They are young, mostly female and their number is constantly growing: with nearly 344 000 notified cases in 2009, chlamydia is the most frequently reported sexually transmitted infection (STI) across Europe. Three quarters of all chlamydia infections are reported in young people between 15 and 24 years of age. This is highlighted by a new ECDC surveillance report, Sexually transmitted infections in Europe 1990–2009, describing basic trends in diseases like chlamydia, syphilis and gonorrhoea.

This first ECDC STI surveillance report covers data and trends on the five STI that are being observed in the 30 countries of the European Union and European Economic Area (EU/EEA): syphilis, congenital syphilis, gonorrhoea, chlamydia and lymphogranuloma venereum (LGV).

The report shows marked differences in trends across Europe. While chlamydia trends appear to be increasing in all but four countries, the overall trends in gonorrhoea and syphilis show a slight decrease (minus 8%) over the past decade. “However, the true number of sexually transmitted infections is likely to be substantially higher than reported today”, stresses ECDC Director Marc Sprenger. “Many diagnoses are either not made or not reported due to asymptomatic cases or because of the diversity in the healthcare and reporting systems across Europe. As infection with chlamydia can lead to infertility in women, increasing levels being reported across Europe pose a significant public health problem.”

The majority of chlamydia infections (88 %) are reported by only four countries which to some degree illustrates the diversity in screening and testing systems across Europe. High numbers can often be linked to enhanced case detection, improved diagnostic tools and surveillance systems while low rates in other countries may reflect the lack of accurate diagnostic tools or diagnostic capacity. Chlamydia accounted for the majority of all STI reports with an overall rate of 185 per 100 000 population in 2009. Looking at the countries that have consistently reported STI between 2000 and 2009, the number of reported chlamydia cases has more than doubled (143 per 100 000 population in 2000 to 332 in 2009) – with 60 % of the diagnosed cases in women compared to 40 % men.

While syphilis accounts for only one fifth of the cases reported in young people, gonorrhoea (44 %) and chlamydia (75 %) show a high prevalence in the age group of the 15 to 24 year old. Half of all syphilis cases were reported in men having sex with men showing that this group plays a distinctive role in the transmission of syphilis and LGV in Europe.

“Future surveillance of STI in Europe at a high level is essential in order to monitor the distribution of disease and to assess the public health response to control the transmission of infections”, says ECDC Director Marc Sprenger.
CHLAMYDIA
Genital chlamydia is a sexually transmitted infection (STI) caused by the *Chlamydia trachomatis* bacterium which can irreversibly damage a woman's reproductive organs. Although chlamydia is easily treated with antibiotics, many infections remain undiagnosed because of the large proportion of asymptomatic patients (70% of women and 50% of men). In the absence of opportunistic testing or regular screening, persons with asymptomatic chlamydia are likely to continue to transmit the infection to new sexual partners. Control of genital chlamydia focuses on reducing sexual risk behaviour, condom use, early diagnosis, and effective management of sexual partners in order to break the chain of transmission.

GONORRHOEA
Gonorrhoea is a STI caused by *Neisseria gonorrhoeae* bacteria. It can infect areas of the reproductive tract, including the cervix, uterus and egg canals in women as well as the urine canal (urethra) in both women and men. As the bacterium can also grow in the mouth, throat, eyes and anus a broad spectrum of clinical presentations can occur. Any sexually active person can be infected with gonorrhoea which is spread through vaginal, oral or anal sex. Recent data from the European gonococcal antimicrobial surveillance programme shows an increasing antibiotic resistance in gonococci to common agents for treatment and reduced susceptibility to newer antibiotics – indicating the risk that gonorrhoea may become an untreatable disease in the near future.

SYPHILIS
Syphilis is a STI caused by the bacterium *Treponema pallidum*. Transmission occurs from person to person primarily during vaginal, anal or oral sex. It can also be transmitted during pregnancy mother-to-child (congenital syphilis). The infection often does not cause any symptoms in its early stages but left untreated, it can progress to affect the entire body. Syphilis cannot be spread through contact with items or utensils like toilet seats, doorknobs or cutlery as direct contact with a syphilis sore is needed. Sores mainly occur in external genitals, vagina, anus or in the rectum.

LYMPHOGRANULOMA VENEREUM (LGV)
LGV is a systemic STI caused by a specific type of *Chlamydia trachomatis*. Visual signs of the infection include genital papule(s) and/or ulcers and swelling of the lymph glands in the genital area. LGV may also produce rectal ulcers, bleeding, pain and discharge. Transmission occurs from person to person through direct contact with ulcers, lesions or other infected areas.

> The full ECDC STI surveillance report is available from 26 May on the ECDC website
> Read more on chlamydia in the ECDC Spotlight “Chlamydia – high numbers, low awareness”
> More on the ECDC Programme on HIV, STI and blood-borne diseases
> Download the ECDC surveillance report Gonococcal antimicrobial susceptibility surveillance in Europe 2009

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The European Centre for Disease Prevention and Control (ECDC) is an EU agency tasked with identifying, assessing and communicating threats to human health posed by infectious diseases. It supports the work of public health authorities in the EU and EEA/EFTA Member States.

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1 343 958 cases reported by 23 EU/EEA Member States (no chlamydia data from Bulgaria, the Czech Republic, France, Germany, Italy and Germany)
2 Estonia, Latvia, Lithuania and Slovenia
3 Denmark, Norway, Sweden, United Kingdom
4 Male-to-female-ratio was 0.68 in 2009, N=203 791 cases reported in women, N=138 327 in men
5 Gonococcal antimicrobial susceptibility surveillance in Europe 2009, Stockholm: ECDC; 2011