

Communicable diseases such as chlamydia, pertussis and hepatitis B still pose major threats to the health of European citizens. Chlamydia is the most common sexually transmitted infection in Europe. Three-quarters of all cases are reported among young people aged 15-24 years, and numbers are steadily increasing. It can be controlled through prevention, reducing risk behaviour, early detection and effective management. Pertussis (or whooping cough) is highly infectious, and is caused by the bacterium *Bordetella pertussis*. The disease derives its name from the sound made from the intake of air after a cough. Hepatitis B is an infection of the liver caused by the hepatitis B virus. The virus is transmitted by contact with blood or body fluids of an infected person. A small proportion of infections become chronic, and these people are at high risk of death from cancer or cirrhosis of the liver. Protection against pertussis and hepatitis B is available through vaccination (see Indicator 4.10 "Childhood vaccination programmes").

Over 285 000 chlamydia cases were reported annually in EU member states during 2007-09, with almost all infections reported by five countries (the United Kingdom, and the Nordic countries of Denmark, Finland, Norway and Sweden). The true number of chlamydia cases is likely to be much higher, since the infection is liable to underreporting and asymptomatic disease. Confirmed case rates were highest in Iceland (655 per 100 000 population), Denmark (514), Sweden (458), the United Kingdom (290) and Finland (258) (Figure 1.11.1). Between 2006 and 2009, incidence of reported and confirmed cases increased by 42%, although much of this was a result of improved case detection in a number of countries (ECDC, 2011).

Over 14 000 pertussis cases were reported annually among EU member states in 2007-09, with an overall incidence of 5 per 100 000 population (Figure 1.11.2). The highest incidences were reported in Norway (104 cases per 100 000 population), the Netherlands (44), Estonia (38) and Slovenia (17). Most cases were reported from the Netherlands, Norway and Poland, which together contributed almost three-quarters (71%) of all cases reported in 2009. Pertussis incidence has more than halved since 1991-93, when the average rate among EU member states was 11.3 notified cases per 100 000 population.

Two-thirds of all pertussis cases in 2008 occurred among children aged 5-14 years of age, although the disease may be underdiagnosed in adolescents and adults. The highest incidence occurred among infants aged less than one year, many of whom are too young to be vaccinated, and children aged 10-14 years, who may have not

had a full course of vaccination, or who may have lost their immunity. Vaccination status was known in only half of all reported cases, but of these 21% were unvaccinated (EUVAC.NET, 2010).

Around 6 000 hepatitis B cases were reported annually in EU member states during 2007-09. The highest incidence rates occurred among Iceland (13.8 notified cases per 100 000 population, including both acute and chronic cases), Bulgaria (8.2) and Latvia (6.3) (Figure 1.11.3). The EU average was 2.0 cases per 100 000 population. The notification rate has declined since 1991-93, when it was 8.3 cases per 100 000 population on average. Hepatitis B infection is more common in the southern parts of Eastern and Central Europe, and low in prevalence in most of Western Europe. Around twice as many cases of hepatitis B occurred among males than females in 2009, with the majority reported in the age group 25-44 years (49% of the total), followed by 15-24 year-olds. The disease has the characteristics of both a sexually transmitted and a blood-borne disease, although the disease pattern and risk groups differ widely across Europe (ECDC, 2011). Enhanced surveillance systems will provide the better information which is needed to monitor the disease.

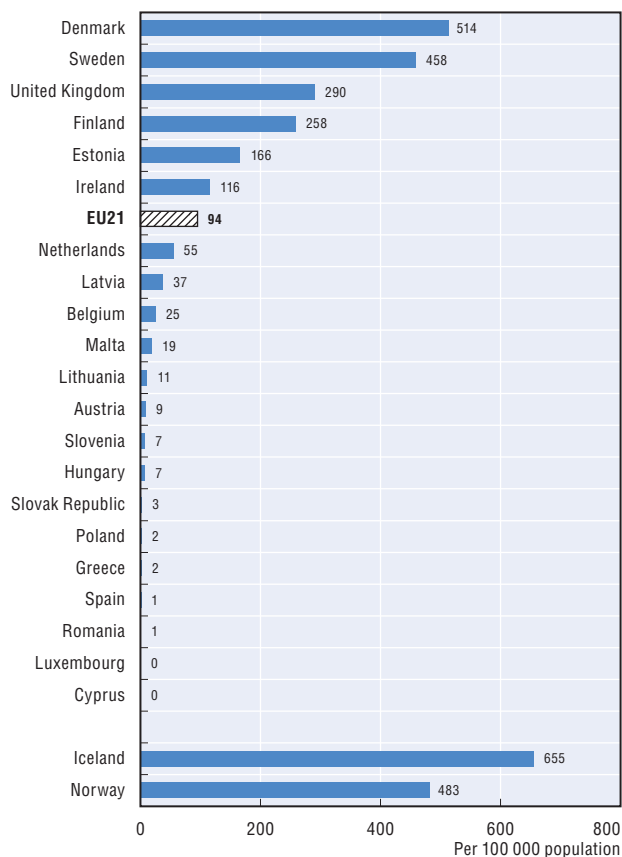
The European Centre for Disease Prevention and Control (ECDC) was set up in 2005 to assist the European Union by identifying and assessing the risk of current and emerging threats to human health posed by infectious diseases.

Definition and comparability

Although notification of chlamydia is compulsory in most European countries, national surveillance systems for sexually transmitted infections consist of voluntary, sentinel or laboratory systems, and often do not provide full country coverage. Countries also differ in reporting systems, diagnosis, testing and screening programmes. Underreporting is likely.

Mandatory notification systems for pertussis and hepatitis B also exist in most European countries, although again case definitions, laboratory confirmation requirements and reporting systems may differ. Pertussis notification was voluntary in Belgium and France, and France had a sentinel surveillance system.

1.11.1. Notification rate of chlamydia infection, 2007-09



Source: ECDC (2011).

StatLink <http://dx.doi.org/10.1787/888932703449>

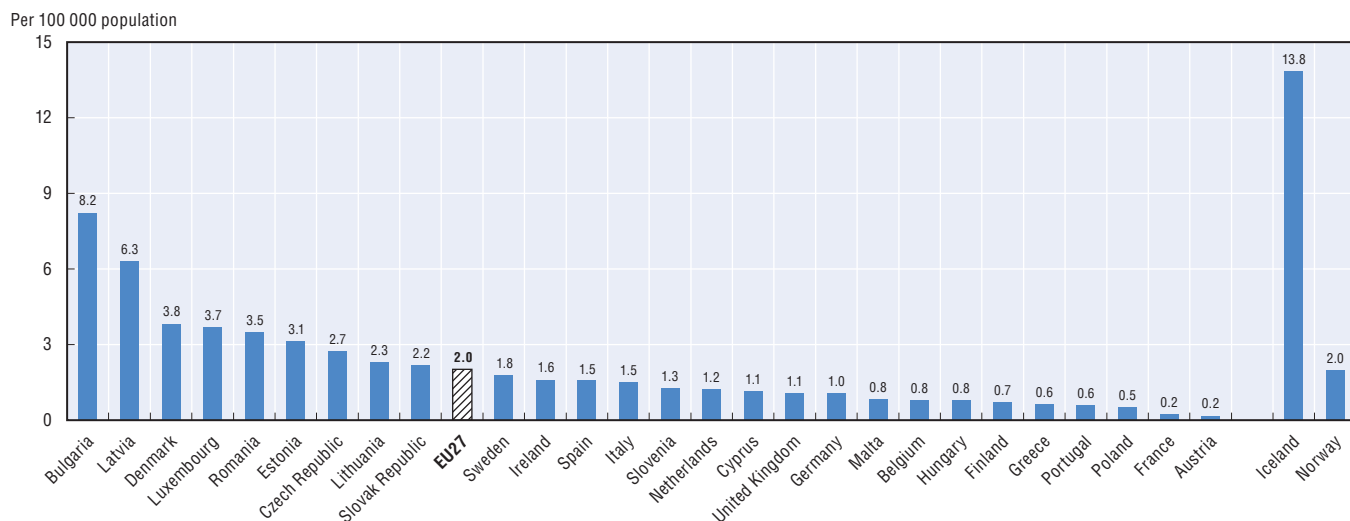
1.11.2. Notification rate of pertussis, 2007-09



Source: ECDC (2011).

StatLink <http://dx.doi.org/10.1787/888932703468>

1.11.3. Notification rate of hepatitis B, 2007-09



Source: ECDC (2011).

StatLink <http://dx.doi.org/10.1787/888932703487>