The impact of pandemics on vulnerable groups
Introduction

If we do nothing other than population-based pandemic control, vulnerable people often suffer disproportionately. For example, people on low incomes fared far worse than those with higher incomes during the 1918 pandemic in the United States (Sydenstricker, 2006).

On 11 March 2020, the WHO Director-General declared COVID-19 a global pandemic. Two weeks earlier on 27 February, Australia implemented a Coronavirus Emergency Response Plan. As seen in previous pandemics such as the 2009 H1N1 and 2003 SARS outbreaks, and now during the COVID-19 outbreak, much focus is on those at increased risk of medical complications from the virus.

But some people will be more vulnerable from a Social Determinants of Health (SDoH) lens – factors experienced by individuals, families or communities that reduce their resilience and exacerbate the impact of the pandemic (Garoon and Duggan, 2008; International Centre for Infectious Disease, 2010).

This document aims to highlight the importance of understanding those social risk factors and priority cohorts and summarise the evidence on what can be done to minimise the impact on vulnerable groups. It is intended to provoke reflection and inform social service and public health decisions to mitigate the impact of COVID-19 on our most vulnerable members of society.

Who is likely to be disproportionately impacted by pandemics?

Much effort has been devoted to pandemic planning and health emergency planning at the Commonwealth and state levels (particularly related to influenza). Plans often include recognition of the need to support the most vulnerable during a pandemic (Department of Health, 2019; New South Wales Health, 2016; World Health Organisation, 2009a, WHO, 2009b, WHO, 2018b). However, in practice, two challenges remain:

Past experiences demonstrate the inadequacy of many public health emergency responses. Socially disadvantaged groups have historically fared worse during pandemics. While many public health emergency strategies to reduce transmission may seem fair or equal, in practice they can exacerbate existing social and economic inequalities (WHO, 2018b; Hutchins, Truman, Merlin and Redd, 2009, Quinn et al., 2011). For example, social distancing strategies such as working from home or avoiding public transit may not be realistic options for some vulnerable groups. Ethical and equitable responses will recognise the unique needs and cultural values of different members of Australian communities (Department of Health, 2019).

One way to think about vulnerability during pandemics is using a SDoH lens. This considers health and social factors that may lead to increased exposure to the virus, increased risk of needs not being met and/or insufficient access to supports during the pandemic (O’Sullivan and Bourgoin, 2010).
Income, occupation, unemployment and job security

Income is one of the most important social determinants of health, as it can shape overall living conditions, influence health-behaviours and exacerbate other social risks (Mikkonen and Raphael, 2010). During a pandemic, low income workers and those with low or unstable or job security may have limited financial resources or economic safety net, which can influence their health seeking behaviours. It can also increase their risk of exposure to the virus, as they may be living in crowded housing or be unable to work remotely (O’Sullivan and Bourgoin, 2010).

People and families experiencing poverty may have greater impacts if they need to miss work due to illness or carer responsibilities (e.g. during school closures). Interruptions in income can impact food security and make treating existing health conditions – like asthma or diabetes – even harder, with families having less means to pay for health services at a time when the system is under significantly increased pressure (Red Nose Day, 2020).

Low literacy and education

People with low literacy and/or education levels need to be able to understand public health communication and act on recommendations to reduce their exposure (O’Sullivan and Bourgoin, 2010). Evidence has shown they can disproportionately experience respiratory disease (e.g. influenza) due to not being able to adequately receive public health messages (Semenza and Giesecke, 2008).

Aboriginality

Inadequate housing, remoteness, lower socio-economic status and food insecurity can exacerbate health and social risks for some Aboriginal people and particularly remote communities (Rudge and Massey, 2010). For example, previous pandemics such as 2008 H1N1 influenza disproportionately impacted Aboriginal and Torres Strait Islander people, with higher rates of notifications, hospital and ICU admissions than the general population (Miller and Durrheim, 2010).

Pre-existing chronic conditions

People with chronic health conditions need to be able to access their regular medication and health and social services during a pandemic. Disruption to medications or supports can exacerbate illness or recovery or increase risk of exposure or illness (O’Sullivan and Bourgoin, 2010).

Mental illness and/or problematic drug and alcohol use

People with mental illness or problematic drug and alcohol use are more susceptible to infections due to low discernment for social responsibility (e.g., hygienic practices), poor access to timely health care and risk of relapse or worsening of existing mental health conditions due to susceptibility to stress (Yao, Chen and Xu, 2020).

Table 1 outlines ten SDoH that can exacerbate existing disadvantage and the impact of pandemics, adapted from the Australian Institute of Health and Welfare (AIHW) and the Mikkonen and Raphael model (AIHW, 2016; Mikkonen and Raphael, 2010). These factors are not mutually exclusive – many people may experience multiple risk factors – meaning there is a scale of increasing vulnerability as multiple factors co-exist and exacerbate social disadvantage.

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<td><strong>Geographic location and living conditions</strong></td>
<td>Those living in crowded housing or with an inability to socially isolate or quarantine, such as people experiencing homelessness or in social housing, are more susceptible to exposure (O’Sullivan and Bourgoin, 2010). People living in regional and remote areas face greater barriers to access healthcare should they become infected.</td>
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<td><strong>Cultural and linguistic diversity</strong></td>
<td>Lack of knowledge about risks, mistrust of health services, language and cultural barriers and lower health care seeking behaviours among migrant populations can increase risk of illness in culturally and linguistically diverse families and communities (Aday, 1994; Wingate et al., 2007; O’Sullivan T and Bourgoin, 2010, Truman et al., 2009). Some people may also experience discrimination and stigma, as demonstrated by discrimination toward Asian populations for outbreaks that originated from Asia, as already seen in the COVID-19 outbreak (Australian Broadcasting Corporation, 2020).</td>
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<td><strong>Age</strong></td>
<td>During pandemics and other public health emergencies, children can be at heightened risk of abuse, neglect, exploitation and violence. For example, UNICEF states hundreds of millions of children will likely face increasing threats to their safety and wellbeing because of COVID-19 pandemic control measures. This may include mistreatment, gender-based violence, exploitation, social exclusion and separation from caregivers (UNICEF, 2020). For example, school closures during Ebola outbreak in West Africa from 2014 to 2016 contributed to spikes in child labour, neglect, sexual abuse and teenage pregnancies (UNICEF, 2020). The elderly, particularly those in aged care facilities, are more at-risk during pandemics due to biological factors (e.g. weaker immune systems or greater likelihood of existing health conditions). They can also be impacted if they lose access to transport or other supports due to staff illness or social distancing (O’Sullivan and Bourgoin, 2010).</td>
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<td><strong>Disability</strong></td>
<td>People with a disability who typically may require access to resources or supports may experience adverse health effects if service availability is impacted due to increased demand, reallocation of health workers or staff illness. Social distancing can be difficult or impossible for those with high care needs or who live in residential facilities (Campbell et al., 2009).</td>
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| **Gender** | Gender is a cross-cutting theme and can adversely impact women and girls’ health and social outcomes during a pandemic in multiple ways. For example:  
• Women are more likely to be victims of domestic and family violence (DFV). Given abuse is often about power and control, an abuser may take advantage of an already stressful situation and social isolation to gain more control (National Domestic Violence Hotline, 2020). Anecdotal evidence from China and the Ebola outbreak points to a significant rise in cases of DFV against women and girls and young pregnancies during the COVID-19 pandemic (UNICEF, 2020).  
• Women (and children) are at increased risk of abuse and exploitation during a pandemic, as demonstrated in evidence from past public health emergencies (UNICEF, 2020).  
• Women are often the primary caregivers in homes, communities and health facilities, increasing their likelihood of infection. |

**WHAT HAPPENS IF WE DO NOT ADEQUATELY SUPPORT THOSE WHO ARE MORE VULNERABLE?**

- **Public health responses considered major successes had both general population-based strategies and specific interventions to reach vulnerable groups.** For example, in the disease elimination and eradication programs for measles, rubella and smallpox (Fenner, Henderson, Arita, JeZek and Ladnyi, 1988; Reef and Cochi, 2006, Hutchins, Jiles and Bernier, 2004).
- **As demand on health services increases during the COVID-19 pandemic, and staff availability is affected due to illness, a major risk becomes discontinuity or unavailability of health and social services.** This can drive poorer outcomes for vulnerable groups, including for many who may not have alternate social or economic safety nets.
- **In addition, if services are not maintained, the ability for health systems to manage COVID-19 effectively may be further compromised.** Vulnerable clients will still present at emergency departments and other acute health and crisis services, increasing demand and the risk of disease spread.
What can we do now to minimise the impact on vulnerable groups?

Evidence on what governments, non-government organisations and communities can do to support vulnerable groups is limited. Some common themes emerge from historical Australian and international pandemic or public health emergency responses, which include:

1. **Identify who is at higher risk due to social disadvantage.**
   
   Undertake rapid analysis to understand who is at higher risk, understand their characteristics and where there is a concentration of potential demand (‘hot spots’).

2. **Develop streamlined, tailored and effective communications.**
   
   To overcome cultural, educational, linguistic and literacy barriers and reach vulnerable groups, develop targeted, tailored communications. Communications must instruct, inform and motivate protective behaviours, build trust in the source and dispel myths (Hutchins, Truman, Merlin and Redd, 2009; Quinn et al., 2011).

3. **Prioritise resources.**
   
   Prioritise resources to the most vulnerable groups. This includes allocation of social supports, access to health care and eventually access to a vaccine. The challenge with a prioritised resourcing approach is the need for adequate data to guide distribution, but collaboration and coordination between agencies and local services can provide a better understanding of local needs.

4. **Rapidly collaborate with and mobilise local non-government and community services and civil society.**
   
   Communities have valuable insights, networks and trusted relationships that can be leveraged to communicate with and support vulnerable groups (WHO, 2009a). They can translate scientific and government messaging which otherwise may be met with scepticism or mistrust (WHO, 2009a). As one example, the community-led response to the HIV epidemic, along with strong partnerships between government, health practitioners and researchers, are widely lauded as the reason for Australia’s success in responding to the epidemic (Nous Group, 2017).

5. **Consider remote methods to deliver non-emergency health and social care (WHO, 2018b).**
   
   The Australian Department of Health has already developed temporary Medicare Benefits Schedule and Department of Veterans’ Affairs items to allow doctors, nurses and mental health professionals to deliver services remotely (Department of Health, 2020). Leveraging this opportunity is critical for service availability and continuity.

6. **Measure the impact.**
   
   Data is needed to understand the impacts related to the SDoH (The Conversation, 2020). Identify indicators, existing information and data sources and reporting formats to report on the status of essential health and social service delivery during the pandemic, and short- and longer-term outcomes of vulnerable groups (WHO, 2018b).

7. **Strengthen the safety net.**
   
   Cash transfers and sick leave help survival during the pandemic (The Conversation, 2020). As does, services ensuring food security, medical supplies, accommodation and continuity of lifelines such as energy utilities and essential transport (Hutchins, Truman, Merlin and Redd, 2009).

8. **Engage the public in pandemic planning for the future.**
   
   Internationally, prior to the 2009 H1N1 influenza pandemic, pandemic plans were created with limited public consultation (Miller and Durrheim, 2010; Charania and Tsuji, 2012). This meant that the unique needs and characteristics of many diverse groups may not be adequately addressed. Post the COVID-19 pandemic, it will be important to better understand these and prepare for future public health emergencies.
How can Nous assist you to support at-risk and vulnerable groups?

Rapid analysis and risk assessment of the potential or likely effects of COVID-19 on your clients (overall or by cohort) and/or by service delivery local areas. For example, this could include the assessment of the relative risks of infection and COVID-19 illness related to face-to-face service continuity versus the risks of reducing or stopping services for particular groups.

Detailed modelling of at-risk cohorts, potential impacts and the gaps in service responses, thereby identifying the ‘hot spots’ where there are vulnerable groups who will need tailored support during and after the pandemic. Nous is able to rapidly model and map the areas with the most socially vulnerable populations in NSW or Australia, those with a high proportion over 65, densely populated areas, access to health services and more, to inform policy and service responses.

Development of strategies and targeted supports or interventions to mitigate the direct and indirect impact of the pandemic on at-risk client groups (e.g. families at risk, isolated older people, people who are homeless, people with chronic illnesses and people living with mental health conditions). This includes immediate tailored interventions during the control phase of the pandemic, through to short- and longer-term policy responses during the crisis and recovery phase. For example, this could include identification of core services (services that must be provided to manage health or safety) and the trade-offs of temporarily discontinuing non-essential supports. It could also include strategies for increased outreach activities (if possible), such as phone contact to maintain psychosocial stability and assess any changes in risk or need.

Support for government, non-government and/or community collaborations. We can assist in the rapid set up and maintenance of communications, collaborations and/or virtual networks to coordinate the response and mobilise community organisations to better reach vulnerable groups.

Support collaboration and coordination between agencies and organisations. We can use our multi-agency collaboration experience to rapidly identify and assess shared client groups and what each party should focus on to ensure a seamless, coordinated response (and minimise vulnerable people “falling through the cracks”).

Development of tailored communications for at-risk groups. We can assist to develop tailored communications for vulnerable groups, in consultation with local community groups, community leaders and/or elders to better publicise public health messaging and attempt to raise awareness and compliance with government restrictions.

Support for leaders in their own wellbeing and to maintain the engagement, health and recognition of their people, including clinical staff. We can support leaders to build their resilience, employee resilience and leading through change, which can be delivered flexibly and virtually.


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