



## National COVID-19 Health and Research Advisory Committee<sup>1</sup>

Date of report: 21 May 2020

# Risks of resurgence of COVID-19 in Australia

---

## Focus

The focus of this paper is on critical strategies to help mitigate the risks of resurgence of COVID-19 in Australia. This includes an approach for community engagement, monitoring and testing, particularly for vulnerable and hard to reach groups that are at higher risk.

This report is point in time and may need further review as more evidence and information is available, particularly on clusters and the transmission of new infections in Australia, and the scale and reach of public health measures.

## Conclusions

### Community engagement and communication of COVID-19 epidemiology and response

NCHRAC conclusion 1: Communications should reinforce the work the Australian public has done in responding to the pandemic and encourage ongoing engagement.

NCHRAC conclusion 2: Levels of potential resurgence and corresponding response measures should be based on Australia's epidemiology and clearly articulated to the public through detailed case investigation and response information, and NCHRAC recommends further attention be given to developing this area.

NCHRAC conclusion 3: Epidemiological concepts and terminology should be utilised appropriately, and explained in plain English or generic terms when used in communications to support broader understanding.

Australia will remain at risk of SARS-CoV-2 transmission until adequate population-level coverage of an effective vaccine is achieved, which is likely to take at least 12-24 months. Australia's enhanced surveillance, testing and follow up capacity mean that, as more general non-pharmaceutical containment measures are being lifted, targeted increase in non-pharmaceutical containment measures would be indicated for localised outbreaks in high-risk settings, and/or where transmission is unknown. The earlier emergence of disease is detected and controlled, the more localised and time-limited such measures would need to be. Conveying these aspects to the public is key to engaging them in response measures.<sup>i</sup>

---

<sup>1</sup> NHMRC is providing secretariat and project support for the Committee, which was established to provide advice to the Commonwealth Chief Medical Officer on Australia's health response to the COVID-19 pandemic. The Committee is not established under the NHMRC Act and does not advise the NHMRC CEO.

NCHRAC has provided a glossary of epidemiological terms and concepts frequently used in communications about COVID-19 (**Attachment 1**). While it is important not to oversimplify messages, maintaining clear communication on the status and reasons for public health measures is important, especially when moving to more complex messages such as the importance of community vigilance when there are very low rates of community transmission.

The World Health Organization prioritises reproductive number in its advice on the risk of resurgence and related measures.<sup>ii</sup> However, in the Australian context, the reproductive number ( $R_t$ ) can move from 0.5 to 2 with an increase in less than 20 cases as the reported infection rate is very low. If these cases are in known contacts under isolation, as has been the majority of cases in the past weeks in Australia, focussing on reproductive number ( $R_t$ ) runs the risk of unnecessarily alarming the public. The public is well aware of the international context, and such a change, in for example the US and the UK, would constitute uncontrolled community transmission and an increase of tens of thousands of cases, and is not a meaningful comparison to Australia.

NCHRAC instead suggests an approach where the epidemiology of transmission is conveyed to the public through detailed explanation of transmission chains in new cases and/or clusters, and linking this to response. Predictability and control is key to communication, and this approach fosters both. Such communication is already happening, and is likely to have meaningfully enhanced the public's understanding of the link between number, spread and type of cases and response measures. Countries such as Singapore and Korea utilise such communication routinely. It is also an important part of myth busting related to transmission. NCHRAC therefore recommends this approach be systematised at jurisdictional and Commonwealth level.

The concept of elimination is also relevant and important for the public to understand, although no formal definition of elimination exists for COVID-19. For measles, elimination status is awarded on the basis of demonstrating at least 12 months free of sustained domestic transmission. Outbreaks may still occur during elimination, usually imported through travel, but do not lead to sustained transmission. A reasonable definition of sustained community transmission for COVID-19 may therefore be at least three generations of community transmission from an index case, and/or unknown source of infection in identified cases. This could provide a flag for enhanced surveillance and control measures.<sup>iii</sup>

The term 'second wave' should be avoided in official communications, and media should be encouraged to also avoid its use. Referring to a potential 'second wave' infers that COVID-19 is not under control and that Australia could see another period of infections of similar or greater intensity that would require reintroduction of restrictions. Australia is in a strong position to contain infections, though small outbreaks and infection clusters may still occur until vaccination is possible. Its use is therefore likely to hamper effective communication with the public.

The message should be changed from social distancing to physical distancing in recognition of the easing of restrictions. It is important the messaging encourages Australians to socialise

with physical distancing and maintain good handwashing practices to reduce the risk of outbreaks and disease clusters.

### High risk populations and settings

NCHRAC conclusion 4: Population groups and occupational settings at high risk of transmission of infection and/or low participation in testing should be identified.

Populations at greater risk of COVID-19 infection and transmission are diverse and differ in COVID-19 literacy, social, behavioural, cultural and health practices.<sup>iv</sup> While there are many groups identified at risk, it is likely that other such groups exist within the community, but have yet to be identified. The Australian Red Cross, in its submission to the working group, recommended use of a capacities approach to evaluating risk, rather than a demographic approach:

“In its disaster resilience building work, Red Cross uses four resilience capacities, wellbeing (physical and mental health), security (financial and physical safety), connection (to community and environment) and knowledge (access to information to make decisions) to identify where people have capacity to manage disruption and where people need assistance, and what assistance might be needed. This lens picks up groups that may not fit into a list more traditional “at risk” groups, i.e. women facing family violence, international students.”<sup>v</sup>

Noting the need for ongoing analysis to identify groups at risk, based on existing evidence and expert input the working group identified settings and populations at increased risk from incursion and/or of undetected transmission of COVID-19; these are listed in **Attachment 2**.

NCHRAC conclusion 5: Community representatives and trusted intermediaries that have long track records and capacity to engage with groups at high risk are essential to COVID-19 communication efforts to support effective communications and measures to encourage testing and adherence to public health measures in order to prevent and limit outbreaks of disease.

Community representatives and trusted intermediaries are highly valuable and effective in responding to health and humanitarian emergencies and natural disasters. They have built trust and confidence among the public for their ability to connect to, and support: all of the community, including vulnerable and hard to reach populations; communicate information about risk and available support services, and advocate for their health and wellbeing.

Partnering with such groups is likely to support more effective and rapid behaviour modification among both the general community and vulnerable populations and settings in relation to response measures.<sup>vi</sup>

See **Attachment 3** for barriers, enablers and pathways for engagement identified by a group of such trusted representatives and intermediaries, and researchers who work in relevant fields, who presented to the working group. This group also identified that they, and other similar bodies have been involved in the COVID-19 response in Australia to date either on an ad-hoc basis or not at all.<sup>vii</sup> This is a missed opportunity, and addressing this through a

structured process for community engagement is the most effective pathway to manage the risks related to undetected transmission in such groups.

NCHRAC has identified some essential groups to be included in communications for successful risk reduction of COVID-19 resurgence in the Australian population. In recognition that community groups and peak bodies are best placed to advise on what their stakeholders require, consideration should be given to national engagement with these bodies to disseminate consistent messages, to take their advice and to share learnings. (More detail on risk groups and community groups and peak bodies is provided in **Attachment 2**).

NCHRAC conclusion 6: Communication materials should be translated by accredited translators and tailored communications are necessary to increase participation in COVID-19 public health measures such as physical distancing, testing, and hygiene practices across all groups.

It is important to acknowledge that members of the community may experience problems with literacy for a variety of reasons and that some languages spoken by migrants and refugees lack a formal written language. Information provided only in written form may not be accessible to these members of the community. To ensure information is translated into everyday language the use of accredited translators and interpreters is recommended.<sup>vii</sup> Provision of information in oral forms will not only allow better understanding, but encourages distribution through established social media and WhatsApp groups.<sup>v</sup> NCHRAC notes that there are a range of written COVID-19 resources that have been translated on the Department of Health and Department of Foreign Affairs websites. Information provided on websites should meet the Australian Government standard for web accessibility.

Communication materials and support should include, for example:

- How to get tested and answer questions such as: Do you need a Medicare card? How are personal details stored and who can access them?
- General information on how the medical system works, including: What happens if I test positive? What happens if the doctors say I need treatment and I am worried about my insurance, employment or immigration situation?
- Consider providing financial support for all workers that do not have access to paid sick leave so ensure that they are able to take time of work for self-isolation or quarantine when required.<sup>viii</sup>

In making this conclusion, NCHRAC acknowledge that the Australian public is acutely aware of the COVID-19 situation and they are critical to the prevention of discrete outbreaks and potential amplification of community transmission. Federal, State and Territory Health Departments should continue to work together to ensure that consistent messages are provided around testing, self-isolation and quarantine requirements when outbreaks and clusters are identified.

## Testing, monitoring and surveillance

NCHRAC conclusion 7: Monitor and support high uptake of testing for COVID-19 in individuals meeting the surveillance case definition, including in the general population and high-risk communities.

NCHRAC conclusion 8: Testing (screening) for asymptomatic disease in contacts of cases in high-risk settings, as advised by CDNA<sup>ix</sup>, is supported by NCHRAC, and should include identification and testing of upstream and downstream contacts.

NCHRAC supports the continuation of the current testing regime and building on resources and capacity to rapidly detect and respond to outbreaks across all jurisdictions, particularly for rural and remote populations. This includes appropriately trained staff for contact tracing and testing, and rapid turnaround of test results.

The most important indicator of surveillance system coverage, uptake and sensitivity is the proportion of syndromic disease in the community detected through surveillance. In principle, this is similar to non-polio Acute Flaccid Paralysis surveillance in polio control. Demonstration of the control of polio not only requires no reported cases of polio, but more importantly, the demonstration of the surveillance systems capacity to detect polio were it to be present. This emphasises why the focus in COVID-19 surveillance must be on optimising high levels of screening amongst community cases meeting the surveillance screening criteria.

The following indicators and surveillance activities are recommended in order to assess COVID-19 screening uptake and surveillance system performance: <sup>x</sup>

- Primary indicator: Proportion of acute respiratory illness in the community screened (tested) for COVID-19 (target=100%), with the number needed to be screened based initially on past data on prevalence of acute respiratory illness. This number should be re-evaluated monthly through cross-sectional community-based surveys.
- Screening for asymptomatic disease in contacts in high-risk settings as per CDNA. Additionally, NCHRAC advises that testing should include both viral RNA (PCR) and antibody (serology) testing to identify current and potential past infection in upstream contacts (those who may have been source of infection), and PCR at 14 days' post contact in downstream contacts (those potentially infected by case). If contacts are widespread and status is unclear, testing should assume contact could be either upstream or downstream and assess accordingly.
- Surveillance system performance should also be validated through random community-based surveys for unreported syndromic disease at the household level, and analysis of screening clinic data.
- Specific focus should be given to groups identified as at risk of under-presentation for screening and/or introducing disease into settings at risk of very high mortality. Prevalence of disease and uptake of testing should be assessed in these groups regularly through cross-sectional surveys and analysis of screening clinic data.

- Regular, repeated surveys should also assess community understanding of testing criteria, community and practitioner attitudes towards uptake of screening and follow up actions such as household quarantine and/or isolation, practices related to screening, views on feasibility and burden, and support services for enabling uptake and follow-up. These surveys should oversample and specifically target groups at risk of under-presentation.
- The above activities should be integrated into and managed by public health surveillance programs, rather than implemented as stand-alone research activities.
- Additional information could also come from longer-term research projects exploring these issues.<sup>xi</sup>

## Other considerations

In drawing the above conclusions, NCHRAC:

- recommends further consideration be given to the preliminary advice provided on:
  - Identification and management of high-risk groups and settings
  - Development of a framework for classifying and communicating potential levels of resurgence and corresponding response measures.
- considered the clinical management of COVID-19 cases to be out of scope acknowledging adjustment in clinical care will be required as new or existing therapies develop over time
- is aware that the impact of COVID-19 differs across the Australian population and that a range of related aspects are being addressed by NCHRAC including mental health impacts, impact on Aboriginal and Torres Strait Islander populations in different settings, and ethical issues arising from COVID-19
- acknowledges that the impact of COVID-19 may add or exacerbate challenges or hardship already experienced by vulnerable populations, and
- is aware that CDNA are advising AHPPC on its national surveillance strategy.

## Attachments

**Attachment 1:** Glossary of epidemiological terms

**Attachment 2:** Population groups and occupational settings at high risk of transmission of infection

**Attachment 3:** Summary of consultation with community engagement and social-behavioural researchers (11 May 2020)

**Attachment 4:** NCHRAC working group members and consulted experts.

## References

---

<sup>i</sup> Anderson RM, Heesterbeek H, Klinkenberg D, Hollingsworth TD. (2020) How will country-based mitigation measures influence the course of the COVID-19 epidemic? Published online March 6, 2020. [https://doi.org/10.1016/S0140-6736\(20\)30567-5](https://doi.org/10.1016/S0140-6736(20)30567-5)

- 
- <sup>ii</sup> WHO Public health criteria to adjust public health and social measures in the context of COVID-19. Annex to Considerations in adjusting public health and social measures in the context of COVID-19, 12 May 2020. Available at <https://www.who.int/publications-detail/public-health-criteria-to-adjust-public-health-and-social-measures-in-the-context-of-covid-19>
- <sup>iii</sup> From Professor R. McIntyre personal communication, 6 May 2020.
- <sup>iv</sup> Smith JA and Judd J. (2020) COVID-19: Vulnerability and the power of privilege in a pandemic. *Health Promotion Journal of Australia*. 31:158–160 DOI: <https://doi.org/10.1002/hpja.333>
- <sup>v</sup> Information provided by Australian Red Cross, 11 May 2020.
- <sup>vi</sup> Australian Red Cross (2013). Communicating in Recovery. [www.redcross.org.au/communicatinginrecovery](http://www.redcross.org.au/communicatinginrecovery)
- <sup>vii</sup> Working group meeting with invited experts in community engagement and social behavioural research, 11 May 2020 (See summary at Attachment 3 and a list of members and experts consulted at Attachment 4).
- <sup>viii</sup> <https://www.nhmrc.gov.au/about-us/resources/history-tuberculosis-control-australia>
- <sup>ix</sup> Coronavirus Disease 2019 (COVID-19) CDNA National Guidelines for Public Health Units, Communicable Diseases Network Australia (v2.10, 13 May 2020), p11.
- <sup>x</sup> Lokuge K, Banks E, Davis S, Roberts L, Street T, O'Donovan D, Caleo G, Glass K. (2020). Exit strategies: optimising feasible surveillance for detection, elimination and ongoing prevention of COVID-19 community transmission. medRxiv. (posted online 23 Apr2020). DOI: <https://doi.org/10.1101/2020.04.19.20071217>
- <sup>xi</sup> The Optimising Isolation, Quarantine and Distancing for COVID19 Study – current research (Doherty Institute and Burnet Institute).



## Attachment 1

### Glossary

<i>Term or acronym</i>	<i>Meaning as related to COVID-19</i>
contact tracing	The process of identification of persons who may have had contact with a person infected with SARS-CoV-2 and collection of information about these contacts. Performed by trained contact tracers; the COVIDSafe App is designed to assist contact tracers.
cluster	An aggregation of infections that are grouped together in time and space and that are likely to be linked to each other. <sup>1</sup>
COVID-19	The name given to the disease caused by the SARS-CoV-2 virus which arose in the Wuhan Province in China in late 2019.
elimination	Australia does not have a formal definition of elimination for COVID-19.  For measles, which is more infectious than COVID-19, elimination is defined as having demonstrating at least 12 months free of sustained domestic transmission of measles. Outbreaks may still occur during elimination, usually imported through travel, but do not lead to sustained transmission.
epidemic / outbreak	The widespread occurrence in a community or region of cases of an illness, specific health-related behaviour, or other health-related event that is clearly above normal levels. The community or region and the period in which the cases occur are specified precisely. The number of cases indicating the presence of an epidemic varies according to the agent, size, and type of population exposed, previous experience or lack of exposure to the disease, and time and place of occurrence. <sup>2</sup> In a context where a disease is not endemic, a single case can constitute an epidemic.
inter-epidemic period	The period of time between epidemic periods; for example the initial epidemic period and the resurgence of the disease. The inter-epidemic period will be longer with non-pharmaceutical interventions (such as social distancing, travel bans), and shorter as restrictions are lifted. <sup>3</sup> See below for definition of sustained transmission to inform a possible definition of SARS-CoV2 elimination (i.e. absence of sustained transmission).
immunity	Resistance to infection or disease produced by vaccination or previous infection by the same disease-causing agent.

<sup>1</sup> Adapted from <https://www.cdc.gov/mmwr/preview/mmwrhtml/00001797.htm>

<sup>2</sup> <https://www.who.int/hac/about/definitions/en/>

<sup>3</sup> Adapted from Professor R. McIntyre personal communication 6 May 2020.

index case	The first documented patient in a disease epidemic or cluster within a population, or the first documented patient in an epidemiological study. <sup>4</sup>
PCR	Polymerase Chain Reaction; a test by which RNA (or DNA) is repeatedly copied. This is the core test for COVID-19 virus as it is very sensitive and specific and directly measures the virus itself.
physical distancing	<p>Measures taken by the community to reduce transmission such as: not shaking hands, or exchanging physical greetings, and wherever possible, stay at least 1.5 metres away from others.</p> <p>Ideally, physical distancing should be accompanied by good hygiene, especially after people have attended public places.<sup>5</sup></p>
point of care serology test	<p>Point-of-care COVID-19 serology tests to detect human antibodies produced in the days after a person is infected with the SARS-CoV-2 virus. They are not available as self-tests or tests for home in Australia.</p> <p>Currently, some COVID-19 point-of-care serology tests have been approved by the Therapeutic Goods Administration (TGA) subject to conditions. The TGA is conducting a post-market review of all approved serology point-of-care COVID-19 tests to verify their performance and inform their best use.</p> <p>Serology point-of-care COVID-19 tests cannot:</p> <ul style="list-style-type: none"> <li>• determine whether a person is infectious</li> <li>• detect if a person has been recently infected.<sup>6</sup></li> </ul>
population level immunity (also referred to as herd immunity)	A form of indirect protection from infectious disease that occurs when a large percentage of a population has become immune to an infection, whether through previous infections or vaccination, thereby providing a measure of protection for individuals who are not immune.
COVID-19 prevalence	The proportion of a population who have COVID-19 infection at a specific time. <sup>7</sup>
reproduction number	<p>The number of new infections resulting from an infected case at a location and point in time. It is a measure of how much the disease is spreading, and can change based on control measures and immunity levels.</p> <p>Three possibilities exist for the potential transmission or decline of a disease, depending on its R value:</p> <ul style="list-style-type: none"> <li>• If R is less than 1, each existing infection causes less than one new infection on average. In this case, the disease will decline and eventually die out.</li> <li>• If R equals 1, each existing infection causes one new infection on</li> </ul>

---

<sup>4</sup> Adapted from <https://www.merriam-webster.com/dictionary/index%20case>

<sup>5</sup> <https://www.health.gov.au/resources/videos/coronavirus-video-social-distancing>

<sup>6</sup> Adapted from <https://www.tga.gov.au/covid-19-point-care-tests>

<sup>7</sup> Adapted from <https://www.nimh.nih.gov/health/statistics/what-is-prevalence.shtml>

average. The disease will stay alive and stable, but there won't be an increase in the rate at which cases occur.

- If R is more than 1, each existing infection causes more than one new infection on average. The disease will be transmitted between people, and there may be an outbreak or epidemic.<sup>8</sup>

$R_0$  (the reproductive number at time 0) is the value of the reproductive number at the beginning of an epidemic in a population that has never experienced infections of the disease.

$R_t$  is the reproductive number at a specific point of time in the epidemic phase (where t is greater than 0).

SARS-CoV-2, in full: severe acute respiratory syndrome coronavirus 2

The official name of virus that is responsible for the COVID-19 epidemic.<sup>9</sup>

resurgence

A new peak or increase in COVID-19 cases in countries that had early success containing local outbreaks (i.e. Taiwan, Singapore and South Korea) – caused by either overseas arrivals or undetected pockets of infection.<sup>10</sup>

serosurveillance

Monitoring by serology in a population, for example to estimate antibody levels against SARS-CoV-2 as an indicator of population immunity due to past infection.

sustained transmission (of COVID-19)

A reasonable definition of sustained community transmission may be at least 3 generations of transmission from an index case. This could provide a flag for the start of a potential epidemic period.

---

<sup>8</sup> <https://www.healthline.com/health/r-nought-reproduction-number#prevention>

<sup>9</sup> [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it)

<sup>10</sup> <https://theconversation.com/coronavirus-what-causes-a-second-wave-of-disease-outbreak-and-could-we-see-this-in-australia-134125>



## Attachment 2

### Population groups and settings at risk<sup>1</sup>

NCHMRC acknowledge that there are groups and settings at high risk that may not be recognised. NCHMRC has recommended in its advice an approach, including looking at different data sources, to identify other groups not yet known, support detection as soon as possible and prevent resurgence.

1. **Groups and settings in which COVID-19 has circulated undetected and/or amplified in Australia and internationally include<sup>i</sup>**
  - a) *Age-specific groups*: the highest attack rates of COVID-19 in Australia is among people aged 60–79 years and young adults aged 20–29 years, particularly females. One third (29%) of cases aged 60–69 years and 43% in 70–79 years age group is associated with several outbreaks linked to cruise ships.<sup>ii</sup> Analysing group-specific risk factors in these age categories is therefore important and warranted. For example, in cases of community transmission, if the index case in a transmission chain is in one of these age groups, does that influence the size of the contact group and the number of cases?
  - b) *Health, disability support, aged care facilities and in-home aged care services*: residents of health, disability support and aged care facilities are at increased risk due to the environment of communal living facilities, and are more vulnerable to serious complications if they are infected.<sup>ii</sup> Outbreaks of COVID-19 in health and aged care facilities and infections among recipients of in-home aged care in Australia have been associated with entry or amplification of disease by staff, with some reports indicating some staff were symptomatic and continued to work.<sup>iii</sup>
  - c) *Crowded institutional settings*: such as prisons and homeless shelters were found to have elevated risk of transmission in the United States.<sup>i</sup>
  - d) *Densely populated urban settings*: those with high use of mass transit systems also appear to be at higher risk in the United States.<sup>i</sup> In such settings, morbidity and mortality has been found to be highest in the lowest socio-economic areas, likely associated with density and public transport, but also factors associated with the other risk settings such as high proportions of essential and casual workers, increased vulnerability, poorer living conditions and lack of access to health care.
  - e) *Migrant workers*<sup>iv</sup>: disease resurgence in Singapore was associated with undetected disease circulating for an extended period in migrant workers. This group has limited access to health care, are casual workers without access to unemployment benefits

---

<sup>1</sup> This document is based on draft paper: Lokuge K, Davies S, Roberts L, Whop L, Johnson G, Banks E, Caleo G, Glass K. Identifying groups at risk of increased transmission and/or low participation in COVID-19 response activities including social distancing measures, screening and follow-up, Draft Technical Working Paper, May 2020

and therefore less able to comply with quarantine orders, and live in very crowded conditions.<sup>v</sup>

- f) *Casual workers*<sup>vi</sup>: disease has been identified in casual workers in Australia who continued to work after symptoms occurred. This occurred prior to the introduction of welfare payments to casual workers, which, while available, will address the financial imperatives and support casual workers to adhere to public health measures without financial disadvantage.
- g) *Specific high-risk industries*: an example is abattoirs, which have also been linked to large outbreaks in workers in Australia<sup>vii</sup> and internationally.<sup>i</sup> Risk factors for such industries include close proximity of workers, and aerosol-generating procedures.
- h) *Religious groups*: The initial cluster of cases in South Korea was a cluster of 3,900 individuals linked to a church.<sup>viii</sup> Specific factors in religious groups, including in the United States<sup>i</sup> and Australia, which may support transmission include large gatherings as well as practices that entail extended periods of close contact and poor infection control such as drinking from communal vessels.<sup>ix</sup>
- i) *Groups in settings where there is close proximity of individuals using greater forced expiration (aerosol-generating activities)*: for example, gyms, choirs, dance classes.<sup>x,xi,xii</sup>
- j) *Ethnic minorities*<sup>xiii</sup>: Higher infection rates and mortality has been demonstrated for ethnic minorities in both the US and the UK. This has been attributed to an intersection of multiple risk factors, including higher chronic disease burden, barriers to health care access, poverty, lack of documentation and formal residency status, and greater employment in essential services requiring person to person interaction.
- k) *First nations communities*<sup>xiv,xiv,xv</sup>: Although data on COVID transmission in First Nations communities is limited, the data from COVID-19 outbreaks to date suggests increased risk of both infection and mortality, resulting from an intersection of many of the risk factors identified for the groups listed above, once disease enters their communities.<sup>xvi</sup>
- l) *Temporary visa holders*<sup>xvii</sup>: Again, intersection of risk mean this group is likely to be at risk of increased/unrecognised transmission. Australia has over 1.1 million temporary visa holders, including 99,000 people seeking asylum on bridging visas, who have no access to welfare payments, and many of whom do not also have access to universal health care through Medicare. There are also about 1,400 people currently in detention centres on mainland Australia, living in conditions similar to those of migrant workers in Singapore.<sup>xviii</sup>

## 2. Settings and populations at increased risk from incursion and/or of undetected transmission of COVID-19 and organisations that represent and can engage these groups

Based on existing evidence the following settings and populations were identified as at increased risk, from the general community, from incursion and/or of undetected transmission of COVID-19, and are listed alongside examples of organisations that represent and/or have long-term engagement with these groups:

- a) *General community, including specific age groups with high attack rates*: health authorities, The Australian Red Cross

- b) *Aboriginal and Torres Strait Islander peoples (in urban, regional, rural and remote settings)*: Aboriginal and Torres Strait Islander community controlled health organisations, services and institutions, and Aboriginal and Torres Strait Islander community groups (NCHRAC note that a management and operational plan has been developed by the Aboriginal and Torres Strait Islander Advisory Group on COVID-19 that reports to the Chief Medical Officer, and will be updated periodically.)<sup>xix</sup>
- c) *Casual and seasonal workers*: Australian Council of Trade Unions , The Australian Workers Union
- d) *Religious groups and charities*: association representatives, Community Council of Australia (CCA)
- e) *Institutional and residential care facilities (workers and residents)*: representative bodies for management structures, resident representative groups, CCA
- f) *International students*: Universities and student representative groups
- g) *Health and aged-care workers*: professional representative bodies, regulators (Australian Health Practitioner Regulation Agency)
- h) *Low or disadvantaged socio-economic groups*: Welfare organisations (e.g. Salvation Army), Australian Council of Social Services (ACOSS)
- i) *Youth*: youth organisations (social media platforms)
- j) *People living with co-morbidities and physical and mental disability*: representative and advocacy groups such as Consumers Health Forum of Australia, National Community Advisory Group for COVID-19 Research (Telethon Kids Institute)
- k) *Unemployed*: welfare organisations, ACOSS
- l) *Substance misuse*: methadone program user groups, addiction services
- m) *Temporary visa holders*: migrant/refugee, international student representative groups
- n) *Migrant groups*: migrant advocacy organisations
- o) *Refugees and asylum seekers*: refuge support services and advocacy organisations
- p) *Homeless or sleeping rough*: outreach and support groups, shelters
- q) *Prisons and refugee detention centres*: advocacy and representative groups
- r) *Women under coercive control/abusive situations*: domestic violence support services
- s) *International travellers and backpackers*: aeroplane and cruise ship companies and regulators, travel insurance companies
- t) *Rural and remote populations*: local councils and health authorities, local civil society organisations (e.g., Red Cross, Country Women’s Association)
- u) *Other occupational groups which have multiple community contacts, perform activities requiring proximity and/or work in high-risk settings or with aerosol generating procedures*: such as abattoir workers, supermarket, police/first responders, teachers, long-haul truck drivers, mine workers, people working in remote communities, bus drivers, cleaners, workers in ports and airports, construction site workers and workers in residential aged care facilities, combined

living environments that support people with disability, and home care services for the frail elderly and those with disability.

NCHRAC recognises that this is not a complete list and the identification of key advocacy and community groups to help in the fight against COVID-19 resurgence needs to be an ongoing process as further high risk and vulnerable groups in the community are identified.

### 3. Potential data sources for identifying other groups at risk

Data sources that could assist in identifying further groups through an assessment of the intersection of risk factors include but are not limited to:

- *High-risk groups for COVID-19 infection: COVID-19 case and outbreak data*
- *High-risk groups for low COVID-19 testing uptake: COVID-19 testing data*  
Community-based testing data from primary care services such as the government-run fever clinics, allow for analysis of testing uptake by place of residence. If the subset of data related to the period (date) from which testing was recommended and accessible to anyone with respiratory systems and /or fever, and excluding those with specific risk factors (links to a known case, travel-related illness health care workers), this data will reflect patterns of testing uptake in the general community. Even if those with specific risk factors could not be excluded, they are likely to be a small proportion of overall testing number since borders were closed and testing has been widespread.

Analysis of testing numbers in the preceding fortnight by local government area (LGA) will therefore provide useful information for comparisons of testing uptake across different geographical areas. Adjustment by socio-economic data for each LGA will identify specific socio-economic factors influencing testing uptake.

- *High-risk groups for infection in other respiratory infectious disease outbreaks such as influenza*  
Utilise health system and surveillance data on age specific rates for influenza and other notifiable respiratory infectious diseases to explore groups at high risk through Australia's sentinel influenza surveillance systems.<sup>xx</sup>
- *Low participation in screening programs: National screening program data, such as breast, bowel, cervical cancer, HIV, STI programs*  
Factors that have been found to influence the likelihood of participation in other screening and follow-up programs include: socio-economic and cultural factors, distance to screening services, personal health and disability, worry or perceived risk of disease<sup>xxi</sup>, and the quality and extent of information provided to potential program participants and health professionals.<sup>xxii</sup>  
There are other groups at risk of low participation (screening uptake) such as those with previous experience of stigma with disease (HIV or tuberculosis), those with philosophical opposition such as anti-vaccination proponents and those who have refused other screening programs such as breast cancer screening.
- *Low coverage of other preventive health interventions: vaccination coverage data*
- *Poor health outcomes related to lack of access to health services: health and health service data*

- *Reduced access to benefits such as sick leave, unemployment benefits and who therefore may be less able to isolate and quarantine:* Employment and welfare data  
*Individual-level barriers to access:* distance, language, physical and mental barriers, lack of permanent housing; data from the Australian Institute of Health and Welfare reports in these areas<sup>xxiii</sup>
- *Household-level social factors that promote infectious disease transmission: housing density, household size, extended family networks, poor water supply and sanitation* as above, data from the Australian Institute of Health and Welfare reports in these areas<sup>xxiv</sup>
- *Limited access to mainstream information sources:* mobile phone and internet coverage data

---

## References

- <sup>i</sup> Schuchat A. Public health response to the initiation and spread of pandemic COVID-19 in the United States, February 24–April 21, 2020. *MMWR Morbidity Mortal Wly Rep.* 2020;69:551-556. DOI: <http://dx.doi.org/10.15585/mmwr.mm6918e2>
- <sup>ii</sup> COVID-19 National Incident Room Surveillance Team. COVID-19, Australia: Epidemiology Report 15: Reporting week ending 10 May 2020. *Comm Dis Intell.* 2020; 44 (published online 15 May). DOI: <https://doi.org/10.33321/cdi.2020.44.43>
- <sup>iii</sup> Eaves R. Hospital staff 'worked with coronavirus symptoms', Ruby Princess 'likely' cause of Tasmanian outbreak - ABC News; 30 Apr 2020. Available at: <https://www.abc.net.au/news/2020-04-30/coronavirus-ruby-princess-tasmania-north-west-outbreak/12198990> (Accessed 19 May 2020)
- <sup>iv</sup> Yea S. This is why Singapore's coronavirus cases are growing: a look inside the dismal living conditions of migrant workers; The Conversation. 2020. <https://theconversation.com/this-is-why-singapores-coronavirus-cases-are-growing-a-look-inside-the-dismal-living-conditions-of-migrant-workers-136959> (Accessed 19 May 2020)
- <sup>v</sup> Mahtani S. Singapore's coronavirus outbreak is spinning out of control, and migrant workers are bearing the brunt - The Washington Post; 2020. Available at: <https://www.washingtonpost.com/world/2020/04/21/singapore-lost-control-its-coronavirus-outbreak-migrant-workers-are-victims/?arc404=true> (Accessed 19 May 2020)
- <sup>vi</sup> Shannon L. Man who tested positive to coronavirus worked at Hobart's Grand Chancellor Hotel pending test results - ABC News; 8 Mar 2020. Available at: <https://www.abc.net.au/news/2020-03-08/hobart-man-infected-with-coronavirus-worked-at-hotel/12037114>. (Accessed 19 May 2020)
- <sup>vii</sup> ABC. Coronavirus cases in Victoria climb by 22, including 19 more cases at meatworks. *ABC News.* Available at: <https://www.abc.net.au/news/2020-05-04/coronavirus-victorian-cases-climb-cedar-meats-abattoir-brooklyn/12209776> (Accessed 6 May 2020)
- <sup>viii</sup> Shim E, Tariq A, Choi W, Lee Y, Chowell G. Transmission potential and severity of COVID-19 in South Korea. *International Journal of Infectious Diseases.* 2020; 93:339-344. DOI: <https://doi.org/10.1016/j.ijid.2020.03.031>
- <sup>ix</sup> Longbotton J. Greek Orthodox church says 'holy cup cannot carry disease', allows congregations to share spoon. *ABC News;* 14 Mar 2020. Available at: <https://www.abc.net.au/news/2020-03-14/church-religious-groups-say-coronavirus-cannot-infect-them/12055476> (Accessed 19 May 2020)
- <sup>x</sup> Jang S, Han SH, Rhee J-Y. Coronavirus disease cluster associated with fitness dance classes, South Korea. *Emerg Infect Dis.* 2020. Aug; 26(8) (published online 15 May). DOI: <https://doi.org/10.3201/eid2608.200633>
- <sup>xi</sup> McKie R. Did singing together spread coronavirus to four choirs? *The Observer;* 17 May 2020. Available at: <https://www.theguardian.com/world/2020/may/17/did-singing-together-spread-coronavirus-to-four-choirs> (Accessed 20 May 2020).
- <sup>xii</sup> Health authorities explain how choir practice caused the 'superspread' of 52 coronavirus cases in US town. *ABC News;* 14 May 2020. Available at:

---

<https://www.abc.net.au/news/2020-05-13/how-a-choir-practice-caused-52-coronavirus-cases-in-us/12241662> (Accessed 20 May 2020).

<sup>xiii</sup> Dyer O. Covid-19: Black people and other minorities are hardest hit in US. *BMJ*. 2020; 369:m1483 (published online 14 Apr). DOI: <https://doi.org/10.1136/bmj.m1483>

<sup>xiv</sup> Kaplan HS, Trumble BC, Stieglitz J, et al. Voluntary collective isolation as a best response to COVID-19 for indigenous populations? A case study and protocol from the Bolivian Amazon. *Lancet*. 2020 (published online 15 May). DOI: [https://doi.org/10.1016/S0140-6736\(20\)31104-1](https://doi.org/10.1016/S0140-6736(20)31104-1)

<sup>xv</sup> Bond C, Whop L. The answer to Indigenous vulnerability to coronavirus: a more equitable public health agenda. *The Conversation*; 2 April 2020. Available at: <https://theconversation.com/the-answer-to-indigenous-vulnerability-to-coronavirus-a-more-equitable-public-health-agenda-135048> (Accessed 20 May 2020).

<sup>xvi</sup> Lakahni N. Navajo Nation reels under weight of coronavirus – and history of broken promises. *The Guardian*; 8 May 2020. Available at: <https://www.theguardian.com/world/2020/may/08/navajo-nation-coronavirus> (Accessed 22 May 2020)

<sup>xvii</sup> Abrams EM, Szeffler SJ. COVID-19 and the impact of social determinants of health. *Lancet Respir Med*. 2020 (published online 18 May). DOI: [https://doi.org/10.1016/S2213-2600\(20\)30234-4](https://doi.org/10.1016/S2213-2600(20)30234-4)

<sup>xviii</sup> Armbruster S. Human Rights Commissioner calls for immigration detainees' release over coronavirus infection fears – SBS News; 14 Apr 2020. Available at: <https://www.sbs.com.au/news/human-rights-commissioner-calls-for-immigration-detainees-release-over-coronavirus-infection-fears> (Accessed 8 May 2020)

<sup>xix</sup> Australian Health Sector Emergency Response Plan for Novel Coronavirus (COVID-19): Management plan for Aboriginal and Torres Strait Islander populations; Operational Plan for Aboriginal and Torres Strait Islander populations (March, 2020). Available at: <https://www.health.gov.au/resources/publications/management-plan-for-aboriginal-and-torres-strait-islander-populations> (Accessed 10 May 2020)

<sup>xx</sup> Australian Influenza Surveillance Report and Activity Updates. Available at: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm>

<sup>xxi</sup> Shahid S, Finn L, Bessarab D, Thompson SC. Understanding, beliefs and perspectives of Aboriginal people in Western Australia about cancer and its impact on access to cancer services. *BMC Health Services Research*. 2009;9:132-132. DOI: <https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-9-132>

<sup>xxii</sup> Lauby-Secretan B, Scoccianti C, Loomis D, et al. Breast-cancer screening-viewpoint of the IARC working group. *NEJM*. 2015;372(24):2353-2358. DOI: <https://www.nejm.org/doi/full/10.1056/NEJMsr1504363>

<sup>xxiii</sup> Australian Institute of Health and Welfare 2019. People with disability: in brief. Cat. No. DIS 74. Canberra: AIHW. Available at: <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia-in-brief/contents/how-many-receive-housing-assistance> (Accessed 19 May 2020)

---

<sup>xxiv</sup> Australian Institute of Health and Welfare. Housing data dashboard (Data resource). Available at: <https://www.aihw.gov.au/news-media/news/2019/september-2019/aihw-releases-your-window-into-housing-and-homeles> (Accessed 19 May 2020)



## Attachment 3

# Key barriers and enablers faced by vulnerable groups in accessing services such as COVID-19 testing

### Barriers observed by trusted intermediaries and community representatives consulted<sup>1</sup>

- Medicare access: no access to Medicare, language barriers, geographic barriers, lapse or lack of health insurance, delays and/or misunderstandings in renewing Medicare cards, lack of understanding about eligibility regardless of Medicare status by health authorities in regional areas in particular
- Financial hardship - unable to pay for medical appointments due to financial hardship and therefore less likely to present to GP
- Migrants on temporary visas who have to pay for private health insurance as part of their visa conditions are struggling to meet needs and in some cases are unable to afford the private insurance anymore. This results in reluctance / inability to access health care. Other people have budgeted for insurance to last a certain period of time, but because they are unable to return home due to COVID-19, their insurance has run out because they cannot afford this on top of basic food and shelter needs
- Fear of authorities especially for people who are undocumented or those experiencing labour exploitation
- Access to telehealth - Telehealth is only available for Medicare card holders and is therefore not available for some groups

Many groups, particularly young people, or not engaged or do not understand health messages and are therefore less likely to access services such as testing

- Access to free testing and treatment only at hospitals which may lead to accessibility difficulties when reliant on public transport for example.

### Enablers would include<sup>1</sup>:

- More information about free testing without fear of arrest being distributed to communities through communities.
- Communications (including video/audio) in languages to increase understanding of how the health system functions, especially by new and emerging groups

---

<sup>1</sup> Extracted from Australian Red Cross response to request for expert input on community engagement and COVID-19, 11 May 2020

- Bi-cultural health approach: see recent Red Cross example in Mt Gambier
- Increasing awareness of eligibility in hospitals, especially in regional areas
- COVIDSafe app, for broader community access and uptake, have information and FAQs available in different languages, and accessible for people with disabilities and provide In-App translations.

#### Resurgence Working Group and Community Engagement Expert Meeting Summary<sup>2</sup>

- It is important to know who we are talking with and to remember that nationality does not always equate to ethnicity and language. Any translation of written material should be done by accredited translation services remembering that some languages are only oral.
- Migrants and refugees may experience specific problems and may not understand their rights to testing, such as:
  - you do not need a Medicare card to be tested for COVID-19
  - past medical trauma and fear of public health authorities
  - labour exploitation limiting access to health care.
- It is important to remember the diversity within these groups as well.
- Communities already traumatised by the 2019/20 bushfires.
- Engagement with grass root communities is important. It is important:
  - to use established community groups to engage with their communities
  - to remember that community group leaders are not always leaders in a community; they may just be good at self-nominating for positions of authority and it may be necessary to ask who the leader within the community is
  - not to dumb down the message – just make it clear and interpretable.
- Citizen involvement in policy decisions is important and community engagement and communication must be flexible.
- Lessons and guiding principles for engagement with Aboriginal and Torres Strait Islander communities:
  - it is important to follow-up with groups after engagement
  - start from a position of trust

---

<sup>2</sup> NCHRAC's working group discussed ways to ensure effective community engagement to help mitigate risks of COVID-19 resurgence in Australia with invited experts on 11 May 2020.

- use existing partnerships and encourage them to use their own partnerships, especially Elders and community members with cultural authority
- understand power differentials between researchers, government and community and allow space and trust for two way communication and co-design
- be mindful of language – what does being ‘high risk’ or ‘vulnerable’ mean? Want to know what they can do, not what they can’t do.
- Consider providing financial support for all workers that do not have access to paid sick leave so ensure that they are able to take time of work for self-isolation or quarantine when required.<sup>3</sup>
- Value of peer to peer support in other vulnerable communities – vulnerable communities often have support mechanisms in place which can be accessed such as:
  - people in the justice system – prisoner-volunteers have been instrumental for assistance with the peer to peer messages about COVID-19 in prisons.
  - injecting drug users - peer to peer support is important in supporting COVID-19 messaging.

---

<sup>3</sup> <https://www.nhmrc.gov.au/about-us/resources/history-tuberculosis-control-australia>



## About the Committee and the Working Group

---

### **About the National COVID-19 Health and Research Advisory Committee**

The National COVID-19 Health and Research Advisory Committee (NCHRAC) was established in April 2020 to provide advice to the Commonwealth Chief Medical Officer on Australia's health response to the COVID-19 pandemic. NCHRAC provides rapid and evidence-based advice (or expert advice in the absence of evidence) on Australia's health response to the COVID-19 pandemic with the aim of preventing new cases, optimising the treatment of current cases, and assisting in optimising overall health system readiness to deal with the pandemic as it progresses.

Further information on the terms of reference and membership of the Committee is available at: [www.nhmrc.gov.au/nchrac](http://www.nhmrc.gov.au/nchrac). NHMRC is providing secretariat and project support for the Committee. The Committee is not established under the NHMRC Act and does not advise the NHMRC CEO.

### **Working Group Membership**

NCHRAC convenes working groups of its members and external experts to deliver its reports. The following NCHRAC members were involved in the development of this advice:

#### ***Committee Members***

Associate Professor Kamalini Lokuge OMA HOSM (Chair)

Dr Katie Allen MP

Ms Georgie Harman

Professor Brendan Crabb AC

Ms Samantha Jenkinson

Professor Bart Currie

Professor Michael Kidd AM

Professor Fran Baum AO

Professor Raina MacIntyre

Professor Sandra Eades

Ms Christine Morgan

Dr Michael Freeland MP

Mr Daniel Zou

#### ***Experts consulted***

The following people were consulted (11 May 2020) to understand relevant current efforts and pathways for community engagement and social and behavioural factors/influences that affect the uptake of interventions to prevent and manage a COVID-19 resurgence or outbreak.

- **Maria Dimopoulos AM**, Deputy Chairperson, Victorian Multicultural Commission  
Significant experience in support and advocacy of multiculturalism, cultural diversity, women from diverse backgrounds and the prevention of domestic violence.

- **Professor Julie Leask**, National Centre for Immunisation Research and Surveillance and Sydney Nursing School, Faculty of Medicine and Health, University of Sydney  
 Expertise includes community engagement for improving vaccination uptake and risk communication.
- **Associate Professor Lisa Whop**  
 Torres Strait Islander researcher, member of Cancer Australia’s Leadership Group on Aboriginal and Torres Strait Islander Cancer Control and the National Cancer Screening Register’s Quality Committee, expert on community engagement to support uptake of cervical cancer screening and HPV vaccination in Indigenous communities.
- **Professor Margaret Hellard AM** (Burnet Institute) and **Dr Katherine Gibney** (Doherty Institute)  
 Leading the ‘Optimise study’ - relates to community engagement and factors affecting community participation in the COVID-19 response.
- **Angela Young**, General Manager, Queensland Aboriginal and Islander Health Council  
 Significant experience in delivery of Indigenous Affairs programmes, policy and programme development, stakeholder management and Indigenous leadership in Government.
- **Donisha Duff**, Chief Operations Officer and Program Manager of Deadly Choices, Institute for Urban Indigenous Health  
 Experience working in government and not-for-profit sector with expertise in Indigenous engagement, health care services, corporate social responsibility, policy and planning.
- **Judy Slatyer**, CEO, Australian Red Cross  
**Vicki Mau**, Head of Migration Support Programs, Australian Red Cross  
 Expertise in community support, consultation and engagement, and peer-to-peer communication.