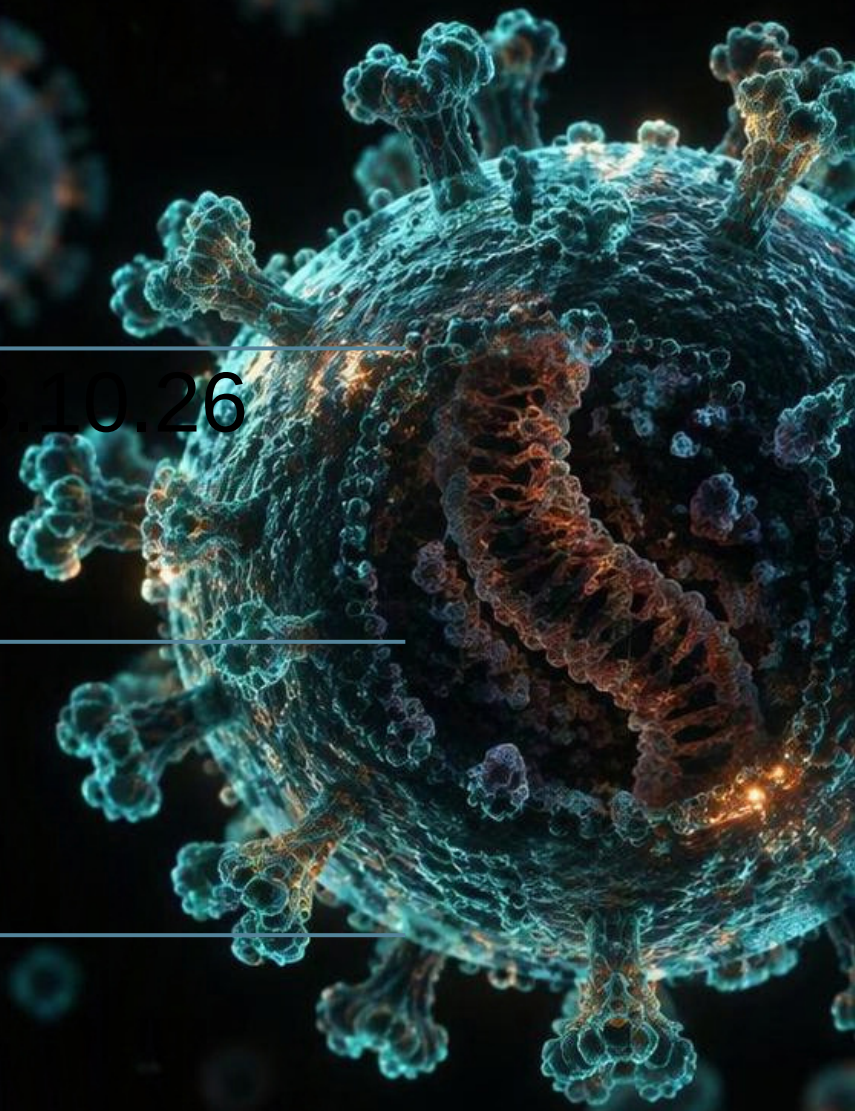
AWACC 2026

U = U: Beyond Viral Suppression

Closing the implementation gap in rural communities



Move from efficacy to equitable impact

The central question?

We know effective ART can suppress HIV. The implementation challenge is ensuring that people can start , continue and benefit from treatment over time.

Clinical Efficacy

Can the regimen achieve and maintain viral suppression?

Service Delivery

Can patients access testing, medicines and follow- up reliably?

Lived Experience

Can patients manage treatment within real-life constraints?

U = U is a scientific achievement – and the sustained suppression depends on a functioning , person-centred care pathway



Use precise language and protect trust



Undetectable – viral load is below the detection limit of the specific assay used; thresholds differ.



U = U refers to sexual transmission; it does not prevent other STIs or pregnancy.



Sustained suppression – suppression is maintained with effective ART and ongoing monitoring.



ART must continue as prescribed to maintain suppression.



Untransmutable – evidence shows no sexual transmission when viral load is maintained below 200 copies/mL.



Explain the patient's result, the relevant threshold and the follow-up plan.

Sources: PARTNER studies; WHO guidance on viral suppression and HIV transmission.

THE CORE CONCEPT

U = U

Undetectable
equals untransmutable

When viral load remains suppressed,
HIV is not sexually transmitted.

Effective ART **Sustained suppression** **Ongoing monitoring**

Evidence base: PARTNER studies and WHO guidance.

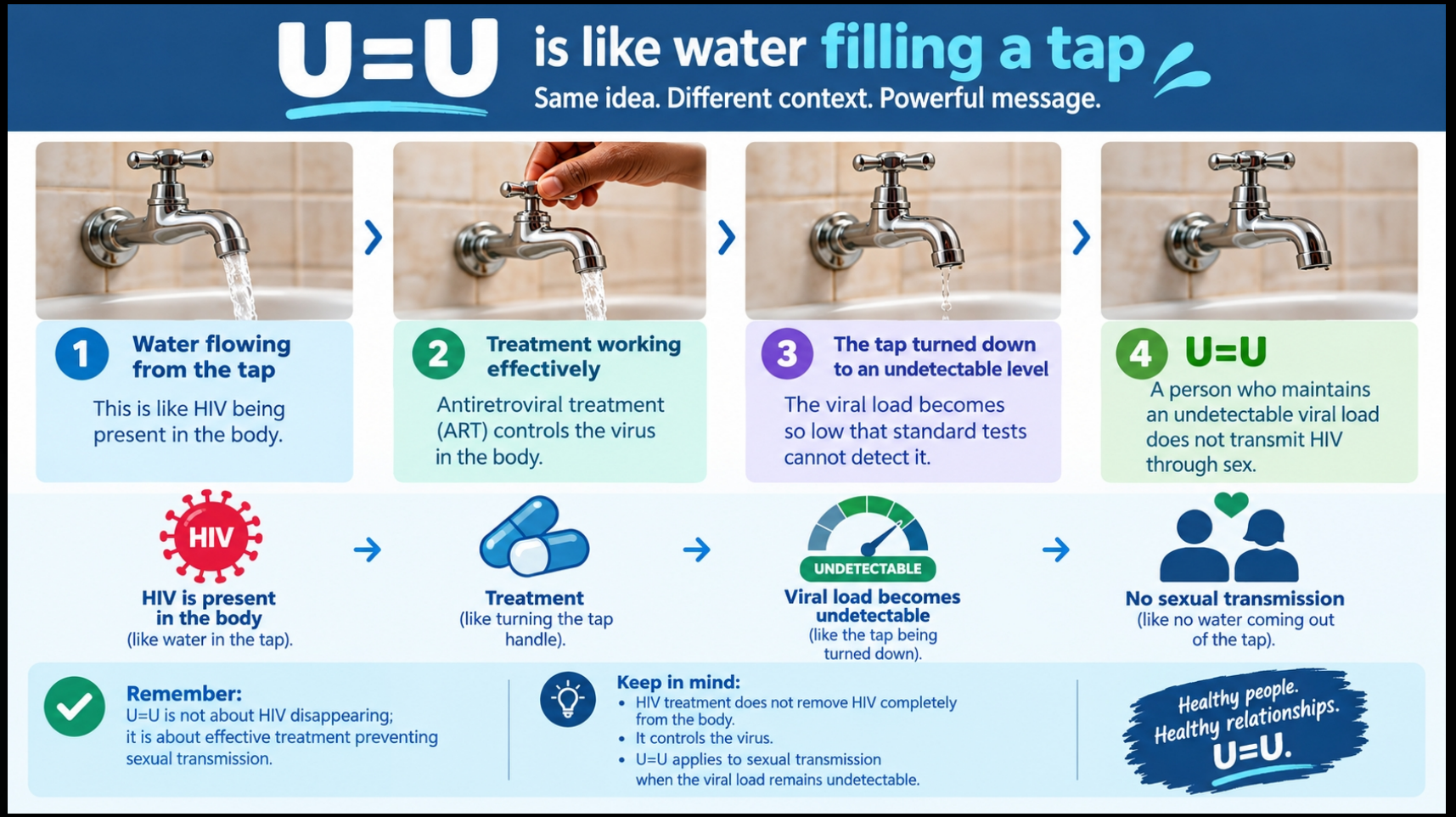
A SIMPLE WAY TO EXPLAIN U = U

Turn down the tap.

Effective ART lowers viral load to an undetectable level.

01 PRESENT
02 TREAT
03 SUPPRESS
04 U = U

The image moves from HIV being present to no sexual transmission in four clear moments.



EVIDENCE BELOW 200 COPIES/mL

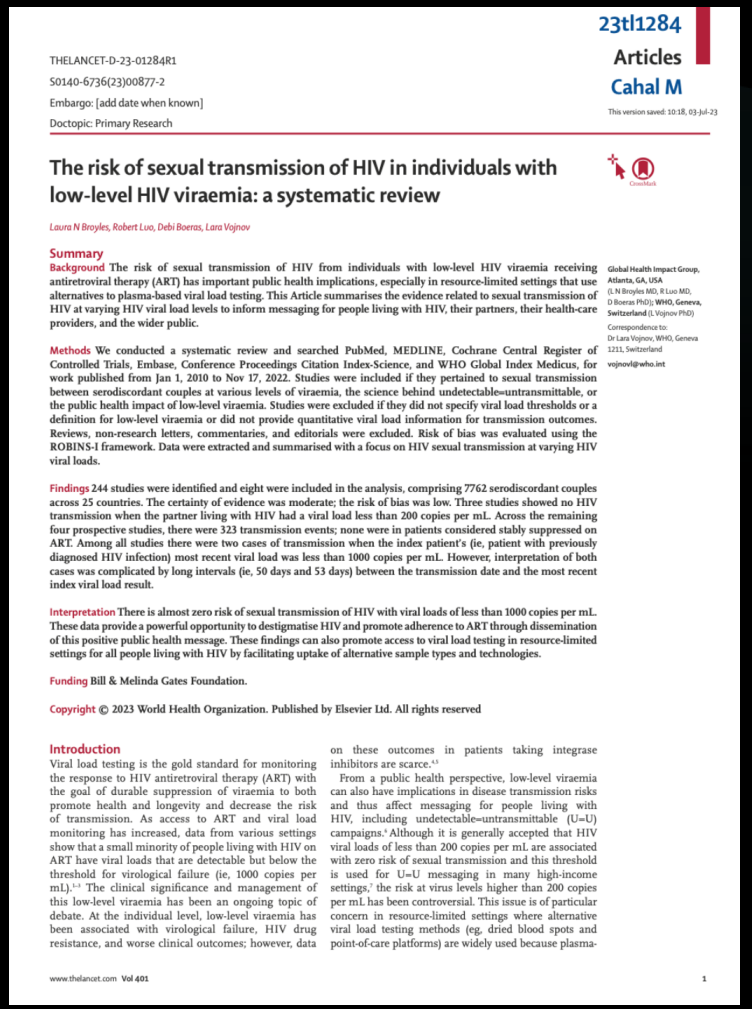
No sexual transmission was observed.

Three studies reported no HIV transmission when the HIV-positive partner had a viral load below 200 copies/mL. Most transmission events occurred between 30,000 and 750,000 copies/mL.

Across four additional prospective studies, 323 transmission events were reported; none occurred in patients considered stably suppressed on ART.

Clinical response

Provide enhanced adherence counselling and repeat viral-load testing.



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Doctopic: Primary Research

The risk of sexual transmission of HIV in individuals with low-level HIV viraemia: a systematic review

Laura N Broyles, Robert Luo, Debi Boeras, Lara Vojnov

Summary

Background The risk of sexual transmission of HIV from individuals with low-level HIV viraemia receiving antiretroviral therapy (ART) has important public health implications, especially in resource-limited settings that use alternatives to plasma-based viral load testing. This Article summarises the evidence related to sexual transmission of HIV at varying HIV viral load levels to inform messaging for people living with HIV, their partners, their health-care providers, and the wider public.

Methods We conducted a systematic review and searched PubMed, MEDLINE, Cochrane Central Register of Controlled Trials, Embase, Conference Proceedings Citation Index-Science, and WHO Global Index Medicus, for work published from Jan 1, 2010 to Nov 17, 2022. Studies were included if they pertained to sexual transmission between serodiscordant couples at various levels of viraemia, the science behind undetectable=untransmittable, or the public health impact of low-level viraemia. Studies were excluded if they did not specify viral load thresholds or a definition for low-level viraemia or did not provide quantitative viral load information for transmission outcomes. Reviews, non-research letters, commentaries, and editorials were excluded. Risk of bias was evaluated using the ROBINS-I framework. Data were extracted and summarised with a focus on HIV sexual transmission at varying HIV viral loads.

Findings 244 studies were identified and eight were included in the analysis, comprising 7762 serodiscordant couples across 25 countries. The certainty of evidence was moderate; the risk of bias was low. Three studies showed no HIV transmission when the partner living with HIV had a viral load less than 200 copies per mL. Across the remaining four prospective studies, there were 323 transmission events; none were in patients considered stably suppressed on ART. Among all studies there were two cases of transmission when the index patient's (ie, patient with previously diagnosed HIV infection) most recent viral load was less than 1000 copies per mL. However, interpretation of both cases was complicated by long intervals (ie, 50 days and 53 days) between the transmission date and the most recent index viral load result.

Interpretation There is almost zero risk of sexual transmission of HIV with viral loads of less than 1000 copies per mL. These data provide a powerful opportunity to destigmatise HIV and promote adherence to ART through dissemination of this positive public health message. These findings can also promote access to viral load testing in resource-limited settings for all people living with HIV by facilitating uptake of alternative sample types and technologies.

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Introduction

Viral load testing is the gold standard for monitoring the response to HIV antiretroviral therapy (ART) with the goal of durable suppression of viraemia to both promote health and longevity and decrease the risk of transmission. As access to ART and viral load monitoring has increased, data from various settings show that a small minority of people living with HIV on ART have viral loads that are detectable but below the threshold for virological failure (ie, 1000 copies per mL).[1–3] The clinical significance and management of this low-level viraemia has been an ongoing topic of debate. At the individual level, low-level viraemia has been associated with virological failure, HIV drug resistance, and worse clinical outcomes; however, data on these outcomes in patients taking integrase inhibitors are scarce.[4,5]

From a public health perspective, low-level viraemia can also have implications in disease transmission risks and thus affect messaging for people living with HIV, including undetectable=untransmittable (U=U) campaigns.[6] Although it is generally accepted that HIV viral loads of less than 200 copies per mL are associated with zero risk of sexual transmission and this threshold is used for U=U messaging in many high-income settings,[7] the risk at virus levels higher than 200 copies per mL has been controversial. This issue is of particular concern in resource-limited settings where alternative viral load testing methods (eg, dried blood spots and point-of-care platforms) are widely used because plasma-

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Dr Thato Chidarikire | WHO South Africa HIV Prevention

Suppression is a pathway, not a single endpoint

WHERE THE CARE PATHWAY CAN BREAK DOWN

01 Diagnosis
linkage to care

02 ART initiation
regimen and readiness

03 Treatment continuity
access and adherence

04 Viral-load testing
specimen and result

05 Clinical response
action on the result

06 Sustained suppression
retention and monitoring

MEASURE THE SYSTEM

Testing coverage • result return • time to action

MEASURE THE PATIENT OUTCOME

Retention • suppression • patient experience

A patient can receive effective ART and still be lost between steps.

Complex barriers cannot be reduced to “non-adherence”

WHY SUPPRESSION CAN BE DIFFICULT TO SUSTAIN

CLINICAL	Adverse effects, drug interactions, resistance, comorbidities and treatment history.
PATIENT + HOUSEHOLD	Food insecurity, mental distress, disclosure concerns, treatment fatigue and competing demands.
HEALTH SYSTEM	Transport distance, clinic hours, stock continuity and fragmented records.
SOCIAL CONTEXT	Stigma, gender-based violence, unstable housing and fear of being seen at an HIV service.
RURAL ACCESS	Travel costs, seasonal work, caregiving, limited network coverage and limited local services.

Clinical implication: **ask what is making treatment difficult, then tailor the response.**

Use an illustrative pathway – and follow current national guidance

CLINICAL RESPONSE PATHWAY

01	**Confirm context**	Review the result, timing, prior viral loads and treatment history.
02	**Explore adherence without blame**	Ask about interruptions, access, routines, disclosure and adverse effects.
03	**Review regimen factors**	Check drug interactions, dosing, tolerability and relevant clinical factors.
04	**Follow the national algorithm**	Arrange repeat testing, resistance assessment or regimen review as indicated.
05	**Close the loop**	Agree a plan, document ownership and ensure follow-up happens.

Do not infer treatment failure from a single result or switch therapy without the required clinical assessment.



Use district and clinic data to localise the response

LOCAL RESPONSE PRIORITIES

01 **Bring care closer** — Eligible multi-month dispensing; approved community collection; outreach linked to clinics.

02 **Make results actionable** — Specimen tracking; result-return workflows; clear escalation for unsuppressed results.

03 **Build trust** — Home-language-first messaging; peer navigation; consent-based reminders; confidentiality safeguards.

04 **Data to request before presenting district-specific claims**

- Viral-load testing coverage and result turnaround time
- Suppression among patients with results – state denominator and reporting period
- Retention, treatment interruptions, re-engagement and stock-out data
- Disaggregation by age, sex, facility and rurality where appropriate and safe

Use specific data for each district.



Translate awareness into measurable service improvement

FOUR IMPLEMENTATION ACTIONS WORTH TESTING

01	**U = U in every village**	Co-designed home-language radio, WhatsApp and community-dialogue materials.
02	**Know your viral load**	Clinic-linked recall and result communication with explicit patient consent.
03	**No patient left behind**	Peer navigation, re-engagement after missed visits and referral for social support.
04	**Partners for suppression**	Government, clinicians, civil society, private sector and industry align resources to district priorities.

Every campaign needs an owner, referral pathway, budget, privacy safeguards and an outcome measure.



Teaching case: investigate before concluding treatment failure

CASE SUMMARY

Previously suppressed

A 29-year-old patient receiving a dolutegravir-based regimen was previously suppressed. The latest viral-load result is elevated, and the patient reports intermittent interruptions linked to transport costs and medicine collection.

DISCUSSION QUESTIONS

01 What clinical information is needed before concluding treatment failure?

02 How should adherence, interactions, treatment history and resistance be assessed?

03 Which follow-up steps are required by current national guidance?

04 What practical intervention would reduce the chance of another interruption?

Combine clinical assessment with a non-judgemental, feasible plan for continuity of care.

A 90-day pilot can test the model across five rural clinics

SUBJECT TO DISTRICT APPROVAL

Small enough to start; rigorous enough to learn

DAYS 1–30

Baseline + co-design

Map workflow gaps; consult patients and clinic teams; define denominators and baseline measures.

DAYS 31–60

Implement + support

Launch consent-based reminders, patient navigation and local-language U = U education.

DAYS 61–90

Review + adapt

Compare with baseline; review patient experience; report lessons and resource needs.

WHAT TO MEASURE

PROCESS

testing • result return

OUTCOME

retention • suppression

EXPERIENCE

trust • stigma • access

Keep patient care at the centre of every partnership

A PARTNERSHIP MODEL WITH CLINICAL INDEPENDENCE

PUBLIC HEALTH SERVICES

Clinical decisions, guideline implementation, laboratory pathways, medicine access and programme data.

COMMUNITY + CIVIL SOCIETY

Trusted local communication, peer support, lived experience and accountability.

RESPONSIBLE INDUSTRY

Approved technical education, supply-chain dialogue and support aligned with rules and priorities.

SAFEGUARDS

- No product promotion disguised as public education.
- Transparent approvals, roles, funding and conflict-of-interest declarations.
- No patient-identifiable data shared with sponsors or partners.
- Clinical management remains with authorised healthcare professionals.

From evidence to sustained impact

THREE ACTIONS

01 Make every viral-load result actionable

02 Make every treatment interruption an opportunity to reconnect

03 Make rural access a core quality measure

U = U is not only a message to communicate.

It is an outcome we must help people sustain.

Thank you

References

EVIDENCE + GUIDANCE

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