

Implementation of a Text-Messaging Intervention to Improve Antiretroviral Adherence (TXTXT) Among Black Young Men Who Have Sex with Men (BYMSM) with HIV

The Research Foundation for the State University of New York --
Health & Education Alternatives for Teens Program (HEAT)

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Disclosures

Jeffrey M. Birnbaum, MD, MPH has no relevant financial or non-financial interests to disclose.

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Commercial support was not received for this activity.

Learning Outcomes

At the conclusion of this activity, the participant will be able to:

1. Gain an understanding of social determinants of health that adversely impact HIV outcomes among BYMSM with HIV;
2. Learn key components of an evidence-informed text messaging intervention for BYMSM with HIV;
3. Learn strategies for culturally tailored, rapid, and sustainable implementation of evidence-informed interventions for BYMSM with HIV.

Outline

- Project Overview
- Organization Background
- Intervention Overview
- Site Implementation Processes
- Program Successes & Challenges
- Next Steps – Sustainability

Project Overview

Health Resources and Services Administration's HIV/AIDS Bureau

This project is supported by the Health Resources and Services Administration's (HRSA) HIV/AIDS Bureau (HAB) of the U.S. Department of Health and Human Services (HHS) under grant number U69HA31067 and grant number U90HA31099. The national Training and Technical Assistance is funded for \$5,324,429.00 and 0% financed with nongovernmental sources. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Evidence-Informed Intervention Initiative Project Overview

Four-year initiative to facilitate the implementation of evidence-informed interventions to reduce HIV health disparities and improve HIV-related health outcomes in four focus areas:

- Improving HIV health outcomes for transgender women with HIV
- Improving HIV health outcomes for Black men who have sex with men (MSM) with HIV
- Integrating behavioral health with primary medical care for people with HIV
- Identifying and addressing trauma among people with HIV

Organization Background

HEAT: Program Background

- Health & Education Alternatives for Teens Program (HEAT), founded in 1992, is a program of SUNY Downstate Medical Center and is the only program of its kind in Brooklyn to offer developmentally appropriate, culturally responsive, comprehensive care for youth with and at risk for HIV, aged 13-24.
- HEAT utilizes a “one-stop shopping” approach in which HIV care is provided by an interdisciplinary team.

HEAT: Program Background continued

- HEAT has focused HIV-related clinical programming for perinatally-infected youth, young women of color, young men who have sex with men, and transgender youth.
- HEAT also serves high-risk youth from these populations who do not have HIV, providing testing for HIV and sexually transmitted infections, HIV prevention services, gender-affirming therapy, and mental health counseling.

HEAT: Project Specific Aims

- Successfully implement the TXTXT intervention and enroll BYMSM with HIV into the program, including both existing patients and newly engaged patients
- Improve self-reported medication adherence and viral suppression among BYMSM patients with HIV
- Integrate the TXTXT intervention data collection activities into HEAT's existing data systems
- Create a sustainability plan

UNIFIED: Organization Background

- Unified is one of the largest HIV direct service providers in Michigan, serving ten counties in Southeast Michigan,
 - including the city of Detroit, where 63% of people with HIV in Michigan reside.
- Unified is a widely recognized multi-service center creating positive change through regional impact, innovation, and greater sustainability to promote HIV health and beyond.

UNIFIED: Organization Background continued

- Unified has been widely recognized for its innovative programming and outreach for marginalized populations like MSM, young people, and transgender communities.
- In 2019, services were provided to over 4,200 community members through various efforts, including 893 HIV tests, 102 new insurance enrollments, 258 screenings for smoking cessation services, and 302 clients receiving harm reduction and overdose prevention services.

UNIFIED: Project Specific Aims

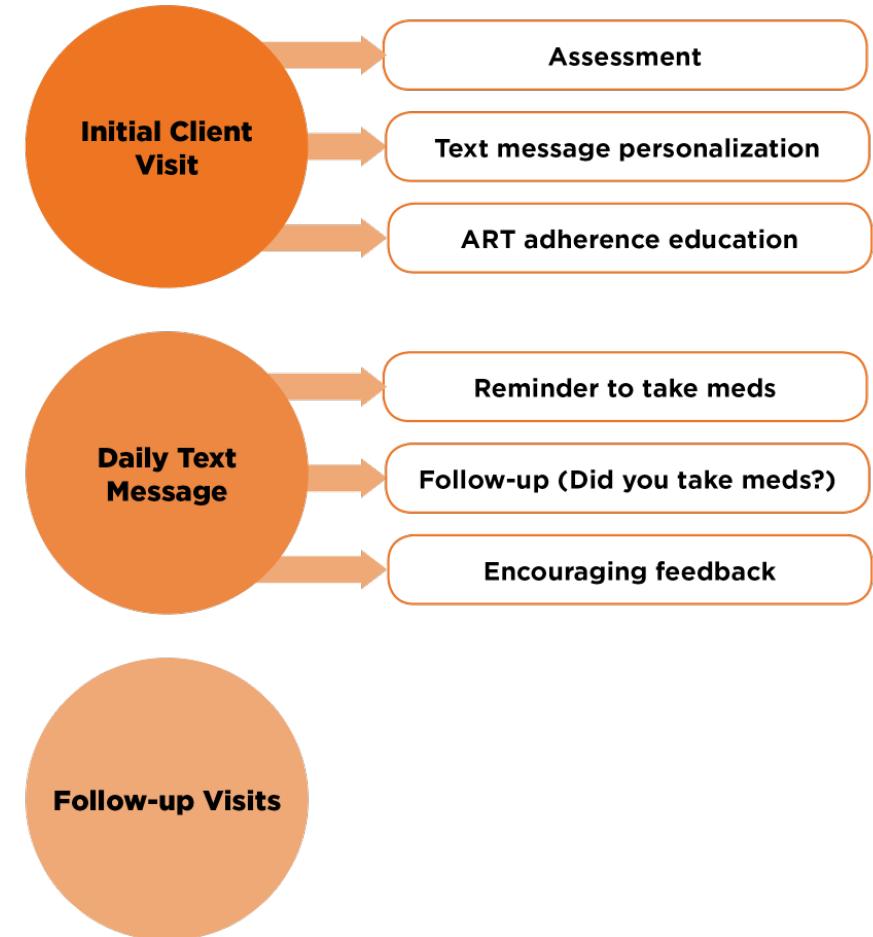
- Improve adherence to antiretroviral treatment by 70%, in an effort to improve viral suppression
- Achieve viral suppression with 80% of participants enrolled for a 6-month intervention of period
- Enroll 150 BYMSM between the ages of 18-29 in the TXTXT intervention, with 60% retention

Intervention Overview

TXTXT Overview

Description:

- Medication adherence
- Bi-directional text messages
 - Reminders
 - Confirmation
 - Encouragement



Inclusion Criteria

- The eligibility criteria include:
 - Black MSM (aged 18-29 years) with HIV who are currently in medical care
 - English-speaking
 - Have cell phone access and report regular use of text messaging

TXTXT Platform Structure

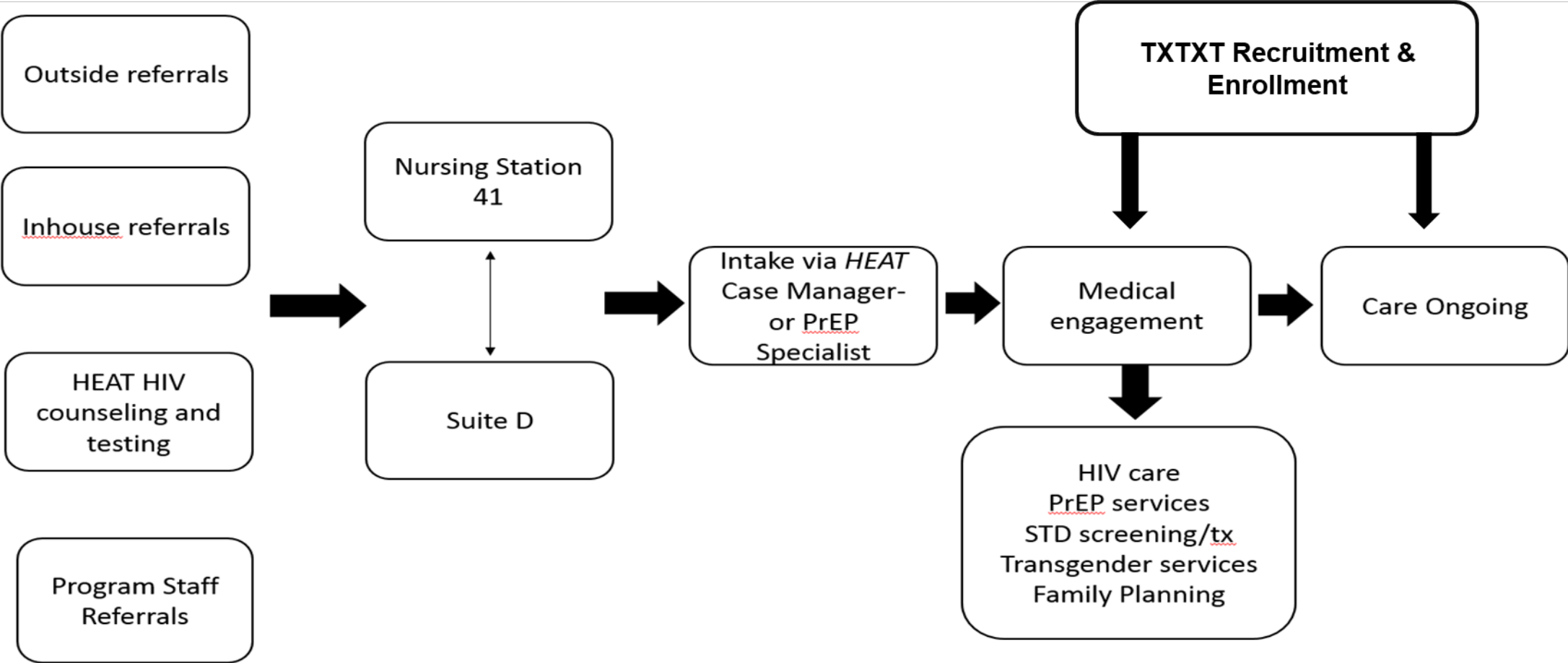
- Developed by DiMagi/CommCare with assistance from TXTXT developers specifically for this project
- Text messaging based on Short Messaging Service (SMS) texting only; no Internet-based texting involved
- Participants receive a regular (e.g., daily, twice daily, etc.) text reminder to take their antiretroviral medication

TXTXT Platform Structure continued

- Messages personalized based on participant's wishes to protect their confidentiality and to use their own language in reminders to take their medication
- Participants reply to the text message with a "1" as affirmation that they took their medication or with a "2" if they did not; participants also have the option not to reply at all
- Data from CommCare platform reviewed on a monthly basis
- Clinical data, such as medications taken and viral loads, collected for export into RedCap database

Site Implementation Processes

HEAT: Process Flow



HEAT: Client Profile

114 youth in care during the 2018 calendar year

14 new cases referred into care, of whom 6 were BYMSM

16 cases transitioned into adult care

- Gain in HIV transmission categories:

Focus
population
for TXTXT →

- 41 BYMSM (2 entered as MSM and later identified as transgender women)
- 58 perinatally infected
- 32 cisgender women (9 women infected via heterosexual transmission)
- 6 transgender women
- 1 cisgender heterosexual-identified man

HEAT: Outreach Methods

- Closed group of patients in care whom intervention team has been approaching for enrollment; each eligible patient in care has been approached for participation
- Additionally approached former patients who had already age-transitioned out of the youth-oriented clinic but still receive adult HIV care at SUNY Downstate Medical Center
- Conducted outreach on social media platforms via Grindr, Jack'd, Instagram and Facebook
- HIV counseling and testing, STI screening, and linkage to care and other services were available at all outreach events

HEAT: Outreach Methods continued

- Worked closely with house ball community houses in the Kiki scene to engage those not yet tested for HIV, in HIV care or other prevention services (e.g., PrEP, sexual health screening, mental health services, case management)
 - **House Ballroom Community:** celebrates all forms of sexual orientation, gender identity and gender expression, while providing many queer youth and adults with an affirming and supportive alternative family structure.
 - **Kiki Scene:** a part of the ballroom community that provides youth ages 16-24 years old a space to convene.
- Hosted individual Kiki house parties, picnics, other events to engage community members and have one-on-one discussions with HEAT intervention supervisor and other HEAT staff at events

UNIFIED: Process Flow

- Eligible participants are referred to and recruited by the Program Outreach Specialist
- Program Outreach Specialist screens for eligibility and enrolls eligible participants into TXTXT

UNIFIED: Client Profile

- The city of Detroit accounted for 78% of HIV cases in Wayne County, with 800 cases per 100,000/population.
- Black men accounted for the greatest number of HIV cases in Michigan, with 1,055 cases per 100,000.
- Black MSM accounted for more than half (67%) of the current HIV cases in Detroit (MDHHS).

Citation: (2018).Epidemiologic Profile of HIV in Michigan. Michigan Department of Health and Human Services (MDHHS), 2016

UNIFIED: Client Profile continued

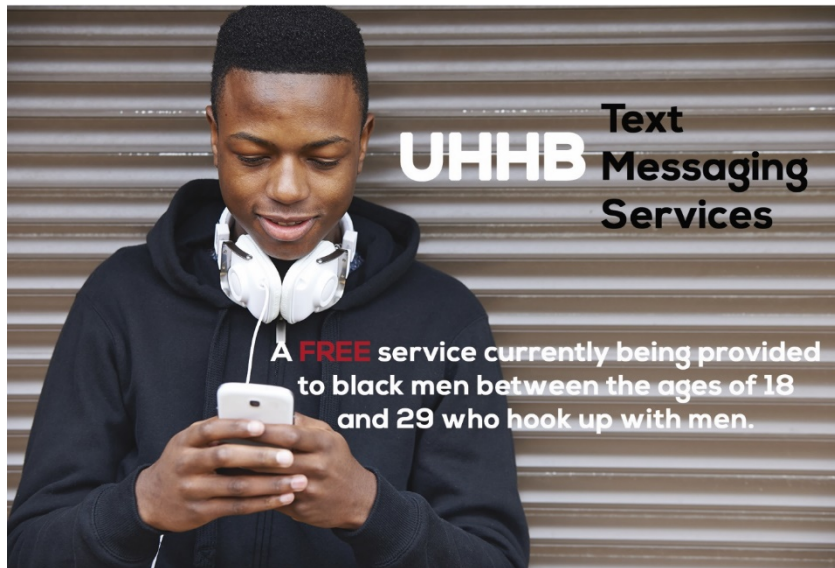
- Young LGBTQ people are particularly at risk for increased homelessness due to family rejection; 16% of minors who access shelters in Michigan identify as LGBTQ
- Social determinants like poverty and homelessness are associated with increased risk behaviors for HIV and other STD infections
- At Unified, 76% of clients were men and 66% were Black/African American; of those clients, 73% were living on incomes below 100% of the Federal Poverty Level
 - 52% of the clients identified being MSM as their primary risk factor for HIV

UNIFIED: Outreach Methods

Recruitment/Advertisement

- Flyers through community-based organizations, social media, Pride events, bars, etc.)
- Utilizing current client base
 - Care services
 - Client groups
 - Advisory boards
- Affiliated health systems and other networks
- TXXXT commercial clip

Example of Promotional Materials



- ▶ Reminders To Take Your Meds
- ▶ Customizable & Discreet Daily Text Messages
- ▶ Fast & Easy Response
- ▶ Improve Treatment Adherence

Enrollment Contacts
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A program of UNIFIED - HIV Health and Beyond.
Text messaging charges may apply depending on your cell phone provider.
IRB Number: HUM00149083
Individuals in the photos are models and used for illustrative purposes only unless otherwise noted - no representation regarding HIV status or sexual orientation is made and should not be inferred.

[View the video \(https://www.youtube.com/watch?v=ptOuDrvoaT8&has_verified=1\)](https://www.youtube.com/watch?v=ptOuDrvoaT8&has_verified=1)

Program Successes & Challenges

HEAT: Keys to Successful Implementation

- Project staff were fully integrated into the organization and clinical operations.
- The Intervention Specialist/Supervisor maintained a physical presence in the clinic to become a familiar face for BYMSM clinic patients in our focus population.
- HEAT staff not affiliated with the TXTXT intervention are all oriented and have buy-in to the project, in order to maximize its successful implementation.

HEAT: Keys to Successful Implementation continued

- Client Community Advisory Group was held prior to implementation to ensure addressing patient concerns.
- HEAT's texting policies have also been updated to reflect participation in this project.
- High level of enrollment during early phases of project appeared related to strong client engagement and acceptability of intervention.

HEAT: Implementation Challenges

1. Enrolling new participants in the intervention is limited by the rate of identification and enrollment of newly identified BYMSM with HIV into care.
 - Addressed by:
 - increasing social media presence
 - enrollment into intervention at the time of entry into care
 - increased outreach events with youth in house ball community made possible by supplemental funding from E2i

HEAT: Implementation Challenges continued

2. The TXTXT platform is entirely reliant upon SMS texting
 - Example:
 - Does not accommodate those with limited phone service who use WiFi texting or other formats such as WhatsApp for communication
 - Addressed by:
 - To be determined, however considering using more WiFi-based formats in our sustainability plan

UNIFIED: Keys to Successful Implementation

- Staff and agency buy-in were essential to recruitment efforts, making sure case managers and early intervention specialist workers understand the benefit of TXTXT in order to share these with their clients and community partners.
- Tailored outreach was essential, including designated clinic hours during which our outreach specialist did on-site enrollment.
- Tailored promotional and outreach materials were designed to attract the focus population.
- Incentives were given to clients enrolled in TXTXT for referrals.

UNIFIED: Implementation Challenges

1. Staff lost momentum in meeting enrollment goals due to staff turnover.
 - Solutions:
 - Restructured staffing and departments assigned to program
 - Tailoring social media and marketing
 - Referral incentives
 - Presentations with providers and organization's frontline staff

UNIFIED: Implementation Challenges continued

2. Difficulty capturing client information that was not captured at initial meeting due to the nature of TXTXT intervention
 - Solutions:
 - Shifted enrollment to be completely onsite
 - Set up DocuSign account to offer clients remote consent and enrollment

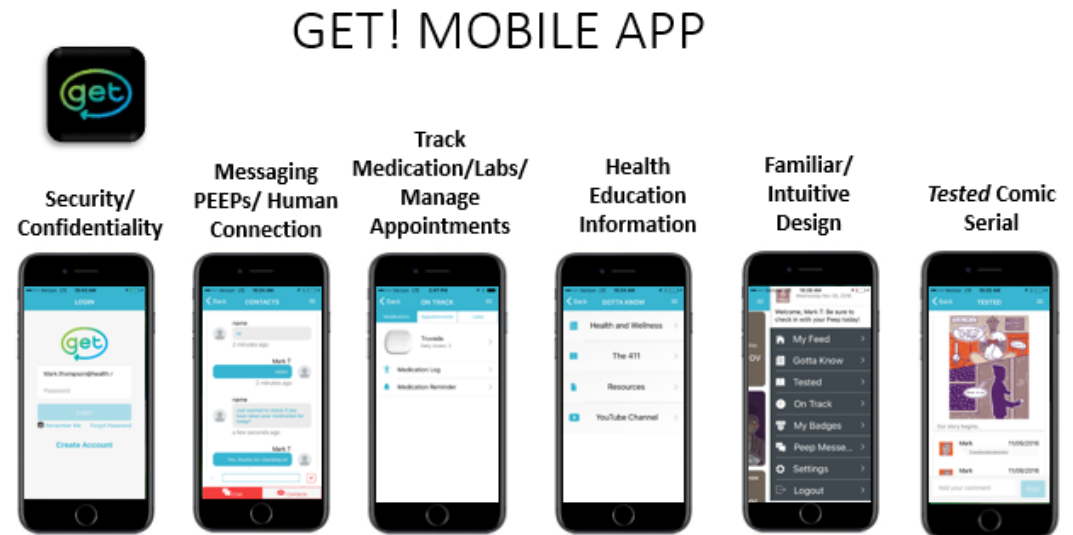
Next Steps – Sustainability

Discussion/Recommendations

- The TXTXT intervention can be successfully implemented with early staff and focus population engagement.
- A platform limited to SMS texting only, without other functionality, appears to limit the longer-term popularity and success of the intervention.
- If considering this intervention, important to carefully choose a platform with broader functionality.
- In terms of sustainability, sites plan to continue use of a medication adherence text reminder system but would adopt a more WiFi-based platform.

HEAT: Sustainability Plan

- HRSA's Special Projects of National Significance, Use of Social Media to Improve Engagement, Retention, and Health Outcomes along the HIV Care Continuum
- 2018 National Ryan White Conference
- WiFi-based platform with multiple functions other than text reminders for treatment adherence



UNIFIED: Sustainability Plan

- TTXXT will be integrated into UNIFIED's service delivery for all clients with HIV.
- TA is needed on an ongoing basis with the platform (WiFi-based texting would be a plus).
- Individual interviews will be conducted with 20 TTXXT participants to discuss acceptability and areas for platform and intervention improvement.
- Ending the Epidemic funds allocated to TTXXT modifications based on interview results (e.g., medication refill reminders, provider appointments, and social support linkage to text messages).

Thank You!

- **The Research Foundation for the State University of New York -- Health & Education Alternatives for Teens Program (HEAT)**
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