



Public Health Association
AUSTRALIA

Public Health Association of Australia submission on Long COVID and Repeated COVID Infections

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Contents

Preamble	3
The Public Health Association of Australia	3
Vision for a healthy population	3
Mission for the Public Health Association of Australia	3
Introduction	4
PHAA Response to the Long COVID and repeated COVID infections Inquiry Terms of Reference	5
TOR 3.0 Research into the potential and known effects, causes risk factors, prevalence, management, and treatment of long COVID and/or repeated COVID infections in Australia.....	4
TOR 4.0 The Health, social, educational and economic impacts in Australia on individuals who develop Long COVID and/or have repeated COVID infections, their families, and the broader community, including for groups that face a greater risk of serious illness due to factors such as age, existing health conditions, disability and background	5
TOR 6.0 Best practice responses regarding the prevention, diagnosis and treatment of long COVID and/or repeated COVID infections, both in Australia and internationally.....	7
Conclusion	9
References	10

Preamble

The Public Health Association of Australia

The Public Health Association of Australia (PHAA) is recognised as the principal non-government organisation for public health in Australia working to promote the health and well-being of all Australians. It is the pre-eminent voice for the public's health in Australia.

The PHAA works to ensure that the public's health is improved through sustained and determined efforts of the Board, the National Office, the State and Territory Branches, the Special Interest Groups and members.

The efforts of the PHAA are enhanced by our vision for a healthy Australia and by engaging with like-minded stakeholders in order to build coalitions of interest that influence public opinion, the media, political parties and governments.

Health is a human right, a vital resource for everyday life, and key factor in sustainability. Health equity and inequity do not exist in isolation from the conditions that underpin people's health. The health status of all people is impacted by the social, cultural, political, environmental and economic determinants of health. Specific focus on these determinants is necessary to reduce the unfair and unjust effects of conditions of living that cause poor health and disease. These determinants underpin the strategic direction of the Association.

All members of the Association are committed to better health outcomes based on these principles.

Vision for a healthy population

A healthy region, a healthy nation, healthy people: living in an equitable society underpinned by a well-functioning ecosystem and a healthy environment, improving and promoting health for all.

The reduction of social and health inequities should be an over-arching goal of national policy and recognised as a key measure of our progress as a society. All public health activities and related government policy should be directed towards reducing social and health inequity nationally and, where possible, internationally.

Mission for the Public Health Association of Australia

As the leading national peak body for public health representation and advocacy, to drive better health outcomes through increased knowledge, better access and equity, evidence informed policy and effective population-based practice in public health.



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Introduction

The Public Health Association of Australia (PHAA) welcomes the opportunity to provide input to the House Standing Committee on Health, Aged Care and Sport Inquiry into Long COVID and Repeat COVID Infections. Our submission will focus on the terms of reference that relate to research into Long COVID and/or repeated COVID infections (TOR3), the broader health, social and economic impacts experienced by Australians who develop Long COVID or repeated COVID infections (TOR4) and best practice responses regarding the prevention, diagnosis, and treatment of long COVID and/or repeated COVID infections. (TOR6)

The Australian Department of Health and Aged Care defines Long COVID as a condition where the symptoms of COVID-19 remain, or develop, four weeks after the initial COVID-19 infection.⁽¹⁾ The World Health Organization characterises Long COVID as continued COVID symptoms three months from infection, and that last at least two months, and cannot be explained by another diagnosis.⁽²⁾ Long COVID symptoms have been reported to last for weeks, or months, and include extreme fatigue, shortness of breath, heart palpitations, chest pain, problems with memory and concentration, changes to taste and smell, joint and muscle pain, psychological distress,⁽¹⁾ and perceived stress.⁽³⁾ A repeated COVID infection occurs when a person has recovered from an initial episode of COVID and then retests as positive.⁽⁴⁾ This can occur as early as four weeks after the initial infection.⁽⁴⁾

Australian research is required to identify the risk factors, initiate prevalence and distribution surveillance, detect medium to long term health impacts (as these are not yet known) and create more precise Long COVID diagnostic tools. It is also important to consider that not everyone experiencing Long COVID will have the same experience and that those most likely to have repeated COVID are people living in disadvantaged circumstances.^(5, 6) Which is why we support the inquiry's whole health approach to investigating the impacts of Long COVID and repeat infections on various population groups. Further research into best practice prevention, treatment and management is also supported. However, the establishment of the Australian Centre for Disease Control and the implementation of the National Health Prevention Strategy is the best long-term answer to managing ongoing and emerging public health emergencies and the rise of chronic diseases.

PHAA response to the Long COVID and repeated COVID infections inquiry terms of reference

3. Research into the potential and known effects, causes, risk factors, prevalence, management, and treatment of Long COVID and/or repeated COVID infections in Australia.

The recognised symptoms of Long COVID include extreme fatigue, shortness of breath, joint and muscle pain,⁽¹⁾ and psychological distress.⁽³⁾ However, there is little understanding of mid to long term illness, impairment and disability.⁽⁷⁾ This is concerning, as the people most at risk of contracting Long COVID are members of the community with other vulnerabilities (i.e. older persons, people who have experienced severe COVID, those with co-morbidities and those who are not vaccinated or are under-vaccinated).^(7,8) Long term studies of Long COVID patients are needed to provide a clearer prognosis and health impacts at individual and population levels. It is also critical that research is conducted in Australia, as most Australians were vaccinated prior to their first infection, and this is likely to have consequences for the prevalence and experience of Long COVID in Australia.⁽⁹⁾

To date, there is no record of Long COVID cases in Australia.⁽¹⁰⁾ Estimates of prevalence among people who have had COVID-19 vary, but the rate is understood to be approximately three to five per cent.⁽¹¹⁾ As of writing, the reported COVID case count in Australia is 10.3 million,⁽¹²⁾ and serological findings show that up to two thirds of young adults have had a recent infection in the more populous states.⁽¹³⁾ Potentially thousands of Australians may have had, or still have Long COVID, however we have no way of determining the prevalence, nor which segments of the population may be more impacted. The World Health Organization has highlighted the need for collecting Long COVID data.⁽¹⁴⁾ To address this, Australia could adopt a model similar to the UK Office for National Statistics, where data on self-reported cases of Long COVID are collected.⁽¹⁵⁾ The system allows for the monitoring of specific symptoms, as well as how daily activities are being impacted.⁽¹⁶⁾ To understand Long COVID's prevalence and to prepare the health work force and health system for this burden, Long COVID monitoring could be incorporated into a more comprehensive SARS-CoV-2 surveillance system that we understand is currently being built.

The current gaps in Long COVID research are preventing clear, evidence-based treatment and management plans to be prepared. For instance, the Notarte et. al systematic review found a number of studies that suggested COVID vaccination can prevent Long COVID symptoms, yet the review also identified that there are still unanswered questions regarding booster effectiveness against Long COVID or whether vaccines reduce symptoms after one month of continued symptoms.⁽⁹⁾ A limitation of this study which speaks to another research gap, is that there are no precise diagnostic methods for Long COVID.^(9, 13, 17) Current research into identifying diagnostic biomarkers for Long COVID are finding promising results,⁽¹⁷⁾ with one such study finding markers that provided a 96% classification accuracy of Long COVID.⁽¹⁷⁾ Supporting diagnostic research will also assist in understanding Long COVID's aetiology, which will aid in isolating potential risk factors and guide decisions about appropriate prevention strategies. Also crucial to making prevention, management and treatment strategies will be researching the prevalence and population group distribution of Long COVID and the severity of the disease itself (of which, there is not extensive Australian data). However, to achieve that, precise definitions for diagnoses need to be determined. Conducting long term research on Long COVID focusing on how severely it impacts people, how prevalent it

PHAA submission on Long COVID and Repeated COVID Infections

is and who it is effecting will be key to understanding what monetary, workforce, and health system resources are needed to be directed at Long COVID.

4. The health, social, educational, and economic impacts in Australia on individuals who develop Long COVID and/or have repeated COVID infections, their families, and the broader community, including for groups that face a greater risk of serious illness due to factors such as age, existing health conditions, disability and background.

An international study identified that a large proportion of Long COVID participants were less able to work their pre-illness schedule.⁽¹⁸⁾ On an individual and family level, vulnerable populations to Long COVID, such as those on a low income, could be placed in economic distress if wages were lost due to illness.^(15, 16) For the broader Australian economy, the Financial Review has identified that Long COVID may be costing \$100 million per week in productivity loss.⁽¹⁹⁾ Repeated COVID infections may also disproportionately impact people living in disadvantaged circumstances.^(5, 20) Data on COVID case numbers during the 2020 second wave in Victoria showed that incidence of COVID was higher in postcodes with higher unemployment, larger populations with no access to paid leave, and with more people who spoke a language other than English.⁽²¹⁾ Inequalities in job security, access to paid sick leave, affordable housing and healthcare also disproportionately affect culturally and linguistically diverse population.⁽²¹⁾ This inquiry should not only investigate Long COVID's impact on the economy, but it should also seek to understand who the economic impacts of repeated infections and Long COVID are hurting the most and what can be done to support them.

Inquiry into the social impacts is urgently needed. From the limited literature on the issue, it has been identified that people with Long COVID have experienced barriers to activities of daily living, difficulty maintaining relationships, stigma, and returning to work.^(14, 22) However, more information is required to understand the social impacts of Long COVID and how it intersects with age, people with existing health conditions, disability and background.

The impact of Long COVID on primary through tertiary education in Australia is yet to be understood, as there is no data on the spread of Long COVID among age groups. What was identified in the recent *Fault lines* review regarding the COVID-19 response, was that the New South Wales government is finding early evidence that students restricted from in-classroom learning have fallen behind previous standard testing averages.⁽¹⁸⁾ Suggesting that the disruption to study has negatively impacted on ability to learn. If this is the case; then firstly, research into distribution of Long COVID on this population is needed, and secondly, if there is Long COVID impacting primary through tertiary students, consultation of relevant stakeholders regarding the type of support students will require is necessary. Noting that support while learning from home would need to vary differently depending on a student's access to resources, familial situation, background, and severity of symptoms.

As discussed, the greater impact on health from Long COVID is still to be understood. However, inferences can be made from relevant COVID data about the potential impact of Long COVID on population groups that are already at higher risk. For instance, the *Fault Lines* review identified that First Nations Australians were more likely to have severe acute COVID, which is a risk factor of Long COVID.^(8,23) Persons with a disability had delayed and difficult access to vaccines; vaccines decrease likelihood of contracting Long

PHAA submission on Long COVID and Repeated COVID Infections

COVID.^(7,23) Meanwhile, elderly persons, people from culturally and linguistically diverse communities and those in the bottom 20% by socio-economic status had the highest death tolls from COVID-19.⁽²³⁾ They may also be less likely to be able to engage effectively with health services in the way that is needed for diagnoses and therapy for complex Long COVID presentations. Particularly for those living in rural or regional communities, as Long COVID clinics are currently only based in some major cities.⁽⁸⁾ It is not a far cry to conclude that particularly populations that are at higher risk, will again be inequitably feeling the brunt of potential health and economic impacts of Long COVID.⁽⁸⁾ More research needs to be done into the complex health impacts for groups with vulnerabilities in Australia and how these impacts intersect with their risk factors.

6.0 Best practice responses regarding the prevention, diagnosis and treatment of long COVID and/or repeated COVID infections, both in Australia and internationally.

According to the latest Communicable Diseases Network Australia National Guidelines for Public Health, key primary prevention strategies are still recommended to prevent COVID and repeated COVID infections.⁽²⁴⁾ These measures include staying home if you feel unwell, washing hands, physical distancing where feasible, improving indoor air quality and wearing a mask if unwell or indoors.⁽²⁴⁾ We encourage the committee to investigate the extent of these measure's effectiveness in preventing COVID in an Australian context, whether there is more nuance needed for particular measures (i.e. universal indoor masking) and to ensure that future interventions are implemented with real-time evaluation built into them. PHAA supports the use of precautionary interventions, in that we should use the evidence we have while waiting for new evidence. However, if we had been collecting data in real-time during the implementation of various interventions to observe their effectiveness, policy advice at the time would have been founded on evidence most relevant to this population and at three years into the pandemic, we would have a strong evidence base on the effectiveness of certain interventions and policies at certain key times. The use of the main primary prevention strategies can be effective COVID case reduction tools; retrospective and real-time research into how these tools can be utilised more effectively should be completed.

As highlighted, more research is required to understand Long COVID and determine the best practice response to preventing, diagnosing and treating Long COVID. However, it can be stated with confidence that the best prevention against Long COVID is to avoid being infected or re-infected with COVID-19 and to be vaccinated.^(7, 9, 25, 26) Although vaccination alone will not prevent a person from being infected, it will substantially decrease the chance of severe illness. Which, as severe illness is a risk factor to Long COVID, vaccines will continue to have a vital role in this pandemic response.^(7,8) With some studies already finding that vaccination is effective in preventing Long COVID,⁽²⁶⁾ the Government should ensure that boosters are easily accessible and available when people are due for a booster, particularly for people with identified vulnerabilities.

In regard to the current use of antivirals as a COVID treatment, they should continue to be utilised.⁽²⁷⁾ We welcome the expansion of antiviral eligibility to anyone over the age of 70 and also the addition of Lagevrio and Paxlovid to medical practitioners and nurse practitioners Prescriber Bag supplies.⁽²⁷⁾ Current studies show that antivirals are effective at reducing hospitalisations and death when used to treat acute COVID.⁽²⁸⁾ Therefore, we encourage a review of availability and access to antiviral drugs. As treatment is most effective within five days of symptom onset, for rural and regional Australians, accessing antivirals can be difficult as some rural pharmacies have reported only stocking the drug as required due to its high cost.⁽²⁹⁾ A potential solution is for state governments to assign strategic hubs where antivirals can be quickly dispatched to the rural or remote pharmacy, or person's home. Another access barrier is the removal of

PHAA submission on Long COVID and Repeated COVID Infections

longer phone and in person rebates for antiviral consultations.⁽³⁰⁾ We encourage subsidising the pharmaceutical and Medicare costs for populations considered most at risk (persons with a disability, people who have a repeated infection, elderly populations). Also, as climate disasters such as flooding continue to interrupt supply chains and people's ability to access a pharmacy, we urge the federal and state governments to create contingency plans for antiviral access.

As for the use of antivirals to treat Long COVID, more research is required. Antivirals reduce severity of COVID, which should decrease the risk of acquiring Long COVID.^(7,8, 31) This has been confirmed by one study in the US, where the early use of antivirals found a significant reduction of deaths and hospitalisations of veterans who were diagnosed with Long COVID.⁽³²⁾ However, this population was almost exclusively over the age of 65 and male.⁽³²⁾ Similarly, in Australia, antivirals are mostly only prescribed to persons with vulnerabilities, particularly elderly populations; therefore there is minimal understanding of the benefits and risks associated with allowing younger and non-at-risk populations access to antivirals. The availability of antivirals to people at low risk should be reviewed and any subsequent decisions should be supported by the evidence.⁽²⁷⁾ More diverse, long-term research of multiple population groups is required to investigate antiviral treatment of acute COVID and its impact on reinfection and Long COVID.

With Australia's unique and ultimately highly successful initial vaccination campaign, majority of Australians were vaccinated before contracting COVID-19. Therefore, it will be important for funding, preventative and clinical decisions to be made from an Australian evidence-base. Currently in the United States, the Center for Disease Control (CDC) is conducting a large, 18-month observational study into people's ongoing COVID-19 symptoms.⁽³³⁾ After its conclusion in early 2023, decision-makers will have access to valuable information which will guide their ongoing pandemic response. The importance of timely research for ongoing and emerging public health emergencies and chronic disease prevention is highlighted in The Australian Government's commitment to an Australian CDC.⁽³⁴⁾ Functions of the CDC that could assist with the best practice responses for future new and under-researched diseases like Long COVID, could include workforce development, coordinating with jurisdiction surveillance initiatives, tracking global infections, diseases, and other threats, and crucially, the implementation of the National Preventive Health Strategy.

Prevention of non-communicable diseases and the promotion of holistically maintaining good health and wellbeing is a key strategy for managing emerging health threats.⁽³³⁾ For instance, COVID-19 reinfections and Long COVID are both more likely to severely impact people with underlying health conditions.^(7,8) It is imperative that with the rise of communicable diseases in the future, we address the rise of non-communicable diseases now. The National Preventive Health Strategy aims to create a sustainable prevention mechanism for all Australians in the future.⁽³³⁾ Illness prevention saves lives and money and delivers the best public return on investment in health. Thinking forward to the next pandemic; appropriate funding, implementation, monitoring and evaluation of the Australian Government's National Preventive Health Strategy is required.


Conclusion

PHAA supports the broad directions of the inquiry into Long COVID and repeated COVID infections. However, we are keen to ensure a focus on future prevention and an equitable response in line with this submission. We are particularly keen that the following points are highlighted:

- 1) Set up a register to monitor the prevalence and distribution of Long COVID cases and symptoms experienced in Australia.
- 2). Conduct research on diagnostic methodology, aetiology, risk factors, severity, prevention strategies, and the barriers to treatment and rehabilitation of Long COVID.
- 3). Conduct research on the social, economic, health and educational impacts of Long COVID and repeated COVID infections, with particular attention paid to the communities with the largest potential impact.
- 4) Encourage the use of vaccinations to prevent serious COVID outcomes and Long COVID, particularly for people who have vulnerabilities and reassess both the barriers in accessing antivirals for treatment and the antiviral eligibility criteria with support from evidence.
- 5) Commit to implementing the National Preventive Health Strategy within the CDC.

The PHAA appreciates the opportunity to make this submission and the opportunity for further consultation.

Please do not hesitate to contact me should you require additional information or have any queries in relation to this submission.


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PHAA submission on Long COVID and Repeated COVID Infections

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