More than 9 million people globally — 25% of all people with HIV — do not know their HIV status.

Despite considerable scale-up of HIV testing services, many people are left behind, particularly men, adolescents, young women, and members of key populations\(^1\). Without further scale-up of strategies that make HIV testing services more convenient and appealing to those in need, it will be difficult to reach the United Nations 90–90–90 targets for 2020 – the first of which is diagnosing 90% of all people with HIV.

HIV self-testing (HIVST) is a testing option recommended by WHO that can be used to reach as-yet undiagnosed populations. According to the latest reports\(^2\), 59 countries have adopted HIVST policies as of June 2018, and many others are developing them.

What is HIV self-testing?

HIV self-testing is a process in which a person collects his or her own specimen (oral fluid or blood), using a simple rapid test and then performs an HIV test and interprets the result, often in a private setting, either alone or with someone he or she trusts.

A\(^0\) = Assay 0 (test for triage).

Perform HIV self-test
A\(^0\)
Report reactive HIV test
Advise linkage to further HIV testing for diagnosis
If confirmed HIV-positive, refer for treatment
If confirmed HIV-negative, recommend retesting as needed
Advise linkage to relevant HIV prevention services

WHO recommends offering HIVST as an additional approach to testing that complements and creates demand for existing HIV testing services.

A reactive (positive) self-test result is not equivalent to an HIV-positive diagnosis. All reactive results of self-tests need to be followed by further testing by a trained provider, starting with the first test in the validated national testing algorithm.

Nonreactive results should be considered negative. However, people who have had potential HIV exposure within the preceding 6–12 weeks may be in the “window period”\(^3\), when the test may be nonreactive. They should perform another self-test in 14 days or seek retesting at a facility.

WHO recommends those at high ongoing risk retest at least every year. Therefore, it is important to carefully craft messages to encourage retesting among people who will benefit (for example, members of key populations) and link them to HIV prevention such as condoms, harm reduction, voluntary medical male circumcision and pre-exposure prophylaxis.

Source: WHO guidelines on HIV self-testing and partner notification (2016)\(^4\).

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1. The WHO defines key populations as groups who, due to specific higher-risk behaviours and barriers that increase their vulnerability, are at an increased risk of HIV irrespective of the epidemic type or local context and often have legal and social issues related to their behaviours that increase their vulnerability to HIV. Key populations include men who have sex with men, people in prisons and other closed settings, people who inject drugs, sex workers and transgender people.


3. The window period is the time between potential exposure to HIV infection and the point when the test will give an accurate result. During the window period a person can be infected with HIV and be infectious but still test HIV-negative. The window can vary from approximately 4 to 12 weeks.

HIV self-testing at workplaces can reach many workers at risk of HIV infection with lower access to HIV testing services

HIV affects many people worldwide, often when they are young, productive and part of the workforce. Workers in certain industries may face particularly high risk of HIV, especially when they remain away from home and/or partners for long periods. Such industries include the military, mining, construction, security, petroleum, agriculture, fishing, long-distance driving and many others.

The workers in such industries may not have easy access to HIV testing services, and the workplace may be the best place to reach them. HIV testing services at workplaces can be effective in reaching migrant workers, key populations, and other populations at ongoing risk of HIV that are not easily accessed through routine health-care facilities or community services.

The number of people living with HIV in the workforce has continued to increase and is estimated to reach 29.9 million globally by 2020. Lost earnings attributable to HIV/AIDS – as a result of death or inability to work – are projected to surpass $7 billion by 2020. HIV testing initiatives at workplaces have been successful in identifying previously undiagnosed infections. For example, the International Labour Organization (ILO) initiative Voluntary Counselling and Testing for Workers - VCT@WORK - currently operates in 18 countries in a range of workplaces and industries. This initiative has tested more than 4.3 million workers in a span of three and a half years – 69% of them men. Of those tested, 2.4% were newly diagnosed HIV-positive. Knowing one's HIV status early enables workers to access available prevention, treatment, care, and support services, and to live longer, healthier, and productive lives, as well as remain part of the workforce.

HIVST offers an additional option for HIV testing at the workplace. HIVST at the workplace may increase uptake of HIV testing by offering workers greater confidentiality and autonomy and saving time for workers and health-care providers.

This policy brief outlines key planning and implementation considerations for managers and implementers introducing HIVST at workplaces.

Planning for HIVST at workplaces

Successful implementation of HIVST at the workplace starts with careful planning. The following issues deserve consideration:

Strategic priorities and stakeholder engagement

- Carefully review strategic priorities and set clear objectives from the beginning. Consider gaps in existing workplace HIV testing services and how HIVST might help to fill those gaps.
- Ensure that objectives align with national HIV testing strategy and targets, that they are practical and achievable and that adequate resources can be secured.
- Ensure buy-in from workers and management of the enterprise or workplace setting. Strong leadership support is critical to creating an enabling and conducive environment to promote HIV testing, including HIVST.
- Engage stakeholders and forge strategic partnerships among them to build momentum for HIVST and to mobilize workers to test. Engage stakeholders in the industry (for example, senior workplace management, trade unions, employers’ organizations, health and well-being committees and workplace health services) and outside the industry (such as ministries of labour and health, the national AIDS programme, community groups and nongovernmental service organizations). The commitment of trade unions and workers’ organizations is crucial. They can mobilize to disseminate information, distribute HIVST kits and encourage workers to test. Early and meaningful engagement of stakeholders during planning will foster lasting buy-in and ownership.
- Establish a high-level committee or task force representing the stakeholders to guide planning and implementation and foster continued engagement. Existing workplace committees (for example, VCT@WORK committees) can expand their scope to include HIVST.

HIVST implementation at workplaces

South Africa is introducing HIVST in industries that employ mostly men, such as mining, construction, security, petroleum and agriculture. Between January and June 2018, 66% of the 110 114 HIVST kits distributed went to men. Nearly half (47%) of those reached had not tested in the preceding 12 months or had never tested. Of those tested, 4.2% were diagnosed HIV positive.

In Uganda, HIVST distribution through social networks of 19 fishermen (10 with HIV and nine HIV-negative who had not tested in the past year) reached 95 fishermen. Approximately 4% of those were HIV positive.


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Human rights considerations

For HIVST to be most impactful and effective, it should be implemented within a workplace policy. Workplaces with existing policies can update them to include HIVST. Workplaces must implement HIVST within the context of human rights principles as set forth in the ILO Recommendation concerning HIV and AIDS and the world of work, 2010 (Recommendation 200) – which apply to any HIV testing. They include:

Consent: HIV testing must be genuinely voluntary and free of any coercion. It is the workers’ choice to accept a test kit or not, after receiving information or offer of the test. Also, workers should be free to choose the place and time to test themselves.

Confidentiality: Workers’ HIV test results must be confidential. Workers should not be forced to disclose their test results and/or HIV status to their employers or anyone else. Workers also may choose not to disclose whether they used a self-test kit that they received.

Non-discrimination: There should be no stigma or discrimination, based on real or perceived HIV status, and whether workers accept HIVST or not. There should be no stigma or discrimination due to sexual orientation or gender by either the employer or co-workers. Ongoing sensitization, training and education for workers and service providers, conducted in collaboration with community groups, should emphasize that stigma and discrimination are unacceptable, and efforts should be made to eliminate them.

Service integration and leveraging existing systems

HIVST can be implemented in ways that build on and complement existing workplace HIV testing services and initiatives rather than replacing them. For example, some workplaces may have an ongoing VCT@WORK initiative and workplace wellness, occupational health and safety, reproductive health and other health programmes. If so, HIVST should be integrated into such initiatives, where feasible. Such integration is likely to improve efficiency and reduce the cost of testing.

HIVST product selection

It is important to select quality- assured products for workplace HIVST, as for any HIV testing programmes. Several HIVST products, both blood-based and oral fluid-based tests, have received WHO prequalification, meet the requirements of the Global Fund Quality Assurance Policy and/or are approved by one of the founding members of the International Medical Device Regulators Forum. Up-to-date listings can be found on the WHO and the Global Fund websites. Some countries also have nationally approved and registered HIVST products. In some places repackaged professional-use HIV rapid diagnostic tests are being sold for self-testing, but these products are not recommended for self-testing.

The price per self-test kit will be an important consideration when selecting and procuring HIVST products. However, cost should not come before quality considerations. If several companies or organizations undertake a joint venture to introduce HIVST at their workplaces, they may agree on a common procurement plan and negotiate a better price with the manufacturer due to larger procurement volumes.

VCT@WORK in India

In India 14 large corporate groups have set up a comprehensive VCT@WORK programme with support from the ILO, covering nearly 200 workplaces and 150 000 workers, including informal economy and contractual workers. These corporate groups have implemented non-discrimination workplace policies. These corporate groups implement VCT@WORK programmes at their own cost. Such joint ventures and service delivery models can be leveraged or adapted for HIVST.

Resource considerations

Adequate human and financial resources are essential to operationalize HIVST at the workplace. Resource needs will depend on the scale and nature of the programme and the models adopted for delivering HIVST.

Human resource and infrastructure:

Staffing needs should be considered: Will enough staff be available to cope with the likely increase in demand for HIV testing? In workplaces with on-site health-care facilities, this includes staff to provide preventive services and additional HIV testing and counselling after obtaining a reactive HIVST result. Workplaces without health-care facilities will need systems for referral to external providers, including prevention, treatment and care services. Resources should also be available for the training, education and capacity building of those who deliver and support HIVST, including peer counsellors and peer distributors.
Integrating HIVST with existing health services and initiatives will minimize additional resource needs.

**Sustainable financing:** The financial resources required to sustain an HIVST programme will depend on the cost of HIVST kits, the service delivery model and whether HIVST will be provided to workers free of cost or at a subsidized price. For the workers, cost can be a significant barrier to accessing HIVST. To reduce cost to workers, planning should consider innovative financing options – for example, strategic partnerships that leverage existing state and/or donor funding to provide HIVST kits for free, and public or private insurance schemes which provide reimbursement for HIVST kits.

### HIVST implementation considerations

HIVST can be implemented in many ways. The standard operating procedures and training manuals should be tailored to the implementation approach. Table 1 presents some considerations.

#### Table 1. Approaches to HIVST delivery at the workplace

<table>
<thead>
<tr>
<th>Approach</th>
<th>Key questions and considerations</th>
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| **Who are the intended users?** | Is HIVST targeted to all workers or to groups at higher risk, such as vulnerable and key populations?  
- Consider the epidemiological context (high or low prevalence), programme objectives and available resources when identifying target groups.  
- Is HIVST for workers only or also for distribution to partners, family members or social networks (secondary distribution)?  
- Secondary distribution of HIVST kits is safe and acceptable. To implement this approach, initial distribution to index should include screening for intimate partner violence and adequate information on how to perform, offer and demonstrate a self-test. It is also important to emphasize HIVST should never be coercive and HIVST kits should not be used to test infants or children.  
- Cost and available resources may limit or rule out secondary distribution. |
| **Where are HIVST kits distributed?** | What are the best places and types of sites to offer HIVST?  
- Possible sites include workplace health-care facilities, VCT@WORK sites, occupational health and well-being clinics, unions’ offices, mobile distribution to workers in temporary camps or field (for example, mining, agriculture).  
- Resource needs and availability of support and referral services are a factor.  
- To minimize resource needs, consider leveraging existing systems and sites for HIVST distribution.  
- If HIVST is offered on-site, it should be aligned to times convenient to workers to ensure confidentiality.  
- Distributing information and promotional materials on where HIVST can be accessed should be considered. |
| **When and how is HIVST delivered?** | What is the best time of day and/or day of the week to offer HIVST?  
- Consider if HIVST will be available only during normal operating hours or after hours as well.  
- Select days/times for HIVST distribution when maximum coverage can be achieved.  
- How frequently should HIVST be offered?  
- Providing access to multiple HIVST kits per year has helped high-risk men who have sex with men to test as often as quarterly, but this may require additional resources.  
- Consider innovative financing options – for example reimbursement through insurance schemes – to support this. However, limiting reimbursement to a maximum number of HIVST kits per year may be needed to optimize resource use.  
- Will HIVST be available continually or occasionally?  
- Depending on the type of workplace and setting, there may be value in offering HIVST routinely on an ongoing basis or for specific time periods, for example, during events or campaigns. |
| **Who distributes HIVST kits?** | Are HIVST kits distributed in-person or through an automated delivery system such as kiosks or vending machines?  
- In-person distribution: different cadres of health-care providers or workers can be utilized for HIVST distribution – for example, health-care professionals, lay providers, trained peers or volunteers. Training needs and support packages will vary depending on who distributes the kits. Trained peers and volunteers can promote access to HIV testing services, provide support if needed, and create demand (see box 1). They can also provide in-person demonstrations on how to self-test and how to interpret the results.  
- Automated delivery system: It is important to consider if this approach is accessible and feasible. Such automated systems will need reliable electrical supply, mechanisms to ensure privacy, regular restocking, and a voucher, code, token, or payment system to operate. Resources will be needed on an ongoing basis for restocking to prevent stock-outs and distribution of expired HIVST kits. |
| **What services and support are offered?** | Is appropriate support package tailored to the implementation approach available and feasible?  
- A minimum package of support services is essential. Support can be in-person or virtual (that is, through text messages, telephone hotline, or Internet-based resources, such as videos).  
- Appropriate support facilitates accurate testing and promotes post-test linkage to services. |
Box 1. Basic standards for lay provider or peer distributors of HIVST kits

These criteria may prove useful when selecting peers or community workers for HIVST distribution:

- Trusted by the local community or peers – for example, recommended or nominated by peers or union
- Representative of the community – for example, the workers’ organization or union
- Able to perform the self-test correctly and accurately and to demonstrate its use and interpretation of results
- Able to provide accurate information and additional support – for example, to refer for further HIV testing and prevention
- Able to read and write
- Able to carry out monitoring and reporting tasks.

See HIV self-testing strategic framework: a guide for planning, introducing and scaling up\(^\text{13}\) for more information.

Box 2. Early results from HIVST implementation at a mining company in South Africa

In December 2017 Sibanye–Stillwater (Southern Africa Mining Operations) piloted HIVST at two sites. The company partnered with Re-Action, a social purpose enterprise in South Africa. The project was informed by consultations with key stakeholders such as employees, senior management and health-care providers, and standard operating procedures were developed for implementation. Senior management self-tested publicly at events to promote testing. Workplace wellness teams led mobilization, using a variety of approaches, including one-on-one and group dialogues, to raise awareness and build demand for HIVST. These teams and Re-Action field staff distributed the kits, demonstrated how to use them and provided referral information for internal health facilities. Employees who accepted self-test kits had the choice to test on-site with assistance or to take the kits home.

Over a period of four months, 2257 employees collected 3202 HIVST kits (945 were assumed to have been obtained for partners). Most of the employees at Sibanye–Stillwater are men. Nearly half (42%) of those who collected HIVST kits had never tested before or had not tested in the preceding 12 months. A subset of those who collected the kits were followed-up by service providers, and 16% of those were HIV-positive.

The company plans to roll out pilot projects at other sites and, in partnership with other stakeholders, to scale up HIVST to its 66 000 employees.

Note: HIV self-testing is known as HIV self-screening in South Africa

Source and photo credit: Sibanye-Stillwater, South Africa

Support services and tools

Quality-assured HIVST kits are highly sensitive and specific, and self-testing is accurate when performed correctly. However, some users may need additional support to perform HIVST accurately. The intensity of support needed may decrease with time as users gain experience with self-testing and as awareness increases. A minimum package of services and support tools must be defined and provided when implementing HIVST at workplaces, as for other HIVST programmes. The minimum package might include:

- the manufacturer’s instructions for use or package insert along with translation in local language(s), where needed
- demonstration video (including links to online videos)
- in-person demonstration (one-on-one or in groups)
- telephone hotline (can be integrated into existing hotline services)
- short message service (SMS) through mobile phones or messaging via the Internet or social media
- education and information via radio, television, leaflets, brochures, the Internet, social media and applications for smart phones or tablets.

People who self-test need links to post-self-test services: Those with a reactive (positive) HIVST result need support to link to further testing and, if confirmed HIV-positive, to treatment and care. Those with nonreactive (negative) self-test

results need linkage to prevention such as condoms, harm reduction, voluntary medical male circumcision, and pre-exposure prophylaxis.

Not all workplaces have their own health-care facilities. In such cases referral and linkage pathways must lead clearly to external services, including counselling, HIV prevention and treatment, and family planning and reproductive health, as well as pharmacies that dispense antiretroviral therapy. Workers should be informed of the steps to take following HIVST and how to link to services. Two ways to facilitate linkage are noted below. See the HIV self-testing strategic framework for more information.

- **Referral or appointment cards.** Referral or appointment cards can be distributed along with HIVST kits. These cards can provide information and contact details on where to obtain further HIV testing, prevention and treatment. The manufacturer could package these cards in HIVST kits, or the programme could provide them along with kits.

- **Counselling messages and reminders through telephone calls, text messages or social media.** These can be specific to HIVST approaches or part of broader HIV testing programmes.

In addition, it is important to create a workplace environment conducive to successful roll-out of HIVST at the workplace, with strong leadership and meaningful participation of employees.

**Demand creation and awareness**

HIVST implementation entails more than distributing test kits. It also requires strategic promotion and raising awareness among workers to generate demand for HIV testing. At a minimum, workers need to know where to obtain voluntary and confidential HIV testing, including HIVST, and how and where to find HIV prevention, treatment, care and support services.

Demand creation strategies need to be tailored to the type of workplace, setting and HIVST implementation approach. While multiple strategies can be used, increasing visibility is an important first step when HIVST distribution is beginning. However, targeted efforts may be needed to prevent unnecessary repeat testing in low-risk groups.

Media to consider for awareness-raising include local print and electronic media, social media, websites, printed materials (brochures, pamphlets, posters) and direct engagement with employees and community such as through dissemination meetings, consultations and at special events. Trusted and trained peers and volunteers can motivate workers to use HIVST as well as other health services, and they can distribute HIVST kits. Local celebrities, top management, union leaders, and workplace champions or supporters can promote HIVST. If they make public that they have used HIVST themselves, they serve as role-models.

For more on demand creation activities, technical considerations and accompanying messaging, see the HIV self-testing strategic framework.

**Monitoring for social harm**

HIVST is safe and accurate, and social harm following self-testing has been very infrequent. There have been no reports of suicide or other self-harm directly related to HIVST. However, it is important to mitigate or prevent any possible risks, including misuse of self-testing. Clear messages should emphasize that people should never be coerced or forced to self-test, whether deliberately or inadvertently. Also, workplace HIVST policy should align the age of consent to self-test with national policy and legislation on the age of consent for HIV testing in general.

Simple systems can be used to monitor and report social harm and adverse events. These include routine workplace satisfaction surveys, periodic evaluations, and working with workplace health-care providers and trade unions to gather such information. Simple web-based tools and social media can be used to report adverse events and social harm. These systems can also integrate quality assurance and post-market surveillance to report and track product failure and complaints. Mechanisms should be established to provide redress when necessary. Where possible, it is good practice to feed such information into the national reporting system.

For detail on HIVST social harm messaging and reporting, see the HIV self-testing strategic framework.

**Monitoring to optimize HIVST**

Routine monitoring of workplace HIVST implementation will make it possible to optimize programmatic approaches to achieve the desired impact and contribute to reaching national testing targets. A minimum set of reliable indicators and data is required. The HIV self-testing strategic framework proposes a range of indicators for this purpose. WHO plans to publish detailed guidance and tools for HIVST monitoring and evaluation in early 2019.

While monitoring and evaluation indicators are being developed and field tested, at a minimum, workplace programmes can record the number of self-test kits distributed. This information can be collected on printed forms or electronically (with tablets, for example) at the point of distribution. Where feasible, data can be disaggregated by age group (for example, 15–19, 20–49, 50+ years), sex, key population type,
type of distribution site and mode of distribution (for example, peers, health-care staff, vending machine). Other important information to monitor includes incidents of stigma and discrimination and the effectiveness of referral and linkage systems. The steering committee can review the indicators at regular intervals and refine the programme to increase impact. Workplaces can develop their monitoring and evaluation systems and indicators in collaboration with national AIDS programmes so that workplace programme data can flow into national monitoring and evaluation systems.

Key considerations for HIVST programmes in the workplace

**Planning**
- **Strategic priorities and clear objectives** (test all, focus on groups with less access, or facilitate retesting among those with ongoing risk)
- **Stakeholders’ engagement and strategic partnerships** (both internal and external; form workplace HIVST steering committee/task force)
- **Human rights** (workplace HIV testing policy ensuring voluntarism, confidentiality and non-discrimination)
- **Leveraging existing systems** for HIVST implementation (workplace clinics, VCT@WORK, wellness programmes; consider joint ventures)
- **Product selection and regulatory considerations** (procurement of quality-assured products)
- **Resource considerations** (human resources and sustainable financing; innovative financing options such as insurance reimbursement)

**Implementation**
- **Who** are the intended users (all, or workers at ongoing risk such as members of key populations, social and/or sexual contacts)?
- **Where** are HIVST kits distributed (clinic, other fixed site, field, mobile)?
- **When and how** is HIVST delivered (appropriate timing and frequency; ongoing, occasional, or campaign)?
- **Who** distributes HIVST kits (in-person: health professional, lay worker, trained peer; automated – for example, vending machine)?

**Tailored support package**
- **Support tools to perform** HIVST correctly (videos, in-person demonstration, virtual support, hotlines)
- **Post-self-test support** (linkage to counselling, prevention and treatment services; onsite or by referral to external service providers)
- **Information on linkage** (steps to take following HVST and how to link to services)
- **Supportive and enabling workplace environment** (strong leadership is critical as well as buy-in from management, workers and unions)

**Demand creation**
- **Mobilization activities** (trained peers and volunteers can be effective)
- **Social marketing and promotion** to raise awareness and create demand (for example, videos, brochures, flyers, mass media)
- **Education and training** (for providers, self-test distributors and workers)
- **Leadership** from top management, involvement of local celebrities, workplace champions

**Monitoring and evaluation**
- **Strategies to mitigate risks and social harms**
- **Appropriate messages** to prevent social harm (no coercion or forced testing of partners, infants, children, or sex workers)
- **Social harms monitoring and reporting** (add to routine surveys; provide redress when necessary)
- **Monitoring to optimize implementation** (how many kits distributed and to whom; monitoring workplace stigma and discrimination)
- **Evaluate and refine** programming (ongoing; steering committee/task force can lead)
HIVST resources


WHO HIVST questions and answers video: https://youtu.be/BA5E9wsEbPw

WHO community questions and answers: http://www.who.int/hiv/pub/self-testing/hst-questions-answer/en/


HIVST research and policy hub: http://hivst.org/

WHO in-vitro diagnostics (IVD) complaint reporting forms: http://www.who.int/diagnostics_laboratory/postmarket/en/


WHO IVD field safety notices: http://www.who.int/diagnostics_laboratory/procurement/complaints/en/

WHO post-market surveillance guidance: http://www.who.int/diagnostics_laboratory/postmarket/en/


Updates on VCT@WORK Initiative, good practices and success stories: https://www.ilo.org/aids/Whatsnew/lang--en/index.htm

#HIVSelfTest