

**Background** Male circumcision can protect against sexually transmitted infections, HIV, and urinary tract infections. The procedure is easier to perform during the neonatal period (< 28 days), with fewer complications and rarely requiring general anaesthesia. Few studies have estimated the number of circumcisions, or indications for the procedure, in the post-neonatal period (ages 1–18 years). Our objective was to compare these for neonatal and post-neonatal circumcisions.

**Methods** We analysed MarketScan data, a database of billing claims from commercial health plans. We used circumcision procedural codes to identify all circumcisions in 2010, including neonatal circumcisions of males born to women enrolled in the health plans, and circumcisions of males aged 1–18 years. We assessed reasons for circumcision using diagnostic codes, and stratified the number of circumcisions and associated diagnosis by age. We estimated the neonatal circumcision rate.

**Results** Overall, 120,994 circumcisions were performed in 2010, with 113,740 (94%) in neonates and 7,254 (6.0%) in post-neonates. Among post-neonatal circumcisions, 67% were performed for boys < 3 years of age and of these 28% were elective. In contrast, among males 3 years and older, only 8% were elective. The neonatal circumcision rate was 113,740/182,503 (62%), and 92% were elective. Among 16,457 non-elective circumcisions for both neonates and post-neonates, the most frequent indications were phimosis (92%), balanitis (3%), hidden penis (2%), chordee (2%), and hypospadias (2%).

**Conclusion** Most post-neonatal circumcisions were performed among males < 3 years, and were 8.6 times higher than circumcisions among males 3 years and older. The large number of elective post-neonatal circumcisions in males < 3 years suggest that neonatal circumcision might be a missed opportunity for these boys. Delaying elective circumcision results in greater risk for the child, and a more costly procedure. Discussions with parents early in pregnancy might help them make an informed decision about circumcision of their child.

### P3.383 MAPPING AND SIZE ESTIMATION OF VULNERABLE YOUTH IN THE WESTERN PROVINCE, SRI LANKA

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**Background** All youth in Sri Lanka are not at risk of HIV/AIDS. However, certain socio-economic and behaviour factors are present among youth which make them vulnerable. There are subsets of especially vulnerable youth (EVY) and most-at-risk youth who need to be identified for targeted interventions. Identification of types of subsets and size are essential for interventions. The Objective of this is to identify the subsets of EVY and estimate the size according to the geographical area in the Western Province,

**Method** Groups of EVY in the western province were identified using participatory approach with broad based consultation of various stakeholders in the public, private and civil society organisation including youth organisations.

Geographic mapping and size estimation was done using the participatory method in group consensus with the key partners. Previous studies, ad hoc surveys, programmatic data from the various organisations including census and statistic data, and experience of the participants were used.

Series of mapping workshops conducted to finalise the locations and size of the population groups identified as EVY. This was done interactively within each group of experts assigned to each study zone. Locations were marked as a point layer manually on Topographic maps. Each point was assigned a definite number relevant to the size.

**Results** Ten number groups of EVY were identified with total of 47,285 in the Western Province. Final results were generated by using the topographic maps of the Western Province. These maps were then scrutinised carefully in a systematic way to read the locations and the number of the population group marked by group ID. Different point layers for each identified EVY was created on digital topographic maps.

**Conclusion** Ten groups of EVY were identified according to the size and geographical areas. These data will be using future HIV prevention interventions with different approaches.

### P3.384 ESTIMATING THE IMPACT OF COMBINED PREVENTION INTERVENTIONS TARGETING 15–24 YEARS-OLD MEN AND WOMEN IN NYANZA, KENYA

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**Background** Young males (YMs) and especially young females (YFs) (age 15–24) in sub-Saharan Africa are at a higher risk of HIV infection compared to older adults. HIV testing of young individuals facilitates early identification of their 'HIV+' status, prompt ART initiation, and provision of male circumcision and PrEP. We hypothesise that youth-prioritised combination interventions could have substantial impact on HIV incidence among them and the wider adult population.

**Methods** We constructed a mathematical model that represented HIV heterosexual transmission in Nyanza, Kenya and used local data to specify cross-generational sex, risk- and age-dependent behaviours, and school attendance. We estimated the impact of leveraging HIV testing and counselling for condom use among Nyanza youth, prompt ART initiation (at CD4 ≤ 350 cells/mm<sup>3</sup>) for those newly-found infected, and gender-specific interventions for YMs and YFs. The former reaching 80% circumcision among 'HIV-' YMs while the later reaching 40% PrEP coverage among 'HIV-' YFs not attending school and halving the proportion of partnerships that YFs attending school form with 20+ years-old men.

**Results** We predict a reduction in HIV incidence over 10 years among youth by 38% (from 1.6%/person-years) and adults by 29% (from 1.2%/person-years), if the annual testing likelihood for youth increases to 90% with those newly-found infected increasing condom use by 30% and initiating ART promptly. The adult incidence is reduced 34% and 35% by further male and female specific interventions when applied separately. The full package with all interventions combined would decrease incidence among youth and adults by 59% and 40%, respectively, and reduce the lifetime HIV risk experienced by YFs by 24%.

**Conclusion** In populations where young people are at the highest risk of HIV infection, carefully prioritised, gender-specific intervention can have a substantial impact on the risk of infection, both in that group and the overall population.

### P3.385 COMPARATIVE EXPERIENCE AND OUTCOMES OF CLINIC STAFF VERSUS INTENSIVE RESEARCHER LED RECRUITMENT TO A SEXUAL HEALTH INTERVENTION IN UK PRIMARY CARE

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**Background** As part of a national randomised controlled trial, we attempted to recruit young people for Chlamydia testing and

partner notification interventions in UK general practises (primary care clinics). Practices were paid for recruitment which was managed by clinic staff. Despite training, there were barriers to testing and recruitment: staff experienced competing priorities, were reluctant to mention testing, perceived that STIs were uncommon in their population, and believed that few young people attended the clinic. We aimed to assess the effect of intensive researcher led recruitment on testing rates and compare with prior optimised recruitment by clinic staff.

**Methods** Ten general practises in North and South East England agreed to participate. We trained research staff on recruitment processes and allocated a researcher to each general practise. The researcher approached potentially eligible young people in the waiting room for a three week period and offered Chlamydia testing and trial enrolment. We compared testing and recruitment rates with those achieved by clinic staff over a period of 3 months.

**Results** 1145 16–25 year olds were approached in the 10 practises during intensive recruitment periods, of whom 43% consented and tested. Of refusals, 37% had tested elsewhere. Most practises achieved 45–50 tests per 3 week period, compared with 3–4 per month during 3 months of optimised clinic staff recruitment.

**Conclusion** External researcher led intensive recruitment increased testing levels substantially and should be considered as an alternative to clinic staff enrolment in primary care. Even if enrolment targets are met, the impact of sexual health interventions in primary care will be limited unless barriers to engagement in sexual health are overcome.

### P3.386 PREVENTION WITH POSITIVES IN NIGERIA: WHAT HAVE WE LEARNT

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**Background** The introduction of care and treatment at the service delivery points at the community and the clinical settings- hospital facilities for prevention with positives have giving the HIV/AIDS, STIs, TB management high quality significant improvement in the first eight months of implementation in Nigeria.

**Methods** Association of Positive youth in Nigeria is a national non governmental organisation in Nigeria, involved in HIV prevention, care and support. APYIN started implementing HIV prevention strategies in 2009 with a focus on involving HIV- positive people in prevention. The strategies included: counselling on prevention of HIV to positive persons this involved discussion of behavioural intervention in medical and counselling visits. Promoting the use and provision of condoms to sexually active HIV-positive individuals, promoting adherence to antiretroviral drugs by counselling, use of pills boxes and medicine companions.

Encouraging HIV- positive persons to disclose HIV status to sex partners either by self or counsellor mediated during targeting partners and children born to all people living with HIV/AIDS.

**Results** Most of the persons living HIV realise that they have a role to play in prevention of HIV. There is 8.5% increase in the uptake of condoms by HIV-positive persons between the year 2008 and 2009. Antiretroviral therapy adherence levels of 92% of the clients on ART with adherence > 95%. In the same period there is an increase of 50% of HIV- positive individuals disclosing HIV status to partners. Community awareness of HIV has increased in the area serviced by the organisation.

**Conclusion** Increase collaboration between the clinical and community base interventions; regular monitoring of the community response for improvement. The capacity building of community staff. HIV positive persons are very important partners in HIV prevention. Therefore their involvement should be prioritised.

### P3.387 PREVALENCE AND PREDICTORS OF RAPE PERPETRATION AMONG MALE SECONDARY SCHOOL STUDENTS IN PERI-URBAN XHOSA COMMUNITIES IN SOUTH AFRICA

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**Background** A 2009 survey of adult men in South Africa found that 27.6% reported ever having perpetrated rape. The majority reported first perpetrating rape before age 20. Intimate-partner violence and rape are associated with HIV. We assessed the prevalence and predictors of reported rape perpetration among in-school, adolescent males at baseline of a cluster-randomised trial.

**Methods** Grade-nine males at 46 secondary schools in Cape Town and Port Elizabeth townships completed a confidential, self-administered questionnaire on touchscreen mobile phones. The questionnaire assessed structural/demographic, psychosocial, lifestyle, and behavioural/relationship factors, and reported rape perpetration. Multiple logistic regression models were used to identify factors associated with reported rape perpetration, adjusting for school-level clustering and more distal variables in the conceptual framework.

**Results** A total of 1991 boys were enrolled (median age 16 years, 95.6% Xhosa-speaking). Of these, 342 (17.2%) reported ever having perpetrated rape. Factors associated with reported rape perpetration were older age (AOR = 1.14, 95% CI = 1.01–1.29), having a father with no secondary education (AOR = 1.42, 95% CI = 1.01–1.99), living with one's father (AOR = 1.37, 95% CI = 1.01–1.86), having been traditionally circumcised (AOR = 2.22, 95% CI = 1.21–4.09), male-dominant gender norms (OR = 1.33, 95% CI = 1.05–1.68), harmful alcohol use (AOR = 2.02, 95% CI = 1.41–2.90), having had sex while drunk in the last year (OR = 1.86, 95% CI = 1.26–2.76), and having ever perpetrated physical violence against a partner (OR = 2.80, 95% CI = 1.93–4.07). Rape perpetration was also associated with low self-efficacy to prevent HIV (OR = 2.52, 95% CI = 1.77–3.57), more stigmatising attitudes towards people living with HIV (AOR = 1.44, 95% CI = 1.17–1.78), having had partner 5+ years younger in the last year (OR = 2.10, 95% CI = 1.24–3.55), self-reporting having been tricked or raped during one's first sex (AOR = 1.91, 95% CI = 1.10–3.32), and depressive symptoms (OR = 2.91, 95% CI = 2.09–4.05).

**Conclusion** Rape perpetration is prevalent among school-going adolescent males. Development and evaluation of interventions addressing stereotypical/traditional masculine norms and behaviours and relevant structural/psychosocial factors is paramount in reducing rape perpetration. Further research should investigate the potential association between traditional Xhosa circumcision and rape perpetration.

### P3.388 SEXUAL VIOLENCE AND HIV/STIS IN GIRLS AND YOUNG WOMEN: TRENDS AND ASSOCIATION IN SOUTH WESTERN, NIGERIA

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Sexual violence put girls and young women at risk of long-lasting consequences in their reproductive health. The study focused on the trend of sexual violence and its' association with STIs/HIV amongst girls and young women in Western, Nigeria.

Data was obtained from in and out school girls and young women aged one to twenty eight years, using a cross sectional study design. Four hundred respondents were randomly selected and individually interviewed using a structured administered questionnaire which examined demographics, types of sexual violence, cases