
WHO, UNAIDS STATEMENT
ON HIV TESTING SERVICES:
NEW OPPORTUNITIES AND
ONGOING CHALLENGES

HIV testing services: new opportunities and ongoing challenges

HIV testing services are an essential gateway to HIV prevention, treatment, care and support services. The World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) endorse and encourage universal access to knowledge of HIV status. Increased access to and uptake of HIV testing is central to achieving the 90–90–90 targets¹ endorsed in the 2016 United Nations Political Declaration on Ending AIDS. However, at the end of 2016, approximately 30% of people living with HIV were still unaware of their HIV status. Young people aged 15–24, adult males and people from key populations (men who have sex with men, transgender people, sex workers, people who inject drugs and people in prisons and other closed settings) often have significantly lower access to HIV testing services, are less likely to be linked to treatment and care and have lower levels of viral suppression.²

There are many advantages to being tested. People who are found to be living with HIV can be linked to immediate offer of antiretroviral therapy. Early antiretroviral therapy maximizes the benefits for an individual's health and effective antiretroviral therapy (when viral load suppression is achieved) can prevent HIV transmission to sexual and drug injecting partners and prevent mother-to-child transmission of HIV. Knowledge of HIV status also enables people to make informed personal decisions about using a range of effective HIV prevention options, including male and female condoms, harm reduction and pre- and post-exposure prophylaxis, or undergoing voluntary medical male circumcision.

WHO and UNAIDS do not support mandatory or compulsory testing of individuals on public health grounds. HIV testing, no matter how it is delivered, must always respect personal choice and adhere to ethical and human rights principles. Public health strategies and human rights promotion are mutually reinforcing. WHO and UNAIDS continue to highlight that all HIV testing services must adhere to the **WHO "5 Cs"**:

1. **Consent.** HIV testing is a choice. Everybody should be given the opportunity to test for HIV, but an individual's decision to take an HIV test must always be voluntary. People being offered testing for HIV must give informed consent. This means that they need to be informed of the process for HIV testing and confirming the results, the services that are available depending on the results and their right to refuse testing without consequences. Mandatory, compulsory or coerced testing is never appropriate, regardless of where that coercion comes from: health-care providers, partners, family members, employers, law enforcement officials or others.
2. **Confidentiality.** Testing services must be **confidential**, meaning that the test results and the content of discussions between the person tested and the testing provider, counsellor and/or other health-care workers will not be disclosed to anyone else without the consent of the person tested.

¹ Whereby, by 2020, 90% of people (children, adolescents and adults, males and females) living with HIV know their status, 90% of people living with HIV who know their status are receiving antiretroviral treatment and 90% of people on treatment have suppressed viral loads.

² UNAIDS. Ending AIDS: progress towards the 90–90–90 targets. Geneva: UNAIDS, 2017.

3. **Counselling.** Appropriate and high-quality brief pre-test information and post-test counselling tailored to the person and the test results must be available.
4. **Correct results.** It is critical that the HIV test results delivered to individuals are correct. To ensure that test results are accurate, all testing must be performed in accordance with WHO or national quality assurance systems and standards, including the use of the appropriate testing strategy based on the characteristics of the local epidemic, and with a validated testing algorithm. The test results must be communicated to the person tested unless that person subsequently decides that they do not wish to receive the results.
5. **Connections.** Linkage to HIV prevention, treatment and care and support services should be supported through concrete and well-resourced patient referral, support and/or tracking systems.

A variety of approaches to HIV testing services is recommended

The WHO consolidated guidelines on HIV testing services and the HIV self-testing and partner notification guidelines^{3,4} recommend that HIV testing services be available through a wide range of service delivery models and approaches tailored to the epidemiological context in order to reach all populations, especially populations currently being underserved by existing services.

Facility-based testing approaches include provider-initiated testing and counselling (PITC), where providers routinely offer HIV testing to all people attending health services in high-prevalence settings (without the need to make an assessment of HIV risk), including sexual and reproductive health, tuberculosis (TB), harm reduction, antenatal, childbirth and postpartum services. PITC is also recommended in all epidemic settings for all people attending outreach and other services tailored to the needs of key populations. In countries with high HIV prevalence, WHO recommends the routine offering of HIV testing to all people attending health services. In countries with low HIV prevalence, WHO recommends that health-care providers in health-care settings assess the risk factors for HIV of each individual and routinely offer HIV testing to people who have had a high risk of HIV exposure or have an ongoing risk of contracting HIV, including people from key populations, the partners of people living with HIV or from key populations and people presenting with sexually transmitted infections and/or TB or HIV indicator conditions.

Community-based testing approaches include mobile outreach, door-to-door/home-based testing and workplace testing. HIV testing services can be delivered by community members with certified training in HIV testing (i.e. lay and peer providers); testing services

³ WHO (2016). Guidelines on HIV self-testing and partner notification. Supplement to consolidated guidelines on HIV testing services, <http://www.who.int/hiv/pub/vct/hiv-self-testing-guidelines/en/>.

⁴ WHO (2015). Consolidated guidelines on HIV testing services, <http://www.who.int/hiv/pub/guidelines/hiv-testing-services/en/>.

do not need to be exclusively provided by health worker personnel such as nurses and doctors. Community providers of HIV testing should adhere to the national algorithms for testing and confirming results.

WHO recommends two new HIV testing services approaches

1. **HIV self-testing** is recommended by WHO as an additional option for people to test for HIV. Evidence from many countries and among many populations has shown that HIV self-testing is highly acceptable and can reach people who may not otherwise test, including men, people from key populations and adolescents and young people (aged 15–24). HIV self-testing can be performed accurately and has been shown to increase the uptake and frequency of testing without increasing risk behaviours, social harm or adverse events. Good linkage to treatment and prevention services following HIV self-testing can also be achieved, especially when supported by and integrated into community-based systems.

Key issues relating to HIV self-testing:

- HIV self-testing kits that have been approved by WHO and/or other international authorities (e.g. founding members of the Global Harmonization Task Force, the Global Fund to Fight AIDS, Tuberculosis and Malaria and USAID) or national regulatory authorities should always be used. HIV self-testing kits must have appropriate, validated, clear and concise instructions that should be supplemented by additional accessibility support tools, including demonstrations, and audiovisual aids to meet the needs of people with different levels of education, literacy and disability.
- All people who have a reactive (positive) HIV self-testing result need to be provided with clear information that they need further HIV testing by a person trained in HIV testing in either a community or facility-based setting to confirm their test results. If their positive test is confirmed, they must be linked to HIV prevention, treatment, care and support services.
- People who have a nonreactive (negative) HIV self-testing result should be informed that they can consider their result as negative and that they do not need to seek confirmation unless they have had a potential HIV exposure in the past three months prior to testing. People who have had a recent potential HIV exposure should be advised to retest after 6–12 weeks. All people who have potential exposure regularly and are at high ongoing risk should be advised to have an HIV test every six months.
- Clear information should be provided about what to do if a person is unable to complete the HIV self-testing or if they are in doubt or unable to interpret the result. In such cases, individuals should be provided with information on where and how to access alternative HIV testing services and encouraged to seek testing at community or facility-based HIV testing services.

- HIV self-testing or other forms of HIV testing should never be used when people are on antiretroviral therapy. This is because antiretroviral medicines work to suppress the virus and thereby reduce the production of HIV antibodies, which may result in false negative HIV test results.
 - Pre-test information and post-test counselling, including linkage to clinical services and community support groups, must be accessible and available to all people who use HIV self-testing kits.
 - As with all HIV testing services, no one should be forced or coerced by anyone into taking an HIV self-test.
2. **HIV testing through voluntary assisted partner notification** is another novel approach recommended by WHO. Partner notification aims to increase access to HIV testing for the sexual and drug injecting partners of people living with HIV. Partners of people living with HIV have an increased risk of contracting HIV themselves. Supporting partners to access HIV testing and linking them to prevention and treatment services brings benefits for individuals and communities. Experience from many countries and among a range of key populations has shown this approach to be highly acceptable and to detect a high proportion of new HIV diagnoses among partners, who can then be linked to HIV prevention, treatment, care and support services.

Key issues relating to partner notification services:

- **Partner notification must be voluntary and confidentiality must be ensured.** Notification of the partners of a person living with HIV must only be undertaken with that person's voluntary consent. The notification process must maintain the confidentiality of the person living with HIV and their partners. It is important to protect the privacy and personal and health information of every person living with HIV. Criminal justice, law enforcement and non-health personnel should not be involved in partner notification.
- **There are many ways to deliver partner notification services.** People living with HIV should be given options for how to notify their partners, including: passive or client referral, where they notify their partners themselves; provider referral, where a provider directly notifies partners; contract referral, where the patient agrees to notify their partners and then the health worker follows up at an agreed time; and dual referral, where the provider and the patient notify the partners together. People living with HIV may also want to use different partner notification methods for different partners, and should be supported to do so.
- **Partner notification services should be offered to people living with HIV regularly.** A person's situation and readiness to notify and/or disclose their status to partners may change over time. Thus, follow-up and support to offer partner notification services by a trained provider or health worker should be ongoing.

Regardless of the individual or population group being offered HIV testing services, all models and aspects of HIV testing services must adhere to the 5 Cs and be provided in a non-discriminatory and ethical manner deriving from the professional integrity of the testing provider/counsellor and respecting the human rights of the person being tested. All providers of HIV testing services should have codes of conduct, a regulatory framework and systems in place for redress for patients whose rights are infringed.

Quality of testing

HIV testing is highly accurate when WHO prequalified tests are used and can often provide a same-day diagnosis when used within a validated testing strategy (i.e. the order in which the tests are performed) and algorithm (i.e. the exact tests used within the testing strategy) according to whether the setting has high ($\geq 5\%$) and low ($< 5\%$) HIV prevalence, as recommended by WHO.

Recently, there have been a number of publications and reports describing potential or actual misdiagnosis of HIV status, including a special issue on HIV misdiagnosis published on 29 August 2017 (<http://www.jiasociety.org/index.php/jias/issue/view/1492>).

These reports have shown that HIV testing is not always conducted appropriately and that in some countries quality systems have not kept pace with the rapid scale-up of HIV testing. HIV testing errors and poor practices, particularly those resulting in false positive or false negative diagnoses, do therefore occur and can have negative consequences for individuals and for public health.

In order to minimize misdiagnosis, efforts to accelerate HIV diagnosis and linkage to prevention, treatment, care and support services should be complemented by efforts to improve the quality of HIV testing services and to strengthen **quality management systems**, particularly the use of **validated testing algorithms** and **strategies, retesting people diagnosed with HIV before initiating treatment** and providing clear messages to people living with HIV who are on antiretroviral therapy about the risk of a false negative test result if they retest while on antiretroviral therapy.

WHO has also developed a questions-and-answers document, *Quality of HIV testing and prevention of misdiagnosis*.⁵

HIV testing services policies

National HIV testing services policies and practices should be reviewed to eliminate all non-voluntary forms of testing. There should be no compulsory or mandatory testing

⁵ <http://who.int/hiv/mediacentre/news/hiv-misdiagnosis-qa/en/>.

of members of key populations at higher risk of HIV infection or any other population, including pregnant women, migrants, refugees and internally displaced people.

The expansion of voluntary HIV testing services should include improved protection from stigma and discrimination related to HIV-positive status and HIV risk behaviours. HIV testing services should also facilitate linkage to HIV prevention, treatment, care and support services.

Adolescents require special attention to their needs through the provision of youth-friendly testing and counselling and follow-up services.

The following key factors should be addressed simultaneously:

1. Assuring linkages between the site where the test is conducted and appropriate treatment, care, prevention and other services, in an environment that guarantees confidentiality of all medical information.
2. All people who receive an HIV-positive diagnosis should be retested before antiretroviral therapy initiation.
3. Addressing the implications of an HIV-positive test result, including the risk of stigma and discrimination and the importance of early enrolment in HIV treatment, care and follow-up services, as needed.
4. Reducing HIV-related stigma and discrimination at all levels, including within health-care settings.
5. Ensuring a supportive legal and policy framework within which the response is scaled up, including safeguarding the human rights of people accessing and providing HIV testing services and other services.
6. Improving the health-care infrastructure so that quality services adhering to these principles can be sustained in the face of increased demand for testing, treatment and related services and ensuring that effective monitoring and evaluation is in place.

Mandatory testing

The only situations where WHO and UNAIDS support mandatory HIV testing are:

- Screening for HIV and other bloodborne infections of all blood destined for transfusion or for the manufacture of blood products.
- Screening of donors prior to all procedures involving the transfer of bodily fluids or body parts, such as artificial insemination, corneal grafts and organ transplant.

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