

## Congenital syphilis

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### Key facts

- In 2014, 69 congenital syphilis cases were reported in 23 EU/EEA Member States, an overall rate of 2.3 cases per 100 000 live births.
- The trend for reported congenital syphilis cases has remained stable in recent years, but some countries reported small increases in reported cases compared with 2013.
- It is suspected that there is considerable underreporting: seven countries did not contribute to the reporting of congenital syphilis, and a further 13 reported zero cases in 2014.
- The low rates of congenital syphilis and decreasing rates of reported syphilis among women suggest that most Member States have programmes that aim at the elimination of congenital syphilis. Better indicator data are needed, however, to assess the effectiveness of antenatal screening programmes in all EU/EEA countries.

### Methods

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In 2014, the majority of countries reported data using EU case definitions. Two countries reported that they used national case definitions; three countries did not report which case definition they used. All reporting countries have comprehensive surveillance systems for congenital syphilis (Annex). Reporting of congenital syphilis infection was compulsory in all countries except the United Kingdom. Different case definitions were reported as being used across Europe: eight countries reported using 2008 and 2012 EU case definitions, two countries reported using the 2002 EU case definition, two countries reported using other case definitions, and three countries did not specify the case definition in use.

Please note that in all analyses, cases are categorised according to the date of diagnosis.

### Epidemiology

In 2014, 69 confirmed cases of congenital syphilis were reported in 10 countries. Thirteen countries reported zero cases. The majority of the cases were reported from Bulgaria (24 cases) and Poland (17 cases). The number of congenital cases reported in 2014 was comparable to 2013 (72 cases). The number of reported cases continued to decrease in Bulgaria. The number of cases increased in Portugal, Romania and Spain compared with 2013, although numbers were small (Table 1). The overall rate of reported congenital syphilis infection was 2.3 cases per 100 000 live births. This is a slight increase over 2013 despite the fact that Germany did not report data and was therefore excluded from the denominator. The highest rates were observed in Bulgaria (36 cases per 100 000) and Portugal (12.1 cases per 100 000).

**Table 1. Number and rate of reported congenital syphilis cases per 100 000 live births, EU/EEA, 2010–2014**

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Country	2010		2011		2012		2013		2014	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Austria										
Belgium										
Bulgaria	34	45	38	53.6	29	42	27	40.6	24	35.5
Croatia					0	0	0	0	0	0
Cyprus	0	0	0	0	0	0	0	0	0	0
Czech Republic	1	0.9	0	0	1	0.9	1	0.9	0	0
Denmark	0	0	0	0	0	0	0	0	1	1.8
Estonia	1	6.3	0	0	0	0	0	0	0	0
Finland										
France										
Germany	1	0.1	2	0.3	5	0.7	3	0.4		
Greece	2	1.7	3	2.8	0	0				
Hungary	1	1.1	0	0	0	0	2	2.2	1	1.1
Iceland	0	0	0	0	0	0	0	0	0	0
Ireland	1	1.3	0	0	0	0	0	0	0	0
Italy	13	2.3	7	1.3	5	0.9	7	1.4	1	0.2
Latvia			0	0	1	5	0	0	0	0
Liechtenstein										
Lithuania	2	6.5	0	0	1	3.3	2	6.7	1	3.3
Luxembourg	0	0	0	0	0	0	0	0	0	0
Malta	0	0	0	0	0	0	0	0	0	0
Netherlands										
Norway	0	0	0	0	0	0	0	0	0	0
Poland	18	4.4	14	3.6	32	8.3	19	5.1	17	4.5
Portugal	11	10.9	10	10.3	12	13.4	5	6	10	12.1
Romania	6	2.8	10	5.1	6	3	3	1.6	7	3.8
Slovakia	1	1.7	1	1.6	0	0	0	0	1	1.8
Slovenia	0	0	0	0	0	0	0	0	0	0
Spain	5	1	4	0.9	1	0.2	3	0.7	6	1.4
Sweden	1	0.9	1	0.9	1	0.9	0	0	0	0
United Kingdom	0	0	1	0.1	0	0	0	0	0	0
<b>EU/EEA total</b>	<b>98</b>	<b>2.4</b>	<b>91</b>	<b>2.3</b>	<b>94</b>	<b>2.4</b>	<b>72</b>	<b>1.9</b>	<b>69</b>	<b>2.3</b>

Source: Country reports  
Legend: - = no report

**Figure 1. Number of reported confirmed congenital syphilis cases per 100 000 live births; number of countries reporting congenital syphilis data, 25 EU/EEA countries, 2005–2014**



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### Discussion

Congenital syphilis rates have been decreasing or stable in the EU/EEA since 2005. During this time, rates of syphilis among women have decreased consistently in the EU/EEA, contributing to the reduction of the risk of congenital transmission of syphilis. Data on the number of syphilis diagnoses during pregnancy are not collected routinely at a European level and it is therefore difficult to assess the efficiency of antenatal screening programmes from an EU perspective. In addition, underreporting of congenital syphilis is likely to be a problem in parts of Europe. In conjunction with its call for the elimination of congenital syphilis [1], the World Health Organization has identified four indicators to monitor programme progress:

- the proportion of women tested for syphilis at their first antenatal care visit;
- the proportion of pregnant women with a positive test for syphilis;
- antiretroviral coverage of HIV-positive pregnant women; and
- the proportion of syphilis-positive pregnant women treated for syphilis, ideally by week 24 of gestation.

These indicators allow countries to estimate programme effectiveness, defined as 'the estimated proportion of all syphilis-positive pregnant women treated by 24 weeks of gestational age' [2]. An ECDC project is currently investigating the effectiveness of national antenatal screening programmes.

### Public health conclusions

Validation of the elimination of congenital syphilis in Europe is under way through efforts by the World Health Organization. Better surveillance data, including more information on the mothers of infants affected by congenital syphilis, is essential in order to understand where antenatal screening programmes are failing. The European congenital syphilis case definition is currently being updated to include still births related to syphilis infections in pregnancy. This will ensure optimal sensitivity for cases, which is essential at this stage of the elimination process.

### References

1. World Health Organization. Global guidance on criteria and processes for validation: elimination of mother-to-child transmission (EMTCT) of HIV and syphilis. Geneva: World Health Organization, 2013.
2. Kamb ML, Newman LM, Riley PL, Mark J, Hawkes SJ, Malik T, et al. A road map for the global elimination of congenital syphilis. *Obstet Gynecol Int.* 2010;2010.

### Additional information

European Centre for Disease Prevention and Control. Sexually transmitted infections in Europe 2013. Stockholm: ECDC; 2015. Available from: <http://ecdc.europa.eu/en/publications/Publications/sexual-transmitted-infections-europe-surveillance-report-2013.pdf>

### Annex. Surveillance systems overview

**Table. Congenital syphilis, surveillance systems overview, 2014**

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\* The European Surveillance System (TESSy) is a system for the collection, analysis and dissemination of data on communicable diseases. EU Member States and EEA countries contribute to the system by uploading their infectious disease surveillance data at regular intervals.