Methods Between 2009 to 2012 we analysed probes of 11250 individuals (patients and controls) processing the ProbeTecET® test (BD, USA). Of these 407 showed a positive result and were treated according to current guidelines. 33 patients tested negative, however, reported a persistence of discomfort such as burning sensations in the urethra, urethral discharge and occasionally conjunctivitis. These patients were additionally tested with the GenoQuick® CT (HAIN Lifescience, Germany), which specifically and simultaneously detects both, the MOMP-gene and the cryptic plasmide. Material was taken from urethral, cervical, rectal, pharyngeal, conjunctival smears and from the Douglas-space.
Results All 33 patients tested positive when processing the GenoQuick® CT. Thus 7.5% of infected patients were only identified processing an additional detection set.
Conclusion In our centre 7.5% of ct infected patients were tested "false negative" when only the cryptic plasmide was analysed. These 33 patients were identified processing a more sensitive test system and subsequently were treated.

P3.023* GEOGRAPHICAL CLUSTERING OF REPEAT POSITIVE TESTS WITH CHLAMYDIA TRACHOMATIS AMONG YOUNG PEOPLE (16–29 YEARS); IDENTIFICATION OF A HIDDEN KEY CHLAMYDIA POPULATION

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Background Young patients with repeat infections of Chlamydia trachomatis(Ct) are a key population for prevention as they indicate ongoing risk for spread and complications in women. We estimated the hidden key population, i.e. missed repeat testers and repeat positives, to effectively focus screening strategies.
Methods Data covered all youngsters (16–29 years,n = 42,894) in Eastern South-Limburg, the Netherlands (2006–2010) including all their genital Ct tests by any care provider. Using logistic regression, determinants (age, sex, socio-economic status (SES)) for not having a repeat test (in positives) and for having a positive repeat test (in repeated testers) were evaluated. Using Geographic-Information-Systems and spatial statistics (SaTScan purely spatial Poisson model, Bivariate Local Moran`s I), spatial clusters and correlations with SES of repeat (positive) tests were evaluated.
Results Overall 10,044 (23.4%) youngsters were tested of whom 944(9.4%) were positive. Of positives, 423(44.8%) had no repeat test (more often older, ORperyear 0.96 95% CI 0.92–1.00, and male, OR2.26 95% CI 1.69–3.02). Of repeat testers, 111(21.3%) were repeat positive. Spatial clusters were found in four municipalities(3 low SES) and low SES correlated with repeat positive tests. We estimate that 230 repeat positives (0.5% of total youngsters) are missed in care. These include 90 (21.3% of 423) who were lost in care for repeat testing follow-up and 140 repeat positives in the 32,850 youngsters who were never tested before (assuming 2.0% positivity and 21.3% repeat positivity). Overall, an estimated 67.4%(230/(230+111)) of all repeat positive patients is thereby missed in current care.
Conclusion Two-thirds of repeat positive patients are hidden to current care, some (–40%) because they missed a repeat test and others (–60%) because they are never tested. As they comprise a central but small part of the total young population, control strategies targeting this key population should be highly acuminated. Geo-spatial analysis, which pointed to low SES high prevalence areas informs more effective Ct control.

P3.024 COMPARISON OF *CHLAMYDIA TRACHOMATIS* ANTIBODIES IN VAGINAL MUCOSA AND SERUM IN WOMEN A FERTILITY CLINIC AND AN STI-CLINIC

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Background The common asymptomatic nature of Chlamydia infections and consequential PIDs plus the delayed appearance of any damaging effect thereof on the reproductive tract hamper timely interventions for individuals prone to complications. In infertile women, Chlamydia antibodies in serum relate to tubal pathology and lower conception rates. The current 'proof of principle study' aimed to assess whether Chlamydia antibodies are detectable in easier, non-invasive vaginal mucosa samples, and if these could predict the risk for complications.
Patients and Method We compared outcomes of Chlamydia antibody tests in serum and vaginal swabs in two groups: (a) 77 women attending a fertility clinic, of whom 25 tested positive for anti-chlamydia IgG in serum and (b) 107 women visiting an STI centre, including 30 Chlamydia PCR-positive subjects. The presence of IgG/IgA antibodies was compared (Kappa-test) and determinants investigated (regression).
Results In women in the STI clinic, active Chlamydia infections were linked to both IgG and IgA antibodies in serum ($p < 0.001$) and IgA in vaginal mucosa ($p < 0.001$), but not IgG in mucosa; mucosa-IgA correlated with IgG in serum ($p = 0.001$). In women in the fertility clinic, IgG in vaginal mucosal material had a stronger correlation with IgG in serum ($p = 0.02$) than IgA in mucosa ($p = 0.06$). Women with tubal pathology or Chlamydia history more commonly had IgG in serum and IgA in vaginal mucosa (both $p < 0.001$), whereas this link was weaker for mucosa-IgG ($p = 0.03$); for tubal pathology alone mucosa-IgA had a higher Kappa than serum-IgG (0.41 versus 0.36).
Discussion Chlamydia IgG/IgA are detectable in vaginal mucosal material. IgG antibodies in serum had stronger associations with current or past Chlamydia infections. However, IgA antibodies in vaginal mucosa also showed associations with (past) infection and complications. IgA presence in vaginal mucosa might indicate an on-going hidden Chlamydia infection in the upper genital tract, and warrants further epidemiological studies.

P3.025 INTERNET TESTING FOR CHLAMYDIA TRACHOMATIS IN FRANCE IN 2012

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Chlamydia trachomatis (CT) infection spreads in Europe and in USA, and tendencies analysis shows an increase in the epidemic since last 10 years. In France, in 2006, a national survey carried out by phone and using a home-based sampling showed that CT