Beyond the Primary Provider: Peer Support, U=U Communication, and HIV Treatment Outcomes in Global Care Settings

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Key Takeaways

- **Reach was limited and uneven:** 47.4% (1,040 of 2,192) of people informed about undetectable = untransmittable (U=U) by a healthcare source also heard about U=U from a peer or community source; 28.2% in Latin America versus 51–56% in Europe, North America and Asia.
- **Belief and understanding were higher with more sources:** 43.4% (475/1,094) believed U=U with no extra source versus 64.0% (126/197) with three or four (Figure 4A).
- **Staff survey:** more peer-support activities were associated with higher adherence estimates (aOR 1.13 each).
- **Understanding and self-stigma:** any peer or community source versus none was associated with higher odds of explaining U=U (aOR 2.03) and of agreeing that U=U can reduce self-stigma (aOR 2.13), adjusted for age group, gender, region and time since diagnosis (Figure 5).
- **Adherence was mixed:** self-reported adherence did not differ overall (aOR 0.83, 95% CI 0.69–1.01); it was higher with HIV community organisations as a source (aOR 1.54) and lower with peer educators (aOR 0.68).

Plain Language Summary

- We asked people living with HIV in 29 countries where they heard that being undetectable means HIV cannot be passed on sexually (U=U).
- Of those who heard it from a healthcare source, about half also heard it from peers or community groups. They were more likely to be able to explain U=U, to believe it and to agree it can reduce self-stigma.
- Taking medicines as prescribed was not more common overall. In a survey of community HIV organisation staff, more peer-support activities were linked to higher estimated adherence. All findings are associations, not cause and effect.

Introduction

- U=U means people on effective treatment with an undetectable viral load cannot pass HIV on sexually.[1] Hearing it from a healthcare source does not guarantee understanding or belief.[2]
- Peer educators, community organisations and other people with HIV also share U=U; whether they add to healthcare sources is unclear.
- **Objective:** to describe peer and community U=U reach and its associations with understanding, belief, self-stigma and adherence; and, in community HIV organisation staff, with peer-support activities.

Methods

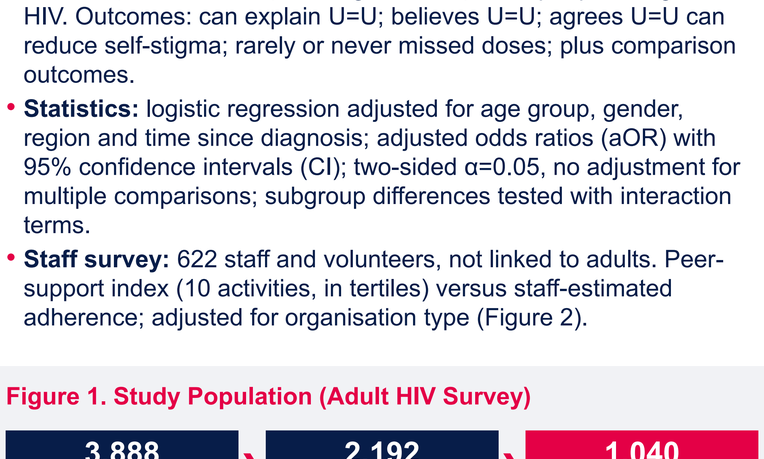
- **Design:** Positive Perspectives Wave 3 (PP3): cross-sectional survey in 29 countries (August 2024–August 2026), online or on paper, of adults living with HIV (adult survey) and of staff and volunteers of community HIV organisations (staff survey). Recruitment was led by community organisations and local partners.
- **Adult survey:** among the 2,192 adults informed about U=U by a healthcare source (Figure 1), exposure = number of extra peer or community sources, counted from none (0) to all four (4): peer educator, social worker, HIV organisation, other people living with HIV. Outcomes: can explain U=U; believes U=U; agrees U=U can reduce self-stigma; rarely or never missed doses; plus comparison outcomes.
- **Statistics:** logistic regression adjusted for age group, gender, region and time since diagnosis; adjusted odds ratios (aOR) with 95% confidence intervals (CI); two-sided α=0.05, no adjustment for multiple comparisons; subgroup differences tested with interaction terms.
- **Staff survey:** 622 staff and volunteers, not linked to adults. Peer-support index (10 activities, in tertiles) versus staff-estimated adherence; adjusted for organisation type (Figure 2).

Figure 1. Study Population (Adult HIV Survey)

3,888 adults living with HIV, 29 countries → **2,192** informed about U=U by a healthcare source (analysis set) → **1,040** also had a peer or community source

All 3,888 adults. Age (n=3,887): 18–34 23.7%, 35–44 23.1%, 45–64 43.6%, 65+ 9.5%. Gender identity (n=3,850): men 58.1%, women 36.3%, trans and non-binary 4.7%, other or not stated 0.9%. Region: Europe 46.5%, North America 22.4%, Latin America 12.3%, Asia 10.5%, other 8.3% (Australia, South Africa).
All adults answering each item: heard of U=U 94.9% (3,020/3,183); can explain U=U 66.5% (2,103/3,162); believes U=U 49.8% (1,438/2,886). A further 639 adults (16.4%) heard only from peer or community sources and are not in the models.

Figure 2. Peer-Support Services and Staff-Estimated Adherence, Community HIV Organisation Staff (Staff Survey)



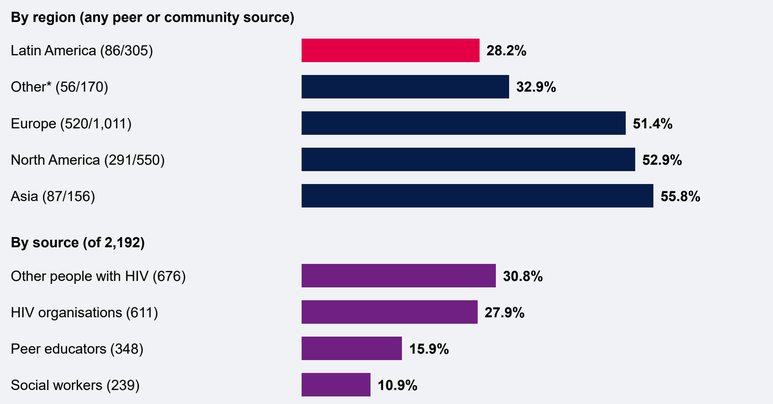
Staff survey, N=622 (n/N shown; blocks answered by 446–525). Confidence excludes "not applicable". High estimated adherence = staff estimate that 76–100% of people served have adherence of 95% or more ("can't comment" excluded; n=388 with an index score and an estimate). Index = peer mentoring, support groups (in-person or online), volunteering, advocacy, workshops, collaborative projects, walk-in, phone, referrals and scheduled appointments; tertiles 0–3, 4–5, 6–10 (n=486). aOR adjusted for organisation type (NGO/non-profit, hospital/clinic, community-based/peer, other). Region-only adjustment: 1.11 (1.01–1.21) per activity; 1.92 (1.10–3.37) highest versus lowest tertile. Formal peer-support role 13.7% (85/620); peer-led stigma training 27.2% (168/618). Organisation type (n=618): hospital or clinic 29.1%, community-based 12.9%, non-profit 12.0%, NGO 9.4%, other 36.6%; 26.2% living with HIV (n=619). Associations only.

47.4% heard about U=U from a peer or community source in addition to healthcare (1,040 of 2,192)

43.4% vs 64.0% believed U=U: no extra source (475/1,094) versus three or four (126/197)

aOR 2.13 agreed U=U can reduce self-stigma: any peer or community source versus none (n=2,123)

Figure 3. Peer or Community U=U Source in Addition to Healthcare, by Region and Source (Adult HIV Survey, n=2,192)

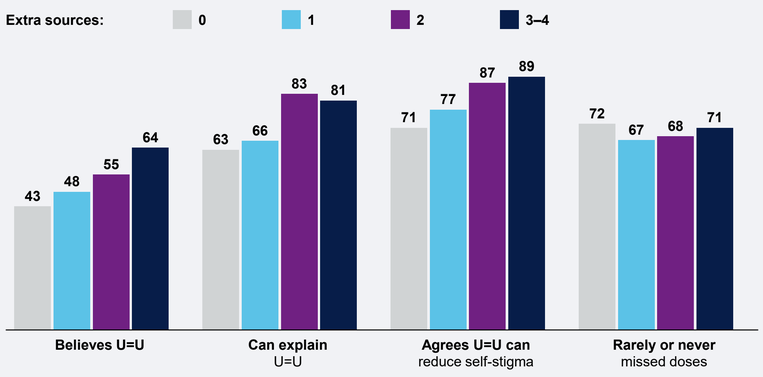


Percent of the 2,192 people informed by a healthcare source (n/N in labels; n of 2,192 for sources). *Other = Australia and South Africa. Sources are not mutually exclusive.

More Peer and Community Sources Were Associated With Higher Understanding and Belief

- Among people informed by a healthcare source, 43.4% believed U=U with no extra source versus 64.0% with three or four. Understanding and agreement that U=U can reduce self-stigma followed the same pattern; adherence did not (72.4% with none, 71.0% with three or four). Table: odds relative to no extra source.

Figure 4A. Outcomes by Number of Peer or Community U=U Sources in Addition to Healthcare (Adult HIV Survey, n=2,192)



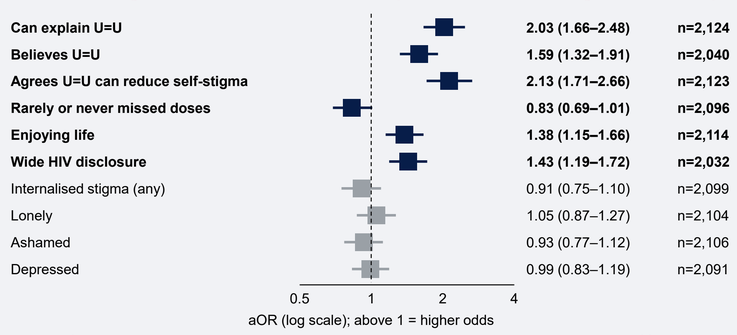
aOR (95% CI) vs none	1 extra source	2 extra sources	3–4 extra sources
Can explain U=U	1.28 (1.00–1.64)	3.29 (2.40–4.51)	2.57 (1.73–3.80)
Believes U=U	1.25 (0.99–1.58)	1.76 (1.36–2.27)	2.20 (1.57–3.07)
Agrees U=U can reduce self-stigma	1.53 (1.17–2.00)	2.69 (1.93–3.76)	3.29 (2.04–5.30)
Rarely or never missed doses	0.81 (0.63–1.03)	0.82 (0.63–1.07)	0.89 (0.63–1.26)

Odds ratios adjusted for age group, gender, region and time since diagnosis; reference = no extra source. Percentages (bars) are unadjusted; n answering with 0, 1, 2, 3–4 extra sources: believes U=U 1,094, 425, 377, 197; can explain 1,143, 447, 386, 201; self-stigma item 1,143, 447, 386, 200; missed doses 1,122, 441, 384, 200.

Associations Were Seen for Understanding, Belief and Self-Stigma, Not for Adherence Overall

- After adjustment, any peer or community source versus none was associated with 13.8 percentage points higher prevalence of being able to explain U=U, 10.7 for belief and 12.6 for agreeing U=U can reduce self-stigma, and 3.7 points lower for adherence.

Figure 5. Adjusted Odds of Each Outcome, Any Peer or Community Source Versus None (Adult HIV Survey; n shown)



Adjusted for age group, gender, region and time since diagnosis. Believes U=U = agreed with none of four doubt statements. Grey = comparison outcomes (internalised stigma, loneliness, shame, depression): no association with peer or community sources. The self-stigma outcome is agreement with a statement, not a measure of self-stigma level.

Associations Differed by Provider Trust, Medicine Supply, Age and Region

- The association with belief was seen only among people who trusted their provider and had no supply interruptions. The association with agreement that U=U can reduce self-stigma was largest among people who did not trust their provider. Adherence was lower with peer or community sources among people aged 45 and over.

Figure 6. Adjusted Odds by Subgroup, Any Peer or Community Source Versus None (Adult HIV Survey; n shown)

Outcome	Subgroup	aOR (95% CI)	n
Believes U=U	Trusts provider	1.86 (1.50–2.29)	1,604
	Does not trust provider	0.61 (0.38–0.98)	403
	No supply interruption	1.71 (1.38–2.12)	1,529
	Supply interruption	0.65 (0.39–1.09)	368
Agrees U=U can reduce self-stigma	Trusts provider	1.84 (1.42–2.39)	1,666
	Does not trust provider	2.92 (1.83–4.65)	415
Can explain U=U	Under 45	2.79 (2.06–3.78)	1,081
	45 and over	1.54 (1.16–2.03)	1,043
Rarely or never missed doses	Under 45	1.01 (0.77–1.32)	1,070
	45 and over	0.67 (0.50–0.89)	1,026
Latin America	Can explain U=U	3.87 (1.77–8.45)	281
	Agrees U=U can reduce self-stigma	4.12 (1.83–9.26)	281

Adjusted for age group, gender, region (except by region) and time since diagnosis. Interaction p: trust 0.001 or less (belief), 0.033 (self-stigma); supply 0.002 (belief); age 0.002 (explain), 0.025 (adherence); Latin America 0.055 and 0.064. Latin America (n=305): estimates may be imprecise because of the small sample.

Which Peer and Community Sources Were Associated With Which Outcomes

- With all four sources in one model, HIV community organisations (aOR 2.08 explain U=U; 1.40 belief; 1.80 agree U=U can reduce self-stigma; 1.54 adherence) and other people living with HIV (1.45; 1.96; 1.70; adherence 0.80, 95% CI 0.63–1.01) showed the clearest associations. Social workers were associated with lower odds of belief (0.63; 0.46–0.86). Peer educators showed no association with understanding, belief or self-stigma and lower odds of good adherence (0.68; 0.52–0.90). n=2,124, 2,040, 2,123 and 2,096.

Conclusions

- Peer and community U=U sources in addition to healthcare sources were associated with greater understanding, belief and agreement that U=U can reduce self-stigma. Substitution for healthcare information could not be tested.
- Fewer than half of those informed by a healthcare source also heard from peer or community sources; fewest in Latin America (n=305), where estimates were largest with wide confidence intervals.
- Adherence results were mixed in adults (higher with HIV community organisations, lower with peer educators and at age 45 and over). In the staff survey, more peer-support activities were associated with higher estimated adherence (aOR 1.13 per activity; highest versus lowest tertile 2.17, 1.24–3.83).
- Agreement that U=U can reduce self-stigma was highest among people who did not trust their provider (aOR 2.92).

Limitations

- Only the 2,192 people informed by a healthcare source are included: findings concern peer and community sources in addition to healthcare, not as an alternative route.
- Cross-sectional, self-reported, unweighted convenience sample: associations only; reverse causation and residual confounding are possible. Many outcomes and subgroups were examined without multiple-comparison adjustment; subgroup estimates (for example Latin America, n=305) are imprecise. The self-stigma item records agreement with a statement. Health systems vary (e.g. UK vs insurance-based).
- Staff survey: 388 responses (not organisations), not linked to adults; the index and estimated adherence are both staff-reported by the same respondent.

References: 1. Eisinger RW, Dieffenbach CW, Fauci AS. JAMA 2019;321:451–2. 2. Okoli C, Van de Velde N, Richman B, et al. Sex Transm Infect 2021;97:18–26.

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