## Health eNav: Implementation of a Digital HIV Care Navigation Intervention

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Center for Innovation and Engagement



# Health eNav



#### AGENDA

- Project Overview
- Positionality Statement
- Background
- Health eNav Overview
- Conceptual Frameworks
- Intervention Components
- Design, Setting, Populations of Focus
- Feasibility & Acceptability
- Intervention Efficacy
- Just-in-time Support and Care
- Lessons Learned

#### **OBJECTIVES**

This webinar will serve as a technical assistance resource for the Ryan White HIV/AIDS Program and the broader public health community. The specific objectives of this webinar are to:

- Describe the components of a digital HIV care navigation intervention
- Understand potential use cases
- Identify strategies and lessons learned in the implementation of a digital HIV care navigation intervention



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## **PROJECT OVERVIEW**



#### NASTAD

WHO: A national non-profit representing public health officials who administer HIV and viral hepatitis programs funded by state and federal governments.

WHERE: All 50 U.S. states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, seven local jurisdictions receiving direct funding from the Centers for Disease Control and Prevention (CDC), and the U.S. Pacific Islands.

**HOW:** Interpret and influence policies, conduct trainings, offer technical assistance, and provide advocacy mobilization for U.S. health departments



#### **Project Overview** Special Project of National Significance – Part F

- Funder: HRSA HAB
- **Goal:** Identify, catalog, disseminate, and support the replication of evidence-informed approaches and interventions to engage people with HIV who are not receiving, or who are at risk of not continuing to receive HIV healthcare.
- **Partnerships:** NASTAD, Northwestern University's Center for Prevention Implementation Methodology, and Howard Brown Health Center
- Three-year project: September 1, 2018 August 31, 2021
  - Extended through August 2022



#### **Center for Innovation and Engagement Overview**

#### CIE's goal is to:



#### innovative, evidence-informed models of HIV care.



#### **CIE Resources**

#### **Key Features:**

- Implementation Guides
- Provider Tools
- Videos
- Key Info Presented Up-Front
- Cost Calculator & How-to Video
- Listserv
- Webinars, TA Request System, Population-Specific Tip Sheets, and more!



#### **Implementation Guides**



#### Website

CETE Center for Innovation and Engagement ABOUT INTERVENTIONS INNOVATIONS LAB CONTACT Q

#### CIE

The Center for Innovation and Engagement (CIE), a project of NASTAD, provides innovative, evidenceinformed interventions that support linkage, reengagement, and retention in care to help end the HIV epidemic.

#### Interventions

These interventions have been proven effective or shown promise for engaging people with HIV who are not receiving HIV care or who are at risk of falling out of care.





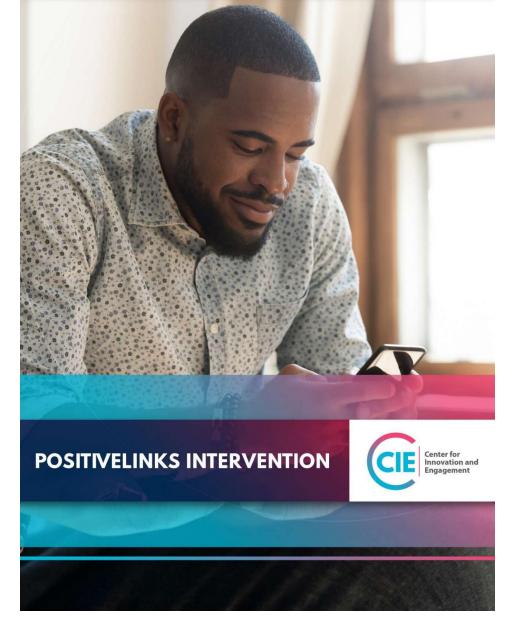


#### Welcome Video

Welcome to CIE. Watch this video to learn more about our project goals. Here we'll share the resources we have

#### **PositiveLinks Intervention**

- The following implementation guide can serve as a resource for replicators who may be interested in implementing evidence-informed approaches that can advance health equity:
  - <u>PositiveLinks</u> This is a clinic-based mobile health intervention that promotes linkage to and engagement in HIV care in rural areas for people with HIV who are new to care or at risk of falling out of care. This intervention uses a warm technology framework to enhance engagement with the care setting and a broader virtual community of people with HIV.





## **POSITIONALITY STATEMENT**



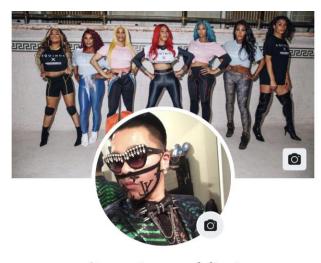
#### **Positionality Statement**

- Who am I? But more importantly, who am I not?
- What intersection of identities do I occupy?
- What do I do?
- What theoretical orientations shape my approach?
- How do I enter the sphere of HIV prevention and care?



#### The Internet, Identity, and Community





Sean Arayasirikul #007 #1ballroom #BallroomBrilliance





# BACKGROUND



## Background

More Americans than ever are using the Internet and have access to a mobile phone.

According to the Pew Research Center:

- ✓ 93% of American adults use the internet [1]
- ✓ 97% of American adults have a mobile phone; and 85% have a smart phone [2]
- About 3 out 4 American adults use social media; 81% use Youtube, followed by Facebook and Instagram (69% and 40%, respectively). Of those who use Facebook, 70% use it daily [3]



## Background

As a result, interest in digital health approaches have risen over the past decade, but has rocketed since the COVID-19 pandemic [4-6].

- Telehealth (virtual communication technology teleconference, video conference)
- ✓ Mobile Health (mHealth) technologies SMS, apps
- ✓ Patient portals and emails
- ✓ Social Media



### Background

At the intersection of dual epidemics – HIV and COVID-19 – HIV care and public health systems have a responsibility to plan for and mitigate potential disruptions in HIV care [7].

A recent study published by Spinelli et al. (2020) found that in a large urban HIV clinic, viral nonsuppression was 31% higher post-SIP [7].

COVID-19 has exacerbated structural inequity, impacting the most vulnerable in our society, especially youth and youth adults [8] and those with high social need [9].



# Health eNav OVERVIEW



## **Project Overview**

Health eNav is a 6-month, digital HIV care navigation intervention using SMS text messaging in San Francisco [10].

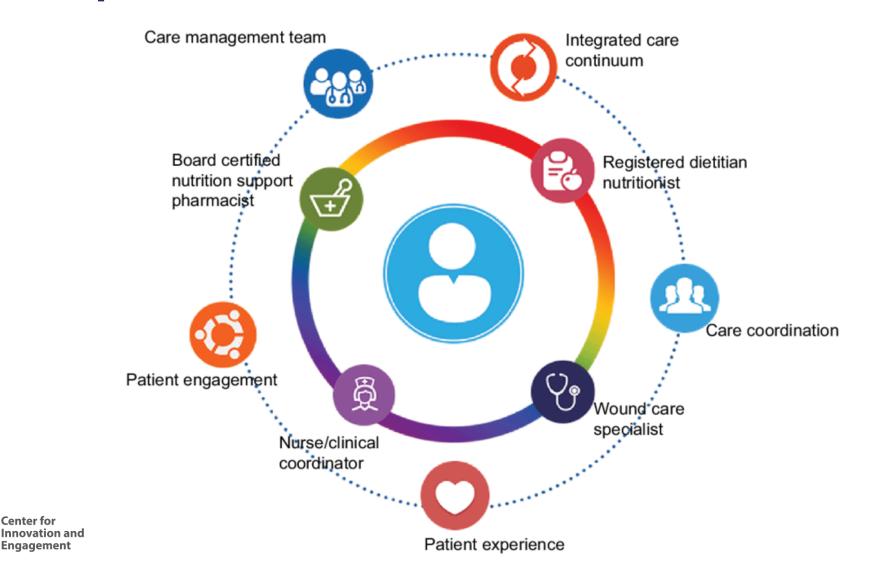
- ✓ Connected 120 YPLWH to their own digital HIV care navigator
- ✓ Social support
- ✓ Referral and linkage support
- ✓ Daily surveys (ecological momentary assessments)
- ✓ Were followed for 18 months from enrollment at baseline



## **CONCEPTUAL FRAMEWORKS**



#### **Conceptual Frameworks**



# **INTERVENTION COMPONENTS**



#### **Intervention Components**

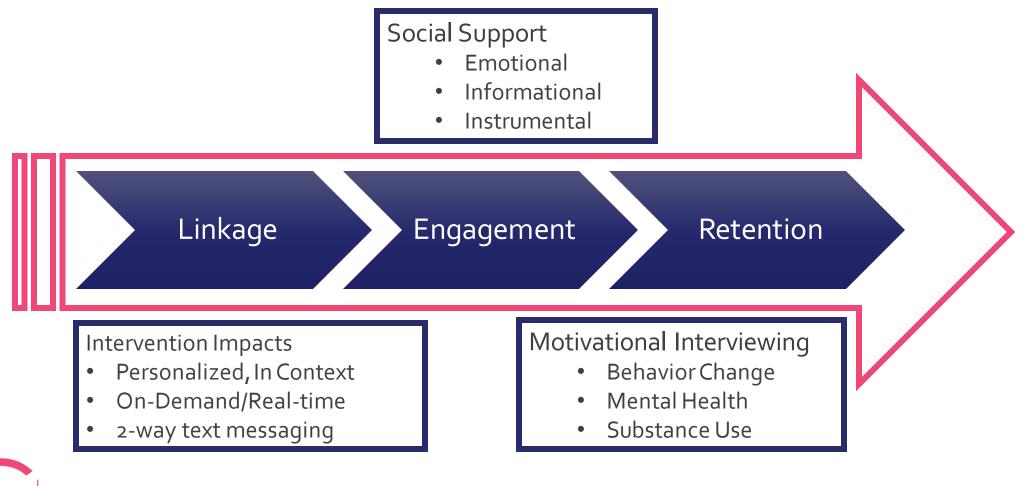
- ✓ Short-term mobile phone access
- Delivering asynchronous, non-traditional digital navigation through text messaging
- Collecting ecological momentary assessment (EMA) data and integrating that into the digital navigation system in realtime
- ✓ Using comprehensive social medial contact information to locate and retain participants in care

Goal: Improve HIV Care Continuum Outcomes

- $\checkmark$  Support linkage, engagement and retention in HIV care
  - Increase adherence to ART and viral suppression



## **Digital HIV Care Navigation**



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#### **Ecological Momentary Assessments**



- 90 Daily Text Message Surveys
- Affect, Sexual Behaviors, Substance Use, Treatment Adherence, Social Support.
- \$1 earned per completed survey

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## **Ecological Momentary Assessments**

- ✓ Mood and Mental Health (5 items)
- ✓ Sexual Risk Behavior (3 items)
- ✓ Substance Use (6 items)
- ✓ Co-occurrence of Substance Use and Sexual Behavior (6 items)

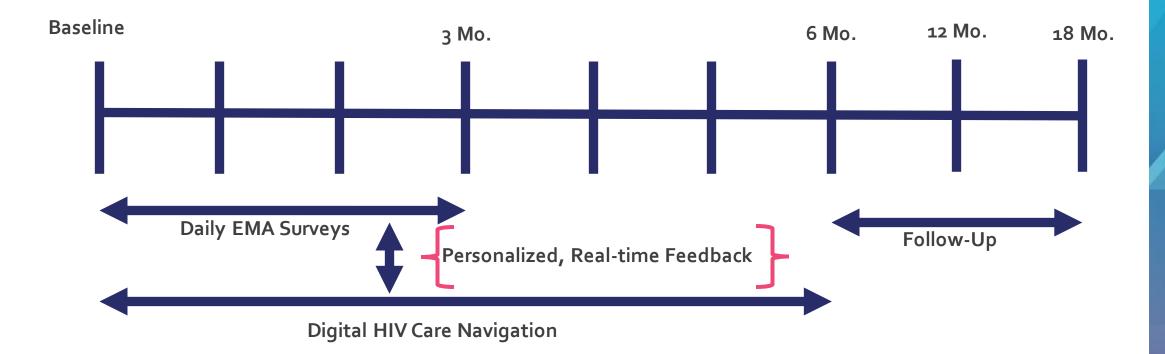


✓ Treatment Adherence (3 items)

# DESIGN, SETTING, POPULATIONS



# Study Design





## **Intervention Setting**

- Virtual (on-going); and in-person visits at the San Francisco
   Department of Public Health (SFDPH) (at baseline, 6-, 12-, and 18-mo)
- ✓ Digital safety net spanning San Francisco's HIV prevention and care network (e.g. HIV testing sites, SFDPH clinics, etc.)



### **Populations of Focus**

- ✓ Young People with HIV ages 18-34
- ✓ Identify as Gay, Bisexual Men or other Men who Have Sex with Men (GBM); or transgender woman
- ✓ Be a resident of San Francisco and speak English
- Be either: 1) newly diagnosed, 2) out of care, or 3) not virally suppressed



## FEASIBILITY & ACCEPTABILITY



## Feasibility

Digital HIV care navigation was feasible to implement in our intervention setting with our population of focus [11]:

- ✓ Racially diverse sample
- ✓ 85% GBM; 15% trans women of color; 20% were recently incarcerated; 32% were diagnosed within the last year
- ✓ 12,423 total text messages sent, ranging from 1-467 texts
- ✓ Average # of text messages per participant: 109 texts
- ✓ 37% were low engagers, 42% were medium engagers, and 22% were high engagers



## Acceptability

Digital HIV care navigation was acceptable to our population of focus [11]:

- ✓ 81% found Digital Navigation acceptable
- ✓ 70% felt that 6 months of Digital Navigation was a good amount of time
- ✓ 19% were interested in more than 6 months
- ✓ 100% felt that Digital Navigation positively impacted their engagement in HIV care
- Structural inequity (e.g., acute homelessness, severe substance use disorder) = primary barrier to participation



#### **Qualitative Feedback - Acceptability**

"...I was in the waiting room and actually in the doctor's office texting the digital navigator and discussing the questions that I was going to ask the doctor and some of the information that I wanted to make sure to tell her. I needed the digital navigator to help me remember the questions that were important for me to ask...that was the first time I actually went to my doctor's appointment prepared."



#### **Qualitative Feedback - Acceptability**

"It made me more consistent, and it always gave me reminders...I could say, 'This is what's going on and what I need' and the response would be this is what I think you should do; and that doesn't happen every day, you don't always have someone with that type of experience like my digital navigator had. I think about the community impact, and I think many people who are diagnosed with HIV in the community need it [Digital Navigation]."



## **INTERVENTION EFFICACY**



## **Intervention Efficacy**

Our results show intervention efficacy for supporting viral suppression:

6 Months Compared to Baseline [12] ✓ 2.07 fold greater odds of viral suppression

12 Month Compared to Baseline (*under review*)
✓ 2.98 fold greater odds of viral suppression

12 Month Dose-Response Effect (*under review*)

 Every one-text increase in engagement was associated with an increased odds of undetectable viral load

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# JUST-IN-TIME SUPPORT & CARE



#### Just-in-Time Support & Care

"I had a dream last night. I somehow go back to visit my family and they know I have "it" then I'm on the street with strange people yelling around me, I see my mom among those people but I can't reach her, she sees me but moves further and I cry... I haven't texted anyone in my family including my cousins but no one cares. I assume they all know by know that I deactivated my pages. I feel abandoned...I've never regretted anything I've done in my life but this time, I regretted that I met him. I'm so lost."

#### Empathy and reflective listening

To me, it sounds like your dream is making you feel abandon and probably a little worried about your family and what they may think of you if you did tell them about your diagnosis...am I right?

30 days left

Read Yesterday

## Supporting self-efficacy and optimism

It also sounds like you are concerned about it and I don't necessarily think that is a bad thing. It's just in our nature to experience waves of emotions and think of all the bad things, but it's good to center yourself again and focus on what steps need to be taken in order for you to achieve your goals. Which I know you won't have any trouble doing!!



## **LESSONS LEARNED**



#### **Lessons Learned**

Social media contact information is stable over time (vs. phone number)

Use non-HIV related messages to develop rapport and build trust

Carve out time to engage in a more lengthy text message session in real-time

Technology is not just a means to an end – it is inherently social  $\rightarrow$  meaningful interactions

LOWTech, HIGHTouch interventions can be powerful



Analyzing intervention exposure is challenging

#### References

- 1. Pew Research Center. "Internet/Broadband Fact Sheet." (2018). Available at: <u>https://www.pewresearch.org/internet/fact-sheet/internet-broadband/</u>
- 2. Pew Research Center. "Mobile fact sheet." Pew Research Center (2018). Available at: <u>https://www.pewresearch.org/internet/fact-sheet/mobile/</u>
- 3. Pew Research Center. "Social media fact sheet." Pew Research Center (2018). Available at: https://www.pewresearch.org/internet/fact-sheet/social-media/
- Kemp CG, Velloza J. Implementation of eHealth Interventions Across the HIV Care Cascade: a Review of Recent Research. Curr HIV/AIDS Rep. 2018 Dec;15(6):403-413. doi: 10.1007/s11904-018-0415-y. PMID: 30171519; PMCID: PMC6289676.
- 5. Ohannessian R, Duong TA, Odone A. Global Telemedicine Implementation and Integration Within Health Systems to Fight the COVID-19 Pandemic: A Call to Action. JMIR Public Health Surveill. 2020 Apr 2;6(2):e18810. doi: 10.2196/18810. PMID: 32238336; PMCID: PMC7124951.
- Fagherazzi G, Goetzinger C, Rashid MA, Aguayo GA, Huiart L. Digital Health Strategies to Fight COVID-19 Worldwide: Challenges, Recommendations, and a Call for Papers. J Med Internet Res. 2020 Jun 16;22(6):e19284. doi: 10.2196/19284. PMID: 32501804; PMCID: PMC7298971.



#### References

- Spinelli MA, Hickey MD, Glidden DV, Nguyen JQ, Oskarsson JJ, Havlir D, Gandhi M. Viral suppression rates in a safety-net HIV clinic in San Francisco destabilized during COVID-19. AIDS. 2020 Dec 1;34(15):2328-2331. doi: 10.1097/QAD.00000000002677. PMID: 32910069; PMCID: PMC7674255.
- 8. Armbruster M, Fields EL, Campbell N, Griffith DC, Kouoh AM, Knott-Grasso MA, Arrington-Sanders R, Agwu AL. Addressing Health Inequities Exacerbated by COVID-19 Among Youth With HIV: Expanding Our Toolkit. J Adolesc Health. 2020 Aug;67(2):290-295. doi: 10.1016/j.jadohealth.2020.05.021. Epub 2020 Jun 8. PMID: 32527573; PMCID: PMC7556700.
- 9. Clapp J, Calvo-Friedman A, Cameron S, Kramer N, Kumar SL, Foote E, Lupi J, Osuntuyi O, Chokshi DA. The COVID-19 Shadow Pandemic: Meeting Social Needs For A City In Lockdown. Health Aff (Millwood). 2020 Sep;39(9):1592-1596. doi: 10.1377/hlthaff.2020.00928. Epub 2020 Jul 16. PMID: 32673101.
- Arayasirikul S, Trujillo D, Turner CM, Le V, Wilson EC. Implementing a Digital HIV Care Navigation Intervention (Health eNav): Protocol for a Feasibility Study. JMIR Res Protoc. 2019 Nov 8;8(11):e16406. doi: 10.2196/16406. PMID: 31702561; PMCID: PMC6874804.
- 11. Trujillo D, Turner C, Le V, Wilson EC, Arayasirikul S. Digital HIV Care Navigation for Young People Living With HIV in San Francisco, California: Feasibility and Acceptability Study. JMIR Mhealth Uhealth. 2020 Jan 10;8(1):e16838. doi: 10.2196/16838. PMID: 31922489; PMCID: PMC6996763.

#### References

 Arayasirikul S, Turner C, Trujillo D, Le V, Wilson EC. Efficacy and Impact of Digital HIV Care Navigation in Young People Living With HIV in San Francisco, California: Prospective Study. JMIR Mhealth Uhealth. 2020 May 8;8(5):e18597. doi: 10.2196/18597. PMID: 32383680; PMCID: PMC7244993.



### Thank You!

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For specific questions about the project or to learn more about the Center for Innovation and Engagement, please email healthequity@NASTAD.org



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