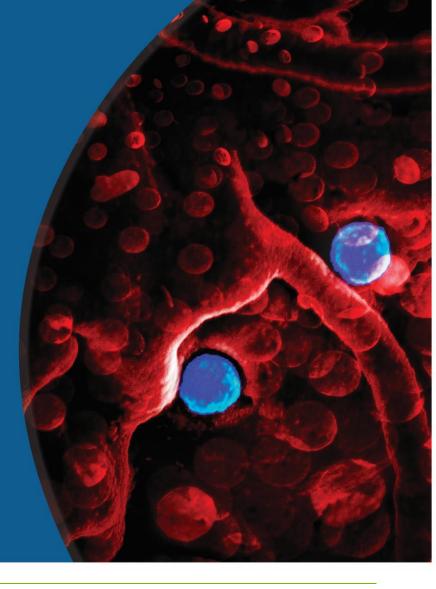
For consultation

Development of the next iteration of the five National Blood Borne Viruses and Sexually Transmitted Infections Strategies 2023 to 2030

Ninth National HIV Strategy 2023-2030

August 2022





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VISION STATEMENT

By 2030, HIV transmission will be virtually eliminated in Australia. Everyone will have access to safe, affordable, and effective prevention, testing, and treatment including appropriate people- person-centred care and support. People living with HIV including people with who inject drugs (PWID), are active decision makers in ongoing prevention and harm reduction strategy planning and implementation, live free from stigma and discrimination, and lead healthy and productive lives.

1. INTRODUCTION

Since the first cases of AIDS and the discovery of HIV nearly 40 years ago, Australia has made a concerted and sustained effort to respond to the virus. Australia's domestic response to HIV is regarded internationally as a world-leading model of best practice. Australia has a national HIV incidence lower than many other comparable high-income countries.

During the past five years, Australia has built on success with HIV pre-exposure prophylaxis being subsidised and becoming a core HIV prevention strategy for gay and bisexual men. Regular HIV testing continues to increase among this population and testing is more convenient with the widespread availability of HIV self-tests. More people today are receiving HIV treatment, including people ineligible for Medicare through a new funding initiative to ensure of people with HIV have access to treatment. Because of these efforts, HIV notifications in Australia are in sharp decline.

These gains occur alongside efforts to maintain Australia's longstanding successes – the virtual elimination of HIV transmission among people who inject drugs, sex workers and from mother to child.

With continuing advances in science and medicine, Australia now has the suite of prevention, testing and treatment tools needed to end HIV transmission and provide excellent care and quality of life for people with HIV. This Ninth National HIV Strategy 2023 – 2030 (the Strategy) sets out the directions needed to achieve this.

This Strategy seeks to harness service delivery opportunities delivered by COVID-19 pandemic, particularly the use of technology to support people-centred care. It also includes more targeted action to prevent and respond to stigma.

A key focus of the Ninth National HIV Strategy is engaging with priority populations, in particular gay, bisexual and other men who have sex with men (GBMSM), who continue to bear a high burden of HIV in Australia. Our response needs to maintain a strong focus on reducing HIV transmission in this priority population and give increased attention to the higher rates of HIV transmission among GBMSM from culturally and linguistically diverse communities, including those who are newly arrived in Australia.

Achieving and maintaining low rates of HIV in other populations is also of critical importance. This includes responding to HIV among Aboriginal and Torres Strait Islander people and among heterosexuals. Protecting Australia's achievements in the virtual elimination of HIV among sex workers, people who inject drugs and from mother to child is also essential.

This Strategy continues to emphasise the importance of peer-based services in delivering education and interventions and acknowledges the critical role of the peer workforce in driving Australia's response to HIV. It also identifies opportunities to promote peer workers' access to professional development, so they can continue to support the communities they serve. Peer

workers are consumer providers who have lived experience and utilise their knowledge to support community members through multidisciplinary teams and wider care practices.¹

The Ninth National HIV Strategy will be in place from 2023 to 2030 and will be reviewed during its implementation to ensure its focus and actions remain relevant and effective in ending HIV transmission.

Since the first national HIV strategy in 1989, Australia's response has been underpinned by a partnership approach between the Australian Government, state and territory governments, people with and affected by HIV, community organisations, researchers, and clinicians.

The Australian Government acknowledges the significant contribution of people living with HIV and the national community and health peak organisations, and other organisations, representing communities and the clinical workforce over the course of the previous HIV strategies. These organisations, including the Australian Federation of AIDS Organisations; the National Association of People with HIV Australia; the Australian Injecting and Illicit Drug Users League; Scarlet Alliance, Australian Sex Workers' Association; the National Aboriginal Community Controlled Health Organisation; and the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine have played a critical role in the success of Australia's response to HIV. This strong foundation and the commitment and work of all partners means that Australia remains well placed to build on the successes of the Eighth National HIV Strategy 2018–2022, realise gains for all priority populations, and achieve the goal of becoming one of the first countries to virtually eliminate new HIV transmissions

Gratitude is expressed to those who participated in the stakeholder consultations and contributed to the strategy development process—in particular, the members and organisations represented on the Blood Borne Viruses and Sexually Transmissible Infections Standing Committee (see Figure 1).

2. GUIDING PRINCIPLES

The Ninth National HIV Strategy 2023 – 2030 includes guiding principles to support a high-quality, evidence-based, and equitable response to HIV. These are included in each of the BBV and STI strategies and are drawn from Australia's efforts over time to respond to the challenges, threats and impacts of HIV, viral hepatitis and STI. Perhaps most critical is the ongoing and meaningful participation of people with HIV and affected communities in all aspects of the response. This is central to the partnership approach and is key to the success of this strategy.

The guiding principles are based on human rights and health equity and promote people-person-centred approaches. They are key to improving the Strategy's impact and efficiency.

2.1. People-centred response

People-person centred approaches that are tailored to the needs of affected and at-risk populations and settings are proven to enhance health care delivery, advance universal health coverage, increase service quality and sustainability, and maximise the impact of available health resources. According to the Australian Commission on Safety and Quality in Health Care, people-person centred care 'involves seeking out, and understanding what is important to the patient, fostering trust, establishing mutual respect and working together to share decisions and plan care. ² The BBV and STI sector and workforce including people with lived and living experience must be guided by the people they work with to::

 understand the diverse needs and preferences of priority populations in different settings

- expand comprehensive access to, and the uptake of, a continuum of high-quality essential services for HIV, viral hepatitis and STI and other related health services
- be tailored to meet the needs of diverse populations and settings, ensuring that no one is left behind or face stigma and discrimination.

2.2. Meaningful involvement of priority populations

Meaningful involvement of priority populations in all aspects of the BBV and STI response is essential to the development, implementation, monitoring and evaluation of effective programs and policies. The diversity and specific needs of priority populations must be recognised and responded to effectively, having regard to their settings and the needs of their communities. This approach underpins the other guiding principles and contributes to reducing stigma and discrimination and to increasing the effectiveness and appropriateness of the BBV and STI response.

2.3. Human rights

The full realisation of all human rights is a fundamental element to the BBV and STI response in Australia, including in areas of prevention, treatment, care, and support. Australia recognises that the realisation of human rights is essential to preventing the spread of BBV and STI and to mitigating the social and economic impacts of disease. People living with BBV and other priority populations have the right to enjoy the highest attainable standard of living, without stigma or discrimination regardless of their age, sex, sexual orientation and gender identity, disability status, legal status including migration status, or practices such as sex work or drug use.

2.4. Access and equity

The goals and targets of the five National Strategies and the First National BBV and STI Research Strategy 2021-2025 (the National Research Strategy) will not be achieved without addressing the inequalities that drive epidemics and prevent people from accessing health services and being active in improving their own health. All Australians should have access to appropriate high quality and affordable primary and community health services. The multiple dimensions of inequality must be considered in the delivery of accessible and equitable care. Additional efforts are needed to improve equity for the health needs of Aboriginal and Torres Strait Islander peoples, many of whom face multiple dimensions of stigma and discrimination, and for whom there is a documented gap in health status, outcomes and access to services compared to non-Indigenous Australians.

2.5. Health promotion and prevention

Prevention and health promotion have always been at the heart of the National Strategies. Consistent with the National Preventative Health Strategy 2021-2030, prevention involves identifying and mitigating risks to the health of populations. It also involves identifying and implementing protective measures through a combination of evidence-based biomedical, behavioural and social approaches within a supportive enabling environment.

2.6. Quality health services

Quality health services require a deliberate focus on a workforce that delivers effective, safe and appropriate care, in order to achieve the goal of eliminating BBV and STIHIV as major public health concerns by 2030. Quality health services involve the right care, at the right time, responding to the individuals' needs and preferences, therefore increasing the likelihood of the desired health outcomes. To ensure quality health services, Commonwealth, state and territory governments must work together to build a multidisciplinary workforce of motivated, trained and regularly updated health professionals, community and peer-based workers from, and who work with, priority populations, to deliver culturally appropriate, high-quality services across Australia. This includes a workforce which has anti-stigma training. Coordination and integration of health services, and particularly the BBV and STI workforce, in priority settings is essential to achieve the goal of access to high-quality, people-centred health services for the priority populations.

2.7. Harm reduction

Grounded in justice and human rights, harm reduction aims to minimise negative health, social and legal impacts through policies, programs, practices and involvement of key affected populations. Harm reduction approaches underpin effective measures to prevent BBV and STIHIV transmission. Approaches supported by the National Drug Strategy include provision of sterile injecting equipment through needle and syringe programs, safer injection facilities, overdose prevention programs and policies, alcohol, and other drug treatment programs, mental health support, education and awareness raising particularly in priority populations and immigrant communities, and measures to address social determinants of health.

2.8. Shared responsibility

Governments, peak bodies, health providers and community organisations have a responsibility to provide the necessary information, resources, healthy public policies, and health-promoting environments, within which individuals are better able to participate in choices conducive to good health. All communities and its members also share responsibility to prevent transmission and to inform efforts that address education and support needs.

2.9. Commitment to evidence-informed policy and programs

In order to end HIV, viral hepatitis and STI epidemics by 2030, the use of evidence-informed guidelines and service delivery innovations will be essential. Researchers, community organisations, the health workforce, policy makers, affected communities and community organisations should be meaningfully involved in all stages of research priority-setting and codesign, from development to application, to allow for greater integration between research and the use of evidence.³ The National Research Strategy supports research and capacity-building with the aim to accelerate access to, and the update of a continuum of high-quality essential services for HIV, viral hepatitis and STI and other related health services. The national response to BBV and STI is built on evidence-based, high-quality research and surveillance, monitoring, and evaluation. A strong and constantly refined evidence base is essential to meet new challenges, evaluate current and new interventions and develop effective social policy.

2.10. Multi-sectoral partnership and collaboration

Successful implementation of the National BBV and STI strategies requires a coordinated multi-sectoral partnership and collaboration approach. This necessitates leadership from the Australian, state and territory governments. Effective partnerships must also continue to exist between priority populations, national peak organisations representing the interests of communities, the clinical workforce, governments, and researchers. These relationships are characterised by consultation and co-design, cooperative effort, clear roles and responsibilities, meaningful contributions, empowerment, respectful dialogue, and appropriate resourcing to achieve the goals of the strategies.

3. SNAPSHOT OF HIV IN AUSTRALIA

What is HIV?

HIV is a virus that impairs the body's immune system by reducing CD4 T cells. Acquired immune deficiency syndrome (AIDS) is the late stage of HIV infection. Progression to AIDS has been virtually eliminated / has been eliminated as a threat to public health in Australia.

Routes of transmission

HIV is transmissible by sexual and blood contact as well as from mother to child during childbirth or through breastfeeding. The main route of HIV transmission in Australia continues to be sexual contact between men at 426 new notifications in 2020 (67%).⁴

What health issues does HIV cause?

Without treatment, HIV damages the immune system which can lead to serious infections and cancers over time.

With treatment, people who are diagnosed early can experience normal life expectancy and not develop AIDS. However, people living with HIV may experience comorbidities such as cardiovascular disease, kidney disease, and various cancers.

Stigma and discrimination in relation to HIV can have significant impacts on health outcomes and can lead to social isolation, poorer mental health, and overall worse health outcomes.

Discriminatory or unfair treatment increases the negative impact on the health status of people with HIV. Stigma and discrimination and have been correlated with poor access to health care and can create barriers to services and support.

How is HIV managed?

There is currently no effective cure for HIV. Antiretroviral treatment (ART) can suppress the virus to undetectable levels, which prevents disease progression and virtually eliminates sexual transmission of HIV to other people. Managing comorbidities and improving quality of life for people living with HIV are essential components of HIV management.

New diagnoses

The number of HIV notifications infections newly diagnosed in Australia was stable from 2017—2019 averaging 903 new notifications per year. However, in 2020, the number of HIV notifications decreased significantly with 633 new diagnoses. This decline is likely attributable to the impact of COVID-19 restrictions.⁴

Prevalence

In 2020, an estimated 29,090 (0.1 per cent of total population) people were living with HIV in Australia.⁴

The self-reported HIV prevalence among gay and bisexual men in Australia are estimated to be 7.3%. *

Testing and care

Of the estimated 29,090 people living with HIV in Australia in 2020:4

91 % were diagnosed

And of those diagnosed:

- 96 % were retained in care
- 91 % were receiving ART, and of those on ART, 97% had achieved viral suppression.

Prevention

Prevention strategies include condoms and other safer sex practices; Treatment as Prevention (TasP); needle syringe programs and safer injecting drug use practices; increasing testing rates; reducing time between infection and diagnosis. It also includes early and sustained treatment to achieve undetectable viral load; retention in care; raising community awareness through effective prevention messages; peer education; PrEP and post-exposure prophylaxis (PEP).⁴

People with HIV have an important role to play in HIV prevention, including through their knowledge and experience of treatment, as community educators and in preventing onward HIV transmission. Research to date has found that people living with HIV who take ART and achieve and maintain sustained viral suppression* have effectively no risk of sexually transmitting the virus to an HIV-negative partner. This is commonly referred to as undetectable = untransmittable or U=U, or treatment as prevention (TasP).

PrEP is an antiretroviral treatment that allows people who do not have HIV but who are at risk of being infected, to prevent infection by taking specific medicines used to treat HIV a pre-exposure prophylaxis either medication daily, on-demand, or periodically.⁵ With the advances to HIV treatment and prevention, it is expected that new innovative prevention treatment methods will be utilised over the course of this Strategy.

PEP is an ART that can be taken after being potentially exposed to HIV, in order to prevent becoming infected.

With the continuing advances to HIV treatment and prevention, it is expected that further innovations will become available over the course of this Strategy.

There is currently no vaccine for HIV.

* As defined by the Gay Community Periodic Surveys

#Currently defined as a sustained viral load of less than 200 copies/mL

4. ABOUT THIS STRATEGY

The Ninth National HIV Strategy sets the direction for Australia's continuing response to HIV for 2023 to 2030. It builds on achievements and lessons learned from previous strategies.

It is one of five national strategies that, together, outline a framework for a high-quality and coordinated national response to BBV and STI in Australia. These five strategies are:

- 1. Fourth National Hepatitis B Strategy 2023–2030
- 2. Sixth National Hepatitis C Strategy 2023–2030
- 3. Ninth National HIV Strategy 2023–2030 (this Strategy)
- 4. Fifth National Sexually Transmissible Infections Strategy 2023–2030
- 5. Sixth National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy 2023–2030.

Each strategy has a specific focus but shares some structural elements, including guiding principles, goals, targets, priority areas and defined priority populations. All five national BBV and STI strategies have key priority areas for action, including education and prevention, testing, treatment and management, equitable access and coordination of care, workforce, improving data and surveillance, and stigma and discrimination.

The Ninth National HIV Strategy aims to provide a framework for the efforts of all partners in the response to HIV, guide resourcing decisions and monitor progress. It is informed by progress made under the Eighth National HIV Strategy; the effectiveness of current and past responses to HIV in Australia and internationally; the identification of gaps and opportunities; and consultation with governments, community organisations, researchers, health professionals and other stakeholders across the country. This Strategy is also informed by, and responds to, a range of surveillance data and research on HIV in Australia and its impact on priority populations.

This Strategy complements other jurisdictional, national, and international policy documents that contribute to the HIV response and supports the achievement of existing commitments. These include:

- state and territory HIV strategies
- United Nations Global Health Sector Strategies on HIV, Viral Hepatitis and Sexually Transmitted Infections 2022-2030⁶
- Global Progress Report on HIV, Viral Hepatitis and Sexually Transmitted Infections, 2021⁷
- 2021 United Nations Political Declaration on HIV and AIDS: ending inequalities and getting on track to end AIDS by 2030²
- National Drug Strategy 2017–2026.9

This Strategy also supports progress towards Sustainable Development Goal 3 ('Ensure healthy lives and promote well-being for all at all ages') of the United Nations 2030 Agenda for Sustainable Development. ¹⁰ This strategy acknowledges that some states and territories have set or may set different targets to drive progress and that the goals and targets of this strategy are intended to facilitate jurisdictional efforts. Wherever possible, jurisdictions are encouraged to match or exceed the targets of this strategy

5. KEY ACHIEVEMENTS

Australia has progressed towards meeting HIV goals under the Eighth National HIV Strategy. The harm reduction HIV prevention strategies to minimise blood-borne virus transmission have

been highly successful at sustaining a low HIV prevalence in some priority populations, particularly among people who inject drugs and sex workers. These outcomes represent achievement for the previous Strategy and reflect the impact the HIV sector has had in driving improvements in the prevention, detection, and treatment of the virus.

Key achievements under the Eighth National HIV Strategy 2018–2022:

Overall, HIV prevalence in Australia among the general population remains one of the lowest compared to other developed countries. Australia also continues to sustain the virtual elimination of HIV transmission among sex workers and maintain low rates of HIV transmission from mother to child, and amongst people who inject drugs; it has significantly increased treatment uptake by people diagnosed with HIV; and it has effectively maintained prevention programs for priority populations.⁴

For example:

- HIV notifications continue to decline; a 36 per cent reduction in HIV notifications was recorded between 2011 and 2020.
- o In 2020, the HIV prevalence (the proportion of all people in Australia who are living with HIV), was estimated to be 0.14 per cent, which is low compared with other high-income and Asia-Pacific countries.
- The harm reduction strategies to minimise blood-borne virus transmission have been highly successful at sustaining a low HIV prevalence among people who inject drugs.
- Australia has sustained virtual elimination of HIV infection among female sex workers.
- o First Therapeutic Goods Administration listing of an HIV self-test in Australia.
- Rapid testing for HIV has commenced and is being used in Australia.
- An estimated 91 per cent of people living with HIV had received a diagnosis. Of those diagnosed, 96 per cent were retained in care, 91 per cent were receiving antiretroviral therapy (ART) and, of those, 97 per cent had a suppressed viral load.
- There was a 30 per cent increase in the proportion of gay and bisexual men attending sexual health clinics who had a repeat HIV test within 13 months of a previous HIV test, between 2011 and 2020, and a 26 per cent increase it was observed in the proportion of men who had a repeat HIV test within seven months, between 2011 and 2019.
- In 2020, there was a significant increase in HIV testing among female sex workers and people injecting drugs attending sexual health clinics participating in the ACCESS network in the last 12 months.
- According to the Gay Community Periodic Surveys, the proportion of HIV-negative gay and bisexual men with casual partners who were regularly using at least one strategy (avoiding anal sex, using condoms, or biomedical prevention), to protect themselves against acquiring HIV increased from 69.4 per cent in 2014 to 79.6 per cent in 2020.

Despite these successes, it is clear that some of the targets from the Eighth HIV Strategy are not met based on 2020 data. The following table presents progress in relation to the specific targets set under the Eighth HIV Strategy, as at the end of 2020.

Table 1 - Progress against the Eighth National HIV Strategy 2018-2022

Progress against Eighth National HIV Strategy 2018–2022 targets, as at the end of 2020^{4,11–13}

Increase the proportion of people with HIV (in all priority populations) who are diagnosed to 95 per cent

Not yet achieved

In 2020, an estimated 91 per cent (25 490) of people living with HIV in Australia had received a diagnosis.

Increase the proportion of people diagnosed with HIV on treatment to 95 per cent

Not yet achieved

the estimated proportion of people diagnosed with HIV who were receiving antiretroviral treatment (ART) increased from 87 per cent to 91 per cent between 2015 and 2020. ⁴

Increase the proportion of those on treatment with an undetectable viral load to 95 per cent

Achieved

The proportion of people with suppressed (undetectable) viral load (<200 copies/mL) increased from 91 per cent in 2011 to 97 per cent in 2020.⁴

Reduce the incidence of HIV transmissions in men who have sex with men

Achieved

There was a 50.7 per cent decline in HIV notifications attributed to male-to-male sex between 2016 and $2020.^4$

Reduce the incidence of HIV transmission in other priority populations

Partially achieved

Between 2016 and 2020, the total number of HIV notification among Aboriginal and Torres Strait Islander people declined by 60.8 per cent. However, a 33.3 per cent increase was observed in HIV notifications among people injecting drugs between 2016 and 2020.

HIV notification rates declined for all regions of birth in 2020 apart from North Africa and the Middle East, Sub-Saharan Africa and Oceania.

Sustain the virtual elimination of HIV among sex workers, among people who inject drugs and from mother to child through the maintenance of effective prevention programs

Achieved

Among female sex workers the HIV incidence rate was 0.0 in 2020.

Australia continues to observe low rates of mother-to-child transmission of HIV. For the period 2016–2020, the HIV transmission rate was 1.5 per cent, compared to 14.4 per cent in the period of 1996–2000.

HIV prevalence among PWID attending needle and syringe programs was estimated to be 2.5 per cent in 2020.

Increase the proportion of eligible people who are on PrEP, in combination with STI prevention and testing to 75 per cent

Partially achieved

Between 2018 and 2020, there was an increase of 79.5 per cent in the number of people who have taken PrEP in the previous 12 months.

Among participants of the Gay Community Periodic Surveys, 37.4 per cent were eligible for PrEP in 2020, compared to 36.7 per cent in 2018 and 57.0 per cent of those reported using prescribed PrEP in the previous six months, an increase from 40.1 per cent in 2018.

Between 2016 and 2019, the proportion of gay and bisexual men participating in the ACCESS project, who had at least one STI test in the previous 12 months remained stable and was 96.3 per cent in 2019.¹¹

75 per cent of people with HIV report good quality of life

Not yet achieved

According to the HIV Futures 9: Quality of Life Among People Living with HIV in Australia, 63.1 per cent of the participants reported they had "good" quality of life and 50.5 per cent reported their overall wellbeing (including physical, emotional and mental wellbeing) to be good or excellent in 2019.¹²

Reduce by 75 per cent the reported experience of stigma among people with HIV, and expression of stigma, in relation to HIV status

Not yet achieved

The mirrored Stigma Indicator online survey of the Australian public revealed a 22 per cent decrease between 2018 and 2020 in the proportion of participants who indicated that they would behave negatively towards other people because of their HIV status. 13

The proportion of HIV Futures 9 participants who reported any experience of stigma or discrimination in the previous 12 months decreased from 74 per cent in 2016 to 56 per cent in 2018.¹²

The limited progress against some of the targets of the previous strategy highlights areas where more action needs to be taken to ensure virtual elimination of HIV transmission in Australia within the life of the current Strategy.

The proportion of late HIV diagnoses in Australia are significantly higher in Culturally and Linguistically Diverse (CALD) populations, particularly among people born in Sub-Saharan Africa (54%), Southeast Asia (52%), and Central or South America (36 per cent).⁴ There is need for more culturally appropriate models of health promotion and care that account for the

unique historical, social, religious and traditional context of each of our Australian communities to facilitate testing, treatment, and prevention.¹⁴

Male-to-male sex continues to be the major route of transmission for HIV risk exposure in Australia, accounting for 67 per cent of HIV notifications in 2020.⁴ This highlights the need for targeted ongoing education to encourage HIV-prevention strategies including the judicious use of PrEP / HIV prevention, the use condoms for anal sex, and routine testing and treatment uptake in this population.

Stigma is a major barrier to the successful implementation of preventive, diagnostic and treatment strategies for HIV,¹⁴ there is a need for more research and data to identify and evaluate interventions that can be used effectively to tackle stigma, and to inform collaborative efforts between priority populations, healthcare professionals, policy makers, organisations, and support groups.^{4,15}

The COVID-19 pandemic was a barrier to achieving aspects of the National BBV and STI Strategies, particularly in relation to testing and treatment uptake in community, especially in priority populations.⁴ As COVID-19 restrictions are lifted, there is need for redirection of resources to counter the decline in testing in 2020⁴ and promote treatment, to improve health outcomes and reduce the risk of onward transmission.

Further, the HIV response must be strengthened through primary prevention, including needle and syringe programs (NSP), opioid substitution therapy, safe injecting practices, community education and peer interventions;^{4,15} and biomedical prevention strategies such as PEP and PrEP. Increased engagement of people living with HIV and other priority populations is crucial, particularly people from CALD backgrounds and Aboriginal and Torres Strait Islander people, to improve rates of diagnosis and links to treatment and ongoing care. This is critical in achieving undetectable (suppressed) viral load, which reduces the risk of onward sexual transmission to virtually zero. The success of the National Strategies relies on building a strong evidence base to better inform Australia's responses and evaluate approaches to identify what is most effective, and further strengthening the workforce, partnerships and connections to priority populations.³

6. MEASURING PROGRESS

The Ninth National HIV Strategy has overarching goals, targets and priority areas which will guide the national response to HIV for 2023-2030. Indicators and associated data sources for measuring progress towards each target are included in the Surveillance and Monitoring Plan for the five national BBV and STI strategies.

6.1. Goals

- Virtually eliminate HIV transmission in Australia.
- Sustain the virtual elimination of HIV transmission among people who inject drugs, among sex workers and from mother to child.
- Reduce mortality and morbidity related to HIV.
- Eliminate the negative impact of stigma, discrimination, and legal and human rights issues on people's health.
- Minimise the personal and social impact of HIV.

6.2. Targets

By the end of 2030:

- Increase the proportion of people with HIV (in all priority populations) who are diagnosed to 95 per cent.
- Increase the proportion of people diagnosed with HIV on treatment to 95 per cent.
- Increase the commencement of treatment within two weeks at 90 per cent.
- Increase and sustain the proportion of those on treatment with an undetectable viral load to 95 per cent.
- Reduce the incidence of HIV transmissions in GBMSM by 90 per cent.
- Reduce the incidence of HIV transmission in other priority populations new HIV infections by 90 per cent.
- Sustain the virtual elimination of HIV among sex workers, among people who inject drugs and from mother to child through the maintenance of effective prevention programs.
- Ninety-five per cent the proportion of people consistently using evidence-based prevention, including daily or on-demand PrEP and condom use.
- 75 per cent of people with HIV report good quality of life.
- Reduce the reported experience of stigma among people living with HIV, and the expression of stigma, in respect to HIV status to less than 10 per cent.

6.3. Priority areas

- Maintain focus on health promotion, prevention, and peer education to improve knowledge and awareness of HIV in priority populations and reduce risk behaviours associated with the transmission of HIV.
- Ensure priority populations have access to the means of prevention.
- Increase knowledge of, and access to, treatment as prevention for individuals with HIV.
- Increase knowledge of treatment as prevention for individuals living with HIV and at risk of HIV.
- Improve the frequency, regularity and targeting of access to testing for priority populations and decrease rate of late diagnoses.
- Improve early uptake and sustained treatment to improve quality of life for people with HIV and prevent onward transmission.
- Ensure that healthcare and support services are accessible, coordinated, and skilled to provide culturally appropriate, evidence-based models of care that address the range of needs of people with HIV, including ageing and comorbidities.
- Ensure people with HIV are engaged in the development, delivery, and evaluation of the services they use.
- Promote a strong highly skilled, multidisciplinary workforce of motivated and trained health, aged care and community professionals and community health, aged care, and including peer workers who are from, and who work with, priority populations.

- Implement a range of initiatives to address stigma and discrimination and minimise its impact on people's health outcomes, particularly as they age.
- Address the legal, regulatory and policy barriers which affect priority populations and influence their health-seeking behaviours.
- Strengthen and enhance partnerships and connections to priority populations, including the meaningful engagement and participation of people with HIV.
- Continue to build a strong evidence base for responding to HIV in Australia, informed by high-quality, timely data and surveillance systems.
- Implement strategies that address the specific barriers and experiences of priority populations, including mental health issues, substance use and Medicare ineligibility

7. PRIORITY POPULATIONS AND SETTINGS

HIV disproportionately impacts a number of key populations. In Australia's response to HIV, it is important to prioritise emerging populations at elevated risk and vulnerability as well as those populations that have been impacted historically and are at continued risk. These affected communities are often most effective at prevention, health promotion and peer education approaches.

The Ninth National HIV Strategy identifies priority populations and settings and acknowledges that many individuals may identify with multiple priority populations and settings. This results in diverse intersecting characteristics and risk factors unique to each individual.

In accordance with the guiding principle of access and equity, the unique challenges and experiences within all priority populations need to be considered in the response. This includes, but is not limited to, all gender expressions and experiences, disabilities, cultural and ethnic identities, different geographic settings, sexual orientations, and religious affiliations.

While women are not represented here as a distinct priority population, women are recognised across most other priority populations. Women, both those with HIV and those at risk of HIV, have unique challenges and experiences that are not easily addressed solely on the basis of risk. It is important to apply a gender lens to all aspects of the HIV response to ensure women's needs are considered and addressed.

7.1. Priority populations for the Ninth National HIV Strategy

People with HIV

In Australia, accessible and effective antiretroviral treatment has significantly improved the lives of people with HIV. Early detection, treatment adherence and a focus on retention in care supports the achievement of an undetectable viral load. An undetectable viral load improves health outcomes and quality of life and, if sustained, results in there being effectively no risk of onward transmission of HIV through sexual contact. Despite the availability of effective antiretroviral treatments, people with HIV also experience comorbidities and other health issues associated with HIV infection.

Poorer mental health outcomes in people with HIV have been linked to stigma, discrimination and the lack of an enabling environment. Due to shared modes of transmission and other risk factors, people with HIV are also more likely to self-report key comorbidities and drug use; have high rates of certain STI; and have co-infection with syphilis, hepatitis B and hepatitis C when compared with people from a similar demographic who do not have HIV. 18,19

Mother-to-child transmission has reduced significantly. The percentage of babies diagnosed with HIV who were born to women living with HIV reduced from 14.4 per cent in the period 1996 to 2000, to 1.5 per cent between 2016 and 2020. It is important that high-quality antenatal care and education is provided to all women in order to sustain this achievement.⁴

The meaningful participation of people with HIV in the development, implementation, monitoring and evaluation of HIV programs and policies is central to the partnership approach and the success of this Strategy.

Within the population of people with HIV, tailored approaches are needed, including for people with comorbidities, older people, people with complex needs, Aboriginal and Torres Strait Islander people, women with HIV, people from culturally and linguistically diverse (CALD) backgrounds and people who are ineligible for subsidised health care and medicines.

Gay, bisexual and other men and other men who have sex with men

Gay men and other men who have sex with men is a priority population, with HIV in Australia remains concentrated among gay, bisexual and other men who have sex with men male to male sex (67 per cent of new notifications in 2020).⁴

Since the last Strategy, however, there have been many achievements for this priority population with respect to HIV. They include HIV testing among gay and bisexual men continuing to increase, with the proportion having a repeat HIV test within 13 months of a previous test at participating sexual health clinics increasing from 41 per cent in 2011 to 70 per cent in 2020.⁴ However, consistent condom use with casual partners has been declining, reducing from 30.6 per cent of HIV-negative gay and bisexual men in 2014 to 21.4 per cent in 2020.⁴ Additionally, the portion of HIV-negative gay and bisexual men who consistently use effective HIV prevention strategies with casual partners has increased from 69.4 per cent in 2014 to 79.6per cent in 2020.⁴

It is therefore important that effective HIV prevention strategies, including the increased availability of PrEP, continue to be promoted. PrEP promotion is especially important for those who can benefit but who have not yet accessed this prevention strategy. is accompanied by STI prevention education, regular and comprehensive HIV and STI testing, and ongoing commitment to partner notification after STI diagnosis. Addressing the challenges in access to PrEP and other preventative treatments for those individuals not eligible for Medicare is also important.

People living with HIV in older age groups.

The life expectancy of Australians living with HIV has been steadily increasing and is approaching that of the general population.²⁰ This has important implications for the healthcare system and aged care services.^{21,22} Like the general ageing population, people with HIV will experience health conditions more common with age. However, they are also more likely to experience complex age-related comorbidities and chronic illnesses—for example, cardiovascular disease²³

Culturally and linguistically diverse people from high HIV prevalence countries, people who travel to high-prevalence countries, and their partners

In 2020, the Australian national notification rate was 2 per 100 000 population. This was higher than most other regions of birth, except for Oceania, Latin America, South-East Asia, and Sub-Saharan Africa. Their notification rates were 4.6 per 100 000 population for Oceania, 7.9 per 100 000 population for South-East Asia, 8.6 per 100 000 population for Latin America and 10.8 per 100 000 population for Sub-Saharan Africa.⁴

Tailored approaches that effectively address cultural, language and gender issues across all aspects of the response to HIV are needed for several sub-populations, including gay men and other men who have sex with men (GBMSM), people who inject drugs, international students, people who are ineligible for subsidised health care, refugees, humanitarian entrants and women. Specific messaging for people who travel to high-prevalence countries about the risks of HIV and prevention strategies is also important. Further, there should be tailored responses if particular clusters emerge in CALD communities.

Aboriginal and Torres Strait Islander people

Within the priority population of Aboriginal and Torres Strait Islander people, gay men and other GBMSM remain the group at greatest risk of HIV. However, in the period from 2016 to 2020, Aboriginal and Torres Strait Islander people were more likely to acquire HIV from heterosexual contact (21per cent of new notifications) and needle and syringe sharing (14 per cent) when compared with non-Indigenous populations — at 18 per cent and 3 per cent respectively. The higher prevalence of other STI also contributes to the increased risk of HIV transmission.

While the prevalence of HIV remains low among Aboriginal and Torres Strait Islander people, new notifications of HIV in Aboriginal and Torres Strait Islander people have steadily declined since 2016. Notification rates are lower than the Australian-born non-Indigenous population (2.2 per 100 000 versus 2.3 per 100 000).⁴ These rates, however, are based on 18 new notifications and should be interpreted with caution.

Within this population, tailored, culturally inclusive and safe approaches are needed. This includes Aboriginal and Torres Strait Islander people from remote, regional, and urban areas, women, people who are highly mobile, people who inject drugs, people with complex needs, and people in custodial settings.

Epidemiology, policy context and priority areas for action in relation to HIV in Aboriginal and Torres Strait Islander people are more specifically addressed in the Sixth National Aboriginal and Torres Strait Islander Blood Borne Viruses and Sexually Transmissible Infections Strategy 2023–2030.

Sex workers

Sex workers are a priority population due to the potential higher exposure risk associated with sex work. Continued prevention efforts led by sex workers and their organisations ensure that HIV prevalence among Australian sex workers remains among the lowest in the world.

Sex workers experience barriers to accessing health services including stigma and discrimination. They also face a range of regulatory and legal issues including criminalisation, licensing, registration and mandatory testing in some jurisdictions. These barriers create a complex system of impediments to evidence-based prevention, access to testing and healthcare services. They can result in increased risk of BBVs and STIs, loss of livelihood, and risk to personal and physical safety. Evidence that has emerged since the previous Strategy definitively shows that decriminalisation of sex work is linked to the reduction of HIV risk and rates. ^{27,28}

Within this population, tailored approaches are needed for sub-populations of sex workers, including street-based sex workers, sex workers who work in isolation, sex workers in rural and remote areas, migrant and CALD sex workers, Aboriginal and Torres Strait Islander sex workers, male sex workers, trans and gender-diverse sex workers, sex workers with HIV, people with complex needs and people from other priority populations. Tailored approaches

that address stigma and discrimination and the regulatory and legal barriers experienced by sex workers are required.

People who inject drugs

Australia's highly successful needle and syringe programs coupled with services provided by peer-based organisations have maintained low HIV infection rates among people who inject drugs. This population remains a priority population due to the enhanced risks associated with stigma, discrimination, and the criminalisation of PWUD, which creates a barrier to health.

Between 2011 and 2020, the proportion of people who injected drugs and attended needle and syringe programs reporting receptive needle and syringe sharing in the last month was 15 and 19 per cent.⁴ These rates were similar in men and women. Access to injecting equipment in rural, regional, and remote Australia requires particular consideration within this context.

For PWID, tailored approaches are needed for those with complex needs and/or from other priority populations, particularly Aboriginal and Torres Strait Islander people, gay men and other men who have sex with men (MSM). People experiencing mental illness or homelessness are also important sub-populations identified to be at a higher risk, and they need to be carefully considered in the response.²⁹ The Australian Needle and Syringe Program Survey by the Kirby Institute found in years 2016 to 2019, survey respondents from an Aboriginal and/or Torres Strait Islander background were significantly more likely to test HIV antibody positive than non-Indigenous respondents.³⁰ This indicates that an individual approach targeting promotion of and access to sterile injecting equipment is needed for this population. This is further explored and defined in the Sixth National Aboriginal and Torres Strait Islander BBV and STI Strategy.

There are also broader issues in relation to non-injecting drug use that may also require attention. This includes recreational drug use among MSM, particularly when used to enhance sexual experiences. Numerous studies have found that HIV and other STI are more likely to occur in gay men and other MSM who use recreational drugs than those who do not, although the causal nature of this requires further investigation.

Trans and gender-diverse people

HIV prevalence among trans and gender-diverse people is essentially unknown in Australia due to the lack of data. The latest data suggest eight of the 633 HIV notifications in 2020 were from people who identify as transgender. This compares to five people who identified as transgender from 1012 notifications in 2016.⁴

Many trans and gender-diverse people are already part of existing priority populations, such as trans MSM, trans men, trans women and non-binary sex workers, PWID, and others, and they may share some of the same risk exposures of other priority populations. However, trans and gender-diverse people may also have specific sexual health needs and barriers to prevention, treatment and care that need to be taken into consideration in the response to HIV.

Increased community engagement with trans and gender-diverse people, alongside improved data, and research, is needed to better understand how HIV impacts this population. Inclusion of trans and gender-diverse people in the HIV response is a priority for all stakeholders.

Improved access to HIV prevention, testing and treatment will require improving the levels of literacy about gender diversity in the broader health workforce. Healthcare settings will require support to provide appropriate and sensitive sexual health care to trans and gender-diverse people.

Within this population, tailored approaches are needed for Aboriginal and Torres Strait Islander people, including Sistagirls/Sistergirls, Brotherboys and other two-spirit people.

People in custodial settings

People in custodial settings are at risk of HIV transmission through shared use of injecting equipment, unsafe tattooing and condomless sex. The risk of transmission in the context of undiagnosed HIV or detectable viral load is significant given the nature of risk exposures occurring in custodial settings.

Barriers to HIV prevention include a lack of access to sterile injecting equipment, sterile tattooing equipment, PrEP, post-exposure prophylaxis (PEP), TasP, health promotion and condoms; and high levels of stigma and discrimination, which also impact on access to HIV prevention, testing, and treatment.

Care coordination / through-care for men and women living with HIV, ensuring continuity of access to medication, and engagement with medical care and community supports are crucial to reduce transmission risk after release from custody. Effective HIV prevention, testing and treatment for this population requires a strong, whole-of-government partnership approach involving those concerned with juvenile detention centres as well as adult prisons.

7.2. Priority settings for Ninth National HIV Strategy

- Regional, rural, and remote geographic locations with high prevalence and/or incidence of HIV due to additional barriers to accessing prevention, testing and treatment.
- Community, primary health, and other health services, including Aboriginal Community Controlled Health Services/ Aboriginal Medical Services
- Places where priority populations live, work, worship and socialise, including aged care settings
- Custodial settings
- Other services that support priority populations including peer-based services, needle and syringe programs, homelessness services, and mental health services.

8. PRIORITY AREAS FOR ACTION

This Strategy includes a set of priority areas for action designed to support the achievement of the goals and targets. Each priority area for action relates to one or more of the targets. It is the interaction of these actions as a whole which is essential to the achievement of the Strategy.

Australia's response to HIV builds on the achievements and lessons learned over the past 40 years and is shaped by a number of key challenges and opportunities. Some of these have been around for some time and others are new and reflect ongoing changes in the epidemiology of HIV, biomedical prevention technologies and other aspects of the response. Some of the key challenges and opportunities include the high numbers of late diagnoses in particular population groups; access to preventative measures and diagnostic technologies, including PrEP, PEP, TasP, HIV rapid testing and needle and syringe programs; maintaining and improving the gains made in treatment coverage; and improving the quality of life for people with HIV. This Strategy is designed to address these while recognising the need to maintain key aspects of the response that remain pivotal to its success and respond flexibility to other issues as they arise.

8.1. Education and prevention

- Maintain focus on health promotion, prevention, and peer education to improve knowledge and awareness of HIV in priority populations and reduce risk behaviours associated with HIV transmission.
- Ensure priority populations have access to the means of prevention.
- Increase knowledge of, and access to, treatment as prevention for individuals with HIV.
- Increase knowledge of treatment as prevention for those individuals at risk of HIV.

Effective HIV prevention relies upon ready access to the means of prevention, including HIV treatment, PEP, PrEP, condoms, and sterile injecting equipment, together with a strong enabling environment to support access and use. This needs to be combined with sustained, community-led prevention education programs for people at risk of HIV to improve health literacy and empower priority populations.

It is important that priority populations are provided with tailored education, including correct and consistent condom use, safe sex practices, community mobilisation, peer education and outreach. It also includes health promotion, capacity development, harm reduction approaches, needle and syringe programs, increased testing (including making it easier for people to ask for and to be offered testing), and promotion of early HIV treatment.

Prevention approaches that have worked well in Australia's response to date, including peer and community-led prevention and education for people with HIV, gay men and other MSM, sex workers and people who inject drugs, need to be strengthened and considered for other priority populations. Collaboration with priority populations and community-led programming are important to ensure that initiatives are appropriately targeted, culturally sensitive, gender sensitive, age appropriate and tailored to local contexts.

TasP plays a central role in HIV prevention. Education for health professionals and people at risk of or with HIV should outline the benefits of having an undetectable viral load, including through its role as a prevention method and in improving the health and wellbeing of people with HIV. Raising awareness of the significance of having an undetectable viral load may also assist in addressing HIV-related stigma, such as alleviating fear of infection, and support greater efforts in critical aspects of the HIV response, including the importance of regular testing and early treatment.

Current evidence demonstrates that for among gay men and other GBMSM, PrEP makes a significant impact on HIV transmissions if implemented rapidly alongside high rates of HIV testing and treatment.³¹ Evidence from Australian evidence shows PrEP access trials indicates that PrEP, combined with high rates of testing and treatment and TaSP, can leads to a reduction in rates of HIV transmission. PrEP was the most commonly used HIV prevention strategy by gay and bisexual men in 2019.³²

To reap the full benefits of PrEP in appropriate priority populations, it is essential to address the remaining barriers to access, including a lack of awareness in relevant priority populations and not having a general practitioner or other clinician who is familiar with PrEP. PrEP needs to be combined with regular testing for STI, timely treatment and prevention education (particularly in relation to the importance of condom use for STI prevention), along with current clinical guidelines to support provider decision-making. STI surveillance and monitoring is an important part of PrEP implementation to measure any changes in disease prevalence.

It is important to also recognise the role of PEP in the prevention 'toolbox' for individuals who have been exposed (or suspect they have been exposed) to HIV, including in both non-

occupational and occupational settings. Continued awareness and accessibility to this medication for the purposes of PEP is essential.

A combination prevention approach comprising multiple methods and interventions is critical for achieving effective prevention and for meeting the specific needs of priority populations and individuals.

KEY AREAS FOR ACTION

- 1. Maintain and implement targeted, culturally appropriate, evidence-based programs, including community-led and peer-based approaches, which improve HIV-related knowledge, reinforce prevention, and promote safe behaviours in priority populations.
- 2. Continue to promote the availability and effectiveness of PEP and PrEP and facilitate rapid, widespread, and equitable access to PEP and PrEP across the country.
- 3. Ensure clinical prevention approaches are delivered in combination with education on STI prevention and regular STI testing.
- 4. Continue to increase the knowledge and awareness of HIV among general practitioners/primary care professionals in relation to the suite of available prevention methods, including TasP, PEP and PrEP; how to support priority populations; and the availability and effectiveness of HIV treatment, with a particular focus in areas of high need.
- 5. Continue to support and prioritise TasP by increasing awareness of HIV treatment; promoting the benefits of having an undetectable viral load; and supporting access, uptake, and adherence to ART immediately after diagnosis.
- 6. Continue to ensure the wide distribution and availability of sterile injecting equipment and safer injecting education among PWID, including a focus on priority populations and people living in regional, rural, and remote areas.
- 7. Continue to improve surveillance and research on priority populations, including through improved data collections and greater granularity of epidemiological data, and use these data to inform approaches.

8.2. Testing, treatment, and management

- Improve the frequency, regularity and targeting of testing for priority populations and decrease rates of late diagnosis.
- Improve early uptake of sustained treatment to improve quality of life for people with HIV and prevent transmission.
- Promote the adoption and use of technologies to drive patient-centred care

Regular frequent testing in accordance with risk enables people to know their status and adopt safe behaviours. It also supports early treatment commencement and adherence. Successful long-term treatment adherence, connection to care, effective management of comorbidities and side effects, connection to peers, an enabling environment and building resilience to challenge stigma are all important in securing an improved quality of life for people with HIV.

HIV testing rates have increased in Australia, and the proportion of new HIV cases diagnosed late has increased, with 2020 having the highest proportion of late diagnoses for the last 10 years. Some priority populations are over-represented in late diagnosis data, including people born in high-prevalence countries, heterosexual people, and Aboriginal and Torres Strait

Islander people. The proportion of late HIV diagnoses was higher among people who reported heterosexual sex as their HIV risk exposure, in particular men aged over 50 years with heterosexual sex as their HIV exposure.⁴ People who are diagnosed with HIV late are more likely to experience comorbidities, and having untreated HIV increases the risk of onward HIV transmission.

Efforts to increase the frequency of testing for all people at risk of HIV must be based on the principles of voluntary testing, informed consent, and confidentiality, which have underpinned the improvements in testing coverage achieved in Australia to date. Continued efforts to expand testing coverage are important. They need to be supported through improved ability to recognise risk factors and by ensuring a mix of testing options, such as rapid testing in community and after-hours clinics, are available. Efforts to expand testing coverage must also be supported by improved community education, availability and accessibility of testing services and initiatives to build linkages between peer educators and testing services.

Testing options that support early diagnosis need to be linked to the provision of early treatment and care. Timely patient follow-up is needed to minimise the time between diagnosis and commencement of treatment, support patient adherence to treatment, and support the achievement and maintenance of sustained viral suppression. This is important for all priority populations and is already recognised as an integral component of antenatal care in order to prevent mother-to-child transmission of HIV.

The achievement of the 95–95–95 targets rely on rapid, affordable, and continued access to ART for all people with HIV and their ongoing clinical management in community-based settings by well-trained and accredited prescribers. Most HIV diagnoses are now made in general practice settings.³³ General practitioners, nurse practitioners and primary care nurses may require additional support and training to be able to provide appropriate ongoing care to their patients.

The use of technologies to better support patient-centred care, including telehealth, should be promoted where relevant.

KEY AREAS OF ACTION

- 8. Continue to expand the use and accessibility of a range of HIV and STI testing technologies and options and tailor testing approaches to the needs of priority populations and sub-populations, particularly where there is a need to improve early diagnosis.
- Continue to improve the knowledge and awareness of health professionals and community-based health workers of indications for HIV testing, including, for health professionals, the investigation of non-specific symptoms without identifiable risk factors.
- 10. Continue to ensure that people diagnosed with HIV are promptly linked to treatment, ongoing care and peer support using approaches that address the specific barriers experienced by priority populations and sub-populations across priority settings.
- 11. Continue to promote the use of evidence-based clinical guidelines and resources.
- 12. Promote the adoption and use of technologies to drive patient-centred care, including using telehealth where appropriate.

8.3. Equitable access to and coordination of care

- Ensure healthcare and support services are accessible, coordinated, and skilled to
 provide culturally appropriate, evidence-based models of care that address the range
 of needs of people with HIV, including ageing and comorbidities
- Ensure people with HIV are engaged in the development, delivery, and evaluation of the services they use.
- Implement strategies that address the specific barriers and experiences of priority populations, including mental health issues, substance use and Medicare ineligibility

Healthcare and support services need to be coordinated and staff must be appropriately skilled to meet the range of needs of people with HIV across the continuum of their care. People with HIV have a unique knowledge of their own treatment and management and need to be actively engaged as equal participants in the planning and delivery of their own care.

The provision of care requires a team-based, multidisciplinary approach tailored to the needs of the individual. Clear protocols and pathways are essential to ensure that comprehensive care and support is delivered in a cohesive way across a range of medical and community-based settings.

Models and approaches of care need to facilitate early referral to treatment services, retain newly diagnosed patients in care, and maintain (or re-establish) links to services for people with HIV. Approaches need to be culturally acceptable; address the specific barriers experienced by priority populations, including those in regional, rural, and remote communities and with gender and cultural diversity; and take into account the range of healthcare and other settings commonly used by priority populations to maximise their engagement.

The ageing population of people with HIV in Australia is a key issue to be considered in the response. Effective treatment has greatly improved life expectancy and quality of life for people with HIV, with approximately 40 per cent of people with HIV now aged over 50. This proportion is expected to continue to increase. Older people with HIV in Australia are likely to require special care and support, including access to high-quality aged care services, the management of comorbidities, assistance with treatment adherence, and other issues related to ageing. Stigma and discrimination is a central concern for many people ageing with HIV who may require health and social services outside of their regular HIV care and support providers with whom they have an established relationship.

There are additional sub-populations in the community, such as people experiencing homelessness or mental health issues that require more intensive support and coordination, including through outreach and district nursing services.

KEY AREAS FOR ACTION

- 13. Continue to improve the integration of care provided to people with HIV, including by general practitioners, sexual health physicians, psychosocial support services, community pharmacies, community-based nursing, other health services and specialists, and aged care services, particularly in rural and remote locations.
- 14. Identify, implement, and evaluate focus on models of care that meet the needs of people with HIV who are ageing and ensure quality of care across services.
- 15. Continue to increase capacity for HIV treatment and care in those health services providing culturally appropriate care to Aboriginal and Torres Strait Islander people and culturally and linguistically diverse populations.

- 16. Continue to increase HIV awareness, capability, and collaboration of service providers to support people with HIV, including in settings such as drug and alcohol, mental health, aged care, disability, housing, employment, child and family, and justice and corrective services.
- 17. Support the implementation and continued utilisation of digital new tools and models of care such as point-of-care testing that support regional and remote communities, Aboriginal and Torres Strait Islander people, and people impacted by/during pandemic restrictions.

8.4. Workforce

 Facilitate a highly skilled multidisciplinary workforce that is respectful of and responsive to the needs of people with HIV and other priority populations.

A strong multidisciplinary workforce of motivated and trained health professionals and community health, aged care, and peer-based workers who are from, and who work with, priority populations are vital to delivering best-practice, culturally appropriate, high-quality services across Australia.

Primary health services, including general practice, Aboriginal Community Controlled Health Services and Aboriginal Medical Services, remain priority settings for the delivery of prevention, testing, and treatment services for HIV, in collaboration with specialist care as necessary. Sexual health clinics and peer-based organisations involved in health service delivery play an important role in providing culturally and age-appropriate services to priority populations and people who are not accessing mainstream primary health services. Other health services, including specialist, antenatal, alcohol and other drug and mental health services and treatment programs and needle and syringe programs, are also important settings in the response to HIV.

Evidence-based, responsive, and accessible clinical guidelines and tools play an essential role in supporting the provision of effective HIV prevention and care in Australia. These guidelines must be updated at regular intervals and coupled with education and training to build workforce capacity and capability. This is particularly important in supporting the management of patients with complex needs in community-based settings.

Specific education, professional development and specialisation opportunities need to be made available to support the development of essential knowledge and skills across the workforce. Hybrid approaches of online learning, web-based resources, and mobile applications, as well as face-to-face learning opportunities, should be tailored to specific workforce needs and locations (including urban, regional, rural and remote).

Comprehensive guidance for the workforce that supports professionals in providing advice to patients, including on legal and policy issues in relation to HIV transmission and undetectable viral load, would better support people with HIV to make informed decisions about prevention and treatment adherence. Education to reduce and address stigma and discrimination should be included in training programs for staff of all specialists, primary healthcare, and community service providers.

Issues in relation to recruitment and retention of staff need to be addressed, particularly in rural and remote areas, to ensure that the required expertise, capability, and capacity exists in all areas. Innovative models adapted to local contexts can assist in addressing such challenges by utilising the skills of other appropriately trained health professionals. Shared care models involving general practitioners, medical specialists, nursing professionals, Aboriginal and Torres Strait Islander health workers, community-based workers, and other health

professionals will assist in decreasing the burden on sexual health services. Less experienced diagnosing clinicians need strong links with specialist providers in providing an HIV diagnosis and enabling treatment, ongoing care, and other support services in the community.

As the accessibility of PrEP is increased, prescribers need to be more closely linked to HIV services and sexual health services and/or able to provide those services in primary healthcare settings. PrEP-related education for primary care should be informed by caseload, the priority populations being cared for and the past community experiences of accessing such services. Enhanced roles for nursing professionals that facilitate access to preventive measures, including PrEP, early treatment and monitoring for priority populations, should be further explored, and developed.

KEY AREAS FOR ACTION

- 18. Continue to regularly update, maintain, and make accessible evidence-based clinical guidelines, tools and support for prevention, testing and management of HIV and related comorbidities.
- 19. Continue to ensure that access to and promotion of PEP, PrEP, TasP and other prevention methods are supported by consistent and targeted information and messaging for health professionals.
- 20. Continue to explore and share experiences of innovative multidisciplinary models of care for HIV prevention and management, particularly models for rural and remote areas and areas of workforce shortage.
- 21. Continue to develop knowledge and awareness of HIV across the multidisciplinary workforce to facilitate the delivery of appropriate services and address the ongoing care and support needs of people with HIV.
- 22. Continue to support the capacity and role of community organisations to provide education, prevention, support, and advocacy services to priority populations.
- 23. Promote and support sustainable models of care within the health workforce, including primary care nursing, nurse prescribing, and involvement of community pharmacies to increase screening, vaccination, and access to treatment.

8.5. Addressing stigma and creating an enabling environment

- Implement a range of culturally appropriate initiatives to address stigma and discrimination and minimise the impact on people's health-seeking behaviour and health outcomes.
- Continue to work towards addressing the legal, regulatory and policy barriers which affect priority populations and influence their health-seeking behaviours.
- Continue to strengthen and enhance partnerships and connections to priority populations, including the meaningful engagement and participation of people with HIV.
- Ensure delivery of services is person-centred and tailored to diverse populations and settings, reducing inequalities.

Stigma is widely recognised as one of the most significant barriers to an effective HIV response. It can have a significant impact on health outcomes as well as relationships and employment prospects and can lead to social isolation and mental ill health.

The experience and anticipation of discriminatory or unfair treatment increases the negative impact on the health status of people with HIV and can reduce access to care. Stigma and discrimination have been correlated with poor access to health care, and they create barriers to services and support.

While stigma and discrimination have reduced somewhat over the last 35 years, it continues to be reported by people with HIV and by lesbian, gay, bisexual, trans and gender-diverse, and/or intersex populations, sex workers, people who use drugs, Aboriginal and Torres Strait Islander people and CALD populations. In a 2019 online survey completed by 847 people with HIV, more than half of respondents (56.6 per cent) reported at least one experience of HIV-related stigma or discrimination, and over one-third of respondents (38 per cent) reported experiencing negative or different treatment by health workers.³⁴

The stigma and discrimination experienced by people with HIV and other priority populations can also be influenced by intersecting characteristics and the stigma and discrimination associated with those. This includes sexual orientation, gender and gender identity, cultural background, migrant or refugee status, disability, or being a sex worker or person in a custodial setting. Strategies to address stigma and discrimination must acknowledge and account for this.,

There is an ongoing need for Australian governments to continue to review and work towards removing barriers to access to HIV prevention, management, care, and support; promote and protect the human rights of people with HIV and people among affected communities; and break down the stigma and discrimination associated with HIV.

Increased efforts are needed to address stigma and support people with HIV and priority populations to challenge stigma and build resilience. The meaningful involvement of people with HIV and affected communities in all aspects of the HIV response play an important role in addressing stigma and discrimination. It enables individuals and communities to draw on their lived experiences and be meaningfully involved in the design, implementation, and evaluation of HIV interventions.

Efforts are also needed to increase the awareness of health professionals and community health workers, particularly those on the front line of HIV diagnosis testing and treatment, in relation to stigma and discrimination. This is an important part of training programs for staff of all specialists, primary healthcare, and community-based service providers. The training needs to highlight the essential role they play in removing stigma and discrimination as a barrier for priority populations in accessing prevention, testing, treatment, care, and support. It is important to ensure that healthcare professionals are well-informed about how to engage with most effectively, and support priority populations is important, and this must be underpinned by comprehensive and transparent health service quality standards, including standards that address privacy, confidentiality, and patient rights.

Overall Australia has a strong enabling environment, including regulation of needle and syringe programs and strong anti-discrimination legislation for some populations. However, there are some key legal, regulatory, policy, social, cultural, and economic barriers including the Age Discrimination Act 1992, Disability Discrimination Act 1992, Racial Discrimination Act 1975, Sex Discrimination Act 1984 and Australian Human Rights Commission Act 1986 that impact on HIV prevention and access to HIV services. These barriers include the cost of services; challenges with service delivery in regional and remote areas; language and cultural barriers; a lack of culturally appropriate health services; and laws and regulations in relation to sex work, drug use, peer distribution of injecting equipment, and non-disclosure, exposure and transmission of HIV.³⁵ Studies have found that the removal of such barriers, and reduction in stigma and discrimination, increased the rates of testing and treatment and contributed to a

decrease in the incidence and prevalence of various BBV and STI.^{16,35} Approaches to addressing barriers in Australia need to be informed by national and international evidence on the impact of HIV transmission and public health outcomes, which need to be considered in the Australian context.

The implementation of this Strategy rests within the health sector. However, many of the barriers to access and equitable treatment of affected individuals and communities fall outside of the responsibility of the health system — for example, criminalisation impacts on priority populations by perpetuating isolation and marginalisation and limiting their ability to seek information, support, and health care. It is a priority important that effective and meaningful dialogue is maintained across sectors and jurisdictions to support knowledge translation (for example, current HIV-related clinical evidence) and to discuss the potential impacts of any wider decisions on the health of priority populations.

KEY AREAS FOR ACTION

- 24. Focus on implementing initiatives to reduce stigma and discrimination across priority settings, including education which incorporates messaging to counteract stigma.
- 25. Focus implementing on initiatives that assist people with, and at risk of, HIV to challenge stigma and build resilience.
- 26. Continue to maintain and develop peer support models appropriate for priority populations and maintain support for people with HIV as peer navigators in diagnosis, treatment, and care.
- 27. Continue to monitor laws, policies, stigma, and discrimination which impact on health-seeking behaviour among priority populations and their access to testing and services; and work to ameliorate legal, regulatory and policy barriers to an appropriate and evidence-based response.
- 28. Review and address institutional, regulatory and system policies which create barriers to equality of prevention, testing, treatment and care and support for people with HIV and affected communities.
- 29. Continue to engage in dialogue with other government sectors to promote the use of up-to-date HIV-related science to improve policies affecting people with HIV and to discuss the impacts of wider public policy decisions on the health of priority populations.

8.6. Data, surveillance, research, and evaluation

 Continue to build a strong evidence base for responding to HIV in Australia that is informed by high-quality, timely data and surveillance systems.

Continuous improvement of data collections and systems is important to support a comprehensive understanding of HIV in Australia. However, this must be appropriately targeted to avoid unnecessary burden for health services and frontline staff and to ensure effective patient privacy and confidentiality.

Opportunities to improve the level of detail in collected data to better identify trends and issues of concern in relation to specific priority and sub-populations, including trans and gender-diverse people and women, need to be explored. Improvements in the reporting of Aboriginal and Torres Strait Islander status in clinical and pathology settings also need to be implemented. There is a need for data on stigma and discrimination, both in relation to HIV itself and in relation to a variety of other factors, with a focus on gender and sexuality and sex

work, and on the quality of life for people with HIV. There is also a need to improve the timeliness and consistency of data collection across Australia to better support completeness and comparability. Potential areas for greater involvement of community and peer-based organisations in surveillance also need to be identified, given their strong knowledge of priority populations.

Rates of HIV drug resistance require ongoing monitoring. While cases of treatment failure are rare in Australia, active and accurate monitoring is required to detect any increase. This is important, as drug resistance can result in adverse health outcomes and transmission of drug-resistant HIV.

Social, behavioural, epidemiological, clinical, and basic research is essential in developing a strong evidence base for managing and preventing HIV in the community. This research identifies and examines key changes in the epidemiology and behaviours of priority populations; emerging issues and concerns; and influences on people's decisions in regard to risk taking and seeking testing, care, and treatment. It also assists to inform targeted responses in priority populations and settings. Partnerships between research institutes, clinicians and community and peer-based organisations are valuable, as community and peer-based organisations (and clinicians) are often the first to identify changes in behaviours, social interactions and demographics of priority populations.³ Further, prioritising approaches to research should also be considered such as Co-design and Participatory Action Research (PAR) methods, ethical engagement with affected communities and remuneration and credit for research participants. Maintaining a strong research agenda and program that informs and responds to the priority actions of the Strategy ensures that implementation is supported by a strong, relevant evidence base.

The National BBV and STI Surveillance and Monitoring Plan 2023-2030 will measure and monitor the implementation of this Strategy through the identification and development of indicators to measure progress towards achieving the Strategy's targets. The evaluation of existing HIV activities and programs, and development of new ones, will aim to maximise their alignment with the priority areas for action set out in this Strategy.

KEY AREAS FOR ACTION

- 30. Continue to identify gaps in surveillance data for measuring and monitoring the implementation of this Strategy and prioritise these for action.
- 31. Continue to identify opportunities to improve the timeliness and consistency of data collection.
- 32. Continue to improve surveillance of issues impacting on people with HIV, including morbidity and mortality, stigma and discrimination, quality of life measures, the availability of new biomedical interventions and HIV drug resistance.
- 33. Continue to build on the existing strong evidence base to effectively inform the implementation of the priority actions of this Strategy.
- 34. Continue to ensure current and future programs and activities are evaluated to ensure linkage and alignment to the priority areas of this Strategy.
- 35. Continue to explore opportunities for assessing the impact of legislation and regulation on barriers to equal access to health care.
- 36. Continue to research and identify barriers to healthcare integrating the dimensions of access with social determinants of health.
- 37. Ensure public health units are sharing data safely and effectively to improve data collection and enhance patient centered care.

9. IMPLEMENTING THIS STRATEGY

Leadership, partnership, and connections to community

Australia's response to HIV is built on a model of partnership between government, community-based organisations, researchers, health professionals and priority populations. The partnership approach depends on clear leadership roles and accountabilities for all involved.

The Australian Government is committed to providing strong national leadership by working across portfolios and jurisdictions to achieve the goals of this Strategy. The Australian Government Department of Health leads the coordination of the national response to HIV under the National HIV Strategy. However, the success of this Strategy is contingent on productive partnerships between Commonwealth, state and territory governments and partners, including peak bodies representing communities, health professionals, researchers and affected communities. In the case of research on BBV and STI, it is imperative that this is conducted in partnership with communities and aligned with the priorities of the five national strategies.

Organisations including the Australian Federation of AIDS Organisations; the National Association of People with HIV Australia; the Australian Injecting and Illicit Drug Users League; Scarlet Alliance, Australian Sex Workers' Association; the National Aboriginal Community Controlled Health Organisation and the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine, and the relationship these organisations have with their members, have a critical role to play in the implementation of this strategy. Monitoring and evaluation of current and emerging interventions will be essential in enabling cost-effective decision making and guiding existing partnerships to implement agreed directions. This requires investment and mobilisation of resources to be across all levels of government from national direction to local jurisdictions. This ensures that resources are utilised to achieve maximum impact and desired outcomes.

Governance, reporting and evaluation

The five National BBV and STI Strategies are endorsed by Australia's Health Ministers and governed through relevant committees of the Health Chief Executives Forum (HCEF). These include the Ministerial Advisory Committee on Blood Borne Viruses and Sexually Transmissible Infections (MACBBVSTI) and the Blood Borne Viruses and Sexually Transmissible Infections Standing Committee (BBVSS). BBVSS coordinates implementation efforts across jurisdictions and reports to the Australian Health Protection Principal Committee (AHPPC) on progress in the implementation of the national strategies. BBVSS and the Communicable Diseases Network Australia (CDNA) will jointly monitor progress towards the targets of each Strategy and identify emerging issues and opportunities for action.

The Commonwealth Minister for Health is additionally advised on the implementation of the Strategies through the Ministerial Advisory Committee on Blood Borne Viruses and Sexually Transmissible Infections (MACBBVSTI).

Surveillance and monitoring plan

The Department will develop the next iteration of the National BBV and STI Surveillance and Monitoring Plan 2023–2030, which will support the five National BBV and STI Strategies and informs and monitors progress on achieving the goals and targets of each Strategy and in alignment with international strategies. A subcommittee of the CDNA is responsible for

overseeing the surveillance and monitoring plan and reporting on progress to the CDNA and BBVSS.

REFERENCES

- 1. Oborn, E., Barrett, M., Gibson, S., & Gillard, S. (2019). *Knowledge and expertise in care practices: The role of the peer worker in mental health teams*. *41*(7), 1305–1322.
- Australian Commision on Safety and Quality in Health Care. (2022). Person-centred care.
 Australian Commision on Safety and Quality in Health Care.
 https://www.safetyandquality.gov.au/our-work/partnering-consumers/person-centred-care
- Department of Health. (2021). National blood borne viruses and sexually transmissible infections research strategy 2021-2025. Department of Health. https://www1.health.gov.au/internet/main/publishing.nsf/content/AE05C032DDCB753 3CA257BF00020AAC4/\$File/DT0001558%20-%20National%20BBV%20and%20STI%20Research%20Strategy%20-%20web%20-v2.pdf
- 4. The Kirby Institute. (2022). HIV, viral hepatitis and sexually transmissible infections in Australia: Annual surveillance report 2021. Kirby Institute.
- Wright, E., Grulich, A., Roy, K., Boyd, M., Cornelisse, V., Russell, D., O'Donnell, D., Whittaker, B., Crooks, L., & Zablotska, I. (2018). Australasian society for HIV, viral hepatitis and sexual health medicine HIV pre-exposure prophylaxis: Clinical guidelines.
 Update April 2018. *Journal of Virus Eradication*, 4(3), 143–159.
- 6. World Health Organization. (2021). Global health sector strategies on HIV, viral hepatitis and sexually transmitted infections 2022-2030—Draft. World Health Organization.
- 7. World Health Organization. (2016). *Global health sector strategy on HIV 2016-2021.*Towards ending AIDS. World Health Organization.
- 8. The Joint United Nations Programme on HIV/AIDS (UNAIDS). (2021). *Political declaration* on HIV and AIDS: Ending inequalities and getting on track to end AIDS by 2030.

- https://www.unaids.org/en/resources/documents/2021/2021_political-declaration-on-hiv-and-aids
- 9. Department of Health. (2017). *National drug strategy 2017–2026*. https://www.health.gov.au/sites/default/files/national-drug-strategy-2017-2026.pdf
- 10. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development.
 https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20 for%20Sustainable%20Development%20web.pdf
- The Kirby Institute. (2021). Tracking the Progress 2020: National HIV Strategy. Kirby
 Institute. https://kirby.unsw.edu.au/sites/default/files/kirby/report/Tracking-the-progress-2020_National-HIV-Strategy.pdf
- Power, J., Amir, S., Brown, G., Rule, J., Johnson, J., Lyons, A., Bourne, A., & Carman, M. (2019). HIV futures 9: Quality of life among people living with HIV in Australia.
 Monograph Series, 116.
- 13. Mao, L., Broady, T., Holt, M., Newman, C., & Treloar, C. (2021). Annual Report of Trends in Behaviour 2021: HIV and STIs in Australia. UNSW Centre for Social Research in Health. http://unsworks.unsw.edu.au/fapi/datastream/unsworks:77139/bin8807976f-5af2-46c4-aee2-1eb3f8ac7e74?view=true&xy=01
- 14. Mullens, A. B., Kelly, J., Debattista, J., Phillips, T. M., Gu, Z., & Siggins, F. (2018). Exploring HIV risks, testing and prevention among sub-Saharan African community members in Australia. *International Journal for Equity in Health*, 17(1), 1–12.
- 15. Southwell, M., Shelly, S., MacDonald, V., Verster, A., & Maher, L. (2019). Transforming lives and empowering communities: Evidence, harm reduction and a holistic approach to people who use drugs. Current Opinion in HIV and AIDS, 14(5), 409–414.
- Kang, E., Mellins, C. A., Kim, W., Dolezal, C., Kindler, C., Leu, C.-S., & Abrams, E. J. (2021). Navigating stigma trajectory and mental health among young adults living with perinatal HIV in New York City. AIDS and Behavior, 25(11), 3712–3720.

- Remien, R. H., Stirratt, M. J., Nguyen, N., Robbins, R. N., Pala, A. N., & Mellins, C. A. (2019). Mental health and HIV/AIDS: the need for an integrated response. *AIDS (London, England)*, 33(9), 1411.
- 18. Casper, C., Crane, H., Menon, M., & Money, D. (2018). *HIV/AIDS comorbidities: Impact on cancer, noncommunicable diseases, and reproductive health.*
- 19. Lerner, A. M., Eisinger, R. W., & Fauci, A. S. (2020). Comorbidities in persons with HIV: the lingering challenge. *Jama*, *323*(1), 19–20.
- 20. Woods, R. (2019). HIV and ageing in Australia The new frontier. National Association of People with HIV Australia (NAPWHA). https://napwha.org.au/wp-content/uploads/2019/04/HIV-and-Ageing-in-Australia-New-Frontier-April19.pdf
- 21. Bretana, N. A., Law, M. G., Guy, R., & Gray, R. T. (2017). A growing ageing population of people living with diagnosed HIV in Australia. HIV and AIDS Conference, Canberra.
- 22. Bretaña, N. A., Gray, R., Law, M., & Guy, R. (2018). Aging of the HIV population in Australia: A modeling study. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 79(5), e115–e116.
- 23. Herron, L.-M., Mutch, A., Mugamu, M., Howard, C., & Fitzgerald, L. (2022). 'The spiral just keeps on going': Cascading health and social issues for women living and aging with HIV. *Women's Health*, *18*, 17455065221074882.
- 24. Ward, J., Crooks, L., & Russell, D. (n.d.). High level summit on rising HIV, sexually transmissible infections (STI) and viral hepatitis in Aboriginal and Torres Strait Islander communities, Final Report—April 2016. Retrieved February 25, 2022, from www.ashm.org.au
- 25. South Australian Health & Medical Research Institute. (2017). HIV and Aboriginal & Torres

 Strait Islander communities in 2017.

 https://www.sahmri.org/m/downloads/SAHMRI_booklet_HIV_and_ATSI_Communities
 _in_2016_FINAL_electronic_version.pdf

- 26. Boyle, F., Glennon, S., Najman, J. M., Turrell, G., Western, J. S., & Wood, C. (2019). *The sex industry: A survey of sex workers in Queensland, Australia*. Routledge.
- 27. Salhaney, P., Biello, K. B., & Mimiaga, M. J. (2021). Global epidemiology of HIV and other sexually transmitted infections among male sex workers: Emerging approaches in prevention and treatment. *The Routledge Handbook of Male Sex Work, Culture, and Society*, 289–309.
- 28. Freeman, J. (2019). Legalization of Sex Work in the United States: An HIV Reduction Strategy. *Geo. J. Legal Ethics*, *32*, 597.
- 29. Keen, P., Hammoud, M. A., Bourne, A., Bavinton, B. R., Holt, M., Vaccher, S., Haire, B., Saxton, P., Jin, F., & Maher, L. (2020). Use of HIV pre-exposure prophylaxis (PrEP) associated with lower HIV anxiety among gay and bisexual men in Australia who are at high risk of HIV infection: Results from the Flux Study. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 83(2), 119–125.
- 30. Heard, S., Iversen, J., & Maher, L. (n.d.). Australian needle syringe program survey national data report 2016-2020: Prevalence of HIV, HCV and injecting and sexual behaviour among NSP attendees. Kirby Institute.
- 31. Powell, V. E., Gibas, K. M., DuBow, J., & Krakower, D. S. (2019). Update on HIV preexposure prophylaxis: Effectiveness, drug resistance, and risk compensation. *Current Infectious Disease Reports*, *21*(8), 1–8.
- 32. NSW Health. (2021). NSW HIV Strategy 2021-2025 Quarter 3 2021 Data Report. https://www.health.nsw.gov.au/endinghiv/Publications/q3-2021-nsw-hiv-data-report.pdf
- 33. Smith, D., Woolley, I., Russell, D., Bisshop, F., & Furner, V. (2018). HIV in practice: Current approaches and challenges in the diagnosis, treatment and management of HIV infection in Australia. *HIV Medicine*, 19, 5–23.
- 34. Centre for Social Research in Health. (2017). Stigma Indicators Monitoring Project Final Report.

35. Mullens, A. B., Duyker, J., Brownlow, C., Lemoire, J., Daken, K., & Gow, J. (2019). Point-of-care testing (POCT) for HIV/STI targeting MSM in regional Australia at community 'beat'locations. *BMC Health Services Research*, *19*(1), 1–10.