Nurse-Led PrEP with TAF/FTC achieves better outcomes compared to physician-led PrEP with TDF/FTC among cis-gender women in Zambia: 24-week data from the NLPrEP Trial

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Lloyd Mulenga [1,2,3,4], Sombo Fwoloshi [1,2,3], Suilanji Sivile[1,2,3], Lina Kampilimba Mwango[5], Evelyn Mwamba[1], Mundia Mwitumwa[1,2], Chofwe Chola[1], Susan Kunda[1], Kennedy Sambambi[1], Mulondwe Muzungu[1], Getrude Lumano[1], Davies Kampamba[1,3], Getrude Ngetela[1], Lottie Hachaambwa [1,5,6,7], Aggrey Mweemba[1,2], C. William Wester [4,8], Mpanji Siwingwa[1,2], Pawel Olowski[9], Lameck Chirwa[1], Cassidy W. Claassen[1,6,7]

1. University Teaching Hospital, Adult Infectious Diseases Center, Lusaka, Zambia; 2. University of Zambia, School of Medicine, Division of Infectious Diseases, Internal Medicine, Lusaka, Zambia; 3. Ministry of Health, Ndeke House, Lusaka, Zambia; 4. Vanderbilt University Medical Center (VUMC), Department of Medicine, Division of Infectious Diseases, Nashville, TN, USA; 5. Ciheb Zambia, Lusaka, Zambia; 6. Center for International Health Education and Biosecurity, University of Maryland School of Medicine, Baltimore, MD, USA; 7. University of Maryland School of Medicine, Division of Infectious Diseases, Department of Medicine, Baltimore, MD, USA; 8. Vanderbilt Institute for Global Health (VIGH), Nashville, TN, USA, 9. Maryland Global Initiatives Corporation Zambia, Lusaka, Zambia

BACKGROUND

- There is significant interest in HIV pre-exposure prophylaxis (PrEP) among women in Zambia.
- Oral PrEP uptake with tenofovir disoproxil fumarate (TDF) and emtricitabine (FTC) may be limited by access to physicians to prescribe PrEP, and concern for kidney and bone mineral density abnormalities.
- PrEP with tenofovir alafenamide (TAF) and FTC has fewer bone and kidney side effects and thus may require less physician oversight and laboratory monitoring.
- We designed a 48-week trial to assess outcomes of a nurse-led PrEP service delivery model using TAF/FTC compared to standard-of-care (SOC) physician-led PrEP using TDF/FTC in Zambia.

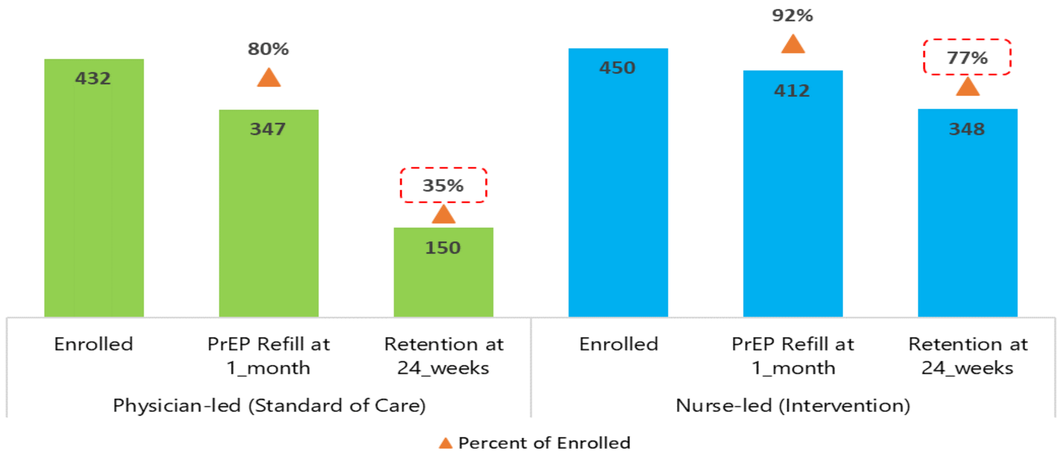
METHODS

- Quasi-experimental (pre-post) design study
- Compared TDF/FTC to TAF/FTC for oral PrEP among cis-gender women
- Six Ministry of Health facilities in Lusaka, Zambia
- Inclusion criteria:
  - HIV-negative
  - Assigned female at birth
  - ≥18 years of age
  - Eligible for PrEP per national guidelines
- The control group was enrolled first and received SOC with physician-led oral TDF/FTC.
- The intervention group was enrolled thereafter and received nurse-led oral TAF/FTC.
- Study outcomes included uptake of PrEP, PrEP refill rates at 4 weeks, TFV metabolite concentrations at 24 and 48 weeks, PrEP persistence at 48 weeks, and HIV seroconversion.

RESULTS

- We screened 1,005 cis-gender women, of whom 900 (89.6%) were eligible for PrEP.
  - 432 were enrolled in the SOC TDF/FTC group
  - 450 were enrolled in the interventional TAF/FTC arm
- At 24 weeks, TFV metabolites were detectable in 280 (80.5%) of 348 individuals in the TAF arm compared to only 106 (71%) of 150 in the TDF arm.
- Participants in the intervention arm were 6 times more likely to continue PrEP at 24 weeks (odds ratio (OR)=6.36, p<0.001).
- HIV seroconversion rates at 24 weeks were identical in both study arms, with 1 (0.2%) of 432 participants in the SOC arm vs. 1 (0.2%) of 450 in the intervention arm.

Nurse-led PrEP with TAF/FTC showed significant advantages compared to physician-led SOC with TDF/FTC at 24 weeks, including higher PrEP refill rates and improved PrEP persistence.



RESULTS

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	Physician-led	Nurse-led
	Control: Standard of Care	Intervention
PrEP	**TDF/FTC**	**TAF/FTC**
Enrolled	432	450
PrEP Refill Rates at 1 month	80% (347/432)	91.6% (412/450) (p<0.001)
Retention in PrEP Services at 24 weeks	35% (150/432)	77% (348/450) (p<0.001)
Individuals w/ ascertained TFV metabolites at 24 wks	71% (106/150)	80.5% (280/348) (p<0.05)

CONCLUSIONS

- Nurse-led PrEP with TAF/FTC showed significant advantages compared to the physician-led SOC with TDF/FTC.
- Nurse-led PrEP clients had higher PrEP refill rates and improved PrEP persistence at 24 weeks
- HIV prevention programs in the region should consider incorporating nurse-led PrEP with TAF/FTC to enhance PrEP outcomes.

Additional Key Information

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Presented by Dr. Cassidy Claassen at CROI 2024

Dr. Cassidy Claassen: CClaassen@ihv.umaryland.edu
Prof. Lloyd Mulenga: Lloyd.Mulenga@moh.gov.zm