



## BACKGROUND

- Linkage of HIV-infected persons to HIV care and treatment is critical to achieving 90-90-90 goals
- The Botswana Combination Prevention Project (BCPP) is an ongoing, community-randomized trial that is evaluating the impact of a combination prevention package on population-level HIV incidence in 15 intervention and 15 control communities in Botswana
- Linkage to care activities are a key component of the intervention and are comprised of:
  - Point-of-care CD4 count
  - Scheduled appointments for next HIV clinic day
  - SMS text appointment reminders
  - Active tracing (by community counselor) of persons who miss appointment by phone and home visits

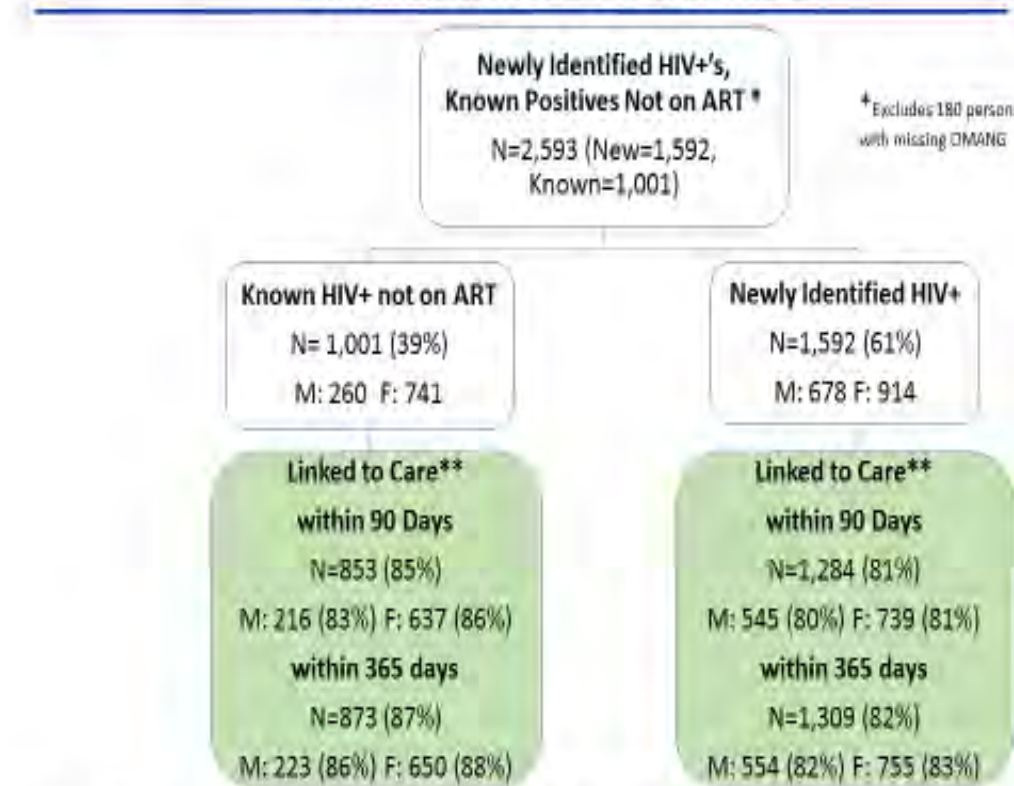
## METHODS

- HIV testing campaigns were conducted September 2013-February 2016 and lasted ~6-8 weeks per community
- Interviews and HIV testing were offered to residents ≥16 years through home-based and mobile testing
- Analyzed data regarding linkage to care of HIV-infected individuals not on ART in the intervention communities taking part in the BCPP, after the first round of testing/linkage/treatment interventions

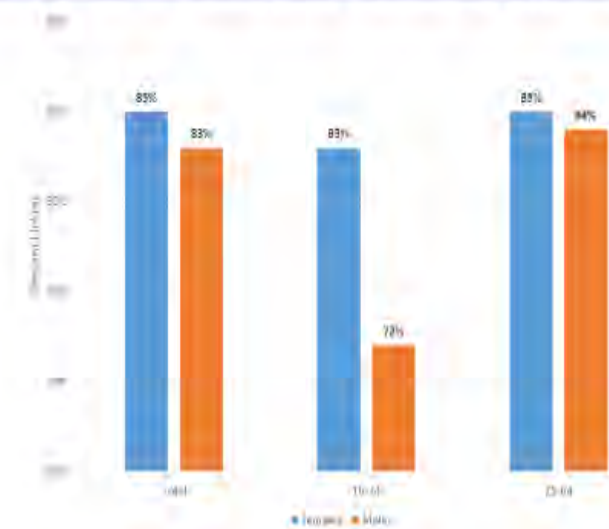
## RESULTS

- In 1<sup>st</sup> intervention round, 40,628 persons assessed for HIV status (tested or had documentation of HIV status)
- 24% (9,586/40,628) of all those assessed were HIV-positive; 69% were women, 31% were men
- Among all HIV-positive persons, 2,593 (27%) were not on ART and were referred to local HIV clinic (Figure 1)
- Overall linkage to care rates were high at 84%.** Of those who linked,
  - 77% (1,997/2,593) linked to care within 30 days
  - 82% (2,137/2,593) within 90 days,
  - 84% (2,182/2,593) linked within one year
- Of the 2,182 persons who linked,
  - 68% (1,492/2,182) registered after receiving only an appointment date, SMS reminder and point-of-care CD4 test at time of test.
  - 32% (690/2,182) did not keep initial appointments and were referred to counselors; they received an average of 2.2 home/phone counseling visits and re-appointments before they linked to the clinic.

**Figure 1. Linkage to Care in Combination Prevention Communities 1-15 Round 1**



**Figure 2. BCPP Linkage by Gender & Age – Round 1**



- Females age 16-24, > 24, and males >24 had similar rates of linking to care; however, males 16-24 had lower rates of linking to care (see Figure 2)
- 16% (411/2,593) of HIV-positive persons *never* linked:
  - Less likely to give permission for follow up services (45%) at time of HTC than those who linked (88%)
  - Men and women >24 who were employed had lower rates of linkage to care ( $\chi^2 = 5.6, p < .02$ )
  - Younger men 16-24 who were employed had the lowest rates of linking ( $\chi^2 = 7.73, p < .001$ )
  - Most common reasons reported for not linking: too busy, unable to miss school/work, not ready to accept HIV status

## CONCLUSIONS

- 84% of non-treated patients linked
- Most kept 1<sup>st</sup> appointment or linked within 1<sup>st</sup> month of referral, with little intervention
- More resource intensive interventions such as tracing persons who did not link were required for relatively few people, but brought in an additional 32% with a small number of contacts
- Good communication and documentation between HIV testers, clinic staff, and counselors required
- Lower rates of linkage in:
  - Young men 16-24
  - Employed individuals
- Primary reasons given for missing appointments by those who did not link were inability to miss school/work and too busy
- Findings suggest that alternatives to standard clinic ART delivery may be needed to ensure these subgroups can access HIV care/ART
- In conclusion, tracking and tracing HIV+ referrals resulted in high rates of linkage and the majority of those not on ART enrolled in the HIV clinic.

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