

Lymphogranuloma venereum

Annual Epidemiological Report for 2018

Key facts

- Lymphogranuloma venereum (LGV) is a systemic STI caused by *Chlamydia trachomatis* serovars L1, L2, or L3.
- In 2018, 2 389 cases of LGV were reported in 22 countries.
- Four countries (France, the Netherlands, Spain and the United Kingdom) accounted for 85% of all notified cases.
- Almost all cases in 2018 were reported among men who have sex with men; among the cases with known HIV status, 59% were HIV positive.
- The number of reported cases increased again in 2018, following a decrease in 2017.

Methods

This report is based on data for 2018 retrieved from The European Surveillance System (TESSy) on 9 December 2019. 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 online [2].

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

In 2018, the majority of reporting countries (13) used the standard EU case definitions. Four countries reported using national case definitions, and five did not report which case definition was in use. Surveillance systems for LGV in Europe vary: 15 countries reported having comprehensive surveillance systems. Four countries reported that they operate sentinel systems that only capture LGV diagnoses reported by a selection of healthcare providers, and three did not report the type of surveillance system. Reporting of LGV infections is compulsory in 15 countries, 14 of which have comprehensive surveillance systems; one country with compulsory reporting did not specify the coverage of the surveillance system. All countries with sentinel systems have voluntary reporting. The remaining three countries did not specify whether reporting of LGV is compulsory or not.

This report does not contain information on LGV infection rates because many LGV surveillance systems do not generate data that are considered representative of the national population. There are also significant differences in the availability of LGV diagnostics across Europe.

Suggested citation: European Centre for Disease Prevention and Control. Lymphogranuloma venereum. In: ECDC. Annual epidemiological report for 2018. Stockholm: ECDC; 2020.

Stockholm, April 2020

© European Centre for Disease Prevention and Control, 2020. Reproduction is authorised, provided the source is acknowledged.

Epidemiology

In 2018, 22 countries provided LGV surveillance data. Fourteen countries reported a total of 2 389 cases, while the remaining eight reported no cases (Table 1). Four countries (France, the Netherlands, Spain and the United Kingdom) accounted for 85% of all notified cases.

Compared with 2017, the number of cases reported in 2018 increased by 19%, with increases of over 10% reported by nine countries. The largest increases in terms of number of cases were reported by France (+237 cases) and the United Kingdom (+164 cases). The largest proportional increases among countries reporting more than 20 cases were observed in Hungary (+86%), Denmark (+54%) and France (+52%). Decreases of more than 10% in the number of reported cases were reported by three countries: Spain (-12%), the Netherlands (-14%) and Czechia (-36%) (Table 1).

Table 1. Distribution of confirmed lymphogranuloma venereum cases by country, EU/EEA, 2014–2018

Country	2014	2015	2016	2017	2018
	Confirmed cases	Confirmed cases	Confirmed cases	Confirmed cases	Confirmed cases
Austria	.	.	.	.	.
Belgium	60	62	80	88	87
Bulgaria	.	.	.	.	.
Croatia	0	0	0	2	.
Cyprus	0	0	0	0	0
Czechia	22	40	39	39	25
Denmark	36	26	44	41	63
Estonia	0	0	0	0	0
Finland	2	2	8	6	17
France	377	469	596	457	694
Germany	.	.	.	.	.
Greece	.	.	.	.	.
Hungary	3	3	14	22	41
Iceland	0	0	0	0	0
Ireland	35	22	47	19	28
Italy	12	3	24	20	21
Latvia	0	0	0	0	0
Liechtenstein	.	.	.	.	.
Lithuania	.	0	0	0	0
Luxembourg	0	0	0	0	0
Malta	0	0	0	0	0
Netherlands	172	181	245	273	235
Norway	21	13	19	33	44
Poland	0	0	0	0	0
Portugal	1	10	5	31	35
Romania	.	.	.	.	.
Slovakia	.	.	.	.	.
Slovenia	0	1	1	2	6
Spain	.	.	248	328	288
Sweden	0	0	20	0	.
United Kingdom	678	948	919	641	805
EU/EEA	1419	1780	2309	2002	2389

Source: Country reports.

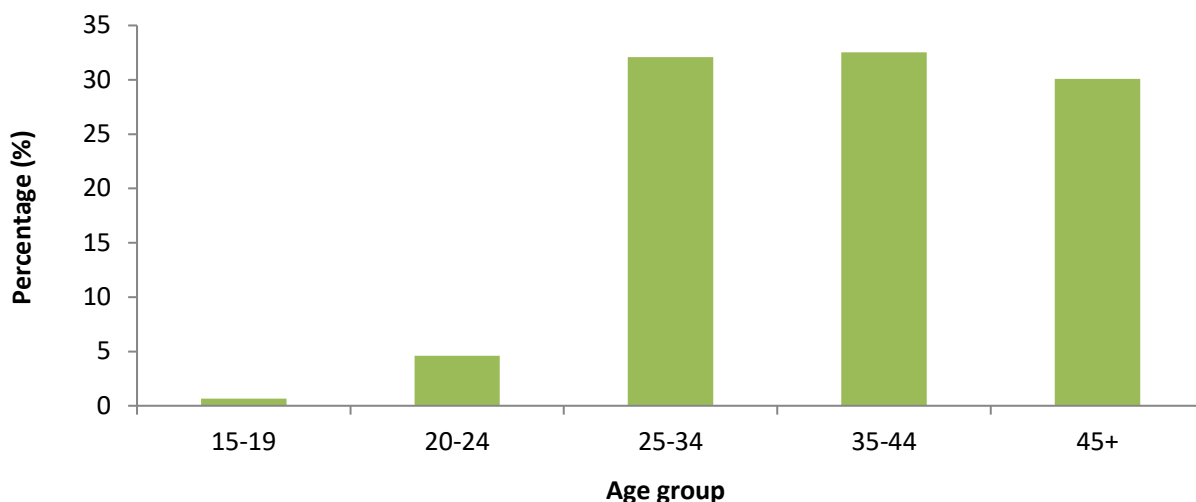
..: no data reported.

Gender was reported for 2 362 cases (99%). All the LGV cases reported in 2018 were among men, with the exception of five cases reported among women.

The transmission category was reported for 1 615 cases in 2018 (68% of all reported cases). All but 21 cases (1.3%) were reported among men who have sex with men (MSM). Age was reported for 96% of cases, with the

large majority of cases distributed evenly among 25–34-year-olds (32%), 35–44-year-olds (33%) and those aged 45 years or over (30%; Figure 1).

Figure 1. Age distribution of confirmed LGV cases, EU/EEA, 2018

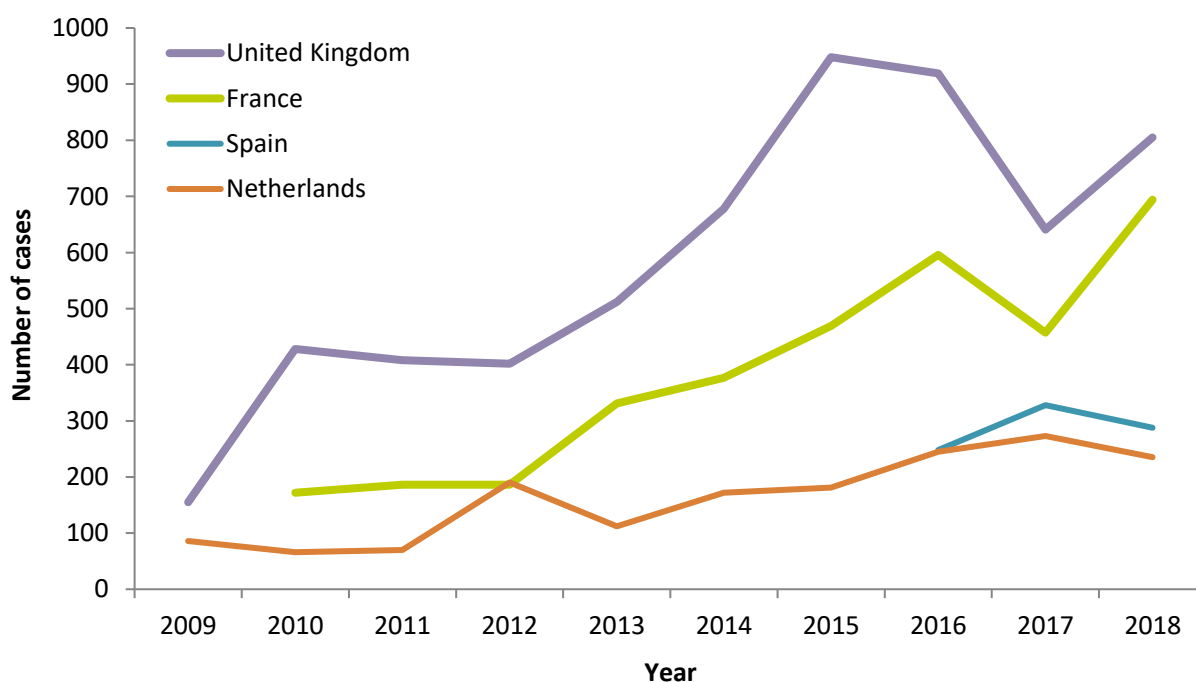


Source: Country reports from Czechia, Denmark, Finland, France, Hungary, Ireland, Italy, the Netherlands, Norway, Portugal, Slovenia, Spain, and the United Kingdom.

In 2018, information on HIV status was available for 48% of all reported LGV cases (1 155 cases). Of these cases, 59% were HIV positive. Between 2009 and 2018, HIV status was reported and known for 6 319 cases (47% of all reported cases). Of these cases, 4 599 (73%) were HIV positive. In countries reporting HIV status consistently, the proportion of LGV cases among HIV-positive persons has decreased from 70% in 2015 to 59% in 2018.

Between 2009 and 2018, 13 585 cases of LGV were reported in 17 countries, with the majority of cases diagnosed and reported in the United Kingdom (43%), France (26%) and the Netherlands (12%). The trend in the number of reported cases during this time has been consistently increasing, with the exception of a reduction in the number of cases in 2017. The overall increasing trend is partly due to an increase in the number of reporting countries, but mostly driven by an increase in case numbers in most of the reporting countries (Figure 2).

Figure 2. Number of confirmed LGV cases in the four EU/EEA Member States with the highest numbers of cases in 2018, 2009–2018



Source: Country reports from Belgium, France, the Netherlands, Spain and the United Kingdom.

Discussion

Following the decrease in the number of reported LGV cases in the previous two years, the overall number of reported cases increased again in 2018. The increase was driven by large increases in the number of reported cases in the United Kingdom and France, the two countries that have reported the largest number of cases over the last ten years. In addition, several other countries also experienced considerable increases in reported cases.

In 2019, the updated European guideline on the management of LGV was published [4] which highlighted the need for appropriate LGV molecular diagnostics in all European countries: all MSM with anorectal samples positive for *C. trachomatis* should be tested for LGV irrespective of symptoms, and HIV-positive MSM and those who are eligible for HIV pre-exposure prophylaxis (PrEP) should be considered a priority for testing.

A greater focus on HIV-negative MSM is important, as the proportion of LGV cases among HIV-negative persons has consistently been increasing over the last years at EU/EEA level. This finding has also been reported from several EU Member States. In Belgium, for example, the number of cases among HIV-negative MSM increased between 2011 and 2017. The authors suggest that increased availability of HIV pre-exposure prophylaxis (PrEP) may lead to changes in sexual behaviour and increased transmission of LGV from HIV-positive to HIV-negative MSM [5].

The number of cases described in this report is likely to be an underestimate because many countries do not have a national surveillance system for LGV. In addition, diagnosis of LGV requires confirmation through genotyping that is not widely available in certain countries. Different testing strategies, for example testing only symptomatic cases, also mean that a substantial number of asymptomatic cases may be missed [6-8]. Consequently, little information is available on the true incidence of the infection. An ECDC-funded pilot study identified substantial underdiagnosis of LGV in the participating countries of Austria, Croatia and Slovenia [9]. The lack of appropriate diagnostics means that it is impossible to conduct effective surveillance, provide effective treatment and implement adequate prevention activities.

Public health implications

Increasing proportions of LGV cases among HIV-negative MSM mean that case finding should also focus on this group, particularly among those eligible for, or on, PrEP. Effective interventions need to be identified and targeted at groups of MSM with high levels of condomless sex. In addition, clinical suspicion and early diagnosis is essential in order to prevent severe complications. In many parts of Europe, there continues to be limited diagnostic capacity for LGV infection, which makes control of the infection difficult and limits the availability of surveillance data.

References

1. European Centre for Disease Prevention and Control. Introduction to the Annual Epidemiological Report. In: ECDC. Annual epidemiological report for 2018 [Internet]. Stockholm: ECDC; 2020 [cited 23 January 2020]. Available from: <http://ecdc.europa.eu/annual-epidemiological-reports/methods>.
2. European Centre for Disease Prevention and Control. Surveillance systems overview for 2018 [Internet, downloadable spreadsheet]. Stockholm: ECDC; 2020 [cited 23 January 2020]. Available from: <http://ecdc.europa.eu/publications-data/surveillance-systems-overview-2018>
3. European Centre for Disease Prevention and Control. Surveillance atlas of infectious diseases [Internet]. Stockholm: ECDC; 2020 [cited 23 January 2020]. Available from: <http://atlas.ecdc.europa.eu>
4. de Vries HJC, de Barbeyrac B, de Vrieze NHN, Viset JD, White JA, Vall-Mayans M, et al. 2019 European guideline on the management of lymphogranuloma venereum. *J Eur Acad Dermatol Venereol*. 2019 Oct;33(10):1821-8.
5. De Baetselier I, Tsoumanis A, Verbrugge R, De Deken B, Smet H, Abdellati S, et al. Lymphogranuloma venereum is on the rise in Belgium among HIV negative men who have sex with men: surveillance data from 2011 until the end of June 2017. *BMC Infect Dis*. 2018 Dec 20;18(1):689.
6. Pallawela S, Bradshaw D, Hodson L, Rehill K, Wong F, Rockwood N, et al. Screening for asymptomatic lymphogranuloma venereum co-infection in men who have sex with men newly diagnosed with HIV, hepatitis C or syphilis. *Int J STD AIDS*. 2016 Jul;27(8):625-7.
7. Foschi C, Gaspari V, Sgubbi P, Salvo M, D'Antuono A, Marangoni A. Sexually transmitted rectal infections in a cohort of 'men having sex with men'. *J Med Microbiol*. 2018 Aug;67(8):1050-7.
8. de Vries HJC. Lymphogranuloma venereum in the Western world, 15 years after its re-emergence: new perspectives and research priorities. *Curr Opin Infect Dis*. 2019 Feb;32(1):43-50.
9. Cole MJ, Field N, Pitt R, Amato-Gauci AJ, Begovac J, French PD, et al. Substantial underdiagnosis of lymphogranuloma venereum in men who have sex with men in Europe: preliminary findings from a multicentre surveillance pilot. *Sex Transm Infect*. 2019 Jun 23.