



Comparative Virologic Outcome Evaluation of Disseminated Evidence-Informed Initiative for Linkage of Women of Color to HIV Care: A Special Project of National Significance (SPNS): Findings from Meharry Community Wellness Center

Vladimir Berthaud^{1*}, Latoya Alexander¹ Tamiko Grimes¹, Sherrie Baker², Audrey Holloman¹, Tarik Smith¹, Michael Davis¹, Naomi Turner¹, Serena Rajabiun⁴, Alicia Downes⁵, Derek Wilus³, and Mohammad Tabatabai³

Division of Infectious Disease/Meharry Community Wellness Center¹, Meharry Clinical Research Center², and School of Graduate Studies and Research³, Meharry Medical College, Nashville, Tennessee, School of Social Work, Center for Innovation in Social Work and Health⁴, Boston University, Boston, MA, and AIDS United⁵, Washington, DC

Acknowledgement



HRSA grants: U90HA29237 and HL6HA01706

Corliss Heath, PhD, MPH, MDiv
Health Scientist

Office of HIV/AIDS Training & Capacity Development (OTCD), HIV/AIDS
Bureau

Health Resources and Services Administration (HRSA)

U.S. Department of Health and Human Services

SPNS Project Officer

Ryan White Services Provided At Meharry Community Wellness Center (MCWC)



- HIV primary care and infectious diseases management
- Mental health services
- Substance use counseling
- Women's health services
- Comprehensive primary oral health services
- Medical case management including treatment adherence
- Home-based health care
- Community health
- Housing, food voucher, and medical transportation
- Insurance assistance and HDAP

Ryan White Client Demographics

N = 692



- Race/ethnicity: Black/African American (79.8%)
- Gender: Male (74.2%), female (25.8%)
- Age Group: 13-24 (7.1%), 24-44 (43.5%), 45-64 (44.8%), and ≥ 65 (4.6%)
- HIV Risk Category: MSM (46.5%), heterosexual (53.3%), IDU (7.7%)
- Medical Insurance: No insurance (40.8%), Medicaid (23.4%), Medicare (10.8%), private (14.7%), IAP/ACA (11.9%), and other (14.5%)
- Housing Status: homeless (27%)
- Federal Poverty Level: Below 100% (60.5%)
- CD4 cell count: <200 (8.7%), ≥ 200 (88.2%)
- Viral Suppression: (74%)

Background



- Women of color living with HIV are at high risk for low retention in care.
- HRSA’s Special Project of National Significance, Disseminated Evidence-Informed Initiative (DEII): “Peer Linkage and Re-engagement of HIV-Positive Women of Color Intervention”
- Three sites: Meharry Community Wellness Center (MCWC), AIDS CARE Group, Chester, PA, and Howard Brown, Chicago, IL
- Two partners: Boston University and AIDS United

DEI Study Protocol



- The DEI study enrolled women of color who were newly diagnosed HIV-positive or lost to care (without a medical visit within past 6 months).
- Study enrollment period: September 2016-November 2019
- Meharry DEI model used female Peers, known as Treatment Adherence Counselors, paired with female Medical Case Managers (MCM) and female HIV primary care providers.

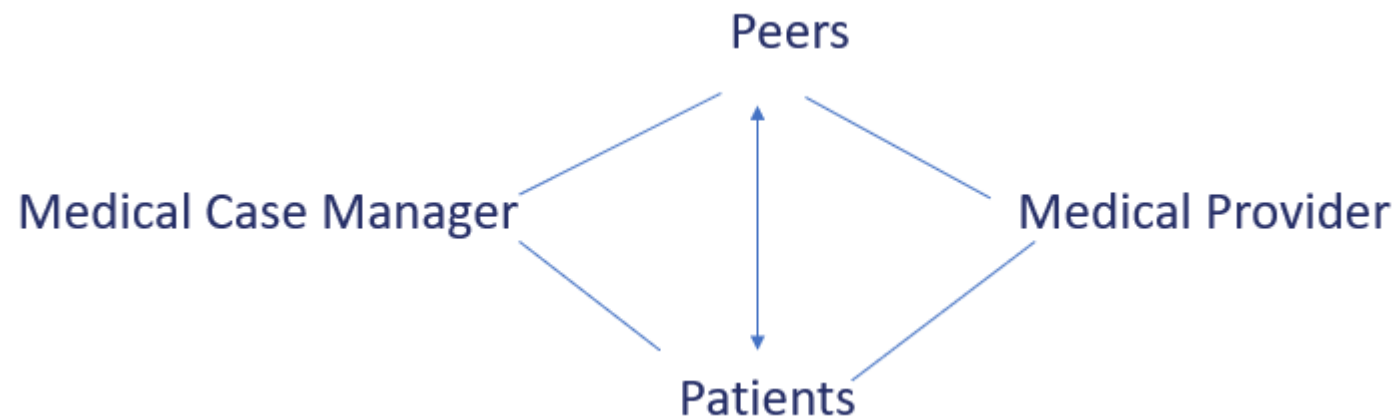
Meharry Community Wellness Center Study Implementation



VIRTUAL
2020 NATIONAL
RYAN WHITE
CONFERENCE ON
HIV CARE & TREATMENT

Internal Approach

- Application of MCWC CORE values to the DEII project
- Perspective, perseverance, partnership (between Peer and Patient)
- Pai



- Multidisciplinary approach and seamless integration of DEII project
- Creation of out-of-care patients list
- Leadership buy-in

Meharry Community Wellness Center Study Implementation



External Collaborations

Reinforcement of existing partnerships:

- Peers and Meharry EIS Worker's relationship with local and state EIS workers
- Peers and medical providers' relationship with
 - Tennessee prisons via telemedicine and Davidson County jails via face-to-face clinic visits and telephone consultations
 - Healthcare centers and AIDS service organizations

Development of new partnerships:

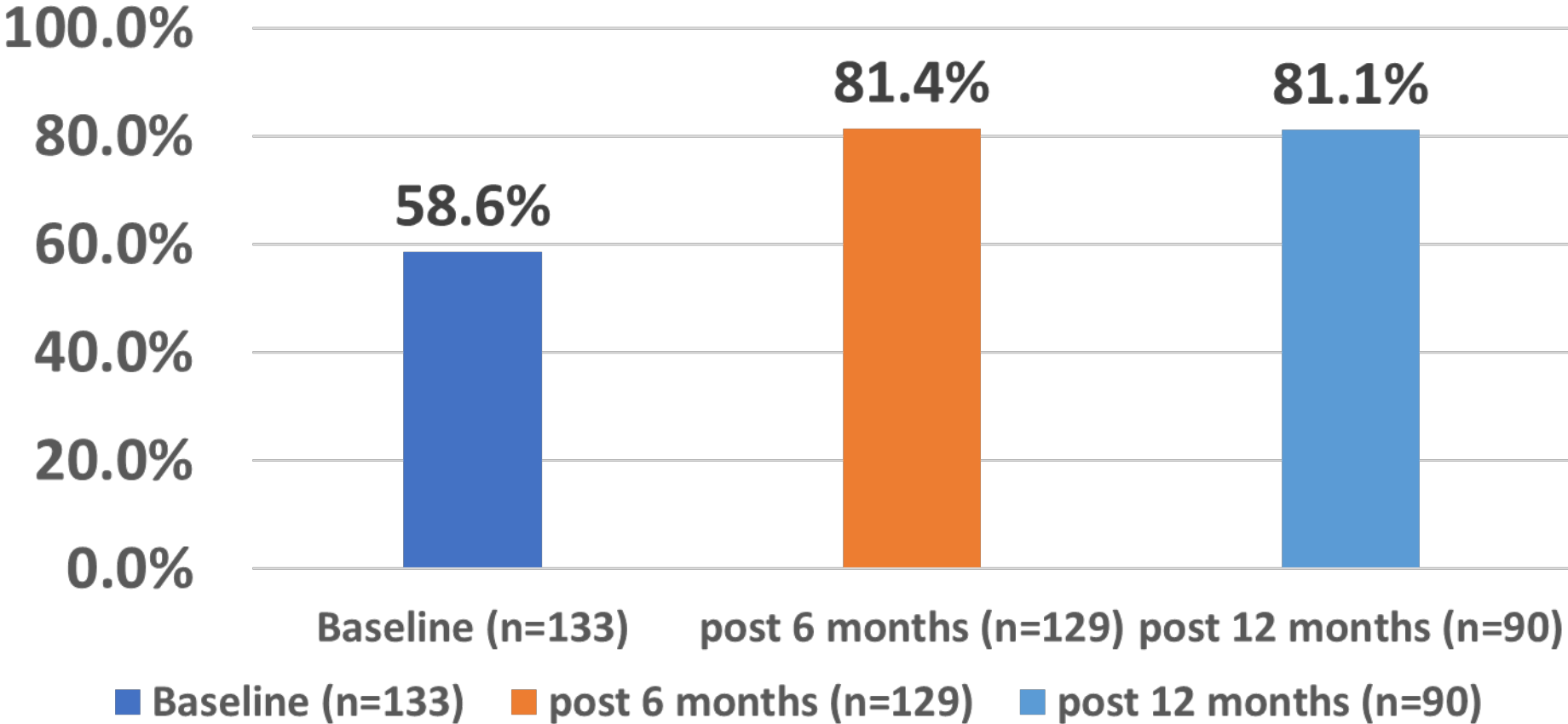
- Peers and Supervisor's relationship with
 - Tennessee Prison for Women
 - Planned Parenthood
 - Magdalene House/Thistle Farms

DEII Study Results: Virologic Outcome

Proportion of Viral Suppressed Participants (%)



VIRTUAL
2020 NATIONAL
RYAN WHITE
CONFERENCE ON
HIV CARE & TREATMENT



Sub-study Rationale



- Viral load suppression is a major predictor of HIV disease progression and mortality
- HIV/AIDS related mortality remains excessively high in Black/African Americans

Sub-study Design



- Study Aim: to compare HIV viral suppression (<20 copies/mL) between DEII participants and non-participants at Meharry Community Wellness Center
- Primary outcome variable: last reported plasma viral load
- Study design: retrospective observational
- Study enrollment period: September 2016-November 2019

Sub-study Methods



- Data Collection: demographics, CD4 cell count and plasma viral load extracted from CAREWare
- Statistical methods: univariate analysis applying Pearson chi-square and logistic regression model using IBM-SPSS software, version 22.2

Sub-study Results



Total subjects: 139 women

- DEI participants: 66 women of color who signed IRB-approved informed consent
- Non-participants: 73 women who attended the clinic during DEI study period
- 22 of them were white or Hispanic/Latina

Sub-study Results



- Main HIV risk category: heterosexual (85%)
- Private insurance: only 6.5%
- No statistical difference by medical insurance, poverty level, and education, housing or employment status between DEII study participants and non-participants

Sub-study Results



- Among DEII participants, 69.4% achieved viral suppression, as compared to 79.5% for non-participants.
- Among all virally suppressed women (n = 105), DEII participants accounted for 35.4% and non-participants represented 64.6%.
- Participation in DEII study was not associated with higher rate of viral load suppression. (Odds Ratio, 0.898; 95% CI 0.192-4.213) p-value 0.892

Sub-study Results



- Women in the age group 25-44 were less likely to achieve viral load suppression (35.2%) as compared with those in 45-64 age group (56.2%) (Pearson χ^2 6.894, p-value 0.032).
- Differences in viral suppression were not statistically significant in univariate analysis and logistic regression, controlling for race/ethnicity, and HIV risk factor, education, smoking status type of medical insurance, housing status, and CD4 count.

Conclusion



- The results of this study suggest that DEII participants represented a group of more challenging patients who might have been on antiretroviral treatment for a shorter time period, as compared to non-participants.
- However, primary DEII study results revealed significant increased in viral load suppression among participants, supporting the Peer intervention.

Study Limitations



- Use of a convenience sample
- Post-hoc analysis
- Small number of women from other races among non-participants
- Limitations inherent to observational studies
- Uncontrolled confounders

- Combined analysis including the three DEII study sites
- Long-term observational analysis
- Randomized-controlled trial
- Need to focus resources and education on young women of color
- Meharry Community Wellness Center provides uninterrupted support to the DEII program through its Community Health Team.