Virtual Submission of HIV Viral Load in EPI-LoVE, a digital cohort of people living with HIV in the USA

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BACKGROUND

Antiretroviral therapy is widely available, yet many people with HIV (PWH) are virally non-suppressed (VNS) and out of care. As virtual engagements may support HIV care and treatment, determining which participants do not submit HIV viral loads (HVL) may identify the hardest to engage subgroups and inform targeted re-engagement strategies.

METHODS

- **EPI-LoVE** is an app-based digital cohort that recruited 1,111 PWH from February 2024 to March 2025 through dating websites, social media, and AIDS Healthcare Foundation (AHF) clinics.
- PWH were eligible if they were ≥18 years, spoke English or Spanish, had access to a smart phone, and were VNS (viral load ≥200 copies/mL) or at risk of VNS.
- Participation is incentivized including quarterly online surveys and bi-annual submission of HVL reports, either by self-upload, AHF records, testing at a Quest clinic, or completing an at-home test kit (Tasso).
- Frequencies of HVL baseline submission by method and factors associated with submission were analyzed on 1056 who fully enrolled by completing the questionnaire and joining the app.

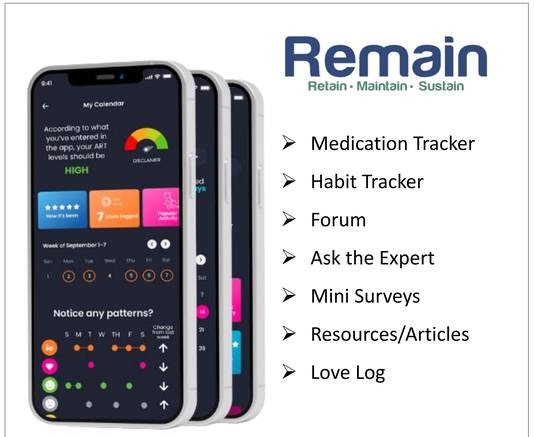


Figure 1. Features of the EPI-LoVE mobile app, REMAIN

Most PWH in virtual cohorts obtain and share HIV viral loads yet fewer with structural barriers submit their HVLs even with many options

Table 1. Prevalence of HIV Viral Load (HVL) Submissions at Baseline among EPI-LoVE Participants, by Sociodemographic Factors

	Baseline HVL Submitted*	
	n	%
Total	849	80.6
Age, years		
18-24	35	77.8
25-29	102	84.3
30-34	218	80.7
35-39	198	81.5
40-44	108	76.6
45-49	57	77.0
50-54	55	85.9
55+	71	76.3
Sex		
AFAB	63	80.8
AMAB	726	80.3
Gender		
Cisgender Female	59	81.9
Cisgender Male	695	80.2
Transgender	35	79.6
Nonbinary or other	51	81.0
Race and Ethnicity		
Asian	6	75.0
Black or African Amer.	543	79.9
Hispanic or Latino	95	87.2
Multiracial	101	78.9
Other	10	100.0
White	85	76.6
Education		
Less than High School	58	76.3
High School Graduate	399	80.9
More than High School	382	80.4
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Born in the US		
Yes	786	79.8
No	57	86.4

**no significant differences by socio-demographics*

RESULTS

- Baseline mean age of participants is 38 years, 89% report recent sex with men;
  - 37% (312) were VNS,
  - 56% (593) sub-optimally engaged in care, and
  - 23% (193) both VNS and sub-optimally engaged in care.
- At baseline 76% of those who enrolled submitted HIV viral load (HVL) results.
- **253 completed a baseline survey but did not submit labs; about half of those (47%; 119/253) were sub-optimally engaged in care.**
- Most submitted labs by self-upload (41%; 348), followed by at-home test kits (24%, 203), 22% (186) AHF, and 12% (102) Quest labs (*Figure 2)*
- Of those requesting at-home tests or Quest referral, 32% did not complete submission.

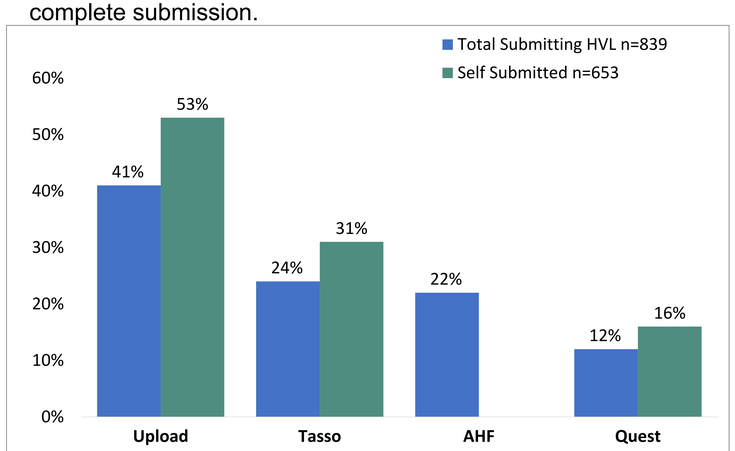


Figure 2. HIV Viral Load Baseline Submission by Source

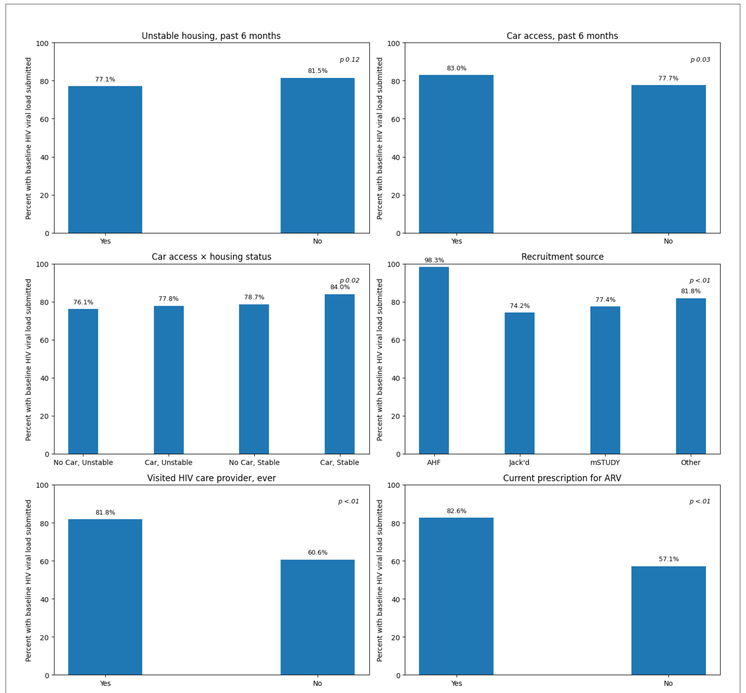


Figure 3. Prevalence of HIV Viral Load Submission at Baseline by Background Factors (n=849)

CONCLUSIONS

Results highlight how for this virtual cohort of PWH VNS or out of care, structural factors like housing and car access represent barriers to obtaining HVL, critical for managing their health.

Innovative strategies to support those without stable housing, lacking transportation, or recently incarcerated are needed to enable better virtual research engagement.

With these data, EPI-LoVE will next initiate individually tailored virtual interventions to promote acquisition of HVLs, sustain participants' viral suppression and improve health outcomes.

ADDITIONAL KEY INFORMATION

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