HARD LESSONS:

RECKONING THE ECONOMIC, SOCIAL, AND HUMANITARIAN COSTS OF ZERO-COVID

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Summary of Key Findings

In response to the covid-19 pandemic, Australia imposed some of the strictest measures in the western world. The restrictions dramatically changed every aspect of society and human dynamics and engagement. This resulted in the fracturing of social cohesion and reduction in nearly every indicia of human flourishing. This report evaluates the harm caused as a direct result of covid-19 restrictions, in order to facilitate a robust assessment of the success of this strategy.

It is important to note that this is not about "lives" vs "the economy". The lives impacted by covid-19 are no more or less valuable than lives harmed by the response to covid-19. This report demonstrates that far more years of life will be lost due to the restrictions than have been saved. Thus, on a metric focused solely on the number of lives saved/lost the strict restrictions were a failure. In addition to this, the response to covid-19 has caused a significant reduction to the net mental wellbeing, economic prosperity, and educational levels of society. The main costs of the lockdowns are as follows:

- There is a positive correlation between employment and life expectancy. Unemployment reduces life expectancy due to a number of well-documented causes, including cardiovascular disease; increased illicit substance and alcohol abuse, and suicide. The modelling in this report shows that the costs of joblessness and not working as a result for the first nationwide lockdowns in March and April 2020 were 31 times greater than the maximum possible benefits of all lockdowns throughout 2020 and 2021. The nationwide lockdowns imposed in March and April 2020 accounted for a total of over 1.8 million years of life lost due to joblessness alone.
- Victoria was the most enthusiastic supporter of zero-covid policies, and therefore
 paid the highest cost. Victoria was responsible for 45 per cent of the lockdown
 activity in Australia, despite making up only 26% of the Australian population.
- Australia suffered a net direct economic cost of \$260 billion between March 2020 and June 2022. This analysis estimates that \$111 billion of the economic cost was suffered in Victoria alone.
- State and federal government spending in covid-19 measures up to the end of the 2022 financial year was \$596 billion. Victoria committed \$107.5 billion up to the 2022 financial year in zero-covid measures and economic stimulus directly tied to the economic consequences of lockdowns and other restrictions.
- An estimate of the aggregated cost of the inflationary effects of zero-covid policies from 2020 to 2022 comes to approximately \$82.8 billion, but the excessive inflation is expected to continue to mid-2024 meaning this cost will accumulate over time.
- The combined direct economic costs combined with the total amount of covid-19-related state and federal government spending and the aggregated cost of inflation is currently at \$938.4 billion up to the end of the 2021-22 financial year. Victoria accounts for \$218.7 billion of the combined economic and fiscal cost of zero-covid.

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- All students suffered significant educational setbacks. This detriment was most pronounced in Victoria, where students missed more than five terms of in person schooling, which resulted in Year 9 students falling behind by the equivalent of 12 weeks and 17 weeks of reading and numeracy skills, respectively.
- There are numerous socio-economic, recreational, lifestyle, and mental health harms as a consequence of lockdowns measures which have not yet been fully quantified but will be a significant ongoing cost of zero-covid.

The Costs of Lockdowns

Lockdowns did not work.

Prior to 2020 the use of "lockdowns" in Western societies was an exertion of power which was reserved solely to the wardens of prison populations. This makes sense because it is a fundamentally totalitarian response which requires the rights and liberties of a free people to be completely disregarded.

Beginning in March 2020, Australia imposed some of the strictest measures in the western world as part of a response to a declared covid-19 pandemic. The measures were primarily imposed directly by the state governments and some states were more restrictive than others: indeed, Melbourne had the longest lockdown of any city on earth.

When the first lockdowns in Australia were announced and enforced, many Australians – in particular those who worked office jobs and could transition to working from home, "the laptop class" – supported the measures because it was perceived as a mild cost to pay to "beat the virus". The initial measures were introduced as a supposedly temporary measure to ensure that government could secure the capacity of the health system which was predicted to be overwhelmed with covid-19 patients.

The rationale for the restrictions was to keep people physically distanced in order to eliminate or reduce deaths from covid-19. While it is estimated that some lives were saved from the measures to forcefully keep peopled distanced from each other, the modelling used to suggest the country and the health system would be inundated with covid-19 patients proved to be wrong. This alarmist modelling was nevertheless used by decision-makers as the sole basis for informing the covid-19 response.

The restrictions were not temporary, particularly in Victoria, and "two weeks to flatten the curve" quickly became replaced by an elimination strategy, also known as "zerocovid". The policy of Australian governments was not to manage the public health threat in a measured manner, but to ensure there was no transmission of the virus at all.

Moreover, there was no meaningful public debate regarding the appropriateness of the covid-zero strategy. The political class (meaning the majority of the major political parties, the public sector, and the mass mainstream media) supported lockdowns. To critique lockdowns was to be accused of placing "the economy" over "lives". Given the primacy and sanctity of life this was a forceful emotive argument which had the effect of suppressing factual based discussion about the appropriate response to the pandemic. This was arguably a disingenuous way to shut down debate.

There are wide-ranging serious problems that were directly caused by the lockdowns, including job losses, business closures, lost economic opportunities, delayed and compromised educations, and a significant deterioration in the mental and physical health of many people.

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These costs are not temporary. The effects of joblessness, isolation, and idleness will shave years of life-expectancy from millions of Australians. Moreover, the economic costs will only get worse: the massive increase in government spending to offset the economic damage of the government measures is predictably placing immense inflationary pressure on the economy.

The purpose of this paper is to robustly quantify the costs to Australians resulting from the covid-zero strategy pursued by Australian governments.

The first criterion that is used to compare the benefits of lockdowns to the costs of lockdowns is life years. This analysis uses a measure of the maximum number of years of life saved by lockdowns throughout 2020 and 2021 and compares it to the years of life lost because of joblessness that occurred because of the first nationwide lockdown in March and April of 2020. This research finds that the costs from that two-month period alone was 31 times greater than the maximum possible benefits from zero-covid over 21 months. Only one measure – that of joblessness –is considered in this analysis. The costs of joblessness from subsequent lockdowns, as well as years of life lost to other restrictions such as lifestyle changes and delayed medical treatment, should be considered in future research.

The second calculation focuses on the economic costs of lockdowns. The net direct economic cost of zero-covid is estimated to be \$259.8 billion between March 2020 and June 2022. This is undertaken on a national and also state-by-state basis. This is necessary given that not all states managed their covid-19 response in the same way: Victoria was the most restrictive state and accordingly paid a higher cost for zero-covid relative to other states, totalling an estimated \$111 billion in net direct economic loss.

Based on information derived from budget documents, the state and federal governments have incurred expenditures of \$595.8 billion on covid-19 measures, such as health and stimulus spending. Victoria has spent \$107.5 billion to date.

The third calculation is an aggregated cost of inflation in the economy. The expansionary fiscal and monetary policies issued in response to the harmful effects of zero-covid policy flooded the economy with money that is flowing through now to higher prices for consumers and producers. The cost of inflation to June 2022 is approximately \$82.8 billion, though as the Reserve Bank of Australia does not anticipate inflation returning to pre-pandemic levels before mid-2024 this is a cost that will continue to accumulate.

The combined total economic and fiscal costs of zero-covid therefore amount to \$938.4 billion dollars from March 2020 to June 2022. Victoria is responsible for at least \$218.7 billion of Australia's total economic and fiscal costs of zero-covid from March 2020 to June 2022.

The third calculation examines the educational impact of lockdown, focusing on experiences of year 5 and year 9 students in each state and territory. Over 2020 and 2021, most Victorian students missed the equivalent of more than five school terms of in-person learning, as a result of schools closing – and in some cases pivoting to learning over the internet. The analysis finds that Victorian Year 5 students lost about 8 and 14 weeks of reading and numeracy skills, respectively, while Victorian Year 9 students lost about 12 and 17 weeks of reading and numeracy skills, respectively.

Finally, we provide an analysis of other uncounted costs, which will be the subject of extensive research in the future.

This paper contains a comprehensive calculation of the costs of zero-covid up to this point, but it is not yet possible to include all costs. It is a first step in quantifying the costs of locking down a country, but it must be acknowledged that Australians will be counting the costs of zero-covid for years to come.

Governments throughout Australia seemed to have tacitly accepted the failure of the zero-covid policy. In the recent federal election, the Coalition government did not trumpet its restrictive approach as one of its policy successes. It is also telling that ahead of the next state election in Victoria, the state government has avoided proactively mentioning the pandemic (even though approximately 2,500 Victorians died from or with covid-19 in the first six months of 2022). This is in sharp contrast to the 'lockdown' phases when the government would hold daily covid-19 press conferences, in circumstances when there were often no covid-19 deaths.

While governments seem to have impliedly accepted the failure of the zero-covid approach, it is vital for policy direction that similar mistakes are not made again. The key lesson from this paper is that government should never fanatically pursue a singular health or other objective at the expense of ignoring the inevitable disruption that it will have on a range of other societal activities and burdens that it will impose individual rights and interests. The alarmist modelling which was used to ignore the unintended consequences of the zero-covid policy is a significant institutional failure of government, and it is important to ensure this mistake is not repeated. In any future public health intervention, governments must remain robustly examine the integrity early modelling which purports to calculate the threats or dangers of a disease, which blinds decision makers into making hasty decisions without consideration of the potential future costs of policies.

As an additional measure, governments must commit to conducting a full cost-benefit analysis of the measures being imposed, and retain strong parliamentary oversight and scrutiny of the costs being imposed to facilitate an open debate about what measures Australians are prepared to accept or what price they are willing to pay.

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Alarmist Modelling Enabled Costly Lockdowns

Lockdowns were predicated on the most alarmist assumptions about the virus. For instance, the Commonwealth's own modelling estimated that 60% of Australians would be infected with covid-19, and that of these infections, 1 per cent would be fatal, resulting in up to 150,000 deaths. Other modelling and estimates released in 2020 referred to deaths in the hundreds of thousands (Table 1).

Table 1: Early Modelling of the Mortality of covid-19 under various scenarios

Mid-March 2020	Commonwealth Government ¹	Estimated that 60% of Australians would be infected, and 1% of these would die, resulting in up to 150,000 deaths		
Late-March 2020	Blakely and Wilson ²	 Estimated deaths from an Eradication (lockdown) policy at 5,000. Mitigation strategy at 25,000-55,000 No mitigation measures and 60% of population infected resulting in 134,000 deaths 		
May 2020	Bailey and West ³	 27,000 deaths under eradication strategy, 141,000 deaths under mitigation/herd immunity, and 287,000 deaths with no mitigation measures 		
May 2020	Holden and Prescott ⁴	If 90% of the population was infected, and 1% of these dying, resulting in 225,000 deaths.		
June 2020	Kompas et al ⁵	260,000 deaths if no action had been taken by government		

The actual fatality rate from cases was closer to 0.1 per cent, putting the government modelling off by a factor of 10. Moreover, the risks of covid-19 were not shared equally: the mortality rate for physically well people below the age of 60, for instance, was extremely low compared to the elderly and the infirm. As Kampark & Christie note

¹ See Dana McCauley, Eryk Bagshaw, and Rob Harris, 'Australia Prepares for 50,000 to 150,000 Coronavirus Deaths,' The Sydney Morning Herald, 16 March 2020.

² Tony Blakely & Nick Wilson, 'The Maths and Ethics of Minimising Covid-19 Deaths,' Pursuit, 23 March 2020.

³ Neil Bailey & Daniel West, 'Are the Covid19 Restrictions Really Worth the Cost? A Comparison of Estimated Mortality in Australia from COVID19 and Economic Recession' (2020) https://arxiv.org/abs/2005.03491.

⁴ Richard Holden & Bruce Preston, 'The Costs of the Shutdown are Overestimated,' The Conversation, 16 May 2020.

⁵ Tom Kompas et al., 'Health and Economic Costs of Early, Delayed and No Suppression of COVID-19: The Case of Australia (2020) medRxiv, https://doi.org/10.1101/2020.06.21.20136549.

From March 2020 till 31 August, 565 Victorians patients had died of the virus, as opposed to 10,000 patients with cardiovascular disease and 11,000 with cancer. Importantly, according to the specialists, most of these deaths had occurred in nursing homes and also occasioned by a risk of other causal factors: isolation, loneliness, deficient nutritional intake.⁶

Notably, enforced isolation and loneliness was the formal policy of the Victorian government for elderly Victorians through a series of public health orders directed at aged care centres.

However, it was this alarmist modelling which gave the state governments and the national cabinet the ammunition it needed to not only implement lockdowns, but to avoid any express consideration of the costs or consequences of lockdowns. In the process Australian governments cast aside carefully prepared plans for influenza pandemic. Almost all aspects of federal policy and state covid-19 policy – from interstate border closures, mandatory isolation and quarantine, school closures, and mask mandates – contradict the evidence-based Australian Health Management Plan for Pandemic Influenza written in 2014 and updated by the federal department of health in August 2019. This plan sought to balance public health priorities with proportionality, and respect for individual rights, responsibilities, and freedom.⁷

The ethical framework of the plan was developed in 2008 under a federal Labor government, meaning that at one time there was a bipartisan consensus on values such as "individual liberty", "proportionality", "stewardship" (making "good decisions based on best evidence") and "trust" (communicating in a "timely and transparent manner"). As the plan says, a proportionate response even would "minimise social disruption" in the knowledge that "the risk is not the same across population groups." This was quickly upended in favour of harsh, one-size fits all measures resulting in the most significant social disruption since in Australian history.⁸

It is important to acknowledge that the modelling that influenced these decisions was not robust and was not revised as new empirical data emerged confirming the infectivity of the virus and its mortality rate. The inclination to rely on flimsy modelling as a basis for making dramatic societal changes which have immense unintended consequences is a significant public policy failure that future governments must address in a future public health event.

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⁶ Binoy Kampark & Kenneth Christie, 'Lockdown, Vulnerabiliities and the Marginalised: Melbourne as a COVID-19 Response Study' (2021) 40(4) *Social Alternatives* 68.

⁷ Cian Hussey, 'Don't Pass This On' (2022) 73(4) IPA Review 71, 73.

⁸ Department of Health, Australian Health Management Plan for Pandemic Influenza (August 2019) 18.

Do Lockdowns Have any Benefits at all?

The logic of locking down to save lives is based on the intuitive assumption that restricting the movement of people will reduce the transmission in the community of an infectious disease. It is simplistic and myopic in that it assumes that totalitarian controls can be exercised over human behaviour without the detrimental costs of the lock downs outweighing the benefits.

Research even in the early part of 2020 was beginning to cast doubt on the logic of lockdowns. In particular, it was difficult to determine whether there was a statistically meaningful relationship between coercive measures and lower covid-19 mortality. In one exploratory analysis of data on deaths related to covid-19 across 50 countries, medical researchers in Canada, Greece, and the United States found no association between the degree of lockdown and death rates.⁹

In August 2020, Christian Bjornskov, a professor of economics at Aarhus University in Denmark and the Research Institute of Industrial Economics in Stockholm published an early draft of a research paper which conducted a cross-country comparison focusing on whether lockdowns had been successful. Approaching the question using a standard approach and standard econometric tools used in economics and political science instead of epidemiological modelling or single-case studies, Bjornskov compared weekly general mortality rates in the first half of the year in 2017, 2018, 2019 and 2020 in 24 European countries that took markedly different policy measures against the virus at different points in time. The study noted:

Estimating the effects of these policy measures as captured by the Blavatnik Centre's Covid 19 policy indices and taking the endogeneity of policy responses into account, the results suggest that stricter lockdown policies have not been associated with lower mortality.¹⁰

And in July 2020 Jeffrey A. Tucker, the editorial director from the American Institute for Economic Research, compiled statistics from 54 countries, measuring covid-19 deaths per million around the world against the Oxford University's government stringency index. As Tucker noted at the time:

If lockdowns achieved anything you could expect there to be some predictive power here. The more you lock down, the more lives you save. The lockdown countries could at least claim to have bolstered the lives of their citizens. What you see instead is: nothing. There is no relationship. There is the virus. There are lockdowns. The two operate as seemingly independent variables.¹¹

⁹ Rabail Chaudhry et al, 'A Country Level Analysis measuring the Impact of Government Actions, Country Preparedness and Socioeconomic Factors on COVID-19 Mortality and Related Health Outcomes,' EClinicalMedicine, 21 July 2020.

¹⁰ Christian Bjornskov, 'Did Lockdown Work? An Economist's Cross-Country Comparison', 6 August 2020.

¹¹ Jeffrey A Tucker, 'The Bloodless Political Class and its Lack of Empathy,' American Institute for Economic Research, 27 July 2020.

These findings remained common throughout the pandemic. In January 2022, a paper published by the Johns Hopkins Institute for Applied Economics, Global Health, and the Study of Business Enterprise, authors Jonas Herby, Lars Jonung, and Steve H Hanke conducted a systematic review and meta-analysis of the scientific literature to determine whether there was empirical evidence to support the belief that lockdowns reduce covid-19 mortality. The study employed a systematic search and screening procedure in which 24 studies qualified for inclusion in the meta-analysis and separated into three groups (stringency index studies, shelter-in-place order studies, and specific non-pharmaceutical intervention studies). The study found in its conclusion:

Overall, our meta analysis fails to confirm that lockdowns have had a large, significant effect on mortality rates. Studies examining the relationship between lockdown strictness... find that the average lockdown in Europe and the United States only reduced COVID-19 mortality by 0.2% compared to a COVID-19 policy based solely on recommendations. Shelter-in-place orders... were also ineffective. They only reduced COVID-19 mortality by 2.9%.

Studies looking at specific [non-pharmaceutical interventions] (lockdown vs no lockdown, facemasks, closing non-essential businesses, border closures, school closures, and limiting gatherings) also find no broad-based evidence of noticeable effects on COVID-19 mortality. However, closing non-essential businesses seems to have had some effect (reducing COVID-19 mortality by 10.6%), which is likely to be related to the closure of bars. Also, masks may reduce COVID-19 mortality, but there is only one study that examines universal mask mandates. The effect of border closures, school closures and limiting gatherings on COVID-19 mortality yields precision-weighted estimates of -0.1%, -4.4%, and 1.6%, respectively. Lockdowns (compared to no lockdowns) also do not reduce COVID-19 mortality.¹²

A new study by the US non-profit National Bureau of Economic Research estimated that 171,000 excess deaths occurred in the United States to the end of 2021. This was in contrast to Sweden which did not impose the kinds of lockdowns seen elsewhere. According to the study, the estimate for the European Union was 64 non-covid-19 excess deaths per 100,000 people, but:

In contrast, the estimate for Sweden is -33, meaning that non-Covid causes of death were somewhat low during the pandemic. We suspect that some of the international differences are due to the standard used to designate a death as Covid, but perhaps also Sweden's result is related to minimizing the disruption of its citizen's normal lifestyles.¹³

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¹² Jonas Herby, Lars Jonung & Steve Hanke, 'A Literature Review and Meta-Analysis of the Effects of Lockdowns on Covid-19 Mortality,' (January 2022) Studies in Applied Economics, 40.

¹³ Casey Mulligan & Robert Arnott, 'Non-Covid Excess Deaths, 2020-21: Collateral Damage of Policy Choices?'
(Working Paper No 30104, National Bureau of Economic Research, June 2022) 13. See also Michael Senger,
Snake Oil (Plenary Press, 2021) 142: "Furthermore, developed countries that implemented lockdown mandates,
such as the U.K. and France, experienced ratios of excess deaths by age that resembles those in the U.S. rather
than those in Sweden. In other words, the U.S. appears to have had over 200,000 more deaths than it would have
if it had followed Sweden's approach instead of the [Chinese government's] and followed its own pandemic plan
instead of implementing strict lockdown mandates."

This appears to be consistent with the Australian experience, but it is likely that lock-downs and other non-pharmaceutical interventions only temporarily delayed covid-19 mortality. In one retrospective cost-benefit analysis partially published in May 2022, Professor Gigi Foster calculated an upper bound estimate of 12,304 covid-19 deaths that could have occurred in Australia during 2020 and 2021 without lockdowns. Given 2,353 covid-19 deaths did occur, this upper bound estimate estimates lockdowns saved 9,951 in 2020 and 2021. As of 12 June 2022, deaths had risen to 9,058: the substantial rise in deaths may be best attributed to those who might have died before 2022 but were delayed from dying.

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Years of Life Lost Vs Years of Life "Saved"

Lockdown advocates commonly rejected any concerns about the costs of lockdowns on the basis that this would place the economy over human lives. This was a fundamental misunderstanding of how economic activity impacts human dignity and health. It has been demonstrated that employment has a significant direct impact on human wellbeing, including mental health, substance abuse and life expectancy.

In other words, the correct equation was never lives vs economy, but lives vs lives. Moreover, it is important to note that lockdowns did not save any lives. Every person that did not die from covid-19 during the lockdown period will still die. The lockdowns in some cases may have delayed the onset of death for many people. Thus, the benefits of lockdowns are in the number of years of life saved, not the number of lives saved.

Life-years, or quality-adjusted-life-years, is the typical measure for assessing the cost-effectiveness of proposed public health measures, because it provides a more accurate and tangible metric against which measures can be compared. Economists will also commonly translate life years into a dollar-based value, based on the "value of a statistical life" or the "value of a statistical life year." This is important for policymakers but for the purposes of this report it is sufficient to evaluate the measures in terms of years of life lost or saved, but we recommend reading Professor Gigi Foster's full, forthcoming cost-benefit analysis for a measure which translates the measure into dollars. 15

The benefits of lockdowns are summarised in Foster's cost-benefit analysis for lockdowns up to end of 2021. The upper bound calculation of the benefits of lockdowns comprises 9,951 deaths averted from lockdowns and 131 non-covid-19 deaths averted because of lockdown measures (ie. fewer motorists result in fewer road-related fatalities). These figures are adjusted for the typical number of years of life remaining from each group. As detailed in Table 2, the total years of life saved by lockdowns is at maximum 57,300.1 years.

Table 2: Years of life saved from lockdowns (Foster, 2022)

Covid-19 deaths averted (March 2020 to Jan 2022)	9,951
Healthy years of life per covid-19 death averted	5
Factoring in estimate for "long covid" effects	1.02
	PLUS
Non-covid-19 deaths averted	131
Healthy years of life lost per averted non-covid death	50
Total years of life saved from lockdowns	(9,951)x(5)x(1.02)+(131x50) = 50,750.1 + 6,550 = 57,300.1 years of life saved by lockdowns

¹⁴ See Jaithri Ananthapavan et al., 'A cost-benefit analysis framework for preventive health interventions to aid decision-making in Australian governments' (2021) 19(147) Health Research Policy and Systems 1, 15.

¹⁵ Gigi Foster, Do Lockdowns and Border Closures Serve the "Greater Good": A Cost Benefit Analysis (Forthcoming, 2022).

In contrast, it is possible to calculate how lockdown and covid-zero measures reduce life-expectancy. One way to illustrate the significant and irreparable humanitarian damage caused by lockdowns is through the effects of joblessness.

The best available international evidence finds three main ways that unemployment reduces the average life expectancy of those who become unemployed: stress which induces cardiovascular disease; illicit substance and alcohol abuse; and suicide.

Moreover, the loss of life expectancy is a permanent effect. A person who loses their job and later becomes employed does not recover the years that had been taken off their life. The job may be recovered but not the effects of the stress of unemployment that had been experienced.

This analysis applies the methodology used in several studies into the relationship between unemployment and mortality. The metric used is the concept of years of life lost as a result of being made jobless, Based on the findings of a research paper written by Daniel Sullivan from the Federal Reserve Bank of Chicago, and Till von Wachter from the Department of Economics at Columbia University. Sullivan and von Wachter found an average number of years of life lost for numerous age brackets between the ages of 30 and 59, but found that there is "little effect of job loss on mortality for workers displaced near retirement age". Accordingly, removed from the Australian analysis is the effect of being made jobless for those aged over 60. Most Australians can access superannuation at the age of 60 and can access the aged pension at 67 so it can be assumed for the majority of jobs lost in this age bracket the person can transition to retirement. However, the removal of the entire age cohort inevitably makes for a more conservative estimate of the aggregate effects of job losses.

Sullivan and von Wachter do not provide an estimate of the effect of job losses on mortality for those aged under 30. In this analysis, the estimate for those aged 15-24 is taken from a similar paper written by Hannes Schwandt from the School of Education and Social Policy at Northwestern University and von Wachter which finds that young people graduating into the labour market with a higher unemployment rate face a decrease in life expectancy between six and nine months (or 0.5 to 0.75 life-years). The mid-point is used and applied to all job losses for those in the 15-24 year-old age group, which likely provides a conservative estimate as most job losses were suffered by those already in the workforce, not those graduating into it. For an estimate of life-years lost in the 25-29 age group, the analysis adopts the mid-point of the estimate for the 15-24 and 30-34 year-old cohorts.

These estimates are then applied to the number of jobs that were lost in each age group between March and April 2020. These figures are derived from labour force information released by the Australian Bureau of Statistics.¹⁸ This analysis relies on the decline in the

¹⁶ Daniel Sullivan & Till von Wachter, 'Mortality, Mass Layoffs, and Career Outcomes: An Analysis using Administrative Data,' (National Bureau of Economic Research Working Paper, 2007, doi: 10.3386/w13626).

¹⁷ Hannes Schwandt & Till von Wachter, 'Socioeconomic Decline and Death: Midlife Impacts of Graduating in a Recession,' (National Bureau of Economic Research Working Paper, 2020, doi: 10.3386/w26638).

¹⁸ Australian Bureau of Statistics, 'Labour Force, Australia, Detailed, July 2021,' August 2021.

number of employed people between March 2020 and April 2020, as well as the increase in the number of people working zero hours for 'economic' or 'other' reasons, as an estimate of the number of people who were not working but whose employment was subsidised by the federal government as a consequence of state lockdowns.

The total number of life-years lost in the initial nationwide lockdowns imposed in March and April 2020 was almost 1.8 million years due to job losses alone. This means that in terms of life-years lost or gained, the costs of the initial lockdowns were approximately 31 times greater than the benefits throughout 2020 and 2021.

Table 3: Years of life lost from joblessness caused by the first nationwide lockdowns in March and April 2020

Age group	Average life-years lost to an individual who loses their job	Jobs lost in March and April 2020 lockdowns (thousands)	Total life-years lost in March and April 2020
15-24	0.625	501,648	313,530
25-29	1.3425	214,566	288,055
30-34	2.06	185,389	381,902
35-39	2.09	143,885	300,720
40-44	1.43	105,217	150,461
45-49	1.49	100,996	150,484
50-54	0.98	108,967	106,787
55-59	1.11	90,614	100,581
60-64	-	77,257	-
65+*	-	95,200	-
Average and Total	1.10	1,623,739	1,792,521

Importantly, it is just one cost incurred over a two-month period that is considered above. Future research should consider the subsequent state lockdowns throughout 2020 and 2021 to get a full accounting for the costs of joblessness alone. Further research will also need to calculate the costs of other impacts, such as mental health, lifestyle changes, and delayed or ignored medical treatments, to fully understand how much greater the costs of lockdowns were compared to its miniscule benefits.

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Net Direct Economic and Fiscal Costs of Covid-Zero

As with any government intervention, it is clear that there is an economic and monetary trade-off when imposing lockdowns and other policies to advance a covid-19 elimination strategy. The government incurs additional expenses in implementing its policies; the stringent intervention reduces economic activity and opportunities; and the decline in economic activity in turn results in reduced tax revenues.

We have taken a conservative approach in measuring the economic costs of the lockdowns and hence we only examine the direct costs. However, it is important to note that there are many other indirect costs which have been incurred. In the context of government spending, it is difficult to fully account for all covid-19 related spending. Lockdowns touch every aspect of every public service and department. From the extra policing resources to enforce public health directions to the costs of transitioning public sector workers to work from home may all be unaccounted for in government budget documents.

This analysis will combine three costs to determine the total economic and fiscal cost of Australia's covid-zero strategy from March 2020 to June 2022. The first is the net direct economic costs of lockdowns, based primarily on analysis published by the Institute of Public Affairs. The second is government spending measures by the federal and state governments since March 2020. The third is a calculation of reduced government revenue since March 2020.

Table 4: Total economic and fiscal cost for covid-zero policies, by state

State	Net Direct Economic Cost	Government Spending	Cost of Inflation	Total economic and fiscal cost	
VIC	\$111.206bn	\$107.5bn		\$218.7bn	
NSW	\$88.693bn	\$75.0bn		\$163.7bn	
QLD	\$28.749bn	\$32.0bn		\$60.7bn	
WA	\$14.257bn	\$15.7bn		\$30.0bn	
SA	\$9.064bn	\$8.4bn		\$17.5bn	
TAS	\$2.641bn	\$3.4bn		\$6.0bn	
ACT	\$3.983bn	\$1.9bn		\$5.9bn	
NT	\$1.1 <i>74</i> bn	\$1.1bn		\$2.3bn	
Federal		\$350.8bn	\$82.8bn	\$433.6bn	
Australia	\$259.8 bn	\$595.8 bn	\$82.8bn	\$93 8.4 billion	

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Net Direct Economic Costs of Lockdowns

Stay-at-home orders, mandatory closure of businesses, limits or prohibitions on gatherings in public venues, and many other measures imposed in pursuit of a covid-zero strategy imposed an immense economic cost on Australians.

In many cases businesses and sole traders were prohibited from operating altogether, and those that were allowed to continue did so under considerable restrictions. Opportunities for investment and expansion were indefinitely delayed if not cancelled altogether. According to the Australian Bureau of Statistics, the gross domestic product of Australia declined by a staggering seven per cent in the June quarter of 2020 (the largest quarterly fall on record) reflecting the effects of the nationwide lockdowns imposed in March and April 2020.

Research by the Institute of Public Affairs in 2020 calculated that the net direct economic costs of Australia's covid-zero policy would total \$225.2 billion between June 2020 and June 2022. But as noted above, it was the period from March 2020 to June 2020 in which lockdowns were first implemented in Australia and in which the economic shock was first felt.

This modelling assumes that the economic contraction is wholly attributed to the government response to the pandemic. The cost could be higher – for instance, in the absence of lockdowns the economy may have grown, meaning the economic costs of lockdowns was the contraction as well as the lost growth. However this modelling assumes that, in the absence of lockdowns, the GDP for the June quarter would have been unchanged from the previous quarter to account for uncertainty related to the pandemic unrelated to government intervention.

Table 5: Estimated economic costs of lockdowns in June 2020 quarter (ABS: June 2020 Quarter, State Final Demand, Seasonally Adjusted, millions)

State	Mar 20	Jun 20	Change	%
NSW	154608	141657	-12,951	-8.4%
VIC	125050	114928	-10,122	-8.1%
QLD	92993	87465	-5,528	-5.9%
WA	52599	49587	-3,012	-5.7%
SA	30447	28731	-1 <i>,7</i> 16	-5.6%
TAS	9380	8635	-745	-7.9%
ACT	14205	13910	-295	-2.1%
NT	5870	5672	-198	-3.4%

This analysis also retains the IPA modelling of \$225.2 billion in net direct economic costs of covid-zero. Since the measures adopted in pursuit of covid-zero was not identical across the country, the attribution of costs on a state-by-state basis must account for the differing level of restrictions. This analysis adopts a relative stringency of lockdown score to determine how much more restrictive a state was compared to what it would be if policies were imposed uniformly.

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The proxy used to develop a relative stringency of lockdown score is the number of days of school missed. The schools and school children were placed on the front line of the pandemic response, with schools either closed altogether or children directed to learn from home digitally. Multiplying the number of days missed by the number of children in each jurisdiction or sub-jurisdiction finds that Victoria was responsible for 44.9% of all school days missed in Australia. This is compared to Victoria's share of the Australian population of 25.83%. This means that Victoria was 1.74 times more restrictive relative to its share of the population. This is Victoria's relative stringency of lockdown score. In contrast, the jurisdiction with the lowest relative stringency of lockdown score was Tasmania at 0.4. Applying the relative stringency of lockdown score of each state and territory to the \$225.2 billion gives the results summarised in Table 6. The total direct economic loss from March 2020 to June 2022 is also summarised in Table 6 but unsurprisingly finds Victoria paid the highest price for its lockdowns, at \$111.206 billion.

Table 6: Total net direct economic loss from March 2020 to June 2022

State	Loss: March 2020 to June 2020	Loss: June 2020 to June 2022	Total Loss
VIC	\$10.122bn	\$101.084bn	\$111.206bn
NSW	\$12.951bn	\$75.742bn	\$88.693bn
QLD	\$5.528bn	\$23.221bn	\$28.749bn
WA	\$3.012bn	\$11.245bn	\$14.257bn
SA	\$1.716bn	\$7.348bn	\$9.064bn
TAS	\$0. <i>7</i> 45bn	\$1.896bn	\$2.641bn
ACT	\$0.295bn	\$3.688bn	\$3.983bn
NT	\$0.198bn	\$0.976bn	\$1.1 <i>74</i> bn

Government Spending Incurred Due to Covid-Zero Policies

The immense economic disruption caused by lockdowns necessitated new and expanded welfare policies to deal with the economic fallout. In the most recent federal budget the Commonwealth government claimed it had so far spent \$314 billion on covid-19 related expenditure. While it is possible that some of this expenditure would have been incurred regardless of the imposition of lockdowns, the bulk of it is certainly necessitated by the country's extreme covid-zero strategy. A major component of federal spending in this period was the \$88.7 billion committed as part of JobKeeper, a wage subsidy paid to businesses who experienced reduced hours but retained their staff.

In this analysis the JobKeeper payments were necessitated by state policies closing businesses and imposing social distancing orders, so the amounts have been attributed to each state and territory based on where JobKeeper applications were processed (Table 7). The other amounts of federal spending could likewise be attributed to the states as most spending was committed to underwrite the policies of the states. Additionally, federal policy was steered by the state premiers as part of

the manufactured "national cabinet" process, where alarmist state leaders were able to guide national covid-19 policy in a more restrictive direction. For simplicity the remainder of federal spending is attributed to the federal government (Table 8).

Table 7: JobKeeper payments processed in each state

	Cumulative				
State/Territory	Applications processed		Net payments		
	Number	Share (%)	\$ Billion	Share (%)	
NSW	359,987	33.6	30.0	33.8	
VIC	318,056	29.7	28.1	31.7	
QLD	196,610	18.4	15. <i>7</i>	17.7	
WA	97,995	9.2	7.2	8.1	
SA	62,302	5.8	4.8	5.5	
TAS	17,115	1.6	1.4	1.5	
ACT	12,542	1.2	1.1	1.3	
NT	5,473	0.5	0.4	0.5	
TOTAL	1,070,080		\$88.7 billion		

The states devoted significant portions of their budgets to the covid-19 response too. This occurred not only in expanding health services, but also in stimulus measures to offset the effects of their restrictive policies. Table 8 combines the total government expenditures incurred by federal, state, and territorial governments from March 2020 to June 2022, as derived from government budget documents. It includes spending commitments that were made in that time frame, including commitments which will not be fully incurred within the time period but is included here as the decision to spend the money was made between 2020 and 2022 as part of a covid-19 response.

Table 8: Total Government Expenditure incurred in or attributed to each State/ Territory as part of a covid-19 response

Jurisdiction	Government Expenditure	JobKeeper payments	Decreased tax revenue	Total Government Expenditure
VIC	\$79.4bn	\$28.1bn		\$107.5 billion
NSW	\$45.0bn	\$30.0bn		\$75.0 billion
QLD	\$16.3bn	\$15.7bn		\$32.0 billion
WA	\$8.5bn	\$7.2bn		\$15.7 billion
SA	\$3.6bn	\$4.8bn		\$8.4 billion
TAS	\$2.04bn	\$1.4bn	\$1.4bn	
ACT	\$779.5m	\$1.1bn		\$1.9 billion
NT	\$714.7m	\$0.4bn		\$1.1 billion
Federal	\$248.3bn	-	\$102,498bn	\$350.8 billion
TOTAL	\$404.6bn	\$88.7bn	\$102.5bn	\$59 5.8 billion

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Usually the figures are what the government claims were spent as part of a covid-19 response, though this is likely to be an imperfect figure. On the one hand, almost all government activity was affected by covid-19 policies, meaning the claimed figure could be understating the true cost. On the other hand the claimed spending figures may include measures where the government elects not to collect tax, which is not a spending decision. To offset this, the analysis neglects to include an estimate of reduced tax revenues as a consequence of measures which reduced company profits and individual incomes.

The costs of inflation from covid-zero policies

Expansionary policies and stimulus spending to cushion the impact of restrictive policies places immense inflationary effects on the economy.

Inflation is a consequence of the increase in money supply exceeding the change in productive capacity of an economy. The money supply sharply increased from early 2020, but the productive capacity of the economy could not be expanded because the economy itself was in a state of semi- or complete shutdown.

A calculation of the inflationary effects of the covid-19 measures should be counted in the total cost of covid-zero. This is intuitive: if not for the expansionary monetary policies, wage subsidies, and stimulus measures, the economic decline during the periods of lockdown would have been even worse. But while the economic costs were, in part, avoided at the time, the costs are being paid now through significant price level rises. This will be a persistent cost to Australian households, as the Reserve Bank does not expect inflation to return to the top band of the inflation target range of 2 to 3 per cent until mid-2024.¹⁹

Calculating a 'cost of inflation' is based on the difference between the forecast price levels (based on the Reserve Bank's forecast for inflation prior to the emergence of covid-19) and the actual price level changes experienced. The divergence between the forecast price changes and the actual price changes are principally due to the policies that were implemented. The difference between the forecast and actual price level changes are then applied to the difference between the real and nominal gross domestic product figures, as the aggregate increase in price levels will be reflected in the nominal growth figures.

¹⁹ Reserve Bank of Australia, 'Statement on Monetary Policy' (May 2022).

Table 9: CPI Forecast vs CPI Actual; Nominal GDP vs Real GDP

	CPI Forecast (quarterly change)	CPI Actual (quarterly change)	GDP, current prices (nominal, \$millions)	GDP, chain volume (real, \$millions)
December 2019	0.4%	0.4%	503839	505036
March 2020	0.4%	0.3%	504421 (+0.1%)	503496 (-0.3%)
June 2020	0.4%	-1.9%	466514 (-7.5%)	469275 (-6.8%)
September 2020	0.4%	1.6%	487144 (+4.4%)	48 <i>5</i> 727 (+3.5%)
December 2020	0.4%	0.9%	508339 (+4.4%)	501644 (+3.3%)
March 2021	0.55%	0.6%	527433 (+3.8%)	510590 (+1.8%)
June 2021	0.55%	0.8%	544542 (+3.2%)	514784 (+0.8%)
September 2021	0.4%	0.8%	541366 (-0.6%)	505413 (-1.8%)
December 2021	0.4%	1.3%	560439 (+3.5%)	523725 (+3.6%)
March 2022	0.6%	2.1%	581276 (+3.7%)	527676 (+0.8%)
June 2022	0.6%	1.3%	563489 (-3.06%)	533058 (+1.02%)
Cumulative GDP			5788802	5580424
Change since Dec 2019	4.7%	7.8%	+11.84%	+5.55%

The difference between expected and actual CPI is (7.8%)-(4.7%)=3.1%. This implies that 39.7% of price rises are due to covid-19 measures. The cumulative nominal economic activity between December 2019 and June 2022 was \$5,788,802 million, whereas the real economic activity in that period was \$5,580,424 million. The cumulative difference between real and nominal economic activity is therefore \$208.3 billion, of which almost 40 per cent is due to covid-19 policies. In other words

$$($208.3bn) \times (39.7\%) = $82.817$$
 billion

The theoretical cost of inflation because of covid-19 policies is therefore \$82.817 billion dollars between March 2020 and June 2022, but this is a cost that will continue to rise as the inflationary effects have not yet subsided.²⁰

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²⁰ Federal treasurer Jim Chalmers has already warned that \$30 billion will be lost in the economy because of the inflation surge: Patrick Commins, 'Dour forecast: a \$30bn wipeout,' The Australian, 28 July 2022.

The Learning from Home that Never Happened

Despite the well-documented fact that covid-19 predominantly and disproportionately affected elderly people, it was Australia's youngest who were placed on the frontlines of the fight in the pandemic. Schools were closed for in person instruction and millions of students learned in isolation through digital schooling.

Closing schools not only affected educational outcomes but the sudden and prolonged isolation of students also had a significant impact on their mental health. These decisions were made, particularly in Victoria, in spite of early research which confirmed the existence of these costs of closing schools. A May 2020 report by the Academy of Social Sciences in Australia concluded that remote learning arrangements had the potential to result in poorer educational outcomes for almost half of Australian primary and secondary students if continued for an extended period of time.²¹

The University of Tasmania, Peter Underwood Centre for Educational Attainment argued in April 2020 that 46 per cent of Australian children and young people were at risk of adverse effects on their educational outcomes, nutrition, physical movement, social, and emotional wellbeing by being physically disconnected from school.²²

A significant cause of such harms was that teachers were not prepared for such drastic and sudden changes in how schools operated. A national survey of over 10,000 Australian teachers conducted during April 2020 showed

- only 30% of teachers had been trained to deliver remote learning prior to implementation of remote learning, and 80% felt unprepared for the transition, particularly in remote areas.
- only 25% felt confident their students were learning well under the arrangements at the time.
- A separate assessment of information and communication technology literacy of year 6 and 10 students through the National Assessment Program suggested nearly half of Australian students experienced challenges working independently with ICT.²³

In another paper, commissioned by the federal government, the Centre for International Research on Education Systems (CIRES) and Mitchell Institute at Victoria University modelled the impact of online learning, focussing on the impact of online learning for students from "disadvantaged backgrounds".²⁴ The research showed

²¹ Alan Finkel et al., Differential Learning Outcomes for Online Versus In-class Education (Rapid Research Information Forum, 1 May 2020) https://www.science.org.au/covid19/learning-outcomes-online-vs-inclass-education>.

²² Natalie Brown et al., Learning at Home During Covid-19: Effects on Vulnerable Young Australians (University of Tasmania, Peter Underwood Centre for Educational Attainment, April 2020).

²³ Alan Finkel et al., Differential Learning Outcomes for Online Versus In-class Education (Rapid Research Information Forum, 1 May 2020) https://www.science.org.au/covid19/learning-outcomes-online-vs-inclass-education>.

²⁴ Includes students from low socioeconomic communities, rural and remote communities, indigenous communities, and those with a disability.

that "missing two terms of classroom teaching could lead to students falling six weeks behind on numeracy and four weeks behind on reading." ²⁵

Table 10: Estimates of the loss due to online delivery in NAPLAN expressed in weeks of learning for Year 5 and Year 9 students

	One term		Two terms Th		Three terms		One year	
	Reading	Numeracy	Reading	Numeracy	Reading	Numeracy	Reading	Numeracy
Year 5	1.5	2.7	3.1	5.3	4.6	8.0	6.1	10.7
Year 9	2.3	3.3	4.6	6.7	6.9	10.0	9.2	13.3

In applying the above figures to the aggregated number of days of in-person schooling missed during 2020 and 2021, we can calculate Victorian students spent 5.26 school terms at home. In contrast, students in Tasmania spent 1.1 terms at home. In Victoria this equates to Year 5 students falling behind by 7.89 weeks and 14.2 weeks in reading and numeracy, respectively. Year 9 students fell behind by 12.10 weeks and 17.36 weeks, respectively.

Table 11: Lost weeks of learning due to online learning in 2020 and 2021 for Year 5 and Year 9 students

	In person sc	hool time cancelled	Weeks of learning lost				
State	Days of school	Terms of school	Year 5 – Reading	Year 5 – Numeracy	Year 9 – Reading	Year 9 – Numeracy	
VIC	263	5.26 terms	-7.89 weeks	-14.2 weeks	-12.10 weeks	-17.36 weeks	
NSW	159	3.18 terms	-4.77 weeks	-8.59 weeks	-7.31 weeks	-10.49 weeks	
ACT	114	2.88 terms	-4.32 weeks	-7.78 weeks	-6.62 weeks	-9.50 weeks	
QLD	67	1.34 terms	-2.01 weeks	-3.62 weeks	-3.08 weeks	-4.42 weeks	
SA	62	1.24 terms	-1.86 weeks	-3.35 weeks	-2.85 weeks	-4.09 weeks	
WA	61	1.22 terms	-1.83 weeks	-3.29 weeks	-2.81 weeks	-4.03 weeks	
NT	57	1.14 terms	-1.71 weeks	-3.08 weeks	-2.62 weeks	-3.76 weeks	
TAS	55	1.1 terms	-1.65 weeks	-2.97 weeks	-2.53 weeks	-3.63 weeks	

It is worth contrasting what has happened in jurisdictions that did not react to the pandemic by closing schools. Sweden was one prominent example that allowed schools to continue operating as normal, and the research indicates that there has been no learning loss there during the pandemic, based on evidence from primary school

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²⁵ Stephen Lamb, 'Impact of Learning from Home on Educational Outcomes for Disadvantaged Children' (Research Paper, Centre for International Research on Education Systems).

reading assessments. The Swedish researchers find that no covid-19 related learning loss occurred in Swedish primary school students, while the proportion of students with weak reading skills did not increase during the pandemic. Moreover, students from disadvantaged socio-economic backgrounds were not especially affected.²⁶

In other words, and in contrast to the aggressive approach taken by the Victorian government, the Swedish government acted in the best interests of its least advantaged citizens by ensuring the normal operating of society was not overly impacted by government directives, particularly in schools.

²⁶ Anna Eva Hallin et al., 'No Learning Loss in Sweden During the Pandemic: Evidence from Primary School Reading Assessments' (2022) 114(102011) International Journal of Educational Research 1-11.

The Uncounted Future Costs of Lockdown

Lockdowns affected every aspect of how Australians lived. The impacts go much further than just the economic and fiscal costs, or how educations were held back.

Isolation and idleness caused immense mental health hardships, while the hibernation of the economy and closure of recreational activities and venues negatively affected physical health and lifestyles. The prioritisation of covid-19 in the health system and ordering people to stay home as much as possible caused delays to other treatments.

These effects will take some time to be fully known and are regarded here as an uncounted future cost of pursuing a covid-zero policy. Despite this, there are some early indications of how these policies harmed Australians

Mental health crisis

Government rules mandating isolation and idleness, as well as anxiety from public officials scaremongering about the dangers of the disease, had a variety of effects on mental health. This manifests itself in conditions such as depressions, as well as lifestyle changes to cope with stress or similar conditions.

One study by Zhou et al (2021) found that the measures implemented by the government such as lockdowns had an obvious impact on community depression within a short time period. Lockdowns made people more depressed, but perhaps reflecting the reality that mental health issues cannot simply be switched on and off or because governments continued to overemphasise the dangers of the virus, the mental health issues have persisted beyond the timeline of the lockdowns.²⁷

Moreover, it is demonstrable that the mental health harms were not linked to the disease but arose from the government response. As Zhou et al note in a conclusion of their study of depression trends, while a correlation between the outbreak of the disease and depression levels could be found at a macro level, they "did not find significant effects of the confirmed cases of Covid-19 in a [local government area] on people's depressions in that [local government area]."²⁸ In other words, this could be interpreted to mean that mental health harms were unconnected to direct experience of the disease, rather it was more likely a consequence of the use of blunt lockdown policies and hyperbolic reporting of the disease disseminated through every channel of mass media at a state and national level.

In recently published analysis, Butterworth et al., studied the effect of lockdown on mental health in Australia. It showed

²⁷ Jianlong Zhou et al., 'Detecting community depression dynamics due to Covid-19 pandemic in Australia' (August 2021) 8(4) IEEE Transactions on Computational Social Systems 958, 965.
28 Ibid, 966.

a small but statistically significant effect of lockdown on [mental health inventory] scores, with greater decline for residents of Victoria in 2020 than for those in the rest of Australia... stratified analyses showed that this lockdown effect was larger for females than for males, and even larger for women in couples with children younger than 15 years, and for females who lived in flats in apartments or semi-detached houses, terraced houses, or townhouses.²⁹

Other research has found that

- "people feel the social isolation more than ever and previous problems of mental health, addiction, and unemployment are compounded."³⁰
- One in five Victorians aged between 14-17 had suicidal thoughts at least most days during Victoria's second lockdown, while 38% experienced clinically significant depressive symptoms.³¹
- A survey of drug use which found how some reported using cannabis and alcohol as a coping mechanism to lockdowns.³²

Decline of community membership

The prohibition of social and recreational life has rendered many Australians isolated and idle for an extended period of time. These lifestyle changes imposed by the government can not only disrupt old habits but form new sedentary habits. This can negatively and potentially permanently harm communities and individuals by undermining the social fabric upheld by local community, recreational, and volunteer groups.³³

A report by the Australian Sports Foundation into the impact of covid-19 on community sport found that four in ten young Australians had dropped out of community sporting clubs, likely in favour of spending their weekends alone at home passively consuming television content. Specifically, the ASF report found:

- An estimated 9,000 clubs around Australia at risk of going under due to reduced revenue and increased running costs.
- 43% of clubs reporting reduced participation, most prominently among younger Australians, as keeping members engaged and attracting new members were significant challenges

²⁹ Peter Butterworth et al., 'Effect of Lockdown on Mental Health in Australia: Evidence from a Natural Experiment Analysing a Longitudinal Probability Sample Survey' (2022) 7(5) The Lancet E427.

³⁰ Binoy Kampark & Kenneth Christie, 'Lockdown, Vulnerabilities and the Marginalised: Melbourne as a Covid-19 response study' (2021) 40 Social Alternatives 4, 70.

³¹ Stephanie Brown, 'Policy Brief #4: Young People's Mental Health During the Covid-19 Pandemic,' Murdoch Children's Research Institute, June 2021, 1-4.

³² Max Chalmers, 'Survey Reveals Major Shift in Australian Drug Use During Coronavirus Pandemic,' ABC News, 8 November 2020, https://www.abc.net.au/news/2020-11-08/coronavirus-creates-major-shift-in-drug-use-in-australia/12852544.

³³ See Robert Nisbet: The sense of community 'encompasses all forms of relationships which are characterized by a high degree of personal intimacy, emotional depth, moral commitment, social cohesion, and continuity in time. Community is founded on man conceived in his wholeness rather than in one or another of the roles, taken separately, that he may hold in the social order. It draws its psychological strength from levels of motivation deeper than those of mere volition of interest... Community is a fusion of feeling and thought, of tradition and commitment, of membership and volition.', from *The Sociological Tradition* (1966) 47-8.

- 42% of clubs lost volunteers due to increased pressures and workload relating to implementing covid-19 protocols
- 40% of clubs reported a decline in participation among those aged 11-18, which presents a challenge to the long-term viability of community sports.
- 83% of clubs reported a loss of revenue during the covid-19 period, with the average club experiencing a \$18,500 loss in revenue.
- In total, Australia's 70,000 community sporting clubs have lost a combined \$1.6bn due to restrictions.³⁴

It is almost certain that these impacts have been seen more broadly beyond just sporting clubs. As the Australian Taxpayers' Association noted, it is difficult to find a revenue stream that has not been tarnished by government regulation during the pandemic.³⁵

Decline of physical health and fitness

A key comorbidity of covid-19 which was known in the beginning stages of the pandemic was obesity. Despite this Australian governments passed a raft of regressive public health measures to restrict the opportunities for exercise and physical fitness. Local sports were cancelled, arbitrary limits were placed on the number of people who could gather outside in parks despite being outdoors. Gyms were closed though it was not apparent that any significant spread of cases were connected to such locations.

The closure of recreational and sporting facilities, as well as restrictions on outdoor exercise such as through curfew rules and outdoor social distancing rules, caused Australians to adopt a more sedentary lifestyle. Time will reveal the extent that new sedentary lifestyles have shortened lifespans through obesity, heart disease, diabetes. However early evidence supports the view that these risks have increased.

Thirty-five per cent of Australians gained weight during the pandemic according to a survey by the Royal Association College of General Practitioners. Another survey, of 500 Victorians and commissioned by the Youth Support and Advocacy Service found even greater weight gain. It reported that 60 per cent of respondents had gained weight during the pandemic, and that the 18-34 age group – Australians in their physical prime – gained the most weight during the pandemic. Unfortunately, this have proven to be a hard habit to break, as the same survey found alcohol and fatty food consumption continued after restrictions were wound back.³⁶

³⁴ Australian Sports Foundation, Impact of Covid-19 on Community Sport: September 2021 Update (September 2021) https://covid.sportsfoundation.org.au/>.

³⁵ Barclay McGain, 'Crushing a Community: The Untold Impact of Covid Restrictions on Community Sport' 5 October 2021) Australian Taxpayers' Alliance https://www.taxpayers.org.au/opeds/crushing-a-community-the-untold-impact-of-covid-restrictions-on-community-sport.

³⁶ Youth Support + Advocacy Service (Media Release, 27 January 2022) https://ysas.org.au/media-releases/27-jan-2022.

Marital delay and breakdown

Prohibitions on social activities inhibited the ability of young people to meet prospective partners, while relationships broke down under the strain of lockdowns. This is significant long-term effects on mental health and life-expectancy, as married persons tend to have lower mortality rates and longer life expectancy than unmarried persons, ³⁷ particularly for the elderly. ³⁸ Unmarried people also do not benefit from the protective effects of marriage associated with lower morbidity among married people. ³⁹

The number of marriages registered in Australia was 30 per cent lower in 2020 compared to 2019. In Victoria this decline was almost 42 per cent over the same time period.

The change in divorces is less pronounced because it takes longer for divorces to be processed. In 2020, 49,510 divorces were granted in Australia, an increase of 1.9% from 2019, but IBISWorld forecasts the number of divorces to rise by 4.3% in 2021, to 52,117.⁴⁰ A report in *The Sun-Herald* and *The Sunday* Age in July 2022 revealed that almost 200,000 people had filed for divorce across Australia across the most recent two financial years (2020-21 and 2021-22).⁴¹

Table 12: Marriages by state and territory of registration, 2018 to 2020⁴²

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUS
2018	40,583	30,152	23,641	7,741	12,219	2,497	795	1,562	119,118
2019	39,596	28,634	22,152	<i>7</i> ,125	11,661	2,385	805	1,461	113,815
2020	27,609	16,627	15,917	5,432	9,561	2,013	552	1,275	78,989
Change 2019-20 (no)	-11,98 <i>7</i>	-12,007	-6,235	-1,693	-2,100	-372	-253	-186	-34,826
Change 2019-20 (%)	-30.3	-41.9	-28.1	-23.8	-18	-15.6	-31.4	-12.7	-30.6

³⁷ See for instance Michael Rendall et al., 'The protective effect of marriage for survival: A review and update' (2011) 48(2) Demography 481–506.

³⁸ See for instance Lamberto Manzoli et al., 'Marital Status and Mortality in the Elderly: A Systematic Review and Meta-analysis' 64(1) Social Science & Medicine 77–94.

³⁹ Goldman N. Social factors and health: The causation-selection issue revisited. Proceedings of the National Academy of Sciences of the United States of America. 1994;91:1251–1255; Verbrugge L.M. Medical care of acute conditions: United States, 1973--1974. Vital Health Stat. 1979;10(129):1–48. i-vi; Williams K., Umberson D. Marital status, marital transitions, and health: A gendered life course perspective. J Health Soc Behav. 2004;45(1):81–98.

⁴⁰ IBISWorld, 'Number of Divorces' 15 June 2022 divorce.

⁴¹ Caitlin Fitzsimmons, 'Divorce Applications Up as Marriage Hits the Rocks,' The Sunday Age, 3 July 2022.

⁴² ABS Marriage data are based on the state or territory of registration rather than usual residence. However it is reasonable to assume that, in a year in which state borders were mostly closed that marriages were registered in the same state or territory as usual residence.

Conclusion

The covid-zero strategy and its associated lockdown measures were a humanitarian disaster. They were a blunt, disproportionate measure whose costs far outweigh the possible benefits.

They robbed Australians of millions of years of life from the effects of job losses alone. The country sunk hundreds of billions of dollars into the strategy through lost economic activity and opportunity, as well as direct spending and stimulus measures by state and federal governments. Australian children were put on the frontline, permanently delaying their education and harming their future prospects.

Then there are the costs that will be more fully revealed in the future. The full extent of the mental health crisis, of the harmful effects of sedentary lifestyle changes, the decline of community trust and identity, and the impact of delayed or ignored non-covid-19 medical treatment, are all measures of the way totalitarian measures harmed the lives of Australians.

Moreover, the price paid in response to covid-19 was considerably more expensive for Victorians than anywhere else in the country. For a time longer than anywhere else domestically or internationally, Victorians lived under a regime in which their every act, and in some cases, opinions, were policed and controlled. Despite this, Victoria performed no better than other states in terms of covid-19 mortality, but nonetheless paid a much higher cost.

These significant costs must be taken into account by policymakers and politicians when they are deciding how to respond in a public health situation. The key lesson from this analysis is that government should never fanatically pursue a singular health or other objective without considering the inevitable disruption that intervention will have on a range of other societal activities and burdens that it will impose on individual rights and interests.

In any future contemplated public health intervention, alarmist modelling must be robustly examined to ensure decision makers are not being led to make hasty and ill-considered decisions. Any government contemplating such an intervention must commit to conducting a full and robust cost-benefit analysis to ensure that governments are aware of the price they are asking citizens to pay.

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