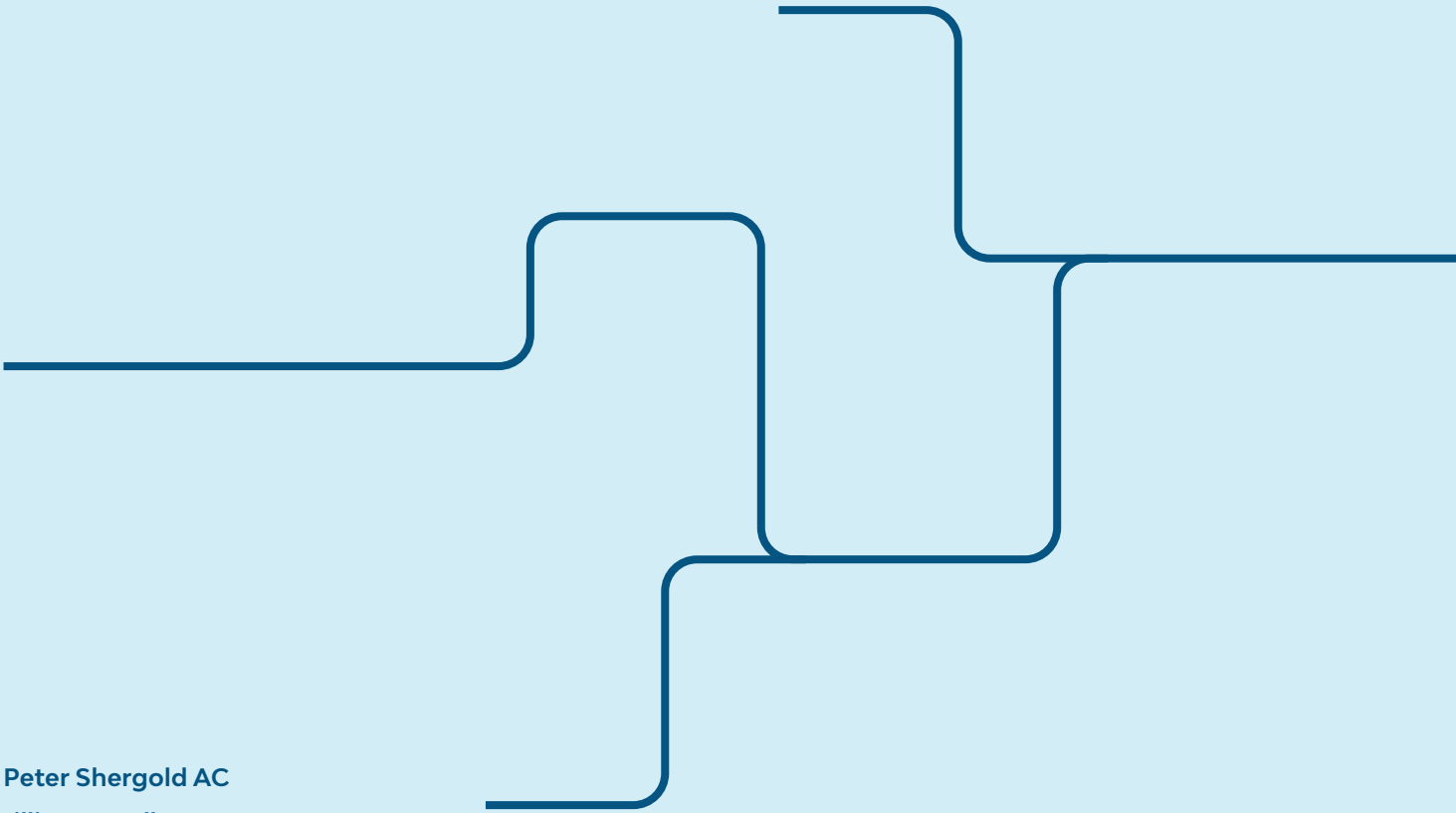
FAULT LINES

An independent review into Australia's response to COVID-19



Peter Shergold AC
Jillian Broadbent AC
Isobel Marshall
Peter Varghese AO

20 October 2022

This Review is dedicated to the Australians who lost their lives during the pandemic, their families and the frontline workers who put their lives at risk to protect us all. It is testament to the openness and generosity of the hundreds of people who shared their stories and experiences with us.

Our consultations were undertaken across many different parts of Australia. We acknowledge the Traditional Custodians of all the lands on which we met and worked, and pay our respects to Elders past and present. We are grateful to the Aboriginal and Torres Strait Islander people who contributed their views to this Review.

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The views expressed in the Review are confined to those of the Independent Panel.

FAULT LINES

AN INDEPENDENT REVIEW INTO AUSTRALIA'S RESPONSE TO COVID-19

PROCESS

200+

Consultations with health experts, public servants, epidemiologists, community groups, businesses, economists and many more

160+

Submissions from health and science organisations, community groups, government bodies, youth organisations, education providers and the general public

3,000+

Hours of **research, policy and data analysis**

KEY FINDINGS

4 AREAS WHERE WE SHOULD HAVE DONE BETTER

- ECONOMIC SUPPORTS SHOULD HAVE BEEN PROVIDED FAIRLY AND EQUITABLY
- LOCKDOWNS AND BORDER CLOSURES SHOULD HAVE BEEN USED LESS
- SCHOOLS SHOULD HAVE STAYED OPEN
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- BETTER BALANCE COMPETING TRADE-OFFS

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1.1 Ensure that pandemic plans are wide-ranging, include consideration of trade-offs and are regularly scenario-tested

2: ESTABLISH AN EXPERT BODY AND TRUSTED VOICE ON PUBLIC HEALTH

2.1 Establish a world-leading, data-driven and independent Australian Centre for Disease Control and Prevention

3: IMPROVE GOVERNMENT DECISION-MAKING THROUGH BROADER ADVICE AND GREATER TRANSPARENCY

3.1 Establish a panel of multidisciplinary experts and representatives to advise governments and the National Cabinet during health crises

3.2 Better harness the frontline experience of business, unions, the community sector and local government in crisis planning and response

3.3 Clearly define the roles, responsibilities and membership of the National Cabinet in a crisis

3.4 Publicly release the modelling and evidence used in government decision-making

4: ENHANCE PUBLIC SERVICE COLLABORATION, CAPABILITY AND COMMUNICATION

4.1 Significantly improve the collaboration of public servants across jurisdictions

4.2 Establish an interjurisdictional Public Service Centre of Excellence

4.3 Increase the diversity of the public sector to ensure it reflects Australian society

4.4 Expand the channels and methods of communication used to reach diverse groups

5: MODERNISE HOW GOVERNMENTS USE DATA

5.1 Enhance the *Data Availability and Transparency Act 2022* (Cth) and permanently amend the *Tax Administration Act 1953* (Cth)

5.2 Require the sharing and linking of data between jurisdictions

5.3 Enhance analytical capability within government departments

6: BUILD A CULTURE OF REAL-TIME EVALUATION AND LEARNING IN THE PUBLIC SECTOR

6.1 Establish an independent Office of the Evaluator General

EXECUTIVE SUMMARY

This Review is a first for Australia. Its terms of reference were not dictated by a politician. It was independent of government. It was philanthropically funded. It was apolitical. The over 350 people who participated in this Review were not compelled to give evidence because of the coercive powers wielded by a Royal Commission. They were not pressured to testify before a government or parliamentary inquiry. Participation was entirely voluntary. They were assured of complete confidentiality, so they were able to speak freely. They participated because they wanted to help answer the Review's core question:
What can Australia learn from the COVID-19 pandemic to be better prepared for the next health crisis?

FOUR AREAS WHERE WE SHOULD HAVE DONE BETTER

All reviews are written with the benefit of hindsight. This Review is no exception. Understanding the context in which decisions were made is vital. Governments and public servants were making decisions in a fog of uncertainty. None of the Panel can be confident that they would have made decisions better at the time. But, looking back, we are persuaded that significant mistakes were made. Hindsight offers lessons for the future as long as we are willing to consider, in an open manner, what went wrong. These are the views we share.

1 $

Economic supports should have been provided fairly and equitably. Governments and businesses failed to urgently provide adequate sick leave to workers. This was unfair on those workers, helped the virus to spread and cost lives. Excluding migrants and international students from economic supports put people in danger. It unfairly forced charities, universities and businesses to pick up the slack. It has contributed to the labour force challenges we face today. Failing to include a claw-back mechanism for businesses supported by JobKeeper was a design fault. It was fiscally irresponsible and unfair when other groups in society were excluded from economic supports. Excluding casual and migrant workers from JobKeeper without a proportionate increase in, or access to, JobSeeker failed to get the balance right between supporting people in need and ensuring a flexible labour force.

2

Lockdowns and border closures should have been used less. Lockdowns and border closures have significant social and economic costs and should be a last resort. They buy us time to collect information and data on the virus, bolster health system capacity, and develop and distribute vaccines. But too many of Australia's lockdowns and border closures were the result of policy failures in quarantine, contact tracing, testing, disease surveillance and communicating effectively the need for preventative measures like mask wearing and social distancing. Politics also played a role. Localised outbreaks were inevitable. Statewide and nationwide outbreaks were not.

3

Schools should have stayed open. It was sensible to close schools where there was an outbreak and when little was known about how the virus spread. But it was wrong to close entire school systems, particularly once new information indicated that schools were not high-transmission environments. For children and parents (particularly women), we failed to get the balance right between protecting health and imposing long-term costs on education, mental health, the economy and workforce outcomes. The same applies to closing universities and vocational education and training centers. The social and economic costs were likely significant.

4

Older Australians should have been better protected. The problems in aged care were well known before the pandemic. Many of these problems have their roots in the sad reality that Australia's aged care system depersonalises older people. Funding was inadequate. The labour force was stretched. Fixing aged care requires changed attitudes. The decision to restrict aged care residents from going to hospital when they contracted COVID-19 was a mistake that cost lives. Restrictions on visits to aged care homes, long past the end of the outbreak, caused unnecessary pain and distress.

FIVE OVERARCHING LESSONS

1 

Have societal fault lines front of mind. The overarching lesson from this Review, and the focus of its recommendations, is that policies were too often designed and implemented without proper regard for the inequalities in our society and the vulnerabilities of key communities. All governments should consider issues of fairness when they make policy. But at a minimum, we need to recognise the existence of disadvantage in our response to crises. Australia was too often playing catch-up during COVID-19, seeking to address predictable challenges only when they became evident. People experiencing social inequalities or particular vulnerabilities in our community suffered unnecessarily. They paid a higher cost. Much of this could have been avoided if planning had considered inequities from the outset.

2 

Plan, prepare and practise. Preparation is key to accounting for societal fault lines. Most of Australia's pandemic plans were developed for a flu-like outbreak. They were not adequately scenario-tested and were quickly discarded. Australia needs plans in place. They must be regularly practised within well-coordinated, well-informed and well-funded institutions.

3 

Avoid the perils of overreach. There were too many instances in which government regulations and their enforcement went beyond what was required to control the spread of the virus, even when based on the information available at the time. Such overreach undermined public trust and confidence in the institutions that are vital to effective crisis response. Many Australians came to feel that they were being protected by being policed. These actions could have been avoided if we had built fairness into our planning decisions and introduced compassion into their implementation.

4 

Be transparent, clear and consistent. There was insufficient transparency in how decisions were made, who made them and why. The evidence relied upon was often unclear. A lack of consistency and clarity in rules led to unnecessary confusion, prosecutions and suffering. Transparency, inclusion and clarity ensure that decisions are made and supported by the best possible information and that public confidence in government intervention is maintained.

5 

Better balance competing trade-offs. The response to COVID-19 produced sharp trade-offs between health, social and economic outcomes, between short-term and long-term considerations and between different parts of the community. The existence of these trade-offs needs to be acknowledged and carefully managed and evaluated through risk management and cost-benefit frameworks.

SIX RECOMMENDATIONS

The outcomes from the pandemic suggest that initiatives to address the well-known fault lines throughout society remained at the periphery of the planning process rather than being placed at its core. To be better prepared for the next health crisis, we need to place people who are disadvantaged at the centre of our planning. Social inequities need to be considered from the start. This is the core focus of our recommendations.

There was a gap between knowing that we need to account for societal fault lines and putting in place effective measures to address them. In some instances, this flowed from wrong-headed policies, such as deliberately excluding temporary migrants from financial support or preventing elderly people in aged care facilities from accessing hospital care when they had COVID-19. In other instances, government recognition of the adverse consequences of disadvantage came too little and too late. In virtually all cases, it reflected design flaws that flowed from not putting the most vulnerable at the centre of policy interventions.

Below, we set out our six recommendations that, if taken up as a coherent package, will set the framework for a future response that can accommodate the lessons outlined in this report. While they relate directly to measures that can improve policymaking during a crisis, they are framed against a broader recognition that governments need to prosecute a range of structural and institutional reforms to address persistent challenges to broad-based prosperity.

The recent Jobs and Skills Summit discussed some of these issues. But more action is required to address declining educational standards, the digital divide, health inequality, access to affordable housing, inadequate funding of aged and disability care, and the gap of disadvantage that separates Aboriginal and Torres Strait Islander populations from the rest of society. Clearly, there are other weaknesses in Australia's social insurance system. Our Review does not seek to suggest how these wickedly complex problems of public policy should be addressed. Rather, it focuses its attention on ensuring that, in a crisis, the design and delivery of support is fully cognisant of the societal fault lines that will need to be addressed.

SIX RECOMMENDATIONS

RECOMMENDATION 1

Strengthen crisis preparation, planning and testing. Pandemic plans should be wide-ranging. They need to be flexible and incorporate a broader range of transmissible, potential pandemic-causing pathogens. Plans should be regularly scenario-tested with key leaders, officials, ministers and representatives from business, unions and civil society. They should articulate the decision-making processes, the trade-offs considered and the balance of costs and benefits over time. Plans should identify risks and how these will be managed.

RECOMMENDATION 2

Establish an expert body and trusted voice on public health. Australia should establish a world-leading Australian Centre for Disease Control and Prevention (ACDCP). The ACDCP should be structured with state-and territory-based nodes able to coordinate research institutes and universities across jurisdictions. It should be independent and apolitical in its staffing appointments. It should be data-driven and have complete access to federal, state and territory government datasets. It should also have the capabilities to develop its own additional datasets as needed. It should act as an early warning system and as the key advisory body to the Australian Health Protection Principal Committee (AHPPC).

RECOMMENDATION 3

Improve government decision-making through broader advice and greater transparency. Australia should establish a panel of multidisciplinary experts, including business leaders and frontline community workers. It should have in place mechanisms to capture the voice of those with lived experience. Only then can we be confident that advice presented to the National Cabinet during health crises incorporates the broadest range of health, economic, social and cultural considerations, set within a risk management framework that balances short- and longer-term impacts. All levels of government should be required to invest in relationships with business and civil society to harness their expertise and networks in a crisis by committing to comply with the principles and core values for community engagement set out by the International Association for Public Participation (IAP2). The National Cabinet should clearly define its role in a health crisis, allocate responsibilities for key functions (for example, in relation to quarantine) and agree what constitutes an 'essential' worker or business. Its default position should be that it will publish all evidence and modelling that informs its decision-making. This may be politically challenging, but the greater transparency and openness will sustain public trust.

RECOMMENDATION 4

Enhance public service collaboration, capability and communication. The National Cabinet should seek to significantly improve the collaboration of public servants across jurisdictions and with business and civil society. It needs to establish a clear authorising environment for cooperative work. To this end, it is time to undertake a major review, not of the quality of particular public services, but of how their cross-jurisdictional effectiveness can be enhanced. Recent reviews of federal, state and territory public administrations suggest that they are seeking to address a number of common problems. The National Cabinet should agree to establish an interjurisdictional Public Service Centre of Excellence. Its immediate focus should be on enhancing digital skills and data analytics, placing greater emphasis on the professional skills required to deliver major projects, and improving risk management and evaluation. The National Cabinet should expand and improve the channels of public communication, particularly with those from culturally and linguistically diverse backgrounds. With this in mind, all governments should increase the diversity of public sector employees.

RECOMMENDATION 5

Modernise how governments use data. The Australian Government should amend the *Data Availability and Transparency Act 2022* (Cth) (DAT Act) and the *Tax Administration Act 1953* (Cth) (TAA) to make data sharing the default option. This would allow accredited private researchers to participate in the DAT Scheme established under the DAT Act, stimulate research in universities and improve access to administrative tax data for policymakers. Governments should encourage the sharing and linking of de-identified data between jurisdictions by reforming the Intergovernmental Agreement on Data Sharing between federal, state and territory governments. We should fast-track the development of interoperability frameworks for de-identified and anonymised health data. Governments should create elite data-led teams to build capabilities in empirical analysis. All of this should be undertaken in close consultation between the National Data Commissioner and the Privacy Commissioner, to ensure that confidential personal data is carefully protected.

RECOMMENDATION 6

Build a culture of real-time evaluation and learning in the public sector. The Australian Government should establish an Office of the Evaluator General. It needs to have a truly independent and empowered senior executive at the helm, quarantined funding and a remit that includes real-time tracking of policy performance during a crisis. The Office should perform randomised control trials, natural experiments and other robust forms of analysis. It should report directly to Parliament. Ideally, similar models of evaluation should be developed by state and territory governments. In addition, all jurisdictions should embed an evaluation requirement for all new major policy proposals, particularly those that require legislative approval.

THE REVIEW

A MESSAGE FROM THE PANEL

Like hand sanitiser in a paper cut, COVID-19 exposed the cracks in our health, social, economic, government and political systems. The virus exacerbated pre-existing vulnerabilities. The pandemic impacted all of us. But its burden was not shared equally. The failure to plan adequately for the differing impact of COVID-19 meant that it spread faster and more widely.

Frontline workers, women, children, aged care residents, people with disabilities, ethnic communities, international students, expatriates overseas and those already experiencing relative socio-economic disadvantage bore the brunt of the pandemic. Left unchecked, the recovery threatens to be just as unequal. We need to ensure that supports are properly targeted to those in greatest need. We owe it to the thousands of Australians who continue to lose their lives that we learn from the pandemic and identify how government responses can be improved in the future. This is why each of us agreed to be on this Panel.

More than 350 people were consulted or provided a submission as part of the Review. We committed to keeping their contributions anonymous so they could speak frankly, and they did. We spoke with 54 senior public servants across federal, state and territory governments; 63 members of unions and community and civil society organisations; 29 senior business leaders and 49 academic and subject matter experts. We heard from Australians from all walks of life about how the pandemic affected their lives and how we can do better next time. Some were broadly satisfied with our national response; many others were frustrated or angry.

Although we can never do them justice in so short a Review, we are honoured and humbled to be able to harness their stories in this report. Their stories were both inspiring and heartbreaking. They were also constructive and informative. The people and communities we spoke to were never short of ideas, suggestions and enthusiasm about how Australia could do better next time. Rich with personal examples and evidence, their narratives sit behind many of the Review's findings.

This Review does not seek to provide a detailed account of the pandemic or who made what decisions and why. A number of books and specific reviews have already been written on the subject and many more will follow.[1] This Review takes a step back to provide an assessment of the bigger picture. The Review had a clear objective: to learn the lessons from the COVID-19 pandemic in order to be better prepared for future health crises. We were guided by six core principles.

Be inclusive. We heard from governments. We heard, too, from public servants who advised them and bore responsibility for delivering and communicating government decisions. We are grateful that so many senior administrators were willing to share their learnings so openly and honestly. Equally important, we had the opportunity to hear from across the community, not just the experts and the powerful. We listened to frontline workers, community groups, charitable organisations, industry associations, business leaders and unions. We also talked to health experts and medical practitioners. They lived in our cities, in our regions and in our remote communities. This report is testament to their generosity of spirit.

Be apolitical. Too often Australia fails to learn lessons from the past. Politics gets in the way. This Review was funded by philanthropic organisations. It was non-partisan, independent of government and political persuasion. Unlike Parliamentary inquiries, there were to be no 'majority' and 'minority' reports demarcated along party lines. Unlike government inquiries or Royal Commissions, we were not given carefully constructed terms of reference to constrain what we could examine or report upon. The funders were engaged throughout the writing of the report but were always adamant that the Panel must reach its own independent conclusions.

Be evidence-based. The Review was based on substantial research, data analysis, policy assessment and extensive consultations led by the e61 Institute. It draws heavily on evidence from across government, and the private and community sectors. It is also informed by the growing body of national and international research on the impact of COVID-19 and the response to it. Of course, the truth of personal observations tends to lie in the eye of the beholder. We have done our best to capture the range of views we have heard as objectively as possible in our interpretation of events over the last 33 months.

Be forward-looking. The Review was not about assigning blame. It was about preparing for the future. It was about being better placed for the next health crisis by learning lessons on what worked well and what did not. The COVID-19 pandemic is far from over and the next crisis will be different. We hope that many of the recommendations in this Review have applicability to other crises beyond health, whether they be environmental, economic, financial or geopolitical in nature. Our proposals might help improve policymaking outside of a crisis.

Be practical and impactful. We were determined to make the recommendations as practical and impactful as possible. Hundreds of issues and challenges were identified through our consultations and research. We have prioritised those that have the biggest community impact and that can be practically addressed by governments. This report is a distillation of key issues, rather than an exhaustive canvass of everything that we've uncovered.

Be accessible. We want this Review to be read – by the public, not just experts. Too many reviews gather dust on bookshelves or sit in electronic archives. Communication has been a major challenge throughout the pandemic. We hope that this succinct Review is readable and generates debate. We hope that the community, especially those who helped us so much, recognise its value and advocate for its recommendations.

We would like to thank the hundreds of people from across the community who trusted us with their stories and insights, and the lessons they learned from the pandemic. COVID-19 showed us that we are more resilient when we work together. This Review is testament to that spirit.

THE PANEL

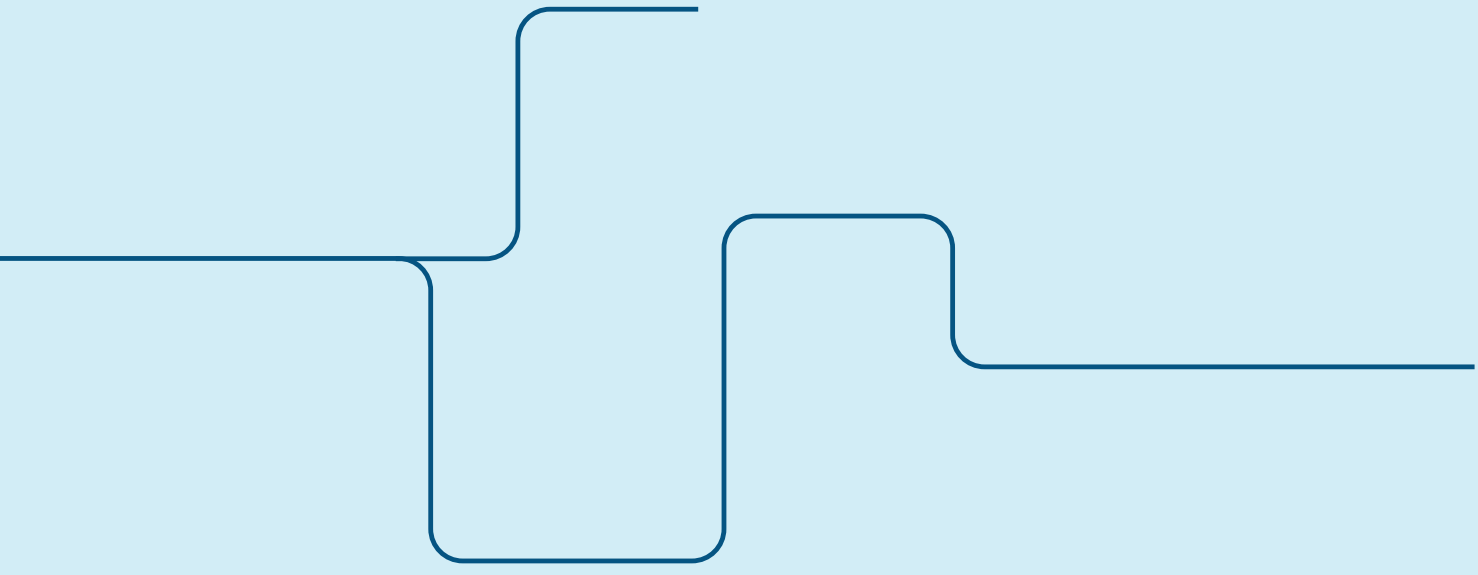
Peter Shergold AC
Chair

Jillian Broadbent AC

Isobel Marshall

Peter Varghese AO

WHAT HAPPENED



THE FOG OF WAR

Take yourself back to January of 2020. The first COVID-19 case was recorded as Australians were recovering from a summer of catastrophic bushfires. Governments were making decisions in a fog of uncertainty. Some observers discussed the pandemic as little more than a bad case of the flu. Others, including many Australian health experts, gave dire warnings about the horrific scale of mortality that might be visited upon us in the months ahead. Early analysis warned that up to 18 million Australians could be infected, with almost 2 million needing a hospital bed.[2]

We knew little about the virus. We didn't know how it spread. We didn't know what effect it would have on children, pregnant women or the elderly. The long-term consequences of contracting the virus were a mystery. We were told that a vaccine could be years away or might not be possible at all. Australia, like the rest of the world, was in unknown territory.

The scenes abroad did little to allay these fears. Footage of mass burials, people collapsing in the streets, health systems in crisis and doctors being forced to decide who lived and who died became commonplace on our television screens. This was the brutal context in which Australian governments made decisions, with far-reaching consequences for an anxious public.

Government responses to any crisis will never be perfect. There are always lessons to be learned. It's important that we learn them. Australian governments got many of the big calls right. This is testament to the tireless work of Australia's public servants and politicians, the courage of front-line workers and the willingness of most Australians to accept public health advice and the restrictions placed upon them. But, as our Review highlights, we also got some consequential calls wrong.

Unfortunately, bureaucratic hierarchies, functional silos and politicisation undermined a whole-of-government approach. Business know-how and the frontline experience of community organisations was inadequately incorporated into decision-making. Partly as a consequence, implementation was often too harsh, too inflexible, too slow to adapt and too dismissive of basic rights. We all think that we have 20/20 vision in hindsight. But hindsight offers lessons for the future.

EARLY WINS IN 2020 LOST BY 2022

Australia saw initial success in limiting COVID-19 case numbers and deaths, particularly compared to the rest of the world. Australia recorded only 1,097 cases of COVID-19 per million people during 2020. Restrictive measures targeted at limiting disease spread saw Australia record its lowest ever death toll. We had 137 fewer deaths than what we would normally experience from all causes (so called 'excess deaths') per million people (in age standardised terms).[3] If we had recorded the same excess death toll as Canada (327 excess deaths per million), the UK (1,154) or the US (1,322), we would have had between 12,000 and 37,800 additional deaths during 2020.

We weren't the only strong performers. Our COVID-19-related health outcomes were similar to other wealthy island nations that sought to aggressively suppress the virus. Japan recorded only 1,892 cases and -225 excess deaths per million people during 2020.[4] Our neighbour across the ditch, New Zealand, recorded only 421 cases and -430 excess deaths per million people.

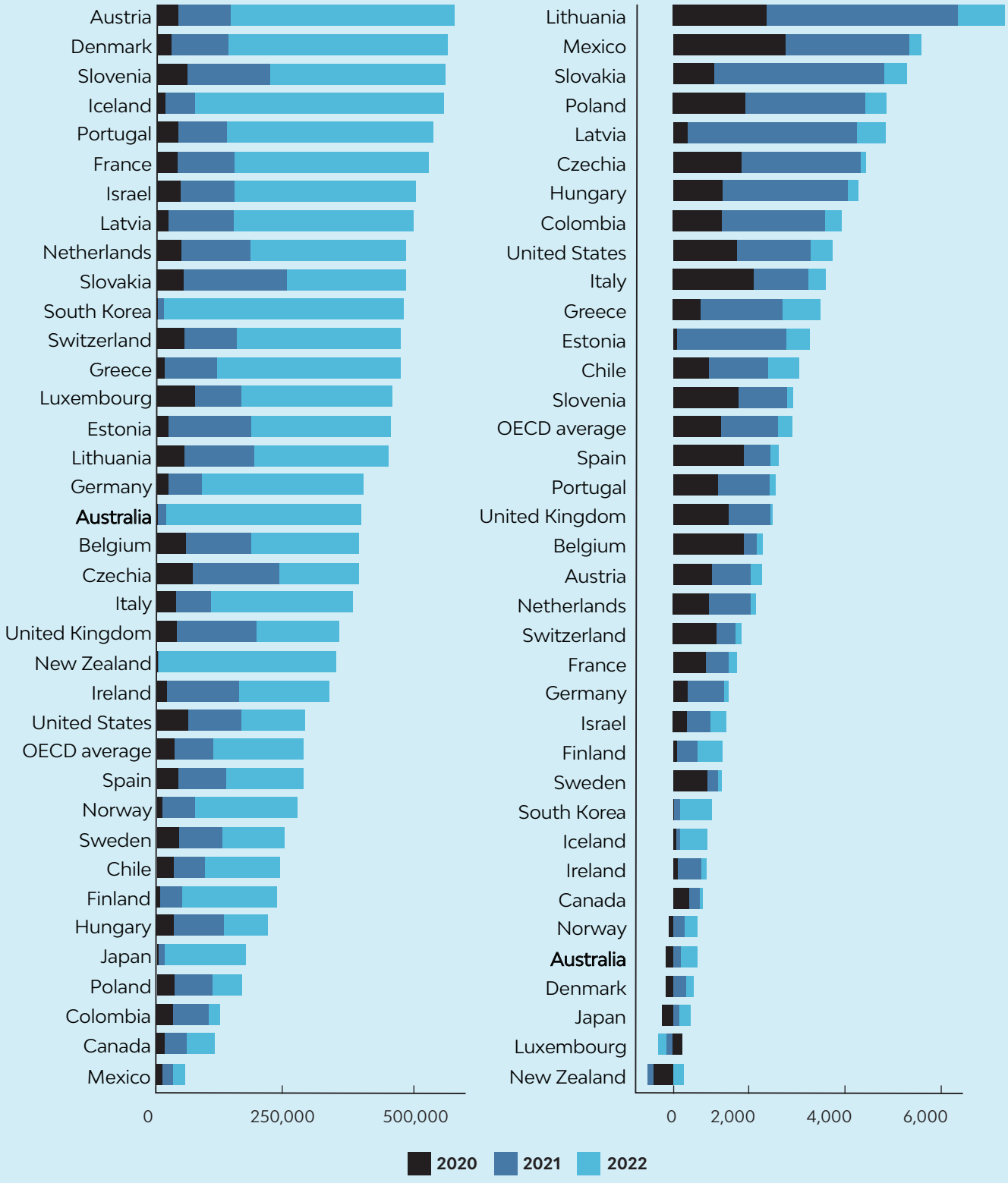
Our early success started to falter in 2021. The arrival of the Omicron variant and easing of restrictions saw cases climb to 15,318 and excess deaths rise to 152 per million people in 2021.[5] We still comfortably outperformed the Organisation for Economic Co-operation and Development (OECD) average (75,963 cases and 1,190 excess deaths per million people) but fell behind some other wealthy island nations. Japan recorded only 119 excess deaths per million people in 2021. Iceland had 85. New Zealand had its second year in a row with fewer deaths than expected (-107 excess deaths per million people).

Cases and deaths have risen even further during 2022, dramatically reversing our early competitive advantage. As of 30 September 2022, Australia has recorded 378,617 cases per million people in 2022.[6] That is more than double the OECD average. The latest available official data shows that by May 2022 excess deaths in Australia had spiked to almost 359 per million people in 2022, 16 per cent higher than the OECD average in 2022.

COVID-19 RELATED HEALTH OUTCOMES BY COUNTRY

COVID-19 CASES PER MILLION INHABITANTS

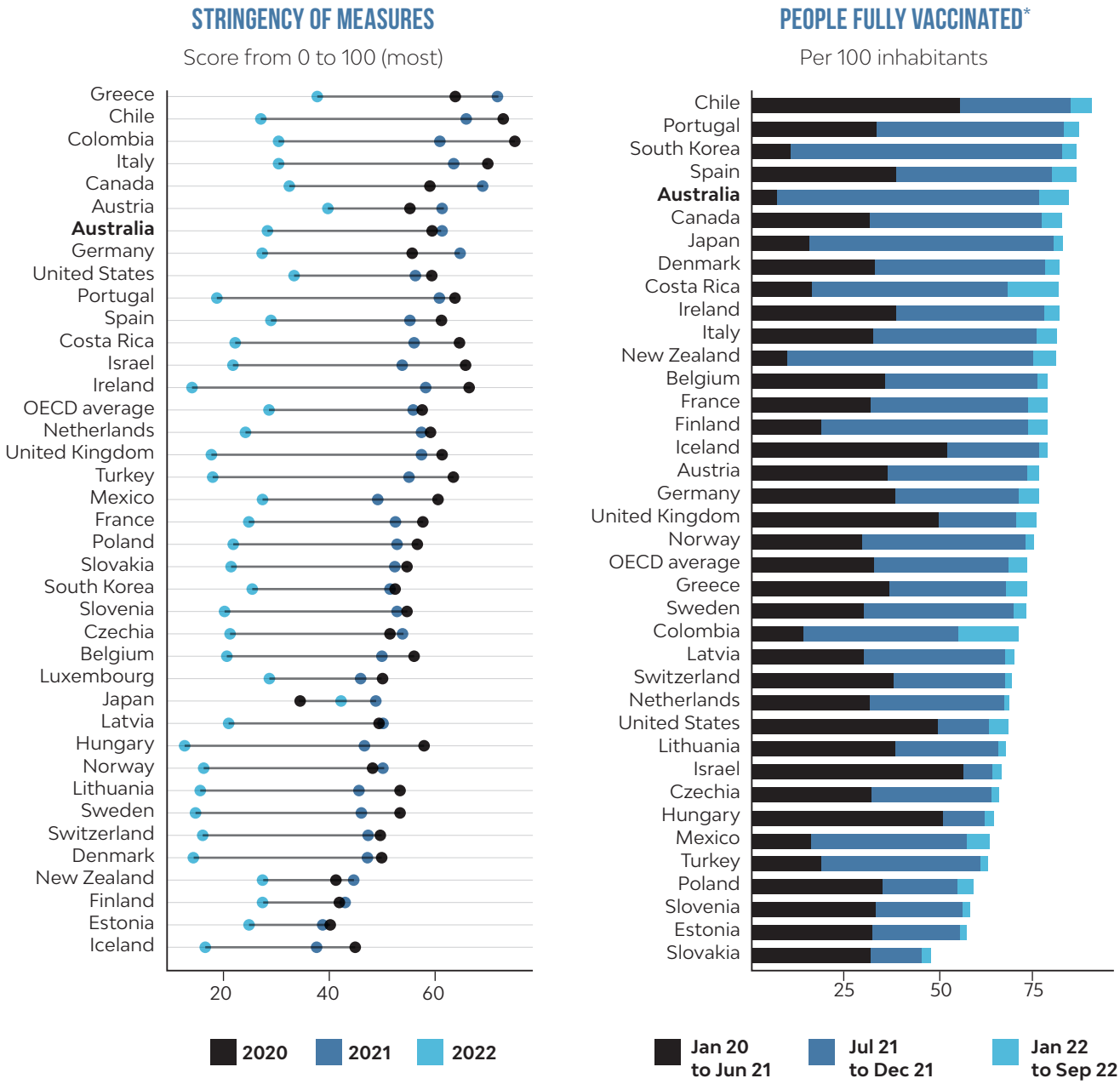
EXCESS DEATHS PER MILLION INHABITANTS



Notes: Excess deaths captures the increase (or decrease) in deaths from all causes compared to a projection based on previous years. excess deaths for 2022 only include data up to the end of May as official data for Australia in not available after this point. COVID-19 cases captures the number of confirmed COVID-19 cases. case data for 2022 is measured up until 30 September 2022. Comparisons across countries may be affected by differences in the completness of death reporting and testing
e61 Institute analysis of Human Mortality Database (2022), Karlinsky & Kobak (2022), Ritchie et al. (2022)

It is interesting to note that Sweden, whose approach to the pandemic was generally portrayed in the Australian press as a controversial experiment in 'remaining open', has now seen significantly fewer cumulative COVID-19 cases per million people than Australia (however, Sweden's Corona Commission did acknowledge that the nation did too little at the start of the outbreak to protect vulnerable older people). It is increasingly clear that a global pandemic needs to be recognised as a marathon, not a sprint.[7]

POLICY STRINGENCY AND VACCINATIONS BY COUNTRY



Notes: The stringency of measures is based on the Oxford Covid-19 Government Response Tracker Stringency index, which records the strictness of 'lockdown style' policies that primarily restrict people's behaviour. Stringency rankings are based on the mean of the Stringency index from 22/1/2020 to 30/9/2022.
*Fully vacinated refers to the number of people who have received all doses prescribed by the initial vaccination protocol (in most cases 2 doses).

e61 Institute analysis of Hale et al (2022), Ritchie et al. (2022).

It needs to be emphasised that our early successes weren't without costs. Australia's relative success from the perspective of COVID-19 health outcomes was accompanied by some of the strictest 'lockdown style' policies in the world. Our implicit fight for COVID-zero saw hard border closures and the introduction of strict social distancing restrictions. Many of these restrictions were imposed on and off throughout 2020 and 2021. And despite going long periods without recording a single case of COVID-19, our policies have been, on average, the seventh most stringent of any OECD nation over the course of the pandemic.[8] To many Australians, it came to be perceived that governments were protecting their health by policing the pandemic.

On vaccination rates, our record has improved over time. After a slow and faltering start, we have achieved one of the highest vaccination rates in the developed world. In the middle of 2021, we ranked last among OECD countries for the share of the population fully vaccinated,[9] but by the end of 2021, we ranked 10th. We have continued to improve through 2022 and now rank fifth.

FAULT LINES EXPOSED

Most Australians still regard their nation as a 'fair go' country, offering relatively equal opportunities to those with the ambition to better themselves, provide for their families and build opportunities for their children. Our relative wealth as a nation and the strength of our social safety net are two of the reasons we have been able to handle the pandemic more successfully than many other countries.

But the prosperity of our nation and high standard of living is not enjoyed by all people equally. COVID-19 hit like an earthquake. It exposed the fault lines in our health, social, economic, government and political systems. The problem with cracks is that people fall through them. Pre-existing inequalities and vulnerabilities limited our ability to 'stop the spread'. The burden of the pandemic was not shared fairly.

Australia has much to be proud of in how we responded to the pandemic. But many of our successes relied on our advantages: an ability to close and enforce international borders, a strong economic and fiscal position and a citizenry that broadly trusted its governments. Our aggregate statistics hide a pandemic that was unequal, unfair and uncertain in its impacts. We could have done better. We should do better in future.

"COVID-19 HIT LIKE AN EARTHQUAKE. IT EXPOSED THE FAULT LINES IN OUR HEALTH, SOCIAL, ECONOMIC, GOVERNMENT AND POLITICAL SYSTEMS."

SOME GROUPS IN SOCIETY BORE A GREATER PANDEMIC BURDEN THAN OTHERS

The **COVID death rate for people born overseas was 2.5 times as high** as for those born in Australia. Mortality rates for culturally and linguistically diverse communities were higher still.

Australians in the **bottom 20% by socio-economic status** were **3 times as likely to die of COVID-19** than those in the top 20%.

In 2021, **vaccination rates for people with a disability were 10 percentage points lower** than other Australians.

In 2020, **more than 75% of deaths occurred in aged care facilities.**

The **rate of severe illness was 40% higher** for **First Nations Australians** during the Omicron wave.

Women were **over 30% more likely to exit the workforce** than men in the first months of the pandemic.

Students in the bottom 20% by socio-economic status were **over 40 times more likely to have no computer for remote schooling** than students in the top 20%.

Young adults under 25 were **twice as likely to experience mental ill health** compared to adults 25 and older.

Fault lines in our society

COVID-19 highlighted deep pre-existing disparities within our society. People living in areas of socio-economic disadvantage were more likely to die from COVID-19 than their wealthier counterparts.[10] Existing health disparities and high-risk comorbidities are largely attributable to social determinants of health. Reduced access to secure and affordable housing, education, adequate income and social support increased the risk of serious infection or death.

Women bore the brunt of child-minding responsibilities as schools closed, taking up an extra four hours of unpaid domestic work per day.[11] Women were over 30 per cent more likely than men to leave the workforce in the first months of the COVID-19 pandemic.[12] They were more likely to lose pay, burn through leave and fall behind on savings and superannuation. New and expectant mothers were isolated from their support networks. Rates of domestic violence increased. Almost 20 per cent of women in domestic relationships in 2020 experienced emotionally abusive, harassing and controlling behaviours for the first time.[13]

Language barriers experienced by culturally and linguistically diverse communities meant they were often unable to access and understand essential public health messages. They were reluctant to seek health care. Over-represented in low-paid and casual employment, and with twice the average rate of unemployment, this group were particularly vulnerable, and not just economically. Many had moved to Australia from violent and/or war-torn countries. When police and troops came on the streets to enforce lockdown, it sometimes looked to them more like martial law than humanitarian relief.

The physical and mental consequences are apparent in mortality statistics. By January 2022, the aged-standardised COVID-19 death rate for people in Australia born overseas was almost three times as high as those born in Australia. People born in the UK had similar mortality rates to those born in Australia. But for those born in the Middle East, it was over 12 times as high.[14]

Housing inequality saw the virus spread through overcrowded homes, with lockdowns taking a toll on the mental and physical health of people living in cramped conditions. Australia's homelessness problem was exposed as governments scrambled to bundle the homeless into hotels to curb the spread of the virus.

Intergenerational inequalities worsened. Young people lost education, jobs, networks and precious life experiences. Children are among the most vulnerable group within our society and yet are so often voiceless in a crisis. While health advice was core in the decision-making process throughout the pandemic, paediatricians were not routinely included as key health experts in many jurisdictions. Their opportunity to advocate for the health of children and young people was diminished. The indirect impacts of COVID-19 on childhood development, mental health and education were given too little weighting. All children, particularly those facing additional adversity, will likely feel the impacts of COVID-19 well into the future.

Older Australians were more likely to be gravely affected if they contracted COVID-19, not least because of comorbidities they had acquired over their lives.[15] Those living in aged care were particularly at risk: they were often frail, and many suffered forms of memory loss or dementia. Despite most care homes having well-tested infection control procedures for influenza and gastroenteritis, it became obvious that the pandemic was more virulent.

Many hospitals were reluctant to accept infected patients from residential aged care, fearing that intensive care units (ICUs) would be overrun.[16] The results were catastrophic. More than 75 per cent of all COVID-19-related deaths in 2020 occurred among residents in aged care facilities,[17] a significantly higher proportion than peer countries.[18] Only as health policies caught up – and as the rollout of vaccinations became more effective – did the number of fatalities start to decrease. Aged care residents still comprised 17 per cent of deaths in 2021.[19] Overall, by mid-2022, more than a quarter of Australia's COVID-19 related deaths have occurred in residential aged care facilities.[20]

Australians who lived in areas in the bottom 20 per cent by socio-economic status (SES) were three times as likely to die of COVID-19 than those in areas in the top 20 per cent.[21] Low income and casualised workers were at times asked to choose between earning an income and protecting the community. JobKeeper recipients had their jobs guaranteed by the government. Some saw an increase in pay or were paid not to work. Others, like short-term casual workers, were left out and had to find work in a locked-down economy.

People with disabilities confronted a 'triple jeopardy' during the pandemic.[22] First, the consequences of contracting the virus were greater, given that many had weakened immune systems and/or a range of comorbidities. Second, they had reduced access to the routine health care they required, with medications and therapeutic services – including mental health support – often in short supply. Third, lockdowns had a particularly detrimental impact on their contact with their support workers, families and friends. It was often difficult to meet physical distancing guidelines and maintain hygiene measures, such as wearing a mask. Vital personal care became harder. Loneliness increased.

The Australian Government ensured that new support measures were introduced for those covered under the National Disability Insurance Scheme (NDIS).[23] Unfortunately, that excluded more than 85 per cent of Australians living with disability who are not in the scheme.[24] Those with disability living in care homes found they had been 'deprioritised' in the vaccine rollout without any explanation.[25] As of September 2022, only 86 per cent of NDIS participants aged 16 or older had received at least two COVID-19 vaccine doses, compared to over 96 per cent of the Australian population.[26] A Statement of Ongoing Concern from the *Royal Commission into Violence, Abuse, Neglect and Exploitation of People with a Disability* highlighted that the pandemic "continues to expose the underlying inequities, discrimination and exclusion that people with disabilities experience in the delivery of fundamental service and support".[27]

Most COVID-19 advice documents were not directed at the people with disability but at their carers. Most were accessible only in English. The prioritisation of certain groups in the 2021 vaccine rollout meant the vaccination rate for people with disability remained over 5 percentage points lower than for the rest of the population.[28] Despite hard work and advocacy, the absence of proactive government policy measures to support people with disability made members of the disability community feel like the odds were against them.

Aboriginal and Torres Strait Islander peoples were particularly vulnerable. Compared to non-Indigenous people, they already have disproportionate rates of mental illness and suicide.[29] They are almost twice as likely to suffer from three or more chronic health conditions,[30] and are three times as likely to live in overcrowded housing.[31] In the initial 12 to 18 months of the pandemic, the Australian Government's emergency response plan for COVID-19 placed considerable leadership in the hands of Aboriginal Community Controlled Health Organisations. They largely kept COVID-19 out of remote communities, which was a good thing. But there was a problem: the organisations entered the pandemic poorly funded, and with inadequate health infrastructure and workforce capacity. So, once COVID-19 reached remote communities, the organisations faced resource constraints and financial barriers.[32] Then when it came to the vaccine roll out, governments under-utilised Aboriginal Community Controlled Health Organisations.[33] The risk of a future health crisis having far more devastating impacts on Aboriginal and Torres Strait Islander peoples remains as long as the gap in life outcomes between them and the broader community persists.

The impact of technology inequality hit hard. Around 1 in 5 students in low SES areas in Australia reported that they did not have a laptop or computer at home compared to only 0.4 per cent in high SES areas.[34] Children without internet and/or computer access have fallen further behind their more privileged peers and will likely continue to do so. International research suggests that learning losses from lockdowns were up to 60 per cent larger for disadvantaged students from less-educated homes.[35]

Workers without home offices, internet access and laptops struggled. Businesses that hadn't or couldn't digitise their processes disproportionately shed workers. Firms that used fewer than five apps to manage their business (such as e-commerce and cashflow reporting apps) had employment growth that was 2.1 percentage points lower than more digitally integrated firms.[36]

While the Australian Digital Inclusion Index – which measures digital access, affordability and ability – has improved over recent years, 11 per cent of Australians remained 'highly excluded' during the pandemic.[37] Those who did not complete secondary school, those not in the labour force and those in the lowest income quintile have a lower digital ability score than the national average.[38] Government services often became unreachable for those without access to the internet.

Fault lines in our economy

As tens of thousands of Australians queued outside Centrelink, decades of debate on whether Australia's unemployment benefits were adequate were abruptly set aside. The government doubled these payments, driving poverty rates among those receiving JobSeeker down from 76 per cent to 15 per cent by mid-2020.[39] People spent the extra money on food, their children and paying down debt.[40] But with much of this greater support later withdrawn, poverty among JobSeeker recipients rose to 48 per cent by the end of 2020.[41]

The virus spread through an insecure and casualised workforce. Almost 20 per cent of workers attended work while symptomatic.[42] Those without leave entitlements were left with little choice but to work while sick. Those who worked multiple jobs – in aged care, hospitals, retail and transport – risked taking the virus with them. Many of those in insecure jobs were left out of government supports. The arts community went into crisis just when a locked-down population turned to them for entertainment and mental health support.

Australians came to terms with an uncomfortable truth: some of the lowest paid workers were also the most essential. Nurses, teachers, cleaners and workers in retail, health, aged care and other essential industries were on the frontline of the pandemic. They received little compensation relative to other professions, despite facing the biggest health risks and often suffering abuse from a scared and exhausted population. We are fortunate that so many had the fortitude to stick it out.

Supply chains buckled as surging demand for goods exposed vulnerabilities. Panic buying created unnecessary supply shortages. Prices and the cost of living increased in 2022 when millions of Australians were already struggling to make ends meet. Food costs increased by almost 6 per cent between June 2021 and June 2022. Transport costs increased by more than 13 per cent on the back of rising fuel prices.[43] Labour shortages and natural disasters have only exacerbated these problems.

Fault lines in our governments

There have been extensive reviews of the quality of federal, state and territory public services in the last decade. Unfortunately, many of their key recommendations on how to improve organisational capabilities have foundered on reefs of political disinterest. It became starkly evident during the crisis that recommendations to improve the implementation of major projects, make better use of data analytics or imbed whole-of-government approaches to the design, delivery and evaluation of government policies had not been implemented effectively.

Beyond the rhetoric, it became apparent that commitment to improved citizen participation, co-design of human-centred approaches and the incorporation of lived experience into policy remained at the periphery of public administration. The failure to substantively reform public services during more 'normal' times clearly had a detrimental impact on their capability to adapt quickly as new problems emerged at the community level.

As the pandemic breached our shores, filling cracks in our healthcare system became the top priority. The virus revealed health systems with little to no surge capacity. Officials scrambled to expand ICUs, to buy more ventilators and to postpone elective surgeries. People deferred health treatments and preventative screening. One in three people postponed dental treatment.[44] Cancers remained undiagnosed with more than 150,000 fewer diagnostic procedures than expected.[45] The future cost of this delay in preventative health care is yet to be realised. It is now obvious that we overestimated mortality and underestimated the collateral damage of the actions taken to stop the spread of COVID-19. It could take a decade for Australia to reverse the impacts of deferred primary care and preventative treatment.

Government decision-making frameworks faltered. Pre-pandemic plans – many of which stressed the need to keep schools and borders open – were scrapped. Following 'the health advice' became the mantra of governments. But this advice too rarely extended to non-COVID health issues.

Getting the right people in the room is always a challenge. COVID-19 was a health crisis that required a health response. But ensuring a broad set of economic, social and cultural perspectives were incorporated into decision-making – at all three levels of government – remained a persistent challenge. Early failures meant that subsequent corrections had to be made to increase testing and vaccination rates in key communities. Governments were at times slow to adapt their policies as new research and information came to light, both domestically and abroad.

The rollout of Australia's vaccination program was afflicted by bad luck, bad communication and bad decisions. Bad luck derailed the vaccine being developed at the University of Queensland, despite the tireless efforts of its staff. The AstraZeneca vaccine was struck down by bad communication from officials and politicians who through their statements unnecessarily magnified concerns over the low risks associated with a vaccine generally regarded as safe and effective. Bad decision-making meant that Australia was too reliant on too few vaccine options.[46] Regulatory approvals were too slow when vaccines had already been approved by the world's most trusted regulators.[47] We reinvented the wheel on vaccine distribution instead of using the existing, proven state-based networks normally relied upon.

Government communication became a critical part of our lives. Daily press conferences became our most watched television programs. Challenges in government communication – including the messages conveyed, the channels they were communicated through and the sources of the messages – adversely impacted case numbers and vaccination rates. Previously unknown chief health officers (CHOs) assumed the challenging role of being the face of a government response for millions of Australians. As it became increasingly obvious that their health advice changed over time, and that they sometimes differed in their opinions, public trust in their expertise was diminished.[48]

Governments scrambled to plug gaps in quarantine facilities as challenges in hotel quarantine, on cruise ships and at airports saw new outbreaks emerge.[49] Polymerase chain reaction (PCR) testing facilities hit capacity and Australians trudged from chemist to chemist in search of rapid antigen tests (RATs). Some of our contact tracing systems – designed in normal times to deal with tourists who picked up a bug on holiday – buckled under the pressure of tracking hundreds and then thousands in the community.[50] The inconsistencies and limitations in contact tracing systems across jurisdictions was highlighted early on in the pandemic in the *National Contact Tracing Review*.[51] Australia's Bluetooth-based COVID-Safe tracing app, which was promoted as being "as essential as putting on sunscreen," experienced technical difficulties from the start. It turned out to be virtually useless for tracing contacts of infected people. Only later did businesses, and then state and territory governments, move to a QR code system that was far more effective.

The pandemic exposed major challenges in the availability and quality of data in Australia. The Australian Bureau of Statistics (ABS) was commended for rapidly increasing the frequency and granularity of its data releases, introducing new datasets and surveys to inform decision-making. But the ABS could only do so much. The lack of timely data on key community groups, internal migration, composition of supply chains, consumer spending, location of people for contact tracing or linked health records, made policymaking harder than it needed to be.

The Australian Government quickly recognised a looming gap in the practical management of the crisis in the lack of coordination with industry. The National COVID-19 Coordination Commission was established. It quickly had a positive impact, addressing issues such as ensuring groceries were delivered to both metropolitan centres and remote communities in the face of restrictions on movement. It was less successful in influencing discussions held by the National Cabinet and ensuring that decisions accounted for trade-offs between health, economic and social impacts. Symbolic of the lack of coordinated decision-making was the fact that the head of the Coordination Commission and the Chief Medical Officer (CMO) briefed the National Cabinet separately, rather than being able to argue different perspectives together.

The influence of the Coordination Commission began to diminish as time went on and as politics came back in to play. Their strength was drawing on business networks to solve logistical bottlenecks. They were less well-placed and less successful at influencing public policy, with ministers and influential public servants giving them less opportunity to do so. They had little influence in planning for the longer term move out of crisis mode.

In addition to the Coordination Commission, different businesses in the private sector filled some of the remaining gaps through close collaboration with governments. Businesses were able to use their data and experience to shed light on key issues in real time, ensuring policymakers weren't flying blind. But much of their data stayed hidden from sight.

Fault lines in international collaboration

The Review does not go into detail on the international response to COVID-19. There are examples of effective international cooperation, including on vaccine research collaboration. Australia kept in close touch with many countries. Officials swapped notes on what was working and what was not. Despite its shortcomings and occasional demonisation, the World Health Organization (WHO) played an important role, especially with developing countries. The WHO remains an important institution for advice and analysis on global pandemics.

The world's major powers failed to work together to control the pandemic. The *Lancet Commission on Lessons for the Future from the COVID-19 Pandemic*[52] provides a scathing assessment of the multiple failures of international cooperation. There was a lack of timely notification of the initial outbreak, costly delays in acknowledging that COVID-19 was an airborne virus, inadequate coordination among countries on suppression strategies, a failure of governments to adopt best practice in controlling the pandemic and managing economic and social spillovers, and a shortfall of global funding for low-income and middle-income countries.

There was an absence, too, of timely, accurate and systematic data on infections, deaths, viral variants, health system responses and indirect health consequences. There was poor enforcement of appropriate levels of biosafety regulations in the lead-up to the pandemic, a failure to combat systematic disinformation and a lack of global and national safety nets to protect vulnerable populations.

What was most striking was the tepid performance of international groupings such as the G20 (in stark contrast to the role it played during the global financial crisis), the G7 and regional organisations. Considering this was a global pandemic, the absence of a coordinated global response was disappointing. Vaccine nationalism and other forms of trade protectionism were rife. While efforts were made to make vaccines available to countries that could neither afford nor access them, for the most part these were ad hoc arrangements. The focus was overwhelmingly on national responses. The international community, and global and regional institutions, need to do much better next time.

Despite this, Australia can learn much from overseas. We can look to the preparation and planning of East Asian countries that knew another pandemic was inevitable following the severe acute respiratory syndrome (SARS) outbreak. We can look to New Zealand to learn lessons about the power of timely, integrated health data, to improve our data integration and transparency. We can look to the principles of effective communication applied in the UK. We can look to the multidisciplinary approach to providing advice embraced in Switzerland.

Most importantly, Australia can seek to be a key partner in establishing better international arrangements for responding to a future global pandemic.

Fault lines in our federation

The pandemic revealed the true power of state governments, and the susceptibility of our federation to disagreement and division. The limitations of Australia's primary mechanism for coordinating the federation – the Council of Australian Governments – was so widely recognised as being ineffective that it was abolished soon after the pandemic began.

The National Cabinet took its place. Unfortunately, in public eyes it was a mechanism that tended to over-promise and underdeliver. The effectiveness of the federation at coordinating a national response improved. But coordinating nine governments remained a challenge and the unifying value of the National Cabinet waned over time. Political infighting and blame games re-emerged, made worse by excluding the federal opposition from the National Cabinet discussions. As the pandemic wore on, the National Cabinet failed to bring the national coordination required.

Governments failed to agree on critical definitions. What constituted an 'essential worker' or an 'essential business' varied from state to state. So did requirements on testing, check-ins, social isolation and quarantine. The patchwork of different rules and regulations took its toll on businesses operating across state and territory lines. Those in the business of transport, aged care provision and retail spent precious time deciphering and implementing ever-changing rules, rather than focusing on protecting the community. The constantly changing rules reinforced a fear in the population that no one could agree on the best way through the pandemic.

Snap lockdowns and border closures left households and firms stranded. Already groaning supply chains were hobbled. Camps were set up outside state borders as people were prevented from returning home, attending funerals and caring for family. Households spent what little holiday time they had on high alert in fear of a last-minute border closure.

UNPRECEDENTED CHOICES

The word 'unprecedented' is frequently used but there is no more appropriate word to describe the scale and range of the pandemic policy choices required. Governments abandoned long-established political positions in their fiscal and broader policy response, although politics was never far away.

Interventions unleashed

Governments acted decisively to unleash hundreds of billions of dollars of support. The Australian Government doubled unemployment benefits and implemented the JobKeeper program to counter a sharp rise in unemployment. The Reserve Bank of Australia slashed interest rates to historic levels and unleashed a suite of extraordinary programs to support the economy. State and territory governments unveiled a raft of support programs, particularly for groups that missed out on federal assistance.

These economic supports were primarily to compensate for a brutal new policy in Australia: lockdowns. They proved to be a blunt instrument. Their reach was excessive and their implementation harsh. Initially, an anxious Australia seemed to accept that far-reaching lockdowns were necessary, even desirable. But the balance between the costs and benefits of lockdowns swung towards costs long before governments were willing to lift them. To suggest that economic supports wouldn't have been necessary in the absence of lockdowns is inaccurate. The international evidence suggests that fear of the virus saw people isolate, even in the absence of government-mandated lockdowns.[53] Norway and Sweden, for example, experienced similar contractions in gross domestic product (GDP) despite Norway having much more stringent lockdowns than Sweden.[54]

Many lockdowns were avoidable. Some were the result of failures in our quarantine systems, our contact tracing systems, a sluggish vaccine rollout and shortcomings in our communication with key parts of our community. Some decisions were politically motivated. Some responded to public fear whipped up by the media. Lockdowns, especially when targeted at a particular location, brought a deep sense of inequity among those who were most restricted. Lockdowns, overall, created a universal feeling that the pandemic was being policed rather than managed.

Lockdowns have long-term consequences.[55] The full costs to mental health, children's education and the population's physical health through delayed medical appointments and preventative screening will only become clear as data emerges. The lives saved by lockdowns are equally uncertain.

Weighing up the costs and benefits of lockdowns will be a focus of researchers for years to come. At the beginning of the crisis, when little was known about the virus, a stop gap measure was needed to buy time to put effective procedures in place, to prepare our health systems, develop vaccines, acquire personal protective equipment (PPE) and RATs and to set up contact tracing arrangements. At the end of the crisis, when more information was available and Australia had more tools in its arsenal, the results of a cost-benefit analysis likely look very different.

In other areas, governments were more responsive, forming crisis committees and liaison units. Multiple regulatory and legal frameworks were adapted: insolvency provisions were made more flexible,[56] competition laws were enforced less vigorously to allow businesses to cooperate in the national interest,[57] and the legal system shifted online.[58] The ABS expedited data releases, departments worked with private sector data providers and tax rules were amended to facilitate a real-time view of the economy and the impact of JobKeeper.

Policies pivoted, politics did not

While ideology may have been abandoned in some areas, politics most certainly was not. Political calculation was never far from the surface of COVID-19 decisions. This had a negative effect on economic activity and national morale. Leaders routinely claimed to base policy on expert advice. It is true that some CHOs favoured harsher measures. But it became clear that experts (both within and outside government) often differed in their advice. Government leaders cannot abdicate their responsibility for decisions, especially those that had long-term consequences such as lockdowns and mandatory health orders.

It is neither realistic nor desirable to remove politics from decision-making in an accountable democracy. But the absence of transparency in the expert advice going to leaders helped mask political calculations. It was difficult to gauge the trade-offs that were being considered between health and economic outcomes. It made it easier for leaders to be selective in the 'expert advice' they followed. The basis on which they took different decisions was opaque.

Politics weakened the National Cabinet's effectiveness over time. State leaders insisted on going their own way, emboldened by their constitutional prerogatives. Tough action on COVID-19, including the decision to close schools, was judged politically popular by many state leaders. Until that popularity subsided and such policies were relaxed.

Lockdown overreach in 2020 and 2021 was as much a response to political perceptions of community anxiety as to expert advice. The relaxation of restrictions was also a recognition of shifting public sentiment. The advice of the CMO in early 2020 that wearing a mask was unnecessary and gave a false sense of security was reversed when it became evident that COVID-19 could be spread via airborne transmission. In contrast, the decision not to mandate masks when COVID-19 cases spiked in 2022 was mainly a political judgement and appeared to be contrary to most expert health advice.

Nothing captures the political drivers of many COVID-19 decisions better than the shift from harsh mandatory health orders in 2020 and 2021 to embracing personal choice in 2022. Vaccinations certainly changed the calculus but so did the logic of political positioning.

When COVID-19 was recognised as a pandemic, there was a short window of opportunity to establish national unity and commit to a shared emergency response as a country. There was a chance to be pro-active and reach agreement on areas that needed targeted responses to address existing inequities. Australians hoped that a National Cabinet would bring a national approach. Unfortunately, that was not to be. Indeed, political opportunism – and an absence of transparency and inclusion – fractured the policy response, resulting in unnecessary hardship and consequences for vulnerable people living with disadvantage.

"MANY LOCKDOWNS WERE AVOIDABLE. SOME WERE THE RESULT OF FAILURES IN OUR QUARANTINE SYSTEMS, OUR CONTACT TRACING SYSTEMS, A SLUGGISH VACCINE ROLLOUT AND SHORTCOMINGS IN OUR COMMUNICATION WITH KEY PARTS OF OUR COMMUNITY."

THE COMMUNITY AND BUSINESSES STEP UP

The pandemic is a story of the Australian community stepping up when needed. Australia is no stranger to crises. As has happened so often in the past, the networks of the private sector and civil society proved vital. Businesses, charities, community groups and religious organisations worked together to address the gaps that governments couldn't or wouldn't fill.

When communication strategies used a 'one-size-fits-all' approach, Australians from culturally and linguistically diverse communities turned to overseas news sources. Our consultations found that misinformation and the virus spread in those communities. Testing and vaccination rates stagnated. These trends quickly reversed only when government agencies belatedly began using the networks of multicultural Australia.[59] Culturally appropriate translations allowed community members to read information in their own language. Most importantly, governments came to recognise that public health directions worked best when migrant communities were able to receive information from trusted ethnic and religious leaders.

The deployment of the police and military was counterproductive in remote Aboriginal and Torres Strait Islander communities and in urban areas with large numbers of recent migrants and asylum seekers from war-torn countries. The goodwill and trust that community members felt for civil society organisations was an asset that governments initially failed to appreciate or utilise.

International students, tourists and expatriates found themselves stranded. Left out of support by the Australian Government – and with limited or no help from state or territory governments at different times during the crisis – they relied on charities, universities, friends and informal networks for meals and other assistance. Close to half (47 per cent) of international students said that they had been forced to approach their educational institution for assistance during the COVID-19 lockdowns.[60] Tertiary education institutions provided a total of $110 million to support international students.[61]

Diverse communities shifted online, finding innovative ways to get together. The LGBTIQ+ community held online events and provided online services to support the well-being of many Australians, particularly young Australians. Civil society helped people access the internet and technologies they needed, pivoting to fill gaps in ways that governments could not. Churches, mosques, synagogues, gurdwaras and other places of worship held religious gatherings online.

Businesses collaborated to ensure shelves were stocked and vital supplies were available. They used their connections overseas to plug critical weaknesses in supply chains. Businesses did what they do best: innovate. Gin distilleries made hand sanitiser. Clothing manufacturers made face masks. Manufacturers of machines to treat sleep apnea switched to making ventilators.

When given the opportunity, businesses and civil society worked closely with government. They provided real-time data and on-the-ground information about what was happening in the community. They worked hand in glove with all levels of government to identify inconsistencies in regulations. They identified solutions to help overcome them. Their frontline experience improved communication channels. Close liaison with business and community organisations proved vital. Unfortunately, it often came only after problems became evident.

"BUSINESSES DID WHAT THEY DO BEST: INNOVATE. GIN DISTILLERIES MADE HAND SANITISER. CLOTHING MANUFACTURERS MADE FACE MASKS. MANUFACTURERS OF MACHINES TO TREAT SLEEP APNEA SWITCHED TO MAKING VENTILATORS."

THE LONG TAIL OF COVID-19

Many unknowns remain when it comes to the long-term consequences of COVID-19 and our policy responses. Children – particularly those from disadvantaged backgrounds – will suffer as a result of their disrupted schooling, both in terms of their education and their mental health. The true impact on Australian students may not be known for some time.

Early evidence suggests that high school students in NSW fell many months behind in their learning after missing more than a term of face-to-face learning during the 2021 lockdown.[62] In the US, school closures reversed two decades of progress in maths and reading among nine-year-olds.[63] School closures globally could cost the current generation of students US$17 trillion in lifetime earnings.[64]

Preliminary evidence suggests that the disruption of socialisation for children has created developmental challenges and difficulties in connecting with loved ones. Early US research shows that pandemic-born babies score two standard deviations lower on developmental and cognitive tests than those born pre-pandemic.[65]

Young Australians missed out on formative experiences. Many young people delayed apprenticeships or university and missed out on the experiences society promised them. Gap years were cancelled. So were school formals. Social and professional networks were not developed. Relationships were weakened.

Mental health across the community has been devastated by the pandemic. Young people have been particularly affected: 52 per cent of Australians aged 18–24 have reported that their mental health declined during the pandemic.[66] Other categories of people who are likely to have experienced higher rates of mental ill health include people in financial distress, on a low income, in aged care, in the LGBTIQ+ community, in a multicultural community and women, children, front-line workers, international students and those left out of government supports.

Physical health will also likely suffer. Missed or deferred medical appointments could lead to an increase in preventable diseases. The proportion of Australians who regularly exercised declined by 25 per cent between March 2020 and April 2022.[67] Alcohol consumption increased during lockdowns.[68] The direct long-term impacts of COVID-19 remain largely unknown, but the evidence suggests that the prevalence of long-COVID is increasing.

Australia's international reputation could also have suffered. Some of the harshest lockdowns in the world took place in Australia and the world noticed. We are a country built culturally and economically on immigration. But border closures and a lack of support for temporary migrants saw net overseas migration plummet. Our workforce now has around 190,000 fewer people than what it would have had in the absence of border closures and COVID-19.[69] This has exacerbated labour shortages,[70] resulting in cost-of-living pressures that will take time to dissipate.

Governments and the Reserve Bank of Australia understandably over-insured in response to the crisis. Their judgement was that it was better to do too much than too little, particularly when faced with extreme uncertainty. But we are now living with some of the costs of that over-insurance as inflation and interest rates rise sharply.

Insurance hasn't come free. Federal government net debt has risen from 19 per cent of GDP in 2019 to 28 per cent of GDP in 2022. It will take more than 20 years to return to Australia's pre-COVID debt-to-GDP level if the economy returns to its long-run GDP growth rate.[71] Total debt across the states and territories is almost four times as high as it was in 2019.[72] Restoring fiscal policy buffers is essential to provide sufficient firepower to respond to the next crisis. Governments will need to decide who should bear the cost of budget repair and how much of it will fall on young people.

Government supports have been effective at reducing unemployment and business failures. But job-to-job transitions, important for improving wage growth and productivity, collapsed as we froze the economy. Young people new to the labour market found a wall instead of a door. Firms that would have failed even in the absence of a pandemic were kept alive with government supports, payment holidays and changes to insolvency laws. The lost experience, interruption in matching people to the right jobs and misallocation of capital are likely to have negative long-term consequences for productivity and wages.

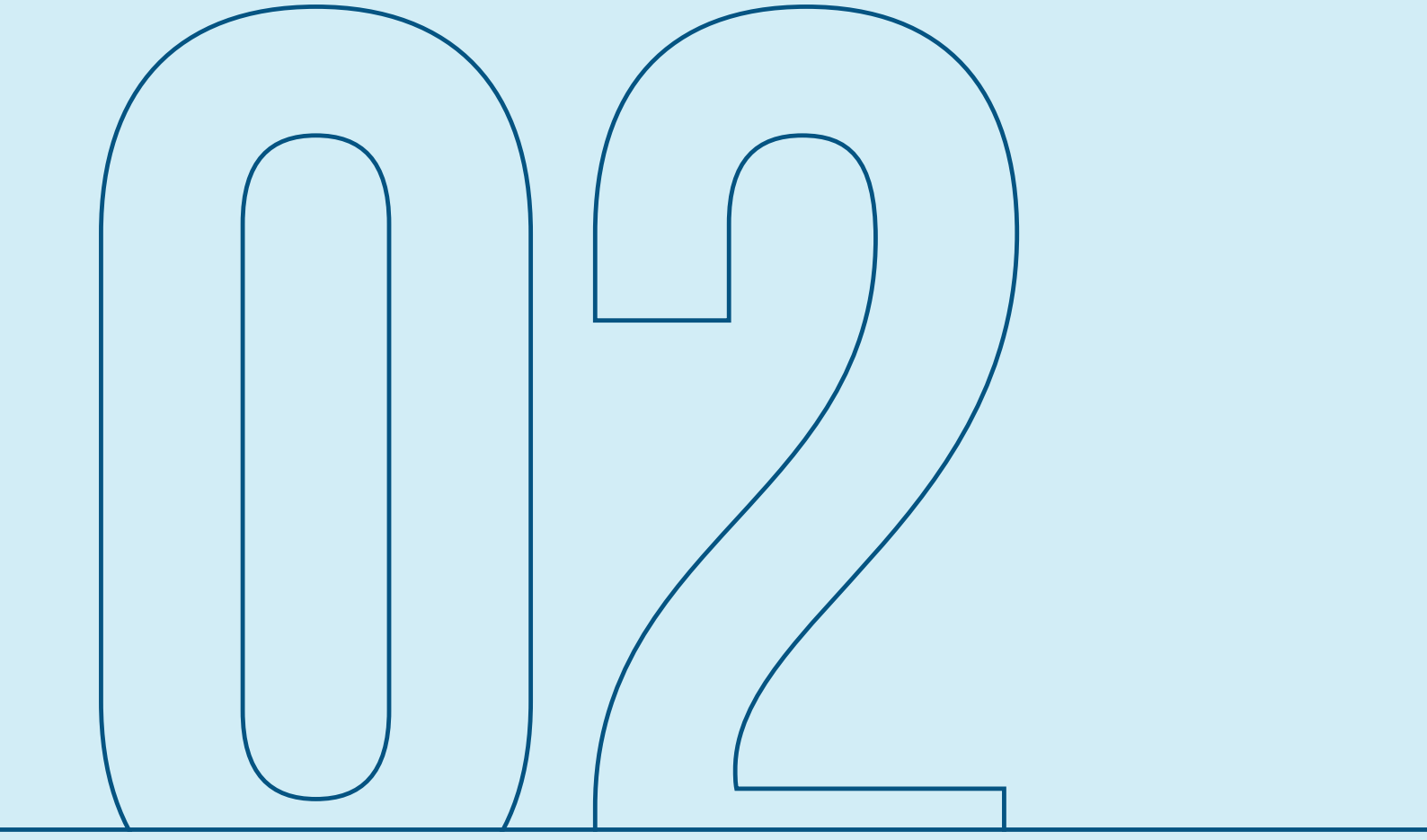
It is probable that we will see higher inequality and poverty than before the COVID-19 pandemic, despite the remarkable progress in 2020 that temporarily reduced both. By September 2021, 1.7 million people were on the lowest income support payments (25 per cent more than before the pandemic). These payments still sit below the poverty line.[73]

Investment and attention to other threats like climate change were set aside as governments, businesses and communities dealt with the more immediate crisis. It was a significant blow to those who hoped the new decade would herald a pivot towards progress.

The crisis had a silver lining – the dramatic increase in technology adoption. We saw years' worth of digital transformation occur within weeks or months. Telehealth experienced rapid uptake from 1.3 to 36 per cent of consultations.[74] Schools and universities quickly moved to online education. Many businesses became adept at running their operations online. Even as people return to education or work, it is likely that significant elements of the digital economy will remain incorporated into daily lives. If this uptake sticks, it may offset some of the negative productivity shocks to education, human capital and professional networks that are likely to result from COVID-19.

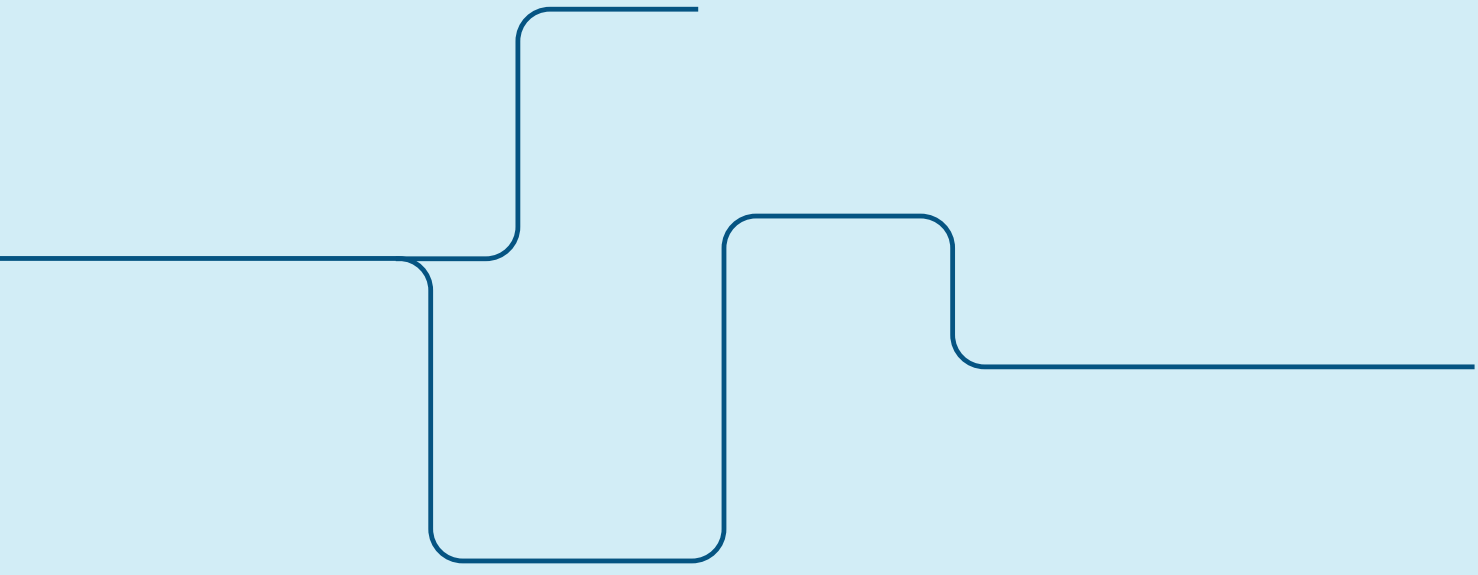
"IT WILL TAKE MORE THAN 20 YEARS TO RETURN TO AUSTRALIA'S PRE-COVID DEBT-TO-GDP LEVEL IF THE ECONOMY RETURNS TO ITS LONG-RUN GDP GROWTH RATE."

WHAT WE FOUND



Memories quickly fade, even as the long-term effects of COVID-19 linger. Our findings and recommendations are an attempt to make sure we don't forget what we have learned. Our conclusions are presented as:

- Four reflections on policy areas where we should have done better in our pandemic response.
- Five overarching lessons from the pandemic.
- Six practical recommendations to ensure we do better in the next crisis.



FOUR AREAS WHERE WE SHOULD HAVE DONE BETTER

1: ECONOMIC SUPPORTS SHOULD HAVE BEEN PROVIDED FAIRLY AND EQUITABLY

Temporary migrants should have been eligible for financial assistance. A decision was made early in the pandemic to exclude temporary migrants and international students from economic support payments. They had no access to the JobKeeper or JobSeeker packages introduced in March 2020. This was in marked contrast to the UK, New Zealand, Canada and Ireland where support programs were expanded to temporary migrants. It appears unfair that two workers in the same job received different levels of support based solely on their visa status.

When COVID-19 reached our shores, around 2.4 million temporary migrants were in Australia, including international students and working holiday makers.[75] Over time, some 500,000 took the Government's advice and left the country,[76] but force of personal circumstance, strained finances and the collapse of global air travel meant most could not.

Few of these workers had sick leave and most had very limited access to financial support or Medicare. Many skilled temporary migrants were wracked with uncertainty, knowing that they had to remain in employment to retain their work visa. They were strongly incentivised to work when ill and to move around in the search for employment even when restricted by lockdowns.

They felt abandoned. A survey of 6,100 temporary visa holders conducted in July 2020 found that 70 per cent had either lost their jobs or most of their work hours. Some 33 per cent had sought emergency support from Centrelink but 29 per cent, although in desperate circumstances, had not done so for fear they would lose their visas.[77]

Without work, they largely depended on meagre savings, charity handouts and friends. Around 54 per cent of international students reported they were experiencing financial difficulty because of job losses or reduced hours because of the pandemic.[78] Denied support, they often relied on food parcels and rental assistance from the universities where they studied. The academic community rose to the occasion. In truth, it should not have been required to do so. In 2019, international education activity earned $37.6 billion in export income for Australia.[79] By 2020, overseas students, many of whom worked to support their studies, found themselves portrayed as a financial burden, unworthy of support.

It is true that temporary migrants received some assistance from state and territory governments from April 2020 onwards, a month after JobKeeper and JobSeeker were announced. However, this was not consistent across jurisdictions, patchy in coverage and complicated to navigate. Charities and non-government organisations introduced initiatives to try to plug these gaps.

Some 60,000 refugees and asylum-seekers on bridging and protection visas were placed in an even more dire situation. The Australian Government had already drastically cut their eligibility for assistance from Status Resolution Support Services in 2018.[80] It was left to hard-stretched frontline charities to extend help, supported in NSW, Victoria and Queensland by emergency grants.

"PEOPLE WHO BECAME SICK WERE FORCED TO CHOOSE BETWEEN THEIR INCOME AND THE NEED TO PROTECT THE HEALTH OF THEMSELVES AND THEIR COMMUNITY."

JobKeeper should have had a built-in claw back for businesses that made large profits. More than 20,000 businesses that received JobKeeper tripled their profits during the pandemic, while still accruing $370 million in JobKeeper payments.[81] While we appreciate the short timeframe in which JobKeeper was designed and the understandable focus on getting money out the door to bolster confidence, this money could had have been better spent supporting excluded groups of workers. In retrospect, not having a clawback mechanism was a significant design fault. We should be better prepared next time.

Short-term casuals should either have been eligible for JobKeeper, or JobSeeker should have been increased to match the JobKeeper rate. More than 40 per cent of employed young people had not been with the same employer for more than 12 months.[82] For those employed on a casual basis, this made them ineligible for JobKeeper. The doubling of the JobSeeker payment went some way to supporting these people if they were unable to work, but it was still less than the support given to those working similar jobs but on JobKeeper. This strikes at basic elements of fairness, given that it was often public health orders that drove changes in workers' employment status and reduced their alternative job opportunities.

Sick leave should have been provided to workers that didn't have it. Most casual and contract workers did not have sick leave as part of their working conditions. People who became sick were forced to choose between their income and the need to protect the health of themselves and their community. Staying home while sick is a public good. Governments should have done more to ensure that sick leave was available to those who needed it from the start.

2: LOCKDOWNS AND BORDER CLOSURES SHOULD HAVE BEEN USED LESS

Lockdowns and border closures were something Australians had never contemplated. Being ordered by government to not leave your home was unimaginable and at odds with the larrikin self-image most Australians have of our nation. But state and territory governments imposed lockdowns and curfews on an almost regular basis over the course of the pandemic and most Australians accepted these restrictions, if increasingly grudgingly.

Lockdowns were a sensible course of action in the early stages of the pandemic. There was a large degree of uncertainty. Many of the characteristics of COVID-19 were unknown. Lockdowns bought us time that could be used productively to learn about the virus and to prepare our hospitals, contact tracing systems and vaccine distribution networks. Supplies of PPE for front-line workers could be secured.

But too often the use of lockdowns appeared to be driven by policy failures in other areas, such as in quarantine, COVID-19 testing, contact tracing and vaccine procurement and distribution. For example, our failure to procure a sufficient diversity of vaccines resulted in long, avoidable lockdowns during 2021. Canada, the UK and the US had all signed deals with at least six vaccine manufacturers by September 2020.[83] Australia focused on only two vaccine candidates until November 2020 and even then only expanded to four potential options.[84] When the two initial vaccines both encountered problems, we were left with too few vaccine doses to rapidly inoculate our population.

We became too reliant on lockdowns as our dominant public health response. The decision to impose them appeared to be decided on narrow health advice aimed at minimising COVID-19 case numbers. Too rarely did governments consider potential broader health and social impacts, particularly on the disadvantaged. Cost–benefit calculations were largely absent. Trade-offs were rarely discussed. Governments appeared to be overly focused on short-term benefits, with too little discussion of long-term consequences. The imposition of lockdowns regularly showed overreach, and their implementation lacked consistency, compassion and clarity.

The Australian Government decided early in the pandemic to close Australia's international borders. Some state and territory governments subsequently closed domestic borders at different times and to varying degrees. Interstate border restrictions affected a significant number of people, especially those in border communities. Only 2,660 out of 33,252 exemption applications were granted in Victoria. Families were kept apart, even when there were strong compassionate reasons to facilitate an exemption. Businesses that relied on regularly crossing the border were severely impacted.[85]

The Australian Government should have made it easier for citizens and permanent residents to return to Australia during the pandemic. Its quota system and lack of supports prevented people coming home, leaving them stranded overseas during a pandemic. Increasingly, border controls came to be regarded as draconian. Many Australians came to believe that the "ability to come and go was determined by nameless officials behind computer screens… Citizens living abroad felt abandoned and betrayed, some were even threatened with jail and fines if they returned home".[86]

Our starting proposition should be that Australian citizens and permanent residents have a moral and human right to enter their own country. Restrictions on movement should be proportionate. While setting up appropriate arrangements was initially challenging, as time went by it would have been possible to establish temporary quarantine facilities and logistics to let people return home.

A similar approach needs to be taken to the closure of state and territory borders. People should have a right to return to their own home in their own state. Quarantine, testing and contact tracing facilities should be at a level that allows this to happen. As with lockdowns, border closures – particularly between states and territories – should be used sparingly and only in extreme situations. They should be applied with greater empathy and flexibility.

3: SCHOOLS SHOULD HAVE STAYED OPEN

Schools are an integral part of a child's life. They educate and play a crucial social role by providing children with formative friendships and experiences. They also have a vital role in facilitating parents' workforce participation. The Treasury Secretary advised the National Cabinet that closed schools would mean five per cent of the workforce would not be available.[87]

For these reasons, and others, many pre-pandemic plans recommended that schools remain open. The Australian Government's health advice at the start of the pandemic was that attending school was safe if proper precautions were taken. But state governments took a different view. School closures were commonplace. This is likely to have significant adverse impacts on children's outcomes in education, social development, and mental and physical health.

According to the NSW Mental Health Commission, 60 per cent of parents believe that their senior secondary school children were negatively affected by school closures in 2021. With children at home, parents' (especially mothers') caring responsibilities significantly increased. This led to some women having to withdraw from the paid workforce.[88] Others worked while simultaneously caring for and teaching their children, adversely affecting their mental health and productivity.

These impacts were exacerbated for more disadvantaged students. Not all students had the required access to the internet or technology at home, or a parent readily available at a moment's notice to act as a quasi-teacher. In one survey of teachers in NSW in 2020, only 18 per cent of teachers from low SES schools were confident that their students were learning well during remote schooling.[89] International research found that learning losses were up to 60 per cent larger for disadvantaged students.[90]

The shift to remote learning coincided with more than two-thirds of teachers reporting an increase in working hours to accommodate the needs of students in an online learning environment.[91]

Sweden, controversially, decided to keep schools open during the pandemic, relying on good hygiene and awareness of social distancing to lower the likelihood of infection. Upper secondary schools were later closed, but primary schools were never shut down. Yet the incidence of acute COVID-19 in children remained low. Few teachers (less than 0.02 per cent) required intensive care due to the disease.[92] Most importantly, Swedish children do not appear to have suffered the learning loss seen elsewhere.[93]

Schools should stay open in future health crises unless there is strong health advice that outweighs the likely educational, mental health, social and economic costs of school closures. Clear cost-benefit and risk management frameworks should be established. Closures should be targeted so that only specific schools are closed and not entire school systems. The same applies to universities and vocational education and training schools. The long-run social and economic costs of closing universities and vocational education and training schools is disproportionately felt by young people. They should stay open unless there is strong health advice that outweighs these other considerations.

System-wide closures can be avoided by opting instead for geographically targeted closures or a staggered approach with only certain years transitioning to remote learning, while other years remain in the classroom. This decision should be based on the disease profile for different age groups. At the very least, as occurred overseas, there needs to be explicit decisions that schools can continue to operate for vulnerable children (not just for children of essential workers). The experience of jurisdictions that are now safely managing schools through COVID-19 provides a strong evidence base for the policy that should prevail in future pandemics.

4: OLDER AUSTRALIANS SHOULD HAVE BEEN BETTER PROTECTED

Australia entered the pandemic with an aged care sector in disarray. Many independent older people requiring support at home were waiting in long queues for access to federal government Home Care Packages appropriate to their needs. Aged care homes were grossly underfunded. Frontline workers were already overworked.

According to the *Royal Commission into Aged Care Quality and Safety*, this state of affairs had its roots in the fact that the aged care system depersonalised older people.[94] In Australia, as in many other countries, this reflected deeply entrenched ageist attitudes in the community. Older people were often unintentionally patronised as members of a vulnerable group whose freedoms needed to be restricted more than those of other Australians. We failed to recognise that it was the presence of co-morbidities and pre-existing health conditions, rather than age itself, that made people more susceptible to serious illness or death.[95] A homogenous view of older people as defenceless exacerbated both hostile and benevolent expressions of ageism.

There was too little understanding by public health authorities that aged care communities are intended to provide a caring home for frail people to spend their final years. They were not built as hospitals. Policy decisions often reflected a perception that aged care homes were institutionalised health care facilities.

Care providers were initially criticised for too cavalierly restricting access to residents' families, even though they were motivated by the need to establish appropriate quarantine arrangements. Yet, governments subsequently extended restrictions on visits to aged care homes long past the end of their outbreaks, with little apparent comprehension of the acute levels of anxiety and distress such constraints had on families.

Health authorities often restricted the ability of residents of aged care homes to go to hospital when they became infected. Indeed, initial guidelines by the Communicable Diseases Network Australia advised that residents with COVID-19 were to be transferred "only if required for clinical care".[96] Later the guidelines were silent on this matter. Aged care providers told us that many health authorities preferred that residents who had tested positive remain in the facility. Yet homes, which often include many residents with dementia, are neither designed nor intended to have the infection-control standards of hospitals. Our consultations suggest that if some ill residents had been swiftly transferred from care communities to available beds in hospitals, the spread of infection – and associated deaths – would have been far lower.

It is imperative that public health authorities recognise that equal access to the hospital system is the fundamental right of all Australians, no matter their age or whether they live independently or in residential care. Admission to hospital should not be based on negotiation. The decision about whether a person in aged care should be transferred to hospital always needs be based on the best interests of the individual, while taking into account the risk to other residents and broader public health considerations.

FIVE OVERARCHING LESSONS

Our analysis and consultations identified five overarching lessons from the pandemic. These embody many of the values and procedural principles of the National Health and Medical Research Council's *Decision-making for Pandemics: An Ethics Framework*. They include respect, justice, transparency, accountability, inclusiveness and proportionality.[97]

1: HAVE SOCIETAL FAULT LINES FRONT OF MIND

This lesson, from our perspective, is the most important. Policies were too often designed and implemented without proper regard for inequalities that already existed in our society and the vulnerabilities of particular communities. The failure to account for societal fault lines from the beginning undermined the effectiveness and fairness of our health and economic response.

We need to place vulnerable Australians at the centre of our crisis response if we are to be better prepared for the next health crisis. It is true that over time some formal committees of experts were established to provide advice to governments on how best to respond to the needs of particular groups. This was necessary, but not sufficient.

It is imperative that decision makers have societal fault lines front of mind. We need to ensure that social inequalities and vulnerabilities are factored into policy decisions at the outset.

Our recommendations, if taken up, will help to ensure that our response to future health crises is more effective and cognisant of existing fault lines in our society.

2: PLAN, PREPARE AND PRACTISE

Too much of Australia's pandemic response was developed on the run. Most of Australia's pandemic plans were developed for a flu-like outbreak. They were not adequately scenario tested. These plans were hurriedly discarded in the face of an actual pandemic.

We will never be able to predict the next health crisis. But failing to plan is planning to fail.

3: AVOID THE PERILS OF OVERREACH

Government regulations and enforcement too often went beyond what was required to control the spread of the virus, and sometimes lacked discretion. Outdoor mask mandates were implemented along with restrictions on outdoor activities. Regional communities with no COVID-19 cases were locked down and schools closed. International and interstate border restrictions continued in some jurisdictions well after significant community transmission had begun.

Rules were too often formulated and enforced in ways that lacked fairness and compassion. Business people were often allowed to travel across borders whilst those wanting to visit dying loved ones or newborn family members were not afforded a similar opportunity. Travelling across state borders was permitted for professional sports stars but not for those who needed healthcare.

Overreach can undermine fundamental rights and public trust in the institutions that are vital to an effective crisis response. Fairness and compassion are not luxuries. They are necessities that must be deliberately built into policy to mitigate the risks of overreach.

"WE NEED TO PLACE VULNERABLE AUSTRALIANS AT THE CENTRE OF OUR CRISIS RESPONSE IF WE ARE TO BE BETTER PREPARED FOR THE NEXT HEALTH CRISIS."

4: BE TRANSPARENT, CLEAR AND CONSISTENT

There was insufficient transparency in how decisions were made, who was making the decisions and the evidence upon which they were relying. The Prime Minister announced decisions the National Cabinet had made, but state and territory governments then went in their own direction. We were told to follow the health advice at all costs, but the health advice being received by governments was not always provided in a transparent manner.

Transparency and clarity are critical to public confidence and ensuring the best decisions are made.

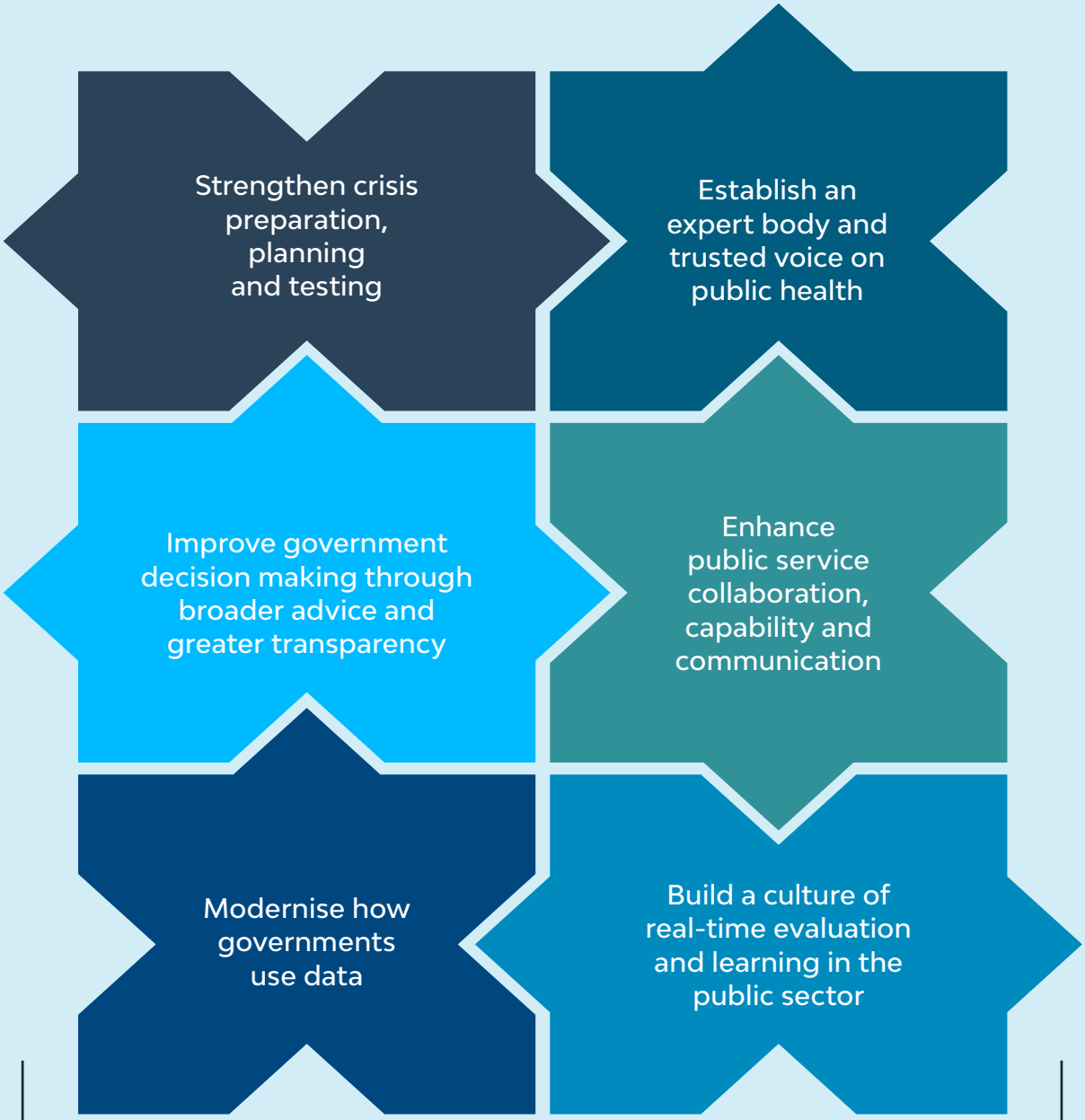
5: BETTER BALANCE COMPETING TRADE-OFFS

"There are no solutions, there are only trade-offs" was the famous quote from economist Thomas Sowell. Nowhere is this truer than in our response to COVID-19. There were trade-offs between health, social and economic outcomes. There were trade-offs between the short-term and the long-term. There were trade-offs between different parts of the community.

The existence of these trade-offs was too often ignored in our pandemic response. It's vital that, in the next health crisis, governments acknowledge the existence of these trade-offs and carefully manage them through risk management and cost-benefit frameworks. These involve very difficult questions and tough conversations. All the better, then, that they take place before a crisis occurs.

"THERE WAS INSUFFICIENT TRANSPARENCY IN HOW DECISIONS WERE MADE, WHO WAS MAKING THE DECISIONS AND THE EVIDENCE UPON WHICH THEY WERE RELYING."

SIX RECOMMENDATIONS TO ADDRESS KEY ISSUES WE HAVE IDENTIFIED



Enables a more effective response to our next health crisis by ensuring that fault lines are recognised from the outset

RECOMMENDATIONS

03

RECOMMENDATION 1

Strengthen crisis preparation, planning and testing

1.1 Ensure that pandemic plans are wide-ranging, include consideration of trade-offs and are regularly scenario-tested

RECOMMENDATION 3

Improve government decision-making through broader advice and greater transparency

3.1 Establish a panel of multidisciplinary experts and representatives to advise governments and the National Cabinet during health crises

3.2 Better harness the frontline experience of business, unions, the community sector and local government in crisis planning and response

3.3 Clearly define the roles, responsibilities and membership of the National Cabinet in a crisis

3.4 Publicly release the modelling and evidence used in government decision-making

RECOMMENDATION 5

Modernise how governments use data

5.1 Enhance the *Data Availability and Transparency Act 2022* (Cth) and permanently amend the *Tax Administration Act 1953* (Cth)

5.2 Require the sharing and linking of data between jurisdictions

5.3 Enhance analytical capability within government departments

RECOMMENDATION 2

Establish an expert body and trusted voice on public health

2.1 Establish a world-leading, data-driven and independent Australian Centre for Disease Control and Prevention

RECOMMENDATION 4

Enhance public service collaboration, capability and communication

4.1 Significantly improve the collaboration of public servants across jurisdictions

4.2 Establish an interjurisdictional Public Service Centre of Excellence

4.3 Increase the diversity of the public sector to ensure it reflects Australian society

4.4 Expand the channels and methods of communication used to reach diverse groups

RECOMMENDATION 6

Build a culture of real-time evaluation and learning in the public sector

6.1 Establish an independent Office of the Evaluator General

RECOMMENDATION 1

STRENGTHEN CRISIS PREPARATION, PLANNING AND TESTING

One major initiative is required to give effect to this recommendation.

1.1 Ensure that pandemic plans are wide-ranging, include consideration of trade-offs and are regularly scenario-tested

Australia's pandemic plans were inadequate. They were designed for the wrong pandemic, were not regularly updated and were rarely scenario tested in 'war game' simulations. It's little wonder they were quickly discarded.

Most of Australia's pandemic plans were developed after the H1N1 'swine flu'. They were designed to contain an outbreak of a short-term flu-like virus. We were not prepared for a novel coronavirus, let alone the multi-year crisis it delivered.[98]

Australia's pandemic plans were not regularly updated as new information, research and data became available. Inadequate planning meant that too many decisions during COVID-19 had to be made on the run and with limited evidence and little consideration for complex trade-offs between health, social and economic outcomes.

Australia has plans for cyberattacks, terrorist incidents and military incursions. The plans are detailed and regularly scenario-tested with relevant stakeholders. This was not the case for our pandemic plans. Australia had not run a large-scale national pandemic simulation exercise since 2008, when *Exercise Sustain* was conducted.[99]

The world was very different then. The iPhone had only just been invented. Consultations with people who worked on the previous pandemic plans and participated in the testing exercises observed that contact tracing was still being done manually with manilla folders. This lack of practise meant the important relationships required in a crisis were not fully formed, the practicalities of the plans were not fully tested and not all decision-makers were briefed on their roles. This reduced the confidence of policymakers in their roles and responsibilities.

Australia performed well on international rankings of pandemic preparedness.[100] It was positioned second and fourth in the Global Health Security Index in 2021 and 2019 respectively. It turned out, however, that these rankings did not correlate with outcomes during the pandemic. Although the US and UK were ranked first and second for pandemic preparedness, they endured some of the highest COVID-19 death rates among wealthy nations.[101]

Although pandemics featured heavily in pre-COVID-19 risk assessments, many high-income countries had failed to anticipate and adequately prepare for a shock of the magnitude that COVID-19 delivered. Assessments of pandemic preparedness did not account for the outsized impact of external societal and political factors on a country's pandemic response.[102]

What needs to be done

Governments should incorporate a broader definition of pandemics rather than focusing solely on influenza. Research and data will need to form the backbone of these plans. Governments must monitor not only the emergence and changing risk profiles of new pathogens but identify knowledge gaps that Australia will need to fill if one of these new pathogens sparks an epidemic. Countless laboratories pivoted to COVID-19 research during the pandemic in ways that were both unstructured and duplicative. This potentially meant that research on other important areas of health had to be put on hold.

Plans are only effective if they are practised. They should be scenario tested on a large scale every two years. These tests should be based on WHO principles which detail the experiences of different countries in undertaking these exercises including what works and what doesn't work.[103] The plans should be regularly updated with the lessons learned from these exercises. The outcomes should be publicly available.

It's vital that people understand their roles. All groups required to participate in a pandemic response should be included in the exercises so they know what their role will be and what they will need to do. This should include senior public servants from major government agencies and their ministers. Industry players such as airlines, transport providers, supermarkets, hospitals and diagnostic services need to also be included, along with primary healthcare providers, the police, military and community organisations.

Pandemic plans can't be limited to health issues. COVID-19 highlighted the vulnerabilities of Australia's supply chains. Plans should include mapping of supply chains that are sensitive to disruption, similar to that performed by the Productivity Commission in 2021.[104] Vulnerabilities in areas such as PPE, ventilators and sterilised medical equipment need to be monitored over time. Steps can be taken to improve the flexibility of these supply chains in advance of a future health crisis. This can be done by helping businesses identify alternative suppliers, by making it easier for them to switch their production processes, by reducing the barriers to entry for new firms and, in some cases, by developing stockpiles.

Cross-jurisdictional collaboration is vital. The pandemic plans and scenario-testing exercises should involve key ministers, their advisers and public servants from across jurisdictions. These exercises will reveal the varied statutory frameworks that determine public health decision-making in different states and territories that can inhibit national coordination. The exercises will expose underlying political tensions regarding jurisdictional funding, especially in key areas such as education. Planning can help to identify in advance conflicting priorities and incentives, such as where the federal government foots the bill for health measures taken by states and territories.

Emergency legislative frameworks and plans need to consider who holds the balance of power in decision-making and ensure that decisions are based on a broader range of economic, social, cultural and ethical considerations. Public health officials, including CHOs, CMOs and the AHPPC, were given disproportionately greater decision-making authority throughout the pandemic. Victoria has since changed its legislation to limit the role of the CHO in a health crisis. They have given more power to the health minister as an elected representative whose accountability to constituents and parliament may incentivise broader considerations of expertise at a time of crisis.

Plans should include more targeted measures to avoid the need for broad-based, intrusive interventions such as lockdowns. Workplace transmission has been significant during the pandemic and accounted for about 80 per cent of Victorian infections during the first COVID-19 wave from May to July 2020.[105] It had a larger impact on lower-income households and workers in sectors such as construction and accommodation and food services who often could not work from home.[106]

While Safe Work Australia provides guidance to assist workplaces in reducing the risk of COVID-19 transmission,[107] employers don't have clear legal obligations to take specific actions to reduce this risk. Enforceable workplace safety requirements could have improved protections for frontline workers. Similarly, it would be valuable if jurisdictions could agree on a framework of advice to assist schools in ensuring that they can meet their responsibilities for health and safety during a pandemic.

Pandemic planning must adapt to the different phases of a health crisis. In the early stage it is likely that most metrics, such as rates of transmission and possibility of vaccine development, will be unknown. Decision-making needs to be fast but flexible. It needs to change as new evidence becomes available. The decisions made will look very different in the early stages of the crisis compared to those made when we are adapting to the new normal or in the final 'recovery' phase. Overall, Australia responded well in the initial phase of the pandemic but this advantage was lost in the later phases, particularly in relation to communicating changing approaches and goals.

CASE STUDY:

PANDEMIC SCENARIO TESTING IN SOUTH KOREA

Following the Middle Eastern respiratory syndrome and SARS outbreaks, South Korea's experience of dealing with virus transmission out of China led it to run regular pandemic scenario testing. A December 2019 simulation exercise on a fictional outbreak of a pneumonia-causing coronavirus directly informed decisions made by South Korea less than a month later, when COVID-19 emerged from China.

The South Korean approach demonstrated the value of tools, such as track and trace techniques, to identify contacts with infectious patients. It highlighted the importance of stockpiling testing equipment which was shown to be in short supply during exercises. The team of infectious disease specialists at the Korea Centers for Disease Control and Prevention, who were tasked with the hypothetical scenario, confirmed that the exercise helped save time developing methodologies to deal with a novel outbreak.[108]

"WORKPLACE TRANSMISSION HAS BEEN SIGNIFICANT DURING THE PANDEMIC AND ACCOUNTED FOR ABOUT 80 PER CENT OF VICTORIAN INFECTIONS DURING THE FIRST COVID-19 WAVE FROM MAY TO JULY 2020."

RECOMMENDATION 2

ESTABLISH AN EXPERT BODY AND TRUSTED VOICE ON PUBLIC HEALTH

One major initiative is required to give effect to this recommendation.

2.1 Establish a world-leading, data-driven and independent Australian Centre for Disease Control and Prevention

The failure to coordinate key public health tasks across jurisdictions, including disease surveillance and data sharing, was a major challenge in Australia. It led to unjustifiable inconsistencies across jurisdictions. It led to contested expert knowledge. It caused confusion among the public. It unnecessarily complicated crisis management. It imposed a heavy economic cost on industries that operated across state lines.

Australia is the only OECD country that doesn't have an authority for communicable disease leadership that is independent from government. No central repository was used to gather expert views or collate public health data to paint a more complete picture of the unfolding pandemic. The health advice and public health directives coming from various jurisdictions, particularly on school and border closures, was inconsistent. CHOs and other medical experts were largely aligned on the scientific views of the pathology of COVID-19, but there was significant disagreement on the appropriate policy response.

Our consultations revealed that politics and a lack of coordination were to blame. Differences were not driven by the different characteristics of states and territories. Political considerations came into play, in part because of the varying basis upon which public health officials were asked to frame their advice to ministers. This undermined attempts to build a national approach.

The NSW Public Health Training Program was effective in elevating expert field epidemiologists to leadership positions. Other states such as Victoria lacked comparative training or opportunities to ensure public health experts were in key decision-making positions. The health advice from experts needs to be shared across jurisdictions. Failing to effectively share health advice meant there was a lack of scrutiny. The best advice was not necessarily received by all decision-makers. This adversely impacted policy-making capabilities.

There was a more profound failure. Too much of the health information that informed decision-making was hidden from public view. Non-disclosure agreements on data, modelling and advice prevented scrutiny. A lack of transparency saw a plethora of external health experts become media celebrities, filling the information gap in ways that sometimes created confusion and undermined health advice. Public health advice increasingly varied across jurisdictions and was routinely contested by outside medical authorities. Public confidence in 'expertise' was eroded.

"AUSTRALIA IS THE ONLY OECD COUNTRY THAT DOESN'T HAVE AN AUTHORITY FOR COMMUNICABLE DISEASE LEADERSHIP THAT IS INDEPENDENT FROM GOVERNMENT."

CASE STUDY:

UK HEALTH SECURITY AGENCY

The UK established the UK Health Security Agency (UKHSA) in 2021 out of the former National Institute for Health Protection (which was founded at the beginning of the pandemic). While its initial focus is on fighting the COVID-19 pandemic, it is a permanent body that aims to build infrastructure to prevent future infectious diseases and external health threats.[109] The agency brings together public health leadership at international, national and local levels and works collaboratively with national public health bodies for Scotland, Wales and Northern Ireland. While still in the early period of operation, it offers a model of an evolving public health authority amid the ongoing COVID-19 pandemic.

The UKHSA, which includes a Centre for Pandemic Preparedness, has a broad remit that covers infectious diseases; chemical, biological, radiological and nuclear incidents; and other health threats.[110] Its key areas of focus are to provide surveillance and modelling capabilities; geonomics sequencing capabilities; clinical guidance and communications to meet the needs of different population groups; and an agile, scalable and effective contact tracing service.[111]

It focuses on open data and ensuring transparency by publishing evidence, including regular reporting on vaccine effectiveness.[112] UKHSA monitors COVID-19 through the COVID-19 Infection Survey, which tracks weekly prevalence of the virus across the UK as well as vital information on the socio-demographic characteristics of the people and households involved. Building on this, the UK also runs SIREN (for healthcare workers) and VIVALDI (for staff and residents in care homes), which collect data to monitor the spread of COVID-19 in high-risk settings.[113]

The UKHSA has international partnerships, including with the Centre for Epidemic Forecasting and Outbreak Analytics, run by the US Centers for Disease Control and Prevention (CDC), which aims to combat global pandemics and emerging health threats. This partnership emerged in 2021, during the COVID-19 pandemic.[114] The UKHSA leads the New Variant Assessment Platform, which helps enhance global efforts to combat COVID-19 by giving international access to the UK's world-leading sequencing and virus assessment expertise.

What needs to be done

COVID-19 highlighted the need for Australia to create an institution like the US CDC, the European Centre for Disease Prevention and Control or the Public Health Agency of Canada.

None of these institutions are perfect. We need to learn from their experiences on what works well and what does not. The ACDCP should have a broad remit that includes infectious diseases and other chronic diseases like cancer and obesity. Its remit should be jointly agreed with state and territory governments and be structured with state and territory-based nodes in order to bring research institutes together across all jurisdictions. It should support expanded training and secondment programs to ensure that every state has access to first-class epidemiologists.

Most importantly, the ACDCP should be independent, evidence-based and apolitical in its staffing appointments. It should be data-driven and have complete access to federal, state and territory government datasets with the legal and technical capabilities to develop its own additional datasets. It should build on public health surveillance tools including wastewater screening, genomics surveillance and random infection surveys. These tools were critical in enabling localised and timely targeting of outbreaks during the pandemic. Surveillance tools must connect across jurisdictions and with other relevant sectors to be effective.

The ACDCP should be responsible for providing health advice and modelling to the federal government, unfiltered by political considerations. It should coordinate disease tracking and data collation and analysis. In a health crisis, it should ensure national coordination of these tasks. This advice should be provided alongside that of other relevant advisory groups, allowing the opportunity for social, economic, business and community organisations to provide additional inputs that are taken into consideration during a health crisis.

It should act as the advisory body to the AHPPC to ensure that independent advice informs public health decision-making. The AHPPC would remain the chief adviser to government, given its composition of CHOs and CMOs.

The ACDCP should not only act as a crisis body. It should add significant value in normal times by promoting public health and disease prevention advice and bolstering existing scientific capabilities across Australia. It should also be used to identify talent and expertise across the country to forge networks of expertise.

Collaboration is key. States and territories should remain responsible for public health and infrastructure for disease surveillance, but the ACDCP needs to facilitate greater collaboration and consistency of agreed evidence across jurisdictions. The independent nature of the institution would increase the credibility of the health advice informing policy decisions in a crisis. This would build and maintain public trust and confidence, particularly if the key elements of the advice were publicly available. The specific science and technology capabilities required to improve Australia's response to future pandemics, and which would build the capabilities within the ACDCP, have been outlined by the CSIRO in their report *Strengthening Australia's Pandemic Preparedness*.[115]

"THE ACDCP SHOULD BE RESPONSIBLE FOR PROVIDING HEALTH ADVICE AND MODELLING TO THE FEDERAL GOVERNMENT, UNFILTERED BY POLITICAL CONSIDERATIONS."

RECOMMENDATION 3

IMPROVE GOVERNMENT DECISION-MAKING THROUGH BROADER ADVICE AND GREATER TRANSPARENCY

Four initiatives are necessary to give full effect to this recommendation.

3.1 Establish a panel of multidisciplinary experts and representatives to advise governments and the National Cabinet during health crises

One concern came up more than all others during our consultations: governments focused too much on COVID-specific health considerations and too little on the broader social, economic, cultural and non-COVID-19 health issues.

Unintended consequences were rife. Those consulted felt that when broader advice was provided it was often ignored or acted upon too late. Business and community groups felt they were not given a seat at the table and that their voices were not often heard by decision-makers. Frontline expertise was discounted. Problems that could have been avoided were left to get worse.

A health crisis requires a health focus, but not to the exclusion of other factors. Prioritising health advice was appropriate during the initial stages of the crisis when there was extreme uncertainty and decisions were short term in nature. But as the pandemic transformed into a longer-term health crisis and as we learned more about the characteristics of COVID-19 – including its severity, transmission and the risk profile of different groups – advice and expertise from non-health disciplines should have been more effectively incorporated.

A lack of broader expertise meant that policies may have unintentionally harmed children's education, skills development and socialisation. It could have resulted in policies that adversely affected physical health from delayed surgeries, deferred health care and reduced preventative screening. It could have contributed to approaches that worsened mental health, increased anxiety and triggered family violence. It could have hurt the economy through not adequately considering the long-term scarring effects on workers and businesses, increased public debt, damaged supply chain challenges and worsened inequality along income, wealth and gender lines. Such potential consequences should be given greater weight in future health crises.

CASE STUDY:
SWISS NATIONAL COVID-19 SCIENCE TASK FORCE

The Swiss National COVID-19 Science Task Force – an independent and multidisciplinary institution – combined expert scientific advice with a range of socio-economic perspectives to help policymakers minimise the impact of health measures on the economy and society.[116] The Task Force was initiated by university academics and comprised 80 experts, with 8-10 discipline-based teams spanning clinical care, data and modelling, economics, mental health, communication and public health. To institutionalise collaboration, the Task Force was given a government mandate and group leaders regularly met with – and provided scenario-based written advice to – the government. It had no role in the decision-making process beyond providing independent advice.

The Federal Office of Public Health and the Task Force both conducted their own modelling to ensure multiple sources of modelling were provided to decision-makers. Looking beyond the pandemic, the Task Force aims to maintain key relationships between experts and government to preserve the benefits of the multidisciplinary Task Force for future crises.

What needs to be done

Australia should establish an independent panel of multidisciplinary experts and representatives to provide advice to the National Cabinet during health crises. The panel should seek to place health, economic and social factors within a long-term risk management framework. It should incorporate a range of perspectives from business, industry, professional bodies, community groups and unions. It should provide advice from experts in physical and mental health, economics, social policy, national security, behavioural psychology and other relevant disciplines. There should be a representative for children and young people to ensure that their voices are heard.

It is not intended that the panel would act as a decision-making body. Rather it would be an advisory body to the National Cabinet. It should sit alongside the AHPPC and the newly established ACDCP. It should only be stood up in a crisis. If the advisory body sat through non-crisis periods it is likely it would lose its influence over time. Moreover, the type and nature of each health crisis will determine the range of expertise that would contribute the most value to an advisory panel.

The advice provided by the panel should be made public in order to promote transparency, confidence, trust and peer review. A 'shadow' panel might be included in pandemic plans and scenario-testing exercises. This would provide a guide to the panel's ability to provide balanced in a simulated environment and how its membership would best be constituted.

The panel's advice should be based on a range of alternative scenarios and be provided through a risk management framework that explicitly addresses policy trade-offs. This would allow the National Cabinet to make informed decisions that weigh up the short and long-term costs and benefits of alternative approaches. The framework used to identify potential trade-offs between health, economic and social outcomes should be developed as part of Australia's pandemic plans through extensive consultation with the community, and before a crisis emerges.

3.2 Better harness the frontline experience of business, unions, the community sector and local government in crisis planning and response

Relationships are vital in a crisis. Many of those consulted felt that federal, state and territory governments did not have sufficiently strong, pre-existing elationships with the business and community sectors and unions. This undermined the trust and collaborative mind-set that was necessary to effectively provide information, share data and collaborate on crisis response measures. The *Independent Review of the Australian Public Service* highlighted this concern at the federal level and recommended an accountable Charter of Partnerships to address it.[117] This has not been agreed to by the federal government. It should be.

Ad hoc arrangements were established to fill this gap. The National COVID-19 Coordination Commission and the Treasury's Coronavirus Business Liaison Unit were widely acknowledged in our consultations as playing a valuable role during the pandemic. But business and community groups felt these would have been more effective if relationships had been built and nurtured before the crisis. They felt that formal engagement structures were often used to convey decisions rather than consult. Too rarely did their external expertise inform policy decisions.

Some states and territories regularly face natural disasters. They tended to have better established relationships between civil society, industry and government to use during the pandemic. Queensland's State Disaster Coordination Group, for example, comprises representatives from government and key sectors including telecommunications, emergency response and utilities.[118] Our consultations heard that this framework was effective during COVID-19 because it had been stress tested during earlier natural disasters.

"THE ADVICE PROVIDED BY THE PANEL SHOULD BE MADE PUBLIC IN ORDER TO PROMOTE TRANSPARENCY, CONFIDENCE, TRUST AND PEER REVIEW."

Responsibility for implementing health and economic policies was at times allocated to groups with limited pre-existing relationships with communities. The vaccine rollout in Aboriginal and Torres Strait Islander communities, for example, was often not allocated to the local Aboriginal health organisations. Consultations found that this caused delays in vaccinations and testing, which improved when Indigenous health organisations were engaged to assist.

Replacing the Council of Australian Governments with the National Cabinet meant local governments were often excluded from decision-making. This is despite their appreciation of local implementation and community networks. Established relationships with the community make communicating with local residents more effective. Local government expertise and the experience of councils in supporting communities were under-utilised during the pandemic.

What needs to be done

Establishing and maintaining professional relationships with local government, business and civil society should be a key performance indicator for government agencies and their staff. Governments at state, territory and federal levels should invest time in strengthening cross-sectoral networks in normal times. This will allow the expertise of industry and civil society groups to be better engaged when crises emerge. Stakeholder mapping will allow public services to identify the key community organisations and representative bodies and to ensure that the most influential relationships are fostered and maintained. Governments must ensure that they adequately compensate and support the community groups that provide them with expertise and guidance. This did not always happen during COVID-19. This is vital to ensure the sustainability of these groups, many of which operate on limited resources.

Local experience should be a core consideration in procurement decisions. Policy implementation should be allocated to organisations and groups that have established relationships and experience in the local business and community sector. A list of approved providers of crisis response services should be established and incorporated into Australia's pandemic plans. Many government officials consulted noted that procurement rules made it difficult to fund services quickly. Having a list of approved service providers before a crisis will help ensure they can be engaged quickly and are not required to work in advance of payment, as often happened during the pandemic. Preference should be given to local suppliers that can deliver place-based assistance.

The IAP2 sets out principles and standards for effective community and stakeholder engagement based on a core set of values that frame public participation on the basis that those affected by decisions have a right to be involved in the decision-making process. South Australia is already committing to these principles which include building trust, openness and respect.[119]

Consultations with community groups revealed that many felt that engagement with governments during the pandemic was more of a one-sided discussion, with governments telling them about policy decisions that had been decided rather than actively seeking input. It would be useful if the National Cabinet agreed to all jurisdictions requiring their public services to comply with the IAP2 principles to achieve a better framework for two-way dialogue and public participation in policy-making. This would significantly enhance the proposed Charter of Partnerships and create a supportive authorising environment, under which all agencies commit to these standards and have their performance measured against them.

3.3 Clearly define the roles, responsibilities and membership of the National Cabinet in a crisis

Many of Australia's challenges in managing the pandemic are inherent to our constitutionally enshrined federated structure. The single greatest frustration expressed by businesses operating across state lines, or individuals seeking to move across state borders, was that rapidly changing public health advice varied across jurisdictions.

Australia does not stand alone in this regard. An evaluation of Canada's response to COVID-19 highlighted similar issues in that federation. It noted that, as in Australia, there was a lack of clarity on the delineation of responsibility of roles between national and provincial governments.

The National Cabinet was the key decision-making body during the crisis. Its goal was to achieve consensus across governments to the greatest extent possible. It had a 'command and control' structure that was initially successful in facilitating nationally consistent decisions on health measures. But this approach became less effective as the pandemic became a longer-term crisis. The absence of the leader of the opposition in the National Cabinet undermined the inclusiveness and spirit of cooperation that could have been created. It fueled the politicisation, which undermined policy effectiveness. Combined with a lack of clearly defined roles and rules within the National Cabinet, the initial sense of unity and collaboration between state, territory and federal governments

rapidly began to fray. Behind the façade of national decision-making portrayed in communiqués, political differences became more obvious. The public became increasingly frustrated as cross-jurisdictional variations in policies emerged.

Tensions arose due to overlapping and contested federal, state and territory responsibilities. Disagreements intensified around the appropriate policy responses. As the crisis lengthened, broader social, economic, cultural and political considerations demanded more attention. There was disagreement on which level of government was responsible for critical policy areas, particularly quarantine processes and facilities. The fiscal incentives of different governments were at times misaligned. States and territories imposed increasingly severe health restrictions while the Australian Government picked up the bill.

Having a federation brings challenges. There is no simple solution to these challenges during a crisis. But our chances of success will improve if there is greater clarity before the next health crisis occurs on how collaborative structures will operate.

What needs to be done

Governments should collectively define the inherent principles for National Cabinet decision-making if it is to remain true to its initial purpose and intent. They should learn from the past by avoiding the deficiencies that undermined the Council of Australian Governments. The National Cabinet should operate as a forum for intergovernmental coordination. All parties should have a voice in striking harmonious agreements based on shared information.

The National Cabinet's agenda should be agreed using a collaborative approach. States and territories should be able to propose items to the agenda. Documents for discussion should be circulated at least 48 hours in advance of National Cabinet meetings wherever possible. State and territory advisers should be given time to brief their ministers. Only then can the National Cabinet become a truly effective forum for all leaders, based on mutual respect across party political lines.

A concerted effort should be made in the years ahead to better define the scope of powers between state, territory and federal governments in order to ensure a shared understanding of responsibilities. There should be clearly defined policy responsibilities for different levels of government during a health crisis, such as for quarantine, vaccine procurement and distribution, and border control.

The federal Leader of the Opposition should be a member of the National Cabinet during a time of crisis. Together with clearly defined roles, this will help establish a sense of unity in decision-making. The scope of powers and responsibilities should be incorporated and scenario-tested as part of pandemic plans. Simulation exercises will help identify points of friction. Broad agreement needs to be reached on how to jointly fund the costs of decisions.

Agreement on key definitions would be a good start. The National Cabinet should establish a set of common definitions for operating during a health crisis, including what constitutes 'essential' workers, businesses and freight. There may be instances where alternative policies and definitions will make sense in some jurisdictions. But such differences need to be justified publicly.

3.4 Publicly release the modelling and evidence used in government decision-making

Many Australians did not fully understand how the National Cabinet made decisions or why jurisdictions implemented those decisions in different ways. National Cabinet documents and expert health advice were initially subject to the rules of Cabinet confidentiality: only the outcomes of deliberations were conveyed to the public. The modelling commissioned by governments was often subject to non-disclosure agreements. This prevented peer review and restricted vital information being shared and assessed.

The almost purposeful opaqueness of decision-making meant that there was a lack of public understanding of the reasoning behind, and justification for, changes in direction as COVID-19 evolved. This lack of transparency fueled distrust, confusion and a sense of arbitrariness. The initial modelling of ICU bed demand without COVID-19 restrictions, for example, was found to be inaccurate. This error could have been corrected sooner had the modeling been subject to greater scrutiny.

There were examples of good practice. The joint release of Victoria's roadmap with modelling results, including the model and source code from the Doherty Institute in September 2021, is one instance of government being open about the basis on which they were making decisions. Such approaches should become the norm in future health crises. Increased transparency of advice also provides more clarity around the politics of decision-making. It requires more robust discussions and debate around policy trade-offs. The UK and New Zealand have made modelling assumptions and data used by decision-makers publicly accessible. We should follow suit.

In February 2022, under new pandemic legislation, Victoria established an Independent Pandemic Management Committee to ensure the exercise of government powers is proportionate. It brings together experts with knowledge in public health, infectious disease, primary care, emergency services, critical care, business, law and human rights. Its goal is to build community confidence and trust. To-date it has publicly released two reviews of government actions.[120] This is an important starting step in enhancing transparency.

Consultations revealed concerns that some of the early modelling and dire predictions may have instilled a sense of panic in the general population whose health literacy was limited. Public health data are not always easy for the wider community to interpret. A lack of understanding of the underlying assumptions that inform models and their changeability meant the nuances would be lost on most people. However, international research and communication strategies implemented in Denmark have shown that honesty and clarity in communication during the pandemic, including talking about hard truths, increased public trust and confidence in governance in the long-term and reduced opportunities for misinformation to creep into the public discourse.[121]

What needs to be done

Transparent modelling and data sources should lie at the heart of decision-making on complex public health issues. In future the National Cabinet and related advisory bodies should publicly release the evidence used in decision-making. This should include advice from the new panel of multidisciplinary experts and the ACDCP. The information needs to be presented clearly and communicated in a manner that can be easily understood.

The modelling considered by the ACDCP should be developed with the assistance of the multiple research groups that sit within its network. This would boost confidence and robustness in the model outcomes, given that different research groups will develop models with different parameters, assumptions and methods even when they are using the same data inputs. Australia should take a similar approach to the UK. Multiple academic groups in the UK provided independent modelling to the Scientific Pandemic Influenza Group on Modelling. This group was then responsible for advising the Department of Health and Social Care and the wider UK government.[122]

Australia's decision-making should be based on multiple sources of modelling. Research institutes that develop models to inform policy decisions should make their structures, key assumptions and parameter values available for peer review.[123] This should be done in a timely manner, soon after a policy decision is taken. Governments need to ensure the context and limitation of models are understood when releasing results in order to avoid panic or a sense that models are predictions. Where possible, they should also provide more regular communications. Confidence in decision-making will be maintained if the public can get a sense of where the data is leading or whether the model is on track.

A firm commitment to transparency is needed. Where assumptions are changing, the scenarios considered by decision-makers should be made publicly available by publishing relevant documents from the National Cabinet, as is done with Senate committees. We can learn from how Ireland releases minutes containing measures and policies discussed, and allows the public to access dissenting opinions from the National Public Health Emergency Team.[124]

Documents published during a crisis should be supported by modelling, analysis and data at the time announcements are made or shortly thereafter. This would be similar in vein to the RBA's Statement on Monetary Policy, which conveys the economic situation on which they have made their decisions. It follows the ethos of the approach taken by New Zealand[125] and Queensland,[126] which release Cabinet documents after 30 days, rather than holding them for 30 years as was previously the case in Queensland and remains the case with the federal government.

RECOMMENDATION 4

ENHANCE PUBLIC SERVICE COLLABORATION, CAPABILITY AND COMMUNICATION

Four initiatives are necessary to give full effect to this recommendation.

4.1 Significantly improve the collaboration of public servants across jurisdictions

Interjurisdictional collaboration is key to cohesive and unified policy responses in times of crisis. The pandemic exposed a significant lack of collaboration in certain areas. These were unintentionally exacerbated by some inherent characteristics of Australia's federal system. Expertise, experience and information was often siloed within jurisdictions. Sharing was limited.

There was no collaboration and agreement on critical definitions, COVID-19 testing requirements or appropriate policies on check-ins, social isolation or quarantine arrangements. These inconsistencies impacted cross-border trade and commerce. They undermined public trust and, for some, cemented a belief that political one-upmanship, rather than evidence-based advice, was driving decision-making.[127]

The wide variation in expertise and capabilities across jurisdictions contributed to uneven outcomes. NSW Health, for example, had significant epidemiological expertise while Victoria's Department of Health did not. The NSW public health system was better structured in terms of knowledge at the local health district level. Its contact tracing system was superior to those of other states. Federation is often praised for its impact in stimulating innovation at the state level, but best practice needed to be shared during a crisis.

A consistent thread across our consultations was the reliance on informal connections where formal structures were lacking. Ironically, one of the strongest antidotes to a crisis that isolated and shrank social circles were the networks of personal connections across jurisdictions and governments that facilitated rapid communication, information-sharing and reciprocated support outside of formal channels. Many public servants felt that the pandemic strengthened these relationships. Unfortunately, too many relationships started from a low base and there is a strong probability that they will fade again over time. There is a danger the next crisis will likely see public administrators having to rebuild these connections from scratch. This lack of preserved institutional knowledge and connection has been observed in previous crises. It impedes Australia's capacity to achieve effective intergovernmental outcomes.[128]

Our consultations revealed that while many public servants were willing to collaborate across governments, the political environment wasn't always conducive to effective cooperation. State and territory governments' trust in the federal government has eroded over the last two decades as the direction of intergovernmental relations has been determined almost unilaterally by the federal government. Too often, the federal government announces policy before it has been fully discussed with the states or territories, partly to put it in a stronger negotiating position. Moreover, the Australian Public Service (APS) currently has poor capacity to lead interjurisdictional initiatives.[129] This has reduced the intensity of collaboration between the states and territories and the federal government.[130]

Inevitably, there will be political tensions between federal and state and territory governments. A national crisis provides an opportunity to create a sense of shared purpose but that can easily fall apart as the government of each jurisdiction seeks to maximise its own political advantage. In times of crisis, national interest needs to be prioritised through governments working together consistently and harmoniously despite the politics.

What needs to be done

While numerous government reviews of public service capability have recently been conducted at both the federal and state levels, there is a lack of independent analysis of cross-jurisdictional relations. Federal, state and territory governments should jointly commission a review that identifies ways to improve public sector collaboration across jurisdictions, focusing on how public servants can overcome the key structural, organisational, cultural and technological barriers to effective collaboration.

Bringing together quality people with skills in public administration is just one aspect of capability building. Ensuring that these people can work effectively together and understand how and when they can leverage external expertise is essential. Public servants must build and maintain networks of joint endeavour, not just between levels of government, but with non-government sectors. This will require a culture of openness and collaboration to be fostered across public services during times of 'normality' to ensure that such networks prove are useful during a crisis.

Good public servants working together across jurisdictional lines can help to alleviate political discord. While serving their respective governments, they can build collaborative approaches based on strong personal relations and mutual respect. They can find non-contentious areas in which to design and deliver public policy harmoniously rather than accentuating the political differences that may exist between their governments.

4.2 Establish an interjurisdictional Public Service Centre of Excellence

The pandemic highlighted pre-existing capability deficits within public services. Implementing the recommendations of APS reviews (such as the *Independent Review of the Australian Public Service*)[131] and state and territory reviews (such as the *Independent Review of the Tasmanian State Service*)[132] can partly address these deficits. But further investment in core data analysis, digital technology, program delivery and risk management capabilities will be crucial.

Governments should enhance analytical capability. The COVID-19 response highlighted the importance of pre-existing investments in public sector data and analytical skills. The $131 million Data Integration Partnership for Australia investment between 2017 and 2020 helped fund the development of the Treasury's elite microdata team. It recruited applied microeconomists with quantitative analysis skills to manage, curate and analyse large and complex datasets. This team later proved instrumental in guiding the economic response to the crisis, supplying real-time economic indicators and policy evaluation, particularly with respect to JobKeeper.

Despite success in some areas, high level quantitative analysis skills remain limited to a handful of teams within Australia's public services. Even these teams were held back by slow data-sharing arrangements. This hindered policymakers' ability to use key datasets during the acute phase of the crisis when analysis was highly time sensitive.

Further investment in the analytical capabilities of Australia's public services is needed to ensure that governments can effectively use data during future crises. The recent APS *Hierarchy and Classification Review* and the *Australian Data Strategy* both emphasised the need to develop specialist pathways to foster deep technical expertise in the public sector. The newly established APS Data Professional Stream marks a step towards this.[133] But more will need to be done to attract professionals with data, econometric and other quantitative analysis skills. The challenge is to build a pipeline of technically capable analysts who can use administrative data to inform public policy.

Australian public services also lack capabilities in major program implementation and effective risk management, although state and territory public services typically have greater experience than the federal public service in delivering programs and services. Many major APS programs have been poorly delivered, including the Home Insulation Program (2009-10) and the Robodebt scheme (2016-20), both of which have been the subject of Royal Commissions.

This inevitably raises questions about the capacity of the federal government to deliver large programs at a time of crisis. But delivering projects on time and on budget, while also meeting public expectations, remains a challenge across all jurisdictions. Public sector agencies have often struggled to follow through with effective delivery of government programs. The frequent movement of personnel in service delivery positions has limited the accumulation of implementation expertise and knowledge. Governments need to devote much more effort to recruiting more specialists and enhancing the professional status accorded to program, project and risk management skills.

What needs to be done

Federal, state and territory governments should jointly establish an interjurisdictional Public Service Centre of Excellence. In doing so, they would explicitly authorise and encourage strong partnerships between government agencies across jurisdictions while emphasising the significance of digital skills, data analytics, and managing and evaluating major projects. It should focus on collaborative leadership in implementation.

This Public Service Centre of Excellence should connect and build upon existing initiatives, such as the Australian and New Zealand School of Government, the Department of Foreign Affairs and Trade's Diplomatic Academy and the APS Academy. It should facilitate the sharing of knowledge and expertise from federal, state and territory departments and agencies, emphasising cross-jurisdictional collaborative practice.

4.3 Increase the diversity of the public sector to ensure it reflects Australian society

The degree to which the public service mirrors the community it serves has a direct impact on the effectiveness and appropriateness of the policies it crafts. This was echoed in the recent APS diversity and inclusion report, *Our Differences Make Us Stronger*, which called for greater diversity in the APS.[134] Public services have historically lacked diversity at federal, state and territory levels. Women are now well represented in the senior ranks of most public services, far better than in most parts of the private sector. Many public services have actively sought to increase the recruitment of Aboriginal and Torres Strait Islander peoples, but too often their roles are more junior or Indigenous-specific positions.

Around 60 per cent of APS employees are women.[135] About 3.5 per cent are Aboriginal and Torres Strait Islander peoples[136] compared to 3.2 per cent of the total population.[137] But the proportion of APS employees from a culturally and linguistically diverse background is consistently lower, compared to the total population. In 2021, more than 21 per cent of Australians were born in a non-English speaking country, but only 14.7 per cent of the APS came from a non-English speaking background.[138] This is mirrored at state and territory levels where culturally and linguistically diverse people are underrepresented in the public sector.[139]

This weakens the capacity of public services to fully comprehend how best to design, deliver and communicate policy in a multicultural society in which 24.8 per cent of Australians spoke a language other than English at home in 2021.[140] Greater public sector understanding of diversity could have avoided the situation during the pandemic where food hampers provided for communities in lockdown were not suitable for large, multifamily residences and were sometimes not culturally appropriate. With adequate community consultation, Australia could have avoided the adverse consequences of deploying military in areas with high populations of refugees from war-torn countries, without a clear explanation of their role.

There is still work to do to ensure that the public sector reflects the population it serves. The public sector also requires a greater understanding of the pre-existing vulnerabilities within Australian society. This can be improved when opportunities are provided for those with lived experience of socioeconomic vulnerabilities to take up decision-making roles in public services.

What needs to be done

Steps should be taken to increase the diversity of federal, state and territory public sectors, with a particular focus on culturally and linguistically diverse people. This would help to inject more community-mindedness into the decision-making process during a health crisis.

Governments should increase partnerships with universities to attract people from underrepresented backgrounds to pursue a career in the public sector. This could include internship partnerships with university programs in areas traditionally underrepresented in the public sector. An example is the APS Academy at the University of Newcastle (opening in 2023), which aims to provide pathways for data and digital careers through work placements.[141] Mentorship programs are another way to support individuals who are traditionally underrepresented in the public sector. The Ontario Public Service's Diversity Mentoring Partnership Program led to the public service being recognised as one of Canada's top diversity employers.[142]

Governments should also experiment with, and test, initiatives aimed at increasing diversity in new hires. There is a lack of uniform policy in this regard. Without it, there is a risk of unconscious bias in recruitment within government. A similar process has been successfully introduced within the UK Civil Service to increase diversity.[143] We should learn from their experience.

"IN 2021, MORE THAN 21 PER CENT OF AUSTRALIANS WERE BORN IN A NON-ENGLISH SPEAKING COUNTRY, BUT ONLY 14.7 PER CENT OF THE APS CAME FROM A NON-ENGLISH SPEAKING BACKGROUND."

4.4 Expand the channels and methods of communication used to reach diverse groups

Clear, accurate and timely messaging is central to effective crisis communication. During the pandemic, daily press conferences were held in English, but there was a lack of timely interpreters or translation into other languages, with the notable exception of Auslan (Australian Sign Language). This meant that culturally and linguistically diverse communities often relied on international news sources that provided advice that did not necessarily match that coming from the Australian Government. More than 850,000 Australians do not speak English well or at all, so the impact of this misinformation was potentially significant.[144]

All levels of government increased their verbal communication by 600 per cent to circulate key public health directives during the pandemic.[145] But while the volume increased, these communications were often not accessible for many Australians. Efforts were made to provide communications in a wide range of languages. The Australian Government created pamphlets in around 40 languages.[146] State and territory governments expanded the range of translations and modes of communication to serve their culturally and linguistically diverse communities. With support from the NSW Government, SBS provided real-time interpretations in Arabic, Vietnamese, Mandarin, Cantonese, Assyrian and Khmer for NSW press conferences from mid-2021.[147] Such initiatives should have been implemented earlier at a national level.

Nevertheless, the accuracy, timeliness and accessibility of communications varied. Governments struggled to communicate effectively with some groups more vulnerable to the pandemic, undermining the efficacy of policy. For example, translations didn't properly convey different cultural understandings of the concept of 'family'. This complicated interpretation of isolation rules. Stakeholders have commented that many linguistically and culturally diverse community members unintentionally went against public health advice (even by breaking lockdown requirements) simply because they did not properly understand the latest health advice and policy decisions. Australian governments should develop professional training and guidance in public communication, akin to that provided by the Government Communication Service in the United Kingdom.

Consultations revealed concerns about the impact of misinformation circulating on social media about COVID-19 vaccines and treatments, much of it from overseas. Conspiracy theories were widely distributed. Misinformation efforts targeted groups including Aboriginal and Torres Strait Islander peoples and recent migrants.[148] This bred mistrust of the advice being conveyed by the Australian Government in some circumstances.[149] It is important to ensure that trusted sources of information can counter the unreliable and sometimes dangerous theories that circulate online during a crisis.

The effectiveness of public health messaging was also constrained by written communications about pandemic policy being delivered at a reading comprehension level that was well above the national average. Only 15 per cent of Australians read at a diploma level or above.[150] Government communications during the COVID-19 pandemic required a bachelor's degree level of reading comprehension to understand.[151] Messages don't need to be dumbed down. But they do need to be conveyed in a manner that can be widely understood by the Australian public.

What needs to be done

Governments should expand the channels and methods of communication used to reach minority groups. Effective translation and accessibility are vital. Governments should produce timely translations of public advice at a level that can be widely understood, including by those with low English literacy, poor health literacy or with intellectual disability. Governments should engage with the community sector early in a future health crisis and monitor the suitability of government communications that they propose to translate or adapt to suit accessibility requirements. All government communications should be reviewed by the communities that are part of the intended audience before publication.

Governments should broadcast communications through a range of platforms tailored to different community groups. This should include much broader engagement through social media in a variety of languages. More substantial evidence-based approaches should be a focus for combatting misinformation.

It is also important to consider those in the community who are not online. Governments should make much better use of the expertise, local knowledge and involvement of community leaders in future health crises. Bilingual and multicultural engagement officers should be recruited to disseminate information directly to community members.[152] This could operate in a similar way to the conduct of the Census, when local Engagement Officers are available to provide information and answer questions.[153] Such an approach would ensure that people who can't access mainstream communications through news channels or online platforms can receive culturally appropriate information in the language they prefer.

Governments should establish guidelines on the maximum level of complexity of communication used in a health crisis. This should include the type of language, the maximum reading comprehension level of intended audiences, and how to communicate with members of vulnerable groups. Governments should seek advice from communication experts and harness the knowledge of professional interpreters and translators.

CASE STUDY:

UK'S GOVERNMENT COMMUNICATION SERVICE

The Government Communication Service supports the efforts of more than 300 ministerial departments, agencies and other public bodies. It provides professional development and guidance on effective communication, including with a multilingual audience.[154]

During the COVID-19 pandemic, the service partnered with more than 600 national, regional, local and multicultural publications to deliver public health messaging through a range of content, including sponsored newspaper feature articles and posters. This partnership had an impact. By the end of 2021, 82 per cent of people surveyed agreed that this content had made them aware that all adults could access a COVID-19 booster vaccine, and 51 per cent said this content encouraged them to do so.[155]

RECOMMENDATION 5

MODERNISE HOW GOVERNMENTS USE DATA

Three initiatives are necessary to give full effect to this recommendation.

5.1 Enhance the *Data Availability and Transparency Act 2022* (Cth) and permanently amend the *Tax Administration Act 1953* (Cth)

Data played an important role in many aspects of Australia's COVID-19 response. New data partnerships were formed with Apple and Google which allowed policy makers to track the impact of the public health orders on activity in near real time. Data from PCR, RAT and sewage testing helped trace close contacts and contain outbreaks.

But the pandemic also exposed major challenges in the quality and availability of data in Australia, while the recent hacking of a major Australian telecommunications company has reminded us of the importance of adequately protecting sensitive data. Limited linking of health and non-health data meant that policy makers were unable to design and monitor the impacts of public health policies along dimensions such as socio-economic background. This limited the effectiveness of some measures.

Government agencies were able to develop new datasets and form partnerships with the private sector to fill data gaps in some areas. This facilitated the development of the Labour Market Tracker by the ABS and the linking of data from different pathology service providers by state health departments. It contributed to the development of the secure AusTrakka platform, which allowed laboratories to efficiently share information on emerging strains of COVID-19.

Unfortunately, in many other areas access to high value public sector datasets was still inhibited by outdated legal frameworks and slow sharing processes. For example, the federal Treasury was forced to rely on temporary amendments to the TAA to use de-identified tax data to track the impact of JobKeeper.[156] Overcoming these barriers delayed insights and diverted scarce resources during the critical early stages of the crisis.

The need to improve access to government data and to streamline sharing processes is well known. The current initiatives in this area do not go far enough. The DAT Act is a step in the right direction. But it leaves data-sharing decisions solely in the hands of data custodians (the public agency that owns the dataset) and places a blanket ban on the participation of private sector entities. This limits the utility of external expertise, meaning that the DAT Scheme falls short of the reform required to benefit the whole economy.[157]

With no mechanisms to compel agencies to share their data, even when doing so would be in the national interest, the DAT Act relies on creating a culture of data sharing and access around it. Our consultations raised serious concerns about attitudes to data sharing within the public sector. Risk-averse agencies often wrongly believe that the *Privacy Act 1988* (Cth) inhibits data sharing that is in the national interest. The DAT Act must be enhanced to make data sharing the default position, in consultation with the National Data Commissioner and the Privacy Commissioner.

Some improvements to data access were made during the pandemic, such as the temporary amendments made to the TAA. These must be cemented to ensure that we do not regress. Increasing data access should be carefully designed to manage privacy concerns. It does not necessarily increase the risk of disclosure. Most data disclosure risks do not arise through controlled data sharing, but through hacking or security breaches made possible by poor or outdated data collection, storage and management practices.

These proposals align with the findings of the Productivity Commission's *Data Availability and Use* inquiry, which suggested pathways to controlled data access for private sector researchers. These proposals would ensure that datasets to be used in the national interest are more widely available given much of the country's most innovative data work takes place outside government.[158]

What needs to be done

The Australian Government should legislate an enhanced version of the DAT Act. Data sharing should become the default option. Data custodians should be required to demonstrate to the National Data Commissioner why sharing a dataset with an accredited user is not in the national interest.

In addition to universities, private sector researchers should be allowed to participate in the DAT Scheme once their employer has met the criteria to achieve accredited user status. Controls should be included to prevent public sector data being used for commercial purposes. Amendments that restrict participation, made following the first reading of the DAT Bill in 2020, should be wound back.

The TAA should also be amended to allow policymakers to access de-identified administrative tax data for broad policy development and analysis. The temporary changes to the TAA implemented during COVID-19 will expire in mid-2023. They need to be made permanent.

5.2 Require the sharing and linking of data between jurisdictions

The COVID-19 pandemic catalysed several improvements in Australia's data capabilities, but many underlying issues remain. Australia does not have systems to enable secure and effective sharing and linking of health data held by state, territory and federal health departments.

The consequences of this were significant. Public health officials were unable to trace close contacts across state borders due to a lack of interoperability between contact tracing systems in different jurisdictions. Research on the efficacy of COVID-19 vaccines in Australia was impeded due to the lack of a pre-existing link between vaccination registries and patient outcomes data. Healthcare workers were forced to rely heavily on international evidence on effective treatments and vulnerable populations because of a lack of timely, linked health datasets in Australia. Work is underway to help address some of these structural issues that weaken Australia's health data capabilities. But these efforts continue to be hindered by foundational health data interoperability and quality issues and, sadly, by an unwillingness to share data between jurisdictions.

Linking and sharing health data is constrained by long standing fragmentation and a lack of interoperability of health data systems at the service provider level. These issues, along with a lack of default linking of health datasets, constrain the collection, integration and use of near real-time health data.

"PUBLIC HEALTH OFFICIALS WERE UNABLE TO TRACE CLOSE CONTACTS ACROSS STATE BORDERS DUE TO A LACK OF INTEROPERABILITY BETWEEN CONTACT TRACING SYSTEMS IN DIFFERENT JURISDICTIONS."

CASE STUDY:

THE US'S EFFORTS TO IMPROVE HEALTH DATA INTEROPERABILITY

The US shows international best practice in incentivising improvements to health data interoperability. Rather than creating and encouraging the use of a single government system for electronic medical records, the US has established data standards that any system needs to meet. It has:

- proactively sought agreement from major developers of IT systems to adopt these standards
- introduced incentive payments to encourage hospitals and other healthcare providers to implement electronic health records
- ensured that providers working together to share information securely receive bonus (incentive) payments, and providers that do not report data on quality improvement measures have their payments reduced.[159]

Improving interoperability in information and communication technology systems at the service provider level in health care would improve Australia's health data capabilities. It would address the existing structural limitations on the use of health data and better support research to inform public health policy.

Governments are aware of these issues, but outside of certain projects, such as NSW Health's eHealth strategy, progress has been slow. Historically, there appears to be little appetite for meaningful change. For example, in the seven years since the Australian Digital Health Agency was established,[160] the most significant progress on this issue has been agreement on high-level principles for interoperability by states and territories.[161] There is no publicly available timeline for when frameworks or data standards will be agreed to and no targets for implementation.

The linking of data has also been hindered by the unwillingness of many jurisdictions to share data with other jurisdictions. Public servants indicated that, in addition to privacy, a key reason state and territory government departments are often reluctant to share data with their federal counterparts is the fear that the data they share may be used to justify a cut in federal funding.

CASE STUDY:

NEW ZEALAND'S INTEGRATED DATA TOOLS

New Zealand is at the cutting edge of public sector data integration. Stats NZ's Integrated Data Infrastructure (IDI) and Longitudinal Business Database (LBD) are world-leading examples of data tools that bring together information from across government agencies, Stats NZ surveys, and non-government organisations.[162]

The IDI and LBD have provided critical evidence-based policy insights, underpinning the evaluation of government initiatives and services and the analysis of cross-cutting socio-economic relationships.[163] This proved crucial during the COVID-19 response as well as in the New Zealand Government's broader efforts to reduce poverty, improve health outcomes and support a growing economy.[164]

Its integrated data were made possible by the development of a culture in which government agencies and non-government organisations share their data with Stats NZ. In part, this is easier as a unitary state with a unicameral legislature. But it has also required strong leadership to drive change. The efforts of former New Zealand leaders were instrumental.[165]

What needs to be done

Australian governments must together commit to making the sharing and linking of data the default position. They should put in place systems to incentivise jurisdictions to share their data, rather than being potentially disadvantaged for doing so. Political leaders should collectively provide an authorising environment. This would enable a more data-driven response in the next crisis and would be integral to a well-functioning ACDCP.

The Intergovernmental Agreement on Data Sharing between federal, state and territory governments, which came into effect in July 2021, permits all jurisdictions to share data as a default position where it can be done securely, ethically, safely and lawfully. The agreement provides a sound foundation to improve cross jurisdictional collaboration on sharing data in the public interest. However, it depends on the willingness of the states and territories to participate. At this moment it is not clear how much this is actually being translated into cooperation.

Data sharing should be enhanced by applying the principles that underpin the recommended improved version of the DAT Act. Data custodians should be required to demonstrate why sharing is not in the national interest. The Australian government must also do more to ensure that state and territory governments do not fear that they risk losing federal funding if they share their data. To ensure that this is the case, independent Accredited Release Authorities, such as the ACDCP, should oversee the collection and linking of data from across jurisdictions and ensure data releases are for research and policy purposes.

It is imperative that Australian governments fast-track the development of nationally agreed interoperability frameworks for health data and incentivise uptake by service providers. This project should receive dedicated funding from all levels of government and be coordinated by the Australian Government. It should have a published timeline for achieving key progress goals. Where appropriate, the Australian Government should provide additional resources to help jurisdictions transform their health data infrastructure and structure future funding arrangements to incentivise the adoption of interoperability frameworks and data sharing.

"AUSTRALIAN GOVERNMENTS MUST TOGETHER COMMIT TO MAKING THE SHARING AND LINKING OF DATA THE DEFAULT POSITION."

5.3 Enhance analytical capability within government departments

The COVID-19 response highlighted the importance of investing in public sector data and analytical skills. Many areas of government still lack the skills needed to enable data-driven policy making. Teams that do exist are often held back by slow data sharing arrangements.

The ABS DataLab environment, for example, provides access to a range of high value integrated administrative and survey datasets, but it is not designed to handle the rapid turnarounds required during a crisis. The ABS reviews all outputs from the DataLab before release to ensure that users do not disclose confidential data. Early in the crisis, the need for third-party approval inhibited the ability of policymakers, who were often working outside normal businesses hours, to use the data contained within the DataLab to inform policy decisions.

"THE COVID-19 RESPONSE HIGHLIGHTED THE IMPORTANCE OF INVESTING IN PUBLIC SECTOR DATA AND ANALYTICAL SKILLS. MANY AREAS OF GOVERNMENT STILL LACK THE SKILLS NEEDED TO ENABLE DATA-DRIVEN POLICY MAKING."

What needs to be done

The Australian Government should establish elite data-led teams with appropriate security clearances. Priority should be given to departments that already have sophisticated and experienced data users, such as the Treasury, the Department of Social Services and the Department of Health. These teams should have unfettered access to de-identified linked administrative microdata held within a secure environment. This should be replicated across jurisdictions.

In addition to building analytical, empirically-focused capability, an important role of these teams should be to help build a culture in which economic, social and health policy questions are addressed through joint research projects. These projects should report results to the Secretaries Board on an ongoing basis to build understanding of their contribution to evidence-based policy.

RECOMMENDATION 6

BUILD A CULTURE OF REAL-TIME EVALUATION AND LEARNING IN THE PUBLIC SECTOR

One major initiative is required to give full effect to this recommendation.

6.1 Establish an independent Office of the Evaluator General

The public sector lacks a systematic and effective program of evaluation. Existing evaluation efforts are typically piecemeal and low-quality and rarely translate into better policymaking.[166] Indeed, in the independent review of the *Public Governance Performance and Accountability Act 2013* (Cth), it was found that "evaluation practice has fallen away".[167] The Office of Best Practice Regulation can carry out evaluations through post implementation reviews, but these are often skipped[168] or lack specificity and depth.[169] The public sector has a limited capacity to build evaluation capabilities through professional training and necessary skills are thinly dispersed throughout the public sector.[170] The evaluation profession receives limited recognition in government.

Agencies and departments frequently conduct evaluations with a view to manage reputational risk. The emphasis is often on ensuring due processes have been followed. Evaluations are frequently conducted only after a program has been operating for some years. Agencies typically perform their own evaluations or engage other parties with an interest in showcasing the success of government programs.[171] The culture of agencies is also biased toward short-term pressures and places little emphasis on reflection.[172] Ministers are often reluctant to push for evaluations that may critique their own policies.[173]

It is true that the Australian National Audit Office (ANAO) and its state and territory equivalents can audit the effectiveness of programs but this does not provide an adequate model for independent evaluation. ANAO's audits generally focus on the quality of processes to determine whether the government is 'doing things right', rather than evaluating impact to determine whether the government is 'doing the right things'.[174]

Several attempts have been made to enhance evaluation programs. Most have been ineffectual. For example, the NSW Centre for Evidence Evaluation was established in 2012 but did not publish any evaluations on NSW policy initiatives in its first three years of operation.[175]

Australia should draw on France's supreme audit institution (Cour des Comptes) as a promising model for public sector evaluation capabilities that are independent of the executive (see the case study below). The Cour des Comptes has a constitutionally enshrined mandate to evaluate the quality of policymaking. By contrast, there is no mention of 'evaluation' in the *Auditor-General Act 1997* (Cth).

Poor evidence leads to poor policy. Policymakers need to embrace a culture of evaluation and adopt a test-learn-adapt approach to their work if they are to make progress on significant societal challenges and learn effectively from experience. Independent, objective and systemic evaluation has the potential to deliver significant improvements in the quality of policymaking and Australia's crisis preparedness.[176] It can ensure that Australia can assess and apply 'what works' in real time and adapt policies as a health crisis unfolds.

Embedding a culture of evaluation in public sector agencies requires mechanisms to ensure that lessons are properly incorporated into policymaking. There is some momentum behind a more thorough incorporation of evidence in policy proposals. The NSW Legislative Council passed legislation in May 2022 that requires all new legislation brought before Parliament to be accompanied by a statement of public purpose. This includes a cost-benefit analysis of the proposed policy and its alternatives.[177] But our consultations indicated that a culture of evaluation is still nascent, with only about 5 per cent of federal policy proposals requiring a regulatory impact analysis. Even then, the quality of such assessments has been variable at best.[178]

The Australian system does incorporate findings from evaluations into the budget cycle to promote their use in policymaking.[179] Yet, far more can be done to build a culture of evaluation within Australian governments. Japan's system of evaluation incorporates several mechanisms to ensure that lessons from evaluations feed into policymaking (see the case study below).

The results of evaluations frequently remain unpublished.[180] For example, the NSW Centre for Evidence and Evaluation conducted a review of the NSW liquor and lock-out laws but it was not released.[181] This lack of transparency limits incentives for governments to adopt robust methodologies and incorporate findings from evaluations into policymaking.[182] This is disappointing. The publication of evaluations can improve the public's understanding of key policy issues, partly by enabling critiques from the community. It can also contribute to a 'knowledge commons' in the public sector, supporting better policymaking across all agencies and departments.[183]

In the first year of the pandemic, around 80 per cent of Australians agree that government was generally trustworthy.[184] But community and business groups believed that a perceived lack of transparency during COVID-19 diminished their confidence in government. The public release of evaluations contributes to accountable and transparent government.

A lack of real-time evaluation meant that certain public health measures remained in place beyond the effective life of the policy. The fact that international borders remained closed even when community transmission of COVID-19 had begun is one such example. In some cases, a lack of available and accessible data for vulnerable groups within society prevented real-time evaluation of policy impacts on these cohorts. For example, a lack of data on LGBTIQ+ communities meant that the impact of policies and communication strategies could not be assessed in time to understand impacts on this group.

What needs to be done

The Australian Government should establish an Office of the Evaluator General. The Office should oversee high-quality evaluations of government programs, including during times of crisis. Its outcomes should be made publicly available.

Crucially, the Evaluator General should be seen as distinct from, but complementary to, the Auditor General. The role of the Evaluator General should be to evaluate the public benefit of government policies whereas the Auditor General's focus should remain on administrative transparency and adherence to policies and procedures.

The Office of the Evaluator General should be established at the federal level. Given that states and territories deliver a large proportion of policy, these jurisdictions should also establish similar structures. The Office should streamline standards to reduce the current patchwork approach to evaluation across jurisdictions.

Most importantly, to address the fragmentation of evaluative efforts – and to ensure that evaluation is insulated from political imperatives – the Office should be independent, sitting outside ministerial portfolios, and report directly to Parliament.[185]

Learning should be embedded in the policy design and implementation process. Evaluators should sit within the service delivery process and operate as a 'critical friend' to public service teams, helping them to identify 'what works'. Agencies should be required to include evaluation plans when putting proposals to Cabinet.

The Office of the Evaluator General should have quarantined funding. Where feasible, evaluators should conduct randomised control trials (RCTs) to generate robust estimates of policy impact. Where such RCTs are not feasible, evaluators should use natural experiments and other credible forms of analysis with administrative datasets to measure the impact of policies. This will require significant funding and resourcing. The Office should have the capacity to recruit an experienced team with the technical capabilities and capacity to conduct rigorous evaluations of major government policies.

Its remit should extend to tracking policy performance in real time. To complement more comprehensive evaluation reports, it should publish 'mini notes' that briefly summarise the preliminary results of evaluations. At the onset of a public health crisis, when the impacts of policy are most uncertain, these notes could be published fortnightly or monthly. This aligns with the publication basis of the ABS Household Impacts of COVID-19 Survey results in 2020.[186]

CASE STUDY:

INTERNATIONAL EXAMPLES

HAVING AN EVALUATION FUNCTION THAT IS INDEPENDENT OF THE EXECUTIVE

France: Cour des Comptes, the supreme audit institution, has a constitutionally embedded role to evaluate public policy. Since its establishment in 2008, it has performed and published more than 20 evaluations in policy areas including health care and education. It is independent of the policymaking and delivery functions of the French Government and can conduct evaluations at the request of Parliament or initiate its own evaluations. While Cour des Comptes is independent of the executive, evaluation remains embedded in parliamentary decision-making. All legislative proposals must undergo an impact assessment before being introduced, with findings annexed to the proposal.[187]

Germany: The Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) is a well-respected public enterprise that conducts evaluations to provide evidence-based policy advice. GIZ makes decisions about topics for evaluation independent of the executive function of government. This promotes transparent evaluations and accountability when identifying lessons to be learned from these evaluations.[188]

EMBEDDING A CULTURE OF EVALUATION INTO THE PUBLIC SECTOR

Japan: The Government Policy Evaluations Act 2001 establishes a clear framework for public sector evaluation and the various roles and responsibilities of government ministries. The Ministry of Internal Affairs and Communications publishes guidelines on the appropriate conduct of evaluations. These include advice on how ministries should incorporate results into policymaking.[189]

To further embed and promote the use of evaluations in policymaking, the Japanese system includes a management response mechanism, which facilitates the tracking of progress against evaluation recommendations; incorporate evaluation findings into the budget cycle; and maintain strong internal knowledge-sharing systems.[190]

PUBLISHING EVALUATIONS

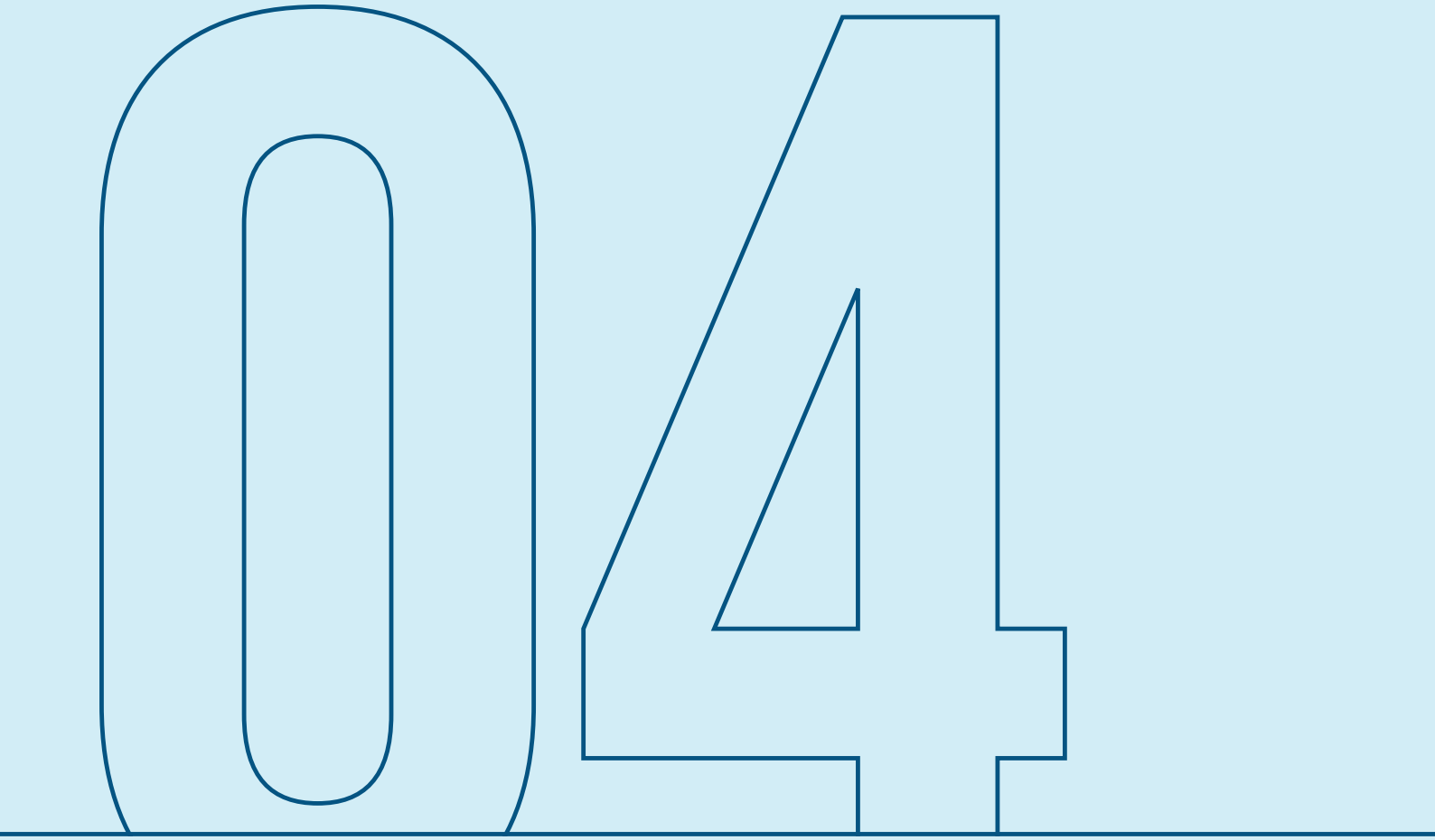
Norway: The Agency for Public and Financial Management and the National Library of Norway publish findings from all evaluations on their evaluation portals, improving transparency and allowing lessons from evaluations to be applied across the public sector.[191]

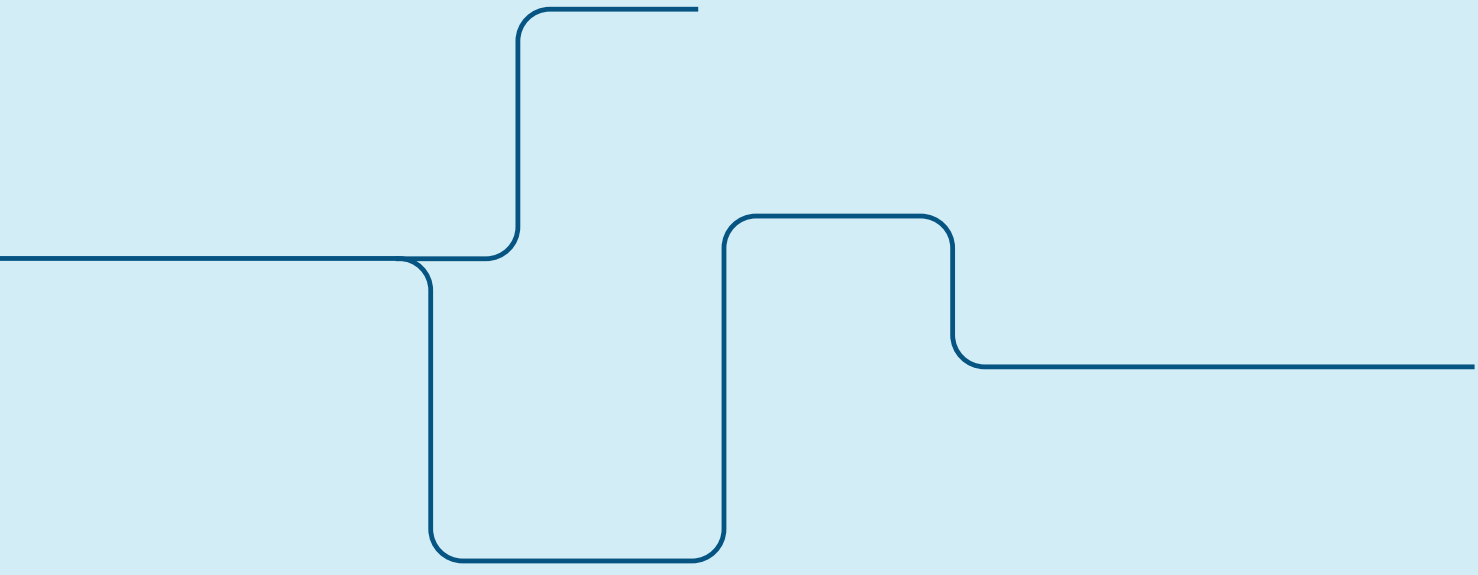
Japan: The Japan International Cooperation Agency releases findings from all follow-up evaluations online. Its website also outlines lessons learned from evaluations, which must be considered before a new project design can be approved.[192]

EVALUATING POLICY IN REAL TIME

New Zealand: In times of crisis, the New Zealand Government conducts 'rapid reviews' to evaluate policy in real time, and quickly collates and assesses international research to inform crisis decision-making. During the COVID-19 pandemic, the New Zealand Ministry of Health commissioned a rapid review to evaluate the effectiveness of COVID-19 diagnostic testing, and to make recommendations on testing processes.[193] The government also conducted two rapid reviews of the effectiveness of the whole-of-government response to COVID-19, to ensure that public policy could respond to a rapidly changing environment.[194] This rapid review was completed within two weeks, and provided 13 recommendations to improve diagnostic testing in New Zealand, enabling its findings to inform policy in real time. The government has also used rapid reviews to inform policy responses to other crises. For example, the Ministry of Social Development completed a rapid review of the government's role in supporting social inclusion within two months of the 2019 Christchurch terror attacks.[195]

THE NEXT PANDEMIC





It's a Friday night in 2029. There has been growing media coverage over the past week about a febrile illness that has just arrived in Europe. Already more than a dozen deaths have been attributed to it. A few cases are being identified in North America and South-East Asia. The world is worried.

A team of analysts at the ACDCP has been tracking its spread through its surveillance system. The team is confident that the disease is not yet in Australia. This is confirmed by real-time health and travel data, which has been shared and linked across jurisdictions, and through consumer spending and location data through its private sector partnerships. The ACDCP has issued emergency grants and is coordinating research by the Australian scientific community to urgently understand how the disease spreads and who is most vulnerable. It is already collaborating closely with international efforts.

The National Cabinet is poised to meet on the weekend. An independent panel of multidisciplinary experts, including business and community representatives, has been stood up. It has finalised its advice, which is publicly released when it is sent to National Cabinet that evening. It provides recommendations across a range of plausible scenarios on the nature and potential evolution of the virus. Frontline expertise is brought in to provide advice and plan implementation of policies in local communities, which ensures that vulnerabilities are accounted for and addressed in a targeted way. The potential impact of societal disadvantage is considered from the outset.

Scenarios are not portrayed as black or white. Each scenario uses a carefully structured risk management framework developed through years of prior consultation. These weigh up competing considerations from health policy, social policy and economic policy experts and draw on the insights of frontline workers and those with lived experience. The groups most likely to be adversely impacted if the virus reaches Australia have been identified and planning is already underway with them to see how they can be best protected.

National Cabinet meets. The Leader of the Opposition has been invited to attend. The pre-pandemic plans are brought up to date. They have already undergone scenario testing at the end of the previous year when federal, state and territory ministers, local government officials and essential workers practised their roles and worked out what each will do in different circumstances.

Jurisdictional issues about who is responsible for quarantine, key definitions of 'essential workers' and 'essential businesses' and triggers for school or business closures are already agreed. Public services across jurisdictions use their pre-established networks, built up through the Public Service Centre of Excellence, to collaborate on how various areas will respond, based on their roles set out in the pre-pandemic plans. The plans do not perfectly match what we are seeing overseas, but all the necessary elements are there. Work is already underway on how the plan might have to be adapted as new evidence comes to light.

The Prime Minister fronts the media. Together with colleagues, the Prime Minister outlines the plan agreed by the National Cabinet. It consists of an initial series of targeted measures. While the initial plan includes some restrictive measures, they are targeted and temporary. The Prime Minister emphasises that strong tracking, tracing, testing and quarantine capabilities have already been developed through the ACDCP, which are likely to remove the need for extended lockdowns. Australia's advanced surveillance system, real-time data assets, coordinated testing and tracing systems, and harmonised systems across airports and seaports means blanket measures will not be required.

It is recognised that the measures announced by the National Cabinet will cause particular hardship in sections of the community. Fault lines in Australian society are likely to be exposed. The Prime Minister outlines the targeted economic supports that will be provided to businesses and households affected adversely by the measures. The rationale is set out in a transparent fashion.

The options for how supports, including job retention schemes, should be provided during a health crisis have been developed well in advance and coordinated between federal, state and territory Treasury departments. Design work has already been undertaken. This allows policymakers to move quickly. The businesses and households most impacted are identified through linked health and economic data from across Australian jurisdictions. They receive an advance payment later that afternoon. The use of data, increased public sector capabilities and the fact that policy options were prepared ahead of time means these supports are timely and targeted. All members of the labour force are given the support they will need if businesses are forced to reduce their operations or if they cannot work.

The Prime Minister's messages are immediately broadcast through government advertisements on television and radio in multiple languages. They aren't flashy, but they are released quickly. The independent panel's network of civil society and private sector representatives, now activated, has already helped formulate the initial advice to the National Cabinet. The panel is already working collaboratively with local government authorities and community organisations on how best to distribute these messages throughout Aboriginal and Torres Strait Islander communities, and to culturally and linguistically diverse communities, youth and to senior citizens, people with a disability and people suffering poor physical or mental health.

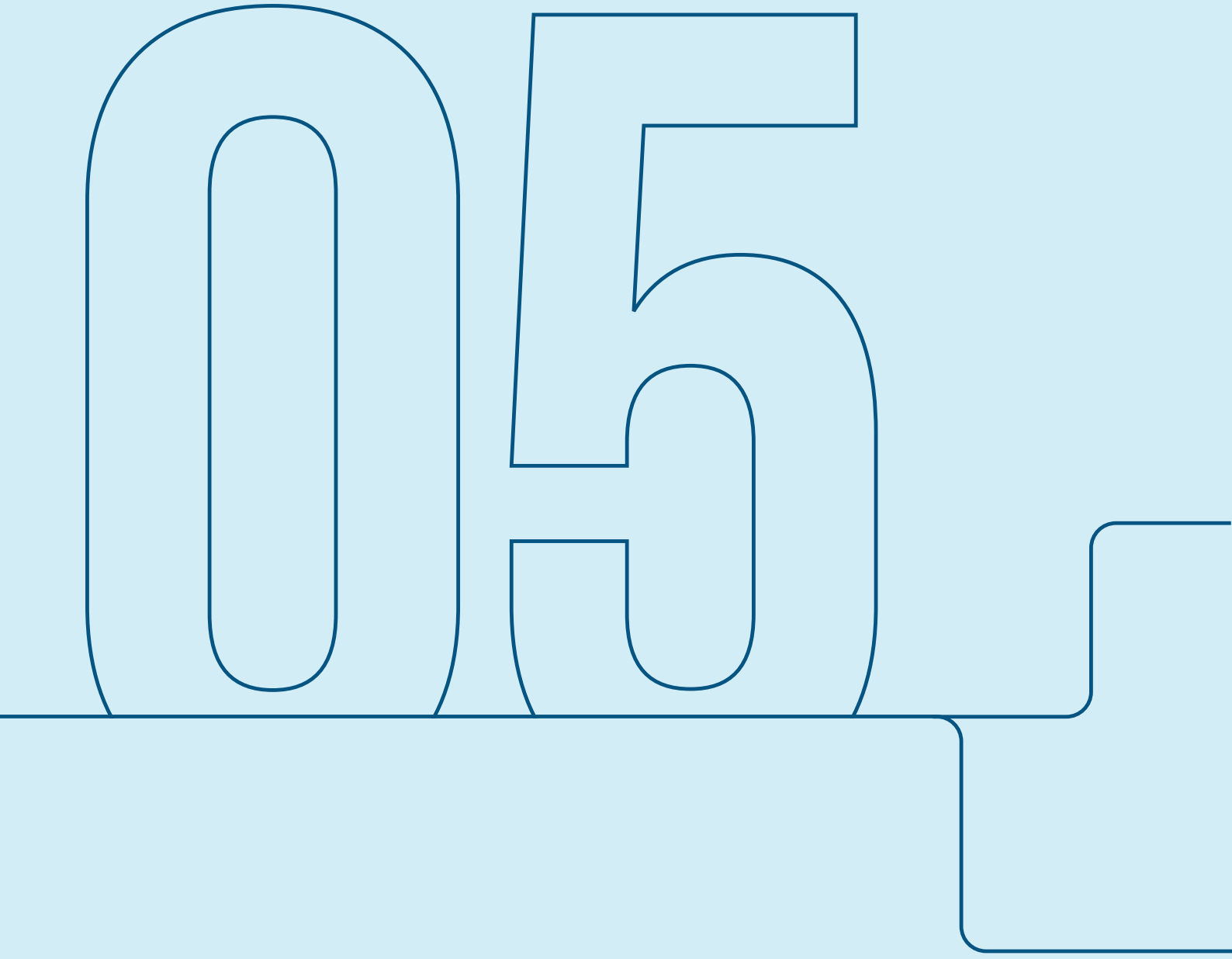
Governments do not get everything right. They make mistakes. The measures agreed at the National Cabinet need to be revised in the days and weeks that follow as new information about the global spread of the pandemic is incorporated from overseas and Australia. Senior public servants work together across jurisdictional boundaries. Experts in universities and the private sector pour over the transparent advice from the independent panel and the ACDCP. Access to data has stimulated years of prior research on how best to respond to crises. Together they identify faults and options for potential improvements. The federal Evaluator General monitors the effectiveness of the health and economic measures agreed by the National Cabinet in real time and identifies potential weaknesses. The findings are made public. Public administrators with deep training in these policy areas incorporate these changes into policy.

Australians returning from Europe inevitably bring the disease with them. Australia's quarantine facilities and contact tracing and testing processes prevent it from spreading. There are no lockdowns, no school system closures and no border closures. The pathology of the disease means it dissipates over the coming months. Through effective international cooperation, led by the WHO, its spread is contained and it does not become endemic. Real-time data informs the timely removal of pandemic policy support, saving taxpayers billions of dollars. With a proportionate economic policy response and net overseas migration largely intact, Australia manages to avoid a repeat of the labour shortages that characterised 2022.

It is not the last outbreak Australia faces. The emergence of novel pathogens becomes more frequent. Australia faces similar and different diseases in the decades that follow. Our response is never perfect. But we learn from our mistakes. Australia's plans, institutions and frameworks are updated following each event, knowing full well that the next one will never be far away.

"OUR RESPONSE IS NEVER PERFECT. BUT WE LEARN FROM OUR MISTAKES."

CONCLUSION



The last few years might be hard to explain to future generations. For many of us, the story of COVID-19 will be one of inconvenience. It will be a story of cutting our own hair, struggling to exercise, missed holidays, too much takeaway, too much 'click and collect' and endless Zoom meetings. Those who made the decisions on COVID-19 were almost all in this group.

For others, COVID-19 will be a story of trauma, isolation and terrifying uncertainty. It will be a story of being locked in overcrowded housing, job loss and missing out on government supports. It will be a story of more domestic violence, increased alcohol abuse, and deteriorating mental and physical health. It will be a story of loss and the brutal realisation of not being able to say final goodbyes to loved ones.

Never again, we might say. But if we don't want to make the same mistakes again, we need to learn from what happened. We need to assess what worked well and what did not. Frankly, Australia does not have a good history of learning from our past.

This Review identified five key lessons: the need to have societal fault lines front of mind; the need to plan, prepare and practise; the need to avoid the perils of overreach; the need for transparency, clarity and consistency; and the need to better balance competing trade-offs. These lessons need to be embedded into the institutions and frameworks that make and inform decisions. In this Review, we have focused on those who would be particularly impacted in a pandemic, not just because that is what a fair society does, but because in a health crisis protecting our most vulnerable should be at the forefront of decision-making. It was our greatest failure during COVID-19.

Our institutions, decision-making frameworks and public administrators need to be sufficiently flexible, adaptable and resourced to solve problems because the next crisis is likely to be different. They need to instill trust and confidence in the public. They need to be collaborative in order to draw on the expertise and networks of those within and outside government. They need to rapidly incorporate new information and learn from their mistakes so that policy can adjust to changing circumstances.

Ensuring that social inequalities are factored into policy decisions will stop the burden of health crises being unfairly placed on the most disadvantaged. We think that this Review's recommendations will help. Enhancing cross-jurisdictional political administration is essential. We need a whole-of-governments approach. If chief ministers collectively are willing to provide the authorising environment for their public servants to work collaboratively it will help to ensure that, beyond the inevitable political contests, the National Cabinet can operate more effectively. An Australian public health authority and a multidisciplinary health crisis panel will improve government decision-making through enhancing transparency, ensuring broader advice is made available and creating a sense of partnership. Crisis preparation, planning and scenario-testing will iron-out glitches so that many decisions can be made before a new disease arrives on our shores. Improving how governments use data and building public sector capabilities will stop outbreaks turning into pandemics. Enhanced evaluations will ensure our responses are adaptable to changing circumstances, learning as we go.

Public discourse in Australia has already turned to how and why too much of our response seemed to be a step too far. This Review does not make specific recommendations on the legislative framework that permitted this overreach. But clearly we need more checks and balances in our system, especially when it comes to the power of health ministers and CHOs to impose draconian restrictions without reference to parliaments or even cabinets. We cannot face the next pandemic with the same unfettered powers.

Learning from the COVID-19 crisis will be vital if we are to be better prepared for the next health crisis. Because one thing is certain: there will be another.

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RECOMMENDATIONS

RECOMMENDATION 1: STRENGTHEN CRISIS PREPARATION, PLANNING AND SCENARIO TESTING

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APPENDICES

APPENDIX 1: TERMS OF REFERENCE

The Independent Panel was asked to review Australia's response to the COVID-19 pandemic to provide a small number of practical, high-impact recommendations on how Australia can become a more resilient nation that is better prepared for future health crises.

Scope of the Review

The Panel was asked to explore the three phases of the COVID-19 pandemic through the lenses of health, economic and social policy:

- **Preparation**: including risk monitoring, the availability of data, access to skills, the adequacy of emergency plans and protocols, and the flexibility of Australia's communities, policies and markets.
- **Response**: including communication, managing policy trade-offs, governance, government coordination, knowledge and data sharing between and within state-national governments and the public, logistics and supply chains, our ability to adapt as the crisis evolved and the inclusiveness and effectiveness of our policy responses.
- **Recovery**: including the adequacy and effectiveness of policy supports provided, the distribution of those supports across the community, whether the ongoing post-COVID recovery is inclusive of vulnerable communities and how we are learning from the successes and shortcomings in our policy responses.

Process

The Review was funded by three philanthropic organisations: the Paul Ramsay Foundation, the Minderoo Foundation and the John and Myriam Wylie Foundation. The funders of the project had no say over its findings and recommendations.

The Panel was chaired by Peter Shergold AC and included Jillian Broadbent AC, Peter Varghese AO and Isobel Marshall. Sharon Lewin AO was initially appointed to the Panel but subsequently chose to step down to ensure there were no perceived conflicts of interest from her participation.

The Review conducted consultations across a broad cross section of industries, experts and community groups (Table A1). More than 350 people participated in the Review process over a six-month period through both written submissions and consultations. Consultations were undertaken confidentially to allow participants to speak freely and openly.

The e61 Institute was commissioned to support the Panel in undertaking consultations, in reviewing submissions and in undertaking research, data analysis and policy analysis to help inform the recommendations in this report.

APPENDIX 2: CONSULTATION GROUPS

INDUSTRY REPRESENTATIVES	POLICY EXPERTS	COMMUNITY GROUPS
Academia	Aged care	Aboriginal and Torres Strait Islander
Aged care	Disability services	Aged care
Agriculture	Education	Children
Arts	Epidemiology	Culturally and linguistically diverse communities
Banking and finance	Fiscal policy	Health groups
Community services	Foreign affairs	LGBTIQ+
Critical infrastructure	Gender	Mental health
Defence	Indigenous affairs	Rural and regional communities
Disability services	Law	Women
Education	Mental health	Young people
Government	Monetary policy	
Health	Primary care	
Law	Public health	
Manufacturing	Social services	
News media	Structural and regulatory policy	
Pharmaceuticals	Vaccine distribution	
Philanthropy and not for profit	Vaccine manufacturing	
Regulator		
Retail		
Science		
Small business		
Transportation		

APPENDIX 3: BIOGRAPHIES

PANEL

The independent panel included Peter Shergold AC (Chair), Jillian Broadbent AC, Isobel Marshall and Peter Varghese AO. Sharon Lewin AO was initially appointed to the Panel but subsequently chose to step down to ensure there were no perceived conflicts of interest from her participation.

PETER SHERGOLD AC

Peter Shergold was for 20 years a senior executive in the Australian Public Service, including five years as Secretary of the Department of Prime Minister and Cabinet. He is presently Chancellor of Western Sydney University.

Peter chairs a range of public, private and community organisations, including Opal HealthCare, the NSW Education Standards Authority, Joblife, the James Martin Institute for Public Policy, and the AMP Foundation . He is the NSW Coordinator General for Settlement and sits on the Board of Australia for UNHCR.

JILLIAN BROADBENT AC

Jillian Broadbent is a director at Macquarie Group Limited. She was Chancellor of the University of Wollongong and the inaugural Chair of the Clean Energy Finance Corporation. She has served on the Boards of the Reserve Bank of Australia, Woolworths Limited, Swiss Re Life and Health Australia Limited, ASX Limited, Special Broadcasting Corporation, Qantas Airways Limited, Westfield Property Trusts, Woodside Petroleum Limited and Coca-Cola Amatil Limited. She was a Panel Member of APRA's Prudential Inquiry into Commonwealth Bank of Australia's governance, culture and accountability.

Jillian is on the board of the Sydney Dance Company, and was a board member of National Portrait Gallery, Sydney Theatre Company, NIDA, Australian Brandenburg Orchestra, and the Art Gallery of NSW.

In 2019 Jillian was made a Companion of the Order of Australia for her contribution to corporate, financial, clean energy and cultural organisations, to higher education and to women in business.

ISOBEL MARSHALL

Isobel Marshall was awarded the 2021 Young Australian of The Year award for her work co-founding TABOO, a social enterprise dedicated to ending period poverty. Throughout the last 5 years of growing the business, Isobel has focused on advocating for reproductive healthcare and gender equality with a goal of reforming the social and structural factors that perpetuate period poverty. Through this work, TABOO has championed the role of business in finding sustainable solutions to social and environmental issues.

Having stepped back from this role, Isobel is now focused on her medical studies at The University of Adelaide. She is also a member of the Premier's Council for Women; a council dedicated to providing leadership and advice to the South Australian Government in respect to the needs and interests of women.

PETER VARGHESE AO

Peter Varghese is in his second term as Chancellor of The University of Queensland. He has served previously as Secretary of the Department of Foreign Affairs and Trade, High Commissioner to India, High Commissioner to Malaysia, Director-General of Australia's peak intelligence agency, the Office of National Assessments, and Senior Advisor (International) to the Prime Minister. Mr Varghese was the author in 2018 of a comprehensive India Economic Strategy to 2035 commissioned by the Australian Prime Minister.

Mr Varghese sits on the boards of CARE Australia and North Queensland Airports and chairs Asialink's advisory council. He sits on the international governing board of the Rajaratnam School of International Studies in Singapore and has been an advisor to several companies on international affairs.

SECRETARIAT – E61 INSTITUTE

The Independent Panel was supported by the e61 Institute which undertook consultations, research and analysis to support the Review.

The e61 Institute is a not-for-profit economic research institute. The Institute combines innovative data with state-of-the-art tools from economics, data science and statistics to answer the most important economic questions facing Australia.

The e61 Institute was born from a motivation to bring together problem-solvers from academia, industry and government to push the knowledge frontier so that we can tackle the big problems facing our society.