapeutic Goods Administration (TGA); 2022 [cited 2023 Nov 24]. Available from: https://www.tga.gov.au/news/media-releases/tga-provisionally-approves-astrazenecas-covid-19-vaccine
18. World Health Organization. Training on handling, storage and transporting Pfizer-BioNTech COVID-19 mRNA Vaccine COMIRNATY (Tozinameran) [Internet]. 2023 [cited 2023 Nov 24]. Available from: https://www.who.int/publications/m/item/training-on-handling--storing-and-transporting-pfizer-biontech-covid-19-mrna-vaccine-comirnaty--(tozinameran)
19. Ashton K. Phase 1b of COVID-19 vaccine rollout now includes more Aboriginal people. ABC News [Internet]. 2021 Mar 12 [cited 2024 Aug 14]; Available from: https://www.abc.net.au/news/2021-03-12/more-aboriginal-australians-included-in-phase-1b-vaccine-rollout/13242716
20. Ramsey M. The West Australian. 2021 [cited 2023 Nov 24]. Vaccines underway in remote WA communities. Available from: https://thewest.com.au/news/coronavirus/vaccines-underway-in-remote-wa-communities-c-2475037
21. Morrison S. National Cabinet Statement - 22 April 2021 [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://nswliberal.org.au/news/national-cabinet-statement-22-april-2021
22. Government of Western Australia Department of Health. PHEOC Bulletin #63 [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-PHEOC-Bulletin-63.pdf
23. Royal Flying Doctor Service. Managing cold-chain vaccines in remote WA [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.flyingdoctor.org.au/wa/news/engineering-ingenuity/
24. Government of Western Australia. Roll up for COVID-10 vaccinations at Joondalup [Internet]. 2021. Available from: https://www.wa.gov.au/government/announcements/roll-covid-19-vaccinations-joondalup
25. Therapeutic Goods Administration (TGA). TGA approves more flexible storage conditions for Pfizer-BioNTech COVID-19 vaccine | Therapeutic Goods Administration (TGA) [Internet]. Therapeutic Goods Administration (TGA); 2022 [cited 2023 Nov 24]. Available from: https://www.tga.gov.au/news/news/tga-approves-more-flexible-storage-conditions-pfizer-biontech-covid-19-vaccine
26. Therapeutic Goods Administration (TGA). Wider storage and transportation conditions for the Pfizer COVID-19 vaccine now approved | Therapeutic Goods Administration (TGA) [Internet]. Therapeutic Goods Administration (TGA); 2022 [cited 2023 Nov 24]. Available from: https://www.tga.gov.au/news/media-releases/wider-storage-and-transportation-conditions-pfizer-covid-19-vaccine-now-approved

27. Gubana B. ABC News. 2021 [cited 2023 Nov 24]. When, where and how you can get the COVID-19 vaccine in Western Australia. Available from: https://www.abc.net.au/news/2021-06-08/wa-explainer-when-and-where-can-i-get-the-vaccine/100199156
28. Royal Flying Doctor Service. Royal Flying Doctor Service. 2021 [cited 2023 Nov 24]. RFDS takes vaccines to Ngaanyatjarra Lands in Western Australia. Available from: https://www.flyingdoctor.org.au/wa/news/rfds-takes-vaccines-ngaanyatjarra-lands-western-australia/
29. Kidd M, Toca L de. The contribution of Australia's general practitioners to the COVID-19 vaccine rollout. Aust J Gen Pract. 2021 Dec;50(12):871–2.
30. Allam L, Evershed N. The Guardian. 2021 [cited 2023 Nov 24]. Gap between Indigenous Covid vaccination rates and overall population widens in almost every state | Indigenous Australians. Available from: https://www.theguardian.com/australia-news/2021/aug/25/gap-between-indigenous-covid-vaccination-rates-and-overall-population-widens-in-almost-every-state
31. Government of Western Australia. COVID-19 Vaccine Commander appointed for WA [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.wa.gov.au/government/announcements/covid-19-vaccine-commander-appointed-wa
32. Inside Local Government. WA appoints vaccine commander - Inside Local Government [Internet]. 2021 [cited 2024 Aug 14]. Available from: https://insidelocalgovernment.com.au/wa-appoints-vaccine-commander/
33. Law P. Perthnow. 2021 [cited 2023 Nov 24]. WA's COVID-19 vaccination rollout set for 'blitz' with 140,000 doses for people in their 30s. Available from: https://www.perthnow.com.au/news/coronavirus/was-covid-19-vaccination-rollout-set-for-blitz-with-140000-doses-for-people-in-their-30s-ng-b881954890z
34. Government of Western Australia Department of Health. COVID-19 update 16 August 2021 [Internet]. [cited 2025 Apr 28]. Available from: https://www.health.wa.gov.au/Media-releases/2021/COVID-19-update-16-August-2021
35. Government of Western Australia Department of Health. PHEOC Bulletin #79 [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-PHEOC-Bulletin-79.pdf
36. Australian National Audit Office. Australia's COVID-19 Vaccine Rollout [Internet]. 2022 [cited 2023 Dec 11]. Available from: https://www.anao.gov.au/work/performance-audit/australia-covid-19-vaccine-rollout
37. Australian Government Department of Health and Aged Care. Australian Government Department of Health and Aged Care. Australian Government Department of Health and Aged Care; 2021 [cited 2023 Nov 24]. COVID-19 vaccination – Video – The Vaxathon in Derby, Western Australia, to help protect the most vulnerable from COVID-19. Available from: https://www.health.gov.au/resources/videos/covid-19-vaccination-video-the-vaxathon-in-derby-western-australia-to-help-protect-the-most-vulnerable-from-covid-19?language=en
38. Hendry G. Broome Advertiser. 2021 [cited 2023 Nov 24]. Huge number of residents roll up for Broome vaxathon. Available from: https://www.broomead.com.au/news/broome-advertiser/health-leaders-celebrate-huge-turnout-at-broomes-covid-19-vaxathon-ng-b881998515z
39. Department of Health, Western Australia. Keeping Culture Safe and Strong: Vaccination Focus [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.health.wa.gov.au/News/2021/Keeping-Culture-Safe-and-Strong
40. WA Goverment. Keeping Culture Safe and Strong: Vaccination Focus [Internet]. 2021 [cited 2025 Apr 28]. Available from: https://www.health.wa.gov.au/News/2021/Keeping-Culture-Safe-and-Strong
41. Office of the Auditor General. WA's COVID-19 Vaccine Roll-out [Internet]. 2021 [cited 2024 Aug 15]. Available from: https://audit.wa.gov.au/reports-and-publications/reports/was-covid-19-vaccine-roll-out/
42. Geraldton Regional Aboriginal Medical Service. GRAMS team rolls up their sleeves for WA [Internet]. Facebook. 2021 [cited 2024 Oct 7]. Available from: https://www.facebook.com/GRAMSmob/photos/pb.100049737735058.-2207520000/436838221652631O/?type=3
43. Kimberley Aboriginal Medical Services. Thanks to everyone in Beagle Bay that came to our community info session. Some truly great questions and discussion about the COVID-19 Vaccine Rollout... [Internet]. Facebook. 2021 [cited 2024 Oct 7]. Available from: https://www.facebook.com/photo/?fbid=271892931143672&set=pb.100057308895700.-2207520000
44. Derby Aboriginal Health Service. Check out the DAHS Chairperson Tara receiving her COVID-19 vaccination... [Internet]. Facebook. [cited 2024 Oct 7]. Available from: https://www.facebook.com/DerbyAboriginalHealthService/photos/pb.100042845117407.-2207520000/309490527359900/?type=3
45. Get vaccinated against COVID-19 [Internet]. Broome; 2021 [cited 2024 Oct 15]. Available from: https://vimeo.com/583704006
46. Department of Health, Western Australia. Keeping Culture Safe and Strong: Vaccination Focus [Internet]. 2021 [cited 2023 Nov 24]. Available from: https://www.health.wa.gov.au/News/2021/Keeping-Culture-Safe-and-Strong
47. Aboriginal Health Council of WA. COVID-19 Resources [Internet]. 2020 [cited 2024 Nov 28]. Available from: https://www.ahcwa.org.au/covid-19
48. Park E, Lynch J. Elders, church work to exorcise 'vaccine is Satan' rumours from the outback. ABC News [Internet]. 2021 Sep 5 [cited 2025 Feb 25]; Available from: https://www.abc.net.au/news/2021-09-06/anti-vacc-church-speaks-out-against-misinformation/100430208
49. Wahlquist C. Aboriginal health service asks Kimberley churches to counter Covid vaccine misinformation | Indigenous Australians | The Guardian [Internet]. 2021 [cited 2025 Feb 25]. Available from: https://www.theguardian.com/australia-news/2021/sep/03/aboriginal-health-service-asks-kimberley-churches-to-counter-covid-vaccine-misinformation
50. 'Christianity is not based on fear': Meet the Indigenous pastor trying to dispel vaccine myths. ABC News [Internet]. 2021 Jul 4 [cited 2025 Feb 25]; Available from: https://www.abc.net.au/news/2021-07-04/indigenous-covid-vaccine-pastor/100263770
51. Kimberley Aboriginal Medical Services. A Vaxathon message from KAMS CEO... [Internet]. Facebook. 2021 [cited 2024 Oct 7]. Available from: https://www.facebook.com/photo/?fbid=387236999609264&set=a.106379291028371
52. Therapeutic Goods Administration (TGA). Therapeutic Goods advertising compliance annual report 2020-2021 [Internet]. 2021 [cited 2024 Aug 15] p. 8. Available from: https://www.tga.gov.au/how-we-regulate/advertising/reports-and-consultations/advertising-compliance-annual-reports
53. Therapeutic Goods Administration (TGA). Promotion of COVID-19 vaccinations: further information for healthcare practitioners and other advertisers [Internet]. 2022 [cited 2024 Aug 15]. Available from: https://www.tga.gov.au/news/media-releases/promotion-covid-19-vaccinations-further-information-healthcare-practitioners-and-other-advertisers
54. Derbarl Yerrigan Health Service. Derbarl Yerrigan Health Service. 2022 [cited 2023 Nov 24]. Derbarl VAXATHON is Back! Available from: https://www.dyhs.org.au/blog/derbarl-vaxathon-is-back/
55. Australian Government. Australian Institute of Health and Welfare. 2024 [cited 2024 Oct 7]. Australian Immunisation Register de-identified data collection. Available from: https://www.aihw.gov.au/about-our-data/our-data-collections/australian-immunisation-register-de-identified-dat
56. Australian Government Department of Health and Aged Care. Mandatory reporting of National Immunisation Program vaccines to the Australian Immunisation Register began on 1 July 2021 [Internet]. 2024 [cited 2024 Oct 7]. Available from: https://www.health.gov.au/news/mandatory-reporting-of-national-immunisation-program-vaccines-to-the-australian-immunisation-register-began-on-1-july-2021
57. Laschon Firth, Eliza E. Western Australia to reopen border early next year, as COVID-19 roadmap released. ABC News [Internet]. 2021 Nov 5 [cited 2023 Dec 11]; Available from: https://www.abc.net.au/news/2021-11-05/mark-mcgowan-announces-western-australias-covid-19-roadmap/100594238
58. Puntukurnu Aboriginal Medical Services. Well done to everyone who... [Internet]. Facebook. [cited 2024 Oct 7]. Available from: https://www.facebook.com/PuntukurnuAboriginalMedicalService/posts/pfbid0eysvzyUzeCNYguTTdoC5dc7UaePcZpTmAXk9mgURVgssTnCc2daRpgsftmhReR8Fl
59. National Centre for Immunisation Research and Surveillance (NCIRS). Enhancing data quality of vaccination encounters recorded in practice software and on AIR- tips and tricks [Internet]. 2020 [cited 2023 Dec 11]. Available from: https://ncirs.org.au/sites/default/files/2020-06/Enhancing%20data%20quality%20of%20vaccination%20encounters%20recorded%20in%20practice%20software%20and%20on%20AIR_FINAL_June2020.pdf
60. Bega Garnbirringu Health Service. COVID-19 Vaccination Clinic Poster [Internet]. Facebook. 2021 [cited 2024 Oct 7]. Available from: https://www.facebook.com/photo/?fbid=4477503288953696&set=a.2235178103186237
61. Home | AusVaxSafety [Internet]. 2022 [cited 2023 Dec 11]. Available from: https://ausvaxsafety.org.au/

62. National Centre for Immunisation Research and Surveillance (NCIRS). National Centre for Immunisation Research and Surveillance | NCIRS [Internet]. 2022 [cited 2023 Dec 11]. Available from: https://ncirs.org.au/
63. AusVaxSafety. COVID-19 vaccines [Internet]. 2024 [cited 2024 Sep 26]. Available from: https://ausvaxsafety.org.au/vaccine-safety-data/covid-19-vaccines
64. Vaxtracker. About Vaxtracker [Internet]. 2023 [cited 2023 Dec 11]. Available from: https://www.vaxtracker.net/
65. Commonwealth of Australia. AusVaxSafety COVID-19 vaccine surveillance summary report 2021 [Internet]. 2021 [cited 2023 Dec 11]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/09/ausvaxsafety-covid-19-vaccine-surveillance-summary-report-2021_0.pdf
66. Australian Government Department of Health and Aged Care. COVID-19 vaccine rollout update – 1 September 2021 [Internet]. 2021 [cited 2024 Oct 7]. Available from: https://www.health.gov.au/resources/publications/covid-19-vaccine-rollout-update-1-september-2021?language=en
67. Australian Government Operation COVID Shield. COVID-19 Vaccine Roll-out [Internet]. 2022 [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/covid-19-vaccination-local-government-area-lga-7-march-2022.pdf
68. Australian Government Department of Health and Aged Care. COVID-19 vaccination – Geographic vaccination rates – LGA [Internet]. 2023 [cited 2023 Dec 11]. Available from: https://www.health.gov.au/resources/collections/covid-19-vaccination-geographic-vaccination-rates-lga
69. NACCHO. Boosting COVID-19 Vaccination Support for Indigenous Australians [Internet]. NACCHO. 2021 [cited 2024 Oct 7]. Available from: https://www.naccho.org.au/boosting-covid-19-vaccination-support-for-indigenous-australians/
70. The Guardian. Aboriginal health groups fear 'big gaps' in vaccine coverage are being hidden by lack of data. [cited 2024 Oct 7]; Available from: https://www.theguardian.com/australia-news/2021/aug/05/aboriginal-health-groups-fear-big-gaps-in-vaccine-coverage-are-being-hidden-by-lack-of-data
71. Martin S. Australia to boost Indigenous Covid vaccinations as bungled Victorian figures corrected. The Guardian [Internet]. 2021 Sep 13 [cited 2024 Oct 7]; Available from: https://www.theguardian.com/australia-news/2021/sep/14/morrison-government-unveils-plan-to-boost-covid-vaccination-rates-in-indigenous-communities
72. Briggs C, Truu M. Indigenous vaccination rates are well behind the overall average in most parts of Australia, but one region is bucking the trend. ABC News [Internet]. 2021 Sep 4 [cited 2024 Oct 7]; Available from: https://www.abc.net.au/news/2021-09-04/indigenous-covid19-vaccination-rates-behind-national-average/100432238
73. Woodley M. Vaccination gap: Vulnerable communities left exposed as Omicron threatens [Internet]. 2022 [cited 2024 Oct 7]. Available from: https://www1.racgp.org.au/newsgp/clinical/vaccination-gap-vulnerable-communities-left-expose
74. Australian Government Operation COVID Shield. COVID-19 Vaccine Roll-out: Indigenous data [Internet]. 2022 [cited 2023 Nov 24]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/covid-19-vaccination-local-government-area-lga-indigenous-population-9-march-2022_0.pdf
75. National Centre for Immunisation Research and Surveillance (NCIRS). Annual Immunisation Coverage Report 2021 [Internet]. 2022 [cited 2023 Dec 11]. Available from: https://ncirs.org.au/sites/default/files/2022-12/NCIRS%20Annual%20Immunisation%20Coverage%20Report%202021_FINAL.pdf
76. Hull B, Hendry A, Dey A, Brotherton J, Macartney K, Beard F. Annual Immunisation Coverage Report 2021 [Internet]. Westmead: National Centre for Immunisation Research and Surveillance; 2022 Nov [cited 2023 May 25]. Available from: https://ncirs.org.au/sites/default/files/2022-12/NCIRS%20Annual%20Immunisation%20Coverage%20Report%202021_FINAL.pdf
77. Porter M. Illawarra Mercury. 2022 [cited 2024 Oct 7]. Aboriginal pop-up vaccination clinics aim to close gap in Wollongong. Available from: https://www.illawarramercury.com.au/story/7605438/aboriginal-pop-up-vaccination-clinics-aim-to-close-gap-in-wollongong/
78. Australian Government. Local Government Area (LGA) COVID-19 Vaccine Rates [Internet]. 2022 [cited 2023 Dec 11]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/covid-19-vaccination-local-government-area-lga-7-march-2022.pdf
79. de Kruijff P. WA's Indigenous vaccination rate the worst in Australia [Internet]. 2022 [cited 2023 Dec 11]. Available from: https://www.watoday.com.au/national/western-australia/wa-s-indigenous-vaccination-rate-the-worst-in-australia-20220117-p59osk.html
80. Western Australia to reopen border early next year, as COVID-19 roadmap released. ABC News [Internet]. 2021 Nov 5 [cited 2023 Dec 11]; Available from: https://www.abc.net.au/news/2021-11-05/mark-mcgowan-announces-western-australias-covid-19-roadmap/100594238
81. Sinclair S. The Kimberley Echo. 2021 [cited 2023 Dec 11]. Walk-ins invited to Kununurra Vaxathon to boost East Kimberley COVID-19 vaccination rates | The Kimberley Echo. Available from: https://www.kimberleyecho.com.au/news/the-kimberley-echo/walk-ins-invited-to-kununurra-vaxathon-to-boost-east-kimberley-covid-19-vaccination-rates-ng-b882013498z
82. Kimberley Aboriginal Medical Services. Beagle Bay - the first remote community in WA to roll out COVID-19 vaccines... [Internet]. Forum. 2021 [cited 2024 Oct 7]. Available from: https://www.facebook.com/photo/?fbid=418775036455460&set=a.106379291028371

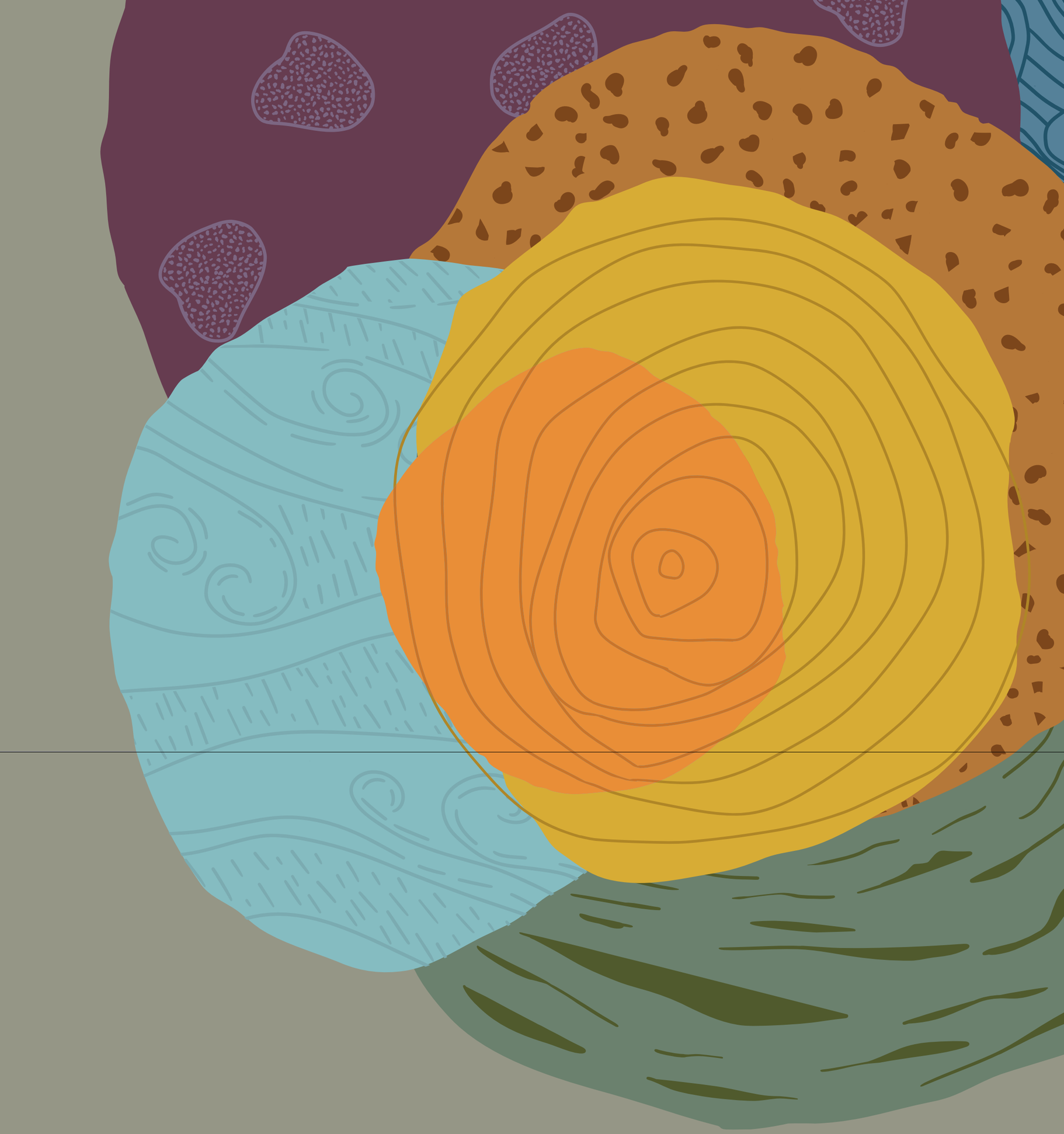
CHAPTER 5 REFERENCES

1. Doherty B. Coronavirus: three cases in NSW and one in Victoria as infection reaches Australia. The Guardian [Internet]. 2020 Jan 25 [cited 2024 Mar 6]; Available from: https://www.theguardian.com/science/2020/jan/25/coronavirus-five-people-in-nsw-being-tested-for-deadly-disease
2. Australian Government Department of Health. Novel coronavirus 2019 (COVID-19) Health Situation Report. 2022.
3. Department of Health, Western Australia. Aboriginal Sector Communication Update #35 [Internet]. 2022 [cited 2024 Mar 6]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Aboriginal-Sector-Communications-Update-35.pdf
4. Wilde T. ABC News. 2024 [cited 2024 Mar 6]. Confirmed WA COVID-19 cases have risen sharply since late December. Available from: https://datawrapper.dwcdn.net/cQg4R/415/?abcnewsembedheight=500&dark=false
5. Robertson A. Chief Health Officer Advice - Changes to Public Health and Social Measures [Internet]. 2022 [cited 2024 Mar 6]. Available from: https://www.wa.gov.au/system/files/2022-03/CHO-HA-240322.pdf
6. Department of Health, Western Australia. Aboriginal Sector Communication Update #36 [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://mailchi.mp/health/wa-covid-19-aboriginal-sector-communication-update-36
7. Department of Health, Western Australia. Outbreak declared in remote Aboriginal community [Internet]. 2022 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/Media-releases/2022/COVID-19-update-20-February-2022-Outbreak-declared-in-remote-Aboriginal-community
8. Aboriginal Health Policy Directorate, Department of Health Western Australia. Insights on Omicron waves among Aboriginal Australians 22 March 2022 [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://mcusercontent.com/8c1faff2771a21e8e1d084363/files/06bcde20-2ddc-10d9-7c22-253e111fa6b2/Insights_on_Omicron_waves_among_Aboriginal_Australians_22_March_2022.pdf
9. Carmody J, Weber D. WA border opening date is March 3, as Mark McGowan announces new COVID restrictions. ABC News [Internet]. 2022 Feb 18 [cited 2024 Oct 21]; Available from: https://www.abc.net.au/news/2022-02-18/mark-mcgowan-announces-wa-border-update/100843126
10. Department of Health, Western Australia. COVID-19 update 1 March 2022 [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://www.health.wa.gov.au/Media-releases/2022/COVID-19-update-1-March-2022
11. Department of Health, Western Australia. COVID-19 update State-wide hospital alert system moves to 'red' as part of COVID-19 response [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://www.health.wa.gov.au/Media-releases/2022/March/COVID-19-update-Statewide-hospital-alert-system-moves-to-red-as-part-of-COVID19-response
12. Thompson H, Hastie H, Milne P. WA border to reopen March 3: Mark McGowan opens state's border, says 'four weeks of caution has paid dividends' [Internet]. 2022 [cited 2024 Mar 6]. Available from: https://www.watoday.com.au/politics/western-australia/wa-records-nearly-200-local-cases-as-testing-figures-surge-20220218-p59xs1.html
13. State Health Incident Coordination Centre (SHICC), Department of Health, WA. COVID-19 guidelines for healthcare practices in the community in a high and very high caseload environment [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://global-uploads.webflow.com/60f65947aae4a4671fc56069/

621f013117ecd5654367caa2_COVID19-guidelines-for-health-care-practices-in-the-community.pdf

14. Netball Western Australia. Contact Tracing Clubs & Associations [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://wa.netball.com.au/sites/wa/files/2022-03/Contact%20Tracing%20Clubs%20%26%20Associations%20-%204%20March%202022.pdf
15. Department of Health, Western Australia. COVID-19 Weekly Surveillance Report Summary for the week 09 January to 15 January (inclusive) [Internet]. 2023 [cited 2024 Mar 6]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/Weekly-surveillance-report/COVID-19-Weekly-Surveillance-report-09-January-15-January-2023.pdf
16. Australian Government Department of Health. Impact of COVID-19 in remote and regional settings: Theoretical modelling of how the health system can respond [Internet]. 2020 Aug [cited 2024 Oct 21]. Available from: https://www.health.gov.au/sites/default/files/documents/2020/08/impact-of-covid-19-in-remote-and-regional-settings.pdf
17. Aboriginal Health Council of Western Australia. About Us - Aboriginal Community Controlled Model of Care [Internet]. AHCWA. 2023 [cited 2023 Jul 12]. Available from: https://www.ahcwa.org.au/about-us/
18. Robertson DA. Controlled Border Transtion Arrangements [Internet]. 2022 [cited 2024 Oct 21]. Available from: https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4110962ab5ec94f81cc6dc1f482587f20004f24a/$file/tp+962+(2022).pdf
19. Broome Regional Aboriginal Medical Service. Annual Report 2021 - 2022 [Internet]. Yawuru Country; 2022 [cited 2024 Mar 6] p. 19. Available from: https://www.brams.org.au/wp-content/uploads/BRAMS_AR_2021-2022-LR-S.pdf
20. WA Police Force [@WA_Police]. The 13COVID public information line registered a significant milestone this weekend as it celebrated two years of operation. Since 3 April 2020, the online call centre has received more than 1.3 million calls on a wide variety of topics related to the COVID-19 pandemic. https://t.co/o8xwcePtuO [Internet]. Twitter. 2022 [cited 2024 Oct 21]. Available from: https://x.com/WA_Police/status/1511188037992017923
21. Government of Western Australia. Review of Western Australia's COVID-19 Management and Response [Internet]. 2023 [cited 2023 Nov 23]. Available from: https://www.wa.gov.au/system/files/2023-08/reviewofwascovid19managementandresponseaccessible.pdf
22. Derbarl Yerrigan Health Service. Derbarl COVID Care [Internet]. Facebook. 2022 [cited 2024 Oct 21]. Available from: https://www.facebook.com/derbarlyerriganhealth/photos/pb.100063767851762.-2207520000/1068861707002373/?type=3
23. State Emergency Management Committee. Western Australian Emergency Management Capability Framework [Internet]. 2023 [cited 2025 Feb 25]. Available from: https://www.wa.gov.au/system/files/2023-10/semc_capability_framework.pdf
24. State Emergency Management Committee. State Support Plan: Emergency Relief and Support [Internet]. 2022. Report No.: State Support Plan. Available from: https://www.wa.gov.au/system/files/2023-10/ssp-emergency-relief-support.pdf
25. Department of Health, Victoria. Better Health Channel. 2024 [cited 2024 Oct 21]. COVID-19 antiviral medicine. Available from: http://www.betterhealth.vic.gov.au/covid-19/covid-19-antiviral-medicine
26. Broome Regional Aboriginal Medical Service. BRAMS is now offering COVID-19 Testing [Internet]. Facebook. 2022 [cited 2024 Oct 21]. Available from: https://www.facebook.com/BROOME.BRAMS/photos/pb.100057523206224.-2207520000/691937745501131/?type=3
27. Government of Western Australia. Free Rapid Antigen Tests at public pop-ups [Internet]. 2023 [cited 2024 Mar 6]. Available from: https://www.wa.gov.au/government/announcements/free-rapid-antigen-tests-public-pop-ups
28. Now that we have COVID in town one of the most important tasks we all need to be doing is getting tested if you have been in contact with someone who has... [Internet]. Wiluna; 2022 [cited 2024 Mar 6]. Available from: https://www.facebook.com/WilunaAMS/videos/now-that-we-have-covid-in-town-one-of-the-most-important-tasks-we-all-need-to-be/681859589678602/
29. Department Of Health, Western Australia. What to do when you test positive for COVID-19 [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.dalwallinu.wa.gov.au/Profiles/dalwallinu/Assets/ClientData/COVID-19-what-to-do-when-you-test-positive.pdf
30. Bourke K. ABC News. 2022 [cited 2024 Mar 7]. Everything you need to know about WA's rules on COVID-19 close contacts, isolation and testing. Available from: https://www.abc.net.au/news/2022-02-08/new-rules-for-close-contacts-isolation-wa-covid/100812094
31. Department of Health, Western Australia. I have COVID. What should I do? [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.healthywa.wa.gov.au/~/media/HWA/Documents/Health-conditions/COVID19/Aboriginal-I-have-COVID-factsheet.pdf
32. Government of Western Australia. WA.gov.au. 2022 [cited 2024 Mar 7]. Mandatory registration of positive Rapid Antigen Tests. Available from: https://www.victoriaplains.wa.gov.au/Profiles/vicplains/Assets/ClientData/mandatory-registration-of-positive-rapid-antigen-tests.pdf
33. WA Primary Health Alliance. PracticeAssist. 2022 [cited 2024 Mar 7]. Practice Connect #142. Available from: https://www.practiceassist.com.au/About-PracticeAssist/News-and-Updates/Practice-Connect-142
34. Department of Health, Western Australia. Clinician Alert - Public Health #80 [Internet]. 2022 [cited 2023 Nov 23]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Clinician-Alert-WA-80.pdf
35. Department of Premier and Cabinet. Closing the Gap [Internet]. 2024 [cited 2024 Oct 24]. Available from: https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/closing-the-gap
36. Australian Government. Closing the Gap. 2020 [cited 2024 Mar 7]. National Agreement on Closing the Gap. Available from: https://www.closingthegap.gov.au/national-agreement
37. Dawson C. Emergency Management Act 2005 (WA) - Self-quarantine and isolation (tested, close contact and appearance of symptoms) directions [Internet]. 2020 [cited 2024 Mar 7]. Available from: https://www.lexisnexis.com.au/__data/assets/pdf_file/0006/321909/w2004011745.pdf
38. Government of Western Australia. Mandatory COVID-19 isolation removed for positive cases and close contacts [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.wa.gov.au/government/announcements/mandatory-covid-19-isolation-removed-positive-cases-and-close-contacts
39. Bourke K, Ho C. ABC News. 2022 [cited 2024 Mar 7]. What you need to do if you test positive for COVID-19 or become a close contact in WA. Available from: https://www.abc.net.au/news/2022-03-15/isolation-rules-if-a-close-contact-or-get-covid-19-in-wa/100908932
40. Bourke K. ABC News. 2022 [cited 2024 Mar 7]. Western Australia to relax COVID-19 restrictions, close contact rules from midnight. Available from: https://www.abc.net.au/news/2022-04-13/wa-to-relax-covid-restrictions-and-close-contact-rules/100984516
41. Government of Western Australia. WA.gov.au. 2022 [cited 2024 Mar 7]. Public health and social measures to ease as WA's soft landing secured. Available from: https://www.wa.gov.au/government/announcements/public-health-and-social-measures-ease-was-soft-landing-secured
42. Clements C, Hoy C, Bin-Maarus L, Morris S, Christophers R. Aboriginal peoples' lived experience of household overcrowding in the Kimberley and implications for research reciprocity in COVID-19 recovery. Aust N Z J Public Health. 2023 Dec 1;47(6):100104.
43. Hayes J. 'We are reaching our limit': Aboriginal health boss slams lack of government support for remote COVID-19 services. ABC News [Internet]. 2022 Mar 27 [cited 2024 Oct 24]; Available from: https://www.abc.net.au/news/2022-03-27/remote-communities-wa-covid-19-cases-rise-overcrowding-isolation/100942312
44. Australian Government Department of Health. What to do if someone you live with has COVID-19 (Easy Read) [Internet]. 2024 [cited 2024 Mar 7]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/06/what-to-do-if-someone-you-live-with-has-covid-19-easy-read-what-to-do-if-someone-you-live-with-has-covid-19.pdf
45. Government of Western Australia. COVID-19 kit and symptoms checklist [Internet]. 2024 [cited 2024 Mar 7]. Available from: https://www.wa.gov.au/system/files/2022-03/COVID-19-kit-Symptom%20Checklist.pdf
46. Kimberley Aboriginal Medical Services. Our CEO Vicki O'Donnell - Media Statement 25th March 'Isolation is a privilege' [Internet]. Facebook. 2022 [cited 2024 Oct 25]. Available from: https://www.facebook.com/watch/live/?ref=watch_permalink&v=1185521488872010
47. Government of Western Australia. COVID-19 coronavirus: State Welfare Emergency Plan [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.wa.gov.au/organisation/department-of-communities/covid-19-coronavirus-state-welfare-emergency-plan
48. ShelterWA. Shelter WA. 2020 [cited 2024 Mar 7]. State Emergency Welfare Plan Activation. Available from: https://www.shelterwa.org.au/state-emergency-welfare-plan-activation/

49. Laschon E. Travellers cost WA almost $15m for quarantine at hotels and Rottnest, Government reveals. ABC News [Internet]. 2020 Jun 18 [cited 2024 Oct 24]; Available from: https://www.abc.net.au/news/2020-06-18/wa-records-new-coronavirus-case-as-millions-spent-on-quarantine/12370174
50. Office of the Auditor General. Requisitioning of COVID-19 Hotels [Internet]. 2023 [cited 2024 Oct 24]. Available from: https://audit.wa.gov.au/reports-and-publications/reports/requisitioning-of-covid-19-hotels/
51. World Health Organization. What to do if someone in your household tests positive for COVID-19 [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.who.int/multi-media/details/What-to-do-if-someone-in-your-household-tests-positive-for-COVID-19
52. Department of Health, Western Australia. COVID-19 cases and contacts [Internet]. 2023 [cited 2024 Oct 24]. Available from: https://www.healthywa.wa.gov.au/articles/a_e/coronavirus/covid19-cases-and-contacts
53. Department of Health, Western Australia. Congregate living and large households - safe isolation for cases and close contacts [Internet]. 2022 [cited 2024 Mar 7]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/Congregate-living-and-large-households-Safe-isolation-for-cases-and-close-contacts.pdf
54. Australian Government. National Guidance for Remote Aboriginal and Torres Strait Islander Communities for COVID-19 [Internet]. 2021 [cited 2023 Nov 23]. Available from: https://www.health.gov.au/sites/default/files/documents/2022/02/cdna-national-guidance-for-remote-aboriginal-and-torres-strait-islander-communities-for-covid-19.pdf
55. Broome Regional Aboriginal Medical Service. BRAMS Newsletter May [Internet]. 2022 [cited 2024 Oct 24]. Available from: https://www.brams.org.au/wp-content/uploads/BRAMS_Newsletter_May_0522-LR.pdf
56. Sanderson AJ. Ambulance Services. 2022.
57. Dudgeon P, Collova JR, Derry K, Sutherland S. Lessons Learned during a Rapidly Evolving COVID-19 Pandemic: Aboriginal and Torres Strait Islander-Led Mental Health and Wellbeing Responses Are Key. Int J Environ Res Public Health. 2023 Jan 25;20(3):2173.
58. KAMS. Kimberley Aboriginal Medical Services Annual Report 2021/22 [Internet]. 2022 [cited 2024 Mar 8]. Available from: http://kams.org.au/wp-content/uploads/2023/09/KAMS-Annual-Report-21-22.pdf
59. Aboriginal Health Policy Directorate, Department of Health Western Australia. Vaccinations rate update [Internet]. 2022 [cited 2024 Oct 24]. Available from: https://mcusercontent.com/8c1faff2771a21e8e1d084363/files/aa0c41f0-6844-5e9c-f534-ac1c00cb95a0/220325_Vaccinations_rate_update_AHPD.pdf
60. World Health Organization. Director-General's opening remarks [Internet]. Speech presented at: Media Briefing on COVID-19; 2020 Mar 11 [cited 2024 Oct 24]. Available from: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020
61. World Health Organization. Coronavirus Disease (COVID-19) Situation Report - 160 [Internet]. 2020 Jun [cited 2024 Oct 24]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200628-covid-19-sitrep-160.pdf?sfvrsn=2fe1c658_2
62. Office of the Auditor General. Transparency Report: Current Status of WA Health's COVID-19 Report [Internet]. 2020 Sep [cited 2024 Oct 25]. Report No.: 5. Available from: https://audit.wa.gov.au/reports-and-publications/reports/health-transparency-report/findings/
63. Australian Institute of Health and Welfare. The first year of COVID-19 in Australia: direct and indirect health effects. 2021 Sep 10 [cited 2024 Oct 25]; Available from: http://www.aihw.gov.au/reports/burden-of-disease/the-first-year-of-covid-19-in-australia
64. Australian Government Department of Health and Aged Care. Coronavirus (COVID-19) at a glance – 31 December 2020 [Internet]. 2020 [cited 2024 Oct 25]. Available from: https://www.health.gov.au/resources/publications/coronavirus-covid-19-at-a-glance-31-december-2020?language=en
65. Department of Health, Western Australia. Aboriginal Sector Communication Update #14 [Internet]. 2021 [cited 2024 Oct 25]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/COVID19-Aboriginal-Sector-Communicaiton-Update-14.pdf
66. Australian Government Operation COVID Shield. COVID-19 Vaccine Roll-out [Internet]. 2022. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/covid-19-vaccine-rollout-update-23-march-2022.pdf
67. Carmody J. WA is heading for 464,000 COVID cases and 129 deaths, and opening the border will make no difference. ABC News [Internet]. 2022 Feb 22 [cited 2024 Oct 25]; Available from: https://www.abc.net.au/news/2022-02-22/wa-to-record-464000-covid-cases-in-six-months-omicron-modelling/100852266
68. Department of Health, Western Australia. COVID-19 Weekly Surveillance Report Summary for the week 05 September to 11 September 2022 (inclusive) [Internet]. 2022 [cited 2024 Oct 25]. Available from: https://www.health.wa.gov.au/~/media/Corp/Documents/Health-for/Infectious-disease/COVID19/Surveillance-report/COVID-19-Weekly-Surveillance-report-05-September-11-September-2022.pdf
69. Reilly L, Adams M, Rees SJ. The Intensifying Threat of COVID-19 Among First Nations People of Australia: Making Up for Lost Time. JAMA Health Forum. 2021 Dec 30;2(12):e214356.
70. Green S. COVID in Wilcannia: a national disgrace we all saw coming. The Conversation [Internet]. 2021 Sep 16 [cited 2024 Oct 25]; Available from: http://theconversation.com/covid-in-wilcannia-a-national-disgrace-we-all-saw-coming-167348
71. Calvary, Medibank, Department of Health, Western Australia. Covid Care at Home WA Patient Information [Internet]. 2021 [cited 2024 Oct 25]. Available from: https://www.manjimup.wa.gov.au/repository/libraries/id:2dsd3ekxd17q9s83uxq6/hierarchy/SITE%20COLLECTION%20DOCUMENTS/our-shire/COVID%20Doc/Covid-Care-at-Home-WA.pdf
72. Government of Western Australia. WA.gov.au. 2023 [cited 2024 Mar 8]. COVID Care at Home for Western Australians who need it. Available from: https://www.wa.gov.au/government/announcements/covid-care-home-western-australians-who-need-it
73. Hawthorn L, Matysek R, Neville J, Gibson I, Taunton C, Thomas R, et al. A mixed-methods evaluation: COVID Care in the Home, a public health response to the first omicron wave across the Torres and Cape region, Queensland. Aust N Z J Public Health. 2024 Apr 1;48(2):100147.
74. Department of Health, Western Australia. WA COVID Care at Home to conclude [Internet]. 2022 [cited 2024 Mar 8]. Available from: https://www.health.wa.gov.au/News/2022/WA-COVID-Care-at-Home-to-conclude
75. McDonald K. CareMonitor rolled out for WA COVID Care at Home program [Internet]. Pulse+IT. 2022 [cited 2024 Oct 25]. Available from: https://www.pulseit.news/australian-digital-health/caremonitor-rolled-out-for-wa-covid-care-at-home-program/
76. Therapeutic Goods Administration (TGA). TGA provisionally approves two oral COVID-19 treatments, molnupiravir (LAGEVRIO) and nirmatrelvir + ritonavir (PAXLOVID) | Therapeutic Goods Administration (TGA) [Internet]. Therapeutic Goods Administration (TGA); 2022 [cited 2024 Mar 8]. Available from: https://www.tga.gov.au/news/media-releases/tga-provisionally-approves-two-oral-covid-19-treatments-molnupiravir-lagevrio-and-nirmatrelvir-ritonavir-paxlovid
77. NACCHO. Aboriginal Health News Alert: NACCHO Medical Advisor says new Oral COVID-19 Treatments important for immunocompromised [Internet]. Aboriginal and Torres Strait Islander Health News. 2022 [cited 2024 Oct 25]. Available from: https://nacchocommunique.com/2022/03/02/naccho-aboriginal-torres-strait-islander-health-news-thurs-3-3-22/
78. WA Country Health Service. WACHS Annual Report 2021-2022 [Internet]. [cited 2024 Mar 8]. Available from: https://www.wacountry.health.wa.gov.au/~/media/WACHS/Documents/Annual-reports/eDoc---CO---WACHS-Annual-Report-2021-2022---Electronic-Version.PDF
79. Australian Government Department of Health and Aged Care. Remote Area Aboriginal Health Services Program [Internet]. 2023 [cited 2024 Oct 25]. Available from: https://www.health.gov.au/our-work/raahs-programHeer CV, Majumdar SS, Parta I, Martinie M, Dawson R, West D, et al. Effectiveness of community-based oral antiviral treatments against severe COVID-19 outcomes in people 70 years and over in Victoria, Australia, 2022: an observational study. Lancet Reg Health – West Pac [Internet]. 2023 Dec 1 [cited 2024 Oct 25];41. Available from: https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(23)00235-3/fulltext
80. Australian Government Department of Health and Aged Care. COVID-19 Epidemiology update - 5 to 11 September 2022.
81. Communicable Disease Control Directorate. Disease Watch [Internet]. Department of Health Western Australia; 2009 Dec [cited 2024 Nov 28]. Available from: https://www.health.wa.gov.au/~/media/Files/Corporate/general-documents/Infectious-diseases/PDF/Statewide-ND-ann-reviews/2008-NotifiableDisease-annual_review.pdf



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