

## Australia must plan now for a significant burden of disease and disability due to Long COVID

### Summary

- COVID-19 is multisystem disease with between 5 and 30% of the population experiencing disability due to long-term health effects manifesting as fatigue, difficulty in breathing and cognitive dysfunction. Long COVID is a heterogeneous condition, but many organ systems may be affected.
- Australia must plan for the increased demands that Long COVID-19 will have on our health and disability services and for reductions in the work capacity of many Australians.
- These demands occur at a time when the health system is strained and there are concerns about the rising costs of Australian's National Disability Insurance Scheme (NDIS) and people not eligible for the NDIS are being left behind without sufficient support.
- Australia has relied on a vaccine-only strategy to date. Vaccination alone does not adequately prevent transmission of SARS-CoV-2, and the impact on health and disability services of repeated infections is yet unknown.
- The burden of long COVID can be prevented or reduced. There is a need for all levels of government and society to recognise the likely impacts of long COVID-19 and prevent or mitigate it with additional strategies such as ventilation, masks, safe indoor air, testing and tracing to reduce transmission.
- OzSAGE provides context on long COVID-19, how it will affect society, the economy, the workforce and demand for health and disability services in the future, and makes recommendations for governments on how to prevent long COVID and how best to plan for the future impacts of long COVID on health.

### Background

SARS-COV-2 has many long-term and chronic complications. [The WHO defines long COVID](#) as the persistence of symptoms more than three months after initial infection and lasting at least two months. Estimates of long COVID vary from 4.5 to 30% or more. A [meta-analysis](#) showed that post-COVID-19 symptoms are present in more than 60% of patients infected by SARS-CoV-2. One study found [a 4.5% rate of long COVID following Omicron compared to 11% for Delta](#). However, the vastly higher case numbers for Omicron will translate to a greater burden of long COVID, [as it has for deaths and acute disease](#). The varied estimates of long COVID depend on the definition used and how it is measured. A range of symptoms, including fatigue, breathlessness, persistent cough, depression, headaches, mood swings, memory loss, [other neurocognitive deficits](#), musculoskeletal inflammation, pain, muscle weakness, gastrointestinal upset, and skin rashes have been described. Fatigue and shortness of breath are the most common post-COVID-19 symptoms. Long-term symptoms may occur after relatively mild acute illness.

### Heterogeneous aetiology and multisystem disease

The SARS-CoV-2 [virus can persist in almost any organ](#) of body after the initial infection, and can cause [a range of complications](#) in the lungs, heart, blood vessels, brain and immune system. It can [impair the immune system](#) after infection. In addition, for at least a year after the initial infection, there is a [doubled risk of heart attacks](#), strokes, cardiac arrest and blood clots. Other complications include [metabolic, rheumatological, Intestinal, dermatological and endocrine disorders, including an increased risk of diabetes](#). Damage to organ systems has been found even in people with mild infection. Six months after infection, people with break through infection have a [1.75 times higher risk of death and a 1.5 times higher risk of post-acute sequelae](#). [Vaccination may reduce long term complications](#) by 15%.

### **Australia's vaccine-only strategy will lead to mass infection, reinfection and a chronic disease burden**

Available vaccines prevent hospitalization and death, but do not protect well against infection. Omicron infection confers [low protection against reinfection, so reinfection is expected](#). The national strategy to date has assumed mass infection is inevitable and aimed only for prevention of death and severe disease. OzSAGE believes this is a mistake and recommend [reduction of infection](#) to prevent future mass chronic disease and disability. Australia has relied on a vaccine-only strategy, yet [rates of vaccination are sub-optimal for the third dose and in children](#). A [vaccine-plus strategy](#) that includes investment in testing, tracing, masks and ventilation can reduce the mass infection we currently face. By [February 2022 alone, over 17% of Australians were infected](#), far higher than officially reported cases. Mass infection and unchecked spread of SAR-CoV-2 could lead to mass disablement among Australians. If we assume the best-case scenario for Australia (that 4.5% of people will develop long COVID) and if almost everyone becomes infected in the next year or two, we could be looking at over 1 million people suffering long COVID. This could be double or more at higher prevalence of long COVID. The impacts of long COVID will likely fall disproportionately on those at higher risk and with less access to health care – older Australians, regional rural and remote Australians, First Nations' people, people with disabilities and those from lower socioeconomic groups. While [older people](#) are more likely to experience post-acute complications, children are also vulnerable. The [Covid-19 Schools infection Survey England: Long Covid and Mental Health reported in March 2022 that 2%](#)~~Error! Hyperlink reference not valid.~~ of primary school pupils and 5% secondary school pupils had experienced long COVID. The long term generational impacts may be significant.

### **Workforce and economic implications**

Australian Bureau of Statistic data shows an [increase in the number of people working fewer hours](#) due to continued disruption from the Omicron variant and influenza between April and May 2022. The number of people working fewer hours due to their own illness in May 2022 (780,500 people) was the highest level recorded during the pandemic. In addition to acute illness disrupting the workforce, longer term effects are already being seen due to long COVID.

Data from overseas provides evidence of mass disablement occurring when Covid-19 infection spreads unchecked. The Census Bureau in USA, surveys 60,000-household on behalf of the Bureau of Labor Statistics shows [13% increased cognitive disability \(having trouble concentrating, remembering or making decisions\) in April/May 2022 average compared with January/February 2020 average](#). [A large US study](#) found one in five COVID-19 survivors aged 18–64 years and one in four survivors aged ≥65 years experienced at least one post-acute condition attributable to previous COVID-19. [Around 2.0 million people in the UK \(3.1% of the population\)](#) were experiencing self-reported long COVID as of 1 May 2022,

and around 398,000 (20%) reported that their ability for day-to-day activities had been "limited a lot". In the UK, levels of disablement following infection are affecting the workforce – [a quarter of employers](#) report that long COVID is a major cause of workplace absence.

Furthermore, problems with cognition, sudden cardiac or neurologic events have implications for [safety critical](#) and business process-critical tasking. For example, in roles such as commercial vehicle drivers, surgeon, police or key critical organizational management, catastrophic outcomes can occur due to direct and indirect Covid-19 illness.

We do not know yet the longer-term impacts of COVID-19 on economic participation because of people being unable to work or having reduced capacity to work. However, given the international evidence and the ongoing impacts of the pandemic, it is likely that future claims for income support through the disability support pension and unemployment benefits will rise.

The significant proportion of individuals experiencing symptoms for the foreseeable future as a consequence of their contracting Covid-19, will impact resourcing for Workers' Compensation Claims. Insurers affected include those funded privately, but large numbers of staff, particularly those working for government, are covered under insurance funded by public treasuries. There are therefore serious considerations for state Treasuries in their insurer exposures.

### **Implications for the health system, the NDIS and disability supports**

Without [a Vaccine-Plus strategy](#) including safe indoor air, masks, testing and tracing, and widespread access to anti-virals, Australia is likely to see large increase in the prevalence of chronic illness and disability related to COVID-19. This will place considerable pressure on our already stretched health, rehabilitation and disability services and supports.

These pressures occur at a time when the [health system is chronically over-burdened](#) by COVID-19, and there are concerns about the [costs of the NDIS](#) due to higher demand than the original modelling by the [Productivity Commission](#) suggested. To be [eligible for the NDIS](#) someone needs to be less than 65 years at entry to the Scheme and have a permanent disability that substantially reduces their functional capacity or ability to undertake activities in one of the following areas: communication, self-care, learning, mobilising, and self-management. It is clear that long COVID can affect functioning across all of these areas. People with disability who do not meet these criteria are meant to receive services and supports through other systems (referred to as Tier 2) across all levels of government however there is widespread acknowledgement that these services have not been available as States and Territories and the Commonwealth have [directed funding to the NDIS](#). This means that people with fluctuating disabilities, including psychosocial disability, have often missed out on supports sometimes resulting in a deterioration in their functional capacity potentially seeing them require NDIS funding down the track.

Long COVID may put additional upward pressure on the NDIS in two ways: a deterioration in functioning of people who are already on the NDIS and new entrants to the scheme who develop significant, permanent disability due to long COVID and require individual packages for equipment, therapy, personal care and other supports. Many people with long COVID will not be eligible for NDIS, at least initially. However, these people will still require support from rehabilitation, health and non-NDIS funded disability services. A substantial burden of chronic disease will likely impact the health system in the coming years. Prevention of COVID and investment in these services will be critical to improve or prevent deterioration in functioning to prevent future reliance on the NDIS.

## Recommendations

- **Prevention** of SARS-CoV-2 infection through all means possible is essential to reduce the long-term burden of disease and disability from COVID-19. This includes renewed efforts to raise the rates of 3<sup>rd</sup> and 4<sup>th</sup> dose boosters, and to increase vaccination rates in children. A Vaccine-Plus strategy includes safe indoor air, masks, testing and tracing, which will all reduce transmission. The combined effects of these can substantially reduce disease burden of COVID-19 and long COVID. [See specific OzSAGE advice](#) for these.
- **Treatment** – broader, affordable and equitable access to antivirals to decrease viral load and hasten recovery [may reduce long term complications](#).
- **We recommend the government urgently conduct modelling** to assess the likely impact of long COVID on the job capacity of Australian workers, the health system, the NDIS and other disability services, and the likely demands on income support due to disability caused by long COVID. This should test best and worst-case estimates of long-term disease and disability to inform planning for the future.
- **Raising awareness** and acknowledgment of Long COVID and the spectrum of post-acute complications for patients and health care providers. Employers should also be made aware of the potential for increasing numbers of employees dealing with long COVID and plan for workforce issues.
- **Clinical pathways** and clinical decision support tools for GPs should be established for assessment, investigations and specialist referral. This includes protocols on specific diagnostics for abnormalities not detected by routine tests (pulmonary, microclots, myocarditis).
- **Education for employers and organizations on pathways for medical fitness for work review and extended sick leave** for staff. Occupational physicians and general practitioners with occupational interest (involving occupational therapists and neuropsychologists if needed) can clarify if an individual who complains of symptoms or is making significant errors, is capable of safe work or identify what supports are needed to maintain their role safely. The doctors can also help clarify treatment plan and the prognosis and support for return from extended sick leave if needed.
- **Infrastructure to manage burden of chronic illness** (specialised long COVID clinics, and health system planning for the increased burden of chronic cardiac, respiratory and other complications). Ensure specialised clinics are accessible to disadvantaged groups. This could be achieved by strategies such as outreach programs through existing health networks, upskilling regional health practitioners and ongoing support for telehealth MBS item numbers.
- **Commonwealth and State and Territory governments need to plan for the potential increased demand for disability services including the NDIS in coming years** . Investments should then be directed to supporting people who are disabled by long COVID to receive the necessary services and support through the health system, rehabilitation, tier 2 disability supports, and the NDIS if they experience significant and permanent disablement.
- **Support for people who are unable to work or have reduced work capacity due to long COVID.** Consideration of expansion of Job Access Disability support with workplace accommodations including promoting flexible working conditions, rehabilitation services, incentives for employers to accommodate workers disabled by COVID-19 (such as subsidisation of work from home equipment, supernumerary work placement) and income support for people reduced work capacity due to long COVID.

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