OPPORTUNITIES & CHALLENGES

Donna Futterman, MD
Director, Adolescent AIDS Program, Montefiore Medical Center
Professor of Clinical Pediatrics, Albert Einstein College of Medicine

AdolescentAIDS.org
Disclosures

• Dr Futterman has received an educational/program grant to her institution from Gilead Sciences
• Dr. Futterman will not describe any off-label uses of medications
Objectives

• Review rationale for U=U by summarizing studies confirming lack of HIV transmission from patients with sustained viral load suppression

• Identify implementation challenges of sustained viral load suppression
Question # 1

• How I feel about U = U

1. I don’t know what it means
2. I support it without reservation
3. I am concerned about it for some of my patients
4. I would NOT tell my patients about it now
Insert Web Page

This app allows you to insert secure web pages starting with https:// into the slide deck. Non-secure web pages are not supported for security reasons.

Please enter the URL below.

[https:// api.cvent.com/polling/v1/api/polls/sp-cexiqt]

Note: Many popular websites allow secure access. Please click on the preview button to ensure the web page is accessible.
Blueprint for Ending the Epidemic

90% of all living with HIV will know their HIV status

90% of all living with HIV will receive antiretroviral therapy

90% of all receiving antiretroviral therapy will have viral suppression

Routine Testing

Effective LTC

Ongoing Engagement
WHAT DOES AN UNDETECTABLE VIRAL LOAD LOOK LIKE?

NO TREATMENT = DETECTABLE

Without treatment a person living with HIV will have a high viral load meaning that HIV is transmittable.

ARVs + MONITORING + 6 MONTHS

With effective treatment and monitoring the body can suppress HIV to an undetectable level - meaning HIV is not affecting the person’s health and there is zero risk of transmission!

EFFECTIVE TREATMENT + MONITORING = UNDETECTABLE

Remember to keep visiting your healthcare professional to check that your viral load remains undetectable!
Background: The “Treatment as Prevention” Timeline

2000  Rakai Study: no Tx in Ugandan seroD couples [3]
2008  Swiss Statement: no Tx when HIV+ partner is VS [4]
2011  HTPN 052: 1 vs 27 [5]
2014  PARTNER (interim): zero Tx/44,000 [6]
2016  PARTNER (final) Published: zero Tx/58,000 [6]
2016  U=U widely endorsed by stakeholders
2017  Opposites Attract: no Tx in gay seroD couples

All studies have found zero Tx without condoms when VL undetectable

No published case reports of Tx since Swiss Statement in 2008

PARTNER includes random blips between undetectable results

Includes VL >50 to 200 copies/mL

Includes STI – 30% of gay couples
U=U

“A person living with HIV who has an undetectable viral load does not transmit the virus to their partners.”

Endorsed by 600+ organizations from 75 countries

AdolescentAIDS.org

Slide credit: Prevention Access Campaign
U=U: Opportunities

- U=U works for people living with HIV who achieve durable undetectable status via adherence to ART and engagement in care
  
  - How big is this population?
    - US: 30% of total HIV+ population Virally Suppressed (CDC 2014)
    - How does this cohort reflect U=U potential?
U=U: Challenges

- U=U is a great tool for Ending The Epidemic but there are challenges that require attention:
  - Currently not all get adequate access to care or achieve durable viral suppression
  - Uncertainty of gov./insurance funding impacts stability of undetectable status
  - ON ART: 6 mos. to become reliably undetectable but OFF ART: only 2 weeks to become transmittable (Rodger et al.)
  - Patients must understand the roles of PrEP and other STI prevention as companions to U=U
Question # 2

• What I would advise my Virally Suppressed patients about condom use
  o 1. If you are virally suppressed, you don’t have to use condoms
  o 2. If you are virally suppressed and trust your partner, you don’t have to use condoms
  o 3. If you are virally suppressed, you can still get an STI, so condom use is up to you and your partner
  o 4. Condom use can vary with different partners- steady or one-night stands
What I would advise my Virally Suppressed patients about condom use

- If you are virally suppressed, you don’t have to use condoms: 0%
- If you are virally suppressed and trust your partner, you don’t have to use condoms: 0%
- If you are virally suppressed, you can still get an STI, so condom use is up to you and your partner: 0%
- Condom use can vary with different partners - steady or one-night stands: 0%

Source: https://api.event.com/polling/v1/api/polls/epnco4qw
STIs and PrEP/U=U

- Conflicting data on higher rates of STIs post-PrEP (Kojima et al. vs. Harawa et al.)
- Modeling suggests in long term, routine screening via PrEP/ART care will actually reduce STIs (Jenness et al., Emory/CDC)
  - Raises question of Detection vs. Incidence
- STIs have no effect on Tx when HIV+ is virally suppressed (Rodger et al.)
- PrEP/U=U counseling should explore pros/cons of condom use
HIV Care Continuum, by Age, U.S., 2014

% of all people living with HIV by age

- 13 to 24: 56% Diagnosed, 41% Receiving care, 31% Retained in care, 27% Virally suppressed
- 25 to 34: 71% Diagnosed, 51% Receiving care, 38% Retained in care, 37% Virally suppressed
- 35 to 44: 85% Diagnosed, 61% Receiving care, 46% Retained in care, 48% Virally suppressed
- 45 to 54: 91% Diagnosed, 67% Receiving care, 53% Retained in care, 55% Virally suppressed
- 55+: 93% Diagnosed, 67% Receiving care, 55% Retained in care, 57% Virally suppressed

Source: Centers for Disease Control and Prevention
Diagnosed Infection among Persons Aged ≥13 Years Living with Diagnosed or Undiagnosed HIV Infection, by Race/Ethnicity, 2014—United States

Note. Estimates were derived using HIV surveillance and CD4 data for persons aged ≥13 years at diagnosis in the 50 states and the District of Columbia. Asian includes Asian/Pacific Islander legacy cases. Hispanics/Latinos can be of any race.
Diagnosed Infection among Persons Aged ≥13 Years Living with Diagnosed or Undiagnosed HIV Infection, 2014—United States

Note. Estimates were derived by using HIV surveillance and CD4 data for persons aged ≥13 years at diagnosis in the 50 states and the District of Columbia.
Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, 2014—37 States and the District of Columbia

Total = 57.9%

Note. Viral suppression was defined as <200 copies/mL on the most recent VL test in 2014. Residence was based on most recent known address as of year-end 2014.
Percent of HIV Infected Individuals with Durable Virus Suppression in U.S., 2014

- Data from 33 states or jurisdictions, n = 630,965
- Two or more VLs: 339,515 (54%), one VL: 92,309 (14%), No VL: 199,141 (32%)

Percentage

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
</tr>
<tr>
<td>Black</td>
<td>53</td>
</tr>
<tr>
<td>Hispanic</td>
<td>56</td>
</tr>
<tr>
<td>White</td>
<td>48</td>
</tr>
<tr>
<td>MSM</td>
<td>38</td>
</tr>
<tr>
<td>Male IDU</td>
<td>48</td>
</tr>
<tr>
<td>MSM/IDU</td>
<td>44</td>
</tr>
<tr>
<td>MSM Hetero</td>
<td>41</td>
</tr>
<tr>
<td>Female IDU</td>
<td>48</td>
</tr>
<tr>
<td>13-24 Years</td>
<td>33</td>
</tr>
<tr>
<td>25-34 Years</td>
<td>40</td>
</tr>
<tr>
<td>35-44 Years</td>
<td>45</td>
</tr>
<tr>
<td>45-54 Years</td>
<td>50</td>
</tr>
<tr>
<td>&gt;55 Years</td>
<td>43</td>
</tr>
<tr>
<td>Prior to 2013</td>
<td>41</td>
</tr>
</tbody>
</table>

**Slide credit:** Crepaz N, et al. 24th CROI; Seattle, WA; February 13-16, 2017. Abst. 31
• Patients had between 1-7 undetectable viral load test results prior to becoming detectable
• Must be undetectable for at least 6 months to be considered at low risk for transmission
Implementation Considerations

• Many vulnerable to being detectable:
  o Personal instability
    • Adherence
    • Life changes
  o Structural instability
    • Insurance coverage
    • Ongoing access to care
  o Newly infected
  o Youth
  o Homeless
  o Substance Use
  o Mental Health
WORDS MATTER
Translate Our Language to Theirs

- Complex public health concepts must be appropriately translated for end users
  - Lay person comprehension is key (literacy level)
  - Messages should motivate action (self-protection vs. altruism)

- Words like “Undetectable,” “Untransmittable,” “Prophylaxis,” and “Negligible” OK for professionals but not for social marketing

- Marketing/Education should address misconceptions
  - On the streets, “Telephone Game” effect distorts truths
  - U = Uninfected on Grindr
  - Some believe Undetectable is a permanent condition
PRIDE for YOUTH
creating success through pride
A Division of Long Island Crisis Center

LIVING WITH HIV?
Taking HIV medication daily suppresses the virus and means you can’t pass it to others

Need help getting effective treatment for HIV? Pride for Youth can help! Call us today at (516) 679-9000 to get connected.

Visit us at www.longislandcrisiscenter.org/prideforyouth/undetectableuntransmittable

UNDetectable = UNtransmittable

PRIDE for YOUTH
creating success through pride
A Division of Long Island Crisis Center

LIVING WITH HIV?
Taking HIV medication daily suppresses the virus and means you can’t pass it to others

Need help getting effective treatment for HIV? Pride for Youth can help! Call us today at (516) 679-9000 to get connected.

Visit us at www.longislandcrisiscenter.org/prideforyouth/undetectableuntransmittable

UNDetectable = UNtransmittable
• Accurate assessment of total Cascade (include dropouts)
• Focus on durable suppression vs. single/episodic
• Better understand risks (if any) of HIV “blips” and STIs
• Design/deliver differentiated care to address system and patient challenges along the Care Cascade
Thanks
Stephen Stafford
Renslow Sherer, MD
Asa Radix, MD, MPH, FACP
Tonia Poteat, PhD, PA-C, MPH

Contact
Donna Futterman, MD
DFutterman@AdolescentAIDS.org
Adolescent AIDS Program
Children’s Hospital at Montefiore Medical Center
718-882-0232
AdolescentAIDS.org