

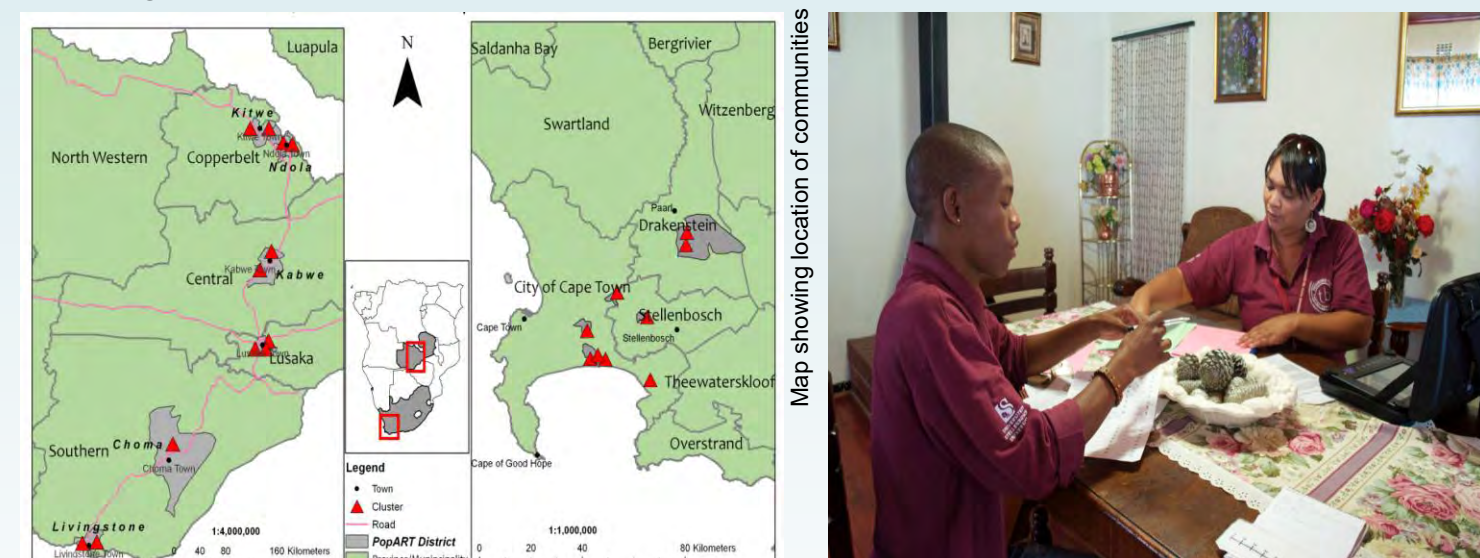
HIV Testing and ART Coverage Before a UTT Intervention: Findings in HPTN 071(PopART)

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BACKGROUND

- In 2014 UNAIDS set aspirational “90-90-90” global targets for knowledge of HIV status and ART coverage among people living with HIV
- HPTN071 (PopART) is a 3-arm community randomised trial in 21 communities in Zambia and the Western Cape of South Africa (SA), which tests the impact on HIV incidence of a combination HIV prevention approach (Arms A and B) compared with standard-of-care (Arm C)
- Household-based interventions are provided in Arms A and B, and include a universal offer of HIV testing and support for linkage to HIV care
- In Arm A, universal ART is offered to all HIV-positive (HIV+) adults at the clinic, i.e. it is offered irrespective of CD4 count, while in Arm B HIV+ individuals are eligible for ART according to national guidelines
- ART is delivered through routine health care services
- We analyzed baseline data on community-wide uptake of HIV testing and ART, to quantify the level of service expansion required to reach the 90-90-90 targets



Map showing location of communities, and photograph of research assistants who conduct interviews

RESULTS

COHORT ENROLMENT, AND ANALYSIS POPULATION

- 38,691 adults were enrolled in the PC, ~2000 in each trial community
- A total of 5,496 in Arm A and 5,500 in Arm B were enrolled before they were offered the household-based interventions, and 12,287 were enrolled in Arm C, a total of 23,283, among whom age was recorded for 23,279
- By early 2016, 21,894 / 23,279 had a confirmed laboratory HIV test result
- 21,847 / 21,894 answered questions on prior HIV testing (Table 1)

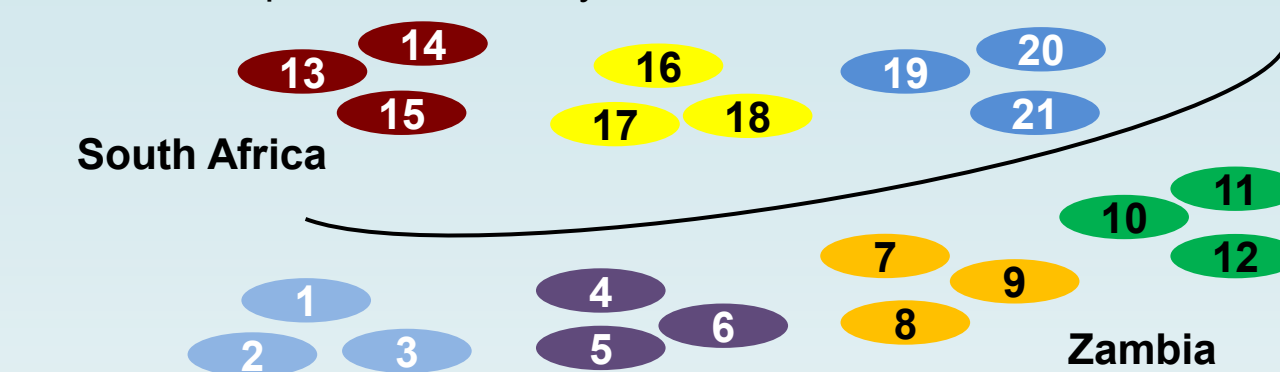
Table 1. Analysis population, overall and by country (N=21,847)

	Zambia	SA	Overall
Gender			
Men	2,790 (30%)	3,716 (31%)	6,686 (31%)
Women	7,037 (70%)	8,124 (69%)	15,161 (69%)
Age (years)			
18-24	4,517 (45%)	4,008 (34%)	8,525 (39%)
25-29	2,046 (20%)	2,636 (22%)	4,682 (21%)
30-34	1,570 (16%)	2,164 (18%)	3,734 (17%)
35-39	1,122 (11%)	1,653 (14%)	2,775 (13%)
40-44	752 (8%)	1,379 (12%)	2,131 (10%)

METHODS

MATCHING OF 21 COMMUNITIES INTO 7 TRIPLETS

- Community* = the catchment population of a local health clinic, average adult (age ≥18 years) population size approximately 25,000
- Within each country, communities were grouped into triplets
- 4 triplets in Zambia, and 3 triplets in SA
- Matching based on same geographical area, and similar HIV prevalence according to data available prior to the trial
- Within a triplet, 1 community randomized to Arm A, 1 to Arm B, 1 to Arm C



ENROLMENT OF RESEARCH COHORT

- A randomly-selected cohort (PC) of adults aged 18–44 years was recruited from November 2013 to March 2015 to measure primary and secondary trial outcomes. The target was to enroll 2000 – 2500 adults in each community. Consenting participants provided a blood sample for laboratory HIV testing, and the research questionnaire included questions on previous HIV testing, knowledge of HIV status, and uptake of ART
- In trial arms A and B, analysis was restricted to adults who were enrolled before their household had been visited by the community HIV care providers who deliver the household-based interventions, so as to measure pre-intervention uptake of HIV testing and ART

HIV PREVALENCE, AND PREVIOUS HIV TESTING

Table 2. HIV prevalence based on laboratory HIV test results, and self-reported information on previous HIV testing, among all adults – by country / gender

	Zambia	SA	Overall
HIV prevalence			
Men	12.6% (374 / 2,970) 7–20% ¹	11.9% (442 / 3,716) 2–23% ¹	12.2% (816 / 6,686) 2–23% ¹
Women	25.1% (1,769 / 7,037) 21–35% ¹	28.7% (2,331 / 8,124) 3–40% ¹	27.0% (4,100 / 15,161) 3–40% ¹
Previously tested for HIV			
Men	69.5% (2,064 / 2,970) 57–84% ¹	69.0% (2,564 / 3,716) 40–81% ¹	69.2% (4,628 / 6,686) 40–84% ¹
Women	87.7% (6,170 / 7,037) 79–99% ¹	88.2% (7,162 / 8,124) 59–96% ¹	87.9% (13,332 / 15,161) 59–99% ¹

¹ Range across communities

- HIV prevalence was 12% in men (816 / 6,686) and 27% (4,100 / 15,161) in women

RESULTS AND CONCLUSION

KNOWLEDGE OF HIV+ STATUS AMONG HIV+ ADULTS

- Among 4,916 adults who were HIV+ based on a confirmed laboratory HIV test result, information on self-reported knowledge of HIV status was available for 4,808 (for 108 adults, data were missing)
- In Zambia, among HIV+ men 47% reported they were HIV+; among HIV+ women 56% reported being HIV+ (Table 3 and Figure 1)
- In SA, among HIV+ men 27% reported they were HIV+; among HIV+ women 50% reported being HIV+

ART UPTAKE AMONG HIV+ ADULTS

- In Zambia, among HIV+ men 32% reported they were on ART; among HIV+ women 37% reported they were on ART
- In SA, among HIV+ men 18% reported they were on ART; among HIV+ women 33% reported they were on ART
- Knowledge of HIV status and ART uptake varied widely among communities

Table 3. Self-reported knowledge of HIV+ status and ART uptake among HIV+ adults – by country / gender

	Zambia	SA	Overall
Knowledge of HIV+ status			
Men	47% (173 / 367) 28–68% ¹	27% (116 / 427) 14–34% ¹	36% (289 / 794) 14–68% ¹
Women	56% (978 / 1,757) 40–71% ¹	50% (1,126 / 2,257) 21–76% ¹	52% (2,104 / 4,014) 21–76% ¹
ART uptake			
Men	32% (117 / 367) 12–67% ¹	18% (78 / 427) 0–27% ¹	25% (195 / 794) 0–67% ¹
Women	37% (643 / 1,757) 24–62% ¹	33% (738 / 2,257) 12–56% ¹	34% (1,381 / 4,014) 12–62% ¹

¹ Range across communities

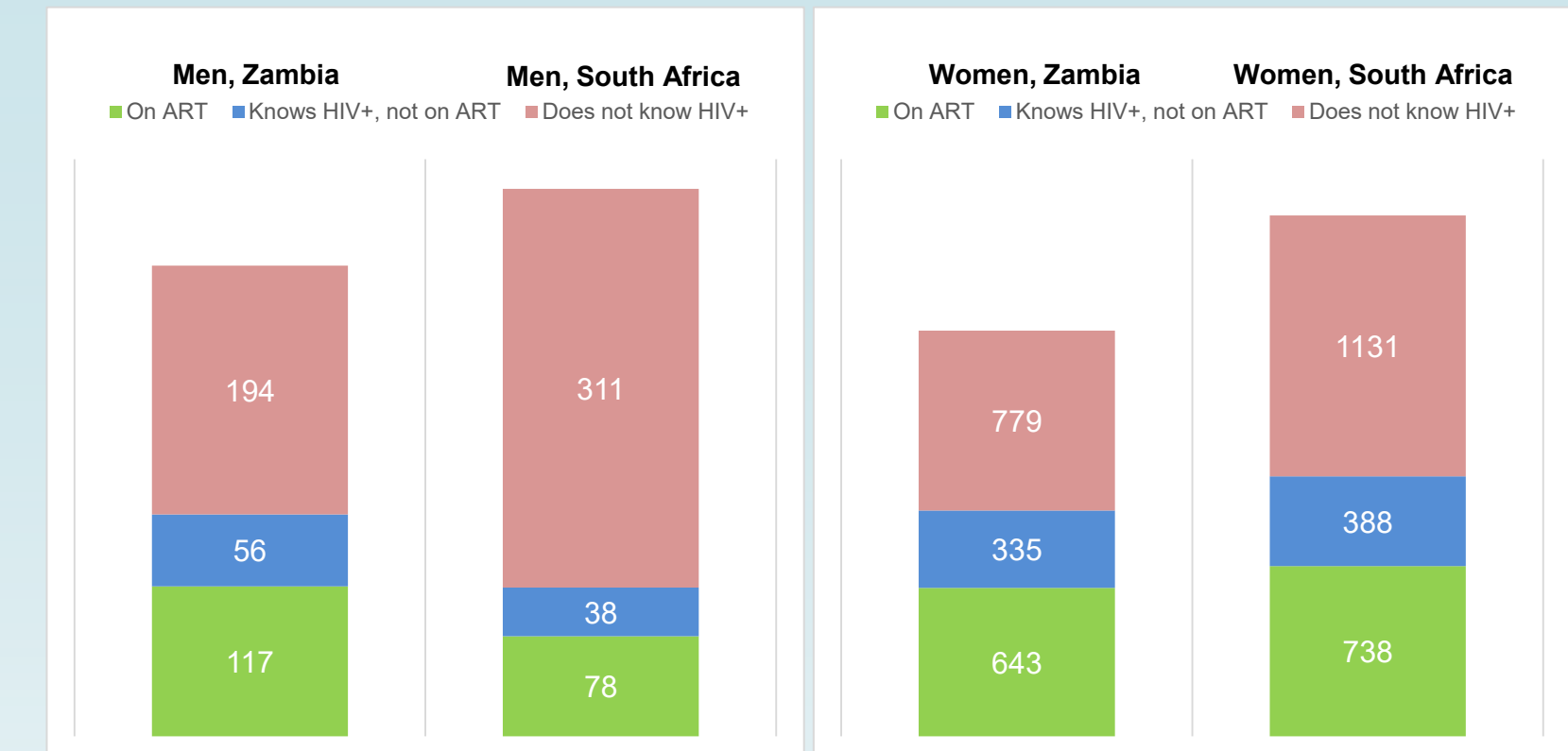
KNOWLEDGE OF HIV+ STATUS, BY AGE GROUP

Table 4. Self-reported knowledge of HIV+ status among HIV+ adults - by age group

Age (years)	Men, Zambia	Men, SA	Women, Zambia	Women, SA
18-24	21%	7%	34%	30%
25-29	37%	18%	47%	45%
30-34	43%	27%	62%	54%
35-39	65%	29%	70%	58%
40-44	54%	42%	73%	64%
Overall	47%	27%	56%	50%

- Knowledge of HIV+ status among HIV+ adults increased with age (Table 4)

Figure 1. Self-reported knowledge of HIV+ status and ART uptake, among HIV+ adults



CONCLUSION

- Among HIV+ men, overall around one-third knew their HIV+ status and one-quarter were on ART, across the trial communities, but with considerably higher coverage in Zambia than SA
- Among HIV+ women around half knew their HIV+ status and one-third were on ART, with similar coverage in Zambia and SA
- It is possible that these figures under-estimate knowledge of HIV+ status, and uptake of ART, because some HIV+ men and women may know they are HIV+ but do not wish to disclose this to research interviewers
- These levels are far below 90-90-90 targets, showing that interventions which are effective in delivering universal testing and treatment (UTT) have the potential to have a large impact on knowledge of HIV status and ART uptake at population level
- The HPTN071 (PopART) trial will determine whether, with household and clinic interventions which aim to achieve UTT, the 90-90-90 targets can be reached

ACKNOWLEDGMENTS

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