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Is “Undetectable = Untransmissible” Good Public Health Messaging?

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Abstract

This article considers merits and drawbacks of “undetectable = untransmissible” (U = U) messaging in the global HIV response. First, viral suppression might be achieved with effective treatment, but not everyone living with HIV has access to such intervention and care. Second, although U = U can help individuals living with HIV, this messaging might stigmatize those for whom interventions have not achieved viral suppression. Third, although biomedical advances have attempted to address infectiousness, syndemic drivers that predispose individuals to HIV acquisition are not well accounted for by U = U messaging.

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Treatment Innovation and U = U Messaging

Since the first case of HIV was reported in 1981, more than 75 million people have been infected with HIV, and more than 32 million have died from AIDS-related illnesses.¹ Since then, life expectancies of people living with HIV have improved.² Biomedical advances produced highly active antiretroviral therapy (HAART) in 1996,³ and, as of August 2020, more than 30 ART medications across 6 classes were available to people living with HIV.⁴ Prospective cohort studies after 1996 demonstrated that individuals with low viral loads only infrequently transmit HIV to HIV-negative partners.^{5,6,7} This finding led, in 2008, to the “Swiss Statement”: individuals on fully suppressive HAART for at least 6 months who have no sexually transmitted infections cannot transmit HIV through sexual contact.⁸ While many remained unconvinced, more recent evidence from several large-scale, observational cohorts and trials in HIV prevention—including HPTN 052, PARTNER, and Opposites Attract—suggests that HIV transmission risk from an individual with an undetectable viral load to an HIV-negative sexual partner is effectively zero.^{9,10,11} These studies have motivated global support for “undetectable = untransmissible” (U = U)¹² messaging to reduce stigma and encourage individuals with HIV to start treatment as early as possible. But the merits of U = U messaging must be considered in light of what we should be cautious about; this is the purpose of this article.

Merits

Awareness and implementation of U = U messaging campaigns are gaining global traction,¹³ including among physicians and their patients,¹⁴ and has benefited individuals living with HIV and HIV prevention efforts. U = U messaging, for example, has led to new evidence-based guidelines from the Centers for Disease Control and Prevention that endorse condomless intercourse among serodiscordant couples planning to conceive, so these couples no longer require infertility clinic referral for *in vitro* fertilization, which is costly and, for many, inaccessible.¹⁵ Furthermore, gay, bisexual, and other men who have sex with men (GBMSM) **living with HIV** who are aware of U = U messaging view having an undetectable viral load as an achievement, as a symbol of having attained optimum health, as a sign of personal and social responsibility to their communities, and as a means of having sexual and romantic partnerships.¹⁶ “Becoming undetectable” allows GBMSM to feel more comfortable having sex and disclosing their HIV status to their sexual partners.¹⁷ For GBMSM, living with an undetectable HIV viral load also means having control over their HIV status and having autonomy in their health and relationship decisions, experiencing a sense of normalcy in their lives, and knowing that their risk of transmitting HIV is, at a population level, dramatically reduced.

Cautions

Yet uncritical advocacy of U = U messaging is unwise without close scrutiny from ethics and public health standpoints of how the messaging is promulgated and received.

Achievement? First, we must be cautious about accepting that U = U messaging is domestically and globally inclusive and closely attentive to structural and psychosocial barriers faced by many to quality care and treatment. Undetectable viral load might be achievable for most, but people living with HIV who have unreliable or irregular access to testing or medication could feel left behind or demoralized by U = U messaging. People in **resource-poor settings** might lack facilities in which viral load testing can be properly conducted, which problematizes the view that U = U should be, clinically or ethically, regarded as an achievement.¹⁸ Because marginalized people living with HIV, including racial and ethnic minorities and sex workers, experience poverty, discrimination, and other barriers to care, seeing their or anyone’s failures to adhere to HAART regimens and “achieve” undetectability is as stigmatizing^{19,20} as it is expressive of one’s incomplete understanding of HIV care’s complexity. Social determinants and cultural or material conditions that undermine adherence must be carefully considered in U = U messaging, since poor adherence can contribute to evolution of drug-resistant mutations of HIV and since virologic failure and HIV drug resistance have emerged in many low-to-middle-income countries (LMICs).^{21,22} Frequent medication stockouts, economic and political displacement, and other barriers in LMICs^{23,24} suggest how considering viral load suppression as an achievement is unjust and unhelpful.

Othering. Second, U = U messaging can empower some individuals who are living with HIV but inadvertently stigmatize and otherize those for whom HAART intervention has not yet achieved viral suppression. If U = U messaging misfires to deepen divides between HIV-negative and HIV-positive individuals or is interpreted as a means of parsing infectious people with HIV from those who have achieved undetectability and uninfectedness,²⁵ then U = U messaging will likely have undermined hard-won advances in HIV care, undermined solidarity by designating normal and deviant ways of being a person with HIV, and undermined unity to confer privilege to some and disadvantage to others.^{26,27} Communities inequitably affected by HIV, such as GBMSM,

might develop identities along serological lines, identifying as “undetectable” rather than as “HIV positive” or as being on ART.²⁸ Otherization is a product of stigmatization, and it could result in HAART hesitancy, which would help no one.

Biomedicalization. Third, U = U messaging uses viral load as a biomarker in a social, cultural, and public health change campaign. We must take care that a physiological indicator does not overly biomedicalize HIV, which could muddle how we respond to needs and vulnerabilities of people experiencing the syndemic of HIV, gender inequality, and comorbidity, such as **substance use disorder**.^{29,30} Treatment-as-prevention is a key part of U = U messaging, but it risks oversimplification of how deeply individual biographies and life histories are affected by psychosocial and environmental factors that undermine health equity.^{31,32} Messaging strategies must be sufficiently designed to resist oversimplification, or at least not to invite it, and to express respect for the plurality of factors that need attention in a good HIV response.

Message Translation

U = U messaging looks to translate game-changing breakthroughs in science to attract the attention of people living with HIV who could benefit from HAART interventions, and it should continue.³³ The cautions we’ve suggested here should help us deploy this messaging responsibly and equitably and with great attention not only to what the message is but also how it’s **interpreted and received**. Messaging should express commitment to equitable access to HIV testing and medication—especially in LMICs—and should help identify and respond robustly to factors that obstruct HIV prevention.

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