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SEXUAL HEALTH

Undetectable=Untransmittable=Universal Access (U=U=U): transforming a foundational, community-led HIV/AIDS health informational advocacy campaign into a global HIV/AIDS health equity strategy and policy priority

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ABSTRACT

Background. Undetectable=Untransmittable (U=U) first emerged in 2016 as a health information campaign to promote rigorous scientific evidence that people living with HIV (PLHIV) on effective treatment who have reached an undetectable or suppressed viral load cannot pass on the virus sexually. Within 7 years, U=U underwent transformation from a global community-led, grassroots movement into a global HIV/AIDS health equity strategy and policy priority. **Methods.** For this narrative review, a targeted literature search on 'history' + 'Undetectable=Untransmittable' and/or 'U=U' on Google and Google Scholar, in addition to a search of online documents on the Prevention Access Campaign (PAC) website, was conducted. The article utilises an interdisciplinary policy studies approach that recognises the roles of multi-stakeholder, especially that of the community and civil society, to effect policy change. **Results.** The narrative review first provides a synopsis of the scientific origination of U=U. The second section highlights the progress and leadership on U=U led by the PAC and civil society partners and efforts of the PLHIV and ally communities in advocating for the broad recognition and dissemination of the evidence, which has proven to be a game-changer within the HIV/AIDS response. The third section spotlights the recent developments of U=U within the local, national, and multilateral spheres. **Conclusion.** The article ends with recommendations for community and HIV/AIDS multi-stakeholders on how they can further integrate, implement, and strategically utilise U=U as an essential and complementary HIV/AIDS pillar to the current Global AIDS Strategy 2021–2026 to end inequalities to end AIDS by 2030.

Keywords: civil society, health equity, health promotion, HIV/AIDS, human rights, living with HIV, policy, undetectable, viral suppression.

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Introduction

Undetectable=Untransmittable (U=U) first emerged in 2016 as a health information campaign to promote rigorous scientific evidence that people living with HIV (PLHIV) on effective treatment who have reached an undetectable viral load (VL) (<40 copies/mL)[1] or viral suppression (VS) (<200 copies/mL) cannot pass on the virus sexually.[2] Within the past 7 years, U=U has transformed itself as a global community-led, grassroots movement endorsed by a diverse range of multi-stakeholders including PLHIV and affected key priority population communities, researchers, clinicians, decision-makers, and over 1050 organisations across 105 countries globally.[3] This scoping review article will present findings by: (1) providing a synopsis of the scientific origination of U=U; (2) highlighting the progress and leadership of U=U led by the Prevention Access Campaign (PAC) and civil society partners, and the efforts of the PLHIV and ally communities in advocating the broad recognition and dissemination of the irrefutable evidence, which has proven to be a game-changer within the HIV/AIDS response; and (3) spotlighting the recent developments of U=U within the local, national, and

multilateral spheres. Finally, the discussion will offer recommendations on how multi-stakeholders of the HIV/AIDS response can integrate, implement, and strategically utilise U=U as an essential and complementary HIV/AIDS pillar to the current Global AIDS Strategy 2021–2026 to end inequalities to end AIDS by 2030.

Methods

For this narrative review on the history of U=U, and online search of the keywords 'history' + 'Undetectable=Untransmittable' and/or 'U=U' was performed using Google and Google Scholar, along with a targeted literature search for grey literature, white and official green policy papers by countries that have demonstrated leadership in supporting the campaign, such as Australia, Canada, Vietnam, and the USA. In addition, a search was performed on documents available on the Prevention Access Campaign website. Although a majority of this paper's content recounts the history of U=U from its origins, it has been framed within an interdisciplinary policy studies approach[4] that recognises the roles of multi-stakeholders, especially that of the community and civil society, to effect policy change. The article ends with a discussion and key policy recommendations where U=U is centred as a foundational global HIV/AIDS health equity strategy.

Results

Scientific origination and community-led advocacy of U=U

Treatment as prevention (TasP)

A concept first proposed by Monatner *et al.*,[5] treatment as prevention (TasP) utilises a population-based, prevention approach of highly active anti-retroviral treatment (HAART) to curb the HIV pandemic through expanded free access to anti-retrovirals (ARV). The hypothesis was validated in 2008 by researchers at the British Columbia Centre for Excellence in HIV/AIDS through a complex, dynamic transmission model, which matched the local HIV epidemic. Results concluded the consistent expansion of HAART and HIV testing would decrease the incidence of new HIV infections and result in significant total per capita lifetime treatment cost-savings.[6] Estimates from both Taiwan and British Columbia, Canada, indicated that the expansion of HAART would lead to approximately 50% reduction in new HIV cases per year.[5] Despite initial concerns that such a medicalised approach might lead to risk compensation,[7] TasP was verified and endorsed independently by the World Health Organization (WHO),[8] and in 2011 gained the support of WHO and The Joint United Nations Programme on HIV/AIDS (UNAIDS) as a public health approach to reduce HIV.[9]

The Swiss statement

In 2008, the Swiss National AIDS Commission along with the Swiss National Public Health Office – Clinical Experts and HIV/AIDS Therapy Commission, published what is now commonly referred to as *the Swiss Statement* based on scientifically rigorous observational data.[10] The seminal document, which was intended for use within Switzerland, stated that when a person had adhered to the antiretroviral therapy (ART) regimen and the treatment was deemed to be effective, where the viral load remained <40 copies/mL for at least 6 months and in the absence of any other sexually transmitted infections, that the person would not transmit HIV sexually. Based on results from scientifically rigorous observational data, the decision to issue the statement was done to 'alleviate fears of HIV-positive and HIV-negative individuals in order to allow part of the 17 000 PLHIV in Switzerland to have a sex life that is as close to 'normal as possible'.[10] The statement faced critiques from the medical and public health communities, which opposed the dissemination for the fear of risk compensation, behavioural disinhibition and non-disclosure[11] or that the risk of transmission for PLHIV with suppressed viral loads was not negligible due to a lack of randomised control trials, especially in cases of anal intercourse.[12]

Landmark studies affirming HIV undetectability and reduction in risk of transmission

The HIV Prevention Trials Network (HPTN) 052 Trial randomly assigned 1763 serodiscordant couples globally in Malawi, Zimbabwe, South Africa, Botswana, Kenya, Thailand, India, Brazil, and the USA between April 2005 to May 2010 to receive either early or delayed ART to determine whether early initiation of ART would lead to a reduction in genetically linked HIV infections in serodiscordant sexual partners. Although the study results observed 78 observed HIV infections, zero linked HIV infections occurred when the study participant was stably suppressed by ART.[13]

The Partners of People on ART – A New Evaluation of the Risks (PARTNER) Study was conducted between September 2010 to May 2014 in 14 European countries across 75 clinical sites, with an enrollment of 1166 HIV serodiscordant couples where the people living with a HIV partner were taking suppressive ART and the couple reported engaging in condomless sex. Among 888 heterosexual couples and 340 men who have sex with men (MSM) couples, the study observed 11 unlinked transmissions and found no linked HIV transmissions among the primary partners living with HIV and their sero-negative partners.[14]

U=U campaign: a public health information and advocacy campaign borne out of need

In 2012, Bruce Richman, a gay man living with HIV, reached out to his doctor in fear that he might pass the virus to his

seronegative partner. He was both comforted by being informed by his doctor that sexual transmission of HIV would not occur given his undetectable viral load, yet also dismayed when his clinician refused to write down what was orally communicated to him so he could show concrete proof with his partner. The reluctance of the clinician to fulfill Bruce's request stemmed out of a top-down clinical-patient approach, which precluded the right of PLHIV and their rights to accurate health information and self-determination as sexual beings. Meanwhile, few clinicians, service providers, public health officials, and policymakers were aware of the latest scientific breakthrough from the HPTN052 and PARTNER 1 studies. The European AIDS Treatment Group (EATG) issued a statement in October 2015, which called for 'better public information to be made available in Europe and globally about the prevention benefits of ART, and in particular the fact that PLHIV with undetectable viral loads are not infectious. Widespread ignorance of this fact helps perpetuate stigma . . . .and it should be the subject of a funded public awareness campaign, possibly in conjunction with a PrEP awareness campaign'.[15]

The U=U Campaign was a public health and advocacy campaign borne out of need. After having followed the emerging science between 2012 and 2016, Bruce Richman turned his frustration about the lack of speedy knowledge dissemination of the studies' findings to PLHIV by incorporating the Prevention Access Campaign (PAC) and jumpstarting the U=U as a public awareness campaign in July 2016. Given the urgency to spread scientific evidence widely to the PLHIV community, Bruce initially sought out global scientific experts including Dr. Pietro Vernazza of the Swiss Statement (Switzerland), Dr. Jens Lundgren of the PARTNER Study (Netherlands), Dr. Myron Cohen of the HPTN052 Study (US), and Dr. Andrew Grulich of the Opposites Attract Study (Australia) to release the *Risk of Sexual Transmission Of HIV From A Person Living With HIV Who Has An Undetectable Viral Load Consensus Statement*. After its initial release, other global experts including Dr. Julio Montaner and Dr. Mona Lofty joined to support the document.

Early supporters of U=U came from the Terrence Higgins Trust in the United Kingdom, and shortly thereafter, a video interview with Dr. Carl Dieffenbach, Director of the Division of AIDS at the National Institute of Health, which the Prevention Access Campaign shared widely.[16] The consensus statement was not initially widely embraced and was often met with skepticism by scientists or gatekeepers. Common initial misconceptions and critiques of the campaign included: (1) a general lack of awareness and belief in the rigour or force of the new-found evidence; (2) a concern that the unsophisticated PLHIV consumer might not be able to understand the science; and (3) fear that PLHIV who learn about the new evidence would engage in risk compensation. To a lesser extent, other reservations about the campaign included perceptions that the campaign was too European or North American centric, and that the campaign would primarily benefit gay white men living with HIV with access to resources. Some also questioned the ability/inability for PLHIV to achieve viral suppression given the lack of universal and affordable access to ARV and VL diagnostics in lower- and middle-income countries,[17] and how undetectability as new clinical benchmarks would create a viral underclass for PLHIV who are unable to reach viral suppression.[18] Many AIDS service organisations hesitated to support U=U as many were risk-averse to endorse the new consensus statement. One international PLHIV network even criticised the campaign as opportunistic, likely a result of gatekeeping and territorialism of the stagnant HIV funding landscape, yet had to rescind its statement after uproar from the PLHIV community.

To address the concerns raised, the campaign emphasised that appropriate and effective translation of the science to support PLHIV to understand how successful ART would prevent new HIV transmission was integral, that the campaign could drastically reduce HIV stigma, and held the potential to motivate PLHIV to be and adhere to a successful ART regimen. It noted the decision to start HIV treatment must rest with the PLHIV, and emphasised that addressing the biological, social, systemic and structural determinants and inequities that prevent PLHIV from being able to reach an undetectable VL status, including 'factors limiting treatment access (e.g. inadequate health systems, poverty, racism, denial, stigma, discrimination, and criminalisation), pre-existing ART treatment resulting in resistance or ART toxicities' are core elements of its objectives.

Gaining momentum through PLHIV ally organisations

After the initial pushback, the acceptance of U=U occurred on the grassroots level and increased in an organic manner. For many PLHIV around the world who learned about the campaign through word-of-mouth, U=U instilled hope and freedom as a person living with HIV would no longer be defined or limited by the fear of passing HIV onto their sexual partners or children. A number of trailblazing organisations who endorsed U=U in 2016 and 2017 believed the dissemination, uptake, and diffusion of the message could lead to renewed efforts and the much-needed innovations to address the global HIV/AIDS response. These included Housing Works, AIDS United, the Canadian HIV/AIDS Treatment Information Exchange (CATIE),[19] the HIV/AIDS informational portals, NAMaidsmap and PositiveLite.com, NASTAD which represents HIV and hepatitis staff at state and territorial health departments in the US, and the New York City Department of Health and Mental Hygiene. These organisational endorsements of U=U helped build a critical mass necessary to propel the campaign further within the PLHIV community and triggered a gradual change in the long-held fear-based risk-focused discourse on HIV into one that is centred on the well-being of PLHIV.

U=U as a global grassroots, community-led movement

From 2016 to 2017, U=U steadily gained support from global PLHIV communities as well as community-based organisations around the world. Endorsements of the consensus statement included international PLHIV and key affected populations (KAP) networks such as the International Community of Women Living with HIV (ICW), the Global Forum on MSM and HIV (MSMGF, now MPACT), the International Council of AIDS Service Organizations (ICASO),[20] the International Association of Providers of AIDS Care (IAPAC), the International AIDS Society (IAS), and the International Federation of Planned Parenthood. In July 2017 at the 9th IAS Conference on HIV Science (IAS 2017) in Paris, France, global U=U advocates stormed one of the plenary stages with slogans including 'Science Not Stigma', 'Celebrate Sex', 'My Body, My Rights', 'Access For All' to proclaim that U=U was a global grassroots people-centred community-led campaign not to be dismissed by willful dismissal by the scientific community.[21] At the conference, The Joint United Nations Programme on HIV and AIDS (UNAIDS) and The United States President's Emergency Plan For AIDS Relief (PEPFAR) made an important joint statement to endorse U=U, signifying a significant and progressive shift in the HIV discourse and wide acceptance of the campaign at last.

Additional evidence

A year later, at the AIDS 2018 Conference, highly anticipated results from two prospective observational cohort studies were released. The PARTNER 2 Study sampled 1593 eligible couple-years of follow-up from 782 participants where couples engaged in condomless sex for a median of 1 year with a total of 76 088 condomless sex and 288 anal sex acts. Although 15 new HIV infections occurred during the follow-up period, none were phylogenetically linked within-couple transmissions, indicating a zero HIV transmission rate.[22] Another landmark study, the Opposites Attract Study, sampled 358 serodiscordant male couples from Australia from May to March 2016, and Brazil and Thailand from May to March 2016 and were followed for 588.4 couple-years. Of the 343 couples who had at least one follow-up visit, 253 couples (74%) reported 16 800 within-couple condomless anal intercourse (CLAI) acts, 258 (75%) of the seropositive partners had viral loads of <200 copies/mL, and 115 (34%) of the seronegative partner used PrEP daily during follow-up. Although three new HIV infections occurred within the sample, none were phylogenetically linked, thus confirming that U=U was effective in preventing sexual transmission of HIV even for what is considered a high-risk sexual activity.[23] These additional results quashed doubts that remained about viral suppression and sexual transmission of HIV among couples who engaged in anal sex, and further confirmed what the global community of PLHIV and advocates of U=U had been long awaiting. PLHIV and allies around the world celebrated as their united efforts to ascertain the scientific community and decision-makers to recognise U=U finally bore fruit.

U=U uptake on the local, national, bilateral and multilateral levels

U=U began with humble roots as a grassroots community-led HIV health information and advocacy campaign with strong backing from the community, community-based organisations, and civil society actors. The diffusion and integration of U=U as public health campaigns, interventions, and policies varied across geographic and socio-political contexts. This section highlights how various countries, bilateral and multilateral mechanisms have adapted U=U into its public health strategies and helped paved way for U=U to emerge as a global HIV/AIDS health equity strategy within the multilateral HIV/AIDS policy spheres:

***Australia*:** Victoria became the first state in Australia to endorse U=U with its 'Eliminating Stigma in HIV Treatment' policy document. This was followed by an announcement by the Andrews Labor Government on World AIDS Day 2017 of AUD $300 000 for Living Positive Victoria to develop the first state-wide HIV peer navigation program, and the integration of U=U in Victorian HIV Plans 2017–2020 as well as 2020–2030.[24–26] In 2020, Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM), an organisation that provides support to the HIV, viral hepatitis, and sexual health workforce, issued a U=U Guidance for Healthcare Professionals.[27]

USA: Within the USA, U=U gained steady endorsements on the municipal, county, state, and national levels. In 2016, the New York City Health Department launched the *HIV Status Neutral Prevention and Treatment Cycle* with messaging aimed at people of both serostatuses and describes the HIV testing and care continuum.[28] On 26 June 2017, Mayor Muriel Bowser of Washington, D.C., became the first elected public official in the USA and the second health department to endorse the U=U.[29] The district subsequently developed and launched the 'You are the Solution' campaign to encourage treatment adherence for PLHIVs and help reduce newer cases of HIV transmission in the district.[30] Within the US on the national level, public health entities such as the Center for Disease and Control (CDC),[31,32] the National Institutes of Health,[33,34] National Institute of Allergy and Infectious Diseases,[35] Indian Health Services,[36] National Association of County and City Health Officials,[37] and the National Directors of STDs[38] have incorporated U=U in its public health guidelines and communication assets.

Canada: At the AIDS 2018 Conference, Canada became the first country to publicly endorse U=U.[39] Since then, an increasing number of countries have endorsed or integrated U=U in their national HIV strategies or national health plans. Ahead of the AIDS 2020 Conference, the

Public Health Agency of Canada released a video calling on all nations to recognise and endorse U=U and make it a core part of their HIV response.[40] Canada was also joined by the USA where they co-released the 'Multinational Undetectable=Untransmittable (U=U) Call-to-Action'.[41]

The living document encouraged countries to do the following: (1) recognise U=U as a primary HIV prevention method and/or as part of a combination prevention strategy that prioritises prompt testing and diagnosis of HIV, support for linkage to treatment, and retention in care and adherence support for PLHIV; (2) integrate U=U science into HIV guidelines and official communications as an essential component of and demand creation for HIV policies, prevention, testing, treatment, and care services and research; (3) develop sustainable and effective community-informed national strategies and countrywide U=U programs; (4) enhance equitable access to and uptake of antiretroviral treatment, and viral load testing and diagnostics so PLHIV can realise U=U, particularly those in low-resource settings; (5) address inequities and barriers facing PLHIV and accelerate access to treatment, care, and diagnostics through policies and the creation of awareness campaigns for key populations and the general public to decrease HIV-related stigma; and (6) require HIV care workers including clinicians, peers navigators, community health workers and other allied professionals to communicate U=U through concise and accurate messaging during service delivery through training and support.

***Vietnam*:** The Vietnamese Network of PLHIV (VPN+) was the first positive people network in Asia to endorse the U=U Consensus Statement. Following results announced at the International AIDS Society 2017 Conference in Paris, France, the Vietnamese CDC made a decisive leadership decision to integrate U=U into its public health messaging by integrating U=U into its official health guidelines and strategies. Through a state and community co-development partnership, VPN+ and the CDC Vietnam launched Phase one of the 'Không phát hi n=Không lây truy n' or K=K (U=U in Vietnamese) on World AIDS Day 2018 with the central messaging of 'I'm positive, he/she will never be' and the idea of 'Live, Love'.[42,43] The empowering campaign disseminated key information to PLHIV and healthcare providers, and press conferences and media trainings were held for journalists.

Aside from highly visible public health endorsed campaigns shared through different media platforms, the CDC Vietnam provided innovative seed grants to local community groups as well as organised public events and dedicated media segments where K=K can be disseminated to wide, diverse audiences. Phase two of the campaign was launched between 2019 and 2020, incorporated the core theme from phase one, and expanded it to 'HIV + Life: Live, Love, Like Everyone Else' with an anti-stigma and discrimination against PLHIV toolkit to further engage the public on the K=K messaging.[44] Evaluation of the K=K revealed the social media campaign was highly successful, resonated with wide audiences, and garnered over 6.2 million likes, with 32.5 million advertisement views, and was deemed to be 20-fold more persuasive than average Facebook ads and campaigns in the Asia Pacific region.

***Other notable countries*:** Outside of the USA, steady progress on the integration and utilisation of U=U has been led by public health bodies such as Public Health England in the UK in 2017 and the National Health Service.[45] The Government of Nepal, through consultation and advocacy of community-based organisations, including the Blue Diamond Society, integrated U=U in its *National HIV Strategic Plan 2021–2026* under its HIV prevention strategy.[46] In 2018, the New Zealand Prime Minister, Jacinda Ardern, noted U=U as an evidence-informed campaign that is endorsed by UNAIDS and the WHO, and 'should reduce stigma against people with HIV and is an acknowledgment that we can end HIV transmissions through treatment.'[47] In Africa, President H.E. Edgar Lungu, publicly endorsed U=U to coincide with the national launching of the public health information campaign in the western province of Zambia on 8 May 2019.[48] On 21 March 2022, Eastern Cape became the first of its nine provinces in South Africa to utilise U=U in its public information campaign with the goal to encourage PLHIV to begin, stay adhere to, or resume treatment and to reach and maintain an undetectable viral load.[49] The launch saw hundreds of PLHIV promoting U=U on the benefits of effective treatment and undetectability and called for an end to HIV-related stigma.[50] Other Member States serving as executive members on the UNAIDS Programme Coordinating Board (PCB) including Thailand, Kenya, and Germany also played key roles as vocal supporters of U=U.

The United States President's Emergency Plan For AIDS Relief bilateral funding support

The integration of the science of U=U by bilateral and multilateral funders and policy spheres has accelerated the adoption of U=U within the global HIV/AIDS response. An early adopter was PEPFAR, the US bilateral funding mechanism and the world's largest initiative by any nation to address a single health condition in history.[51] Evidence of knowledge diffusion and policy uptake of U=U first appeared in the *PEPFAR 2019 Country Operational Plan* (*COP*) *Guidance for All PEPFAR Countries* where U=U became a country plan requirement under sections of 'Maximising Retention and Optimising Care' and 'Key Populations under ART Initiation and Retention Services for Key Populations Bilateral Support'.[52] In the *2020 PEPFAR COP Guidance*, U=U was noted as one of the approaches to client-centered HIV prevention, and differentiated service delivery (DSD) and adherence support for key populations.[53] For the *2021 PEPFAR Country and Regional Operational* (*ROP/COP*) *Guidance*, U=U was noted as one of the approaches to support client-centered HIV prevention, and differentiated service delivery (DSD) and adherence support for key populations.[54]

Multilateral policy sphere

Within the multilateral policy sphere, the knowledge diffusion and policy uptake of U=U happened incrementally. Although U=U had already gained overwhelming support from the PLHIV and many civil society actors in 2017, it was not until 2018 that the UNAIDS released its explainer document *Undetectable=Untransmittable: Public Health and HIV Viral Load Suppression*.[55] During the multilateral negotiations for the 2021 High-Level Meeting on HIV/AIDS, the Government of Thailand proposed the incorporation of U=U in *the 2021 Political Declaration on HIV/AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030*.[56] As a new concept and term introduced in the political declaration, U=U appeared twice in this global HIV policy document, where it acknowledged 'the recent science' of U=U and recognised *'the continued need for further research'* 'and to leverage '*the potential of U=U in countering HIV stigma and discrimination against people living with HIV*'.[56]

At the 51st UNAIDS Programme Coordinating Board Meeting (PCB) held in Chiang Mai, Thailand, the non-govenment organisation (NGO) Delegation to the UNAIDS PCB presented its annual NGO report on *Undetectable=Untransmittable=Universal Access (U=U=U): A Foundational, Community-led Global HIV/AIDS Strategy*.[57] The decision points of the policy document included calling on the WHO to harmonise the existing definition of Undetectable=Untransmittable (U=U) and develop U=U implementation guidance as a health equity strategy towards the goals of zero discrimination, zero new infections, and zero-related deaths as set out in the Global AIDS Strategy.[58] The NGO report also called upon member states to: (1) integrate U=U definitions into global, regional and national health plans and guidelines and commit to the offering of routine HIV testing, uninterrupted HIV treatment, quality and differentiated care, and viral load testing to support PLHIV to achieve U=U; (2) utilise U=U as a health equity strategy and anti-stigma/anti-discrimination intervention to address the systemic and structural barriers that prevent PLHIV from treatment access, adherence, and the ability to attain the highest achievable quality of life; and (3) support the provision and enablers of U=U through community-led services and approaches.

Discussion

U=U recommendations for communities and global HIV/AIDS multi-stakeholders

Studies have shown the benefits of U=U to improve the health outcomes and quality of life of PLHIVs, including supporting acceptance of one's seropositive status, enhancing self-image and lessening societal HIV stigma,[59] lowering anticipated and sex-related HIV stigma,[60] and enhancing one's ability to disclose one's seropositive status with partners.[61] Although U=U has already garnered immense support from PLHIVs and community-based organisations worldwide, Huebenthal noted that ''Undetectable' cannot be the end of public discourse about AIDS – it can only be the beginning of more inclusive tomorrows.'[62] Indeed, community dialogues and discussions on U=U often uncovered and greatly re-invigorated the need for the community and movement actors to engage in deeper and more nuanced discussions about the present state of the HIV response; how can we ensure that the rights and social determinants of PLHIVs are protected and improved, so no one living with HIV is left behind? How can all PLHIVs and their communities gain access to treatment and achieve undetectable viral load regardless of where they may live in the world? As noted by Ackerly, the discourse of human rights and legal entitlements shift to the actual enjoyment of human rights; all stakeholders and movement actors of the HIV response must also find ways to create *connected activism* that is centred on intersectionality, cross-issue advocacy, the building of capacity of groups, and the continuous uncovering of barriers that prevent the enjoyment of rights by the individual in an interconnected global community.[63] The work of the global HIV response, including the work on U=U, should strive to create such connected activism to end the global AIDS pandemic.

Opportunities lay ahead in how communities can continue to advocate and collaborate with global HIV/AIDS multi-stakeholders to further integrate and implement the strategy of U=U as an essential and complementary HIV/AIDS pillar to the current *Global AIDS Strategy 2021–2026* to end inequalities to end AIDS by 2030.[64] This new strategy utilised an inequalities lens to show and highlight the systemic and structural inequities that continue to hinder the progress made within the response. To accelerate the reaching of the global 95–95–95 testing, treatment, and viral suppression targets, the WHO led an informal virtual multi-stakeholder technical briefing with UNAIDS PCB on the role of viral suppression through antiretroviral therapy (ART) in HIV prevention on 22 March 2023, where stakeholders were consulted about the forthcoming updated guideline recommendations on HIV undetectability, viral suppression, and the proposed use of all WHO pre-approved assay testing devices to widen access to viral load testing to realise the global 95–95–95 targets.

To realise the 10–10–10 global stigma and discrimination targets of the Global AIDS Strategy, where <10% of PLHIV and key population communities will experience HIV/AIDS stigma and discrimination, <10% of women, girls, and people living with and affected by HIV will experience gender-based inequalities and sexual and gender-based violence; and <10% of countries will remove punitive disabling legal and policy environments that deny or limit access to service and criminalise HIV exposure/transmission, same-sex relationships, sex work, and drug use, U=U should continue to be utilised as an effective anti-HIV stigma intervention, and be applied to

address the intersectional gender and socio-legal disparities faced by women and key priority population groups. Further research is also warranted to determine the applicability of U=U, as related to injecting drug use as well as blood and organ donation by PLHIV.[65] Last but not least, the 30–80–60 global community targets in the Global AIDS Strategy calls for centring the HIV/AIDS response on communities where they will deliver 30% of testing and treatment programming and services, 80% of HIV/AIDS prevention and testing services, and 60% of societal enabling and protection programs will be delivered by community-led organisations. This must be supported by political leadership and renewed investments to further amplify community-led responses and community-led monitoring (CLM) of HIV/AIDS policies, programming, and services.

Strengths of this narrative review include that the article provides a more descriptive and historical recount of how the U=U Campaign originated, and it documents many of the courageous community partners who took a stance in advocating the science of U=U to be more widely disseminated. Limitations of this narrative review include that the scope of the literature search might not have been exhaustive, and that the policy analysis presented is one that is centred on the viewpoints of the community and not of all the relevant stakeholders that take part within the policy process.

Conclusion

Although it had origins as a community-led, value-driven, transnational activist and advocacy social movement, U=U has been driven by a united community of PLHIVs, HIV advocates, activists, researchers, and community partners across the world. The positive impact of U=U echoes the PLHIV championship movement that has been led by South Africa's Treatment Action Campaign (TAC) two decades ago,[66] resulting in the expansion of ARV treatment within an unequal world and has reinvigorated multi-stakeholders to engage in renewed discussion on the access of viral load diagnostics and beyond. As a grassroots public and health information advocacy communication campaign aimed at enchancing the bio-medical treatment literacy as related to the sexual transmission of HIV, U=U has transformed into a global community-led movement, global health equity strategy, and global policy priority to address the systemic and structural determinants and gaps of the international AIDS response.

U=U does not only prevent new HIV transmissions or counter HIV stigma, it has also been shown to enhance the overall quality of life for PLHIV and support them to reclaim their biological, socio-legal, and sexual health rights and citizenship. It is also a message of hope for PLHIV across the world. The undeniable impact U=U has made in successfully reshaping global HIV/AIDS policy and programmatic outcomes warrants this grassroots, community-led movement to be viewed as a best-case example of the immense power held by affected communities and allies of U=U in reshaping international health policy priorities: one that focuses on accelerating systems and structural-level investments for universal access to testing, treatment, differentiated care, and socio-legal rights of people living with and affected by HIV/AIDS after a decade of political apathy and flatlining of investments in HIV/AIDS. The untapped potential and benefits of U=U to address the persistent barriers of realising the global AIDS targets, especially issues related to systemic and structural inequalities and inequities, should also be further leveraged and explored by all key stakeholders of the global HIV/AIDS response.

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Data availability. The data used to generate the results in the paper can be obtained from the reference list: DOI for scholarly journal articles, and hyperlinked URL for other sources.

Conflicts of interest. The author is currently employed as the Senior Global Community Advisor for the Prevention Access Campaign and represents the organisation as a North American representative on the NGO Delegation to the UNAIDS Programme Coordinating Board. The author is an Editor of *Sexual Health*, but was blinded from the peer review process for this paper.

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