

Impact of COVID-19 on HIV



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Introduction

COVID-19 has had a profound impact on the ways in which we live our lives. While the effects are wide and far reaching, research into the impact of COVID-19 on HIV in NSW and Australia is still emerging.

This short brief summarises some of the key findings related to the interplay between COVID-19 and HIV. The paper will focus in particular on the impact of COVID-19 on our communities' social and sexual behaviours, access to PrEP and HIV treatment, the reduction in testing for HIV and STIs, and HIV notification data. The ways in which COVID-19 has impacted people living with HIV (PLHIV) specifically will also be explored.

Background

COVID-19 has spread quickly throughout the world, with more than 170 million people infected and over 3.5 million people having died from COVID-19 infection since it was first identified in December 2019.¹

In Australia, more than 30,000 people have been infected and around 900 people have died from COVID-19. The virus causes mild illness for most people, however, people who are older in age or have pre-existing conditions are at risk of severe illness or death.²

Australia introduced measures to limit the spread of COVID-19 in January 2020 by banning international arrivals from China, where the first outbreak of COVID-19 began. In February 2020 further measures were introduced, with anyone arriving into Australia needing to self-isolate for 14 days.

In March 2020, Australia banned the arrival of foreign nationals, and restrictions on public gatherings went into place. In the same month, over half of Australia's states and territories closed their internal borders.

In late March, the Australian government limited public gatherings to 2 people (except for people who already lived together) and required international arrivals to complete their 14-day quarantine in supervised accommodation.

Restrictions on gatherings have gradually lifted at various stages, with the intermittent reintroduction of restrictions when new cases of COVID-19 emerged. The restrictions on international travel, foreign national arrivals and mandated hotel quarantine remain in place. The ways in which COVID-19 has impacted on HIV and communities most affected by HIV is worth considering as the two pandemics converge.

Sexual Behaviour and Social Impacts

The measures introduced to limit the spread of COVID-19, particularly restrictions on the number of people allowed to gather and advice on social distancing, have had an impact on the ways in which people interacted and socialised. In particular, people's sexual behaviours have been impacted and influenced by COVID-19 and this has implications for HIV prevention and monitoring.

During late March and early April, community-based LGBTQ organisations in NSW, including ACON, issued multiple warnings with increasing intensity for

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people to practise social distancing and reduce physical contact with people who were not partners they currently lived with.

By mid-April 2020 ACON issued a strong message to not have casual sex. ACON along with other HIV and LGBTQ community organisations issued messages to reduce the spread of COVID-19 by encouraging physical distancing, recommending community members instead focus on masturbation, sex toys and virtual sex.³ At the time it was assumed that a reduction in casual sexual partners among gay and bisexual men may result in reduced HIV and STI transmission among this population.^{4,5}

In late May and early June 2020 this advice eased with the easing of restrictions, around the same time as sex on premise venues were reopened with approval from the NSW Ministry of Health. This was followed by messages outlining strategies on how to reduce your risk of infection, while continuing to have casual sex.⁶

This progressive change in messaging was not consistent across Australia, however, as new COVID-19 outbreaks occurred in various jurisdictions at different times, resulting in the need for a return to more restrictive messaging for some specific locations. Due to state government border closures, these outbreaks were largely contained within distinct states, which allowed for different messaging in different jurisdictions.

The Flux Study surveyed gay and bisexual men and showed that in April 2020, almost all participants said they had been avoiding close physical contact and group events with family and friends. Participants also reported a two-thirds (65%) reduction in sex with 'fuckbuddies' (recurring but casual partners) and a 58% reduction in sex with casual partners.

The measures introduced to limit the spread of COVID-19, including physical distancing, venue closures and visitor restrictions to homes, limit opportunities for physical contact with others, including sexual and physical intimacy.

The interruption to the ways in which sexual contact normally occurs affects communities at both the individual and society level, and has impacted on both interpersonal relationships, as well as the wider community.⁷ However, it also disrupts the ability for HIV and STIs to spread.⁸ Therefore, understanding how physical distancing and other measures introduced during COVID-19 outbreaks affect behaviours within communities most affected by HIV is vital in monitoring epidemiological trends in both the short and long term.⁹

On top of this, COVID-19 restrictions and their impacts have the potential to affect communities most affected by HIV and other LGBTQ people in other ways. For example, prolonged physical distancing measures have been shown to negatively impact the mental wellbeing and health of our communities due to limited ability to connect with the wider LGBTQ community, peers and other interpersonal relationships.

A survey conducted by Equality Australia showed that COVID-19 and its associated restrictions have exacerbated underlying mental health disparities in the LGBTIQ+ population, making those who already live with depression, anxiety and other mental health issues more prone to adverse mental health outcomes as a result of COVID-19 and its associated restrictions.¹⁰

The Equality Australia survey also found that LGBTIQ+ people are overrepresented among the unemployed, having experienced rates of unemployment both pre and post COVID-19 which are higher than the national unemployment rate.¹¹

Another survey¹² showed that 61% of trans Australians met criteria for clinically significant depression in the first three months of lockdown, considerably higher than prior to the pandemic (rates of 36% reported in 2009 and 44% in 2013)^{13,14} and more than twice the rate of the general population during the same time.¹⁵ Almost half the men reported experiencing mental health problems in the Flux baseline survey.¹⁶

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Initially, there was also some concern that COVID-19 may impact on people's ability to access HIV/STI testing, PrEP and HIV treatment due to disruptions to global supply chains and the redirecting and mobilisation of health services away from sexual health in order to focus efforts to combat COVID-19, potentially resulting in poorer sexual health outcomes.

Key Points:

- *Sexual behaviours have been impacted by COVID-19 and this has implications for HIV prevention and monitoring.*
- *Physical distancing, venue closures and visitor restrictions to homes limit opportunities for physical contact with others, including sexual and physical intimacy.*
- *The interruptions affect communities at both the individual and society level, and has impacted on both interpersonal relationships, as well as the wider community.*
- *Prolonged physical distancing measures have been shown to negatively impact the mental wellbeing and health of our communities*

Access to Testing, PrEP and HIV Treatment

The Flux survey showed that among the Australian men who reported PrEP use before COVID-19, 58.3% continued to use PrEP during COVID-19 restrictions, and 41.8% discontinued use once restrictions were put in place.¹⁷ Following this initial decline, the Flux weekly diaries have shown that PrEP use has gradually increased.

Indeed, prescriptions for PrEP in NSW steadily recovered each quarter in 2020 from a reduction between April and June during the most severe COVID restrictions. Between October to December 2020, PrEP use returned to the same level compared to the same quarter in 2019.¹⁸

Of those stopping PrEP, 86% gave COVID-19 as one of the reasons.¹⁹ 17% reported that they had found it difficult to access PrEP during this time, demonstrating that

for some, COVID-19 restrictions impacted PrEP access.²⁰ One study from Melbourne demonstrated that for some, concerns about contracting COVID-19 and difficulty making appointments was the reason for their PrEP discontinuation.²¹

One strategy people on PrEP have used due to lower sexual activity and/or decreased medication access during COVID-19 is to transition to on demand PrEP.²²

Researchers have argued that COVID-19 may be an opportunity to increase the use and understanding of PrEP on demand and other dosing methods²³. It has been hypothesised that the current decline in HIV notifications may be followed by a short-term increase unless measures are put in place to address the increase in sexual activity as lockdown measures are eased.²⁴

Many testing sites were run at a reduced capacity and/or with modified opening hours in 2020, out of the need to redirect clinical staff to the COVID-19 response. In 2020, the number of HIV tests in publicly funded sexual health clinics in NSW decreased by 38% compared to the same period in 2019²⁵.

This reduction in people attending clinics and being tested for HIV is likely due to the increased difficulty in accessing services as a result of reduced capacity, fear around contracting COVID-19 and the impact of reduced casual sex. Interestingly, HIV dried blood spot (at-home) tests increased by 20% between October to December 2020, compared to the same quarter in 2019.²⁶

Initially there were concerns that HIV treatment access may be affected in Australia, however HIV community organisations were quick to respond to these worries by working with the pharmaceutical companies who manufacture and distribute antiretroviral medications in Australia to reassure people living with HIV that supplies of HIV treatments would not be affected.²⁷

Key Points:

- *PrEP use dramatically declined between April and June 2020 and*

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stated to recover between October to December 2020

- The number of HIV tests carried out in publicly funded sexual health clinics in NSW has also significantly decreased over the same period.
- This reduction is likely due to the increased difficulty in accessing and the impact of reduced casual sex.

HIV Epidemiology in NSW during COVID-19

Before COVID-19, HIV notifications in NSW were steadily declining. However, during 2020 the number of NSW residents newly diagnosed with HIV decreased sharply by 33% compared to the average for the last five years.²⁸ Only 31% of these new diagnoses had evidence that their infection occurred in the 12 months before they diagnosis (a reduction of 47% when compared to the average of the last five years).

This significant reduction in HIV diagnoses, particularly for early stage infections, may suggest that there was reduced transmission of HIV during COVID-19. However, it is also likely that restrictions, altered social and sexual behaviour, and changes in health seeking including testing also contributed to the significant reduction in HIV diagnoses. It is therefore important that these reductions are considered within this context.

As levels of COVID-19 risk in Australia change and restrictions fluctuate, it can be expected that trends in HIV will also fluctuate.²⁹ HIV and STI health policy and health promotion and policy responses to support individuals to navigate the lifting and reimposing of restrictions over the course of the COVID-19 pandemic will be vital to adequately address this.³⁰

Interestingly, 51% of the gay and bisexual men newly diagnosed were overseas-born, which is 39% less than the 2015-2019 average. This decrease may be due to the reduced number of overseas migrant arrivals coming to Australia because of the closure of Australia's international borders.

Key Points:

- New HIV diagnoses have significantly decreased in NSW since the start of 2020.
- As levels of COVID-19 risk in Australia change and restrictions fluctuate, it can be expected that trends in HIV will also fluctuate.

PLHIV and COVID-19

The largest study of risk factors for severe COVID-19 conducted so far, the OPENSafely study, looked at around 40% of the total GP patients in England (17.2 million people).³¹

The study found that old age was by far the strongest risk factor for severe COVID-19 illness and death. People over 80 were at least 20 times more likely to die from COVID-19 compared to people aged 50-59. People under 40 had a greatly reduced risk compared to the 50-59 age group.

People with chronic health conditions may be at greater risk of contracting or experiencing complications from COVID-19.³² People living with HIV (PLHIV) may therefore be more vulnerable to COVID-19. Although recent research suggests that PLHIV may not be contracting COVID-19 at disproportionate rates, PLHIV who are not taking antiretroviral medication or whose disease is not currently well managed may be at increased risk of contracting COVID-19 due to their compromised immune system and also may be at increased risk of serious illness and death.³³

We also know that PLHIV are more likely to live with comorbidities and evidence indicates that the presence of comorbidities in PLHIV is the predominant determining factor as to the severity of COVID-19.³⁴

Several studies have shown that people living with HIV have an increased risk of dying from COVID-19. These studies concluded that HIV increased the risk of death from COVID-19 by between 78% and 95%.³⁵

Studies have shown that people with HIV who have comorbidities such as obesity, diabetes or high blood pressure have a

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higher risk of severe illness or death than other people with HIV. Additionally, several studies have shown that a low CD4 cell count increases the risk of severe outcomes, even without underlying health conditions.³⁶

In light of this emerging evidence, in early 2021 PLHIV were confirmed by the Australian Department of Health to be included in Phase 1B of the vaccine rollout.

With the introduction of measures to limit the spread of COVID-19, many social, psychosocial and peer support services and programs for PLHIV were forced to temporarily stop, reduce capacity or move online.

The importance of these types of programs for PLHIV, particularly those newly diagnosed, is well recognised, and would be likely to have impacted on the health and wellbeing of PLHIV during COVID-19. More research into the impact of these changes is needed.

Key Points:

- *People living with HIV appear to have a slightly increased risk of dying from COVID-19.*
- *People living with HIV who have underlying health conditions such as obesity, poorly controlled diabetes and high blood pressure appear to be at higher risk.*
- *In general, the most important risk factors for death from COVID-19 are old age, an organ transplant and a recent diagnosis of a cancer of the blood.*

COVID-19 vaccines for people living with HIV

Vaccines against COVID-19 have been shown to be highly effective in preventing serious illness. COVID-19 vaccination is recommended for people living with HIV and there are no safety concerns that are specific to people with HIV.

Two studies of the Oxford/AstraZeneca vaccine in people with HIV show that the

vaccine produced the same strength of immune response in people with HIV and people without HIV. There was no difference in the common vaccine side effects of sore injection site, headache, chills, tiredness or muscle and joint pains. People in both studies had high CD4 counts (above 500) and were on antiretroviral treatment.³⁷

Key Point:

- *Vaccines against COVID-19 are highly effective in preventing serious illness. They are not thought to be less effective in people with HIV, but more data are needed.*

Conclusion

The response to COVID-19 in Australia has been relatively effective, with fewer infections and deaths than comparable countries around the world. Despite this, the impact of measures to limit the spread of COVID-19 has had impacts on HIV, both positive and negative (and yet to be determined). As we continue to live with COVID-19 and HIV in NSW, it is important to understand these impacts in order to best respond to both pandemics going forward.

The ways in which communities have come together to support one another during this time is cause for optimism and reflects the culture of care that has been developed over many years. The potential of vaccines for both COVID-19 and HIV also offer glimpses of hope going forward.

About ACON

ACON is NSW's leading health organisation specialising in community health, inclusion and HIV responses for people of diverse sexualities and genders. Established in 1985, ACON works to create opportunities for people in our communities to live their healthiest lives.
Acknowledgements

We pay our respects to the Traditional Owners of all the lands on which we work, and acknowledge their Elders, past, present and emerging.

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