Asthma Australia Submission to the House of Representatives Standing Committee on Health, Aged Care and Sport

Inquiry into Long COVID and Repeated COVID Infections

November 2022

ABOUT ASTHMA AUSTRALIA

Asthma Australia is a for-purpose, consumer organisation which has been improving the lives of people with asthma since 1962.

Asthma is an inflammatory condition of the airways, which restricts airflow and can be fatal. There is no cure, but most people with asthma can experience good control of their condition.
Asthma affects 1 in 9 Australians, or 2.7 million people. It has various degrees of severity (mild to severe) and affects people of all ages, from childhood to adulthood. Asthma can appear at all ages and stages of life.

Asthma Australia's purpose is to help people breathe better so they can live freely. We deliver evidence-based prevention and health strategies to more than half a million people each year. To ensure people can access effective treatments and best practice healthcare for their asthma, we work directly with people with asthma, their family and friends, health professionals, researchers, schools and governments. This way, we can ensure people with asthma are supported with education and access to high-quality information and care where they live, work and play in all stages of life.

INTRODUCTION

Asthma Australia welcomes the opportunity to submit to the House of Representatives Standing Committee on Health, Aged Care and Sport inquiry into Long COVID and Repeated COVID Infections.

People with asthma have experienced unique challenges as a result of the COVID-19 (COVID) pandemic, particularly with access to healthcare. While there appears to be no increased risk of hospitalisation from COVID for people with mild and moderate asthma (except in cases of recent flare-up requiring hospitalisation or oral corticosteroid use), there is no certainty about how long COVID or repeated COVID infections affect people who already experience asthma.[1]

With the shift to a 'living with COVID' response to the pandemic, people with asthma face new challenges. To identify these challenges, we sought feedback on long COVID and repeated COVID infections from people with asthma and their carers who engage with our services across social media. We learnt that people with asthma have had a variety of experiences as a result of COVID, ranging from no symptoms to a deterioration of their asthma. It is clear that governments must do more to understand and respond to COVID, repeat infections and long COVID.

This submission contains several recommendations that would benefit people with asthma, and the broader community, who experience long COVID and repeated COVID infections.

Asthma in Australia

Asthma is one of the most common chronic conditions in Australia, with high prevalence rates by international comparison. Around 2.7 million Australians (11% of the total population) have asthma.[2] Asthma affects people of all ages.

Asthma is the 9th leading contributor to the overall burden of disease in Australia,[3] having risen from 10th place in 2003 to 9th place in 2018.[4] Asthma is the leading cause of burden of disease for people aged 5–14 years.[5] People with asthma experience poorer health outcomes and quality of life.[6] People with asthma may live for a long period of time with its associated disability, and experience reduced participation in paid employment, education, care responsibilities, sports and social events. Asthma can both be caused and exacerbated by conditions related to the warming climate, which means asthma outcomes will worsen as climate change impacts increase.

Approximately 400 people die each year in Australia due to asthma[7] and there were 417 deaths due to asthma in 2020.[8] Asthma mortality[9] and hospitalisations[10] in Australia are high by international standards. Hospitalisations due to asthma are costly: on average, each emergency department presentation for asthma costs $443, an uncomplicated hospital admission costs $2,591 (approximately 1.5 hospital days) and a complicated admission costs $5,393 (approximately three hospital days).[11] A 2015 report on the Hidden Cost of Asthma found that asthma cost the healthcare system $1.2 billion, there was a cost of $1.1 billion in lost productivity, and the burden of disease amounted to a cost of $24.7 billion.[12]

Asthma and COVID-19

People with asthma are generally advised to avoid respiratory viruses because they can be a trigger for asthma. In response to COVID, initial concerns people with asthma may be at greater risk of COVID were based on reported vulnerability to the Middle East Respiratory Syndrome (MERS) and

the possibility that inhaled corticosteroid medications commonly used by people with asthma could leave them more vulnerable to COVID.[13] Fortunately, research has since shown people with mild and moderate asthma are not at greater risk than people without asthma of contracting COVID or suffering severe disease (except in cases of recent flare-up requiring hospitalisation or oral corticosteroid use).[14]

Notwithstanding the reassuring evidence that people with mild and moderate asthma are not at higher risk of COVID, the pandemic experience has been one of heightened and often compounding challenges for people with asthma. Throughout the pandemic, Asthma Australia monitored consumer sentiments through our telephone helpline, digital channels and surveys. In October 2021, we compiled a report in which we summarised these insights into six main challenges and concerns:[15]

1. **High rates of anxiety.** Many people with asthma experienced heightened anxiety during COVID due to their perception of being at higher risk of the virus.

2. **Social stigmatisation over asthma symptoms.** People with asthma reported experiencing social stigmatisation when they had asthma symptoms in public.

3. **Challenges wearing face masks.** While most people with asthma can wear face masks without experiencing difficulties, those unable to do so reported additional public scrutiny and vilification.

4. **Difficulties accessing healthcare and medication.** Many people with asthma experienced difficulties accessing healthcare during the COVID pandemic because their regular asthma symptoms are similar to common COVID symptoms. The most common asthma medications are self-administered with devices, which can require an additional level of patient education. GPs and pharmacists play a critical role in educating people with asthma and their carers to self-manage their condition.

5. **Perceptions of telehealth services.** Some people with asthma felt telehealth services were not suitable for asthma management.

6. **Concerns over lack of priority vaccine access.** Some people with mild and moderate asthma felt concerned by not being a priority for COVID vaccination as they perceived themselves to be vulnerable to COVID.

These challenges indicate the COVID pandemic has been difficult for people with asthma.

With the establishment of this inquiry, Asthma Australia again surveyed consumers about the challenges people with asthma and their carers have faced as a result of long COVID and repeated COVID infections. The responses we have received are included throughout this submission.

Asthma Australia also recognises the findings from Lung Foundation Australia's (LFA) survey of nearly 2,200 people. The aims of this survey included understanding the health impacts of COVID, frequency and type of ongoing symptoms, ongoing challenges in the health system and needs among people with ongoing symptoms for services and resources.[16] We encourage the Committee to consider LFA's survey findings and resulting recommendations.

Asthma Australia's long COVID survey

For this inquiry, Asthma Australia conducted a survey of consumers who, since the start of the pandemic, elected to engage with us on the issue of COVID and asthma. Our survey went to approximately 700 consumers, and we asked people to respond to the survey if they had experienced long COVID or repeated COVID infections. We received 60 responses, although not all respondents responded to each question.

We described 'long COVID' to prospective survey participants as: *the term used when a person continues to feel unwell for many months after the initial illness, with symptoms such as extreme tiredness, coughing, breathlessness, fever, chest pain, joint pain and problems with memory and concentration.* This description was adapted from a Department of Health and Aged Care resource.[17]

Most respondents to our survey have asthma, and a small number of respondents (some of whom also have asthma) are carers for children with asthma. Most respondents (90%) were women. Around half the respondents live in a capital city (52%) with 36% living in an outer metropolitan or regional area and 13% in a rural or remote area.

RESPONSE TO THE TERMS OF REFERENCE (TOR)

TOR 1: The patient experience in Australia of long COVID and/or repeated COVID infections, particularly diagnosis and treatment

On behalf of people with asthma, Asthma Australia considers the most critical issue related to the patient experience is the risk of their cough and breathlessness being overlooked or misdiagnosed.

Defining long COVID

The Department of Health and Aged Care states that "[l]ong COVID can last for many weeks and months, even after a person no longer has the virus" and lists symptoms as extreme tiredness, coughing, breathlessness, fever, chest pain, joint pain and problems with memory and concentration.[18] However, we consider that the committee could suggest an expanded definition of long COVID that could, for example, take account of the post-exertional symptom exacerbation experienced by many people who have long COVID.[19]

It is important to adapt the definition of long COVID as we learn more about the condition and its associated symptoms. It is also important that healthcare professionals are kept appraised of such developments so they can appropriately respond to their patients' needs.

Challenges people with asthma and their carers faced being diagnosed with or treated for COVID

In response to our long COVID survey, people with asthma reported many challenges in being diagnosed with long COVID, such as timely access to GPs, and GPs lacking knowledge about long COVID and associated symptoms:

> *I have long Covid and [Mast Cell Activation Syndrome]. It was very difficult for me to get a diagnosis. I was dismissed initially and then told I [would] have to wait three months. Even after that, I was told that I should see [a] Psychologist. It was a very disheartening experience.*

A retiree with asthma explained the difficulties they faced after moving to a new area, and not having a regular GP or a permanent residence:

> *I am new to this area and did not have a GP. I was quite sick with Covid, and then my asthma escalated. I had prednisone but needed antibiotics. I could not get a GP. Eventually I went to Covid clinic. It took me one month to feel better but still am fatigued. I had difficulty get 1 gm amoxicillin. It took days to have my script fully filled. We were living in a caravan (temporary accommodation). The park manager wanted to kick us out of park because we were sick. It was freezing weather. We were allowed to stay in the park if we rented a cabin. $1000 for a week. We were not eligible for any money. We just retired.*

One person with asthma described their experience of treatment for repeated COVID infections:

> *First time I was treated well, the system was great, immediately put into monitoring system via local health service, monitored daily, extra support given when symptoms worsened. Second time they took 5 days to send me monitoring link & offering me anti-viral drugs, nobody called or sent me any information at all until then. Both times I checked the boxes saying I had chronic respiratory issues (asthma).*

The effect of repeated COVID infections or long COVID on asthma

It is unclear how long COVID affects people who already experience asthma or other airways disease, and whether COVID, repeat COVID infections or long COVID increase the risk of developing airways disease.[20]

Many respondents to our long COVID survey reported experiencing a deterioration of their asthma after a COVID infection:

> *My asthma plan which has worked well over the course of 20 years no longer worked. Long covid is extreme tiredness for me and an increased use of Ventolin due to breathlessness and coughing. Prior to covid did not use Ventolin much at all.*

> *[M]y asthma is not in control and the [doctor] and I are trying to get under control. If not successful then I will move to a respiratory specialist*

> *[L]ong covid made my asthma bad again about a month after getting & I had to go on steroids again & antibiotics [as well] as upping amount of Ventolin*

> *[T]he second time I was really sick. the 3rd time I had my 3rd vaccination just 1 week earlier and it was like a bad cold but for about 10 days. [N]ot as bad as the second time. I also had influenza A in between the 2nd and third times. I have been advised to now stay on my oral inhaled steroids, I previously have managed with just periodic and was fit and well at 48. I also have new joint pain, but being a nurse I have had crepitus in my knees for years but have*

only just developed the pain. I don't think it's long covid related. I am always tired though.

Made it so very much worse, never been this bad. I am struggling m[o]st days, GP says there's nothing that can be done.

Several months on I'm still having breathing problems and am waiting for an [appointment] with a lung specialist

The effect of repeated COVID infections or long COVID on the lives of people with asthma

Many respondents detailed how long COVID or repeated COVID infections had negatively affected their lives, including through physical and mental tiredness, social isolation, effect on employment, and delayed medical appointments or procedures:

I have developed imbalance that led me to 5 falls on the floor. Cold/ [flu] are now more like a covid type of reaction.

I missed a lot of work due to being unable to breathe and due to added lung infections. I needed to use 'annual leave' as 'sick leave' as I ran out of the latter. I have also used 'long service leave' in place of 'sick leave' due to my on-going medical disabilities.

Not being able go out much due to exhaustion. Have to be very careful what I do and have to rest for a day if I have a few things on the day before. Very isolating.

I've had to completely reduce how much outdoor recreation I can be involved in. I can't do cardio workouts at the moment either

I feel like I've just not been able to get ahead and get back to my regular fitness form. I miss not being able to exercise at the same intensity for long periods. I feel very unfit.

I developed vertigo soon after having covid which my GP associated with long covid. This impacted my time at work and social engagement. Due to covid I had to delay surgery for hysterectomy to treat adenomyosis, fibroids and [endometriosis] ablation. This delayed surgery by [approximately] 8 weeks.

Delayed treatment for lymphoedema in my leg. Delayed [appointment] for colonoscopy. Delayed [appointment] with endocrinologist.

Due to Covid and long Covid, I am no longer working. I'm completely dependent on my husband for income. I have been home and bedbound for six months. This has been a shocking experience…

We also note that Aboriginal and Torres Strait Islander people faced disproportionate disadvantage during COVID and are at increased risk of long COVID due to the prevalence of comorbidities. People living in regional, rural and remote areas have their vulnerability compounded due to protracted waiting times, inability to access quality care, specialist treatment and specific investigations.

Access to medication and respiratory care

When asked what improvements could be made for people with asthma who experience long COVID or repeated COVID infections, many respondents to Asthma Australia's long COVID survey raised the issue of access to medication, including the affordability of medication, and access to respiratory care including respiratory clinics.

Respondents suggested improved access to medication:

> *Being allowed to fulfill 2 scripts at a time (I pay $42.50 each script so I'm sure not hoarding the puffers).*
>
> *Making the medication available for chronic asthmatics.*

Respondents also suggested improving access to respiratory care:

> *Better and easier access to health care whether it be via respiratory clinics or similar.*
>
> *Availability of quicker & cheaper or [preferably] free access to [respiratory medical] specialists & lung [rehabilitation] clinics.*
>
> *Make any breakthrough medications available to us, not just elderly people. More respiratory clinics and better care plans.*

TOR 2: The experience of healthcare services providers supporting patients with long COVID and/or repeated COVID infections

Health care providers Asthma Australia consulted with shared their feeling of being 'left behind', with no guidelines, mechanisms or models of care. This is different from their experience during the acute phases of the COVID pandemic, which saw the rapid formation of the National Clinical Evidence Taskforce for COVID-19[21] which served as a trusted resource for planners and clinicians on emerging evidence and localisation of clinical recommendations. We also saw repurposing of services, daily epidemiological reports, and strong public health measures.

Asthma Australia considers the Australian Government must properly resource the health care system and future-proof it against the pressures associated with long COVID and more severe illness associated with repeated COVID infections.

Treatable traits

'Treatable traits' is a chronic disease management paradigm that considers the person holistically. In a treatable traits model of care, health care teams identify individual characteristics that are likely to be affecting a person's health outcomes, address them in partnership with the patient and measure the effectiveness of treatment. This may be particularly pertinent for long COVID, as a person-centred approach to chronic disease management.

Future-proofing primary health care

The role of primary health care providers is particularly important for people with asthma. However, people with asthma have told Asthma Australia that COVID created barriers to accessing healthcare.

We conducted a survey of people with asthma and their carers in June–July 2021, in response to concerns raised by people with asthma about their access to healthcare, and to better understand attitudes towards COVID vaccination among people with asthma. Of the 1,263 people who responded to the survey, 89% were people with asthma and 11% completed the survey on behalf of someone they care for who has asthma. Almost half of respondents (44%) were from a regional or remote area. Respondents reported significant challenges accessing healthcare in the previous 3 months, and experienced at least one of the following challenges:

- 30% reported they have been unable to see their doctor in person until returning a negative COVID test due to asthma symptoms looking like COVID
- 34% reported they had been unable to see their doctor in person due to asthma symptoms looking like COVID
- 48% reported they had put off going to their GP about their asthma due to asthma symptoms looking like COVID
- 28% reported they had put off going to see their GP because they were required to get a COVID test

Although the data varied across jurisdictions, the experience of people with asthma in a major city was similar compared with those in a regional or remote area.

Asthma Australia's view is that, at present, the primary health care system is not sufficiently equipped to respond to and manage the needs of people with asthma who experience long COVID or repeated COVID infections.

As the response to COVID moves away from an emergency response to a 'living with COVID' approach, the barriers people with asthma have faced in accessing GPs will change and are more likely to be about the availability of services.[22] Pressure on GP services will also increase as they become critical in the ongoing management of long COVID.[23] Governments must consider how long COVID will be managed for vulnerable people including older Australians (both in the community and in aged care settings), people with a disability, and people who have difficulty accessing the healthcare system for various reasons including poor health literacy.

Pharmacists have also been under increased pressure during the COVID pandemic, most notably in delivering millions of COVID vaccinations.[24] Pharmacists have played a pivotal role in helping to manage the pandemic. This is in addition to the of role of pharmacists when consumers can't access a GP. Pharmacies are often an individual's first point of contact with the primary health care system.

For people with chronic conditions, including asthma, pharmacists play an even more critical role in the delivery of health care. The most common asthma medications are self-administered with devices, which can require an additional level of patient education. Pharmacists may be the only available health professionals with both the requisite amount of time and expertise to talk to people with asthma about how to use the devices required to administer medication. Any additional resourcing of the health system and future pandemic planning must also extend to pharmacists.

The allied health workforce also has a role in stepping into early assessment and referral roles upstream in the primary and community health systems. This may support the stretched primary

healthcare general practice and hospital workforce and better meet the complex needs of the vulnerable people in the community.

RECOMMENDATION: Asthma Australia recommends the Australian Government work with State and Territory Governments to address the gaps and challenges being faced by consumers and health care professionals around long COVID, including by:

- **investing in a long COVID arm within the National Clinical Evidence Taskforce whose role is to maintain living, evidence-based guidelines and resources for health systems and health care providers to use in their response to long COVID**
- **investing in relevant models of care like the person-centred Treatable Traits model**
- **developing a strategy to enable the effective deployment of allied health professionals in service delivery models.**

TOR 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

As outlined above, evidence suggests that there is no increased risk of hospitalisation from COVID for people with mild and moderate asthma, although people who have required oral steroids in the preceding year to treat their asthma 'have had increased risk of mortality in acute COVID-19'.[25] However, there is little understanding of how long COVID interacts with pre-existing or COVID-induced airways disease, including asthma.

In addition, informed by Asthma Australia's recent national priority setting project for asthma research in Australia, we recommend the Australian Government invest in specific research into long COVID, learning from the lost opportunities in the early stages of the acute COVID pandemic. We see an opportunity for Australia to invest in the priorities listed below. We note a 2021 position paper published in *The Lancet Respiratory Medicine* [26] shared the results of a consensus exercise to define the top 20 research priorities for long COVID sequelae. We have highlighted in **bold** below the priorities common to this paper and Australia's National Asthma Research Agenda project**.**

- **Real world clinical trials of prevention and treatments, management options, and models of care for long COVID**
- Research to understand the experience and address the challenges of mask wearing for certain people with respiratory conditions
- **Implementation trials of proven concepts like pulmonary rehabilitation to determine for whom this therapy is most effective, what model of delivery is most effective and how it can be integrated into consumer care plan and health service delivery model**
- **Research to distinguish cough and breathlessness from long COVID**
- **Research to understand the risk of COVID, repeat COVID and long COVID on existing airways disease and the likelihood of these causing airways disease**
- Intervention trials of systematic approaches to assessment and treatment of long COVID, including determining whether a person-centred approach like 'Treatable Traits' model works in long COVID
- Epidemiological research including investigating the interaction between COVID and other infections, such as flu and other respiratory viruses
- Australia's experience and future preparedness for pandemic response

RECOMMENDATION: Asthma Australia recommends that the Australian Government invest in specific research into long COVID, learning from the lost opportunities in the early stages of the acute COVID pandemic reflecting the needs of research end-users in Australia.

TOR 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

Asthma Australia acknowledges the severe and disproportionate impact the pandemic has had on the people and communities already vulnerable due to their social and environmental circumstances. We are concerned the same circumstances may result in worse outcomes from long COVID.

Such vulnerable communities include:

- People of culturally and linguistically diverse (CALD) backgrounds, whose baseline health seeking behaviour and access to essential healthcare is reduced compared to non-CALD populations[27], who may face significant difficulty in:
    - Avoiding repeat COVID infections
    - Having long COVID symptoms assessed and treated
- People with low socioeconomic status, who may be more likely to experience:
    - Difficulty accessing quality healthcare[28]
    - Exposure to risk factors for repeat COVID infections, including smoking, precarious and crowded housing and poor diet/nutrition [25]
    - The impact of long COVID-related work absenteeism for people more vulnerable to the impacts of missing work such as casual employees or underemployed people
- Aboriginal and Torres Strait Islander people, who:
    - Are more likely to have comorbidities and exposure to risk factors which may increase their risk of repeat infection[29]
    - May not have access to culturally competent and high-quality healthcare, which may include access to disease modifying treatment.

TOR 5: The impact of long COVID and/or repeated COVID infections on Australia's overall health system, particularly in relation to deferred treatment, reduced health screening, postponed elective surgery, and increased risk of various conditions including cardiovascular, neurological and immunological conditions in the general population

Asthma Australia acknowledges the significant pressure exerted on the health system by COVID and the indirect impact of forced delays and deferrals of elective procedures for people with the conditions mentioned in this term of reference. It is likely that 11% of patients with these conditions

will also have asthma [30] and it is important to consider the impact of their deteriorating comorbidities on their ability to manage their asthma.

People with asthma experienced a dramatic and concerning interruption to their access to lung function testing during the COVID pandemic. Lung function testing is an important, recommended activity in diagnosing and monitoring asthma. The Australian Asthma Handbook[31] recommends health care providers perform lung function test via spirometry for all people suspected of presenting with asthma. It is also recommended to monitor response to treatment and measure lung function decline over time, and to differentiate asthma from other chronic respiratory conditions. The Thoracic Society of Australia and New Zealand has since developed guidelines and resources to support health care providers to re-engage with lung function testing in their practice; safely, effectively and thoughtfully.[32]

It is critical to consider the impact of the loss of this investigative procedure on the respiratory health outcomes of people with asthma (including those yet to be diagnosed because of the lack of testing). There must also be investment in reaching the people who missed out on this investigation over the past two years, whether in the diagnosis of their condition or in monitoring and follow up.

Provision of pulmonary rehabilitation was also severely interrupted during COVID. This evidence-based therapy is vital for the wellbeing of people with severe complex chronic respiratory illness and its use can avoid urgent health service use. The absence of pulmonary rehabilitation provision over two years is likely to have reduced respiratory health outcomes and caused great distress for the people who rely on it for their wellbeing.

Pulmonary rehabilitation should be considered an effective and efficient therapy worthy of investment to support the needs of people with chronic respiratory conditions. However, there are currently no Medicare Benefits Schedule (MBS) items numbers for pulmonary rehabilitation. This therapy should be resourced with adequate MBS item numbers to ensure it can be provided to people who need it, including people with long COVID.

> **RECOMMENDATION: Asthma Australia recommends that the Australian Government include items numbers on the Medicare Benefits Schedule for pulmonary rehabilitation for people with complex chronic respiratory illness, including long COVID.**

TOR 6: Best practice responses regarding the prevention, diagnosis and treatment of long COVID and/or repeated COVID infections, both in Australia and internationally.

Asthma Australia recognises the critical importance of face masks in preventing the transmission of COVID. Preventing COVID is the best way of preventing long COVID. We strongly recommend ongoing, constructive public health messaging from the Australian Government encouraging the use of face masks, based on risk assessment, especially by people vulnerable to COVID infection and severe illness.

Air quality: monitoring, reporting and filtering

Governments can reduce the risk of COVID transmission by monitoring, reporting and filtering air quality in public buildings. This is particularly important now that other measures to reduce transmission—namely mask mandates and mandatory isolation periods—are no longer in place.

Asthma Australia has long advocated for air quality monitoring and reporting with respect to ambient air pollution, as well as subsidies for air purifiers or air conditioners with high-efficiency particulate air (HEPA) filters. This is because people with asthma are among the first people to be affected by air pollution in the population.

Asthma Australia supports the work by OzSAGE and their approach to Safe Indoor Air with respect to COVID. OzSAGE is 'a multi-disciplinary network of Australian experts from a broad range of sectors relevant to the well-being of the Australian population during and after the COVID-19 pandemic'.[33]

OzSAGE has reocgnised the importance of ventilation in the COVID exit strategy, stating:[34]

> Schools and businesses have immediate needs for better ventilation, and urban design needs to incorporate improved airflow in a post-COVID world. SARS-CoV-2 spreads through the air. The risk of COVID-19 infection is higher in indoor spaces, and it's even higher when those indoor spaces are poorly ventilated. In this context, ventilation means provision of safe, clean indoor air, not to be confused with ventilation (assisted breathing) of patients in ICU.

OzSAGE has further stated that '[g]ood ventilation is one of the most effective ways to reduce the risk of COVID-19 infection, in concert with other mitigations, including density limits, the use of [personal protective equipment] and the use of air purifying devices'.[35]

Finally, OzSAGE has recommended the introduction of national performance standards for air purifiers with monitoring and compliance by a body such as the Australian Competition and Consumer Commission.[36]

Asthma Australia supports OzSAGE's position around the importance of indoor air quality monitoring, reporting and filtering, particularly in public buildings.

RECOMMENDATION: Asthma Australia recommends that the Australian Government support State and Territory Governments to monitor, report and filter air quality in public buildings.

Funding for respiratory health care – spirometry and pulmonary rehabilitation

In addition, we recommend that the Australian Government invest sufficient funding for two critical areas of respiratory health care:

- Spirometry: Provision of this important lung function test was severely interrupted during the acute phases of the COVID-19 pandemic. Health care providers need to be supported in their efforts to recommence this test with their patients safely, effectively and efficiently. Reconstructing infrastructure and policies supporting the return of lung function testing in Australia has the potential to produce a positive return in terms of cost of medical care, certainty of diagnoses and the benefit of improved health outcomes for people with respiratory disease. Such investment must include the extra costs associated with increased personal protective equipment, room size and occupation, practice ventilation needs, on top

of the routine baseline costs of personnel, equipment, maintenance, and other material implications of quality assurance in spirometry.

- Pulmonary rehabilitation: This evidence-based therapy for severe chronic complex respiratory conditions is also effective for implementation in long COVID. Pulmonary rehabilitation has been interrupted due to COVID related precautions. As we detail in response to TOR 5, however, there are currently no Medicare Benefits Schedule item numbers for pulmonary rehabilitation.

RECOMMENDATION: Asthma Australia recommends the Australian Government provide sufficient funding for spirometry which adequately covers the baseline cost of its implementation and the cost of new infrastructure and infection control measures.

Summary of recommendations

RECOMMENDATION: Asthma Australia recommends the Australian Government work with State and Territory Governments to address the gaps and challenges being faced by consumers and health care professionals around long COVID, including by:

- **investing in a long COVID arm within the National Clinical Evidence Taskforce whose role is to maintain living, evidence-based guidelines and resources for health systems and health care providers to use in their response to long COVID**
- **investing in relevant models of care like the person-centred Treatable Traits model**
- **developing a strategy to enable the effective deployment of allied health professionals in service delivery models.**

RECOMMENDATION: Asthma Australia recommends that the Australian Government invest in specific research into long COVID, learning from the lost opportunities in the early stages of the acute COVID pandemic reflecting the needs of research end-users in Australia.

RECOMMENDATION: Asthma Australia recommends that the Australian Government include items numbers on the Medicare Benefits Schedule for pulmonary rehabilitation for people with complex chronic respiratory illness, including long COVID.

RECOMMENDATION: Asthma Australia recommends that the Australian Government support State and Territory Governments to monitor, report and filter air quality in public buildings.

RECOMMENDATION: Asthma Australia recommends the Australian Government provide sufficient funding for spirometry which adequately covers the baseline cost of its implementation and the cost of new infrastructure and infection control measures.

References

[1] Adeloye D, Elneima O, Daines L, Poinasamy K, Quint JK, Walker S, Brightling CE, Siddiqui S, Hurst JR, Chalmers JD, Pfeffer PE, Novotny P, Drake TM, Heaney LG, Rudan I, Sheikh A, De Soyza A; International COVID-19 Airways Diseases Group. 'The long-term sequelae of COVID-19: an international consensus on research priorities for patients with pre-existing and new-onset airways disease' *Lancet Respir Med.* 2021 Dec;9(12):1467-1478.
[2] Australian Bureau of Statistics (ABS) 2018. *National Health Survey: First Results 2017-18*. ABS Cat no. 4364.0.55.001. Canberra: ABS. Accessed online: http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012017-1=8?OpenDocument (accessed 9 December 2020).
[3] Australian Institute of Health and Welfare (AIHW) 2021. *Australian Burden of Disease Study 2018—Key Findings*. Web Report. Canberra: AIHW.
[4] AIHW 2021. *Australian Burden of Disease Study 2018—Key Findings*. Web Report. Canberra: AIHW.
[5] AIHW 2019. *Australian Burden of Disease Study: impact and causes of illness and death in Australia 2015*. Australian Burden of Disease series no. 19. Cat. no. BOD 22. Canberra: AIHW.
[6] AIHW 2019. *Asthma*. Cat. no. ACM 33 [Online]. Canberra: AIHW. Accessed online: https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma (accessed 1 July 2020); Australian Centre for Asthma Monitoring (ACAM) 2004. *Measuring the impact of asthma on quality of life in the Australian population*. Cat. no. ACM 3. Canberra: ACAM, AIHW.; ACAM 2011. *Asthma in Australia 2011*. Canberra: ACAM, AIHW.
[7] ABS 2020. *Causes of Death, Australia, 2019*. Canberra: ABS.
[8] ABS 2021. *Causes of Death, Australia, 2020*. Canberra: ABS.
[9] Commonwealth of Australia 2017. *National Asthma Strategy 2018*.
[10] Organisation for Economic Co-Operation and Development 2017. *Health at a Glance 2017*. Accessed online: https://www.oecd-ilibrary.org/docserver/health_glance-2017-en.pdf?expires=1611031021&id=id&accname=guest&checksum=CFFC61839E2237B8267DE851825F8967 (accessed 27 January 2021).
[11] Independent Hospital Pricing Authority 2016. *National Hospital Cost Data Collection, Australian Public Hospitals Cost Report, Round 18 (Financial year 2013-14)*.
[12] Deloitte Access Economics 2015. *The Hidden Cost of Asthma*. Available online: https://www.nationalasthma.org.au/living-with-asthma/resources/health-professionals/reports-and-statistics/the-hidden-cost-of-asthma-2015.
[13] Asthma Australia and The George Institute for Global Health 2020. *Final Report: Impact of COVID-19 on Asthma: Rapid Review for Asthma Australia*. Available online: https://asthma.org.au/wp-content/uploads/2020/10/COVID-rapid-review_Summarised-report-for-technical-audience-VF-clean_v2.pdf (accessed August 2021).
[14] Asthma Australia commissioned The George Institute for Global Health to undertake a study looking into whether people with asthma were more at risk of acquiring COVID-19 or having poorer outcomes if they did acquire it. Researchers conducted a rapid review of existing studies which report the outcomes of people with COVID-19 with an asthma diagnosis. The study found people with asthma had a slightly lower risk compared to those without asthma of acquiring COVID-19. The findings also suggested a slightly lower risk of hospitalisation and a reduction in the risk of death in those people with asthma who did acquire COVID-19 compared to people without asthma. The study found a slight increase in the risk of developing severe illness from COVID-19 requiring admission to the intensive care unit once hospitalised for people with asthma.
Asthma Australia and The George Institute for Global Health 2020. *Final Report: Impact of COVID-19 on Asthma: Rapid Review for Asthma Australia*. Available online: https://asthma.org.au/wp-content/uploads/2020/10/COVID-rapid-review_Summarised-report-for-technical-audience-VF-clean_v2.pdf (accessed August 2021).
[15] Asthma Australia 2021. Living with asthma during COVID-19. Available on request from Asthma Australia.
[16] Lung Foundation Australia 2022. *COVID-19: A roadmap for recovery*. Available at: https://lungfoundation.com.au/resources/covid-19-a-roadmap-for-recovery/.
[17] Department of Health and Aged Care 2022. *How do I know if I have long COVID?* Available at: https://www.health.gov.au/news/how-do-i-know-if-i-have-long-covid (Accessed 12 October 2022).
[18] Department of Health and Aged Care 2022. *How do I know if I have long COVID?* Available at: https://www.health.gov.au/news/how-do-i-know-if-i-have-long-covid (Accessed 12 October 2022).
[19] World Health Organisation 2022. *Clinical management of COVID-19: living guideline*, 15 September 2022. Available at: https://app.magicapp.org/?fbclid=IwAR201wBMFJ7mJtmuIMPekdiKrDbGKZjvE-f3rrJo13V_JFBo3e_eVuOaukA#/guideline/j1WBYn/rec/LA6lVY (accessed 12 October 2022).
[20] Adeloye D, Elneima O, Daines L, Poinasamy K, Quint JK, Walker S, Brightling CE, Siddiqui S, Hurst JR, Chalmers JD, Pfeffer PE, Novotny P, Drake TM, Heaney LG, Rudan I, Sheikh A, De Soyza A; International COVID-19 Airways Diseases Group. 'The long-term sequelae of COVID-19: an international consensus on research priorities for patients with pre-existing and new-onset airways disease' *Lancet Respir Med.* 2021 Dec;9(12):1467-1478.
[21] National Clinical Evidence Taskforce. (2022 version 65). Australian guidelines for the clinical care of people with COVID-19. Available online: **https://clinicalevidence.net.au/covid-19/**

[22] Australian Medical Association 2022. 'AMA launches plan to address critical problems facing general practice' *Media Release*, 4 October 2022. Available online: https://www.ama.com.au/media/ama-launches-plan-address-critical-problems-facing-general-practice (accessed 7 October 2022).
[23] Attwooll J. ''Large potential burden': Long COVID warning for GPs' *NewsGP, RACGP*, 24 Jun 2022. Available online: https://www1.racgp.org.au/newsgp/clinical/large-potential-burden-long-covid-warning-for-gps (accessed 7 October 2022).
[24] The Pharmacy Guild of Australia 2022. '8 million COVID-19 vaccinations delivered through community pharmacies' *Media Release*, 19 July 2022. Available online: https://www.guild.org.au/news-events/news/2022/8-million-covid-19-vaccinations-delivered-through-community-pharmacies (accessed 7 October 2022)
[25] Ibid.
[26] Ibid.
[27] Javanparast S, Naqvi SKA, Mwanri L. *Health service access and utilisation amongst culturally and linguistically diverse populations in regional South Australia: a qualitative study*. Rural Remote Health. 2020 Nov;20(4):5694. doi: 10.22605/RRH5694. Epub 2020 Nov 19. PMID: 33207914
[28] AIHW, 2022. *Health across socioeconomic groups*. Available online: https://www.aihw.gov.au/reports/australias-health/health-across-socioeconomic-groups
[29] AIHW, 2022. *Indigenous health and wellbeing*. Available online: https://www.aihw.gov.au/reports/australias-health/indigenous-health-and-wellbeing
[30] AIHW, 2020. *Asthma.* Available online: https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma/contents/asthma
[31] National Asthma Council Australia, 2022. *Australian Asthma Handbook.* Available online: https://www.asthmahandbook.org.au/
[32] Borg, BM, Osadnik, C, Adam, K, Chapman, DG, Farrow, CE, Glavas, V, et al. Pulmonary function testing during SARS-CoV-2: An ANZSRS/TSANZ position statement. *Respirology*. 2022; 27(9): 688– 719. https://doi.org/10.1111/resp.14340
[33] OzSAGE 2021. *Safe Indoor Air (Ventilation): Recommendations*. Available online: https://ozsage.org/wp-content/uploads/2021/09/Safe-Indoor-Air-advice.pdf (accessed 6 October 2022)
[34] Ibid.
[35] Ibid.
[36] Ibid.