



National  
**Rural Health**  
Alliance

**National Rural Health Alliance Submission  
Senate Standing Committees on Community Affairs  
Community Affairs References Committee  
Inquiry into Excess Mortality**

May 2024



Healthy and  
sustainable rural,  
regional and remote  
communities  
across Australia.



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National Rural Health Alliance Submission

Senate Standing Committees on Community Affairs

Community Affairs References Committee Inquiry into Excess Mortality

### **Executive Summary**

Examining the implications of the COVID-19 pandemic through the lens of rural healthcare provides a unique and nuanced insight into the impacts of pandemics on at-risk populations. Currently, little academic evidence exists that interrogates the impact of COVID-19 on rural Australians.<sup>1</sup> Analysing the gap between all-cause mortality and expected deaths in rural areas can provide crucial insight into how responsive the healthcare system is in relation to the changing needs of the population in a pandemic situation.

Understanding excess mortality poses a learning opportunity for Australian politicians, healthcare workers, and policy makers. Interrogating this data can provide an indication of social, economic, and systemic impacts on the health of the population and provide an insight into areas which may be under strain or experiencing shortages. This is imperative in cultivating change in the healthcare system and enabling positive outcomes for consumers.<sup>2</sup>

The NRHA's most significant finding was the lack of data that demonstrated the impacts and frequency of excess mortality in rural and remote areas. The absence of geographical data makes it impossible to fully understand the impacts of excess mortality on rural and remote consumers. NRHA strongly advocates for the creation of datasets demonstrating excess mortality in relation to remoteness. Currently, the ABS data only breaks down the impact of excess mortality on Aboriginal and Torres Strait Islander people by remoteness. The NRHA also notes the disproportionate rates of excess mortality in Australia's First Nations population increasing from 1.9% in major cities, to 31.6% in remote areas.<sup>3</sup> This is a significant increase in excess mortality in remoteness. Additionally, NRHA found that the

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<sup>1</sup> O'Sullivan, B., Leader, J., Couch, D., & Purnell, J. (2020). Rural Pandemic Preparedness: The Risk, Resilience and Response Required of Primary Healthcare. *Risk Management and Healthcare Policy*, 13, 1187–1194. <https://doi.org/10.2147/RMHP.S265610>

<sup>2</sup> Parliament House Australia (2023) *Excess Deaths in Australia: Frequently Asked Question*. Australian Government. [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_departments/Parliamentary\\_Library/pubs/rp/rp2324/ExcessDeathsAustraliaFAQ](https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp/rp2324/ExcessDeathsAustraliaFAQ)

<sup>3</sup> National Rural Health Alliance (2023) *Rural Health in Australia Snapshot 2023*. NRHA. <https://www.ruralhealth.org.au/rural-health-australia-snapshot>

rural workforce shortages significantly impacted healthcare provision during COVID-19 and continue to impact healthcare access. Delays in preventative screening and access to early intervention led to an increase in priority one aeromedical retrievals, demonstrating the impact of missed early intervention care. These findings demonstrate the importance of investment in rural healthcare. Tailored datasets and rural specific models of care are imperative to addressing ongoing healthcare inequities.

The approximately 7 million Australians living in rural, remote and regional areas deal with the impacts of historical inequities in healthcare due to their geography daily. This has resulted in a lower life expectancy, a higher burden of disease, and an increased rate of potentially avoidable deaths.<sup>5</sup> The impacts of events such as the COVID-19 pandemic have compounded these inequities due to inadequate health resourcing.

Understanding excess mortality during the COVID-19 pandemic will provide evidence of the direct and indirect impacts of the pandemic, observe the areas that our healthcare services lead the way, and recognise opportunities for adapting care models and providing stronger outcomes for consumers in the future. To fully understand the implications of the pandemic on the Australian population and prepare for the possibilities of future pandemics or events that will create further strain the healthcare system, it is important to review this data and implement actions to reduce instances of excess mortality in the future.

### **Summary of Recommendations**

1. That the Australian Bureau of Statistics (ABS) analyse and publicly release excess mortality data by geographic remoteness.
2. Engage with First Nations researchers to explore the drivers behind the disproportionate rate of death related to COVID-19 and provide funded support to address recommendations.
3. Plan for periods of increased admissions to rural health care services (eg. seasonal respiratory viruses) and design interventions to bolster the healthcare workforce during these periods and when rural providers will be adversely affected by reductions to an already limited rural health workforce such as pandemics and natural disasters.
4. Prioritise research that examines how pandemics and other disasters impact the health system in rural Australia including the development of specific strategies to support rural communities ameliorate these impacts.
5. The Australian Government (together with all state and territory governments) commit to support the development and implementation of a National Rural Health

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<sup>5</sup> Australian Institute of Health and Welfare. (2024). *Rural and remote health*. AIHW. <https://www.aihw.gov.au/reports/rural-remote-australians/rural-and-remote-health>

Strategy. The Alliance has been calling for a new National Rural Health Strategy to achieve the aims of improved accessibility, equity and rural health outcomes.

6. Funded models of primary health care to increase the prevalence of primary healthcare professionals in rural locations. The **Primary care Rural Integrated Multidisciplinary Health Service (PRIM-HS)** is a model proposed by the Alliance for comprehensive, multidisciplinary health services for rural Australia that would address the barriers to recruitment and retention of the rural health workforce, in order to increase its size and improve its distribution, therefore enabling improved access to high quality, culturally safe health care in rural Australia. This model requires block funding, enables a flexible employment model, creates a multidisciplinary team, and is locally designed and led, ensuring close links between the service and community it serves.

## Introduction

The National Rural Health Alliance (the Alliance) thanks the Senate Community Affairs Reference Committee for the opportunity to provide evidence to the **Inquiry into Excess Mortality**.

The Alliance comprises [51 Members](#), and our vision is for healthy and sustainable rural, remote and regional (hereafter rural) communities across Australia. We are focused on advancing rural health reform to achieve equitable health outcomes for rural communities – the over 7 million people residing outside our major cities. Our members include health consumers, healthcare professionals, service providers, health and medical educators, researchers, medical and health practitioner students and the Aboriginal and Torres Strait Islander health sector.

For the purpose of this inquiry, the Alliance has based its understanding of excess mortality on the definition provided by the Australian Bureau of Statistics (ABS). Furthermore, the Alliance will discuss excess mortality, defined as:

The difference between the observed number of deaths in a specified time period and the expected number of deaths in that same time period.<sup>6</sup>

**(a) Australian Bureau of Statistics (ABS) data showing excess deaths in recent years, with particular reference to:**

**(i) all-cause provisional mortality data reported by the states and territories to the ABS, and**

The difference between observed deaths, and expected deaths according to modelled baseline data, at specific points in time or during a defined period, can help to explain

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<sup>6</sup> Australian Bureau of Statistics. (2022). *Measuring Australia's excess mortality during the COVID-19 pandemic*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic>.

population-level influences on health in a holistic and comprehensive manner. This examination can account for variables that might not otherwise be measured (excepting that it only looks at deaths and not morbidity more broadly). The Alliance notes that this term of reference refers us to the ABS as the authoritative source of data and analysis regarding excess mortality in Australia at the national level. We also note that this term of reference asks us to focus on differences in annual excess mortality between 2015-2020, as compared to the specific years 2021, 2022 and 2023. The context for this comparison is of course the COVID-19 pandemic, which became apparent in Australia in early 2020. The COVID-19 vaccination program in Australia began in early 2021.

Given the context of this inquiry, excess mortality data can be used to determine deaths during the COVID-19 pandemic due to all causes. Causes include deaths due to COVID-19, misdiagnosed or undiagnosed deaths due to COVID-19, unintended consequences of public health interventions during this period, and coexisting yet unrelated causes.<sup>7</sup> For this reason, excess mortality is widely accepted as the most comprehensive measure for assessing the impact of the COVID-19 pandemic.<sup>8</sup>

#### Excess mortality by geography in Australia

When reviewing the ABS data on provisional mortality/excess mortality, the Alliance notes that despite the breadth and depth of data analysis provided by the ABS, there is no indicator for the impact of excess mortality on rural people ie. excess mortality data is not broken down by a geographic measure such as the Australian Statistical Geography Standard – Remoteness Areas. A lack of research more broadly regarding pandemic management strategies in rural Australia is a gap that has been highlighted in academic literature.<sup>9</sup> As a demographic that represents approximately one third of the Australian population,<sup>10</sup> this research and data is incredibly important.

It is well established that people living in rural areas are more likely to die at a younger age than their metropolitan counterparts. On average, rural Australians are also more likely to suffer from socioeconomic disadvantages, including higher rates of unemployment and a

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<sup>7</sup> Australian Bureau of Statistics. (2023). *Measuring Australia's excess mortality during the COVID-19 pandemic until August 2023*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic-until-august-2023>.

<sup>8</sup> Australian Bureau of Statistics. (2023). *Measuring Australia's excess mortality during the COVID-19 pandemic until the first quarter 2023*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic-until-first-quarter-2023>.

<sup>9</sup> O'Sullivan, B., Leader, J., Couch, D., & Purnell, J. (2020). Rural Pandemic Preparedness: The Risk, Resilience and Response Required of Primary Healthcare. *Risk Management and Healthcare Policy*, 13, 1187–1194. <https://doi.org/10.2147/RMHP.S265610>

<sup>10</sup> Australian Institute of Health and Welfare. (2024). *Rural and remote health*. AIHW. <https://www.aihw.gov.au/reports/rural-remote-australians/rural-and-remote-health>

lower household income.<sup>11</sup> Additionally, the rate of potentially avoidable deaths and the burden of disease also increase with remoteness.<sup>12</sup> Given rural people are justifiably a priority population when it comes to health and healthcare provision in Australia, understanding differences in excess mortality by geographic region is essential to comprehending the true effect of the pandemic across the country. Geographic breakdown of excess mortality data is critical to providing the foundations for future healthcare policy and disaster/emergency preparedness policy. Without rural representation in this data, there is a potential for the historical disadvantage experienced by rural people to be perpetuated, causing additional strains on consumers and the healthcare system in the future. The Alliance urges the Committee to recommend the ABS analyse and publish data on excess mortality by geography.

### Deaths due to COVID-19 as a contributor to excess mortality in rural, regional and remote Australia

Data on COVID-19 related deaths in Australia is not presented as an overall figure for all people by geography, but it is broken down by geography for First Nations and non-Indigenous people. The proportion of First Nations people within the population increases with remoteness, increasing from 1.9% in major cities, to 31.6% in remote areas.<sup>13</sup> The mortality rate from COVID-19 for Aboriginal and Torres Strait Islander people was 1.6 times higher than for non-Indigenous people in the Australian population at large.<sup>14</sup>

Analysis by geographical remoteness highlights that deaths from or with COVID-19 to 28 Feb 2023 in non-Indigenous people occurred at the highest rate in major cities and reduced with remoteness; in contrast, deaths from or with COVID-19 in Aboriginal or Torres Strait Islander people occurred at a similar rate in major cities and inner/outer regional areas but were **1.3 times more likely in remote/very remote areas**.<sup>15</sup> The death rate was higher for Aboriginal and Torres Strait Islander people than for non-Indigenous people in all geographic regions, increasing with remoteness – **1.5 times higher in major cities and 3.7 times higher in remote/very remote areas**.<sup>16</sup> It is indisputable that deaths from or with COVID-19 have disproportionately affected First Nations people in Australia in all geographic regions and is

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<sup>11</sup> National Rural Health Alliance (2023) *Rural Health in Australia Snapshot 2023*. NRHA [https://www.ruralhealth.org.au/sites/default/files/NRHA\\_rural\\_health\\_in\\_Australia\\_snapshot\\_2023.pdf](https://www.ruralhealth.org.au/sites/default/files/NRHA_rural_health_in_Australia_snapshot_2023.pdf)

<sup>12</sup> Ibid.

<sup>13</sup> National Rural Health Alliance (2023) *Rural Health in Australia Snapshot 2023*. NRHA. <https://www.ruralhealth.org.au/rural-health-australia-snapshot>

<sup>14</sup> Ibid.

<sup>15</sup> Australian Bureau of Statistics. (2023). *Pre-existing chronic conditions certified with COVID-19 death*. ABS. <https://www.abs.gov.au/articles/covid-19-mortality-australia-deaths-registered-until-28-february-2023#deaths-due-to-covid-19-associated-causes-pre-existing-chronic-conditions>

<sup>17</sup> Australian Bureau of Statistics. (2022). *Measuring Australia's excess mortality during the COVID-19 pandemic*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic>.



important to recognise the additional burden felt by First Nations people living in remote/very remote areas.

While authoritative Australian data regarding excess deaths prior to and during the COVID-19 pandemic is not available by geographic breakdown, COVID-19 deaths data indicates a disproportionate burden of death in First Nations people, with increased burden in remote and very remote parts of the country. While deaths due to COVID-19 make up only one component of excess deaths during the peak pandemic years, this disparity in death rates provides evidence for the need to analyse data by geography and investigate the drivers of increased COVID-19 mortality in First Nations people by remoteness in more detail.

### **Recommendations:**

1. That the Australian Bureau of Statistics (ABS) analyse and publicly release excess mortality data by geographic remoteness.
2. Engage with First Nations researchers to explore the drivers behind the disproportionate rate of death related to COVID-19 and provide funded support to address recommendations.

### **(ii) the difference between all-cause provisional mortality data for 2021, 2022 and 2023 and the preceding years of 2015 to 2020 (inclusive);**

When analysed at a sub-annual level, over time there is a consistent, cyclic pattern to excess death rates in Australia that correlates with circulation of respiratory diseases in the winter months. Between 2015 and 2020 it is of note that there was a significant spike in excess mortality in 2017 due to a virulent influenza season.<sup>17</sup> There are currently no datasets that reflect the breakdown of excess mortality in relation to remoteness for these years.

In contrast to the consistent spikes in excess mortality at the sub-annual level between 2015 and 2020, the 2021 – 2023 period shows less predictable spikes in excess mortality. When viewed at the annual level, excess mortality increases from 3.1 per cent below the expected annual mortality rate in 2020, to 1.6 per cent above expected in 2021, and 11.7 per cent above the expected rate in 2022. In 2023, annual excess mortality remained at 6.1 per cent above expected.<sup>18</sup>

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<sup>17</sup> Australian Bureau of Statistics. (2022). *Measuring Australia's excess mortality during the COVID-19 pandemic*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic>.

<sup>18</sup> Australian Bureau of Statistics. (2022). *Measuring Australia's excess mortality during the COVID-19 pandemic*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic>



As previously mentioned, there is currently no publicly available analysis of data that reflects the breakdown of excess mortality in relation to remoteness. The Alliance notes that it is difficult to provide a nuanced interpretation of factors contributing to cyclic, seasonal variations in excess deaths, nor the notable increases in annual excess mortality in 2022 and 2023, without rural-specific breakdowns of the data. In the absence of rural-specific data, it is important to draw on other sources to explain the factors contributing to changes in excess mortality in rural settings. While a discussion of some factors contributing to cyclic, seasonal differences in excess deaths by geography follows, we will provide a discussion of the factors contributing to the increase in excess mortality in 2022 and 2023 in term of reference (b) below.

#### Factors contributing to cyclic, seasonal surges in excess mortality rates in rural Australia

Spikes in respiratory illness can result in additional hospitalisations, straining often under resourced rural hospital facilities, which can contribute to excess mortality.<sup>19</sup> One study of patient admissions to a rural hospital in New South Wales during the peak influenza periods (July to September) between 2016 - 2019 utilised data from an infection control surveillance program to generate insights.<sup>20</sup> The researchers observed that high admission rates during this period led to an increased number of bed transfers, which resulted in a total of 245 extra hours of work for nursing and cleaning staff, creating additional strain on the limited rural healthcare and associated hospital workforce.<sup>21</sup>

This study illustrates the increased workload faced by already stretched rural health services due to seasonal respiratory infections in Australia. Availability of health and associated workforce is one of the major resource limitations for the rural health sector. Small rural towns have almost 60 per cent less health professionals than major cities, with near to the lowest prevalence across almost all professions.<sup>22</sup> For health professionals who are in rural areas, this means that on average, they work longer hours than clinicians in other areas.

This lack of healthcare workforce has significant implications regarding access to health services for rural Australians. Currently, 44,930 people living in remote Australia have no access to primary healthcare services within an hour's drive of their home (one way).<sup>23</sup> This reduction in available services also translates to longer waiting periods to access consultant medical specialists and general practitioners and lower rates of participation in screening

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<sup>19</sup> Ma, C., Pettit, C., Giles, M., Ohr, S.O., Bolte, M. (2022). Rural hospital bed management practices during influenza season. *Rural Remote Health*. Feb;22(1):7015. doi: 10.22605/RRH7015. Epub 2022 Feb 19. PMID: 35182465.

<sup>20</sup> Ibid

<sup>21</sup> Ibid.

<sup>22</sup> National Rural Health Alliance (2023) *Rural Health in Australia Snapshot 2023*. NRHA [https://www.ruralhealth.org.au/sites/default/files/NRHA\\_rural\\_health\\_in\\_Australia\\_snapshot\\_2023.pdf](https://www.ruralhealth.org.au/sites/default/files/NRHA_rural_health_in_Australia_snapshot_2023.pdf)

<sup>23</sup> Ibid.

programs for cancer and chronic disease.<sup>24</sup> Consequently, these access barriers mean that potentially preventable hospitalisations (PPH) are 2-3 times higher in remote and very remote areas.<sup>25</sup> As a population with elevated risk factors and already reduced access to healthcare services, health promotion and illness prevention are crucial in improving health outcomes for rural people, and ultimately lowering excess mortality for this demographic in circumstances of additional health system strain.<sup>26</sup>

## Recommendations

3. Plan for periods of increased admissions to rural health care services (eg. seasonal respiratory viruses) and design interventions to bolster the healthcare workforce during these periods and when rural providers will be adversely affected by reductions to an already limited rural health workforce such as pandemics and natural disasters.

### **(b) factors contributing to excess mortality in 2021, 2022 and 2023;**

In 2022, COVID-19 was assessed as the main contributor to excess mortality, with deaths corresponding directly to peaks in COVID-19 waves.<sup>27</sup> However, COVID-19 accounted for less than 1% of all deaths in 2020 (906 COVID-19 related deaths of 161,300 actual), and 2021 (1,351 of 171469 actual). In 2022, there was a significant increase in COVID-19 related deaths, accounting for 5% of overall mortality (10,095 deaths of 190,939 actual).<sup>28</sup> In 2022 there were 19,945 excess deaths, of which 13,287 were reported to be from or with COVID-19, leaving 6,658 additional excess deaths due to other causes.<sup>29</sup>

When considering the increased rate of excess mortality experienced in Australia in 2022 (11.7 per cent) and 2023 (6.1 per cent), it is important to examine both the differential impact of COVID-19 and related factors by geography, and to understand the factors beyond the coronavirus itself that impacted healthcare access and provision (with the potential to influence mortality rates). Geographical isolation granted rural communities protection from the initial COVID-19 waves. However, when outbreaks did occur, they tended to be more impactful due to the characteristics of the rural population (particularly for First

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<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> National Rural Health Alliance. (2011). *Health promotion in rural Australia fact sheet*. NRHA [https://ruralhealth.org.au/sites/default/files/fact-sheets/fact-sheet-05-health%20promotion%20in%20rural%20australia\\_0.pdf](https://ruralhealth.org.au/sites/default/files/fact-sheets/fact-sheet-05-health%20promotion%20in%20rural%20australia_0.pdf)

<sup>27</sup> Ibid

<sup>28</sup> Australian Bureau of Statistics. (2022). *Deaths, Australia*. ABS.

<https://www.abs.gov.au/statistics/people/population/deaths-australia/2022>.

<sup>29</sup> Australian Bureau of Statistics. (2023). *Measuring Australia's excess mortality during the COVID-19 pandemic until August 2023*. ABS. <https://www.abs.gov.au/articles/measuring-australias-excess-mortality-during-covid-19-pandemic-until-august-2023>.

Nations peoples in remote and very remote areas) and the rural healthcare system.<sup>30</sup> The Australian Institute of Health and Welfare (AIHW) notes that strains on the healthcare system and its resources were a significant contributor to loss of life during the 2020 - 2022 period.<sup>31</sup> As mentioned earlier, in the absence of excess mortality data broken down by geography, we draw on other sources to explain the factors contributing to changes in excess mortality in rural settings.

Rural healthcare services have less healthcare infrastructure - including less hospitals and intensive care services - to support severe or complex instances of COVID-19.<sup>32</sup> This may have contributed to COVID-19-related mortality in rural Australia. They also face significant disparities in the available healthcare workforce required to staff hospitals and primary healthcare services. These challenges mean that people living in rural Australia already have reduced access to healthcare services. The COVID-19 pandemic placed an additional burden on an already over-stretched system.

Rural health services were required to provide care for additional people during the pandemic due to population movement. Instances of people migrating to regional and rural areas seeking opportunities to 'escape' the pandemic during the first wave of COVID-19 were also observed. According to ABS data, 70,900 people moved to regional areas in Australia between 2020-21.<sup>33</sup> This was the first time since 1981 Australia's regional populations had grown at a higher rate than capital cities. This phenomenon was witnessed in many high-income countries where individuals with the ability to work remotely sought refuge from high-density areas in rural locations. Also referred to as 'disaster gentrification', this migration pattern has been observed to cause further strains on limited rural resources and infrastructure.<sup>34</sup>

During the pandemic, the already stretched rural healthcare workforce was impacted by furloughing of staff exposed to or experiencing COVID-19 themselves. Border closures and other policies that limited movement of people meant locum staff were unable to move in and out of rural locations easily to support rural health services. There were difficulties in

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<sup>30</sup> Malatzky, C., Gillespie, J., Couch, D., Cosgrave, C. (2020). Why place matters: A rurally-orientated analysis of COVID-19's differential impacts. *Social Sciences & Humanities Open*, 2(1), 100063. <https://doi.org/10.1016/j.ssaho.2020.100063>

<sup>31</sup> Australian Institute of Health and Welfare. (2023) *Health system spending on the response to COVID-19 in Australia 2019-2020 to 2021-22*. AIHW. <https://www.aihw.gov.au/getmedia/ce0a7601-db32-49ca-a7f9-f1fd6dae094d/health-system-spending-on-the-response-to-covid-19-in-australia-2019-20-to-2021-22.pdf?v=20231129074532&inline=true>

<sup>32</sup> Ibid

<sup>33</sup> Australian Bureau of Statistics. (2022). *More growth in the regions during the pandemic*. ABS. <https://www.abs.gov.au/media-centre/media-releases/more-growth-regions-during-pandemic>.

<sup>34</sup> Malatzky, C., Gillespie, J., Couch, D., Cosgrave, C. (2020). Why place matters: A rurally-orientated analysis of COVID-19's differential impacts. *Social Sciences & Humanities Open*, 2(1), 100063. <https://doi.org/10.1016/j.ssaho.2020.100063>

<sup>34</sup> Australian Institute of Health and Welfare. (2023) *Health system spending on the response to COVID-19 in Australia 2019-2020 to 2021-22*. <https://www.aihw.gov.au/getmedia/ce0a7601-db32-49ca-a7f9-f1fd6dae094d/health-system-spending-on-the-response-to-covid-19-in-australia-2019-20-to-2021-22.pdf?v=20231129074532&inline=true>

cross-border rural regions where the workforce commonly moves between jurisdictions for work.

Delayed healthcare service utilisation as a result of this impact on workforce may have contributed to an increase in mortality rates during this period in rural Australia. A systematic review investigating health service engagement in 20 countries (including Australia) between February and May 2020, found that healthcare access decreased by approximately one third during this period.<sup>35</sup> This disruption to care has been linked to delays in screening, preventative care, and therapeutic interventions.<sup>36</sup> This interference with non-emergency care has contributed to delayed/missed diagnoses of chronic conditions, compounding rates of preventable illness and potentially influencing excess mortality.

These findings of missed and delayed care around the globe are supported by Australian data from rural and remote areas. Data provided by the Royal Flying Doctors Service (RFDS) Best for the Bush report 2022 notes a 25 per cent increase in priority one aeromedical retrievals post-COVID-19, suggesting that they were retrieving patients who were sicker, later in the course of their disease or illness at this time. The RFDS attributes this to additional reductions in access to primary healthcare during the pandemic.<sup>37</sup>

Given pandemic-related policies placed additional strain on the healthcare system in rural Australia, contributing to reduced access to care and potentially influencing mortality during this period, it is important that governments anticipate any unintended consequences of planned policies in the future and design strategies to address them. Given the indications that access to routine health services has been reduced as a result of the pandemic, and the existing challenges faced by rural people in accessing primary healthcare, the Alliance encourages the prioritisation of research that examines this scenario further and devises strategies to ameliorate these issues as part of future disaster/pandemic planning.

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<sup>35</sup> National COVID-19 Health and Research Advisory Committee. (2022). Strengthening Australia's health system post COVID-19. NHMRC. <https://www.nhmrc.gov.au/sites/default/files/2023-02/NCHRAC-Advice-30-Strengthening-Health-systems.pdf>

<sup>36</sup> Parkinson, A., Matenge, S., Desborough, J., Hall Dykgraaf, S., Ball, L., Wright, M., Sturgiss, E. A., & Kidd, M. (2022). The impact of COVID -19 on chronic disease management in primary care: lessons for Australia from the international experience. *Medical Journal of Australia*, 216(9), 445–448. <https://doi.org/10.5694/mja2.51497>

<sup>37</sup>: Bishop, L., Gardiner, F.W., Spring, B., Gale, L., Schofield, Z. and Quinlan, F. (2023). Best for the Bush. Canberra, Royal Flying Doctor Service of Australia. <https://www.flyingdoctor.org.au/download-document/best-bush-rural-and-remote-health-base-line-2022/>

**Recommendations:**

4. Prioritise research that examines how pandemics and other disasters impact the health system in rural Australia including the development of specific strategies to support rural communities ameliorate these impacts.

**(c) recommendations on how to address any identified preventable drivers of excess mortality; and**Addressing seasonal drivers of excess mortality

Researchers have noted that the development of an optimal bed management plan and additional staff workload planning must be created to efficiently and effectively deploy the limited rural resources in instances of influenza and respiratory illness surges.<sup>38</sup> Increasing influenza vaccination coverage is an important intervention to reduce preventable drivers of cyclic, seasonal excess mortality.<sup>39</sup> Education and training programs for healthcare workers targeted at improving vaccination rates amongst high-risk populations - including people with chronic illness - have been successful in improving uptake of vaccines and bolstering preventative care in at-risk demographics.<sup>40</sup> The implementation of standing orders allowing primary healthcare workers including nurses, midwives, and pharmacists to provide vaccinations has also been found to increase uptake in influenza vaccination rates.<sup>41</sup>

Addressing excess mortality in the COVID-19 era

The COVID-19 response for rural areas was fundamentally based in primary healthcare rather than hospital settings and included treatment services and preventative clinics accessible to rural communities. These models are collaborative and rely heavily on multidisciplinary care teams including ambulatory clinical services and collaborative community and public health services. Research demonstrates that rural communities prioritised systems that were innovative in their methods to triage and test people who were unwell during the COVID-19 response.<sup>42</sup>

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<sup>38</sup> Ma, C., Pettit, C., Giles, M., Ohr, S.O., Bolte, M. (2022). Rural hospital bed management practices during influenza season. *Rural Remote Health*. Feb;22(1):7015. doi: 10.22605/RRH7015. Epub 2022 Feb 19. PMID: 35182465.

<sup>39</sup> Mohammed, H., McMillan, M., Andraweera, P. H., Elliott, S. R., & Marshall, H. S. (2021). A rapid global review of strategies to improve influenza vaccination uptake in Australia. *Human Vaccines & Immunotherapeutics*, 17(12), 5487–5499. <https://doi.org/10.1080/21645515.2021.1978797>

<sup>40</sup> Ibid

<sup>41</sup> Ibid

<sup>42</sup> O’Sullivan, B., Leader, J., Couch, D., & Purnell, J. (2020). Rural Pandemic Preparedness: The Risk, Resilience and Response Required of Primary Healthcare. *Risk Management and Healthcare Policy*, 13, 1187–1194. <https://doi.org/10.2147/RMHP.S265610>

As a critically under-resourced sector, rural healthcare teams are flexible, innovative, and adapt in response to the local healthcare need, relying heavily on preventative intervention models to free up primary healthcare responses during events such as a pandemic.<sup>43</sup> Due to the diverse needs of the rural population and the smaller workforce available, it is important to explore opportunities to future proof rural primary health care services in the event of future surge events.<sup>44</sup> As previously discussed, the geographic isolation and historical disadvantage of rural healthcare consumers was compounded during the COVID-19 pandemic and has significant implications on the future health of these communities. At the core of these preventable drivers of excess mortality is health inequity. Addressing this factor is key to lowering instances of excess mortality in this at-risk demographic in the future.

The COVID-19 pandemic response underpins the overwhelming need for the implementation of a health strategy specifically targeted at achieving outcomes and equity for rural Australians. In the Alliance's [2024-2025 pre-budget submission](#), the Alliance called for an integrated National Rural Health Strategy and Implementation Plan. The intention of the Strategy and Implementation Plan is to address the enduring issues and barriers that affect rural communities in accessing timely, appropriate, and cost-effective care. It is important to acknowledge that metrocentric healthcare policies often do not translate into a rural context and do not yield the outcomes needed to address the ongoing health inequity that rural Australians face. Centering the Strategy around multidisciplinary care that is flexible and responsive to local needs will be a significant measure in driving health outcomes forward.<sup>45</sup>

### Addressing systemic factors driving excess mortality

In 2023, The Alliance commissioned the report '*Evidence base for additional investment in rural health in Australia*' through the Nous Group. This report revealed that there is currently an annual underspend of \$6.55 billion for rural healthcare compared to health expenditure in metropolitan cities. This equates to people living in rural Australia missing out on nearly \$850 per person, per year of healthcare funding.<sup>46</sup> This figure demonstrates the significant need to provide strategic and sustainable funding to improve access to critical healthcare resources for rural consumers. The future health outcomes of people

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<sup>43</sup> Ibid

<sup>44</sup> Ibid

<sup>45</sup> National Rural Health Alliance. (2024). National Rural Health Alliance Prebudget Submission 2024-25. NRHA. <https://www.ruralhealth.org.au/sites/default/files/documents/nrha-policy-document/submissions/national-rural-health-alliance-pre-budget-submission-2024-25.pdf>

<sup>46</sup> National Rural Health Alliance. (2023). National Rural Health Month highlights healthcare inequities. NRHA. <https://www.ruralhealth.org.au/media-release/national-rural-health-month-highlights-healthcare-inequities#:~:text=%E2%80%9CThe%20Alliance%20knows%20from%20the,health%20underspend%20of%20%246.5billion>

living in rural communities depend on rectifying these preventable drivers of mortality and illness.

The Alliance proposes strategic investment in rural healthcare models that are flexible and responsive to the unique needs of rural consumers and communities, as well as the rural health workforce. Hence, the Alliance has proposed the Primary Care Rural Integrated Multidisciplinary Health Services (PRIM-HS) model as a solution in many rural and remote communities where the primary healthcare sector is under significant strain.

Due to the socioeconomic impacts of rurality, providing healthcare in rural areas is generally more costly than in major cities. This is largely due to the dispersed nature of the population and lower than average household income, leading to many primary healthcare services becoming financially unviable due to a reliance on fee-for-service funding mechanisms including Medicare.<sup>47</sup> This often results in the closure of practices and a reduction in critical health services for a demographic that has complex healthcare needs, perpetuating rates of preventable hospitalisation, chronic disease, and emergency presentations.<sup>48</sup>

PRIM-HS is a community-based organisation offering comprehensive, affordable, and accessible primary healthcare provided in a multi-disciplinary team environment. The PRIM-HS focuses on employing a diverse range of primary healthcare providers according to local needs, including rural generalists, nurses, midwives, dentists, pharmacists, paramedics and allied health professionals. Importantly, the PRIM-HS is a rurally designed (not metro-centric) model that provides services that are responsive to community needs, rather than competing with existing services.<sup>49</sup> The PRIM-HS model supports stakeholders to engage in co-design to create a tailored model of service to respond to the community's needs that provides flexible employment models, multidisciplinary primary care, and utilises block funding to create financial sustainability.<sup>50</sup> The PRIM-HS model promotes cross-sectorial collaborations through enabling access to culturally-safe, tailored interventions across the continuum of care.

### **Recommendations:**

5. The Australian Government (together with all state and territory governments) commit to support the development and implementation of a National Rural Health Strategy. The Alliance has been calling for a new National Rural Health

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<sup>47</sup> National Rural Health Alliance. (2024). National Rural Health Alliance Prebudget Submission 2024-25. NRHA. <https://www.ruralhealth.org.au/sites/default/files/documents/nrha-policy-document/submissions/national-rural-health-alliance-pre-budget-submission-2024-25.pdf>

<sup>48</sup> Ibid

<sup>49</sup> National Rural Health Alliance. (2023). National Rural Health Alliance Prebudget Submission 2023-24. NRHA. <https://www.ruralhealth.org.au/sites/default/files/documents/nrha-policy-document/submissions/nrha-budget-submission-2023-24.pdf>

<sup>50</sup> Ibid



Strategy to achieve the aims of improved accessibility, equity and rural health outcomes.

6. Fund models of primary health care to increase the prevalence of primary healthcare professionals in rural locations. The **Primary care Rural Integrated Multidisciplinary Health Service (PRIM-HS)** is a model proposed by the Alliance for comprehensive, multidisciplinary health services for rural Australia that would address the barriers to recruitment and retention of the rural health workforce, in-order to increase its size and improve its distribution, therefore enabling improved access to high quality, culturally safe health care in rural Australia. This model requires block funding, enables a flexible employment model, creates a multidisciplinary team, and is locally designed and led, ensuring close links between the service and community it serves.

## **Conclusion**

The NRHA would like to thank the Senate Community Affairs Reference Committee for the opportunity to provide evidence to the **Inquiry into Excess Mortality**. The COVID-19 pandemic has created unique and diverse challenges for all communities in Australia. For rural healthcare, the COVID-19 pandemic has exposed the historic lack of investment in efficient models to support rural-specific healthcare needs. In order to truly learn from the complex outcomes of the COVID-19 pandemic, it is important that there is transparency around the true impacts of the pandemic for rural and remote Australians. To rectify the historic disadvantage faced by rural and remote communities, it is imperative that immediate investment is made for access and equity measures including workforce and models of care in rural and remote Australia.