

## Undetectable = Untransmittable (U=U) Resources for Healthcare Providers

- “U=U is the foundation for being able to end the epidemic.” Dr. Anthony S. Fauci, Director, NIAID
- “It’s very clear the risk is zero. The time for excuses is over.” Dr. Alison Rodger, Lead Author, PARTNER studies
- “U=U set me free.” Maria Mejia, International AIDS Activist

**Prevention Access Campaign (PAC)** launched the “Undetectable Equals Untransmittable” (U=U) campaign in 2016 with people with HIV, allies, and leading researchers with two advocacy and communications goals: (1) build a science-based consensus on U=U; and (2) disseminate the U=U science through U.S. and international partnerships. U=U has grown into a global health and human rights movement of nearly 1,000 official partners in 102 countries. U=U has been accepted by the global medical and scientific community as a life-changing, stigma-busting, and transmission-stopping fact. It is changing lives and the field worldwide. The campaign’s rapid expansion is a testament to the passion and power of people with HIV coming together with scientists, public health officials, and other allies to improve lives and bring an end to the dual epidemics of HIV and HIV stigma.

Sharing knowledge about U=U is game changing because of the many ways it impacts people with HIV and the epidemic:

- **Well-being of people with HIV:** Transforms the social, sexual, and reproductive lives of people with HIV by freeing them from the shame and fear of sexual transmission to their partners.
- **HIV stigma:** Dismantles the HIV stigma that has been destroying lives and impeding progress in the field since the beginning of the epidemic.
- **Treatment goals:** Reduces the anxiety associated with testing, and encourages people living with HIV to start and stay on treatment to remain healthy and prevent HIV transmission.
- **Universal access:** Offers a strong public health argument to increase access and remove barriers to treatment, care, and diagnostics to save lives and prevent new transmissions.

Communicating U=U accurately to patients is the responsibility of every health care provider. Whether giving an HIV test to a patient, offering information after a new diagnosis, or providing continuing care to patients living with HIV, here are some helpful documents, briefs, and guidelines to help you share the amazing news.

### Relevant Journal Articles for Providers

Article Title	Journal	Authors	Date	Link to Article
U=U Taking off in 2017	The Lancet	The Lancet Editorial Board	November, 2017	<a href="#">U=U taking off in 2017</a>
For HIV, Treatment is Prevention	NIH Director’s Blog	Dr. Francis Collins	January, 2019	<a href="#">For HIV, Treatment is Prevention – NIH Director’s Blog</a>
HIV Viral Load and Transmissibility of HIV Infection: Undetectable	Journal of the American Medical Association	Robert W. Eisinger, PhD; Carl W.	January, 2019	<a href="https://docs.wixstatic.com/ugd/de0404_377537114644443fa4c6836ac7cb29c0.pdf">https://docs.wixstatic.com/ugd/de0404_377537114644443fa4c6836ac7cb29c0.pdf</a>

Equals Untransmittable	(JAMA)	Dieffenbach, PhD; Anthony S. Fauci, MD		
Providers should discuss U=U with all patients living with HIV	The Lancet	Sarah K Calabrese, Ph.D., Dr. Kenneth H Mayer	February, 2019	<a href="https://58b1608b-fe15-46bb-818a-cd15168c0910.filesusr.com/ugd/de0404_6739336ddf8047799bda35e3f58aed77.pdf">https://58b1608b-fe15-46bb-818a-cd15168c0910.filesusr.com/ugd/de0404_6739336ddf8047799bda35e3f58aed77.pdf</a>
Stigma impedes HIV prevention by stifling patient-provider communication about U = U	Journal of the International AIDS Society	Sarah K Calabrese, Ph.D., Dr. Kenneth H Mayer	July, 2020	<a href="#">Stigma impedes HIV prevention by stifling patient-provider communication about U = U</a>
Prioritising pleasure and correcting misinformation in the era of U=U	The Lancet	Sarah K Calabrese, Ph.D., Dr. Kenneth H Mayer, Julia Marcu, Ph.D.	March, 2021	<a href="https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(20)30341-6/fulltext?dgcid=raven_jbs_etoc_email#relAudio">https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(20)30341-6/fulltext?dgcid=raven_jbs_etoc_email#relAudio</a>

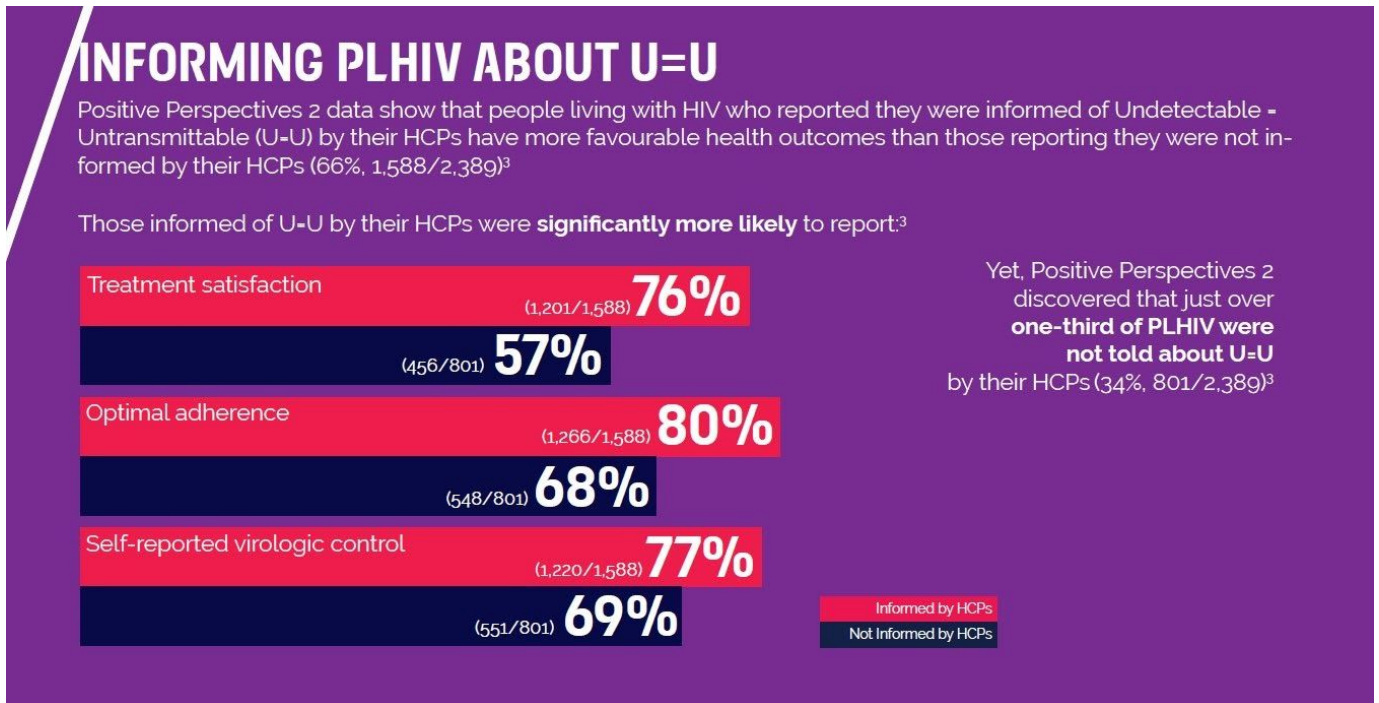
#### United States CDC and HRSA Documents

- [Federal HIV Treatment Guidelines which include U=U](#) (December, 2019)
- [CDC: U=U / Viral Suppression is 100% effective for preventing HIV sexual transmission](#) (July, 2019)
- [CDC Letter Approving Usage of U=U Communications](#) (August, 2019)
- [CDC Global U=U Toolkit](#) (July, 2019)
- [CDC Global U=U Technical Brief](#) (December, 2019)

#### Clinical Guidelines and Related Resources for U=U

- CATIE/Ontario AIDS Network [Guide for Service Providers](#) (October, 2019)
- New York State [Clinical Guidelines on U=U](#) and [U=U Pocket Guide for Providers](#) (August, 2019)
- New York City [HIV Undetectable = Untransmittable \(U = U\) – Information for Providers](#) (2020)
- Australasian Society for HIV, Viral Hepatitis, and Sexual Health Medicine (ASHM) [Guide for Clinicians to Discuss U=U](#) (November, 2020) and [U=U Graphic](#) (September, 2020).
- HIV Medicine Association (U.S.) [U=U Resource Card](#) (June, 2019)
- British HIV Association (BHIVA) [Statement on Universal Promotion of U=U](#) (November, 2018)
- IAPAC [U=U CME Training](#), “U=U in Clinical Practice” (March, 2020)

## Research on U=U and Provider Communications



ViiV: Positive Perspectives Wave 2, July, 2020

Key takeaways: Patients who said their providers informed them of U=U reported increased viral suppression, adherence, and treatment satisfaction compared to those reporting they were not informed by their HCPs. Still, many providers are not telling their patients.

Name of Study	Date	Main Takeaways	Link to Study
U=U – A Destigmatizing Message Inconsistently Communicated by Clinicians to PLHIV (Abstract 223) José M. Zuniga, PhD, MPH President/CEO, IAPAC	June, 2018	<p>Overview:</p> <ul style="list-style-type: none"> <li>U=U is not consistently integrated into practice by clinicians (notably PCPs); HIV-positive patients with undetectable viral loads are thus not hearing message</li> <li>33% of providers are not sharing the information with their patients</li> <li>Education/support regarding science behind U=U and how to communicate message to HIV-positive patients with undetectable viral loads is needed</li> </ul> <p>Notes:</p> <ul style="list-style-type: none"> <li>Provider rationale for not sharing: <ul style="list-style-type: none"> <li>“U=U negates personal responsibility.”</li> <li>– “Patient abandons treatment but continues thinking U=U.”</li> </ul> </li> </ul>	<a href="#">U=U – A Destigmatizing Message Inconsistently Communicated by Clinicians to PLHIV</a>

		<ul style="list-style-type: none"> <li>○ “Being undetectable reduces risk, but there is still a risk.”</li> <li>○ “Adherence is not 100%.”</li> <li>● Providers surveyed: 587</li> </ul>	
NAM aidsmap: “Most UK clinic staff now tell people about U=U, but not always in the same way”	April, 2019	<p>Overview:</p> <ul style="list-style-type: none"> <li>● In the UK, most clinic staff are now telling people about U=U, but are often doing so in inconsistent ways and at varying times.</li> <li>● Some patients are also misunderstood or developed inaccurate beliefs, such as believing U=U applies to breastfeeding.</li> </ul> <p>Notes:</p> <ul style="list-style-type: none"> <li>● Some healthcare providers are waiting to tell someone about U=U until they have an undetectable viral load.</li> <li>● Bloomsbury Clinic survey canvassed 81 patients and 31 healthcare workers</li> <li>● BHIVA Study surveyed 270 providers</li> </ul>	<a href="#">Most UK clinic staff now tell people about U=U, but not always in the same way</a>
U=U in Practice: Results from a Midwest Provider Survey, MATEC and Minnesota Department of Health	September, 2019	<p>Overview:</p> <ul style="list-style-type: none"> <li>● Most providers had heard of U=U and self-reported that they discussed U=U with their patients; ½ thought there were potential clinical ramifications and ⅓ thought there were potential legal ramifications</li> <li>● ⅓ thought patients would be more likely to engage in sexual risk taking behaviors</li> <li>● Physicians are most comfortable discussing U=U in absence of condoms or PrEP, PAs and Nurses the least.</li> <li>● There is a need for education for providers around consistent messaging, especially among those who do not have a lot of experience or many HIV patients</li> <li>● The public health benefit, getting patients to be more adherent and retained in care, and that PLWH have the right to accurate information are the most convincing arguments for healthcare providers to discuss U=U</li> </ul>	<a href="#">U=U in Practice_Final.pptx</a>
JIAS: “I just believe there is a risk” understanding of undetectable equals untransmissible (U=U) among health providers and HIV-negative partners in	March, 2020	<ul style="list-style-type: none"> <li>● Despite awareness that effective ART use eliminates HIV transmission risk, there is both a lack of in-depth knowledge and conviction about the strategy among health providers and HIV-negative partners in serodiscordant relationships.</li> <li>● New strategies that go beyond communicating the science of U = U to consider the local social and clinical environments could maximize the effectiveness of U = U.</li> </ul>	<a href="https://online.library.wiley.com/doi/full/10.1002/jia2.25466">https://online.library.wiley.com/doi/full/10.1002/jia2.25466</a>

serodiscordant relationships in Kenya		<ul style="list-style-type: none"> <li>Concerns that communicating the U=U message to ppl w//HIV would: <ul style="list-style-type: none"> <li>lead them to engage in multiple sexual relationships.</li> <li>being blamed if HIV transmission occurred</li> <li>Stop using condoms (risk compensation)</li> </ul> </li> </ul>	
ViiV: Positive Perspectives Wave 2	July, 2020	<ul style="list-style-type: none"> <li>Those in the study who reported being informed of U=U by their health care provider (HCPs) (66%, 1,588/2,389) reported more favourable health outcomes - increased viral suppression, adherence, and treatment satisfaction - than those reporting they were not informed by their HCPs</li> <li>1/3 (34%, 801/ 2389) of PLWHIV were not being told about U=U by their healthcare provider, with men who have sex with women the least likely group to have been given this information</li> <li>1/3 women living with HIV (34%, 196/571) reported their HCPs had not told them about U=U and did not believe that maintaining effective treatment prevents transmission</li> </ul>	<a href="#">Undetectable equals untransmittable (U = U): awareness and associations with health outcomes among people living with HIV in 25 countries</a>

### Research on Implementation of U=U and Population-Level Effects

Key takeaways: U=U is a public health strategy to stop new transmissions; decreases in community viremia results in fewer transmissions. Broad success of U=U campaigns require buy-in from multiple stakeholders and governmental support.

Name of Study	Date	Main takeaways	Link to Study
CROI 2020: HIV incidence fell by three-quarters in Australian gay men, with strong association with treatment as prevention	March, 2020	<p>Overview</p> <ul style="list-style-type: none"> <li>Between 2012 and 2017, there had been major increases in treatment uptake for HIV-positive gay and bisexual men, with subsequent drops in viraemia.</li> <li>This decreased level of community viraemia was strongly associated with a reduction in the number of men diagnosed HIV positive in this period.</li> <li>A significant point is that this relationship existed prior to the introduction of PrEP in these Australian states.</li> <li>U=U is a public health strategy</li> </ul> <p>Notes:</p> <ul style="list-style-type: none"> <li>The study took place in Australia's two most</li> </ul>	<a href="https://www.aidsmap.com/news/mar-2020/hiv-incidence-fell-three-quarters-australian-gay-men-strong-association-treatment">https://www.aidsmap.com/news/mar-2020/hiv-incidence-fell-three-quarters-australian-gay-men-strong-association-treatment</a>

		<p>populous states, New South Wales and Victoria from 2012 to 2017.</p> <ul style="list-style-type: none"> <li>• Data was taken from 67 sites including sexual health clinics, hospitals, general practices and community testing sites.</li> <li>• The final longitudinal cohort consisted of a total of 115,982 gay and bisexual men (101,143 of these were HIV negative while 14,839 were HIV positive).</li> </ul>	
<p>CROI 2020: African studies show that lowering viral load in the community reduces HIV incidence, but is not enough to eliminate HIV</p>	<p>March, 2020</p>	<p>Overview:</p> <ul style="list-style-type: none"> <li>• Pooled data from over a quarter of a million people, taking part in four randomised studies of ‘test and treat’ in sub-Saharan Africa, confirm that reducing the proportion of people with HIV who are virally non-suppressed reduced the rate of new HIV infections in those communities.</li> <li>• But while the scale-up of testing and treatment was impressive, it was still not enough to halt the epidemic</li> </ul>	<p><a href="https://www.aidsmap.com/news/mar-2020/african-studies-show-lowering-viral-load-community-reduces-hiv-incidence-not-enough">https://www.aidsmap.com/news/mar-2020/african-studies-show-lowering-viral-load-community-reduces-hiv-incidence-not-enough</a></p>
<p>AIDS2020 Roundup: “Can U=U be used to reshape HIV programmes globally?”</p>	<p>July, 2020</p>	<p>Overview:</p> <ul style="list-style-type: none"> <li>• Plenary: In Brazil, data shows that beyond groups directly affected by HIV, widespread awareness and acceptance of U=U remains limited in the country.</li> <li>• Oral abstract: In Vietnam, broad success of the K=K campaign was dependent on the following factors: <ul style="list-style-type: none"> <li>○ Government endorsement of the U=U message</li> <li>○ Community leadership</li> <li>○ City campaigns in the 2 largest cities in Vietnam</li> <li>○ Getting healthcare providers onboard</li> <li>○ Finding programme “champions”</li> <li>○ Creating a national campaign</li> <li>○ Evolution to an antiretroviral prevention framework and status-neutral services</li> </ul> </li> </ul>	<p><a href="https://www.aidsmap.com/news/jul-2020/can-uu-be-used-reshape-hiv-programmes-globally">https://www.aidsmap.com/news/jul-2020/can-uu-be-used-reshape-hiv-programmes-globally</a></p>

### U=U and HIV DNA in Semen; U=U and STIs

<p>U=U and HIV RNA/DNA:</p>	<p>“Can I Be Infected by HIV RNA or DNA Reportedly Found in the Semen or Testes of a Virally Suppressed Person?”</p>	<p><a href="#">NIH - HIV Treatment &amp; HIV DNA in Semen</a> (March, 2018)</p>
-----------------------------	--	---

	<p><b>No.</b> Because effective ART does not eradicate HIV from the body, HIV genetic material is expected to be present in tissues and bodily fluids, even in people who have achieved and maintained an undetectable viral load for years. There is no scientific evidence that detection of such material in the semen or testes of a person who is durably virally suppressed is associated with HIV transmission.</p>	
U=U and STIs:	<p>A study conducted with gay men in Thailand has found that people who are diagnosed with HIV and start antiretroviral therapy (ART) are no less likely than others to have an undetectable viral load if they are diagnosed with a sexually transmitted infection (STI).</p>	<p><a href="#">NAM aidsmap “STIs make no difference to undetectability”</a> (September, 2018)</p>

### Pivotal Research on HIV Sexual Transmission / The Underlying Science Proving U=U

Key takeaways: Over 125,000 total condomless sex acts across studies between mixed status couples, and ZERO transmissions of HIV.

Name of Study	# of Condomless Sex Acts	Date	Link to Study
HPTN 052	- 1,763 couples	August, 2016	<p>Summary: <a href="http://www.aidsmap.com/news/jul-2011/treatment-prevention-hptn-052-study-shows-96-reduction-transmission-when-hiv-positive">http://www.aidsmap.com/news/jul-2011/treatment-prevention-hptn-052-study-shows-96-reduction-transmission-when-hiv-positive</a></p> <p>Study: <a href="https://www.nejm.org/doi/full/10.1056/NEJMoa1600693">https://www.nejm.org/doi/full/10.1056/NEJMoa1600693</a></p>
Opposites Attract	12,447 acts of condomless anal sex among 152 couples, zero linked transmissions when HIV+ partner was undetectable and HIV- partner not on PrEP.	July, 2018	<p>Summary: <a href="#">No HIV transmissions from HIV-positive partner seen in Australian gay couples study</a></p> <p>Study: <a href="https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(18)30132-2/fulltext">https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(18)30132-2/fulltext</a></p>
PARTNER 1:	~58,000 condomless sex acts with zero transmissions when	July, 2016	<p>Summary: <a href="#">More confidence on zero risk: still no transmissions seen from people with an undetectable viral load in</a></p>

	undetectable  888 couples		<a href="#">PARTNER study</a>  Study: <a href="#">Sexual Activity Without Condoms and Risk of HIV Transmission in Serodifferent Couples When the HIV-Positive Partner Is Using Suppressive Antiretroviral Therapy   HIV   JAMA</a>
PARTNER 2:	~77, 000 condomless sex acts w/ zero transmissions when undetectable  Addtl 635 gay couples from PARTNER1	May, 2019	Summary: <a href="#">Zero transmissions mean zero risk – PARTNER 2 study results announced</a>  Study: <a href="https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30418-0/fulltext">https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30418-0/fulltext</a>
	Over 125,000 total condomless sex acts across studies		

### THE TIME TO ACT IS NOW

There are more than 400,000 people with HIV in the US who may not be in a position to achieve viral suppression because of barriers to treatment and care (e.g., inadequate health systems, poverty, racism, denial, stigma, discrimination, and criminalization). Because of these multiple barriers, they are not benefitting from the science of U=U to stay healthy and prevent HIV transmission to their sexual partners. U=U must be used as a public health argument to increase access and remove barriers to treatment and care, to motivate people with HIV to initiate and adhere to treatment, to reduce HIV stigma, and to enable people with HIV to live full and healthy lives. U=U is a message that is an essential component of ending the epidemic, but only if it is widely shared.

- *People with HIV who are on treatment and virally suppressed* are suffering because they and others think they're infectious. They are suffering from social rejection, isolation, depression, suicide, intimate partner violence, prosecution and murder. Their lives are at risk. Knowledge about U=U has the power to dismantle the internal and external stigma that has been destroying lives and impeding progress in the field since the beginning of the epidemic.
- *People with HIV who are not receiving care and treatment* are often choosing not to engage in care out of despair or fear and face social and structural barriers that make it difficult or impossible to do so. Eighty percent of annual new transmissions are transmitted by those living with HIV who are not receiving HIV care and treatment. Many feel ashamed, hopeless, toxic, isolated, unlovable. For many, U=U brings hope and opens new possibilities to live with HIV, to love, to have sex and to conceive children. Knowledge of U=U is a powerful motivation to test for HIV, and if HIV-positive, to start treatment and stay in care. It is especially important for those suffering from depression and despair because it combats their perceived infectiousness.

**MAKE COMMUNICATING U=U A PRIORITY.** U=U is the most important information those of us in the field can share. Every communication is an opportunity to change the life of a person living with HIV, dismantle stigma, improve each stage of the treatment cascade, and advocate for access to treatment and care. Make your communications about U=U prominent, not buried in paragraph four or near the end of a video where it could go unnoticed. Celebrate U=U!



**BE CLEAR AND CONSISTENT.** Use definitive and easy to understand phrases such as “can’t pass it on”, “no risk” and “zero risk”. Avoid phrases that convey even slight risk or are ambiguously defined like “nearly impossible”, “extremely low”, “essentially no”, and “virtually impossible.” Acceptance of U=U takes time; it takes clarity and repetition to unlearn decades of fear and stigma about HIV.

**AVOID OVERLY CAUTIOUS PHRASES.** Even when language about risk is accurate, cautionary phrases and attitudes might undermine the message. Be confident and avoid creating unnecessary anxiety. For instance, if you say, “I believe U=U, but use a condom and/or PrEP just in case,” that conveys doubt about U=U. A condom

and/or PrEP are not necessary to prevent HIV transmission if the partner with HIV has an undetectable viral load. However, condoms may be helpful to prevent other STIs or unintended pregnancy, and condoms and/or PrEP might be advised if adherence is a challenge for the partner living with HIV. Lead with the carrot not the stick.

**COMMUNICATING THE BASICS IS EASY.** The basic rules to enjoy U=U are not complex. It's about TLC. This is easy to understand, but structural inequalities and social determinants of health make it difficult or impossible for far too many to do.

1. **Treatment** – stay on treatment as prescribed
2. **Labs** – get labs done regularly
3. **Connection** – stay connected to care

Other factors to keep in mind:

- The threshold for U=U is under 200 copies/ml, synonymous with viral suppression.
- U=U only prevents HIV. Condoms help prevent other STIs and pregnancy.
- U=U has only been proven for sexual transmission, not breastfeeding or needle sharing.
- U=U might not exempt people with HIV from disclosure laws, which are unjust and flawed regardless of one’s viral load.
- Viral load does not equal Value (V≠V). No one living with HIV is a danger (people who have a detectable viral load can use PrEP and/or condoms to prevent sexual transmission of HIV to their partners). For more information that V≠V, read [this article](#) in POZ magazine and visit our web page on the [Third U: Universal](#).

A **full U=U communications guide** and many additional resources are available at [www.uequalsu.org](http://www.uequalsu.org)  
Use **#UequalsU** in social media for greater visibility and to connect to the U=U movement.

Contact: Cameron Kinker, [cameron@preventionaccess.org](mailto:cameron@preventionaccess.org) for resources and support.