

# POINT-OF-CARE CD4 COUNTS & HIV COUNSELING AND TESTING (HBCT)

Evidence-Informed for Linkage to HIV Care

## INTERVENTION DESCRIPTION

### Goal of Intervention

- Improve linkage to HIV care

### Target Population

- Recently diagnosed persons with HIV who were not in HIV care in the past six months

### Brief Description

*The Point-of-Care CD4 Testing within a Home-Based HIV Counseling and Testing (HBCT) campaign is an intervention to increase linkage to HIV care and antiretroviral initiation among persons who are HIV positive. The study uses lay counselors to provide HBCT, point-of-care CD4 testing, and ART initiation counseling. All participants receive post-test counseling and referral for HIV care. Point-of-care test participants receive additional counseling on the results, including ART eligibility if their CD4 counts <350 cells per  $\mu$ L. Clinic providers are instructed that point-of-care participants arriving with a CD4 cell count printed from the PIMA™ device should have those results recorded and acted upon in the same way as if the test result was provided by a referral laboratory. Point-of-care CD4 participants need to meet the same requirements for initiating ART as others receiving care at the clinic. Participants were interviewed six months after enrollment to ascertain whether they sought HIV care. Participants answers were verified through chart reviews at 23 local clinics.*

### Theoretical Basis

- None reported

### Intervention Duration

- 1 hour, 45 minutes\*

### Intervention Settings

- Residential and clinic sites

### Deliverer

- HBCT and study staff
- Lay operators

### Delivery Methods

- Counseling

### Structural Components

There are no reported structural components reported for this study.

## INTERVENTION PACKAGE INFORMATION

**An intervention package is not available at this time.** Please contact **Taraz Samandari**, CDC Kenya, 8900 Nairobi Place, Dulles, VA 20189.

**Email:** [tts0@cdc.gov](mailto:tts0@cdc.gov) for details on intervention materials.

## EVALUATION STUDY AND RESULTS

### Study Location Information

The original evaluation study was conducted in Western Kenya from July 2013 through February 2014.

### Key Intervention Effects

- Improved linkage to HIV care

### Recruitment Settings

- Household compounds

### Eligibility Criteria

Persons were eligible to participate if they tested HIV positive with HBCT and reported no HIV care for the previous six months.

### Study Sample

The assigned sample of 770 participants (417 Point-of-Care CD4 Testing and 353 Standard of Care) is characterized by the following:

- *66% female, 34% male*
- *7% <18 years old, 13% 18-24 years old, 33% 25-34 years old, 46% 35-80 years old*

### Assignment Method

The study used a two-arm, cluster-randomized control trial design. A cluster was defined as a housing compound in the Siaya and Kisumu districts and comprised multiple related nuclear family dwellings around a courtyard. Housing compounds were randomly assigned (1:1) to point-of-care CD4 testing arm (366 compounds with 417 participants) or standard-of-care arm (318 compounds with 353 participants).

### Comparison

The comparison was standard of care in a two-arm cluster-randomized efficacy trial.

### Relevant Outcomes Measured

- Linkage to HIV care was defined as the prevalence of linkage to HIV care within 183 days after enrollment.

### Participant Retention

Because participant retention is not a criterion for the Linkage to, Retention in and Re-engagement in HIV Care (LRC) chapter, the Prevention Research Synthesis project does not evaluate that information.

### **Significant Findings on Relevant Outcomes**

- Among 371 participants in the point-of-care CD4 testing group, 215 (58%) were linked to HIV care within six months versus 108 (34%) of 321 in the standard-of-care group [unadjusted HR] 2.04, 95% CI 1.60-2.60,  $p < 0.0001$ ]; [adjusted HR] 2.14, 95% CI 1.67–2.74,  $p < 0.0001$ .

### **Strengths**

- None identified

### **Considerations**

#### *Additional significant positive findings on non-relevant outcomes*

- Sixty-three (17%) of 371 participants in the point-of-care CD4 testing group began ART compared with 33 (10%) of 321 in the standard-of-care group ( $p = 0.001$ ).

#### *Non-significant findings on relevant outcomes*

- None reported

#### *Negative findings*

- None reported

#### *Other related findings*

- Proportions of participants starting ART in both intervention and comparison groups were similar once they were linked to care, 63 (29%) of 215 in the point-of-care CD4 testing group ( $p=0.92$ ), and 33 (31%) of 108 in the standard-of-care group.

#### *Implementation-related findings*

- None reported

#### *Adverse events*

- None reported

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\*Information provided by study author.

## REFERENCES AND CONTACT INFORMATION

Desai, M. A., Okal, D. O., Rose, C. E., Ndivo, R., Oyaro, B., Otieno, F. O., . . . Samandari, T. (2017). [Effect of point-of-care CD4 cell count results on linkage to care and antiretroviral initiation during a home-based HIV testing campaign: A non-blinded, cluster-randomised trial](#). *Lancet HIV*, 4(9), e393-e401.

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