

# Formative Assessments of a Virtual Environment as CVD Prevention Education in Black and Latinx Sexual Minority Men with HIV: A Qualitative, User-centered Analysis

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## INTRODUCTION

- Persons with HIV are twice as likely to develop cardiovascular disease (CVD) than HIV negative persons.<sup>2-3</sup>
- Intersectional effects of race, sexual and gender identity, and social determinants of health elevate CVD risk, which exacerbates cardiovascular health (CVH) inequity.<sup>1</sup>
- Formative research is needed to develop tailored approaches for enhancing CVH equity in at-risk populations.

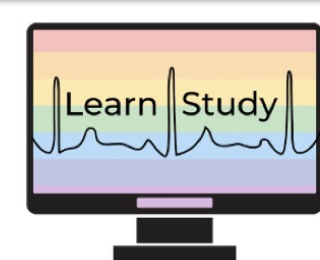
## OBJECTIVE

To qualitatively explore design content that would be relevant in the virtual environment (VE) and conduct beta-testing before initiating a randomized controlled trial (RCT).

## METHODS

- Recruited racially and ethnically diverse sexual minority men (SMM) ages 30-65.
- Qualitative interviews with N=15 participants. (5 HIV community-based organization administrators & 10 persons with HIV)
- Questions focused on perceptions of health, comorbid conditions, and technology use.
- Beta-testing with N=10 participants.
- Functionality and accessibility were measured using a checklist of gameplay related tasks.

### VE Beta Testing Checklist (12-items)



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#### Virtual Environment Beta Testing Checklist

- Use your avatar to walk and turn (arrow keys or A, W, S, D keys), run + up arrow (hold down shift key), and jump (ctrl key)
- Use the map to enter a different district (📍 symbol in upper left corner of screen)

## RESULTS

### Qualitative interview



#### Interest in VE for CVH

*"It's very important that I can learn something. ... I'm getting all the information, how to control all of the symptoms that I have, with getting through the medications. Like doing yoga, ... reading a book, playing a board game or a computer game."*



#### Privacy & Anonymity

*"The avatar would help people to be able to express themselves without feeling on the spot, because a lot of people do get uncomfortable when they think people are watching them or judging them."*



#### Online Engagement

*"As a gamer myself, I will say it [the virtual environment] will need some kind of interaction with other people so it can kind of guide each other ... If ... they need some help getting through the game, you can help them in taking them to different places where they can get the information they need."*



#### Cultural Competency

*"It has to be culturally competent, like folks eat a certain way in their cultures. If they're on some platform telling them ... you can't utilize salt, they're like who are these folks telling me how to eat ... is there something wrong with ... our eating habits?"*

### Beta-testing

- Completed all checklist items within 30 to 65 minutes.
- Culturally relevant content.
- Easily understandable educational trivia.
- Highlighted the need for diverse avatar representation.

## CONCLUSIONS

- Identified themes and subthemes will inform the development of virtual health communication to enhance health equity in HIV-related chronic conditions in SMM of color.
- User-testing will further guide refinement prior to launching the RCT.
- Using a VE to support CVH in SMM of color may be a promising modality to mitigate chronic conditions in diverse, underrepresented populations.

## DISSEMINATION



## ACKNOWLEDGEMENTS

NHLBI K01HL145580 **LE**veraging **A** viRtual eNvironment (LEARN) to Enhance Prevention of HIV-related Comorbidities in at-risk Minority MSM (PI: Ramos)



## REFERENCES

1. Tsao et al. *Circulation*. 2023, Ahead of print.
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3. Alonso et al. *JAHA*. 2019, 8(14).