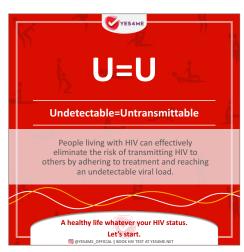


U=U Undetectable=Untransmittable

A person living with HIV who has an undetectable viral load does not transmit HIV to their sexual partners

The U=U campaign was launched after four large studies conducted from 2007 to 2016 among thousands of serodiscordant couples did not show a single case of sexual HIV transmission from a virally suppressed partner. The idea that someone living with HIV, who is both on treatment and virally suppressed, cannot transmit the virus to a sexual partner is revolutionary. U=U messaging has the potential to reduce stigma toward people living with (PLHIV), including self-stigma; increase demand for HIV testing and antiretroviral therapy (ART), including early initiation of treatment; and improve adherence. The concept of U=U can also strengthen advocacy efforts for universal access to effective treatment and care, and messaging around U=U should be well-integrated into HIV prevention, care, and treatment programs, including those serving key populations.



Graphic used by LINKAGES India

those living positively. It is the success that comes along with adherence. The victory after all those days you feel like the drugs were a burden.

KEY TERMS AND DEFINITIONS

- Viral load: A measure of the amount of HIV in the body
- **Viral suppression:** When ART is taken long enough to reduce the ability of the virus to make copies of itself in someone's body
- Undetectable viral load: When someone is on ART and the virus level in their body is so low that standard blood tests cannot detect it
- Untransmittable: HIV cannot be transmitted through sexual transmission when the viral load is below 200/mL









-aidsmap1

Q EVIDENCE IN SUPPORT OF U=U

HPTN 052 Trial²

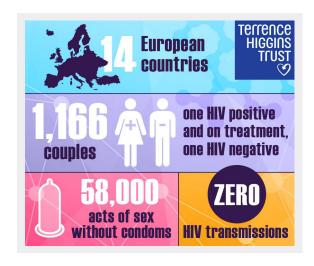
This trial found that immediate ART initiation reduced HIV transmission between serodiscordant couples by 93 percent.

From April 2005 to May 2015, the study enrolled 1,763 serodiscordant heterosexual couples from Botswana, Brazil, India, Kenya, Malawi, South Africa, Thailand, United States, and Zimbabwe. A total of 78 partners became infected with HIV during the study; of these, 46 were virologically linked to the HIV-positive partner, 26 were not linked, and six could not be traced. Among the 46 linked cases, three were in the immediate treatment arm while 43 were in the delayed arm. Transmission occurred when viral suppression had not been achieved, either due to the timing of treatment (HIV was transmitted shortly before or after treatment initiation by the index partner) or treatment failure.

PARTNER Study³

This study found no documented cases of sexual HIV transmission among serodiscordant couples when the index partner was virally suppressed.

From September 2010 to May 2014, the study enrolled 1,166 HIV serodiscordant couples (both heterosexual couples and men who have sex with men [MSM]) from 14 European countries. All couples reported condomless sex, and the index partner was virally suppressed. A total of 11 HIV-negative partners became HIV infected during the study period, but none of the infections were phylogenetically linked (i.e., newly infected partner did not acquire HIV from the enrolled index partner), making the within-couple transmission rate zero.



PARTNER 2 Study⁴

In PARTNER 2, the PARTNER study continued from 2014 to 2018 with MSM serodiscordant couples only and found no linked HIV transmissions.

"The findings that HIV-positive MSM who were virally suppressed had zero risk of transmitting HIV to their partners, provided the most definitive conclusion yet that antiretroviral treatment is an extremely powerful tool in preventing HIV transmission — and that the concept of U=U can be applied just as reliably to gay men as to heterosexuals."

- The BodyPro⁵

Opposites Attract Study⁶

This study from 2012 to 2015 found no instances of linked HIV transmission among 358 serodiscordant MSM couples from Australia, Thailand, and Brazil.

At baseline, 79.9 percent of the HIV-positive partners were on ART, and 77.9 percent were virally suppressed. About 57 percent reported anal sex with an outside partner during any point in the study follow-up period, and the study included a total of 16,889 acts of condomless anal sex. There were three new HIV infections, but none of them were linked to the enrolled index partner.

^{6.} Bavinton BR, Grinsztejn B, Phanuphak N, Jin F, Zablotska I, Prestage G, et al. HIV treatment prevents HIV transmission in male serodiscordant couples in Australia, Thailand and Brazil. IAS 2017; 2017 Jul 23-26; Paris, France. http://programme.ias2017.org/Abstract/Abstract/5469.









^{2.} Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, et al. Antiretroviral therapy for the prevention of HIV-1 Transmission. N Engl J Med. 2016;375:830-839.

^{3.} Rodger AJ, Cambiano V, Bruun T, Vernazza P, Collins S, van Lunzen J, et al. Sexual activity without condoms and risk of HIV transmission in serodifferent couples when the HIV-positive partner is using suppressive antiretroviral therapy. JAMA. 2016;316(2):171-81.

^{4.} Rodger A et al. Risk of HIV transmission through condomless sex in MSM couples with suppressive ART: The PARTNER2 Study extended results in gay men. AIDS 2018, 23-27 July 2018, Amsterdam. Late breaker oral abstract WEAX0104LB. https://programme.aids2018.org/Abstract/Abstract/13470

^{5.} The BodyPro. http://www.thebodypro.com/content/81184/gay-men-cannot-get-hiv-partners-virally-suppressed.html

POTENTIAL BENEFITS OF U=U

More widespread understanding of U=U among PLHIV, their sex partners, and others at risk of HIV may offer several benefits, including that it:

- Helps to reduce stigma and discrimination toward PLHIV, including self-stigma
- Increases demand for HIV testing services
- Increases demand for early treatment initiation
- Improves treatment adherence
- Increases understanding that a suppressed viral load is important to maintain the long-term health of PLHIV

PROGRAMMATIC CONSIDERATIONS WHEN PROMOTING U=U

- Treatment programs need to ensure a constant supply of and easy access to HIV treatment.
- Depending on the drug combination, it may take as long as six months of treatment to achieve viral suppression, and viral suppression must be maintained to ensure that the virus is not transmitted to a sexual partner.
- · Viral load testing must have clear guidance on how frequently to get tested and testing must be easily accessible. Guidance then must be followed by clinicians and communicated to the person living with HIV who was tested, which may be challenging in certain settings.
- The viral load may become detectable in PLHIV if they are not adherent and/or if the treatment is no longer effective for that person.
- PLHIV with a suppressed viral load can be infected and/or transmit a sexually transmitted infection; therefore, protected sexual intercourse is still recommended.
- U=U does not mean that the person living with HIV is cured of HIV.
- Some people experience transient viral increases called "blips." After the blip, viral loads return quickly to an undetectable level without any change in therapy. Most blips are small, with viral load rising to somewhere between 50 and 1000 copies/mL.

WHEN U=U SHOULD NOT BE RECOMMENDED

- · Currently, there are not enough data to know whether treatment that results in suppressed HIV viral load will prevent HIV from being transmitted when injecting drug equipment is shared.
- · Cases of HIV transmission from breastfeeding have been reported even when the mother's viral load was undetectable in both blood and breast milk.7



Arkell C. Pregnancy and infant feeding: can we say U=U about the risk of passing HIV to an infant? Prevention in Focus. Spring 2018. https://www.catie.ca/en/pif/spring-2018/pregnancy-and-infant-feeding-can-we-say-uu-about-risk-passing-hiv-infant











Potential next steps to incorporate U=U messages within key population HIV programs include:

- Update staff and partners on the science behind U=U and discuss implications for programming.
- Work with local partners and key population community members to co-create U=U messages that they find relevant and motivating, and identify appropriate channels to disseminate those messages.
- Train community-based staff, peer navigators, and clinicians to incorporate U=U messages into their day-to-day programs.
- Incorporate U=U messages in relevant community outreach curricula; information, education, and communication materials; and social media campaigns for online communities to spread the word to friends and partners.
- Advocate with national stakeholders for multi-month scripting, community-based ART initiation/dispensation, and other differentiated ART service delivery modalities to reduce barriers to treatment initiation and adherence, especially among key populations.
- Advocate for improved access to viral load monitoring.
- Build the capacity of program staff and key populations around treatment literacy, including U=U, to increase the demand for treatment and viral load monitoring.



USEFUL RESOURCES

- Prevention Access Campaign is the leading site for U=U information, resources, and latest news
 - (www.preventionaccess.org)
- Prevention Access Facebook page (https://www.facebook.com/PreventionAC/)
- 10 Things to Know about HIV Suppression (https://www.niaid.nih.gov/news-events/10things-know-about-hiv-suppression)
- The "Undetectable=Untransmittable"
 Messages Goes Global: I=I, N=N, B=B
 (http://www.aidsmap.com/The-Undetectable-Untransmittable-message-goes-global-II-NN-and-BB/page/3311922/)
- Pregnancy and Infant Feeding: Can We Say
 U=U about the Risk of Passing HIV to an Infant?
 (https://www.catie.ca/en/pif/spring-2018/pregnancy-and-infant-feeding-can-we-say-uu-about-risk-passing-hiv-infant)







