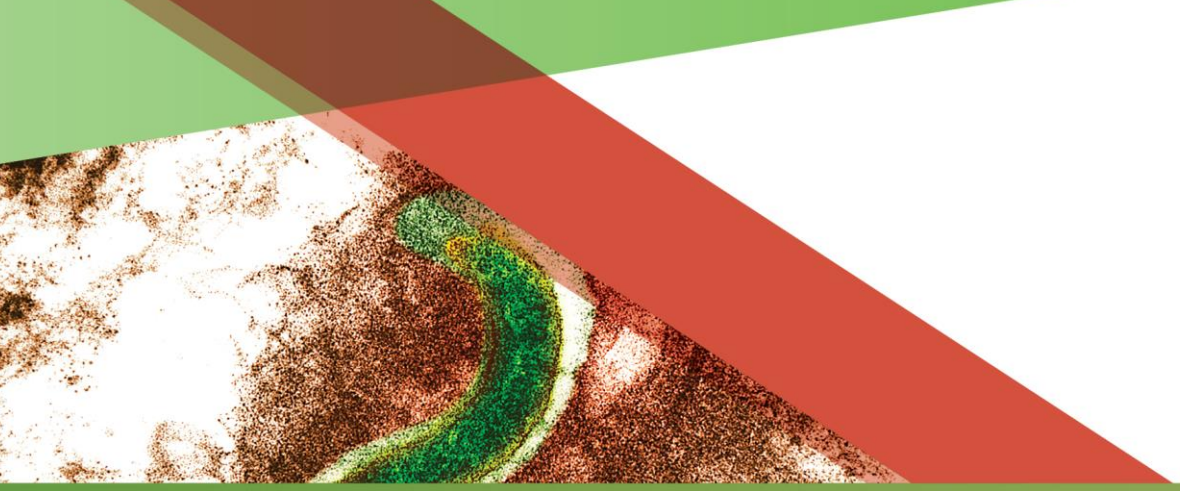


SURVEILLANCE REPORT

Congenital syphilis

Annual Epidemiological Report for 2017

Key facts

- In 2017, 36 congenital syphilis cases were reported in 23 EU/EEA Member States, at a crude rate of 1.1 cases per 100 000 live births.
- The trend for reported congenital syphilis cases has remained stable in recent years.
- There may be some underreporting: seven countries did not contribute to the reporting of congenital syphilis and a further 13 reported no cases for 2017.
- The low rates of congenital syphilis and decreasing rates of reported syphilis among women suggest that most Member States have effective programmes for elimination of congenital syphilis. Better indicator data are needed to assess the effectiveness of antenatal screening programmes in all EU/EEA countries.

Methods

This report is based on data for 2017 retrieved from The European Surveillance System (TESSy) on 29 November 2018. TESSy is a system for the collection, analysis and dissemination of data on communicable diseases.

For a detailed description of methods used to produce this report, refer to the *Methods* chapter [1].

An overview of the national surveillance systems is available at the ECDC website [2].

A subset of the data used for this report is available through ECDC's online *Surveillance atlas of infectious diseases* [3].

In 2017, the majority of countries (18) reported congenital syphilis data using the standard EU case definitions [4]: 10 countries reported using the 2012 EU case definitions, six used the 2008 definitions and two used the 2002 definitions. The remaining five countries reported either using national case definitions (2) or did not specify the case definition in use (3).

All reporting countries have comprehensive surveillance systems for congenital syphilis. Reporting of congenital syphilis is compulsory in all countries except for the United Kingdom. Cases are analysed by date of diagnosis. Poland reported case-based data for congenital syphilis for the first time in 2017.

Suggested citation: European Centre for Disease Prevention and Control. Congenital syphilis. In: ECDC. Annual epidemiological report for 2017. Stockholm: ECDC; 2019.

Stockholm, January 2019

Epidemiology

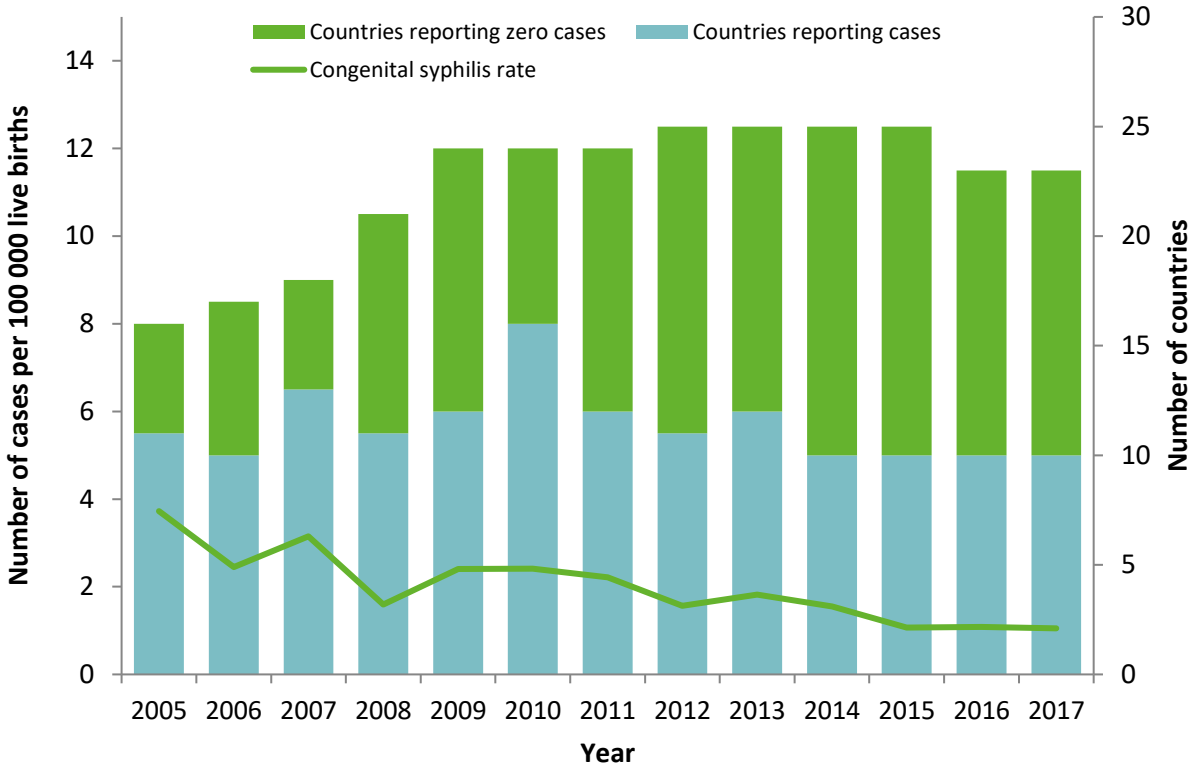
In 2017, 36 confirmed cases of congenital syphilis were reported in 10 EU countries. Poland reported one confirmed case and eight cases with unknown classification. Thirteen countries reported no cases. Only Bulgaria and Romania reported more than five cases in 2017 (14 and 6 respectively). The total number of reported congenital syphilis cases remained stable in 2017 compared with 2016, when 37 cases were reported. The number of cases in each country has generally remained stable from 2013–2017, with the exception of reductions in the number of cases in Bulgaria and Poland (Table 1). The crude rate of reported congenital syphilis in the EU/EEA was 1.1 cases per 100 000 live births and has remained stable since 2015 (Figure 1). The highest rate was observed in Bulgaria (21.5 per 100 000 live births). In 2017, data on the mother's country of birth were reported by seven countries for 22 cases. Of these, two mothers were born outside the reporting country.

Table 1. Distribution of confirmed congenital syphilis cases and rates per 100 000 live births by country and year, EU/EEA, 2013–2017

Country	2013		2014		2015		2016		2017		
	Confirmed cases	Rate	Confirmed cases	Rate	Confirmed cases	Rate	Confirmed cases	Rate	Confirmed cases	Rate	Reported cases
Austria	.	.	.	.	.	.	.	.	.	.	.
Belgium	.	.	.	.	.	.	.	.	.	.	.
Bulgaria	27	40.6	24	35.5	10	15.2	13	20.0	14	21.5	14
Croatia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Cyprus	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Czech Republic	1	0.9	0	0.0	4	3.6	1	0.9	1	0.9	1
Denmark	1	1.8	1	1.8	0	0.0	1	1.6	0	0.0	0
Estonia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Finland	.	.	.	.	.	.	.	.	.	.	.
France	.	.	.	.	.	.	.	.	.	.	.
Germany	3	0.4	0	0.0	3	0.4	2	0.3	3	0.4	3
Greece	1	1.1	0	0.0	2	2.2	.	.	.	.	.
Hungary	2	2.2	1	1.1	0	0.0	2	2.1	3	3.1	3
Iceland	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Ireland	0	0.0	0	0.0	0	0.0	0	0.0	1	1.6	1
Italy	7	1.4	4	0.8	5	1.0	.	.	.	.	.
Latvia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Liechtenstein	.	.	.	.	.	.	.	.	.	.	.
Lithuania	2	6.7	1	3.3	3	9.5	0	0.0	1	3.3	1
Luxembourg	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Malta	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Netherlands	.	.	.	.	.	.	.	.	.	.	.
Norway	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Poland	16	4.3	8	2.1	4	1.1	6	1.6	1	0.3	9
Portugal	5	6.0	7	8.5	5	5.8	2	2.3	4	4.6	4
Romania	3	1.6	7	3.5	5	2.5	4	2.0	6	3.0	6
Slovakia	0	0.0	2	3.6	0	0.0	0	0.0	0	0.0	0
Slovenia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Spain	3	0.7	6	1.4	1	0.2	4	1.0	2	0.5	2
Sweden	0	0.0	0	0.0	0	0.0	2	1.7	0	0.0	0
United Kingdom	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
EU/EEA	**71**	**1.8**	**61**	**1.5**	**42**	**1.1**	**37**	**1.1**	**36**	**1.1**	**44**

Source: country reports.
.: no data reported.

Figure 1. Number of confirmed congenital syphilis cases per 100 000 live births; number of countries reporting congenital syphilis data, by year, EU/EEA, 2005–2017



Source: Country reports from Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

Discussion

Overall, congenital syphilis rates in the EU/EEA have decreased since 2005. During this time, syphilis rates among women have decreased consistently in the EU/EEA, contributing to reducing the risk of congenital syphilis transmission. Although available data suggest an improving situation, under-reporting of congenital syphilis is likely in parts of the EU/EEA. In addition, indicators on the effectiveness of antenatal screening programmes and results from investigations around congenital syphilis cases diagnosed in Europe are not routinely collected at the European level. It is therefore difficult to understand the risk factors, both social and those relating to antenatal care service provision, which lead to continuing cases of a disease that results in very severe but preventable consequences in infants.

The free movement of people across the EU/EEA, as well as increasing global travel, means that elimination of congenital syphilis in EU/EEA countries also depends on efforts in other EU/EEA countries and outside Europe. For example, in the United Kingdom, only half of the mothers of congenital syphilis cases were born in the UK from 2010–2015, while a third of mothers were born in eastern Europe [5]. Ability to access antenatal programmes was an issue that some of these mothers faced. However, migrant mothers are not the only at-risk group and recent cases described in the UK were also observed among mothers born in the United Kingdom, testing negative during first trimester screening and with no risk factors for syphilis infection identified by their physicians at the time of screening [6]. Such cases, although uncommon, highlight the challenges in completely eliminating congenital syphilis.

Data on the performance of antenatal screening programmes in the EU/EEA are available through an ECDC survey performed in 2013. The survey results show that all participating EU/EEA countries (26/26) have implemented antenatal screening for syphilis. Most countries (22/24) test pregnant women for syphilis during the first trimester of pregnancy. Seven countries reported repeat testing during the third trimester of pregnancy as a general recommendation. Another three countries offer repeat testing for women in risk groups. The reported coverage of antenatal screening of syphilis was high: 14/18 countries reported a coverage of ≥95%, while three reported a coverage of ≥90%. Access to antenatal screening for vulnerable groups is still an issue in a number of countries [7].

Public health implications

Validation of the elimination of congenital syphilis in Europe is under way through efforts by WHO following the establishment of an elimination target and indicators [8–9]. Better antenatal screening, as well as congenital syphilis surveillance data, including more information on the circumstances around transmission of congenital syphilis, are essential in order to understand where antenatal screening programmes need to be improved.

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