

# HIV Care Continuum & Beyond: A New Era for Asia

White paper examining the efforts of six Asian territories to end the epidemic, improve care and quality of life for people living with HIV



Expand PrEP

Promote U=U

Increase  
Testing

End Stigma &  
Discrimination

Improve Quality  
of Life



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Asia stands at an important crossroads in its effort to end HIV as a public health concern.

Although one of the epicentres of the global HIV epidemic when it comes to key populations, HIV infection rates in Asia are reducing. But we still need to prioritise HIV prevention and double our existing efforts to maintain the progress we are making.

The situation is critical. COVID-19 has steered focus and resources away from HIV and AIDS prevention and treatment programs, including community-led services. The number of older people living with HIV and AIDS continues to swell, causing mounting concern for aged care systems. There are significant shortfalls in prevention and treatment delivery, and stigma and discrimination against those who live with HIV and/or those from key populations is pervasive – in social circles, medical settings and structural mechanisms. The mental, physical and social quality of life of people living with HIV and from key populations is therefore a concern both at an individual patient level, and at a systemwide capacity level.

Established and funded by ViiV Healthcare, and in partnership with the APCOM Foundation, the Institute of HIV Research and Innovation (IHRI), TREAT Asia/amfAR – the Foundation for AIDS Research, Taiwan Lourdes Association, Love4One and Taiwan Love and Hope Association, the HIV Care Continuum & Beyond initiative was set up at the end of 2021 to not only highlight the challenges that territories in middle-income Asian economies face, but also share the region's successes.

Many Asian territories continue to grow domestically funded capabilities in prevention and treatment innovation, promotion of U=U (undetectable equals untransmittable) and community-led services. And in this new era, the HIVCCB wants to ignite a meaningful exchange of ideas between some of Asia's leading minds and organisations in HIV care, and drive towards ending it as a public health concern by 2030. The HIVCCB currently comprises a steering committee of 12 HIV experts from six Asian territories largely reliant on domestic sources to fund their HIV efforts. The experts are drawn from the community of people living with HIV and key populations, as well as researchers from China, Hong Kong SAR, Taiwan, Thailand, Singapore and South Korea – all of which have experienced challenges and achieved major strides in their prevention and treatment goals.

This white paper represents months of work by our steering committee to unravel complexities in the HIV care continuum in these six Asian territories. It is an important examination of how these territories are performing on prevention, testing, diagnosis and treatment, stigma and discrimination and quality of life, with an emphasis on community empowerment and community-led service. Our paper also champions the unique role that community-based organisations play across the continuum of care, including in developing and delivering innovative in-person and digital interventions.

The past three years have proven that with a concerted approach, global health crises can be overcome with a meaningful exchange of expertise. The HIVCCB is not only a call to action for all Asian territories to bring back up on their public health agendas, but also a platform for Asia's health professionals, community organisations and policymakers to share solutions that can help us move jointly towards ending the HIV epidemic.

#### **The Co-Chairs of the HIV Care Continuum & Beyond initiative**

**Midnight Poonkasetwattana**  
Executive Director  
APCOM Foundation

**Nittaya Phanuphak**  
Executive Director  
Institute of HIV Research and Innovation





## Executive Summary

Even after four decades, HIV remains an urgent, global public health issue. There were an estimated 1.5 million incident cases of HIV globally in 2021 and 260,000 in the Asia-Pacific alone.<sup>1</sup> Not only can HIV cause very serious health problems and even death, but it can also have significant implications on the quality of life of those living with the disease, requiring life-long medical treatment and attention.

However, we are seeing progress. Effective preventative options, emerging testing and diagnostic methods, the strengthening of health systems and increasingly widespread availability of antiretroviral therapies (ART)<sup>2</sup> have all contributed to reduced transmission rates. Community-led responses by those at risk of acquiring, as well as those living with HIV have also spurred such progress.

With effective prevention and treatment, we can now expect near-normal life expectancies and better quality of life for people living with HIV. Combined with the revolutionary scientific finding that undetectable = untransmittable (U=U) – people living with HIV with an undetectable viral load cannot transmit HIV sexually – the prospect of ending the HIV epidemic and preventing/reversing self-stigma (and societal stigma) has become much more achievable.

Asia achieved some of the earliest successes in responding to the HIV epidemic and has made significant progress since new HIV infection rates peaked in the late 1990s and early 2000s.<sup>3</sup> However, responses to the virus have been inconsistent across territories and complex challenges remain.<sup>4</sup> This heterogeneous response in an otherwise highly interconnected region has hampered progress in improving the overall quality of life of people living with HIV and in achieving the targets set by The Joint United Nations Programme on HIV/AIDS (UNAIDS).

More recently, the COVID-19 pandemic has siphoned significant time and resources from infectious disease departments globally. HIV services, consequently, have been disrupted and will take time to return to pre-pandemic capacity. Research across **Hong Kong SAR, Singapore, South Korea, Taiwan, and Thailand** found that 36% of people living with HIV and 57.5% of key populations experienced disruptions to hospital or clinic visits during the pandemic.<sup>5</sup>

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Taiwan Love and Hope Association, the HIV Care Continuum & Beyond initiative is bringing key stakeholders from across the Asia region together to strengthen the fight against HIV.

The initiative comprises a steering committee of experts from six Asian territories, including HIV academics, healthcare professionals, community organisations and patient advocates in China, Hong Kong SAR, Singapore, South Korea, Taiwan and Thailand. These are all middle- to high-income territories largely reliant on domestic strategies and funding to combat the HIV pandemic, and which encounter many common challenges – the latest and most pressing being the impact of social and economic crises triggered by the COVID-19 pandemic on HIV service delivery and programme sustainability.<sup>6</sup>

The HIV Care Continuum & Beyond represents a unique opportunity for HIV communities across Asia to come together to share and institute policies and initiatives critical to achieving the UNAIDS Fast Track AIDS Targets. These goals place greater emphasis on removing “societal and legal impediments to service delivery, and on linking or integrating the provision of HIV services with the other services needed by people living with HIV and communities at risk to stay healthy and build sustainable livelihoods”.<sup>6</sup> They also address non-clinical challenges, such as stigma, discrimination, and quality of life.

Across the participating territories and beyond, the initiative is striving towards prioritisation of HIV in the public health agenda in Asia, creating a positive policy environment to eliminate stigma and discrimination for key populations and all people living with HIV, and reinforcing a people-centred continuum of care.

Based on a broad multi-lingual literature review, extensive consultation with HIV communities in Asia and interviews with other HIV experts, the steering committee identified four challenge areas critical to Asia ending AIDS as a public health threat:

- Stigma and discrimination
- HIV prevention
- HIV testing, diagnosis and treatment
- Quality of life

Under the four challenge areas, the steering committee has developed 14 recommendations, including some that cross-cut challenge areas. The committee has also put forward a number of evidentiary case studies to help Asian territories

identify practical solutions to the HIV epidemic in their communities. The detailed recommendations are listed in **Section 3** of this white paper.

### Stigma and Discrimination

Stigma and discrimination are the primary barriers to prevention, testing and improving the quality of life of people living with HIV. The steering committee has proposed recommendations aimed at establishing and prioritising initiatives that challenge or reduce stigma, and tackle decriminalisation.

### HIV Prevention

With sexual transmission being the key source of HIV transmission in most regional territories, the steering committee recommends more aggressive implementation at scale of a combination of people-centred and effective HIV prevention options, including pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), condoms and lubricants and harm reduction services.

### Testing, Diagnosis and Treatment

The steering committee has recommended territories pursue policies that overcome barriers to testing, diagnosis and treatment. The most pressing challenge is improving diagnosis of HIV through better access to a variety of testing options, including self-testing, better linkages to care, and treatment initiation as early as possible.

### Quality of Life

Regional research has focused largely on clinical outcomes among people living with HIV and less on quality of life, despite tools being available to measure such metrics. The steering committee has suggested recommendations to boost monitoring and measuring capabilities around quality-of-life outcomes.

It is hoped that all stakeholders – including policy makers, healthcare professionals, industry, community leaders and the wider HIV community – consider the extensive body of research, including community-generated qualitative research, and the comprehensive list of recommendations set out in this paper as resources to overcome challenges across the care continuum and progress collectively towards ending AIDS as a public health concern in Asia.



## Introduction: HIV Care Continuum & Beyond in Asia

Globally, almost 38 million people are living with HIV and 25.4 million are on treatment (67%).<sup>1</sup> In Asia, there are 5.8 million people living with HIV, second only to Sub-Saharan Africa as the region with the largest number of people living with HIV with 3.7 million people on treatment (64%).<sup>4</sup>

In 2019, more than a quarter of all new HIV infections in Asia and the Pacific were among young people aged 15 to 24 years, with young gay men and other men who have sex with men accounting for 52% of all new HIV infections among young people.<sup>7</sup> It is estimated that over 99% of new HIV infections among young people are among key populations and their sexual partners.<sup>7</sup>

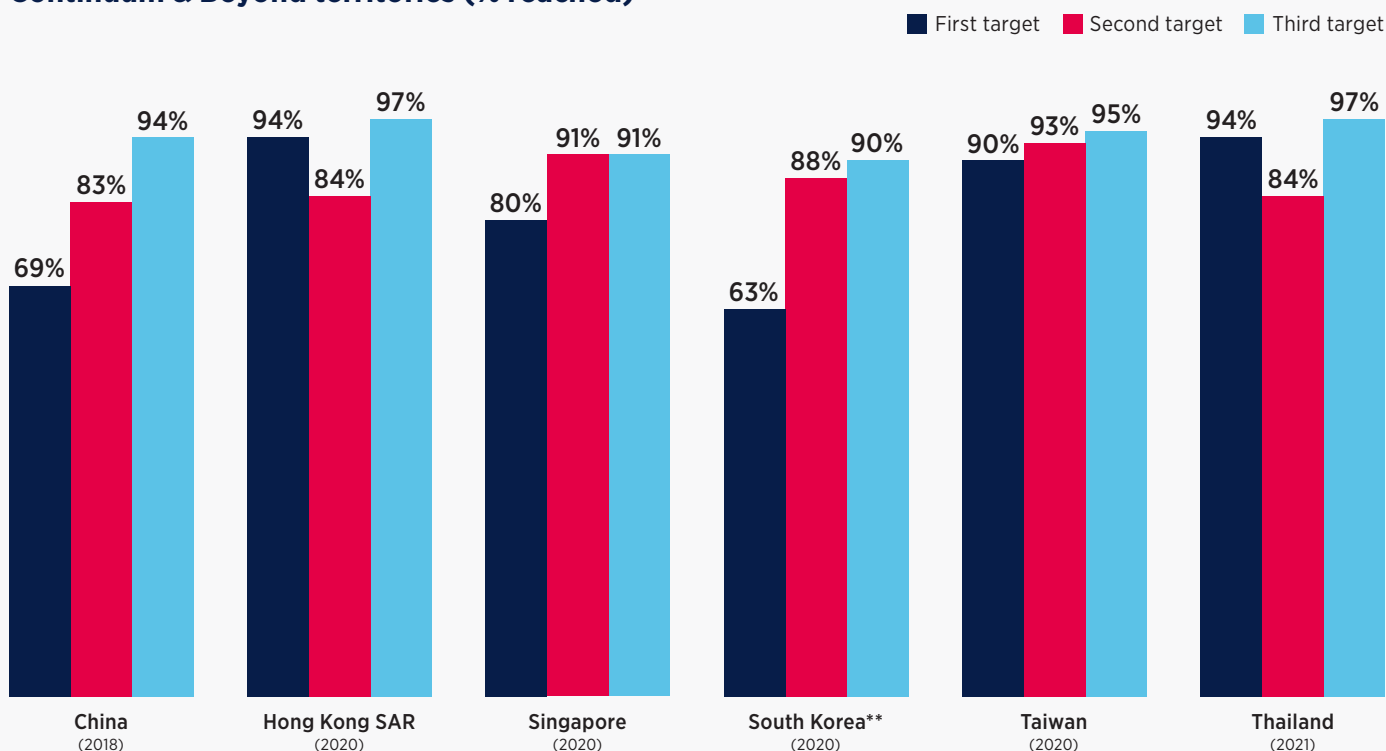
Looking towards ending the HIV epidemic by 2030, UNAIDS set the Fast Track targets of 95-95-95. They call for 95% of people living with HIV to know their status by 2025; 95% of those with known status being on HIV treatment; and 95% on treatment being virally suppressed.<sup>6,8</sup>

The UNAIDS targets have broadly not been achieved across Asia, though individual territory results differ.<sup>4</sup> Figure 1 shows many of the key territories in the HIV Care Continuum & Beyond initiative have performed well against the third target, viral suppression, while there has been less success against the first and second targets, known status and treatment initiation.<sup>4,9,10,11,12,13,14</sup>

Improving diagnosis rates, early detection of HIV, as well as linkage to care remains a challenge for several territories. For example, experts interviewed as part of the HIV Care Continuum and Beyond initiative noted that diagnosis too often occurs at a later stage when CD4 cell counts are less than 200 cells/mm<sup>3</sup>.<sup>\*</sup>

Reasons for the first target (diagnosis) being missed are complex in key territories but common reasons include stigma, discrimination and criminalisation against key populations, HIV-specific laws that criminalise people living with HIV, lack of anonymous testing and/or HIV self-testing, lack of awareness, and negative attitudes towards testing among key populations.

**Figure 1: UNAIDS target status by HIV Care Continuum & Beyond territories (% reached)**



\* Late-stage diagnosis raised during HIV Care Continuum & Beyond expert interview process. Three HIV experts focused on Singapore and the Asia Pacific region raised late-stage diagnosis as being evident across multiple territories.



\*\*Data for the 2nd '95' refers to 2015 data from a sample of people living with HIV who registered with the Korean National Health Insurance; data from the 3rd '95' refers to 2019 data from a sample of people living with HIV who visited 17 South Korean hospitals.



## SECTION 1

# Discussion: Health Experts and Community Leaders

In September 2022, 33 HIV experts from China, Hong Kong SAR, Singapore, South Korea, Taiwan, Thailand, and the Asia-Pacific region came together to review the HIV Care Continuum & Beyond focus areas and recommendations.

Twelve moderators guided the virtual discussion sessions for health care experts and community leaders, who shared experiences and discussed the challenges facing the HIV care continuum in Asia. Participants addressed all four focus areas of the HIV Care Continuum & Beyond, being: **Stigma and discrimination; Prevention; Testing, Diagnosis and treatment; and Quality of life.** The event generated valuable discussion and a rich sharing of ideas across the key territories and drew widespread commendation from the attendees.

The overarching themes arising from the HIV Care Continuum & Beyond workshop were the need for greater focus on U=U as the basis for effective prevention, and the need for more innovative use of social and traditional media across all territories to engage young people, key

populations and the public. The following points were raised and have been considered in the drafting of this paper:

**Stigma and Discrimination:** Participants noted a number of recent and promising legislative amendments across territories, which have historically contributed to structural stigma and discrimination. However, it was also agreed that stigma and discrimination remain culturally entrenched in the Asian context and should be addressed. Hence, the experts noted the importance of social media and culturally relevant channels, encouraging people living with HIV to share stories, and campaigns to educate, raise awareness and influence perceptions of HIV as a chronic but treatable condition.

**Prevention:** The discussion group reiterated the importance of self-testing as an important opportunity to link PrEP uptake and awareness among key populations. They also highlighted chemsex as a key driver of HIV transmission, but there is a notable lack of education for young people around the risks. The health care expert group agreed that



their stakeholder group has a key responsibility in promoting and rolling out PrEP, but there are wider concerns for health systems capacity.

**Testing, Diagnosis and Treatment:** Several experts noted that COVID-19 had provided important lessons for rapid testing and virtual diagnostics, however, greater quality control would become an increasingly important issue as a greater number of self-testing methods become available. On the same note, the expert HIV community also noted that imposing mandatory reporting of testing results, combined with enforcement of same-day antiretroviral treatment may impede participation or deter individuals from seeking treatment. The discussion group also noted that U=U is of critical importance for individuals and public health systems and that hospitals and healthcare professionals should not allow stigma, discrimination or fear of transmission to hamper delivery of care to patients.

**Quality of Life:** The discussion group noted the importance of examining social connection as an important metric of quality of life. More broadly, it was overwhelmingly agreed that social behaviour contributes to the quality of life of people living with HIV. Thus, there is need for concerted behaviour change initiatives that seek to shift the narrative around HIV and position it as a non-communicable, chronic disease that is not fatal and that can be treated. This would also encourage more people to be tested, with proper follow-up treatments with their physician.







PHOTO PROVIDED BY CO-CHAIR MIDNIGHT POONKASETWATTANA

SECTION 2

## Discussion: Regional Challenges and Findings

### Stigma and Discrimination

To achieve the 2030 targets, there needs to be improved access and investment in service delivery, accompanied by efforts to address the stigma and discrimination and criminalisation directed towards key populations who are at greatest risk of having HIV. There is no region in the world that has totally removed stigma. These issues prevent people from accessing essential prevention, testing and treatment services, and increase the risk of acquisition and transmission.<sup>4</sup>

Stigma can include social stigma (stigmatising attitudes by the public), self-stigma (internalising stigma which can have a negative impact on oneself), or structural stigma (institutional or national policies that reproduce or perpetuate stigma). These impact people living with HIV as well as key populations such as men who have sex with men (MSM) or transgender communities. In Hong Kong SAR, a study found that both stigma from the public and from within the gay community can leave MSM living with HIV more vulnerable to negative self-perception, maladaptive

copying and peer isolation, all of which contribute to poor mental and social health.<sup>15</sup>

Stigma and discrimination are also prevalent in healthcare settings. People living with HIV have reported experiencing discriminatory attitudes due to their HIV status by healthcare professionals in multiple territories, including China<sup>16</sup>, Hong Kong SAR<sup>17</sup>, South Korea<sup>18</sup>, Taiwan<sup>19</sup> and Thailand.<sup>4</sup> Workplace discrimination has also been reported by people living with HIV in China<sup>20</sup>, Hong Kong SAR<sup>20</sup> and Singapore.<sup>21</sup>

The existence of such stigma and discrimination creates barriers to testing and diagnosis, treatment adherence, and other health-seeking behaviours. Recent work has specifically highlighted how stigma has impeded efforts in the rollout of PrEP as well as communication around U=U.<sup>22</sup> Therefore, additional research and interventions to address stigma in HIV health services are urgently needed.

Furthermore, according to UNAIDS, decriminalization is critical to ending AIDS as punitive laws have been shown to



block HIV service access and increase HIV risk. This includes laws that criminalize same-sex sexual relations, transgender people, HIV exposure, non-disclosure and transmission, drug possession and use, and sex work.

### Prevention: PrEP

It is crucial that all people at risk of acquiring HIV have access to a combination of effective, people-centred HIV prevention options: condoms and lubricants, PrEP and PEP, as well as harm reduction services. Across the key territories, sexual contact remains a key mode of transmission for HIV, and therefore methods to prevent the sexual transmission of HIV must be a key focus. The role of condoms and lubricants in reducing transmission of HIV and other sexually transmitted diseases is well established. In spite of this, several studies suggest effectiveness can be compromised by incorrect or inconsistent use among individuals at risk of HIV acquisition,<sup>23,24</sup> indicating a need to sustain efforts to improve messaging around condom use and HIV prevention.

Since 2014, the World Health Organization has recommended PrEP as a highly effective additional prevention measure for people at substantial risk of HIV infection.<sup>25</sup> However, PrEP rollout in the territories has generally been slow despite it being approved for use and in some cases subsidised by national health benefit schemes. This points to cost being a major and common barrier in many territories.<sup>26</sup> Other barriers to PrEP uptake include awareness, attitudes and acceptability among key populations.<sup>21</sup>

In Singapore, for example, PrEP is available for purchase but is not subsidised by the Ministry of Health's drug subsidies list. Rather, in the city-state, messaging around HIV prevention centres on abstinence, monogamy and condom based sex, which dilutes PrEP's front-line role against HIV transmission. In China, PrEP is not yet available in most locations.

Thailand, on the other hand, is a model for effective delivery of prevention options to key populations. It has the highest PrEP use among the territories (18% of estimated population). PrEP has been covered by Universal Health Coverage since October 2019 and the rollout has been supported by key population-led services.<sup>27</sup> However, this is not yet at scale.

Harm reduction initiatives for people who use drugs or who are engaged in selling sex have also been successful

across multiple territories, such as methadone treatment programmes and education on needle exchanges – although access to such services remains uneven in the region for people who inject drugs.<sup>3</sup> However, harm reduction services for MSM for sexualised drug use remains limited.

### Prevention: U=U

U=U is a breakthrough concept in HIV prevention<sup>28</sup> based on definitive research that if viral load is suppressed to the point of being undetectable, HIV is sexually untransmittable. It is also an empowering message that can further enable people living with HIV to reach and maintain undetectability and improve quality of life.

There has been varying acceptance of U=U by policy makers and infectious disease experts across the territories. Some governments have yet to voice acceptance of U=U and open dialogue between healthcare professionals, people living with HIV and the wider public remains limited. On average, only 51% of people living with HIV in Asia (China, South Korea, Japan, and Taiwan) reported having discussed U=U with their healthcare provider, compared to the international average of 67%.<sup>29</sup> South Korea had the lowest proportion at 38%.

### Testing, Diagnosis and Treatment

The HIV treatment cascade describes the steps in the patient journey leading from testing, through diagnosis, onto treatment, maintenance, and viral suppression. There are three critical elements in this framework: 1) improving provision of care, 2) increasing access to testing, and 3) linking testing to provision of treatment to achieve virological suppression.

The UNAIDS Fast Track Targets call for greater variety of testing, diagnosis and treatment modalities and regimes through streamlined community-led approaches.<sup>6,8</sup>

Several territories have introduced HIV self-testing. However, there are still challenges to scaling-up self-testing, which include cost of treatment, patient privacy and anonymity concerns, and the need for post-test linkages to care and other health services.<sup>30</sup>

The HIV Care Continuum & Beyond initiative found that several territories in this initiative have made some inroads on this important metric, managing to improve diagnosis rates using



self-test HIV kits, particularly when combined with peer or key population-led distribution. In Thailand, for example, key population-led services combined sexual health services with other services, leading to a doubling of testing rates in MSM and transgender women (TGW).<sup>\*</sup> Furthermore, while all six of the key territories have national-level recommendations for ART delivery, there is evidence that novel treatment approaches such as same-day ART initiation can improve the continuity of care and treatment adherence.<sup>31</sup>

### Quality of Life for People Living with HIV

In recent years, there have been growing calls for quality of life to be added as an additional UNAIDS target.<sup>32</sup>

Nevertheless, several gaps remain that impede this endeavour. While there is recognition by UNAIDS of the importance of quality of life, there are limited tools available to define or measure quality of life. Existing formal methods to measure quality of life include the WHO Measuring Quality

of Life Tool,<sup>33</sup> and measures of stigma include The People Living with HIV Stigma Index, a global collaboration between UNAIDS, the International Community of Women Living with HIV, and the Global Network of People Living with HIV.<sup>34</sup>

Existing research, much of which has been community-led, suggests experiences among people living with HIV are varied. Some of the key challenges faced include concerns about ageing, side effects from HIV treatment and managing chronic non-communicable diseases.

But quality of life goes well beyond the biomedical and physical, with a need to consider the overall well-being and satisfaction of people living with HIV. There is evidence to suggest that people living with HIV are at elevated risks of poorer mental health. These may be attributed to the varying forms of stigma that people living with HIV face<sup>35,36,37,38</sup> as well as other social factors such as loneliness, social estrangement, and lack of or weakening of social networks as people living with HIV grow older.<sup>38,39</sup>



<sup>\*</sup> From expert interviews



SECTION 3

## Recommendations and Solutions

To combat HIV across the six Asian territories that are part of the HIV Care Continuum & Beyond, policy makers, industry, healthcare professionals, community networks, the wider healthcare industry, and other stakeholders need to work together to advocate for and implement the following recommendations.

### Cross-cutting recommendations

**1. Strengthen key population-led health services and community-led efforts:** Supporting the development of key population-led health services and scaling up of community-led services can overcome a range of challenges across the HIV care continuum. This requires enabling policy environments and resourcing.

### Empowering communities and decentralising health services

KPLHS have shown to be effective ways of reducing barriers to accessing HIV-related healthcare services for key populations at risk of acquiring HIV.<sup>40</sup> Strong programmatic data from community-led healthcare services and campaigns in Thailand underscore the importance of KPLHS in the HIV response.

The U.S. Agency for International Development’s Community Partnership project (ENGAGE), in partnership with the Institute for HIV Research and Innovation (IHRI), assists community-led organisations in Thailand to provide training and national certification to key populations within a KPLHS framework, ensuring

high quality services among community healthcare service providers.

Organisations such as the APCOM Foundation have also spearheaded multiple community-led campaigns (e.g., testBKK and GayOKBangkok web series) to ensure key populations across Thailand have access to HIV prevention education and resources.

» For more information, visit:

- [IHRI](#)
- [ENGAGE](#)
- [APCOM](#)
- [testBKK](#)
- [GayOKBangkok](#)



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**2. Standardise routine health data related to prevention, testing and treatment:** Standardising the collection and application of routine health data around HIV prevention, testing, and treatment among people living with HIV and key populations is needed to identify gaps and guide improvements to HIV care delivery.

**3. Improve awareness of U=U:** Public endorsement by policy makers and government officials of U=U is necessary to drive awareness and acceptance among healthcare providers and society in general. Stakeholders should work together to ensure the availability of HIV viral load testing to allow for establishment of undetectability to support U=U discussions between people living with HIV and their healthcare professionals. These conversations should take place in safe spaces with newly diagnosed individuals as well as people living with established HIV to encourage ART adherence and improve their quality of life.

## Advocating U=U to challenge HIV stigma and discrimination

To address ageing related challenges for people living with HIV, Taiwan Lourdes Association and Persons with HIV/AIDS Rights Advocacy Association of Taiwan (PRAATW) partnered to produce a HIV education short film featuring three people living with HIV.

The short film advocates for and inspires people living with HIV to achieve viral suppression, adhere to treatment plans, and to look after their physical and mental health.

Each person featured in the film shares how U=U and viral suppression through medications has given them a second chance at life.

The online film attracted more than 27,000 views within three months and 56.4% of viewers watched the video for more than three minutes (including content on U=U).<sup>\*</sup> Additionally, the video successfully reached audiences from broader age groups, with 46% of viewers between 55-64 years old and 41% over 65 years old.

» For more information, visit: [HIV Education Short Film](#)

<sup>\*</sup> Data obtained from Taiwan Lourdes Association

## Addressing structural discrimination to educate and expose participants to challenges of key populations

In Thailand, when sex workers are arrested, the police cite condoms as evidence of sex work, which discourages condom use and elevates risk of HIV.

Getting the local police to understand sex worker issues with a local NGO through the Service Workers in Group's (SWING) Internship helped to break down those communication barriers.

Cadets had a better understanding of sex workers' issues, promoted condom use, conducted outreach events, and taught English and Thai at SWING's drop-in centre.

The programme, which was recognised by the entire

police academy, improved communication and cooperation between police and sex workers and encouraged mutual respect.

It was found that impactful behaviour-change campaigns combatting structural discrimination issues should not seek to bluntly shift attitudes. Rather, educating and exposing participants to the real-world challenges of key populations is more effective, allowing change to occur organically alongside advocacy.

» For more information, visit Thailand's [SWING Police Cadet Internship](#)

## Stigma and Discrimination

Stigma and discrimination are the foremost barriers to ending HIV.<sup>6</sup> Developing initiatives that challenge and reduce stigma and address criminalisation of key populations vulnerable to HIV and people living with HIV should be prioritised.

### 4. Address structural stigma and discrimination:

Removing structural forms of stigma and discrimination and ensuring legal protections against discrimination for key populations and people living with HIV are important first steps. This includes challenging stigma and discrimination among healthcare professionals towards people living with HIV and promoting the concept of U=U. It is essential to recognize that criminalisation of drug use, HIV transmission, HIV non-disclosure, sex work and same-sex relationships contribute to stigma and discrimination and hinder the provision of evidence-based interventions and services for key populations.



**5. Guide understanding around stigma and discrimination:**

Research into stigma and discrimination of people living with HIV and key populations should include measuring social attitudes to identify ways to improve public education and challenge misconceptions around HIV. The People Living with HIV Stigma Index is a community-led, standardized research tool, which can be used to gather evidence of stigma and discrimination experienced by people living with HIV and key populations for use in advocacy and programme development.

**6. Improve public attitudes towards HIV:** Campaigns, national guidelines, and education programmes should be developed to improve public attitudes towards people living with HIV and promote deeper understanding of HIV. Community-building efforts to support key populations, either online or in person, must be sustained to ensure that communities remain empowered to address stigma and discrimination and advocate for change.

**7. Reduce healthcare-based HIV stigma:** Policy makers, healthcare providers, and industry should utilise professional networks to promote greater knowledge of HIV in the healthcare sector, challenge misconceptions or stigmatising attitudes, improve use of appropriate and sensitive language, and ensure U=U is included in clinical training programmes and initiatives.



## HIV Prevention

All people at risk of acquiring HIV should have access to a combination of people-centred and effective HIV prevention options, including PrEP, PEP, condoms and lubricants, and harm reduction services. Sound HIV prevention strategies also rely heavily on effective treatment delivery and access. This should be supported by increasing awareness of U=U and acceptance of treatment as prevention as a legitimate prevention approach. It is now the responsibility of territories to scale-up implementation.

### 8. Scale up of HIV Pre-Exposure Prophylaxis services:

Improving PrEP access is an important and urgent step in the prevention of HIV transmission and the following steps should be taken in parallel where possible to overcome existing barriers. This should include:

- a. **Research into populations who may benefit from PrEP:** Further research is needed to support the implementation of PrEP, including size estimation of key populations who may benefit from PrEP. This includes those who are engaging in sexualised drug use. Cost-effectiveness

studies to support the funding of PrEP, and research on health service preferences among key populations for PrEP can help guide programmes.

- b. **Raise awareness of PrEP:** Education initiatives must be developed to raise awareness on the effectiveness of, and access to, PrEP among key populations, with particular emphasis among vulnerable populations, such as MSM, sex workers, transgender people or people who inject and/or use drugs.
- c. **Increase coverage of PrEP:** Greater advocacy for the inclusion of PrEP in national health funding programmes and target setting for PrEP use in territories.
- d. **Differentiate and simplify PrEP:** Services to deliver PrEP should continue to be demedicalised, simplified, differentiated and digitalised. This involves the adoption of novel PrEP delivery models and packages that facilitate person- and community-centred care.



## Providing data for evidence-based policy making in PrEP

In February 2018, South Korea approved PrEP for the prevention of HIV infection. A cost-effectiveness modelling study conducted on PrEP found that implementing PrEP for all MSM would avert 75.2% of HIV infections and facilitate a gain of 37,372 quality-adjusted life-years (QALY) at a cost of \$274,822 per QALY gained over 20 years.

Initiating PrEP in a larger proportion of MSM in South Korea would prevent more HIV infections, despite increasing cost per QALY. Focusing PrEP on higher risk MSM and any reduction in PrEP cost would improve cost-effectiveness.

» For more information, visit [South Korea's PrEP cost-effectiveness modeling study](#)

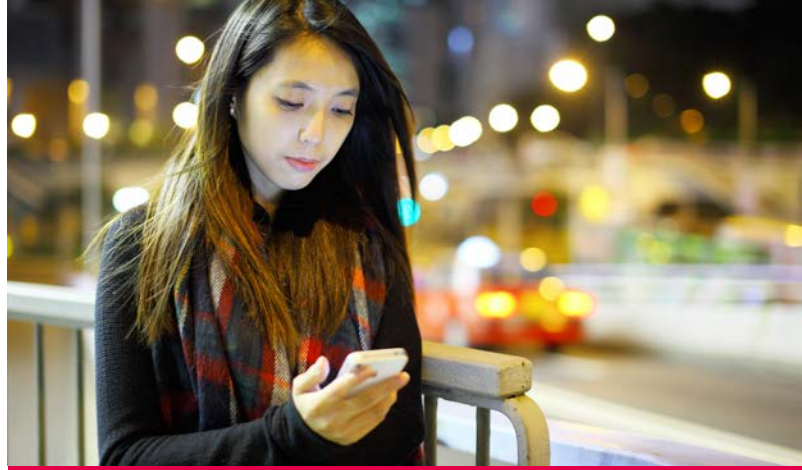


## Testing, Diagnosis and Treatment

Policies should overcome barriers to testing, diagnosis and treatment to achieve the UNAIDS targets.

### 9. Diversify HIV testing options including scaling up HIV self-testing:

Having multiple access points for HIV testing is critical to ensuring access and uptake. This can be provided through centre-based testing, community-based testing, and self-testing. Initiatives, including digital approaches, should be implemented to strengthen distribution and access to self-testing kits, particularly to underserved key populations and those who have not tested or do not test regularly. Health systems should also provide broader access to post-testing support such as counselling services, especially for those who test positive. For those who test negative, linkages to prevention, testing and education resources are important.



### Leveraging digital interventions to increase HIV self-testing

Digital interventions have shown promise in promoting HIV testing and linkage to care, especially in Asia where key populations may face barriers to accessing facility-based testing services due to perceived stigma.

online resources (video on HIVST and discussion forum containing positive feedback from HIVST-online users). They found that this helped increase HIV testing coverage among MSM in Hong Kong, and that many participants found the online service important, particularly for those who needed support following a positive HIVST result.

In Hong Kong, a pilot implementation project developed by researchers in collaboration with AIDS Concern provided MSM HIV self-testing (HIVST) kits that were delivered by mail, alongside online real-time counselling and access to

» For more information, visit: [AIDS Concern](#)

### Web series to reduce stigma and promote HIV testing and linkage to care

Developed by Action for AIDS Singapore and Gayhealth.sg, the 'People like Us' web series follows the lives of four gay men in Singapore. The aim is to raise awareness and encourage testing among MSM and the wider audience and reduce the stigma and discrimination faced by MSM. The series has garnered millions of views, with season two nominated for an Emmy Award.



A randomised controlled trial to evaluate the web series found it was effective in increasing intention to test, and actual regular testing for HIV and other STIs.<sup>41</sup> There was also moderate evidence that the video was helpful in spurring testing despite testing being hampered by COVID-19 lockdowns.

» For more information, visit [People Like Us web series](#)

### 10. Ensure safe, confidential, and high-quality evidence-based HIV services:

Ensuring confidentiality when developing and providing HIV services is critical to improve diagnosis and treatment uptake. Such services should adhere to the latest WHO guidelines on prevention, diagnosis, treatment and care for key populations, ensuring they remain of high quality and evidence informed.

### 11. Expand implementation of same-day antiretroviral treatment:

Same-day ART initiation has been shown to reduce the gap between testing and treatment uptake and should be promoted wherever feasible. Implementation research on same-day ART should be conducted to guide improvements in delivery.

### 12. Improve access to novel antiretroviral drugs and treatment modalities:

To improve outcomes from treatment, people living with HIV should have access to modern guideline-recommended treatments that improve their quality of life. To do so, effective public subsidy schemes, fit-for-purpose regulation and local clinical guidelines, and other factors must be addressed.





## Quality of Life for people living with HIV

Efforts must be made to identify facilitators and barriers to quality of life among people living with HIV, and adapt treatment programs that optimize clinical, mental health, and social outcomes.

### 13. Conceptualise and monitor quality of life for people living with HIV:

Regular monitoring of quality of life and its determinants among people living with HIV should be conducted to inform better decision-making in clinical practice and beyond. This should be holistic and address the impact of stigma, ageing and co-morbidities, psychological well-being, sexual health, and mental health, alongside other physical and psychological determinants.

### 14. Integrate health services for people living with HIV:

Complementary person-centred health services, especially in the areas of psychological well-being, ageing and co-morbidities, should be integrated with HIV services to optimise care for people living with HIV, with health services organised around the needs of individuals.

## More support needed to address quality of life and low mental well-being among people living with HIV

A first-of-its-kind study was conducted between 2017 and 2020 in South Korea with 20 and 30-year-olds living with HIV, examining their depressive symptoms, suicidal ideation, and experiences of hateful messages on HIV over the three-year period.<sup>42</sup>

The study surveyed 199 respondents, with a majority being male (n=187). The study found that depressive symptoms among men living with HIV were high at 52.4%, compared to 14.7% reported in the general population.

Similarly, suicidal thoughts were high, with 59.7% of male respondents reporting having suicidal thoughts, compared

to the national reported prevalence of 2.5% of men in the general population. In addition, 35.8% of men living with HIV reported having planned for suicide in the last 12 months, compared to 0.8% of the general population.

The study demonstrated evidence that low mental well-being and suicidal thoughts, and attempts were far higher among young people living with HIV compared with the public. More targeted initiatives are needed for people living with HIV to significantly reduce the impact of stigma and discrimination.



## Using digital interventions to improve mental well-being among people living with HIV and depression

'Run4Love' is a WeChat app-based intervention that offers cognitive behavioural stress management courses and weekly reminders of exercise to people living with HIV and depression. The intervention was conducted in a randomised trial in Guangzhou, China, involving 300 participants recruited from an outpatient clinic of a hospital designated for HIV treatment.

Participants were screened based on the Centre for Epidemiologic Studies-Depression (CES-D) scale (a measure of depression). Those who scored 16 or higher were eligible to participate and assigned to either the intervention or control group. The control group was provided standard of care and a brochure on nutrition. The study found a significant reduction in depression after intervention (from a CES-D score of 23.9 to 17.7 compared to 24.3 to 23.8 with a significant difference of -5.77). At the six- and nine-month follow ups, there were statistically significant differences between the intervention and control groups.

The results suggest that an app-based mental health intervention could provide a feasible therapeutic option for many people living with HIV and depression in resource-limited settings.

» For more information, visit China's Run4Love study findings here



**Stakeholder Recommendations**

**Cross-cutting Recommendations**



**Policy Makers and Government**

- Support the development of key population-led health services and scaling up of community- led services by developing suitable policy environments and resources

- Require and coordinate the collection of a common set of anonymised data on people living with HIV and key populations to improve HIV services, outreach, and quality of life for people living with HIV

- Endorse, drive awareness and acceptance of U=U
- Work with stakeholders to ensure the availability of resources and adherence to international guidelines for quality viral load testing to support healthcare professional confidence

**Stigma and Discrimination**



- Establish reporting mechanisms to document the burden of stigma and discrimination in the country
- Identify and remove structural forms of stigma and discrimination and ensure legal protections for key populations and people living with HIV

- Fund and coordinate research on stigma and discrimination towards people living with HIV and key population to identify ways to improve public awareness and challenge misconceptions
- Work with community organisations and media to develop community-led campaigns, national guidelines, and education programmes to improve public attitudes towards HIV
- Provide resources to empower community leaders and members to advocate for an end to stigma and discrimination

**Industry, Healthcare Professionals and Community Leaders**

- Provide access to key population-led health services and scaling up of community-led services, while reducing barriers to access

- Target investment towards sustainable and ongoing community initiatives, rather than one-off projects.

- Contribute to a common set of anonymised data on people living with HIV and key populations to improve services, outreach, and quality of life for people living with HIV

- Community-led monitoring and evaluation where key populations and people living with HIV lead the design of the indicators for monitoring and how the findings can be translated to improve service delivery and policy changes

- Endorse the concept of U=U and empower clinicians to play a leadership role in explaining U=U to people with HIV and the community

- Work with stakeholders to ensure resources and adherence to international guidelines for quality viral load testing, and support healthcare professional confidence

- Industry partners to ensure access to affordable viral load testing and support research on more efficient ways to implementing viral load testing. Engage in sensitive discussions with patients and partners about U=U, encourage ART initiation and adherence

- Identify and call out stigmatisation among the healthcare community towards people living with HIV

- Recognise criminalisation (in areas such as drug use, HIV transmission, HIV non-disclosure, sex work and same-sex relationships) contributes to stigma and discrimination and hinders provision of evidence-based interventions and services

- Lead and coordinate research on stigma and discrimination towards people living with HIV and key populations to identify ways to improve public awareness and challenge misconceptions

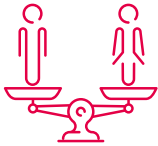
- Develop campaigns, contribute to national guidelines and education programmes to improve public attitudes towards HIV

- Build community support for key populations, either online or in person, and ensure community leaders and members actively address stigma and discrimination and advocate for change



**Stakeholder Recommendations**

**Stigma and Discrimination**



**HIV Prevention**



**Testing, Diagnosis and Treatment**



**Quality of Life**



**Policy Makers and Government**

- Work with healthcare industry bodies (pharmaceutical and diagnostics companies) to improve HIV knowledge within the sector
- Develop national guidelines on U=U for clinical communication, as well as curricula in clinical and peer training programmes and initiatives

- Ensure access to people-centred HIV prevention strategies that include a combination of PrEP, PEP, condoms and lubricants, and harm reduction services
- Develop national guidelines on PrEP prescribing to raise awareness and promote knowledge of PrEP among healthcare providers
- Conduct more research on key populations that may benefit from PrEP, and the cost-effectiveness of funding or subsidising PrEP

- Establish conducive policy and practical setting to enable a variety of HIV testing options (including centre-based, mobile testing, self-sampling, and self-testing)
- Identify and remove regulatory bottlenecks and barriers in the registration process for HIV-self testing products, and work with providers to reduce pricing.
- Provide fit-for-purpose regulatory environments that promote and enable safe, confidential, and high-quality evidence-based HIV service delivery
- Include same-day antiretroviral treatment in national guidelines for HIV treatment, fund related research and ensure services are available
- Ensure access to modern antiretroviral treatments via public health subsidy schemes or drug registers

- Regularly monitor quality of life determinants among people living with HIV to inform better decision-making in clinical practice and beyond
- Integrate broader health services for people living with HIV, especially relating to mental and sexual health, ageing, and other co-morbidities
- Review primary care settings to ensure health services are organised around the individual, with right siting of care provided

**Industry, Healthcare Professionals and Community Leaders**

- Leverage existing networks to improve knowledge of HIV within the healthcare sector and include U=U in clinical training programmes and initiatives

- Raise awareness on the effectiveness of PrEP among key populations who may benefit from it
- Work with policy makers and government to further demedicalise, simplify, differentiate and digitalise PrEP

- Provide a variety of HIV testing options (including centre-based, mobile testing, self-sampling, and self-testing)
- Industry to invest more in efficient registration process for novel HIV diagnostics and treatment products, and work closely with communities on demand generation and innovative ways to bring products to the users.
- Deliver safe, confidential and high-quality evidence-based HIV services
- Advocate for the provision of same-day antiretroviral treatment. If possible, conduct research on same-day antiretroviral treatment initiation
- Promote and ensure clinical access to modern antiretroviral treatments

- Healthcare professionals should take a holistic view of quality of life and ensure that the provider-patient relationship empowers patients
- Integrate broader health services for people living with HIV, especially relating to mental and sexual health, ageing, and other co-morbidities
- Ensure primary health services and information are tailored to suit the needs of communities, sensitive to cultural context, with right siting of care provided





SECTION 4

# Local Territories: Challenges and Findings

The following territory profiles provide a summary of how each participating territory to the HIV Care Continuum & Beyond initiative has performed against key focus areas: Stigma and discrimination, prevention, testing, diagnosis and treatment, and quality of life.



## CHINA



China has achieved varied success against the UNAIDS targets across key provinces.

In 2016, 60% of people with HIV in Shandong province knew their status, 42% were on treatment ART and of these, 60% were virally suppressed.<sup>43</sup> Meanwhile, Yunnan province reported that they had met the UNAIDS initial 90-90-90 goals with 90.1% knowing their HIV status, 90.5% receiving therapy and 96.3% effective therapy. The province also proclaimed itself an “AIDS Prevention Demonstration Area”.<sup>44</sup> Recent studies in China estimate that as of 2021, among who have been diagnosed with HIV, 92.6% are receiving ART, while 95.4% of those tested for viral loads had achieved viral suppression.<sup>45</sup>

The COVID-19 pandemic had a similarly varied impact on HIV infections and deaths depending on the region and disruption to services. Based on regional data from China, during the pandemic, HIV testing decreased by 59%, and there was a 34% reduction in HIV treatment initiation and 25% reduction in condom use.<sup>46</sup>

China has experienced a significant rise in HIV cases each year over the past two decades<sup>47</sup> and now accounts for 3% of new HIV infections globally.<sup>43</sup> From January to October 2020, 112,000 people were diagnosed living with HIV/AIDS cases and there were 1.045 million reported living HIV/ AIDS cases in China, a prevalence of <0.075%.<sup>47</sup>

HIV/AIDS incidence rates have continued to grow steadily in recent times, reaching 5.1 cases per 100,000 in 2019 but decreasing to 4.43 cases per 100,000 in 2020 likely due to the impacts of the COVID-19 pandemic on testing and diagnosis. Sexual transmission now accounts for 90% of transmission in China,<sup>48</sup> and the biggest increase in infection rates are

among key populations including MSM. Prevalence within that key population grew from 0.9% in 2003 to 6% in 2020, peaking in 2015 at 8%.<sup>49,50</sup> Transmission through sex workers is also a key issue in China, with 59.3% of men living with HIV reporting that they contracted the virus through commercial sexual activity.<sup>51</sup>

### Key issues in diagnosis and prevention

While free HIV screening and diagnosis has been available since 2003, late diagnosis and linkage to care remain challenges in China even among key populations such as MSM.<sup>52</sup> The proportion of people with CD4 cell count over 350 (an indication of good health and quicker diagnosis) dropped from 39% in 2017 to 35% in 2019, suggesting people’s health at first diagnosis was proportionally worse.

It has been argued that increasing anonymous and free testing may increase HIV testing among MSM in China, particularly those from lower income groups.<sup>53</sup> HIV Self-testing pilots have been carried out in eight community-based organisations across seven provinces in partnership with CDCs, and they are also available through online pharmaceutical stores. But funding has been limited and at present, there are no national guidelines on self-testing.<sup>54</sup>

COVID-19 has further hampered testing and diagnosis efforts, with HIV testing rates in the first three months of 2020 decreasing by 49% in Jiangsu, China,<sup>55</sup> for example.

On awareness of PrEP, a 2017 survey found that of more than 4,500 MSM nationwide, only 22.4% had heard of PrEP before and only 26% said they would use PrEP should it become more accessible.<sup>56</sup> In fact, 56.8% of respondents to the 2017 survey doubted the prevention method’s efficacy.



PrEP was approved for use in August 2020 by the Chinese National Medical Products Administration.<sup>47</sup>

### Key issues in linkage to care and treatment

There are huge variations across China on how HIV care is provided. Care and treatment are provided primarily through infectious diseases hospitals or community health facilities but this is shifting towards a community-based model involving a wide range of stakeholders.<sup>57</sup>

Challenges to implementation still exist due to concerns over unclear divisions of responsibility, funding, as well as quality control.<sup>57</sup> Barriers to being treated and diagnosed in community health centres (China's primary care setting) include stigmatised attitudes from healthcare professionals, lack of training and concerns about funding and cost of tests.<sup>16</sup>

Other studies suggest that people living with HIV who are MSM were concerned about confidentiality in a community setting, where they could be seen by others when seeking HIV treatment. There has also been reports of confidentiality being compromised in some settings, where discussions and counselling has been overheard by others.<sup>57</sup>

HIV treatment has been free in China since 2003 through the National Free Antiretroviral Therapy Programme and since 2016, enrolment in free treatment has been made available to all HIV-infected patients regardless of CD4 cell counts.<sup>58</sup> The government has committed to providing universal access to HIV medications through initiatives such as the "Four Frees and One Care" programme, providing free antiretroviral therapy, counselling and testing, blocking transmission between mothers and infants, and economic assistance to those living with HIV.<sup>59</sup> The concept of U=U is recognized by the China CDC.<sup>60</sup> There are also discussions by doctors on open forums about U=U.<sup>61</sup>

### Key issues in quality of life and stigma

The lack of education on sexuality in China is a major barrier to effective and open discussion on sex and sexual health. However, since 2016, there has been an expansion of sex education to middle and high school students, as well as HIV prevention pilots at universities which incorporate HIV education into teaching plans and annual assessments.<sup>62</sup>

Although decriminalised in 1997, discrimination against the Lesbian, Gay, Bisexual, Transgender and Queer and others (LGBTQ+) communities is still strong. Studies estimate that between 70% to 90% of MSM have married women due to social pressures.<sup>63</sup> Criminalisation of key populations, mainly sex workers and people who inject drugs, has also continued to hamper efforts to constructively engage with them.<sup>43</sup>

In a 2015 national quality of life study among older people living with HIV, issues including side effects of antiretroviral therapy, chronic non-communicable diseases and high levels of negative self-image were associated with poor quality of life (n=242).<sup>64</sup> Additionally, negative self-image, workplace discrimination, poor social support and lack of policy support were also critical factors associated with employment quality among people living with HIV.<sup>19</sup>



## HONG KONG SAR



Hong Kong has a good track record of reducing HIV transmission and deaths and increasing the number of people living with HIV on treatment.<sup>65</sup> Hong Kong has set nine targets in HIV prevention, testing, diagnosis and treatment that are all aligned with the UNAIDS targets.

As of end 2020, Hong Kong's progress was reported as 94% of all people living with HIV knowing their HIV status, 84% with diagnosed HIV infection on sustained antiretroviral therapy and 97% receiving antiretroviral therapy successfully with viral suppression. Key at-risk populations for HIV include MSM, transgender people, female sex workers and their clients, people who inject drugs, and ethnic minorities.<sup>10</sup>

In 2020, Chinese men accounted for most of the new cases and most people living with HIV were aged between 20 and 49 years. Sexual contact contributed to at least 81% of all reported cases, with 65.7% of new HIV cases among MSM.<sup>66</sup> There are an estimated 9,359 people living with HIV in Hong Kong, mostly between the ages of 30 and 60, and 80% are male.<sup>67</sup> In the last 10 years there have been increasing infections in young MSM.<sup>68</sup>

### Key issues in diagnosis and prevention

Diagnosis remains a key challenge with at least 6% of people living with HIV not knowing their status. There are generally low testing rates among at-risk populations,<sup>68</sup> but efforts are being made to actively reach out to these groups.

The absence of a large PrEP program is the most obvious gap in the Hong Kong HIV response. PrEP is not yet available through the city's public healthcare system although it is available privately at relatively high cost.<sup>69</sup> A pre-implementation study has been completed by the Chinese

University of Hong Kong to develop a service model for PrEP delivery and test its operability in the real-world setting.<sup>70</sup>

There is undoubtedly demand for the prevention method in Hong Kong. In 2020 only 9.3% of MSM had not heard of PrEP.<sup>71</sup> Data from the NGO AIDS Concern shows that in 2022, 15% of MSM testing at their service have tried PrEP\*. However, the main barrier remains access to affordable medication.

Older data shows that in 2016, 50% of MSM in the community (n=453) were aware of PrEP, and an even higher proportion (78%) were willing to take PrEP should it become available.<sup>72</sup> In 2017, PrEP awareness, experience and willingness was 58%, 4% and 48% respectively among MSM, according to a study conducted in 2018. Meanwhile, awareness, experience and willingness were 32%, 2% and 51% in the transgender community (n=4133 MSM and 104 transgender).<sup>73</sup>

The Hong Kong Society for HIV Medicine has also published a consensus statement of acceptance of U=U, paving the way for more advocacy and education.<sup>74</sup>

Community-based services are crucial, and MSM report that the most common venue for their last HIV test include NGOs (74.3%), public sector facilities (12.7%) and private sector facilities (7.2%).<sup>75</sup> Community service providers and NGOs also provide outreach testing services for MSM and sex workers. Examples include mobile HIV testing services, HIV self-testing, health education through chat rooms and social media to reach hidden populations, as well as in-person venue outreach.<sup>68</sup>

In 2017, the Hong Kong Advisory Council on AIDS recognised that there was inadequate testing among key populations, including MSM, transgender people, female sex-workers and

\* Internal data provided by AIDS Concern



their clients, people who inject drugs and ethnic minorities.<sup>68</sup> A 2018 survey with MSM found that 83.0% had received a HIV test, but only 64.5% had been tested in the preceding 12 months.<sup>75</sup> HIV testing is now offered as part of routine antenatal blood testing, while annual HIV antibody tests are offered at methadone clinics and to tuberculosis patients in chest clinics.<sup>68</sup>

MSM who actively seek out HIV testing are generally older, better educated, have a higher monthly income, and more likely to self-identify as gay (MSM n=444). These demographics are also associated with higher PrEP acceptance.<sup>76</sup>

Self-testing is available in Hong Kong and may be a way of reaching MSM most at risk of HIV. HIVST can now be purchased over the counter in pharmacies or online for the equivalent of US\$25 or more.<sup>77</sup>

While a 2015 study found low rates of acceptability and usage for self-testing among MSM in Hong Kong due to concerns about accuracy and lack of information,<sup>78</sup> a more recent study suggested that offering HIV self-testing kits with online counselling, by community-based organisations, would improve testing coverage and repeat testing among Chinese MSM.<sup>79</sup>

On prevention, the government runs several programmes in different settings. This includes dissemination of HIV prevention messages by the Department of Health and NGOs – via traditional and online media and internet outreach. Free condom and lubricant distribution are also on offer with some 400,000 condoms distributed in 2020.<sup>80</sup> However, evidence remains of younger MSM having the lowest rates of testing and condom use compared to other age groups.<sup>72</sup>

Chemsex, or sexualized substance use, which has been on the increase, has also been raised as a contributing factor to HIV infections among MSM in Hong Kong.<sup>81</sup>

### Key issues in linkage to care and treatment

Recent studies reported several gaps in services for people living with HIV. It was found that among young MSM and people living with HIV in Hong Kong, leakage from HIV care was worse if testing occurred at home or referrals were made by general practitioners unfamiliar with the HIV care and

referral process.<sup>82</sup> In fact, young MSM were more engaged in care if they attended a gay-friendly NGO for testing.

Other contributors to leakage included psychosocial concerns as well as external factors such as stigma, employment and health insurance concerns.<sup>82</sup> Several gaps in linkage to care have also arisen as a result of the COVID-19 pandemic. Of people who expressed a need to access HIV services, 22.9% said that they had moderate to high difficulties in accessing HIV services during the COVID-19 pandemic, while another 33.9% expressed mild difficulty accessing services, according to a 2021 study.<sup>83</sup>

Three HIV centres in Hong Kong manage the care of most people living with HIV in Hong Kong.<sup>84</sup> Since 2015, all individuals diagnosed with HIV are provided antiretroviral treatment irrespective of the stage of the disease, with the goal of a sustained undetectable viral load.<sup>67</sup> In 2020, 97.4% of active patients were on Highly Active Antiretroviral Therapy (HAART) in the three public clinics.<sup>67</sup> Treatments are subsidised for Hong Kong citizens, costing approximately HK\$400 – HK\$700 (US\$50 – US\$90).<sup>85</sup>

### Key issues in quality of life and stigma

Several studies have found unfavourable attitudes and stigma towards people living with HIV and key populations remain a problem issue in Hong Kong.

Over half of people living with HIV in the territory report feeling discriminated against in various settings, such as in the workplace or in social relationships.<sup>20</sup> Many MSM living with HIV also experience ‘double stigma’ for both their sexuality and for their positive status.<sup>15</sup>

Discrimination is not limited to social settings. Female sex workers in Hong Kong have reported experiencing stigma from health care providers while seeking treatment for sexually transmitted diseases or infections – especially from public health care workers.<sup>17</sup>





# SINGAPORE



Singapore has a relatively low prevalence of people living with HIV, but new cases continue to arise largely through sexual transmission.<sup>86</sup> Key populations at higher risk of HIV infection and transmission in Singapore include heterosexual men with multiple partners and male clients of female sex workers, MSM, unregulated sex workers (i.e., non-brothel-based), persons who use drugs, and transgender persons.<sup>21</sup>

The city state experienced a steep increase in incident cases in the early 1990s among men, mostly via heterosexual transmission, before stabilising in 1999. The well-regulated sex work industry and promotion of condom for sex workers was a key element in reducing transmission rates.<sup>87</sup>

In December 2020 (based on 2018 data), Singapore's Ministry of Health announced that it had met the UNAIDS targets for treatment and viral suppression (both 91%); however, only 80% of people living with HIV knew their status.<sup>11</sup> In 2021, there were 250 new cases of HIV infection reported among people in Singapore, with 95% male and 68% aged 20 to 49 years.<sup>86</sup>

## Key issues in diagnosis and prevention

Of all the HIV targets set by UNAIDS, improving diagnosis rates is Singapore's key challenge area.<sup>11</sup> Over half (62%) of diagnoses reported in 2021 had late-stage HIV infection. Only 16% were detected through self-initiated HIV screening and 18% through routine HIV tests, while 57% were detected as part of medical care.

Voluntary HIV testing among heterosexual men (HSM; 8%) in Singapore is substantially lower as compared with MSM (23%). Experts suggest that this is due to the low levels of self-perceived risk, and HIV-associated stigma, evident by an increase in the number of late-stage HIV infections among HSM – increasing from 43.2% in 2012 to 65.6% in 2017.<sup>21</sup>

Several barriers to testing remain. There is a need to educate the public on the efficacy of HIV treatment, as data from published studies shows that sectors of at-risk communities still think that HIV is a “death sentence”, which may act as a deterrent to seeking care in cases of positive diagnosis.<sup>30</sup> Psychological barriers to testing for HSM include social stigma against HIV, fear of being judged by family and friends, and self- stigma towards HIV.

The fear of discrimination from testing positive prevents people from getting tested, with older men holding the view that HIV is a shameful illness, and they would rather die than face the judgement of others. There is a general lack of awareness of HIV screening or treatment among HSM, who may have a low perceived risk.\* Men in Singapore have also expressed concerns of being judged by healthcare professionals for their HIV status, favouring anonymous testing methods to avoid speaking directly with a doctor or nurse and maintaining control over who knows about their diagnosis – especially since notification of HIV diagnosis to the National HIV Registry is mandated by the Infectious Disease Act in Singapore.<sup>30</sup>

On testing options, rapid testing (results within 20 minutes) is available,<sup>30</sup> as is anonymous testing in 10 sites across Singapore.<sup>88</sup> From August 2022, the National HIV programme will be introducing HIV self-testing to complement existing modes of testing.<sup>86</sup>

The Ministry of Health and the Health Promotion Board (HPB) urge individuals who engage in high-risk sexual behaviour to go for early and regular HIV testing. Apart from abstinence, being faithful, condom use and early detection, prevention modalities such as PrEP have not been emphasised.

PrEP is available in Singapore, where there are national

\* From expert interviews



guidelines for its prescription,<sup>89</sup> and can be obtained through several specialist healthcare providers (Department of STI Control or DSC Clinic, National University Hospital and Tan Tock Seng Hospital).<sup>90</sup> But demand for PrEP and PEP among the local MSM population is substantially underserved by current resources in Singapore, and uptake of PrEP at official institutions (DSC, TTSH and NUH) has been low due to the high cost of medication and poor awareness of available services.<sup>21</sup>

A recent study with MSM suggests there are significant challenges to overcome to improve uptake in Singapore (n=33).<sup>91</sup> Barriers include cost, concerns around side effects, confidentiality of services, potential increase in risky sexual behaviors due to perceived lower risks of contracting HIV when taking PrEP in the community, and potential stigma around PrEP use. U=U is accepted by National HIV Programme and supported by a recent Health Ministry statement that people living with HIV who have an undetected viral load have practically no risk of transmitting the virus to their sexual partners.<sup>92</sup>

### Key issues in linkage to care and treatment

COVID-19 has decreased access to medical and healthcare services among sex workers in Singapore.<sup>93</sup> Action for AIDS noted that COVID-19 resulted in major disruption to community-based services, including HIV responses.<sup>94</sup>

Against the UNAIDS targets, Singapore has been largely successful at treating HIV and obtaining viral suppression. HIV treatment can now be started the same day as diagnosis, with the National University Hospital being the first to offer this in 2020, cutting waiting times by four days at the infectious disease clinic.<sup>95</sup> The National Centre for Infectious Diseases (NCID) plays an important role in providing clinical care, counselling and support to people living with HIV.<sup>92</sup> However, barriers to retention in HIV care include high costs of ART despite financial assistance, perceived stigma associated with visiting HIV facilities, other life priorities such as work, and long waiting times at the clinic (n=11 in 2016).<sup>96</sup>

Cost-related challenges may have been eased recently in 2019 as HIV treatment is now subsidised through Standard Drug List and Medication Assistance Fund.<sup>97</sup>

### Key issues in quality of life and stigma

HIV-related stigma and discrimination remain a significant challenge in Singapore.<sup>98</sup> Research suggests MSM fear being judged or discriminated against by healthcare professionals, being subjected to state surveillance or spotted by friends,

colleagues or family members attending HIV treatment or sexual healthcare settings which are perceived as “gay spaces” or for people taking part in risky sexual behaviours.<sup>99</sup>

Internalised stigma is also a factor that negatively impacts people living with HIV, as the sense of shame and guilt felt for having HIV remains strong among people living with HIV in Singapore.<sup>100</sup> People living with HIV feel HIV is set apart from other illnesses, and seemingly rejected as a normal chronic medical condition.<sup>100</sup>

Acknowledging that stigma exists, the government and community partners have stepped up efforts to reduce stigma through television drama and workplace education programmes, as well as experiential roving exhibitions to reach out to the wider public.<sup>98</sup> Despite these efforts, issues relating to structural stigma persist.

These include issues of HIV-related criminalisation through the Infectious Diseases Act (for non-disclosure of risks to sexual partners, donating HIV positive blood), as well as through laws now under review, which have in the past acted to criminalise sexual relations between men.<sup>101</sup> This has meant that although MSM are a key population, relatively little research has been done among gay, bisexual, and queer men, potentially due to MSM criminalisation creating negative societal attitudes.<sup>99</sup>

While sex work in itself is legal, all other activities such as advertising for sex work, running brothels, and earning a salary from the management of sex workers are not; this makes sex work effectively illegal and impedes HIV prevention efforts.<sup>102</sup> Other structural issues include employment restrictions for foreigners who have HIV, mandatory notification of authorities for HIV infection and the lack of anti-discrimination workplace laws to protect people living with HIV and LGBTQ individuals.<sup>21</sup>

In terms of quality of life, several issues serve as barriers to addressing ageing for people living with HIV in Singapore.<sup>103</sup> First, evidence suggests that improved training for healthcare professionals would help to meet the needs of people living with HIV. Second, this group is often overlooked as HIV prevention and community support for people living with HIV traditionally targets a younger demographic. Third, older people living with HIV may face stigma of a unique nature, but this is not well understood in the local context yet.<sup>103</sup>

Singapore’s National HIV Programme commits to doing more than only prolonging life for people living with HIV, and to pursue assurance of quality of life, which means challenging the stigma and discrimination that continue to affect the health and well-being of individuals and key populations.<sup>92</sup> This includes an acceptance and communication of U=U.



## SOUTH KOREA



In 2020, new notified HIV/AIDS cases amounted to 1,016, which is 16.9% lower than the previous year.<sup>104</sup> Of those, 92% were men, with the highest prevalence among younger generations: 33.8% in their 20s, 29.8% in their 30s.<sup>104</sup> The majority, 71.9% of the notified cases were detected at hospitals and medical institutions. In terms of transmission, 99.75% of incident HIV cases were reported as being transmitted through sexual contact.<sup>104</sup> In men, 58.3% of reported transmission was among MSM.<sup>104</sup>

In November 2019, the Ministry of Health and Welfare and KCDC (now KDCA) developed AIDS Prevention and Management Measures in line with the UNAIDS targets. With the objectives of “Zero New Infection, Zero Death, Zero Discrimination”,<sup>105</sup> their intention is to reach 90% for all targets by 2023 and 95% by 2030.

### Key issues in diagnosis and prevention

To improve testing, budget allocation for HIV and STDs increased from 15.1 billion KRW (US\$11million) in 2021 to 16.5 billion KRW (US\$14million) in 2022 (9.1% increase).<sup>106</sup> The added expenditure is expected to be used to increase the number of medical institutions offering counselling for people living with HIV from 26 to 28, and to provide 10,000 self-test HIV kits to key populations.

Korea provides free HIV screening tests for residents including vulnerable groups.<sup>104</sup> Screening is also part of the pre-natal care for women and women have the highest percentage of HIV testing conducted in Korea.<sup>104</sup> Despite extensive testing efforts, higher HIV positive rates have been found among anonymous tests, voluntary tests and foreign resident check-ups.<sup>104</sup>

The introduction of the rapid diagnostic tests at public health centres since 2014 has contributed to an increase in the number of anonymous tests.<sup>105</sup> Out of fear of stigma associated with HIV, people prefer to be tested anonymously, which provides quick results without revealing their identities.<sup>105</sup> The AIDS Prevention and Management Measures, published in 2019, targeted strengthening early diagnosis and treatment, reducing the recommended timeline for testing after HIV exposure from 12 weeks to four weeks, re-testing HIV-negative results in six to 12 weeks and improving availability of HIV testing at public health centres.<sup>105</sup> HIV self-testing has been available since 2015.<sup>107</sup>

In terms of prevention, awareness and education are key areas of focus in Korea. Education around HIV has been slow among youths (middle school and high school students),<sup>108</sup> but efforts are being made to promote awareness of HIV among this group in Korea.<sup>108</sup>

PrEP for HIV prevention was available in Korea in 2018, after the Korean Society for AIDS published PrEP use guidelines in 2017.<sup>109</sup> Research has since surfaced suggesting that initiating PrEP in high-risk MSM in Korea could prevent 78% of all HIV transmission.<sup>110</sup>

Information about uptake and implementation is rare, but several barriers exist contributing to slow uptake. First, the cost of PrEP is significant and the national health insurance coverage for PrEP is limited to sexual partners of people living with HIV. When not covered by insurance, medication for PrEP costs about US\$480 per month.<sup>110</sup> Second, a study found that most healthcare professionals and MSM in South Korea were not aware of PrEP,<sup>111</sup> and third, a lack of insurance coverage and knowledge of PrEP were major barriers to access.<sup>111</sup> Cost-effective analysis of PrEP for the prevention



of HIV in MSM in South Korea found that it would be cost-effective to implement PrEP in high risk MSM, but not cost-effective to offer it for all MSM in South Korea.<sup>110</sup>

### Key issues in linkage to care and treatment

According to the 2021 HIV/AIDS Management Guidelines, the Korean Government plans to provide accurate information related to HIV/AIDS, conduct educational training for at-risk groups and the public, strengthen training for healthcare professionals, operate an online education centre, enhance quality controls for testing, and increase awareness through joint public-private sector events.<sup>112</sup>

Research suggests that there is low trust in the healthcare system for people living with HIV and that certain forms of structural stigma prevail.<sup>37</sup> The HIV Stigma Index study conducted from 2016-2017, which surveyed 104 people living with HIV, provided a number of alarming findings: About 30% would avoid visiting a clinic when they needed; only 27% were certain that their medical records would be kept confidential, 54% weren't sure, 19% were certain their records were not confidential and 17% reported that their healthcare provider had even told others about their HIV status without consent.

With regard to HIV treatment, 90% of costs are covered by the National Health Insurance Service, and 10% are covered by central or local government budgets.<sup>113</sup> In September 2021, a further three drugs were added to the national health insurance service.<sup>114</sup> To foster a safe and non-discriminatory medical environment for both healthcare professionals and HIV treatment patients, KDCA published Clinical Guidelines for the Management of People Living with HIV in December 2020.<sup>112</sup> The AIDS Prevention and Management Measures published in 2019 also proposed multiple ways of strengthening early diagnosis and treatment.<sup>105</sup>

### Key issues in quality of life and stigma

People living with HIV in Korea are often exposed to stigma and negative messages toward them.<sup>37</sup> According to the UNAIDS HIV Stigma Index, over a third of people living with HIV (36.5%) have suicidal thoughts.<sup>37</sup> Only 13.5% of respondents said that they did not have any internalised stigma related to their HIV status. Self-blame, guilt and low self-esteem were common feelings among people living

with HIV.<sup>37</sup> Social support had a significant positive effect on quality of life for people living with HIV and on their sense of hope.<sup>115</sup> A unique study conducted in 2020, canvassing the views of individuals who work with people living with HIV, found those with the condition experienced "a wall of exclusion and prejudice" when seeking employment.<sup>116</sup>

Meanwhile, there has been a notable absence of nationwide efforts to reduce stigma and discrimination with no national HIV campaign launched for the general population since 2004. This lack of advocacy has contributed to sustained, ill-informed and discriminatory messages, which deeply affect people living with HIV.<sup>37</sup>

Social stigma around HIV discourages South Koreans from seeking HIV testing and treatment; stigma is also linked to disproportionately high suicide rates among people living with HIV in Korea.<sup>117</sup> Additionally AIDS is associated with negative words such as incurable disease, sexually transmitted disease, homosexuality and death.\*

Stigma is also reportedly being perpetuated by medical professionals. A cross-sectional survey identified contributing factors to HIV-related stigma and discrimination by medical professionals (57 infectious disease specialists, 24 infectious disease nurse practitioners).<sup>17</sup> These include pre-conceptions, fear of infection and lack of knowledge. Others have also reported that the government has not protected people living with HIV from discrimination and hospitals regularly turn away people living with HIV.<sup>117</sup>

A 2016 survey investigating the experience of discrimination in healthcare settings by people living with HIV found that 26.4% of people living with HIV have experienced cancellation or rejection of scheduled surgeries after revealing their status, 76.2% of people living with HIV said that they find it difficult to reveal their HIV status when visiting medical institutions for other conditions, and only 29.9% have reached out for support after experiencing medical discrimination.<sup>118</sup>

Double stigma exists for key populations such as MSM who are living with HIV and prevents MSM from seeking out healthcare services. Being gay is often considered taboo in South Korea and almost all MSM interviewed in a 2019 study hid their sexual identity from their family and society.<sup>119</sup> This makes outreach to the MSM population a major challenge.<sup>119</sup>

\* "AIDS" rather than "HIV" was the word used in the survey



All this evidence suggests that efforts such as education and campaigns are needed in South Korea to alleviate and reduce stigma and discrimination and improve the quality of life for people living with HIV.<sup>120</sup>

HIV transmission is criminalised through the AIDS Prevention Act.<sup>117</sup> There is a lack of legislative protection from discrimination for people living with HIV, which enables attacks that associate HIV with stigmatised key populations like MSM.<sup>117</sup> One study found 79.6% of respondents from the general population felt their chance of contracting AIDS was low. More than 30% of the respondents reported that HIV testing was unnecessary. Should they be infected, the intention to treat was as high as 75%.<sup>120</sup> In the general population, less than 20% of people were willing to notify others if they were diagnosed.<sup>120</sup>

The Korean Ministry of Justice removed the HIV testing for visa requirement in July 2017.<sup>121</sup> However, this is seen as a partial solution as local authorities and individual employers can still force workers to undergo testing either through coercion or by testing workers without their knowledge. Other efforts are ongoing to increase HIV-related education and campaigns for general population and specific target groups,<sup>105</sup> and establish laws that ban discrimination that may criminalise one's HIV status and sexual orientation. However, push-back from conservative groups slow this process.<sup>122</sup>



# TAIWAN



The first HIV case in Taiwan was reported in 1984. By 2021, there were 42,260 people living with HIV, including 20,343 in the infective stages of HIV infection.<sup>123</sup> People aged 25 to 34 accounted for 815, or 46%, of new infections diagnosed in 2019, more than any other group. The second largest group was the 15 to 24 age group, with 374 or 21% of all cases.<sup>124</sup>

Taiwan saw a steady increase in cases until 2005 when the numbers rose dramatically, largely driven by intravenous drug use. Government funding in harm reduction programmes slowed the growth of new infections.<sup>124</sup> The HIV incidence in this population of PWID decreased from 18.2% in 2005 to 0.3% in 2010.

Taiwan CDC revised guidelines for antiretroviral therapy in 2015 recommended use of single tablet regimens as the first-line antiretroviral regimen. This markedly improved adherence and tolerability to medications. In 2016, the strategy of rapid initiation of antiretroviral therapy at HIV diagnosis regardless of CD4 counts was promoted. Taiwan promoted PrEP as a key preventive strategy for HIV infection in 2016. All these policies and actions led to the reduction of annual new infections by 12-21% for four consecutive years from 2018 to 2021. The numbers of new infections are down 50% from 1,246 cases in 2021 to 2,508 in 2017.

A high proportion of HIV infection occurs in Taiwan's MSM population (83% of cases), with heterosexual sexual contact accounting for 12% of cases. Taiwan has so far met its UNAIDS's targets, including 95% for viral suppression.<sup>13</sup>

## Key issues in diagnosis and prevention

Free anonymous, voluntary HIV counselling and testing (aVCT) for key populations was initiated in Taiwan in 1997

but the rate of delayed HIV infection detection in the sexually active population has remained unchanged since 2000s.

A study that evaluated the impact and acceptance of aVCT in individuals diagnosed with HIV/AIDS from 2015-2019 (22,665 individuals) found that only one-quarter of participants reached the final stage of the aVCT cascade.<sup>125</sup>

Barriers to testing included HIV-related stigma, fear of discrimination, fear of disruption of social and sexual relationships, medical mistrust, fear of loss of employment, homosexuality-related stigma (particularly in Chinese society); structural barriers (wait times at healthcare settings, concerns about confidentiality).

HIVST are widely available in Taiwan. Taiwan CDC launched a programme in 2018 to distribute HIV self-testing blood-test kits at NGOs or health stations, and HIV oral-test kits through pay-at-pickup services provided by chain convenience stores and vending machines at LGBT health centres, health stations, and gay saunas. Users pay US\$6 (200 Taiwan Dollars) to get the kits and receive full reimbursement after logging their test results online.<sup>123</sup> A total of 425 locations and 28 vending machines were available as of 2020. Self-test kits were available through online purchases and pickup at convenience stores. A total of 54,090 persons have used self-test kits to date.<sup>124</sup>

In 2019, Taiwan CDC used dating apps popular among MSM to reach out to high-risk populations. Personnel trained for HIV screening consultations delivered the kits to designated locations, such as a convenience store far from an applicant's workplace or residence and recruited more people to assist with HIV screening services in their own communities.<sup>123</sup>



Point-of-care testing in health care institutions is also readily available. In 2019, the Taiwan CDC worked with twelve hospitals in Taiwan to offer a “one-stop” anonymous rapid HIV testing services, providing test results within 30 minutes for those who tested positive. It took less than an hour to undergo the entire process, enabling people who tested positive to report and receive treatment as soon as possible, effectively containing the spread of the disease.<sup>124</sup>

In terms of prevention, the Taiwan CDC rolled out a pilot harm reduction programme in 2006.<sup>126</sup> The policy led to a significant reduction in the number of HIV-positive cases among people who inject drugs over four years. This included education and screening, a needle syringe programme and opioid maintenance treatment. Taiwanese hospitals have also implemented holistic care programmes for people living with HIV,<sup>127</sup> and strong collaborations between governments and NGOs ensure scaling up of testing among at-risk populations.<sup>123</sup>

PrEP was approved for use in Taiwan in January 2017. But, despite sustained rates of new HIV infections, uptake remains low.<sup>128</sup> In a 2018 survey of MSM (n=176), less than 50% were aware of PrEP, however, when it was described to them, 72.2% indicated they would accept it.<sup>129</sup> In a survey of mixed HIV status couples (heterosexual, MSM, people who inject drugs; n=112), 46.2% were aware of PrEP, but only 33% were willing to take it. MSM couples had the highest awareness of and willingness to use PrEP.<sup>130</sup>

PrEP cost is a key barrier to PrEP access for MSM in Taiwan, with an estimated 77% of MSM unable or unwilling to pay US\$340 per month for the branded Truvada.<sup>131</sup> Since September 2018, Taiwan CDC has proactively promoted HIV screening and PrEP use, and worked with 38 facilities in 18 cities and counties to make PrEP more widely available to spouses or partners of infected individuals and high-risk individuals.

Similar to other territories in this paper, evidence suggests the COVID-19 pandemic caused testing numbers at Taiwan hospitals to fall. At the National Taiwan University Hospital, HIV testing numbers fell by 25% in 2020 due to the pandemic.<sup>132</sup>

On privacy, requirements to scan one’s National Health Insurance Card for COVID-19 contact tracing purposes also reveal HIV medication records to healthcare providers.<sup>132</sup>

During the pandemic, HIV services were not severely affected but obstacles to access were still observed. Key populations experienced disruptions which led to reduced frequency of testing and use of preventative medications.

### Key issues in linkage to care and treatment

There have been recent reports of major improvements in access to HIV care and treatment in Taiwan.<sup>13,133</sup> A retrospective study in Taiwan of 3,655 people living with HIV reported a decrease in the overall proportion of late combination HIV treatment initiation from 49.1% in 2012 to 29.0% in 2016. Some risk factors for late treatment initiation included older heterosexual sexual contact as a HIV exposure category. Several potential contributing factors also included limited sexual health information targeting older adults, poor awareness of the risk of HIV infection, and failure of physicians to consider the possibility of HIV infection.

U=U is accepted and promoted by the Ministry of Health and Welfare, and has subsequently been reflected in local HIV laws.<sup>134</sup> With the aim of changing the stereotypes associated with HIV, Ministry of Health and Welfare launched a public health campaign in 2019 to raise awareness on U=U, with a press conference held and screening of an educational mini movie.<sup>135</sup>

### Key issues in quality of life and stigma

A 2017 survey from Persons with HIV/AIDS Rights Advocacy Association of Taiwan (n=842 people living with HIV) found 12% of respondents reported experiencing rights violations, but 86% did not take any action.<sup>19</sup> In this same study, researchers found the top three reasons for HIV stigma among respondents were fear of HIV infection, misconceptions by the public that HIV can be transmitted through regular contact and reluctance by the public to spend time with people living with HIV. About 7.3% of respondents faced rejection at medical facilities after disclosing their HIV status, 10.6% of respondents had their HIV condition exposed by healthcare workers without consent, and over 60% of HIV patients showed distrust towards medical privacy which may conceivably deter treatment compliance and worsen health conditions.

On quality of life, a study by Taiwan Lourdes Association among HIV positive individuals in 2019 found that 17.4% of



respondents suffered from side effects of HIV medication, down from 50% in 2009.<sup>136</sup>

Among those living with HIV, 40% of respondents were worried about ageing and if they would be cared for in old age. More than 76% were concerned that their HIV status would cause them to be rejected by health care institutions.

Meanwhile, the National University of Taiwan found that quality of life was better for people living with HIV compared to the general population in terms of physical well-being and independence. But mental distress was significantly higher. They recommended improving mental health services for people living with HIV.<sup>137</sup>

The Taiwanese government's 2030 HIV/AIDS elimination plan (phase 1), effective from 2022 to 2026, hopes to reduce the number and incidence of HIV/AIDS and improve Taiwan's international ranking against UNAIDS HIV targets.<sup>138</sup>

Its major goal is to reduce the number of newly reported HIV infections each year to 1,200 by 2026 and 1,000 by 2030. It also sets out to address performance indicators around prevention through PrEP, timeliness of screening and diagnosis and reaching the UNAIDS targets.





# THAILAND



Thailand has one of the highest prevalence of HIV in Asia Pacific, accounting for 9% of the region's total population of people living with HIV. However, this is in decline because of the territory's HIV prevention programmes.<sup>139</sup> Thailand began to scale up PrEP in 2015 to make it nationally available to people at greatest risk of HIV.<sup>140</sup> An estimated 470,000 people living with HIV exist in Thailand.<sup>141</sup>

Thailand has been successful in meeting its UNAIDS targets for people living with HIV who know their status, and for achieving viral suppression among individuals who are currently receiving treatment.<sup>4,142</sup> Key populations include MSM, sex workers and their clients, TGW, people who inject drugs, along with migrants and prisoners.<sup>143</sup> Young people are also at particular risk, with nearly half of new cases being among people aged 15 to 24 years old in 2018.<sup>3</sup> Between 2010 and 2018, AIDS-related deaths declined by a third (32%) and new infections fell by 59%.<sup>3</sup>

## Key issues in diagnosis and prevention

HIV testing rates are lower among MSM and TGW than in other key populations.<sup>144,145</sup> There was a discordance between self-perceived and actual risk of HIV infection among these populations, which may have affected uptake of HIV testing and services.<sup>145</sup> About 45% of the general population in Nonthaburi province (n=962) reported having been tested for HIV while 48.3% (n=1032) indicated their intention for HIV testing.

The most common reasons for testing were requiring a routine medical check-up and antenatal care, while the main reason for not testing was the perception of having no or low risk.<sup>146</sup>

Potential innovative approaches have been evaluated in studies to increase testing/re-testing uptake in different populations. These include mobile HIV voluntary counselling and testing facilities for at-risk populations such as MSM and TGW,<sup>147</sup> HIV self-testing,<sup>148,149</sup> computer-assisted counselling pre-HIV testing,<sup>150</sup> and reminder systems to increase HIV re-testing for those with negative diagnosis but high risk.<sup>150</sup> Rapid HIV testing performed by trained lay providers as part of key population-led health services programmes has tremendous potential to enhance HIV prevention and treatment programmes among key populations.<sup>151</sup>

PrEP use in Thailand is the third highest in Asia Pacific, behind Vietnam and Australia. However, rollout has been slow and only 22% of target population are using PrEP. The successful model of PrEP delivery in Thailand's key population-led health services was developed in partnership between key populations and healthcare professionals. Around 80% of current PrEP users receive the service by lay providers in key population-led clinics.

The Ministry Public Health legally endorsed this close collaboration and paved the way for domestic investment in key-population led health services capacity building and financing.<sup>27</sup> Innovative strategies are being employed to promote adherence to PrEP,<sup>152</sup> of which barriers to adherence vary across key populations such as MSM, people who use or inject drugs, and TGW.<sup>153,154,155,156,157</sup>

The successful rollout of PrEP in Thailand may be attributed to several major programmes. For example, the Princess PrEP programme was the first to successfully deliver PrEP to key populations by key populations (MSM and TGW).<sup>158</sup> It demonstrated the need to focus retention support on younger MSM and TGW and those with less education in Thailand.<sup>158</sup>



TGW had much lower retention rates than MSM at all visits.<sup>158</sup> There was low retention among MSM and TGW who perceived themselves to be at moderate-high risk for HIV.<sup>158</sup> PrEP service cascades from the key population-led PrEP programme identified no or low-risk perception as a key barrier to PrEP acceptance among MSM and TGW who met PrEP eligibility criteria (4413 MSM, 583 TGW).<sup>28</sup>

### Key issues in linkage to care and treatment

Hospitals in Thailand dispense antiretroviral therapy in three- to six-month doses to prevent people living with HIV from running out of medicines and to reduce their need to regularly access the health system – especially during times of high demand.<sup>159</sup>

But, according to one 2018 study, there remain barriers to HIV treatment initiation and retention in HIV care and treatment for MSM and transgender women (n=40), such as service concerns and lack of privacy and confidentiality, concerns about treatment benefits, adherence and side effects, access, stigma and discrimination, and general healthcare literacy.<sup>160</sup>

On the other hand, facilitating factors of HIV treatment initiation and retention in HIV care included: good provider-patient communication, high treatment literacy, guided referral to treatment services, counselling on disclosure of HIV status, and effective interventions to reduce stigma.<sup>160</sup>

Thailand was involved in the very first studies on the effectiveness of U=U – HPTN 052<sup>161</sup> and Opposites Attract.<sup>162</sup> In February 2020, the Ministry of Public Health in Thailand (along with UNAIDS and WHO) endorsed U=U, recognising that acceptance of the concept by healthcare professionals, communities and people living with HIV is important. However, this is still not the case in many clinical settings.<sup>22</sup> Several barriers exist in Thailand that may hold back health outcomes through U=U messaging. Young people from key populations particularly struggle to access and adhere to treatment, which may be due to tense relationships with parents and caregivers, ART-related problems such as pill burden, and fear of disclosing HIV status to partners and others.<sup>163</sup> HIV drug resistance is also on the rise.<sup>164</sup>

HIV funding from international donors has been falling, particularly from Global Fund. Domestic resources account for more than 85% of Thailand's HIV response, with most domestic funding spent on HIV treatment and care, and less on other areas such as HIV prevention and social protection services.<sup>165</sup>

### Key issues in quality of life and stigma

Research shows that HIV-related stigma remains prevalent in Thailand.<sup>3</sup> One of 10 people living with HIV surveyed in 2017 reported experiencing stigma and discrimination in healthcare settings, and one in three reported avoiding attending a health facility due to internalised stigma.<sup>3</sup>

Thai adolescents and young adults with HIV (n=23) reported fearing stigma and negative repercussions from disclosure, with fear of disclosure negatively impacted their medication adherence. Fear of stigma was a daily consideration and many experienced HIV-related stigma in school, at work within their communities and in their inter-personal relationships.<sup>166,167</sup> Healthcare professional behaviour and visit duration were the most important factors affecting young MSM willingness to attend clinic. Many struggles with self-stigma and social disclosure.<sup>38</sup>

During COVID-19 local checkpoints were set up between villages to reduce the spread of COVID-19 but were then used to search people for drugs, needles and syringes. This acted as a barrier for drug users to access harm reduction services like needle exchanges.<sup>168</sup> People living with HIV in Thailand were concerned about contracting COVID-19, viewing themselves as immunocompromised and susceptible. They were also concerned that it would lead to their HIV status being disclosed, job loss and challenges in relocations and re-engaging with HIV care.<sup>169</sup>

Thailand has successfully integrated response to stigma and discrimination into its national HIV response.<sup>170</sup> The development of HIV-related stigma and discrimination measures and their incorporation into the national HIV monitoring and evaluation framework resulted in routine data collection to monitor stigma and discrimination in health facilities, key populations and the general population.<sup>170</sup>



## Glossary

<b>AIDS</b>	Acquired Immunodeficiency Syndrome	<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>APCOM</b>	Asia Pacific Coalition on Male Sexual Health	<b>Undetectable</b>	An HIV viral load level that is below the lower limit of detection of the laboratory assay used (e.g., <20 copies/millilitre)
<b>ART</b>	Anti-retroviral treatment	<b>VL</b>	Viral load
<b>aVCT</b>	Anonymous, voluntary HIV counselling and testing	<b>Viral suppression</b>	Reducing the amount of HIV in the body to a very low level, i.e., less than 200 copies of HIV per millilitre of blood
<b>CD4 count</b>	Number of CD4 cells in blood, measure of how healthy the immune system is	<b>WHO</b>	World Health Organization
<b>CDC</b>	Centre for Disease Control and Prevention		
<b>Chemsex</b>	Using drugs to enhance sex. Often associated with higher risk sexual behaviour		
<b>Drug resistance</b>	Drug strains becoming resistance to treatments		
<b>HAART</b>	Highly Active Antiretroviral Therapy		
<b>HCP</b>	Healthcare professionals		
<b>HIV</b>	Human Immunodeficiency Virus		
<b>HIVST</b>	HIV self-testing are home test kits that provide results within 15 to 20 minutes		
<b>HSM</b>	High risk heterosexual men		
<b>IHRI</b>	Institute for HIV Research and Innovation		
<b>KPLHS</b>	Key population led health services		
<b>LGBTQ+</b>	Lesbian, Gay, Bisexual, Transgender, Queer and others		
<b>MSM</b>	Men who have sex with men		
<b>PEP</b>	Post-exposure prophylaxis		
<b>PrEP</b>	Pre-exposure prophylaxis		
<b>PLHIV</b>	People living with HIV		
<b>QoL</b>	Quality of life		
<b>Serodiscordant couple</b>	Couple with mixed HIV status		
<b>STI</b>	Sexually transmitted infection		
<b>SWING</b>	Service Workers in Group Foundation		
<b>TGW</b>	Transgender women		
<b>U=U</b>	Undetectable = Untransmittable		



# Steering Committee Member Profiles

Below you will find a short biography for each steering committee member. The steering committee is comprised of individuals who represent key stakeholders in the HIV Care Continuum. This includes people living with HIV, lead researchers, policymakers, and community groups from China, Hong Kong SAR, Singapore, South Korea, Taiwan and Thailand.

## CHAIRS

### **Dr Nittaya PHANUPHAK** | Regional

Dr Nittaya Phanuphak is Executive Director at the Institute of HIV Research and Innovation (IHRI), a not-for-profit organisation that advances clinical and implementation research on HIV and other health-related issues in Bangkok, Thailand. In this role, she works actively with community and government partners to enhance access to HIV testing, prevention and treatment in the country.

Dr Phanuphak has a strong interest in KPLHS and is currently working towards the establishment of national accreditation and domestic financing systems for lay providers to ensure KPLHS sustainability.

Dr Phanuphak holds a Ph.D in Medicine from the University of Amsterdam and has published over 180 peer-reviewed articles. She serves as the Deputy Editor for the Journal of the International AIDS Society. She also provides ongoing research support to various studies as principal investigator or site-principal investigator.

### **Midnight POONKASETWATTANA** | Regional

Midnight Poonkasetwattana is the Executive Director of APCOM, a not-for-profit organisation representing and working with a network of individuals and community-based organisation across 35 countries in Asia and the Pacific.

Based in Bangkok, he works on multi-sectoral partnerships with governments, donors, the United Nations, development partners as well as community and civil society organisations to advance SOGIESC rights and alleviating HIV in Asia Pacific region.

Poonkasetwattana is also a member of several advisory committees including the World Health Organisation Global PrEP Coalition and Guidelines Development Group for HIV Testing Services, and ASHM's Regional Advisory Group member leading on Key Populations of the Taskforce on BBVs, Sexual Health and COVID-19.



STEERING COMMITTEE MEMBERS

**Dr CAI Weiping** | China

Dr Cai Weiping is the Chief Expert of Infectious Disease Center, Guangzhou Eighth People's Hospital of Guangzhou Medical University and Deputy to the 13th National People's Congress. Dr Cai is also the Chairman of the Professional Committee of HIV with liver disease of Chinese Association of STD and AIDS Prevention and Control, the expert of the AIDS treatment group of National Health Commission, the leader of the expert group under the Guangdong AIDS Diagnosis and Treatment Quality Control Center.

He also led major science and technology initiatives under the national "11th Five-Year plan", "12th Five-Year plan" and "13th Five-Year plan". Dr Cai has also published over 50 scientific papers and presided on the mega study examining clinical outcomes and genetics of HIV-HCV, coinfection.

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**Andrew CHIDGEY** | Hong Kong

Andrew Chidgey is the Chief Executive of AIDS Concern Hong Kong, which he has led for the past eight years. He is also a Regional Advisory Group Member of the Equal Asia Foundation.

AIDS Concern is a Hong Kong charity NGO providing services for the communities most at risk from HIV, including HIV education, testing and support services. At AIDS Concern, Andrew has been working on projects including of HIV self-testing, PrEP education and STI check-up services. He works with community partners including government and other NGOs to strengthen the HIV response. He has also been working on the development of social enterprise projects about LGBT health.

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**Dr CHOI Jun Yong** | South Korea

Dr Choi Jun Yong is a Professor of Yonsei University of College of Medicine and former Chief of Division of Infectious Diseases at the Severance Hospital, South Korea. He is a board member of the Korean Alliance to Defeat AIDS and Korean Society for AIDS, and Principal Investigator for TREAT Asia's HIV Observational Database (TAHOD).

Dr Choi is a lead researcher in infectious diseases, and has run numerous clinical trials on HIV, most recently "A Phase 3, Randomized, Clinical Study in HIV-1-Infected Heavily Treatment-Experienced Participants Evaluating the Antiretroviral Activity of Blinded Islatravir (ISL), Doravirine (DOR), and Doravirine/Islatravir (DOR/ISL)" in 2020. Dr Choi has published 100 over peer-reviewed journals, including a study on the prevalence and risk factors of HIV-associated neurocognitive disorder and tuberculosis in HIV-infected Koreans, which was used to develop strategies on prevention and treatment of comorbidities in PLHIV.

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**Dr HSU Sen-Chieh, Paul** | Taiwan

Dr Paul Hsu is Secretary-General of Taiwan Lourdes Association and Director at the Association of Chinese Companions and Family Therapy (ACFT). The Taiwan Lourdes Association aims to improve the quality of life of people living with HIV (PLHIV) and provides community-based services to empower them.

Dr Hsu strongly advocates for PLHIV and is actively involved in various programmes including mentoring social workers and conducting workshops for PLHIV and at-risk key populations. He has received multiple awards for his work over the years. Dr Hsu holds a PhD in Social Work from Tunghai University and has been a part-time Assistant Professor at the school since 2016.



STEERING COMMITTEE MEMBERS

**Dr LIN Hsi-Hsun** | Taiwan

Dr Lin Hsi-Hsun is the attending physician and professor of Department of Medical Research at Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan, and member of a council and ex-chairman of Taiwan AIDS Society, which plays a pivotal role in supporting the government with the implementation of HIV control and prevention measures as well as provide HIV education. He also serves as a consultant on the AIDS Prevention and Control Committee for the Ministry of Health and Welfare, Taiwan and is a member of the Taiwan Infectious Diseases Society which exchanges examination and clinical information on diseases.

Dr Lin received his M.D. from National Defense Medical Center, Taipei and obtained his Ph.D. degree from Institute of Clinical Medicine at the National Yang-Ming University. He completed a series of subspecialty training of infectious diseases at Taipei and Kaohsiung Veterans General Hospital in Taiwan. He undertook a research fellowship at the Aaron Diamond AIDS Research Center, Rockefeller University, New York, USA.

His research interests include molecular epidemiology of HIV and viral hepatitis coinfections, combination antiretroviral therapy, and clinical microbiology. He has published over 150 articles in a variety of journals.

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**Kwang Seo PARK** | South Korea

Kwang Seo Park is a representative at Love4one, a patient advocacy group which supports people living with HIV (PLHIV) by improving their quality of life and general well-being.

Park has been advocating for HIV for over 20 years. He joined the Korea AIDS Prevention Association (Seoul Branch) in 1999 and was most recently the Director of AIDS Counselling Centre. He is also a Special Advisory Committee member at Dding Dong LGBTQ Youth Crisis Support Centre and is actively involved in online education for PLHIV as well as HIV/AIDS Human Rights Activists Network engagement activities.

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**Dr Annette SOHN** | Regional

Dr Annette Sohn is the Director of TREAT Asia and a Vice President of amfAR – The Foundation for AIDS Research in Bangkok, Thailand. She oversees the implementation of TREAT Asia's research, education and training, and community advocacy and policy activities through a network of program partners across 13 Asia-Pacific countries.

She is co-Chair of WHO's Global Validation Advisory Committee (GVAC) for validation of elimination of mother-to-child transmission or vertical transmission of HIV, syphilis and hepatitis B virus, and co-Editor-in-Chief of the Journal of the International AIDS Society. She chairs the Executive Committee of the International Epidemiology Databases to Evaluate AIDS (IeDEA) global HIV research consortium.



STEERING COMMITTEE MEMBERS

**Dr WANG Zhi Feng** | China

Dr Wang Zhi Feng is Professor and Deputy Director of Health Policy and Management at Peking University. He has worked on more than 40 health priorities including HIV/AIDS projects supported by the National Health Commission of the People's Republic of China, the National Natural Science of China, and The Global Fund to Fight AIDS, Tuberculosis and Malaria.

Dr Wang is Vice Chairman of the Second Committee of Health Emergency Branch of the Chinese Preventive Medicine Association, member of the National Health Quarantine Standardization Technical Committee, Vice Chairman of the Beijing Public Health Standardization Technical Committee, Vice Chairman of the First Public Health Emergency Working Committee of the China Society of Emergency Management, Vice Chairman of the Health Care Big Data Application Management Professional Committee of the Chinese Hospital Association.

He is an editorial board member on several journals and has published more than 200 academic papers.

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**Dr WONG Chen Seong** | Singapore

Dr Wong Chen Seong is a Consultant Infectious Diseases Physician at the National Centre for Infectious Diseases (NCID) and Tan Tock Seng Hospital. He received his medical training at the Yong Loo Lin School of Medicine, National University of Singapore and a member of the Royal College of Physicians of the United Kingdom. He is a Fellow of the Academy of Medicine of Singapore (Chapter of Infectious Diseases Physicians).

Dr Wong is Deputy Director of the National HIV Programme, and Director of the NCID HIV Clinical Programme. He is actively involved in HIV clinical care and research, with interests in the socio-behavioural determinants of HIV/STI, HIV/STI prevention, HIV Pre-Exposure Prophylaxis (PrEP), innovations in HIV service delivery such as telemedicine, as well as HIV and ageing and co-morbidity. He is also a Clinical Lecturer at Yong Loo Lin School of Medicine and Lee Kong Chian School of Medicine, as well as an Associate Programme Director of the National Healthcare Group Internal Medicine Residency Programme.

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**Dr Benjamin YOUNG** | Regional

Dr Benjamin Young is Head of Global Medical Directors of ViiV Healthcare, where he supports clinical education, medical research and public health initiatives around the world. From 2012 to 2018, Dr. Young was Senior Vice President and Chief Medical Officer of the International Association of Providers of AIDS Care, where he oversaw capacity-building programs and coordinated evidence-based policies with the UN and WHO.

He is a former Co-Principal Investigator for the CDC's HIV Outpatient Study, ex-Head of Medical Affairs in Central Asia for Health Connections International, a Dutch non-governmental organization, and spent many years as a Colorado-based clinician and clinical researcher. Dr. Young received his MD and his PhD in Biochemistry and Molecular Biology at the University of Colorado, completed post-graduate training in Internal Medicine and Infectious Diseases at the University of Colorado Health Sciences Center in Denver, and authored more than 100 peer-reviewed scientific articles.



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