

**European Conference of National Strategies for
Chlamydia trachomatis and Human Papillomavirus
May 25-27, 2011, Jurmala, Latvia**

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**ESSENTIALS OF THE CONFERENCE
(Conference Report)**

Auspices



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This report outlines the proceedings of the European Conference on National Strategies for *Chlamydia trachomatis* and Human Papillomavirus, which took place from May 25-27, 2011 in Jurmala, Latvia.

A summary of this report will be published in Eurosurveillance. ECDC and WHO-Euro will be asked to send out the meeting report to all their country contacts.

The conference book with the programme and all abstracts is available online at www.cthpcv.org; as are selected conference presentations <http://www.cthpcv.org/html/presentations.html>. In this report, reference to presentations relevant to the topics under discussion is made.

The conference was held under the auspices of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). The conference took place as a result of the Project European Conference of National Strategies for *Chlamydia trachomatis* and Human Papillomavirus-NSCP which has received funding from the European Union, in the framework of the Public Health Programme.

The chair of the conference Steering Committee, responsible for organisation, planning and management of the conference, was Dzintars Ozolins (Chairperson); other members were Parsla Gredzena, Violeta Mavcutko, and Vita Scepetova. Conference President was Lead microbiologist of the University of Latvia professor Aija Zilevica.

The conference was attended by 184 participants (laboratory specialists, epidemiologists, gynaecologists, dermatovenereologists, scientists, health care economists) from 35 countries including 58 delegates (31.5%) from Latvia, 19 (10.3%) - Turkey, 15 (8.2%) - Lithuania, 14 (7.6%) - Slovak Republic, 10 (5.4%) - Sweden, 7 (3.8%) - Estonia, 6 (3.3%) - Finland, 5 (2.7%) - Germany, 5 (2.7%) - United Kingdom, 4 (2.2%) - The Netherlands, 4 (2.2%) - Belgium, 4 (2.2%) - Ukraine, 3 (1.6%) - France. 151 (82.1%) participants were from European Union (EU) / European Economic Area (EEA) countries, 33 (17.9%) - from other countries.

The Scientific Committee was composed of senior Sexually Transmitted Infection (STI) epidemiologists, microbiologists, academics, gynaecologists and dermatovenereologists involved in prevention, diagnosis, treatment, surveillance, research and provision of other medical care for STIs, from 19 European countries, including invited experts from Italy, Sweden and the United Kingdom; and representatives from the European Centre for Disease Control (ECDC) and the Eastern European Network for Sexual and Reproductive Health (EE SRH).

Context and Purpose of the conference: There are very substantial variations across Western, Central and Eastern European countries in terms of political systems, Gross domestic product, income levels, health policy, health systems and health expenditure. This is no less the case for sexually transmitted infections. In this area there is currently great heterogeneity between countries in terms of provision of testing and care for STIs, STI laboratory diagnostic methods used (type; performance characteristics; Quality Assurance (QA)); clinical and laboratory reporting mechanisms; type, functioning and completeness of surveillance systems; and availability of epidemiological and microbiological data on rates of STIs.

These differences impact on who is tested for STIs; which STIs are tested for; how much infection is detected by the laboratory methods used and how reliable a diagnosis is; on what proportion of infections detected are reported, and therefore how meaningful

surveillance data on numbers and rates of reported STIs are, and to what extent the numbers reflect the true incidence and prevalence of STIs in a particular country.

These points are very illustrated by work carried out by the European Surveillance of STIs Network (ESSTI) (*Lowndes et al STIs 2004, Ison et al JAC 2006, Fenton et al STI 2004, ESSTI annual reports produced by HPA*), which was set up and hosted by the UK Health Protection Agency from 2002-2009. From 2009 the network has been under the auspices of the ECDC; and their recent report 'Sexually Transmitted Infections in Europe', published by the ECDC, on behalf of the ESSTI Network, was presented at the European Conference on National Strategies for *Chlamydia trachomatis* and Human Papillomavirus in Jurmala.

The report shows marked differences of reported STIs and trends in STI epidemiology across the 30 countries of the EU EEA (EU and EEA). For example, the majority of chlamydia infections were reported by only 4 out of 30 countries (Denmark, Norway, Sweden and the United Kingdom). High numbers can often be linked to enhanced testing, enhanced case detection, improved diagnostic tools and surveillance and control systems, while low rates in other countries may reflect the lack of accurate diagnostic tools, diagnostic capacity or poor reporting and surveillance mechanisms.

Similarly, the EE SRH Network, focussing mainly on the independent former Soviet republics, has through many surveys of laboratory diagnostic methods among the network countries demonstrated that the individual tests and approaches used commonly do not provide a definitive diagnosis of several STIs, i.e. in accordance to recommended international standards and guidelines (Domeika et al, 2009). For example, serological tests are used to diagnose chlamydial infection in up to 70% of clinical laboratories in several EE countries, while screening for gonococcal infections in women is largely conducted by using microscopy of Gram-stained cervical smears (Brilene 2009 in Domeika 2009, ref 5).

In this context, the NSCP conference was organised in order to bring together experts from different Western, Central and Eastern European countries, in order to share knowledge and expertise, find common ground, identify key challenges and make recommendations for ways forward which would be appropriate to the diversity of countries in the region. Recommendations must take into account and must be applicable to be achievable in a widely diverse region in terms of economic performance, health expenditure and systems; thus different approaches, and phased approaches, may be necessary depending on the country context.

Countries also differ widely in terms of the implementation and performance of prevention and control programmes for STIs, and the importance accorded to such activities. This includes chlamydia control programmes to reduce the frequency of secondary sequelae through screening asymptomatic individuals; as well as implementation of HPV vaccination. These latter two issues were the two main areas of the conference.

Meeting of the Scientific Committee

The first day of the conference consisted of a day-long closed session of the Scientific Committee, during which a number of key questions in relation to the conference objectives, and conference presentations, were discussed. Participants of this session were - Christopher Barbara (Malta), Bertille de Barbeyrac (France), Maria Jose Borrego (Portugal), Tania Crucitti (Belgium), Alexandros Daponte (Greece), Marius Domeika (Sweden), Mario Milco D'Elios (Italy), Viorica Gheorghiu (Romania), Karin Haar (Germany), Björn Herrmann (Sweden), Steen Hoffmann (Denmark), Kai Joers (Estonia), Margaretha Jurstrand (Sweden), Vesta Kucinskiene (Lithuania), Catherine M Lowndes (United Kingdom), Sander Ouburg (The Netherlands), Dzintars Ozolins (Latvia), Mirja Puolakkainen (Finland), Emma Savage (United Kingdom), Magnus Unemo (Sweden), Inga Velicko (Sweden), and Aija Zilevica (Latvia). Chairpersons were Mario Milco D'Elios (Italy), Catherine M Lowndes (United Kingdom), and Magnus Unemo (Sweden).

CHLAMYDIA

As demonstrated in the conference abstracts / presentations, there are huge differences in the reported or estimated national incidence of chlamydia infection in different European countries based on official country statistics and reported numbers of cases. Evidence also suggests that in many countries the actual prevalence of chlamydia infection is substantially higher than official statistics pretend.

As chlamydial infection is widespread in the population and largely asymptomatic, the number of infections detected depends critically on the number (proportion of the population) of people tested; whether people without symptoms are screened or not; and the types of laboratory test used, and their performance characteristics with respect to sensitivity and specificity. Official statistics then also depend on whether or not infections detected are reported, who reports, how complete reporting is (percentage of laboratories; physicians reporting); and whether they are compiled at national level from all the regions in the country.

The trends in STIs in different European countries across Europe are likely to be influenced by common factors, by the increasing movement taking place between countries, and by the increasing fluidity of borders. It is likely therefore that common underlying factors as well as movement between countries would be expected to be associated with similar rates of infection in different countries in the region. The official statistics however suggest differences in rates of reported Chlamydia cases by 100,000 population of more than 50-fold (ESSTI annual report 2007).

In this context, a vicious cycle occurs, which may be characterised as 'if you don't look, you don't see'. In many countries, STIs are not recognised as a serious public health problem. Official statistics are unreliable due to the use of insensitive diagnostic methods; the lack of screening and reporting, and the inadequate surveillance systems. In

these situations, apparent infection rates are low. This reinforces the view that STIs are not a serious health problem. In a context of diminishing state funding and deterioration of health systems and services in many countries, the motivation for physicians or microbiologists to report cases diminishes too; and there is no time or funding to carry out secondary prevention (screening, partner notification). While actual rates of STIs may be high and increasing due to lack of adequate response, apparent rates of STIs remain low or even decrease.

As stated by *Marius Domeika (2009)*: “STIs remain an unrecognised but significant public health problem in the majority of Eastern European countries // many European countries. WHO in its “Global Strategy for prevention and control of STIs for 2006-2015” states that it is crucial to increase the commitment of national governments and to use integrated approaches in order to address the problem .”

On the other hand, countries with adequate diagnostic capacity and well-functioning surveillance systems tend to have high reported rates of chlamydia (e.g. UK, Sweden, Denmark, Norway; ECDC report 2011; NSCP 2011 conference abstracts). These countries also have well-financed and well-functioning public health control systems. Countries with low incidence have inadequate diagnostic capacity and reporting mechanisms (NSCP 2011 conference abstracts). Available evidence suggests that in such countries, actual rates are very much higher than official statistics suggest. It is reasonable to conclude therefore that the likelihood is that rates of chlamydia are high *across* Europe.

(1) Recognition of the public health importance of STIs

Scientific Committee Recommendation: To increase awareness of the importance of STIs and their potential health impact, it is necessary to convince health professionals that these infections have a significant **public health impact**, as well as an individual health impact. As with HIV, such an approach could increase awareness of the significance of STIs, their impact on populations, and the need to adequate diagnostic, care and prevention / control capacity. This requires effective advocacy at European and country level.

(2) Chlamydia Reporting and surveillance issues

Scientific Committee Recommendation: It is recommended that all European countries join the common ECDC surveillance / reporting mechanism (including case definitions) for STIs. Collaboration between WHO-Euro which covers the whole of the European Region; and ECDC, would be very beneficial in this context.

Scientific Committee Recommendation: Chlamydia, and other STIs should be included in the list of mandatorily reportable bacterial STIs in all countries. In some countries,

these infections are not reportable by law; and a number of European countries currently have no surveillance systems in place for chlamydia.

The strength of the Danish surveillance system is that it is mandatory and nationwide. The weakness is that no data are reported regarding persons with negative tests, which is a problem shared by most countries. Thus, it is not possible to account for the examined population, e.g. in terms of age, gender, anatomy or indication for testing.

Scientific Committee Recommendation. Given the asymptomatic nature of the infection, in order to better understand and interpret surveillance data, availability of data on negative as well as positive test results, preferably broken down by gender and age group, should be reported.

Discussions focused on the need to improve national surveillance data for chlamydial infections in many countries, in order to demonstrate to policy makers that infection rates are high.

In countries without existing good reporting and surveillance systems, it is necessary to find new ways to improve the situation. It is crucial to perform and report results from well-designed incidence and prevalence studies, i.e. to emphasize the problem. It is important to make contact with and involve potentially interested people, including for example academics and students at university hospitals. Networks of interested individuals could be set up and expanded as time goes on.

Germany health professionals discussed their experience of setting up a sentinel reporting network, demonstrating the importance of working with motivated healthcare workers for a well-functioning system. It is also important to provide a good feedback on the submitted data, to demonstrate its utility to those reporting: if data and reports are never fed back to those submitting reports, there will be little motivation to continue reporting. The experience shows that a voluntary reporting system can work very well, and that reporting does not have to be made a legal imperative to function well.

Meeting participants also discussed whether it would be useful to set up an email list and an informal discussion group for countries interested in developing surveillance and control programmes. It could also be possible to collect information about local networks, activities and projects going on in countries, to build a useful information resource which could be of potential utility for Public Health. People attending the conference, both epidemiologists and microbiologists, could be asked to join the network and send information in to the conference email. The importance of involving non-governmental organizations (NGOs) in such networks was also stressed (e.g. Germany border network project). Informative e-mail letters containing deliverables of the conference and asking to share the information about local networks, activities and projects going on in countries will be sending to people attending the conference. Feedbacks will be collected and published at the Forum for discussions established already at the conference web page.

The paramount importance of having reliable, country-level data was again stressed, and the need to carry out surveys of prevalence in population groups, since without widespread testing, clinical reporting will be a gross underestimation of the burden of infection. It was suggested that universities are suitable places for conducting surveys in young people of the age group most affected by chlamydia, for relatively low cost. In some countries, it could be valuable also to survey first years military sampling more young men.

Another key issue is the high cost of FDA-approved NAATs testing kits for chlamydia and gonorrhoea. Marius Domeika from the EE SRH network suggested that there may be well-performing alternatives being produced in countries in Eastern Europe including Russia, at much lower prices than commercial kits. Some of these kits are already CE-marked and have been validated to FDA-approved NAATs or other strictly validated and internationally well-recognized NAATs by international STI reference laboratories in EU and CDC, Atlanta, USA. Other countries including Estonia have developed in-house PCR tests for chlamydia, gonorrhoea and other STIs and validated them against international commercial kits.

Indeed in-house assays can be used as long as they have been validated , a full validation is required for ISO 15189.

An important issue raised is the need for good, regular quality assessment and control in laboratories carrying out testing for STIs. Involvement in appropriate External Quality Assessment scheme is crucial in order to provide accurate results and to be able to select reliable, highly sensitive and specific STI diagnostics. It was suggested that this is a service that can be purchased and shared by laboratories to reduce the cost.

(3) Control programmes for chlamydia: screening

Genital chlamydial infection is a STI caused by the bacterium *C. trachomatis* which can irreversibly damage a woman's reproductive organs, through causing pelvic inflammatory disease, and subsequently tubal blockage, leading to ectopic pregnancy and infertility. Less frequently, chlamydial infection may cause damage to male reproductive organs, through causing epididymitis. Although chlamydia is easily treated with antibiotics, many infections remain undiagnosed because of the large proportion of asymptomatic infections (70% of women and 50% of men); as well as, in some countries, the use of sub-standard diagnostic techniques, including serology. In the absence of opportunistic or regular screening, persons with asymptomatic chlamydial infection are likely to continue to transmit the infection to new sex partners. Control of genital chlamydia focuses on reducing sexual risk behaviour, condom use, early diagnosis, provision of appropriate treatment and effective management of sexual partners in order to break the chain of transmission.

Most European countries do not currently have national control programmes for chlamydia. Control strategies need to take into account not only clinical and epidemiological factors (e.g. prevalence in the population), but also healthcare systems, infrastructure and resourcing.

The majority of countries in Europe do not have organised chlamydia control strategies. The ECDC has produced guidance on national chlamydia control strategies , and recommends a stepwise approach, consisting of 4 steps:

1. Primary prevention: health promotion / education, school programmes, condom distribution
2. Case management: diagnostics, patient and partner management, surveillance.
3. Opportunistic testing: testing routinely offered to specified sub-populations attending clinical services
4. Screening programme: organised provision of chlamydia testing to a defined population

Each step requires essential activities; essential policy; and evaluation. European countries differ in their health infrastructure, and their ability to implement widespread screening. It is crucial to implement good primary prevention and case management as a basis, before considering the introduction of opportunistic or population-based screening programmes.

Scientific Committee Recommendation: Countries with adequate diagnostic capacity and well-functioning surveillance systems have high reported rates of chlamydial infections. In other countries, evidence suggests that actual rates are very much higher than official statistics indicate.

Chlamydia control programmes should be introduced in all countries in Europe, in a stepwise fashion, focusing on primary prevention; and on improvement of diagnostic capacity including introduction of Nucleic acid amplification tests (NAATs) testing; improvement of patient and partner management and of reporting and surveillance mechanisms. NAATs are the best ones for the diagnosis of *C. trachomatis* infection and should be used routinely whether financially sustainable by the respective National Health system. Where possible, opportunistic or population-based screening programmes can be introduced. However concerns remain about the cost-effectiveness of opportunistic screening in healthcare settings.

It is also important to increase testing activity in males as well as females in order to control the spread of infection. Inadequate testing coverage of the population, particularly low levels of testing in males, could be one reason why chlamydia rates are not decreasing in some countries.

In order to improve the detection, management and control of chlamydia infection, strong advocacy at country level will be fundamental. It is hoped that the publication of the recommendations of this meeting report could be used to support country level advocacy efforts.

(4) Chlamydia genotyping

“Molecular typing for *C. trachomatis* is not sufficiently advanced to be used at the EU level at this time.”

This was the conclusion in the ECDC Expert Meeting Report, Molecular Typing, London 2010. Accordingly, at EU level none of the presently developed typing methods for *C. trachomatis* have been shown to have any major and evidence-based public health benefits because the methods suffer from limitations such as insufficient robustness, discrimination, transferability, and evaluation. The current methods do not provide useful information such as correlation with severity of infection or severe complications. Baseline data are not yet available to study outbreaks (and based on the high prevalence of chlamydial infection, very large studies are needed to describe the baseline). Newer molecular epidemiological typing methods, which have been developed to increase the discriminatory power, include multilocus sequence typing (MLST) and sequencing of three variable number tandem repeats (VNTR): both methods require further validation. Nevertheless, in specific epidemiological situations such as the emergence and spread of the Swedish new variant of *C. trachomatis* (nvCT) these methods have been shown valuable, e.g., to describe the clonal origin and spread of nvCT.

Scientific Committee Recommendation: While several promising new methods are currently being developed, it is not as yet clear what the practical utility of these methods is for epidemiology and public health, especially not at EU level. More research is needed!

Typing for Lymphogranuloma venereum (LGV) is considered an exception to this, where specific detection of DNA from L-strains associated with the LGV phenotype is necessary for the diagnosis of the infection.

Also, some recent studies suggest that contrary to what was previously thought, there may be a reservoir of asymptomatic or pre-symptomatic LGV infection. It is crucial that these types of findings are timely published. Accordingly, the clinical significance of this is however not yet clear. These results suggest that the epidemiology and clinical features of LGV may not be static, and may indeed not be the same in all European countries. It was felt that there is not yet a justification for widespread screening of asymptomatic MSM, and that there is a need for well-designed epidemiological and clinical studies to improve our understanding of this infection.

(5) Is there a need for separate guidelines for chlamydia for Eastern Europe separately from the rest of Europe?

Marius Domeika from the EE SRH Network spoke about the work of the network, and their experience in developing consensus guidelines. He highlighted the importance of consensus approaches in the formulation of guidelines, the need for real buy-in from stakeholders, and the need to involve influential specialists (heads of professional associations) and people with political connections and influence.

1. Savicheva A, Sokolovsky E, Frigo N, Pripitnevich T, Brilene T, Deák J, Ballard R, Ison C, Hallén A, Domeika M, Unemo M. Guidelines for laboratory diagnosis of *Neisseria gonorrhoeae* in East-European countries. Part 1: Gonorrhoea, sampling, and microscopy for diagnosis. *Acta Medica Lituanica* 2007;14:65-74.
2. Savicheva A, Sokolovsky E, Frigo N, Pripitnevich T, Brilene T, Deák J, Ballard R, Ison C, Hallén A, Domeika M, Unemo M. Guidelines for laboratory diagnosis of *Neisseria gonorrhoeae* in East-European countries. Part 2: culture, non-culture methods, determination of antibiotic resistance, and quality assurance. *Acta Medica Lituanica* 2007;14:123-34.
3. Domeika M, Savicheva A, Sokolovskiy E, Ballard R, Unemo M, on behalf of EE SRH Diagnostic Initiative Group. Guidelines for laboratory diagnosis of *Neisseria gonorrhoeae* infections in Eastern European countries – results of an international collaboration. *Euro Surveill* 2007;12(12):E071206.3.
4. Domeika M, Savicheva A, Sokolovskiy E, Frigo N, Brilene T, Hallén A, Unemo M, Ballard R, Ward M; EE SRH Network. Guidelines for the laboratory diagnosis of *Chlamydia trachomatis* in East European countries. *J Eur Acad Dermatol Venereol* 2009;23:1353-63.
5. Sokolovskiy E, Frigo N, Rotanov S, Savicheva A, Dolia O, Kitajeva N, Hallén A, Unemo M, Domeika M, Ballard R; EE SRH Network. Guidelines for the laboratory diagnosis of syphilis in East European countries. *J Eur Acad Dermatol Venereol*, 2009;23:623-32.
6. Domeika M, Zhuravskaya L, Savicheva A, Frigo N, Sokolovskiy E, Hallén A, Unemo M, Ballard RC. Guidelines for the laboratory diagnosis of trichomoniasis in East European countries. *J Eur Acad Dermatol Venereol* 2010;24:1125-34.
7. Shipitsyna E, Savicheva A, Sokolovskiy E, Ballard RC, Domeika M, Unemo M, Jensen JS; EE SRH Network. Guidelines for the laboratory diagnosis of *Mycoplasma genitalium* infections in East European countries. *Acta Derm Venereol* 2010;90:461-7.
8. Domeika M, Bashmakova M, Savicheva A, Kolomic N, Sokolovskiy E, Hallén A, Unemo M, Ballard RC, Eastern European Network for Sexual and Reproductive Health (EE SRH Network). Guidelines for the laboratory diagnosis of genital herpes in eastern European countries. *Euro Surveill*. 2010;15, Issue 44.

The committee in general felt that there was not so much a need for separate guidelines for Eastern and Western Europe, but a recognition that different countries are at different stages of development with consequently different needs. However, all countries desired having well-functioning laboratory, clinical, surveillance and prevention programmes for STIs. The EE SRH guidelines were produced to provide detailed and evidence-based laboratory diagnostic guidelines, which were crucially needed in the network countries.

It was also noted that the need for improvement is certainly not restricted to Eastern European countries: many EU/EEA countries do not have optimal diagnostics for chlamydial infection, complete case reporting or any organised chlamydia control activity; while a number do not even have STI case management guidelines.

It was concluded that Eastern and Western countries, while differing in many respects, could very usefully benefit from greater exchange in the areas of STI diagnosis, care, surveillance and prevention.

HPV SCREENING AND VACCINATION

HPV vaccination: Of the 30 EU/EEA countries, as of July 2010, the national advisory bodies of 21 countries had recommended HPV vaccination; of these, 18 had actually integrated the HPV vaccination programme into their national immunisation programme (Dorleans Eurosurv 25 November 2010). Of the 40 countries contributing data to the survey performed by European Cervical Cancer Association, as of April 2009, only 9 (Denmark, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Spain and the UK) currently offer HPV vaccination free of charge to at least one age-cohort of females while an additional 3 countries (Belgium, France, and Sweden) offer HPV vaccination on a co-payment basis. The majority of countries are using on-demand provision rather than the school-based programmes that typically achieve the highest and most equitable coverage. On-demand provision tends to miss the lower socioeconomic groups and minorities which are exactly the groups that are missed by the opportunistic cervical screening that still prevails in Europe. As such, these data show that HPV vaccination is being preferentially delivered to women who are at lower risk of cervical cancer while those who are at higher risk are again missed-out so the health inequalities we have seen with cervical cancer screening will be perpetuated (Davies ECCA 2009).

In terms of HPV vaccination programmes, the scientific committee discussed some negative country experiences, including Romania. In general, it was felt that there was less acceptance of vaccination by more educated people. In Romania, the HPV vaccination programme was introduced shortly before a national election, and little was done in terms of information campaigns about the vaccination programme. The programme was initially targeted towards 12-13 year old girls, however this was strongly rejected by parents, so free vaccination was offered to older women. About 200,000 doses had been given, and a huge amount of vaccine was unused. The HPV vaccination programme not only did not have good uptake, but had a negative impact on routine vaccination.

Scientific Committee Recommendation: A necessary component of any vaccination campaign is a well-planned information campaign, which should have a lead-in period of 1-2 years. It is important, as in England, to carry out studies to investigate the public's attitudes towards a vaccine before designing the information campaign. Good quality information is vital, for doctors and for the general public, particularly in the case of a vaccine such as the HPV vaccine, where parental concern about vaccination against a STI may be high.

In England, Finland and Portugal, the HPV vaccination programmes have been very successful, with high interest and uptake.

Misinformation campaigns may have been circulated by extremist religious groups in the US, suggesting that the vaccine caused infertility and even death. The importance of well-designed information campaigns to counteract such misinformation is very important, given current access to a wealth of potentially wrong information via the internet.

In some countries, side effects of narcolepsy in children were seen with the swine flu vaccine, which may at least in some countries have impacted negatively on people's attitudes towards the HPV vaccine.

Whether financially sustainable by the respective National Health system the primary target group to consider for routine vaccination, free of charge, is girls at the age just before sexual activity (and therefore HPV infections) and school-based immunisation is likely to be the best option for delivery of HPV vaccines to pre-adolescents.

HPV screening: Except in places with a well-established and effective cytology based screening programme, screening should be based on HPV testing. Other tests (cytology, histology) should be reserved for triage of HPV positive women. Whilst vaccination may be seen as the solution for the future, a need for good screening will remain for many years to come.

QUESTIONNAIRES FROM THE CONFERENCE PARTICIPANTS

Organizers received 58 filled questionnaires from the conference participants. Majority of respondents highly appreciated scientific level of Conference sessions either relating Chlamydia or HPV, and many guess that Conference will help to develop Chlamydia and HPV screening in the countries of respondents. Detailed results of questionnaires are available at: http://www.cthpv.org/Results_of_questionnaires.pdf

MAIN RECOMMENDATIONS AND NEXT EUROPEAN CONFERENCE OF NATIONAL STRATEGIES FOR CHLAMYDIA TRACHOMATIS AND HUMAN PAPILLOMAVIRUS

Many senior STI epidemiologists, microbiologists, academics, gynaecologists and dermatovenereologists guess that the current conference will have an impact on the development of national Chlamydia and HPV control strategies in different European countries. Aspects as the needs to increase awareness of the importance of STIs and their potential health impact; requirement to join the common ECDC surveillance / reporting mechanism (including case definitions) for STIs for all European countries; Chlamydia, gonorrhoea and syphilis should be included in the list of reportable infections in all European countries; accessibility of sensitive and specific diagnostics, i.e. NAATs, for chlamydial infection need to be substantially enhanced in many European countries; given the asymptomatic nature of Chlamydia infection, availability of data on negative as well as positive test results, preferably broken down by gender and age group, should be reported; Chlamydia control programmes should be introduced in all countries in Europe, in a stepwise fashion, focusing on improvement of diagnostic capacity including introduction of NAATs testing; a relevance to analyze different available screening

programmes including financial costs; awareness that a necessary component of any vaccination campaign is a well-planned information campaign; to collect information about local networks, activities and projects going on in countries, to build a useful information resource which could be of potential utility in planning and national advocacy will still remain among biggest European health care challenges for the next decade. To provide a continuity of conference achievements is highly relevant.

2nd European Conference of National Strategies for *Chlamydia trachomatis* and Human Papillomavirus will be held in May 23-24, 2013 in Berlin. The acceptance of **Professor Harald zur Hausen** who shared the 2008 [Nobel Prize in Medicine](#) for his work on papillomaviruses and cervical cancer to act as **Conference President** will provide high scientific level of the meeting and will assist to convince health professionals that these infections have a significant public health impact, as well individual impact.