UNDetectable = UNtransmittable

New Jersey Department of Health
Division of HIV, STD and TB Services (DHSTS)

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• In September 2017, the CDC released a “Dear Colleague" letter endorsing the science behind Undetectable = Untransmittable (U=U).

• It stated that people with HIV "... who take ART daily as prescribed and achieve and maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner."

• The CDC letter followed the Prevention Access Campaign’s U=U consensus statement, backed by more than 545 medical and community-based organizations in 70 countries.
The U=U Consensus Statement builds on 20 years of evidence demonstrating that HIV treatment is highly effective in reducing forward HIV transmission. It endorses that "people living with HIV on ART with an undetectable viral load in their blood have a negligible risk of sexual transmission of HIV."

Increased awareness of U=U can play an important role in educating people living with HIV, providers, and the public, with the likely benefit of combatting HIV-related stigma, improving individual health and ending the HIV epidemic.
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What Is the Science Supporting U=U?

- In 2011, interim results from a large, randomized trial in heterosexual serodiscordant couples, HPTN 052, demonstrated a 96% reduction in linked (within-partnership) HIV transmissions after the partner living with HIV was treated immediately with ART regardless of CD4 count.

- Final results published in 2016 found zero linked HIV transmissions when the partner living with HIV was virally suppressed on ART.

- The same results were found in two additional observational studies of serodiscordant couples who did not use condoms, and the HIV-negative partner did not use PrEP.
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What Is the Science Supporting U=U?

• After approximately 75,000 combined sex acts, including condomless anal sex among large numbers of gay and bisexual men, there were no HIV transmissions within partnerships.

• The release of results from the above studies led Dr. Anthony S. Fauci, director of the NIH National Institute of Allergy and Infectious Diseases, to state, "The science really does verify and validate U=U."
What Are the Implications of U=U?

- U=U is evidence-based confirmation that the risk of HIV transmission from a person living with HIV, who is on ART and has achieved a durable undetectable viral load in their blood for at least 6 months is negligible to non-existent.

  (Negligible is defined as: so small or unimportant as to be not worth considering; insignificant.)

- U=U is supported by strong scientific evidence. People with HIV who take antiretroviral medication daily as prescribed and achieve and persistently maintain an undetectable viral load have effectively no risk of sexually transmitting HIV to an HIV-uninfected partner.
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What Are the Implications of U=U?

• Recognition of the validity of this simple statement can combat HIV-related stigma.

• It can encourage PLWH to initiate and adhere to a successful treatment regimen, and should motivate providers and patients to redouble efforts to achieve and maintain HIV viral suppression and engagement in care.

• U=U offers a strong public health argument for universal access to diagnostics, treatment, and care to save lives and bring us closer to ending the epidemic.
What Else Should We Know About U=U?

- HIV treatment works by reducing the amount of virus in the blood to undetectable levels, which protects the immune system from damage and prevents HIV transmission.

- Suppressed is defined as less than 200 copies/ml.

- Undetectable is defined as less than 20 copies/ml. Undetectable means that the level of HIV in a person’s blood is so low that it doesn’t show up on a viral load test.

- Depending on the drugs employed it may take as long as six months for the viral load to become undetectable.
What Else Should We Know About U=U?

• Continued and reliable HIV suppression to undetectable levels (referred to as Durable Suppression) requires selection of appropriate ARVs and excellent adherence to treatment.

• HIV viral suppression should be monitored to assure both personal health and public health benefits.

• Being “suppressed” or “undetectable” does NOT mean you are cured.

• NOTE: An undetectable HIV viral load only prevents HIV transmission to sexual partners. Condoms can help prevent STI transmission and pregnancy. The choice of HIV prevention method may be different depending upon a person’s sexual practices, circumstances and relationships.
What Else Should We Know About U=U?

- People who inject drugs (PWID)
  - We do not yet have enough data to know whether ART resulting in a suppressed HIV viral load prevents HIV transmission with the sharing of injection equipment.
  - In the trials cited earlier, only 2% or fewer of participants reported injection drug use.
  - Consistent use of clean injection equipment for PWID, and PrEP for HIV-negative PWID, as well as condoms for those who remain at risk of HIV through sexual transmission is still recommended.
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THANK YOU