3% to 100%. The mean percentage of females screened over the 5 years was 57%. In 2009, the mean chlamydia positivity for all Project Areas was 13.8%. For facilities (n=69) that screened at least 100 females in 2009, the mean chlamydia positivity detected was 13.7%, with a median of 12.6% and positivity ranging from 6 to 31%. Almost half (48%) of the Project Areas reported from 49 facilities for all 10 reporting periods across the 5-year period. The percentage screened in these 49 facilities increased 59, 64, 66, 69 and 69% from 2005 to 2009. The mean per cent positivity for these facilities in 2009 was 12.5%.

Conclusions Juvenile Detention Centers are excellent venues from which to detect chlamydia infections in adolescent females. Additional efforts are needed to increase the number of facilities that routinely offer screening and increase the proportion screened.

P5-S7.03 **SYPHILIS SCREENING FOR HIGH-RISK GROUPS IN A LARGE-SCALE HIV PREVENTION PROGRAM IN INDIA: UPTAKE AND TRENDS**

[1]M Parthasarathy, [1]N Potty, [1]A Gurung, [1]A Das, [2]P Parimi. [1]Family Health International, Chennai, India; [2]Alliance, Hyderabad, India

Background Avahan, a large-scale HIV prevention program in India, provides syphilis screening as a part of its service package for high-risk groups (HRGs) including female sex workers, men who have sex with men (MSM) and injecting drug users through its targeted intervention clinics. The objective of this retrospective study was to understand the uptake and trends in reactivity patterns of syphilis screening tests at Avahan clinics from 2005 to 2009.
Methods Syphilis screening was done with either Rapid Plasma Reagin (RPR test, provided on-site or through referrals to local laboratories) or a point-of-care immunochromatographic strip test (ICST) using whole blood. ICST was introduced to the program in 2007. The clinical records of the HRGs attending Avahan clinics in six high HIV prevalence states in India from January 2005 to December 2009 were collated in an "individual tracking sheet" database and analysed with STATA software version 10.
Results The overall proportion of clinic attendees screened for syphilis increased consistently during the study period from 2.6% in 2005 to 21% in 2009. The increasing trend in uptake and actual proportions were similar in all risk groups. The use of ICST as a screening test increased from 8% in 2007 to 70% in 2009 thus becoming the predominant screening method. During this period, the uptake of syphilis screening also increased from 9% in 2007 to 21% in 2009 see Abstract P5-S7.03 table 1. A declining trend was found with the overall syphilis sero-reactivity rates (ICST and RPR), from 7% in 2006 to 4% in 2009 and this decreasing trend was found in all risk groups. The proportion of active high-titre syphilis (>1:8) to all reactive RPR tests (any titre) declined from 61% in 2005 to 30% in 2009.
Conclusions The improved uptake of syphilis screening has lead to improved detection and appropriate management of cases of latent syphilis. The results show that introduction of rapid point-of-care tests likely contributed to the improved uptake of syphilis screening.

Abstract P5-S7.03 Table 1 Uptake of syphilis screening by RPR and ICST

Year	Total individuals attending clinics	# Screened for syphilis (%)	Proportion screened with RPR (%)	Proportion screened with ICST (%)
2005	43 394	1112 (2.6%)	100	0
2006	108 836	5700 (5.2%)	100	0
2007	169 612	15 179 (8.9%)	91.8	8.2
2008	220 877	28 502 (12.9%)	60.1	39.9
2009	286 991	60 412 (21.1%)	30.8	69.2

Rapid tests may be considered for syphilis screening at other resource-constrained primary care sites in India such as targeted intervention and ante-natal clinics.

P5-S7.04 **WHO PARTICIPATES IN THE DUTCH CHLAMYDIA SCREENING? A STUDY ON DEMOGRAPHIC AND BEHAVIOURAL CORRELATES OF (REPEATED) PARTICIPATION AND POSITIVITY**

[1]E O de Coul, [2]H Götz, [3]J Van Bergen, [4]E Brouwers, [5]H Fennema, [4]C Hoebe, [5]R Koekenbier, [2]S van Ravesteijn, [3]L Pars, [1]I van den Broek. [1]RIVM, Bilthoven, Netherlands; [2]GGD Rotterdam-Rijnmond, Netherlands; [3]SOA AIDS Nederland, Netherlands; [4]GGD Oosterlijk Zuid-Limburg, Netherlands; [5]GGD Amsterdam, Netherlands

Background Achieving adequate levels of participation and capturing high risk groups are key stones for the effectiveness of large-scale Chlamydia screening programs. We examined the determinants of (repeated) participation and Chlamydia positivity to evaluate to what extent high risk groups were reached in a large scale Internet-based screening program in the Netherlands.
Methods The Chlamydia Screening Implementation was initiated in three regions among people aged 16—29 years. Data from the first two screening rounds (2008—2010), in which approximately 280 000 persons were invited annually, were analysed. Socio-demographic and behavioural correlates of screening participation and positivity were studied in multilevel logistic regression models. Cluster was added as a second level of analysis, taking into account the effect of the neighbourhood-based invitations (to cover social or sexual networks).
Results The same socio-demographic factors associated with lower screening uptake were also associated with higher Ct-positivity such as young age, non-Dutch origin, lower education, high community risk, low SES, in round 1 as well as 2. At the same time, behavioural risk factors such as having casual partners, ≥2 partners in <6 months, concurrent partners, and a history of STI, were associated with higher participation. A small cluster effect for screening uptake was observed, independent from community risk and individual risk factors. The model for repeated participation showed that men, Turkish/Moroccans and persons ≤20 years were less likely to participate twice, while people having a short-term relationship, a non-Dutch partner or concurrent partners were more likely to participate again. Ct-positives, who did not participate in the rescreening after 6 months, were also less likely to participate in the second screening round.
Conclusions Socio-demographic factors associated with lower participation were also associated with higher Ct-positivity, showing that, high-risk demographic groups were more difficult to mobilise than low-risk groups. However, independent of this, higher behavioural risk levels were associated with higher participation rates (especially in the model for repeated participation), suggesting self-selection for screening based on the persons' risk (perception) in both low and high community risk groups. Our study shows the complexity of the process—including individual as well as community factors and their interaction—as to whether or not be screened for chlamydia.

P5-S7.05 **CHLAMYDIA SCREENING IN AN INTERNATIONAL RESORT COMMUNITY: AN OUTREACH PROGRAM TO EXPAND ACCESS**

[1]M Collins, [2]R Holehouse, [1]J Kaczorowski. [1]University of British Columbia, Whistler, Canada; [2]Options for Sexual Health BC, Canada

Objective To evaluate an event-based outreach Chlamydia (CT) screening program pilot developed to address barriers to access in a

resort community with an international, transient and disproportionally large young adult population. A local sexual health clinic operates at capacity. There is no provincial or national outreach CT screening campaign.

Methods Series of 15 outreach CT screening sessions, each 2–3 h duration, held in Whistler, BC, Canada in 2009 & 2010. Sessions were held at resort staff-housing dinners, staff-housing lounge, entertainment, educational and sport events. Men and women <30 years were offered free CT nucleic acid amplification tests on urine. Positive cases were notified, with treatment and partner notification per standard of care. Primary outcome measures were age, gender and infection rates of outreach participants compared to <30 age cohort tested for CT at the sexual health clinic during same calendar years. Anonymous, post-test survey queried interval since last CT test, intention to test, health insurance, and satisfaction with the outreach experience. Unpaired t test & χ^2 analysis.

Results 112 tests for CT were obtained through outreach; 87.5% response rate to post-test survey. Mean outreach age of 23.3 years was 14.4 months younger than comparison age cohort tested at clinic (p=0.0001). Males were tested at outreach in greater proportion than at clinic (57.1% vs 46.5%, p=0.04). Proportion of asymptomatic cases was greater at outreach than clinic (90% vs 46.6%, p=0.01), yet positive test rates at outreach (8.9%, 10/112) and clinic (8.5%, 58/686) were comparable (p=0.87). On survey, 43.9% had never previously tested for CT, 53.7% were not already considering a test, 61.7% would not have gone for a test within the next 2 months. Only 27.6% had Canadian health insurance. 93.9% were satisfied or very satisfied with CT screening in an outreach setting.

Conclusions Intermittent, free, event-based outreach CT screening was operationally feasible, effective at increasing case detection, and highly acceptable to participants. Outreach attracted a younger age and more men than clinic. A large proportion of participants were first-time testers, over half were without prior intent to test or likelihood to test in near future, and most would have had to pay up-front for CT testing in a clinic setting. This study demonstrates both need and benefit of expanded CT screening efforts in the international resort setting.

[1]B Schmid, [1]E Over, [1]I van den Broek, [1]E O de Coul, [2]J van Bergen, [3]CSI Group, [1]M Kretzschmar, [1]A de Wit. [1]RIVM, Bilthoven, Netherlands; [2]Soa Aids Nederland, Netherlands; [3]CSI Group, Netherlands

Background Chlamydia trachomatis is the most common sexually transmitted infection in western countries. Most infections are asymptomatic and may cause severe complications. In the Netherlands, 3 years of Chlamydia screening implementation (CSI) have been performed. Here, we model its cost-effectiveness after 10 years.

Methods A cost-effectiveness analysis compares the relative costs and effects of two or more scenarios, and is usually expressed as the incremental cost-effectiveness ratio (ICER). The costs of the CSI program included those for hospital care, antibiotics, testing, and productivity loss. We measured the effects as either Major Outcomes Averted (MOA) or Quality Adjusted Life Years (QALY) gained. In the Chlamydia literature, MOAs usually consist of symptomatic pelvic inflammatory disease, chronic pelvic pain (CPP), ectopic pregnancy, infertility, and neonatal pneumonia. We calculated the ICER, the ratio of the above-mentioned costs and effects, for four scenarios: the default screening scenario (annual invitation of all 16–29 year olds), screening for women 16–29 only, for all 16–24 year olds, and biennial screening of all aged 16–29. To account for uncertainty in model parameters, we conducted a probabilistic sensitivity analysis (PSA).

Results If we compare the results of the four different scenarios presented in the abstract P5-S7.06 table 1, the default scenario has the most favourable ICER. This is probably due to the fact that the total number of invitations (and thus people tested) per year is the largest in the default scenario, implying that the fixed annual program costs are spread over more tests (and outcomes), which improves the ICER. The cost per QALY of all four scenarios seems acceptable if we include CPP in our QALY estimate. However, the evidence base for CPP forming nearly 90% of all QALYs lost is extremely weak. Therefore, we prefer the cost-per-QALY estimate excluding CPP, which is 30 000–70 000. Considering previous decisions on population screening programs, this ratio is relatively high and cannot be regarded as cost-effective. However, these results should be interpreted with caution due to the weak evidence base for the disease progression model. Because of this, the PSA showed variability of the four ICERs of up to 50%.

Abstract P5-S7.06 Table 1 Results from the economic CSI model

Scenario:	Total costs (M EUR)	MOAs averted	QALYs gained	QALYs gained [w/o CPP]	Costs/ MOA (k EUR)	Costs/ QALY (k EUR)	Costs/ QALY [w/o CPP] (k EUR)
Default	6.9	1200	1600	210	5.6	4.3	32
Women only	6.2	670	900	130	9.2	6.9	49
16-24	6.6	660	860	92	10	7.6	72
Biennial	6.4	820	1100	140	7.9	6.0	47

Conclusions We conclude that the evidence base for cost-effectiveness of Chlamydia screening is less strong than appeared from previous Dutch and foreign research, because of the much higher costs per MOA.

[1]K Turner, [1]L Trela-Larsen, [2]P Gates, [1]M May, [1]P Horner. [1]University of Bristol, Bristol, UK; [2]Royal Cornwall Hospital Trust, Truro UK

Aim To analyse the uptake of screening and rescreening in Cornwall, UK within the National Chlamydia Screening Programme (NCSP).

Methods We tested for any association between gender, age, test result and the probability of retesting. The time between tests was estimated using a Cox proportional hazards model and we tested whether the result of first test or gender influenced whether or not individuals were retested.

Results Between 2003–2009, 66 513 tests in 46 950 individuals were analysed. Most people were tested once. During this period the number of tests increased dramatically and the positivity declined (shown in Abstract P5-S7.07 table 1). Compared with those negative at the first test, positive cases were more likely to be retested and were retested sooner. Abstract P5-S7.07 table 1 Positivity among those tested in Cornwall 2003–2009.

Abstract P5-S7.07 Table 1

	2003– 2004	2004– 2005	2005– 2006	2006– 2007	2007– 2008	2008– 2009	Total
Tests	4794	6153	11 158	12 864	14 443	17 101	66 513
Positive	589	805	1086	1103	1213	993	5789
Positivity	0.1287	0.1376	0.1019	0.0901	0.0874	0.0604	0.0910