

Testing/Diagnostics

Scaled-up and efficient testing programs with high levels of linkage to evidence-based prevention, treatment and care.

Swift execution of a research agenda on testing modalities and affordable diagnostics that meets emerging needs.

Treatment as Prevention

Accelerated adoption of new comprehensive WHO guidelines on ARVs for treatment and prevention, with majority of countries implementing by end of 2014.

Investment and innovation in viral suppression

ART doesn't preserve health and reduce transmission risk—virologic suppression does. It's an essential distinction that prevention advocates need to help amplify. We need to pay at least as much attention to what is happening after people start ART, as we do to how many people start at all. Virologic suppression—having a viral load that is at or close to undetectable—is key.

This year WHO released eagerly anticipated comprehensive antiretroviral treatment (ART) guidelines addressing how to optimize ART for both treatment and prevention. The guidance recommends raising the CD4 threshold for treatment initiation to 500 CD4 cells or below—with priority given to people who are symptomatic or have CD4 cell counts at or below 350. As the graphic on page 37 illustrates, this shift in guidelines will increase the gap between the number of people eligible for ART worldwide and those currently receiving it. According to analyses included in the new guidelines, implementation of the new criteria for ART initiation stands to reduce annual incidence and mortality more than 33 percent by 2026.

There has been considerable discussion about the feasibility of implementing these guidelines and the need to address the gaps in the "treatment cascade"—the steps that move an HIV-positive individual from an initial HIV-positive test result to care to ART initiation to sustained, effective ART treatment.

The reality that sometimes gets lost in this discussion is that ART doesn't preserve health and reduce transmission risk—virologic suppression does. Virologic suppression—having a viral load that is at or close to undetectable—is key to reducing the risk of transmission. (Right now, virologic suppression can only be achieved through effective ART and management of HIV-related infections—though investigations into therapeutic vaccines and a cure could lead to other options in the long run.)

To make progess toward virologic suppression, it has to be measured. One key step to take in the coming year is to expand access to viral load testing. The new WHO guidelines recommend viral load monitoring as the "preferred approach compared with immunological and clinical monitoring." This is a shift away from previous guidelines that recommended monitoring CD4 count and clinical outcomes to gauge the response to ART. The Guidelines recommend routine testing defined as every six to 12 months—or "at least every 12 months".

⁶ WHO. "Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection." (2013) http://apps.who.int/iris/bitstream/10665/85321/1/9789241505727_eng.pdf (Accessed December 1, 2013).

Viral Load Testing Delivers Systemic Benefits from the Individual to the Institution

People living with HIV



I know if my treatment is working. I have the tools to get to "undetectable"! If necessary, I can switch to more effective drugs earlier, before I get sick.

Treatment provider



It's easier for me to identify and define treatment failure. I find out sooner when treatment isn't working. I know when to offer adherence counseling and when to switch treatment.

Program manager



I have better information about treatment adherence and health outcomes across my program.

Policy makers, National government



We can monitor community-wide progress toward the goal of "undetectable". We can identify areas that need more attention.

Donors, Global health actors



We can reduce global HIV incidence by reducing viral transmission within communities.

Médecins Sans Frontières/Doctors without Borders (2012). Undetectable: How Viral Load Monitoring Can Improve HIV Treatment in Developing Countries. http://www.msfaccess.org/content/undetectable-how-viral-load-monitoring-can-improve-hiv-treatment-developing-countries (Accessed November 7, 2013).

Implementing routine viral load testing would be a major shift for many of the countries with high HIV burdens. There is limited access to viral load testing in sub-Saharan Africa. Having a viral load test should never be a prerequisite for accessing care. However, if the world is serious about using treatment as prevention as part of comprehensive combination prevention, then expanding access to this monitoring test should be a priority.

There are many benefits to making viral load testing more routine: Knowledge that viral load is undetectable can be a profound motivation for people to adhere to treatment regimens, and detectable viral load can be an early warning sign that adherence counseling needs to be intensified. In the best-case scenario, this intensified counseling helps a person do better on his or her current ART combination, avoiding the need to change to a second- or third-line regimen.

Virologic suppression is achieved when people take their drugs correctly and consistently. For many people, this level of adherence requires support from ART programs, peer educators, family and friends. It also requires that drugs be in stock at clinics that are accessible to people wherever they live. Scale up of viral load testing needs to be accompanied by innovative ART service delivery. Approaches to adherence support should be evaluated through analysis of retention records at clinics as well as viral load samples (a rough picture of adherence levels at a clinic can be obtained by measuring viral load in pooled samples from several patients.)