



Rapid Telehealth-Enabled Antiretroviral Restart for Re-linkage to HIV Care: Interim Findings from the Multi-site ACCELERATE Study

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Background

- Disengagement from HIV care remains a critical barrier Ending the HIV Epidemic.
- People living with HIV (PLWH) who are out of care (OOC) face multiple, intersecting barriers to re-engagement.
- While rapid antiretroviral therapy (ART) initiation for new diagnoses is well established, evidence for rapid ART re-initiation strategies is limited.
- The ACCELERATE study addresses these multilevel barriers through a specialized, implementation-focused model for re-linkage-to-care.

The 5-Step Intervention Architecture

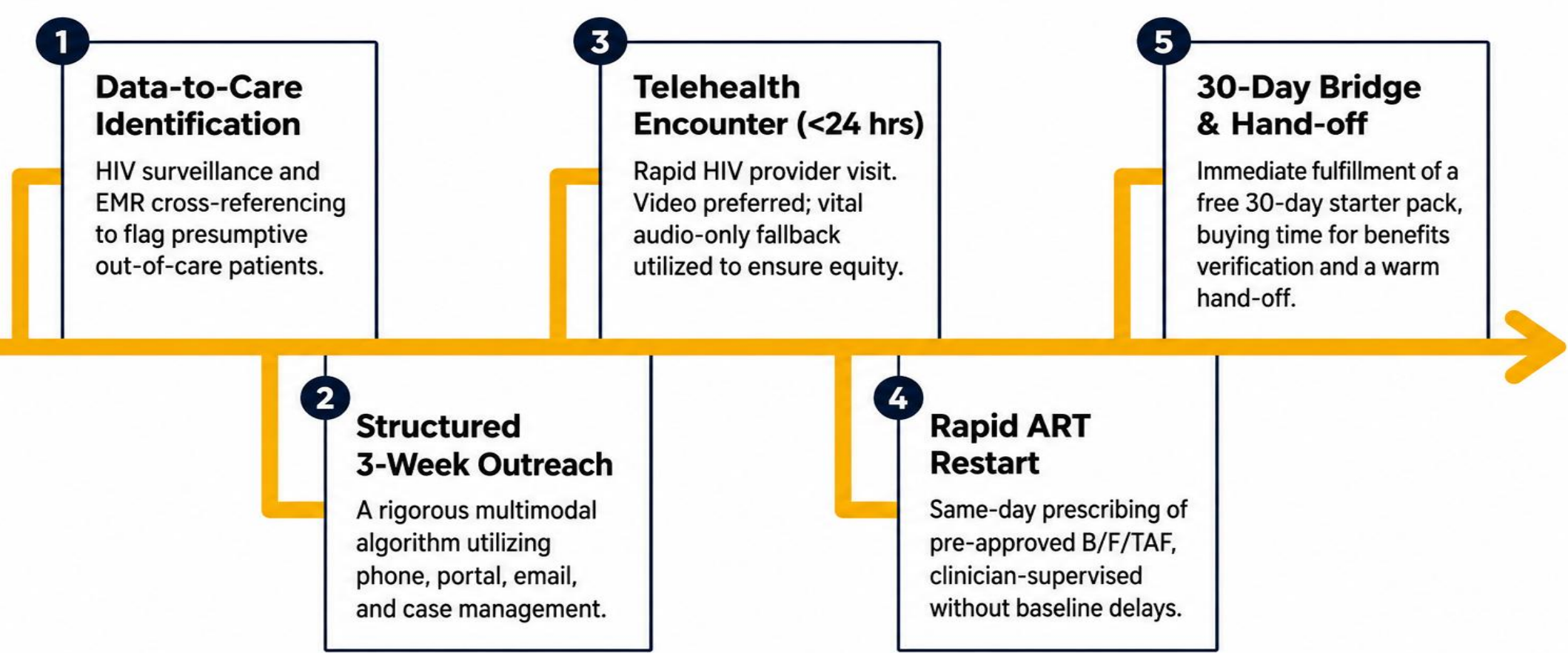


Figure 1

Methods

Study Design: A multi-site, prospective, single arm implementation study conducted across 4 sites in the state of Missouri, located in the Midwest, United States.

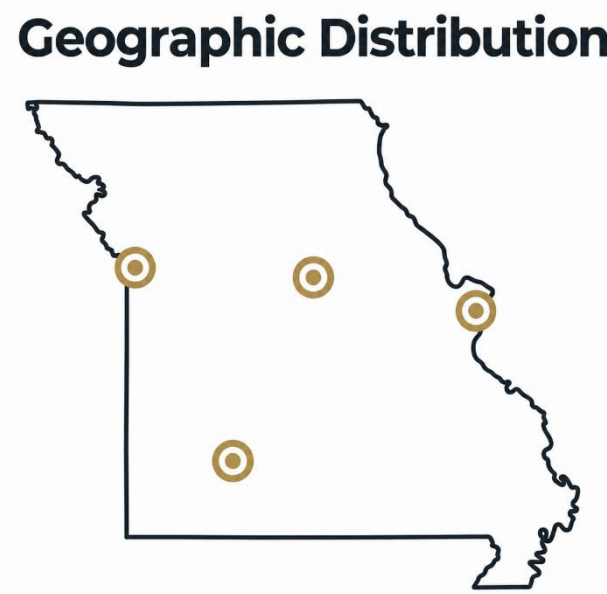
Eligibility: Adult PLWH who are OOC (no HIV care visit for ≥ 6 months and off ART for ≥ 1 month).

Key Exclusion Criteria:

- Contraindications or resistance to bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF).
- Opportunistic infections requiring delayed ART.

Intervention: (Figure 1)

- Outreach:** Data-to care approach using Electronic Medical Record (EMR), referrals and coordination with State and Case Managers.
- Telehealth (TLH) visit with a provider** within 24 hours (video or audio).
- Same day rapid ART restart** with mail in of a 30-day starter pack of B/F/TAF.



Data Collection: Clinical and survey data were collected at baseline, week 4 and week 24.

Outcomes:

- Primary Outcome:** HIV RNA <200 copies/mL at week 24.
- Patient-Reported Outcomes:** Anxiety, depression, self-rated health, and HIV treatment satisfaction.
- Implementation Outcomes:** Acceptability and appropriateness of telehealth and study drug delivery.

Ethics: The study was approved by the University of Missouri IRB.

Results

Participant Characteristics:

Of 65 participants who consented, 57 completed the TLH visit and initiated ART. Participants had a mean age of 43.5 ± 10.7 years; 17.5% female, 5.9% transgender, 31.4% Black, and 43.1% uninsured. The most frequently reported barrier to HIV care was feeling depressed or overwhelmed (72.5%).

Outreach Outcomes: (Figure 2)

210/443 (47.4%) of contacted candidates could not be reached, despite intensive outreach efforts. Among those reached, 139/233 (~60%) were not truly OOC. Enrollment acceptance was high among eligible participants 65/76 (85.5%).

24-Week Outcomes: (Figure 3)

Patient-Reported Outcomes:

Positive screening for anxiety decreased from 62% at baseline to 40% at Week 24, while positive screening for depression decreased from 54.9% to 31.4%. The proportion of participants reporting poor or fair health declined from 49% to 20%. HIV treatment satisfaction was high, with an HIVTSQc score of $+2.22 \pm 1.03$ and median self-reported adherence of 91.1% (IQR 72.2–100.0) at Week 24.

Clinical Outcomes:

Among participants with available viral load data by week 24, 44 out of 46 (95.7%) achieved viral suppression (HIV RNA <200 copies/mL). One was not suppressed (HIV RNA 210 copies/mL) and another one met criteria for virologic failure (HIV RNA $>1,000$ copies/mL) without evidence of resistance.

Implementation Outcomes:

Study drug delivery was highly acceptable and appropriate (AIM 4.46 ± 0.87 ; IAM 4.36 ± 0.90). Telehealth also received favorable ratings, although scores were lower (AIM 3.66 ± 1.00 ; IAM 3.46 ± 1.17). AIM and IAM scores range from 1–5, with higher scores indicating greater acceptability and appropriateness.

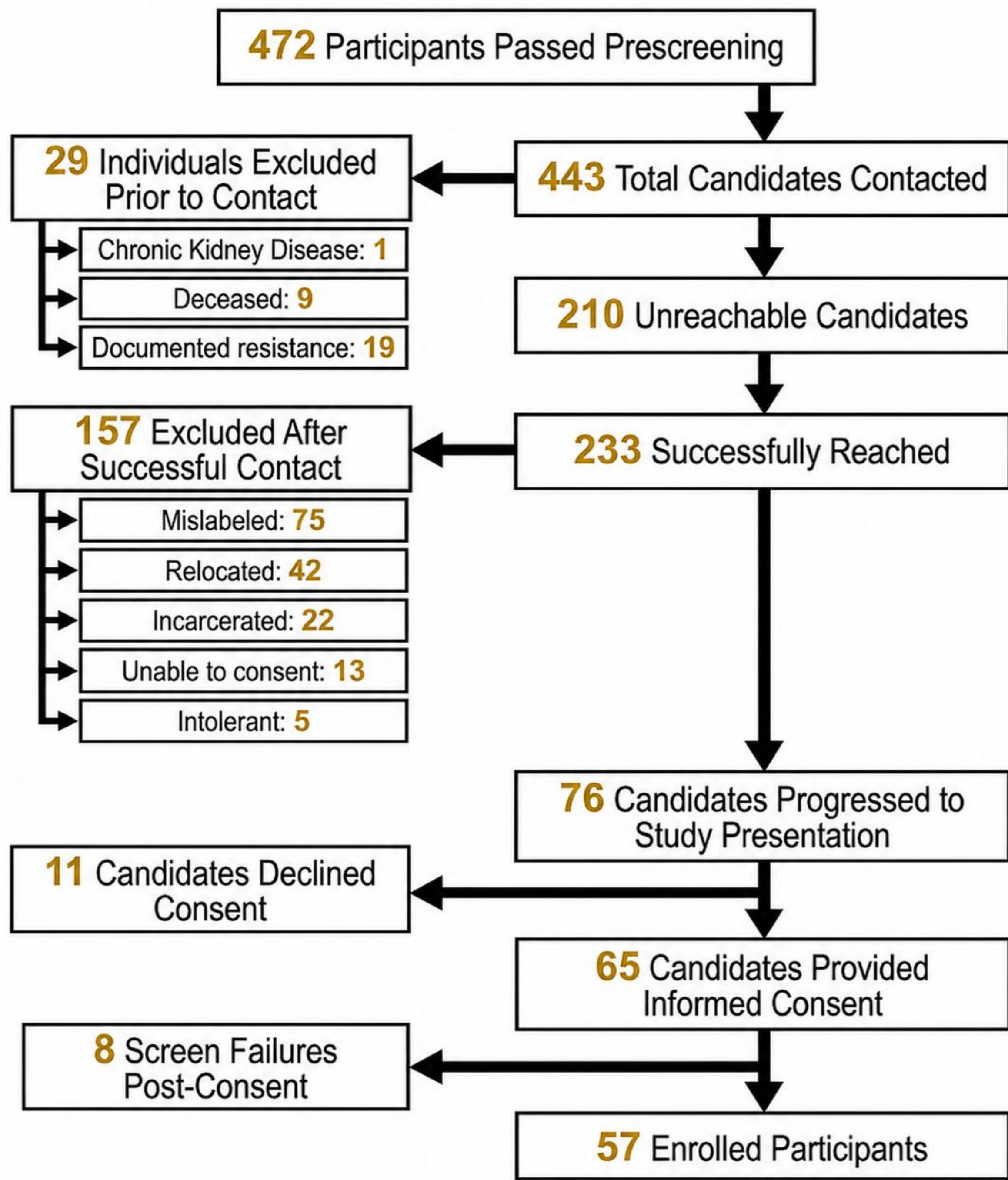


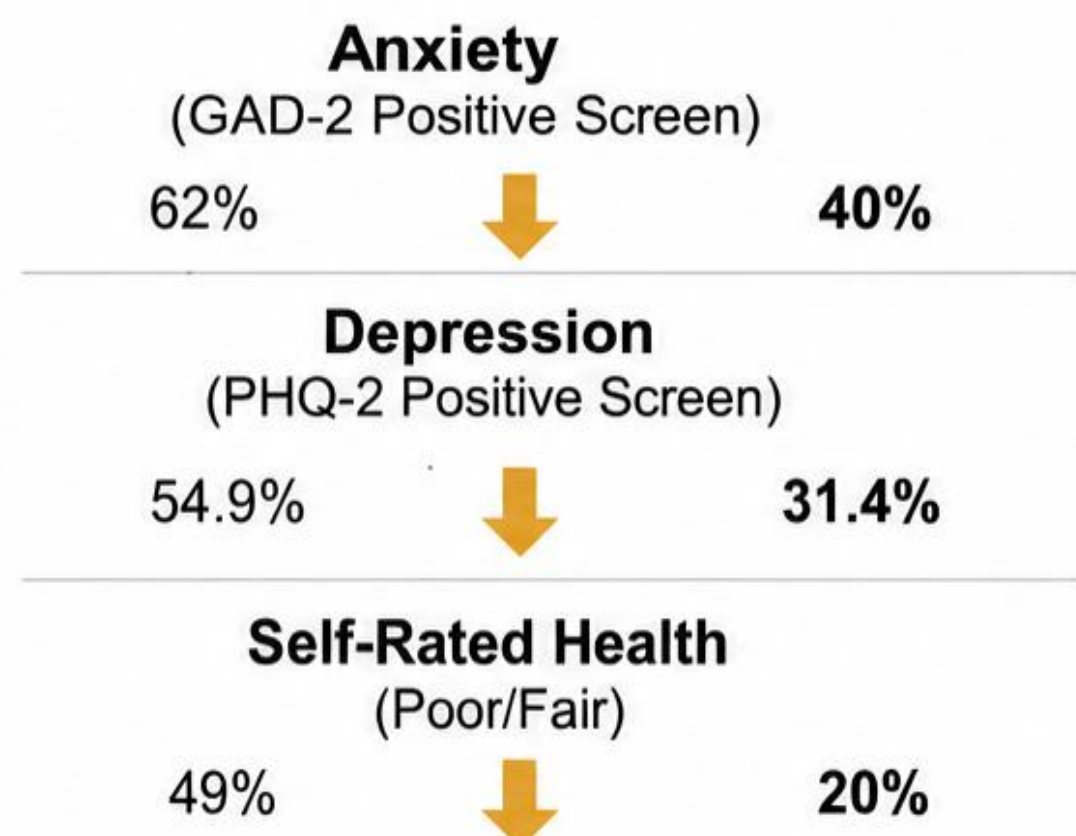
Figure 2

24-Week Outcomes Across Three Key Domains



Patient Well-being

Dramatic improvements in mental health and self-rated health from Baseline to Week 24.



Medical Adherence and Clinical Success

Self-Reported Adherence (0-100 scale) at W24:

91.1% (IQR 72.2–100)

Viral Suppression (<200 copies/mL):

Missing = excluded (M=E) | Missing = Failure (M=F)

Outcome	Value
Viral Suppression	95.7% (44/46)
Virologic Failure	77.2% (44/57)



Implementation Acceptability and Appropriateness at W24

Module	Acceptability (AIM)	Appropriateness (IAM)
Tele-Health Module	3.66 ± 1.00	3.46 ± 1.17
Study Drug Delivery	4.46 ± 0.87	4.36 ± 0.90

11 participants lacked Week 24 HIV Viral Load Data

Figure 3

Conclusions

- ACCELERATE** was a *feasible* and *effective* model for re-engaging people with HIV who are OOC in Missouri.
- Participants experienced improvements in patient reported and clinical HIV treatment outcomes over time.
- In this implementation study, a rapid telehealth-enabled re-engagement model that included B/F/TAF as the restart regimen was associated with high rates of viral suppression and treatment satisfaction at 24 weeks.

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