

## UNDETECTABLE = UNTRANSMITTABLE

### FREQUENTLY ASKED QUESTIONS FOR PROVIDERS

#### **TDH JOINS THE U=U CAMPAIGN**

On November 27, 2019 the Tennessee Department of Health became one of the first state health departments in the South to join the “Undetectable Equals Untransmittable” or “U=U” campaign. The “U=U” campaign promotes the message that individuals living with HIV who take medication to achieve and maintain an undetectable viral load cannot transmit the virus to their sexual partner(s). This message is vital to combating HIV-related stigma and empowering people to enter and remain engaged in HIV care.

*“The most important thing someone living with HIV can do to stay healthy and prevent transmission of HIV is to be treated with medications on an ongoing basis,” said Pamela Talley, MD, MPH, medical director of the TDH HIV/STD/Viral Hepatitis section. “The science is clear. Numerous studies have shown that people living with HIV who take their HIV medication as prescribed and get and keep an undetectable viral load have effectively no risk of transmitting HIV.”*

#### **WHAT DOES “UNDETECTABLE” MEAN?**

HIV viral load tests have varying degrees of sensitivity. Regardless of the which test is used, if someone’s HIV viral load remains below 200 copies/mL they are considered undetectable. Undetectable and virally suppressed are used interchangeably.

#### **WHAT DOES UNTRANSMITTABLE MEAN?**

Untransmittable means there is no evidence that individuals who have successfully achieved and maintained an undetectable viral load through antiretroviral therapy (ART) transmit the HIV virus through sex.

#### **HOW LONG DOES A CLIENT NEED TO BE UNDETECTABLE TO BE CONSIDERED UNTRANSMITTABLE?**

After initially reaching an undetectable viral load, a client should maintain viral suppression for 6 months before they can use their undetectable status as a method of HIV prevention.

#### **HOW OFTEN SHOULD SOMEONE LIVING WITH HIV GET THEIR VIRAL LOAD CHECKED?**

Viral load testing is an essential indicator of ART success and the only way to know if a client is undetectable (200 copies/mL or less). Clients on a stable and suppressive ART regimen should get viral load testing every three months to ensure continuous viral suppression. After two years of durable viral suppression, providers may consider moving a client to viral load testing every six months per HHS guidelines linked on the next page. Being in HIV care and sustaining viral suppression is a key element of U=U and ensuring the best health outcomes for people living

with HIV.

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV. Department of Health and Human Services. Available at <https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/AdultandAdolescentGL.pdf> Accessed [07/51/21] [page 24]

### **DOES U=U APPLY TO ALL TYPES OF SEX?**

Yes. People living with HIV that have an undetectable viral load do not transmit HIV through insertive or receptive vaginal, anal, or oral sex.

### **DOES U=U HELP PROTECT AGAINST OTHER SEXUALLY TRANSMITTED INFECTIONS (STIs)?**

U=U only applies to the transmission of HIV and does not protect against the transmission of other STIs like syphilis, chlamydia, and gonorrhea.

### **SHOULD CLIENTS STILL USE CONDOMS IF SOMEONE IS UNDETECTABLE?**

Since U=U only applies to HIV and does not protect individuals from acquiring other STIs and unwanted pregnancy, condoms remain an important prevention tool. Clients should be made aware of U=U as a method of HIV prevention, and should be encouraged to consider condoms, contraceptives, and other safer sex practices to address concerns related to unwanted pregnancy and STIs.

### **IF SOMEONE IS UNDETECTABLE SHOULD THEIR PARTNER STILL TAKE PREP?**

Like U=U, PrEP is an effective HIV prevention tool. This once-a-day pill is estimated to be more than 99% effective in preventing sexual transmission of HIV. U=U is estimated to be 100% effective in preventing the sexual transmission of HIV. While taking PrEP may not be necessary if a person is in a monogamous relationship with someone who has an undetectable viral load, a partner may still want to take PrEP because they feel more assured by making their own sexual health choice or have additional partners. Clients should be given accurate information about U=U and PrEP as HIV prevention methods and empowered to make an informed decision about their HIV prevention practices.

[Click here to read CDC's estimated effectiveness of various HIV prevention methods.](#)

### **WILL DISCUSSING U=U WITH CLIENTS LEAD TO MORE "RISKY SEX?"**

Biomedical advances such as U=U and PrEP necessitate rethinking phrases like "risky sex," which are unclear and stigmatizing. Clear, concise, and clinically accurate information should be given to clients about the various tools that exist to prevent HIV, STIs, and unwanted pregnancy. On the following page is some language guidance to consider when talking about sexual health with clients.

Try these phrases...	Instead of these phrases...
condomless sex	risky sex <b>or</b> unsafe sex <b>or</b> unprotected sex
sex without the use of PrEP	risky sex <b>or</b> unsafe sex
sex with person(s) of an unknown HIV status	anonymous partners <b>or</b> anonymous sex
multiple sex partners	promiscuous <b>or</b> a lot of partners
What are your sexual health goals?	You need to do _____ to prevent _____
What concerns do you have about your sexual health?	You should be worried about _____

### **HOW DOES U=U IMPACT PEOPLE TRYING TO GET PREGNANT?**

U=U is a significant message of hope for couples with different HIV statuses wanting to get pregnant without the concern of HIV transmission from condomless sex. Client concerns about other STIs and perinatal transmission of HIV should also be addressed.

### **DOES U=U APPLY TO PEOPLE WANTING TO BREASTFEED?**

There is not enough evidence at present to extend U=U to HIV transmission from breastmilk. While being on effective ART has been shown to significantly reduce the risk of HIV transmission from breastfeeding, it does not eliminate the risk. Therefore, it is still recommended that people living with HIV refrain from breastfeeding.

[Click here to read more about HIV and breastfeeding.](#)

### **DOES U=U APPLY TO PEOPLE WHO INJECT DRUGS?**

People living with HIV that have an undetectable viral load who inject drugs cannot pass HIV to their partners through sex. However, the evidence supporting U=U does not extend to HIV transmission from sharing syringes and other equipment used to inject drugs at present. Using new injection equipment every time is an important practice to prevent the transmission of HIV and other bloodborne pathogens like hepatitis C.

[Click here to learn about syringe services programs in Tennessee.](#)

### **HOW DOES U=U SUPPORT ENDING THE HIV EPIDEMIC?**

Treatment as prevention (TasP) and U=U highlight the importance of treating people living with HIV quickly and effectively to prevent further HIV transmission. Ultimately, ending the HIV epidemic in the United States depends on U=U. The study below illustrates this importance.

### ***Optimal Allocation of Societal HIV Prevention Resources to Reduce HIV Incidence in the United States***

The HIV Optimization and Prevention Economics (HOPE) model shows that achieving a 90% reduction in those newly diagnosed with HIV under current funding will require that nearly every person living with HIV be engaged and sustained in treatment. This reflects the clinical reality that when people living with HIV are virally suppressed, they cannot transmit the virus to sexual partners, and therefore community transmissions come to a halt.

Sansom, S., Hicks, K. et al (2021). Optimal Allocation of Societal Prevention Resources to Reduce HIV Incidence in the United States. American Journal of Public Health. 111(1): p150-158.

**WHY IS IT IMPORTANT TO DISCUSS U=U?**

Talking about U=U reduces HIV stigma thereby incentivizing people to know their HIV status. HIV testing is the gateway to engagement in HIV prevention and treatment resources like PrEP and ART. For people living with HIV, the message of U=U can be an important motivator to seek treatment, stay in care, and achieve viral suppression.

The U.S. Department of Health and Human Services Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV, maintain, **“all persons with HIV should be informed that maintaining a plasma HIV RNA (viral load) of <200 copies/mL, including any measurable value below this threshold value, with ART prevents sexual transmission of HIV to their partners. Patients may recognize this concept as Undetectable = Untransmittable, or U=U.”**

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV. Department of Health and Human Services. Available at <https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/AdultandAdolescentGL.pdf> Accessed [07/51/21] [page 51]

**HOW CAN I EXPLAIN U=U SIMPLY AND ACCURATELY TO CLIENTS?**

The way a provider discusses U=U significantly impacts how a client receives and internalizes this information. Clearly and consistently saying “undetectable equals untransmittable” is critical to reducing HIV stigma and encouraging people living with HIV to remain engaged in care. Be clear and concise about the science that supports U=U with clients. Below is some language guidance to consider when talking about U=U to ensure this message is communicated effectively.

Try these phrases...	Instead of these phrases...
do not transmit HIV	extremely unlikely to transmit HIV
no risk	less risk <b>or</b> less likely
no measurable risk <b>or</b> effectively no risk	almost no risk <b>or</b> close to zero
prevents HIV	helps to prevent HIV
eliminates sexual transmission	makes hard to sexually transmit HIV

## **WHAT IS THE EVIDENCE SUPPORTING U=U?**

The evidence supporting U=U is robust. Several of the most cited studies are summarized below.

### ***HPTN-052 – Antiretroviral Therapy for the Prevention of HIV-1 Transmission***

HPTN-052 is a randomized control trial with 1,763 couples with a mixed HIV status from nine countries. Participants living with HIV with no previous use of ART were randomly assigned to receive early-ART or delayed-ART. Index participants living with HIV were followed for a total of 10,031 person-years and their partners for 8,509 person-years. During the course of the study 78 partners were newly diagnosed with HIV, of which 72 were phylogenetically linked to a partner living with HIV in the study. None of these transmission events occurred between a participant with an undetectable viral load and their sexual partner.

Cohen, M., Chen, Y., McCauley, M., Gamble, T., Hosseinipour, M., Kumarasamy, N., Hakim, J., Kumwenda, J., Grinsztejn, B., Pilotto, J., Godbole, S. & Charialertsak, S. for the HPTN 052 Study Team. (2016). Antiretroviral Therapy for the Prevention of HIV-1 Transmission. *N Engl J Med.* 375, 830-839. Available at <https://www.nejm.org/doi/full/10.1056/NEJMoa1600693>.

### ***PARTNER 1 – Sexual Activity Without Condoms and Risk of HIV Transmission in Serodifferent Couples When the HIV-Positive Partner is Using Suppressive Antiretroviral Therapy***

PARTNER 1 is an observational study of 1,166 couples with a mixed HIV status. Heterosexual and same-sex male couples from 14 different countries were followed for 1,238 couple-years. Over 58,000 events of condomless vaginal/anal sex were reported by the couples during the study period. 11 partners were newly diagnosed with HIV during the study, 8 of which reported condomless sex with a partner outside of the study. None of the 11 transmission events were phylogenetically linked to virally suppressed partners in the study.

Rodger, A.J., Cambiano, V., Bruun, T. et al (2016). Sexual Activity Without Condoms and Risk of HIV Transmission in Serodifferent Couples When the HIV-Positive Partner Is Using Suppressive Antiretroviral Therapy. *JAMA.* 316(2), 171–181. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27404185>.

### ***Opposites Attract Study – Viral Suppression and HIV Transmission in Homosexual Male Serodiscordant Couples: An International Cohort Study***

Opposites attract is an observational study of 343 same-sex male couples with a mixed HIV status from three countries. Participants were followed for more than 588 couple-years and 12,447 events of condomless anal sex were reported. No phylogenetically linked HIV transmission was observed in the study between participants living with HIV that were virally suppressed and their sexual partners.

Bavinton, B., Pinto, A., Phanuphak, N., Grinsztejn, B., Prestage, G., Zablotska-Manos, I., Jin, F., Fairley, C., Moore, R., Roth, N., Bloch, M., Pell, C., McNulty, A., Baker, D., Hoy, J., Tee, B., Templeton, D., Cooper, D., Emery, S., Kelleher, A., Grulich, A. and the Opposites Attract

Study Group. (2018). Viral suppression and HIV transmission in homosexual male serodiscordant couples: an international cohort study. *Lancet HIV*. 5(8): e438-447.

***PARTNER 2 – Risk of HIV Transmission Through Condomless Sex in Serodifferent Gay Couples with the HIV-positive Partner Taking Suppressive Antiretroviral Therapy (PARTNER): Final Results of a Multicentre, Prospective, Observational Study***

PARTNER 2 is an extension of the PARTNER 1 observational study to increase the number of couple-years of follow-up for men that have sex with other men. PARTNER 2 followed an additional 635 male same-sex couples. Based on the combined results of PARTNER1 and PARTNER2 they estimated one HIV transmission event for every 435 years of condomless sex between couples with a mixed HIV status.

Rodger, A., Cambiano, V., Bruun, T. et al (2019). Risk of HIV Transmission Through Condomless Sex in Serodifferent Gay Couples with the HIV-positive Partner Taking Suppressive Antiretroviral Therapy (PARTNER): Final Results of a Multicentre, Prospective, Observational Study. *The Lancet*. 393(10189): p2428-2438.

**WHERE CAN I LEARN MORE?**

- [National Institute of Allergy and Infection Diseases “10 Things to Know About Viral Suppression” Fact Sheet](#)
- [The Center for Disease Control and Prevention’s HIV Treatment as Prevention Webpage](#)
- [The Prevention Access Campaign Website](#)
- [The US Department of Health and Human Services Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV](#)