

evaluate the primary outcome overall and in two strata: frequent (last HIV test ≤ 2 years ago) and infrequent (> 2 years ago or never tested) testers.

Results: Between Dec-2013 and Nov-2014, 180 men were randomized to self-testing and 179 to standard-care. The intention-to-treat analysis included men who completed any follow-up questionnaire: 179 (98%) in self-testing; and 164 (92%) in standard-care. The mean number of HIV tests over 12 months in the self-testing and standard-care arms was 3.9 and 1.6 per-person overall (rate ratio (RR): 2.39, 95% CI: 2.08–2.76, $p < 0.001$), 4.0 and 1.8 among frequent testers (RR: 2.23, 1.93–2.59, $p < 0.001$), and 3.2 and 0.6 among infrequent testers (RR: 5.54, 3.15–9.74, $p < 0.001$), respectively. There was no statistical difference between the two arms in the mean number of facility-based HIV tests (1.4 vs. 1.6, RR: 0.89, 0.75–1.06) and any STI test (1.6 vs. 1.7, RR: 0.93, 0.79–1.10).

Conclusions: HIV self-testing among higher-risk GBM increased HIV testing frequency by more than two-fold overall, and more than five-fold among infrequent testers, without reducing facility-based HIV/STI testing frequency. Self-testing should be provided more widely to achieve public health goals of increasing HIV testing frequency.

FRAC0103

Community-based voluntary counselling and testing successfully identifies HIV-positive ART eligible individuals in rural South Africa

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Introduction: Community-based voluntary counselling and testing (CBVCT) is a validated strategy to increase HIV awareness and testing. South Africa has the largest global epidemic of HIV, and a substantial proportion is unaware of being infected. New testing strategies are needed. We describe a successful CBVCT strategy in rural South Africa.

Methods: A team of nurses and community health workers provided health education, rapid HIV testing and concurrent TB screening in congregate community settings in rural KwaZulu Natal from 2010 to 2015. Those identified with HIV were offered confirmatory testing, CD4 staging, individual counselling based on CD4 count and referral to care and antiretroviral treatment (ART) according to national guidelines.

Results: CBVCT was performed at 849 community sites including municipality events, pension pay points and taxi ranks. Among 13,278 screened, the median age was 41 (IQR 23–57), 8099 (70.8%) were women and 11,435 (86.1%) accepted HIV testing. Twelve hundred and forty-four (9.4%) individuals were identified as HIV-infected. Among 720 (57.9%) accepting phlebotomy, the median CD4 count was 424 (IQR 270–583); 447 (62%) qualified for antiretroviral therapy (ART). A substantial proportion of participants (4510, 39.4%) reported first-time HIV testing. Preliminary analysis identifies correlates of HIV-positive test result including young age ($p < 0.001$), contact with a TB patient ($p < 0.001$), chronic diarrhoea ($p < 0.001$), recurrent pneumonia ($p < 0.001$) and type of community site of HIV testing ($p < 0.001$). Taxi ranks yielded the greatest proportion of community members (176/1123, 15.7%) with HIV-positive test result. Among all HIV-positive men, the greatest proportion (74, 25%) was identified at municipality events.

Conclusions: Community members accept HIV testing outside of health care facilities and by non-clinical personnel. Utilizing a variety of community testing sites reaches different demographic groups, including high-priority young men and women. CBVCT can detect a large number of HIV infected individuals, the majority of whom are eligible for ART. Scale-up of CBVCT may provide needed increase in levels of HIV awareness, testing and diagnoses in rural areas.

FRAC0104

Promoting male partner and couples HIV testing through secondary distribution HIV self-tests: a randomized trial

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Introduction: There is a vital need to achieve higher uptake of HIV testing among men and couples in sub-Saharan Africa. Providing multiple HIV self-tests to individuals for distribution to their sexual partners, that is, “secondary distribution,” is a promising strategy with potential to increase awareness of HIV status. This strategy may be particularly useful for promoting male partner testing and couples testing in antenatal and postpartum settings.

Methods: We conducted a randomized trial at three clinics in Kisumu, Kenya (NCT02386215). Women seeking antenatal and postpartum care, aged 18–39 years, and reporting their primary partner was not known to be HIV-infected, were randomized to an HIV self-testing (HIVST) group or a comparison group. In the HIVST group, women were provided two OraQuick self-tests, a demonstration and instructions on how to use the self-tests, and encouragement to distribute a self-test to their partner. In the comparison group, women were provided invitation cards for their partner to seek counsellor-administered HIV testing at the clinics. Follow-up interviews were conducted with women after they reported their partner had tested, and all women were interviewed at 3 months. The primary outcome was HIV testing by the male partner within 3 months, and the secondary outcome was couples testing within 3 months. Chi-squared tests were used to compare outcomes in the intervention and comparison group.

Results: Between June 11, 2015 and October 16, 2015, 600 women were randomly assigned to the HIVST group ($n = 297$) or the control group ($n = 303$). Follow-up was completed for 570 (95.0%) women. Male partner testing uptake was 90.5% (257/284) in the HIVST group and 51.7% (148/286) in the comparison group (difference = 38.7%, 95% CI: 31.9–45.5%, $p < 0.001$). Couples testing was also significantly higher in the HIVST group than the comparison group (75.0% vs. 33.2%, difference = 41.7%, 95% CI: 34.3–49.2%, $p < 0.001$). One adverse event was reported in the HIVST group, and none were reported in the comparison group.

Conclusions: Secondary distribution of HIV self-tests by pregnant and postpartum women was highly effective in promoting male partner and couples testing. As countries scale-up HIVST, further implementation of secondary distribution interventions can help increase HIV testing uptake among hard-to-reach populations.

FRAC0105LB

The impact of universal test and treat on HIV incidence in a rural South African population: ANRS 12249 TasP trial, 2012–2016

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Introduction: The population impact of universal test and treat (UTT) on HIV transmission has not yet been evaluated.

Methods: A cluster-randomized trial was implemented in 2 × 11 rural communities in KwaZulu-Natal, South Africa. All residents ≥ 16 years were offered rapid HIV testing and provided dried blood spots (DBS) during 6-monthly home-based survey rounds. HIV-positive participants were referred to cluster-based trial clinics to receive ART regardless of CD4 count (intervention arm) or according to national guidelines (control arm). Standard of care ART was also available in the Department of Health clinics. HIV incidence was estimated on repeat DBS using cluster-adjusted Poisson regression.

Results: Between 03/2012 and 04/2016, 13,239 and 14,916 individuals (63% women, median age 30 years) were registered in the intervention and control arms. Contact frequency per round among registered individuals ranged from 64 to 83%, HIV ascertainment from 74 to 85%. Baseline HIV prevalence was 29.4% (95% CI: 28.8–30.0), with 7578 individuals identified as HIV-positive. 1,513 (36%) of 4172 HIV-positive individuals not previously in care linked to trial clinics within 6 months of referral. ART initiation in trial clinics at 3 months was 90.9% (576/634) and 52.3% (332/635) in the intervention and control arms; viral suppression (<400 copies/mL) 12 months after ART initiation was 94.9% (300/316) and 94.2% (194/206), respectively. Overall ART coverage at entry was 31% and 36% in the intervention and control arms, reaching 41% in both arms by closing date. Repeat DBS tests were available for 13,693 individuals HIV-negative at baseline, yielding 461 seroconversions in 20,833 person-years (PY). HIV incidence was 2.16 per 100 PY (1.88–2.45) in the intervention arm and 2.26 (1.98–2.54) in the control arm (adjusted relative risk: 0.95 (0.82–1.10)). Severe adverse events rates were 3.4% (45/1323) and 3.5% (57/1604) in the intervention and control arms. Follow-up will be completed by 06/2016.

Conclusions: Our trial shows high acceptance of home-based HIV testing and high levels of viral suppression among individuals on ART. However, overall linkage to care remains poor. No reduction in HIV incidence was demonstrated. Several factors are being investigated, including determinants of poor linkage, change in national ART guidelines, migration and geography of sexual networks.

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FRAD0101

“One shouldn’t convict people for hypothetical risks”: frustratingly slow incorporation of the prevention impact of antiretroviral therapy into criminal law and policy

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Introduction: The prevention impact of antiretroviral therapy (ART) is now established as a key component of the HIV response. But despite this remarkable scientific advancement, many people living with HIV around the world remain vulnerable to the risk of unjust prosecutions for alleged HIV non-disclosure, potential or perceived exposure or non-intentional transmission because up-to-date science on HIV risk has not been recognized in criminal law and policy.

Description: We undertook a desk review of criminal proceedings, policy documents and newspaper reports collated on the HIV Justice Network website to better understand the implications of increased knowledge and awareness of the prevention benefit of ART as they relate to HIV non-disclosure, exposure and/or transmission laws, policies and prosecutions.

Lessons learned: Despite recognition by WHO and other normative agencies of the impact of ART on the risks of HIV transmission, criminal justice actors and lawmakers have been frustratingly slow to incorporate up-to-date HIV science into criminal law and policy. The key component of recognizing the prevention impact of ART on HIV risk has been collaboration between scientists, clinicians, lawyers and advocates. This is as true in the Netherlands, the first country to consider low viral load as a factor in assessing HIV risk in 2005, as it has been in, for example, the United States Court of Appeals for the Armed Forces (2015) and the Czech Republic (2015). Without this co-ordinated effort higher courts and lawmakers generally ignore up-to-date science even if lower courts occasionally make more rational, informed decisions, for example, in Austria, Canada and Germany.

Conclusions/Next steps: It is vitally important that criminal justice system actors and law- and policymakers are educated so that HIV-related criminal laws and policies are applied rationally and fairly. Scientists and clinicians must, therefore, work more closely with HIV and human rights activists, advocates and lawyers in jurisdictions where the prevention impact of ART is not currently legally recognized, in order to prevent miscarriages of justice and to ensure that the prevention benefit of ART is correctly understood by criminal justice actors, policymakers, and the media as well people living with HIV and people likely to make a criminal complaint.

FRAD0102

Inconsistencies in legal frameworks on adolescent HIV and sexual and reproductive health services in five southern African countries

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Introduction: While specific disaggregated HIV prevalence data for adolescents (aged 12–18) does not exist, young people (aged 15–24) account for 39% of all HIV infections globally, most of which occur in Sub-Saharan Africa (SSA). Conflicting laws surrounding the age of consent, sexual activity between adolescents and mandatory reporting – which in some instances criminalize certain sexual activities between adolescents – have a deleterious impact on the extent to which adolescents can access and, by extension, receive