In 2019 an estimated 7.2 million people, 19% of all those with HIV, were undiagnosed. Men in high HIV burden settings and men from key populations are consistently less likely to know their HIV status than women. The World Health Organization (WHO) recommends a strategic mix of differentiated HIV testing services (HTS) approaches to reach men and link them to appropriate prevention and treatment services. This policy brief highlights WHO-recommended HTS approaches that programmes can introduce or scale up now to optimize the uptake of HTS among men. The brief also summarizes a package of post-test services for men. HTS can link men to these services as appropriate for their test results.

Countries are making progress toward the global goal of 90% of people with HIV knowing their status by 2020 and 95% by 2030 (1, 2). In 2019 an estimated 7.2 million people globally, 19% of all those with HIV, were undiagnosed. In most countries HIV testing coverage for men continues to be lower than for women (3), and men are less likely to know their status, to be on treatment and to be virally suppressed (4). Only one-thirds of HIV tests in adults in 2019 were conducted for men1. Globally, 14 countries, six of which are high burden countries in East and Southern Africa, have exceeded 90% knowledge of HIV status among women but not yet achieved the same success among men. In sub-Saharan Africa overall, 73% of men with HIV ages 15 years and older are aware of their HIV status, compared with 83% of women with HIV of these ages (4).

Outside sub-Saharan Africa, where epidemics are concentrated in key populations2, men account for two thirds of all adults with HIV but are twice as likely to be undiagnosed as women (4). Men who have sex with men are consistently less likely to know their HIV status (4, 5). An estimated 80% of people who inject drugs and more than 90% of people in prison are men and face the barriers to access associated with being part of these key populations (6).

A reason for better HTS uptake among women is the successful integration of HTS into clinical services for women. For example, for more than two decades in many settings, HTS has been routinely offered as part of prevention of mother-to-child transmission to all women attending antenatal care (ANC) clinics. There have been efforts to integrate HTS into clinical services that reach many men, such as tuberculosis (TB), viral hepatitis and sexually transmitted infection (STI) services, or services that reach men exclusively, in particular voluntary medical male circumcision (VMMC). Still, gaps persist. Efforts are needed to reduce missed opportunities for testing when men attend health facilities and services. Evidence suggests that, when men are offered testing, they do accept it (7).

Other barriers to testing for men are structural, such as clinic operating hours or locations that are inconvenient for men who work, and the direct or indirect opportunity costs of obtaining services, such as time lost from work. Sociocultural beliefs and behaviours contribute as well. For men from key populations, stigma, discrimination, concerns about confidentiality in health care settings and punitive laws and enforcement may deter their access to HTS (6, 8).

In high HIV burden settings, efforts are needed to test more men in both general and key populations.

In low HIV burden settings, HTS should prioritize men:
- from key populations
- with STIs
- with confirmed or suspected TB
- whose partners have HIV
- have HIV-related symptoms or indicator conditions.

Reaching men with HTS and then linking them to appropriate prevention and treatment services are essential for meeting national and global HIV goals. In high HIV burden settings such as those of East and Southern Africa, efforts are needed to reach more men in both general and key populations. In low HIV burden settings, men from key populations need to be prioritized as well as those with STIs or with confirmed or suspected TB, men who have partners with HIV, and those who have HIV-related symptoms or indicator conditions. Using a strategic mix of differentiated HTS approaches is important for reaching men. This policy brief highlights WHO-recommended approaches that country programmes, implementing partners and other stakeholders can adapt, implement and scale up now to increase HIV testing, with operational considerations relevant for reaching men (Fig. 1). The brief also summarizes a package of post-test services that can be offered to men, depending on their test results.

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2. Key populations are men who have sex with men, people who inject drugs, people in prisons and other closed settings, sex workers and transgender people.
who have partners with HIV should be offered HIV testing. In addition, facility-based HTS should focus on routinely offering HTS to men from key populations.

There has been an increasing focus on integrating HTS into routine health services in high HIV burden settings, including primary care, outpatient clinics and STI, viral hepatitis and TB services (9). As noted, HTS has been successfully integrated into some clinical settings such as ANC for reaching women and into TB services in some settings, which serve many men. HTS has so far not often been prioritized in other services such as viral hepatitis and STI services, which serve a high number of male clients. Efforts are needed to use such integration opportunities to reach men particularly in high HIV burden settings.

**Operational considerations**

Facility-based HTS can be adapted to better reach men. Operational considerations include:

- **Optimizing** facility-based HTS to make them inclusive, friendly and accessible to men, including those from key populations. Reducing structural barriers and missed opportunities to offer testing, such as extending service hours, using rapid diagnostic tests to provide immediate results, improving client confidentiality and assuring stigma-free services for key populations. Service adaptations need to respond to the local context and epidemiology and focus where gaps in services for men are greatest.

- Use opportunities to **integrate** HTS for men into existing services such as STI, viral hepatitis, TB and other services that reach men including key populations.

- Ensure that routinely offered HTS does not lead to mandatory HTS; it should always be **voluntary**.

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**Facility-based testing**

Facility-based testing is HTS provided in a health facility or laboratory. Facility-based HTS can be provided at stand-alone HTS sites (often referred to as voluntary counselling and testing, or VCT) or offered routinely at clinical sites (often referred to as provider-initiated testing and counselling, or PITC).

Health facilities continue to be an important location where men access HTS. In high burden settings, it is important to routinely offer HTS to men when they attend health services and facilities. With their partner’s agreement, men in high burden settings can be encouraged to attend facilities during a partner’s pregnancy. They can then be offered voluntary couples or partner testing (either together or separately) with support for mutual disclosure with consent of partners. In all settings men who have HIV-related symptoms and/or indicator conditions or are diagnosed with TB (either presumptive or confirmed), viral hepatitis or STIs and those who have partners with HIV should be offered HIV testing. In addition, facility-based HTS should focus on routinely offering HTS to men from key populations.

**Operational considerations**

Facility-based HTS can be adapted to better reach men. Operational considerations include:

- **Optimizing** facility-based HTS to make them inclusive, friendly and accessible to men, including those from key populations. Reducing structural barriers and missed opportunities to offer testing, such as extending service hours, using rapid diagnostic tests to provide immediate results, improving client confidentiality and assuring stigma-free services for key populations. Service adaptations need to respond to the local context and epidemiology and focus where gaps in services for men are greatest.

- Use opportunities to **integrate** HTS for men into existing services such as STI, viral hepatitis, TB and other services that reach men including key populations.

- Ensure that routinely offered HTS does not lead to mandatory HTS; it should always be **voluntary**.

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**WHO recommendations on routinely offered facility-based HTS**

In **high HIV burden settings**, routine HIV testing should be offered to **all clients** in all clinical settings.

In **low HIV burden settings**, HIV testing should be offered in clinical settings to **clients who present with symptoms or medical conditions** that could indicate HIV infection, including presumed or confirmed TB cases.

In **all settings** routine HIV testing should be considered for **STI, viral hepatitis, TB, and health services for key populations**.
COMMUNITY-BASED TESTING

Community-based testing refers to HTS offered in the community, outside health facilities. Community-based HTS can achieve high testing uptake, reach first-time testers and lead to identification of new HIV infections among those who may not otherwise test, including men (10). The latest evidence shows that more than half of all people tested through community-based HTS are men, and the majority of men accept HTS when offered (7). Community-based HTS is important for reaching men because in many settings they are less likely than women to attend health facilities. It may be particularly useful for reaching men from key populations.

Community-based models for reaching men

- **Mobile outreach** and testing at hotspots where members of key populations gather is an effective way to reach men from key populations. It can complement facility-based HTS in areas of low coverage and accessibility.

- **Sustained implementation of home-based testing** and support for rapid treatment initiation can increase testing and treatment coverage among men in high burden settings. Sustainability and resource needs for such models need to be considered.
WHO recommendations on community-based HTS

In **high HIV burden settings**, community-based HIV testing services are recommended, with linkage to prevention, treatment and care services, in addition to routine facility-based testing, for all populations, particularly key populations.

In **low HIV burden settings**, community-based HIV testing services are recommended for key populations, with linkage to prevention, treatment and care services, in addition to routine facility-based testing.
**Operational considerations**

- To maximize impact, community-based HTS models need to be differentiated for the local context and needs of the men being reached. As with any HTS approach, it is important to engage communities when designing community-based models, and service delivery can be successfully led by the community.

- For community-based HTS models to reach men, services should be offered at convenient times, for example, "moonlight", or evening testing for members of key populations or on weekends or after working hours for men in the workforce.

- Trained lay providers can conduct community-based HTS using rapid diagnostic tests. Mobilization by peers may facilitate testing for men.

- Some men may need additional support for linkage to care or prevention services. Trained peers from key populations or workplace peers can promote HTS and support linkage.

**HIV SELF-TESTING**

HIV self-testing is a process in which a person collects their own specimen (oral fluid or blood), performs the test and interprets the result. HIVST has emerged as a safe, accurate and acceptable HTS approach. It can empower people who would not otherwise test for HIV to test themselves confidentially and conveniently. The latest evidence shows that HIVST increases uptake of HIV testing among men, including men from key populations, and the proportion of people diagnosed and linked to care are comparable to those with facility-based testing (10).

During the COVID-19 pandemic, programmes and implementers report adapting HIVST as a means of continuing HTS in circumstances where community or facility-based HTS are not feasible at scale.

**HIVST models for reaching men**

Many HIVST service delivery and distribution models are feasible and can be considered. Some promising options for reaching men are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility-based</td>
<td>Distribution from health facilities or other fixed sites for use at these facilities or for later use.</td>
</tr>
<tr>
<td>Community-based</td>
<td>Distribution in the community, for example, through focused campaigns or mobile distribution at hotspots to reach key populations.</td>
</tr>
<tr>
<td>Secondary distribution</td>
<td>Includes distribution to partners or peers, for example, distribution by women attending ANC, index clients to their partners, or members of key populations to their peers (social network-based distribution).</td>
</tr>
<tr>
<td>Online sales</td>
<td>Using a range of online platforms such as websites and social media for distribution at a cost to the user, sometimes at a reduced price.</td>
</tr>
<tr>
<td>Retail outlets, pharmacies and vending machines</td>
<td>Kits are typically provided at a cost to users, but price can be subsidized using coupons or vouchers or innovative financing such as public-private partnership and pooled procurement. Vending machines may be placed at venues frequented by men from key populations.</td>
</tr>
<tr>
<td>Workplace</td>
<td>Distribution in high HIV burden settings to workers in workplaces where predominantly men work.</td>
</tr>
<tr>
<td>Faith-based settings</td>
<td>Distribution in high HIV burden areas from faith-based settings.</td>
</tr>
</tbody>
</table>

**Operational considerations**

- A range of support tools can aid self-testers, such as pictorial instructions, videos and in-person or virtual demonstrations of HIVST use.

- Trained peers, such as workplace peers and peers from key populations, can promote, demonstrate and distribute HIVST kits.

- HIVST delivery models need to be adapted, with the engagement of communities, for reaching men in the local context. Community-led models may be more acceptable.

- Innovative approaches to support linkage to prevention and treatment services, such as using digital platforms, videos and peer support, may be considered.

- An enabling environment to support stigma-free HIVST, including workplace policies that protect workers’ rights and confidentiality, is essential.

**WHO recommendations on HIVST**

HIVST should be offered as an approach to HIV testing services.

*HIVST does not provide a definitive HIV-positive diagnosis. Individuals with a reactive test result must receive further testing from a trained tester using the national testing algorithm.*
INTEGRATION OF HIVST WITH A COVID-19 AWARENESS AND PREVENTION PROGRAMME FOR TRUCK DRIVERS IN KENYA

In Kenya the Central Organization of Trade Unions, the Long-Distance Truck Drivers Union, the Kenya Pipeline Company and the International Labour Organization have implemented an integrated HIV and COVID-19 programme for truck drivers and sex workers. The programme focuses on creating awareness and distributing a COVID-19 and HIV prevention package that includes face masks, sanitizers, condoms and HIV self-test kits. Trained counsellors conduct awareness sessions at drivers’ halt points and hotspots of sex work.

From June through August 2020, 1743 drivers and sex workers (1019 men, 724 women) were approached. About 2000 face masks and hand sanitizers and 30 000 condoms were distributed. In addition, 345 HIV self-test kits were distributed (293 to men, 52 to women). About 10% of those who collected HIV self-test kits contacted the counsellors after self-testing. Of those, six (four men and two women) reported reactive HIV self-test results and they were linked to confirmatory testing and treatment.

Source: ILO, Kenya

PROVIDER-ASSISTED REFERRAL

Partner services – that is, offering voluntary HTS to sexual and/or drug injecting partner(s) of consenting HIV-positive clients – are an effective way to identify additional people with HIV. Provider-assisted referral (also called assisted partner notification) refers to a trained provider asking people with HIV about their sexual and/or drug injecting partners and then, with the consent of the HIV-positive client, informing the partners of their potential exposure to HIV. The provider then offers voluntary HTS to these partners. The provider can contact partners by telephone, email or in person and offer them home-based HTS or invite them to visit a facility for HTS.

Provider-assisted referral is safe and acceptable and, compared with patient referral, increases uptake of HTS, identifies more undiagnosed HIV infections and improves partners’ linkage to care (10). Where feasible and acceptable to the client, provider-assisted referral should be encouraged, as it is effective and provides the opportunity to offer comprehensive prevention interventions to partners who are HIV-negative but remain vulnerable to HIV acquisition. Offering provider-assisted referral to women with HIV provides opportunity to offer voluntary HTS to their male partners. However, provider-assisted referral has not been widely implemented among key populations, including men who have sex with men and people who inject drugs, often due to policy and structural barriers and confidentiality concerns. Programmes need to make efforts to address such barriers to scaling up provider-assisted referral among key populations as a way to reach more men with undiagnosed HIV safely and effectively.

WHO recommendation on provider-assisted referral

Voluntary provider-assisted referral (also called assisted partner notification) should be offered for people with HIV as part of a voluntary comprehensive package of testing, care and prevention.

Operational considerations

Partner services and provider-assisted referral offer several opportunities for reaching men – for example, male partners of women with HIV and partners of HIV-positive or higher-risk men who have sex with men, and male injecting partners of people who inject drugs. It is important for partner services to assure that:

- Provider-assisted referral and HTS are confidential and voluntary, especially when partners have not yet mutually disclosed their HIV status and in settings with stigma towards key populations. The desire to meet programme targets must not lead to coercive practices when offering partners services, such as withholding treatment for index clients who do not disclose their partners. The client’s choice whether or not to accept partner services must always be supported and respected.

- Clients should have the opportunity to choose from available options for partners services. Where provider-assisted referral is not feasible or acceptable, clients may choose from other options, such as patient or enhanced-patient referral (the offer of HTS by HIV-positive clients to
Improving men’s uptake of HIV testing and linkage to services

their partners or use of support tools to facilitate disclosure), anonymous methods for notifying partners and, where supported by policy, social network-based approaches for key populations (see next section). They should also be free to decline partner services if they wish.

• Ensure the safety of both index clients and partners when offering partner services. People from key populations, often experience violence and abuse. Making sure that services are voluntary and informed is critical to avoid adverse consequences. Providers must support clients in making decisions that ensure their safety.

SOCIAL NETWORK-BASED APPROACHES FOR KEY POPULATIONS

Social network-based HIV testing is an approach whereby a trained provider encourages people with HIV or HIV-negative people at ongoing risk of HIV to invite individuals in their sexual, drug injecting or social networks to participate in voluntary HTS. By addressing key populations’ confidentiality concerns about conventional partner services and by broadening the reach to social contacts, social network-based HIV testing approaches can improve the acceptability of partner services among key populations and reach more people who may not otherwise test for HIV. A recent review of evidence shows that social network-based approaches are safe, acceptable and feasible in key populations, including men who have sex with men, transgender people and people who inject drugs, and may identify additional people with HIV. Social network-based approaches are particularly useful where provider-assisted referral is not feasible due to confidentiality concerns or stigma and discrimination towards key populations.

Social network-based models for reaching men

Promising models of social network-based approaches to reach men include the following:

• use of peers in key populations to recruit men in their social, sexual and drug injecting networks for HTS;

• distribution of HIVST kits by HIV-positive and HIV-negative clients to their partners and social contacts (see box); for example, distribution of HIVST kits to male partners by women attending ANC clinics or individuals diagnosed with HIV, distribution of HIVST kits to their networks by men who have sex with men or men who inject drugs;

• use of digital tools and innovative technologies, such as social media, messaging and online platforms to reach social networks, especially young men from key populations.

Operational considerations

• Like partner services and provider-assisted referral, social network-based approaches should be voluntary and confidential and ensure the safety of both clients and their partners.

• Social network-based approaches should be adapted to suit the local context and clients’ preferences. Consider anonymity to protect confidentiality, particularly where key populations experience stigma, discrimination and criminalization.

• Address any legal and policy barriers to safely implementing and scaling up social network-based approaches.

• Consider the training and capacity building that providers need in order to offer services in non-judgmental ways and to minimize the risk of harm and violence for clients and for providers themselves.

WHO recommendation on social network-based approaches

Social network-based approaches can be offered as an approach to HIV testing for key populations as part of a comprehensive package of care and prevention.
In July 2020 PATH introduced social network-based testing among key populations, including men who have sex with men, in the Afya Ziwani project in Kenya. In collaboration with community-led nongovernmental organizations, key population members (“super mobilizers”) are trained to recruit their peers for HTS. Each super mobilizer is provided with three recruitment coupons to distribute in hotspots to peers who are at ongoing HIV risk. Super mobilizers also distribute HIVST kits to their peers and social contacts who are not able to access HTS at testing sites.

From July through August 2020, super mobilizers recruited 526 men, one third of whom had never tested for HIV before. Of those recruited, 32 (6%) were diagnosed HIV-positive. HIV positivity was 15% in first time testers.

Ninety percent of the men were recruited via coupons and were tested at drop-in centres. The remaining 10% preferred to receive HIVST kits and test themselves.

In Viet Nam, PATH uses digital platforms and online peer influencers to promote HTS and HIVST in networks of men who have sex with men (USAID/PATH Healthy Markets project). In collaboration with key population led social enterprises and community-based organizations, peer influencers are recruited and trained to promote HTS through their online social networks by posting information and campaign materials on digital and social media platforms. Interested contacts are directed to an online self-assessment tool to understand their testing preferences: they can book an appointment for an HIV test at a key population led clinic or community-based organization, or order an HIVST kit to be delivered via mail, courier, in-person by a peer, or pick-up at a facility. Clients who request an HIVST kit can also choose the type of test (oral-fluid or blood-based) and support option including no assistance or assistance provided by a peer either in-person or online.

Between October 2019 and September 2020, 8044 men in three cities (Ha Noi, Dong Nai, and Ho Chi Minh City) were reached online and completed HTS. Overall, 403 (5%) were diagnosed HIV-positive and nearly all (402, 99.8%) initiated HIV treatment. HIV-positivity in this programme is greater than that observed through traditional face-to-face outreach (4.1%). More than half (52%) of clients who self-assessed their HIV risk using an online self-assessment tool were first time testers. Online counsellors also facilitate linkage to prevention services including pre-exposure prophylaxis (PrEP) for those at ongoing risk.

During the COVID-19 pandemic, Healthy Markets delivers COVID-19 care packages, which includes an HIVST kit, information on accessing PrEP and treatment services, and face masks to promote HTS safely.

Funding for the Afya Ziwani (Kenya) and Health Markets (Viet Nam) projects came from the United States Agency for International Development (USAID).

Source: PATH
ENABLING MORE MEN TO ACCESS POST-TEST PREVENTIVE OR TREATMENT SERVICES

HIV testing services are not complete without linkage to appropriate post-test prevention, treatment or care services. Across all HTS approaches, men, like women diagnosed with HIV, may need support to link to treatment as soon as possible. The package of post-test services can include clear and concise counselling messages, support for rapid treatment initiation for those diagnosed HIV-positive and linkages to HIV prevention for those testing negative but at ongoing risk, social and mental health support and other relevant health services (Fig. 2). Men are more likely than women to be diagnosed with advanced HIV disease (14); the WHO-recommended package of interventions for advanced HIV disease should be available, as described in the WHO guidelines for managing advanced HIV disease (15).

Fig. 2. Post-test prevention, treatment and care services

<table>
<thead>
<tr>
<th>HIV-negative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Prevention</strong></td>
</tr>
<tr>
<td>• offer of condoms and condom-compatible lubricants</td>
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<tr>
<td>• PrEP for people at substantial ongoing risk of HIV infection</td>
</tr>
<tr>
<td>• VMMC (in 15 priority countries)</td>
</tr>
<tr>
<td>• harm reduction services for men who inject drugs (needle and syringe programmes, opioid substitution therapy)</td>
</tr>
<tr>
<td>• post-exposure prophylaxis (PEP) following suspected recent exposure</td>
</tr>
<tr>
<td>• behavioural interventions to support risk reduction.</td>
</tr>
<tr>
<td><strong>2. HIV testing services</strong></td>
</tr>
<tr>
<td>• HIV testing for partners and social contacts of men from key populations, where supported by national policy</td>
</tr>
<tr>
<td>• retesting at least every 12 months if at high ongoing risk, including men from key populations.</td>
</tr>
<tr>
<td><strong>3. STI services</strong></td>
</tr>
<tr>
<td>• STI testing and treatment for those at ongoing risk, including men from key populations</td>
</tr>
<tr>
<td>• anal cancer screening for men who have sex with men.</td>
</tr>
<tr>
<td><strong>4. Other clinical services</strong></td>
</tr>
<tr>
<td>• assessment and provision of vaccinations for men from key populations</td>
</tr>
<tr>
<td>• testing for hepatitis B virus (HBV) and hepatitis C virus (HCV) and TB screening, depending on local epidemiology.</td>
</tr>
<tr>
<td><strong>5. Other support services</strong></td>
</tr>
<tr>
<td>• mental health and psychosocial services.</td>
</tr>
</tbody>
</table>
**HIV-positive**

1. **Treatment**
   - support for rapid initiation of ART
   - support for retention on ART.

2. **Prevention**
   - offer of condoms and condom-compatible lubricants
   - harm reduction services for men who inject drugs (needle and syringe programmes, opioid substitution therapy)
   - behavioural interventions to support risk reduction.

3. **HIV testing services**
   - confirmatory testing following a reactive (positive) community-based test-for-triage or HIVST result.
   - retesting before ART initiation
   - HIV testing for partners and biological children or social network-based approaches for key populations.

4. **STI services**
   - STI testing and treatment
   - anal cancer screening for men who have sex with men.

5. **Other clinical services**
   - assessment and provision of vaccinations for men from key populations
   - HBV and HCV testing
   - co-trimoxazole chemoprophylaxis to prevent *Pneumocystis carinii* pneumonia and isoniazid preventive therapy to prevent TB, as appropriate
   - intensified TB case finding and linkage to TB treatment.

6. **Other support services**
   - mental health and psychosocial services.
REFERENCES


