

Results Among 6318 females recorded as testing negative for CT/NG, 24% had an annual test (highest in 16–19 year olds at 26%), compared with 15% of 4241 males (highest in 20–24 year olds at 19%). Factors independently and significantly ($p < 0.05$) associated with annual testing were female gender (adjusted odds ratio (AOR): 1.7, 95% CI: 1.5–1.9), age 20–24 years (AOR:1.5, 95% CI: 1.2–1.9), services with > 90% of clients

Aboriginal (AOR:1.4.95% CI: 1.2–1.6), services having an electronic medical record system (AOR:1.7.95% CI: 1.4–2.1), services using a centralised recall system (AOR:1.3.95% CI: 1.1–1.6), services being community controlled (health centre governance controlled by a local Aboriginal board) (AOR:1.4, 95% CI: 1.2–1.6) and Aboriginal health worker/s employed (AOR1.4.95% CI: 1.0–1.9).

Conclusions Our analysis identified both client and service related factors associated with higher levels of annual testing. Having Aboriginal staff members and systems which support patient recall were key factors identified for services that are amenable to change. While some factors may be indirect markers of other characteristics of the health centres or clients, these findings will help guide support to services in remote areas.

P5.008 PERFORMANCE OF ANTENATAL SCREENING FOR HIV AND SYPHILIS IN EU/EEA, DURING 2006–2011: MAKING USE OF SURVEILLANCE DATA

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Introduction Although majority of countries in the European Union (EU/EEA) offer antenatal screening for HIV and syphilis, mother-to-child transmission (MTCT) is still occurring. We aim to analyse the performance and effectiveness of antenatal screening programmes to strengthen these programmes across the EU/EEA.

Methods Surveillance for HIV and syphilis, including congenital syphilis (CS), in EU/EEA is coordinated by the European Centre for Disease Prevention and Control. Data reported by Member States covering the period 2006–2011 were analysed. Information on

country of birth and probable country of infection were used to identify where HIV transmission might have occurred. Rates of HIV and CS per 100,000 live births as well as rates of HIV and syphilis among women of reproductive age (15–49 years) were used to compare mother-to-child transmission across the EU/EEA.

Results In 2006–2011, 592 cases of HIV-MTCT and 566 CS were reported (rate: 1.8/100000 population and 2.0/100000 respectively). 41393 cases of HIV infection and 18750 cases of syphilis were reported in women of reproductive age (rates: 5.7/100000 and 3.1/100000, respectively). Cases of HIV-MTCT and CS were reported by 20 and 16 countries respectively. Rates ranged between 0.2 and 21.8 for HIV and 0.1 and 39.8 for CS. Rates of HIV-MTCT and HIV in women of reproductive age were higher than the EU/EEA average in France, Latvia, Portugal and the UK. Similarly, rates of CS and syphilis were higher than the EU/EEA average in Bulgaria, Latvia, Romania, Lithuania and Slovakia.

Conclusions Surveillance data suggest an unequal performance across EU/EEA in preventing mother-to-child transmission of HIV and syphilis. Understanding of the epidemiological determinants at national level, identification of pregnant women with high HIV and syphilis burden and barriers for access to antenatal care, will inform revision of antenatal screening practices and will allow strengthening of prevention interventions towards key populations.

P5.009 PERFORMANCE OF CERVICAL CANCER SCREENING TESTS IN HIV POSITIVE WOMEN IN AFRICA: INFLUENCE OF CD4 COUNTS

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Background To evaluate strategies for cervical cancer screening among HIV-positive African women, against histological CIN endpoints.

Abstract P5.009 Table 1 Prevalence of CIN2+, and performance of screening tests singly or in combination by CD4+ count among HIV-positive women in Burkina Faso and South Africa

	CD4 < 200 cells/μL	CD4 200–349 cells/μL	CD4 ≥ 350 cells/μL	P-value for trend
CIN2+ prevalence				
Burkina Faso (N = 511 evaluated women)	7/54 (13%)	4/102 (4%)	19/355 (5%)	P = 0.09
South Africa (N = 438 evaluated women)	21/44 (48%)	35/101 (35%)	69/293 (24%)	P < 0.001
Sensitivity to detect CIN2+ (N = 155)				
HR-HPV	100%	94%	85%	P = 0.07
Cytology (LSIL)	92%	94%	94%	P = 0.81
Cytology (HSIL)	80%	72%	57%	P = 0.03
VIA/VILI	68%	64%	58%	P = 0.32
HPV + Cytology	100%	100%	98%	P = 1.00
HPV + VIA/VILI	100%	100%	93%	P = 1.00
Cytology + VIA/VILI	96%	97%	96%	P = 0.99
Specificity to detect CIN2+ (N = 155)				
HR-HPV	36%	47%	63%	P < 0.001
Cytology (LSIL)	49%	50%	56%	P = 0.13
Cytology (HSIL)	87%	90%	91%	P = 0.30
VIA/VILI	77%	74%	74%	P = 0.72
HPV + Cytology (HSIL)	29%	32%	41%	P = 0.02
HPV + VIA/VILI	30%	38%	49%	P = 0.002
Cytology (HSIL) + VIA/VILI	42%	42%	47%	P = 0.28

Methods The HARP study enrolled HIV-positive women aged 25–50 in Burkina Faso (BF) and South Africa (SA). A stratified sampling strategy was used, with 2/3 of women on ART. Three cervical cancer screening methods were evaluated; (1) visual inspection (VIA/VILI); (2) high-risk HPV DNA (HC-2); (3) conventional cytology. Four-quadrant cervical biopsies were obtained among women with abnormalities detected by at least one test or by colposcopy.

Results 1252 women were enrolled (628 in BF; 624 in SA). The distribution of CD4 count (cells/ μ L) was similar in both sites: 68% with CD4+ \geq 350 and 10% with CD4 < 200. Prevalence of high risk (HR)-HPV was 43% in BF and 61% in SA, and decreased with increasing CD4+ count (P-trend < 0.001). VIA/VILI positivity was 24% in BF and 41% in SA (P < 0.001) but did not vary by CD4 count (P-trend = 0.30). Prevalence of abnormal cytology (\geq LSIL & \geq HSIL) was higher in SA (89% & 30%) than in BF (24% & 5%). 62% and 97% women were biopsied in BF and SA respectively, with CIN2+ prevalence of 6% and 29%, respectively (155 of 949 evaluated women thus far). CIN2+ prevalence decreased with increasing CD4+ (Table). Sensitivity of the single screening methods to detect CIN-2 decreased with increasing CD4+ count, whilst specificity tended to increase with increased CD4+ count (Table). Overall, HR-HPV DNA was the most sensitive test (94%) and HSIL+ cytology the most specific (90%). Further analyses with combination of tests did not show much improvement on performance.

Conclusions Cervical cancer screening tests among HIV-positive women are most sensitive among women with CD4+ count below 200 cells/ μ L. Screening strategies may vary according to CD4+ count but this will need to be evaluated prospectively.

P5.010 PREVALENCE AND PREDICTORS OF A POSITIVE CERVICAL CANCER SCREENING TEST IN A SEXUALLY TRANSMITTED INFECTION CLINIC IN LILONGWE, MALAWI

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Background In Malawi, cervical cancer is the most common cancer among females and a leading cause of cancer-related mortality. Cervical cancer can be averted if pre-cancerous lesions are detected early and treated. Visual Inspection with Acetic Acid (VIA) is an effective screening method for preventing cervical cancer and is sustainable in resource-limited settings. We assessed prevalence and predictors of a positive VIA following its introduction in a sexually transmitted infection (STI) clinic in Lilongwe, Malawi.

Methods From October 2012 to January 2013 all females 25–45 years and females < 25 years at clinician discretion received VIA screening at the Kamuzu Central Hospital STI Clinic. We calculated the prevalence of a positive VIA result and used logistic regression to identify predictors of a positive result.

Results During this 3.5-month period, 86 women had VIA screening results. Median age was 29, 77% were married, 43% had at least some secondary education. Forty three percent were HIV-infected and 63% had an STI using Malawi's syndromic management algorithm. Nineteen percent were VIA-positive, 79% VIA-negative, and 2% VIA-uncertain. The prevalence of a VIA-positive result was 7% in HIV-uninfected women and 33% in HIV-infected women. Factors significantly associated with a positive VIA result were HIV infection (OR: 6.1, 95% CI: 1.5, 24.4) and pain during intercourse (OR: 4.5, 95% CI: 1.2, 16.1). Genital warts (OR: 2.4, 95% CI: 0.5, 10.8) and genital ulcers (OR: 3.1, 95% CI: 0.5, 20.3) were associated with an increased odds of being VIA-positive, though this trend was not statistically significant.

Conclusions The prevalence of an abnormal VIA was high among Malawian women attending an STI clinic, especially for those with HIV. To prevent cervical cancer mortality, further expansion of VIA screening is needed in Malawi for women at high risk.

P5.011 ARE AUSTRALIAN GENERAL PRACTITIONERS (GPs) AND PRACTISE NURSES (PNs) EQUIPPED FOR INCREASED CHLAMYDIA TESTING? FINDINGS FROM THE AUSTRALIAN CHLAMYDIA CONTROL EFFECTIVENESS PILOT (ACCEPT)

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Background ACCEPt, a large cluster randomised control trial, aims to determine if annual testing for 16 to 29 year olds in general practise can reduce chlamydia prevalence. ACCEPt is also the first trial investigating the potential role of the PN in chlamydia testing. To inform the intervention, GPs' and PNs' chlamydia knowledge and practises were explored.

Methods GPs and PNs from 143 clinics were recruited from 54 postcodes in 4 Australian States and asked to complete a survey at time of recruitment. Survey responses were compared using conditional logistic regression to account for GPs and PNs from the same clinics participating.

Results Of 607 GPs and 126 PNs enrolled in ACCEPt, 86% and 78% completed the questionnaire, respectively. A third of GPs (32%) compared to 23% of PNs (P = 0.076) correctly identified the two age groups with the highest infection rates in women and only 17% vs 16% (P = 0.942) identified the correct age groups in men. Fewer GPs than PNs would offer testing opportunistically to asymptomatic young patients, including women having a Pap smear (55% vs. 84%, P = < 0.001); antenatal checkup (44% vs. 83%, P = < 0.001) and Aboriginal men with a sore throat (33% vs. 79%, P = < 0.001). Fewer GPs than PNs knew that retesting was recommended after chlamydia treatment (87% vs. 93%, P = 0.027); and that the recommended timeframe for retesting was 3 months (26% vs 66%, P = < 0.001). Under half of PNs (41%) reported involvement in chlamydia testing, with 79% wanting greater involvement and 87% wanting further training.

Conclusion Our survey reveals more gaps in chlamydia knowledge and management among GPs than PNs, which may be contributing to low testing rates in general practise. PNs have a role in increasing chlamydia testing.

P5.012 IS THE STAGE OF THE MENSTRUAL CYCLE RELATED TO CHLAMYDIA DETECTION?

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Background We investigated the association between chlamydia detection and stage in the menstrual cycle to investigate whether chlamydia detection was higher at different stages of the cycle.

Methods Electronic medical records for women attending Melbourne Sexual Health Centre March 2011 – 31st December 2012, who were tested for chlamydia by nucleic acid amplification of high vaginal, cervical, or urinary samples, and who recorded a date of Last Normal Menstrual Period (LNMP) between 0–28 days were