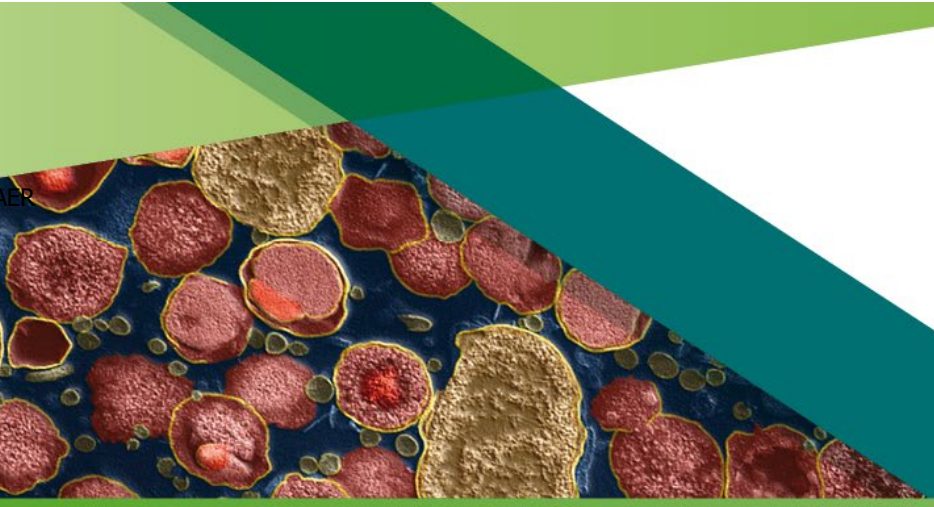

SURVEILLANCE

Lymphogranuloma venereum

Annual Epidemiological Report for 2023

Key facts

- Lymphogranuloma venereum (LGV) is a systemic sexually transmitted infection (STI) caused by *Chlamydia trachomatis* serovars L1, L2, or L3.
- In 2023, 22 EU/EEA countries reported 3 075 cases of LGV, an increase of 41% compared with 2022.
- Two countries (the Netherlands and Spain) accounted for 77% of all notified cases.
- Almost all cases in 2023 were reported among men who have sex with men; among cases with known HIV status, 38% were HIV positive.
- Between 2019 and 2023, the proportion of LGV cases with HIV-negative status has increased from 56% in 2019 to 63% in 2023.

Introduction

Lymphogranuloma venereum (LGV) is a systemic sexually transmitted infection (STI) caused by a specific type of *Chlamydia trachomatis* bacterium (serovars L1, L2, and L3). In the European Union/European Economic Area (EU/EEA), LGV is primarily seen among men who have sex with men. It is transmitted through anal sex and possibly through practices such as fisting or the use of sex toys or enemas. LGV is more common among men who have sex with men who are living with HIV infection [1,2].

The primary clinical features of the disease among men who have sex with men include rectal ulcerations, bleeding, mucoid discharge, constipation, lower abdominal pain and tenesmus (the feeling of needing to pass stool). Complications or prolonged infection include abscesses and fissures around the rectum. Systemic symptoms including fever, malaise, weight loss and fatigue can also be present. Reactive polyarthropathy (pain and swelling in several joints) with or without conjunctivitis can also occur [1,2].

Other manifestations of LGV include primary anogenital ulcer, swelling and pain in the urethra, and swollen lymph nodes in the groin. These have traditionally been the classical manifestations of LGV seen among other populations, mainly outside Europe [1,2].

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Methods

This report is based on data for 2023 retrieved from The European Surveillance System (TESSy) on 31 October 2024. 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 of the 'Introduction to the ECDC Annual epidemiological report' [3]. An overview of the national surveillance systems is available online [4]. A subset of the data used for this report is available through ECDC's online 'Surveillance atlas of infectious diseases' [5].

In 2023, most reporting countries (16 countries) used the standard EU case definitions [6]. Four countries reported using national case definitions, and two did not report which case definition was used. Surveillance systems for LGV in Europe vary: 16 countries reported having comprehensive surveillance systems, three 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 17 countries, 16 of which have comprehensive surveillance systems; one country with compulsory reporting did not specify the coverage of the surveillance system. In the three countries that have sentinel systems, reporting is voluntary. One country did not specify whether reporting of LGV is compulsory or not, nor the coverage of the surveillance system. In another country with voluntary LGV reporting, information was missing regarding the coverage of the surveillance system.

The reporting system in France changed in 2020 and data reported from 2020 onwards are based on a smaller sample of laboratories compared with previous years. No data from 2020 onwards were reported by the United Kingdom (UK), due to its withdrawal from the EU on 31 January 2020.

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.

Epidemiology

In 2023, 22 EU/EEA countries provided LGV surveillance data. Thirteen countries reported a total of 3 075 cases, while the remaining nine reported no cases (Table 1). Two countries (the Netherlands and Spain) accounted for 77% of all notified cases (Table 1).

Table 1. Confirmed lymphogranuloma venereum cases by country and year, EU/EEA, 2019–2023

Country	2019	2020	2021	2022	2023
Austria	NDR	NDR	NDR	NDR	NDR
Belgium	145	88	91	143	201
Bulgaria	NDR	NDR	NDR	NDR	NDR
Croatia	0	0	0	0	NDR
Cyprus	0	0	0	0	0
Czechia	14	20	22	52	12
Denmark	70	24	16	79	94
Estonia	0	0	0	0	0
Finland	8	2	4	10	18
France[a]	721	165	173	197	121
Germany	NDR	NDR	NDR	NDR	NDR
Greece	NDR	NDR	NDR	NDR	NDR
Hungary	49	23	31	33	17
Iceland	0	0	3	5	0
Ireland	39	14	16	28	37
Italy	8	4	13	26	26
Latvia	0	0	0	0	0
Liechtenstein	NDR	0	0	0	0
Lithuania	0	0	0	0	0
Luxembourg	0	0	0	0	0
Malta	6	0	2	1	0
Netherlands	353	267	213	470	577
Norway	27	14	10	36	43
Poland	2	0	0	0	0
Portugal	50	75	55	71	122
Romania	NDR	NDR	NDR	NDR	NDR
Slovakia	NDR	NDR	NDR	NDR	NDR
Slovenia	14	6	2	6	1
Spain	417	628	653	1 025	1 806
Sweden	NDR	NDR	NDR	NDR	NDR
EU/EEA (30 countries)	**1 923**	**1 330**	**1 304**	**2 182**	**3 075**
United Kingdom[b]	1 202	NA	NA	NA	NA
EU/EEA (31 countries)	**3 125**	**NA**	**NA**	**NA**	**NA**

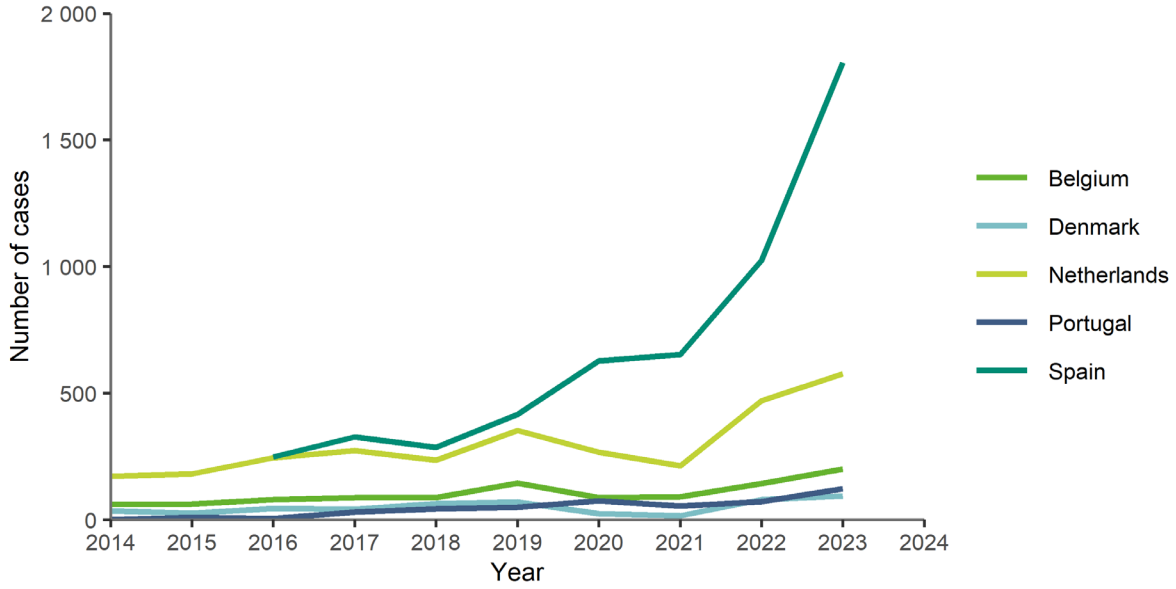
Source: Country reports
NA: not applicable; NDR: no data reported.
[a] *The reporting system in France changed in 2020 and data reported from 2020 onwards are based on a smaller sample of laboratories compared with previous years.*
[b] *No data were reported by the United Kingdom from 2020 onwards, due to its withdrawal from the EU on 31 January 2020.*

Between 2014 and 2023, 15 736 cases of LGV were reported in 18 countries (excluding the UK). A further five countries submitted reports for at least seven of the last 10 years but reported no cases. Most cases during this period were reported in Spain (34%), France (25%) and the Netherlands (19%). An additional 5 193 cases were reported by the UK between 2014 and 2019, before their withdrawal from the EU.

Among the 17 countries reporting consistently between 2014 and 2023 (Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, Hungary, Iceland, Ireland, Italy, Latvia, Malta, the Netherlands, Norway, Poland, Portugal and Slovenia), the combined total number of cases reported increased from 368 in 2014 to 785 in 2019. This number decreased during the COVID-19 pandemic in 2020 (537 cases) and 2021 (478 cases), but rose again in 2022 (960 cases) and 2023 (1 148 cases). Therefore, the total number of cases in 2023 increased by 212% since 2014 and 41% since 2022.

In the five countries reporting the highest case numbers in 2023 (Belgium, Denmark, the Netherlands, Portugal and Spain), increases in case numbers were generally seen prior to the COVID-19 pandemic. However, decreases or slowed increases were observed in either 2020 or 2021, or in both years. A rebound in the number of reported cases was observed in all five countries in 2022 and 2023 (Figure 1; France is not included in this graph due to the substantial changes in their surveillance system in 2020).

Figure 1. Number of confirmed lymphogranuloma venereum cases in the five EU/EEA countries with the highest number of cases in 2023, 2014–2023

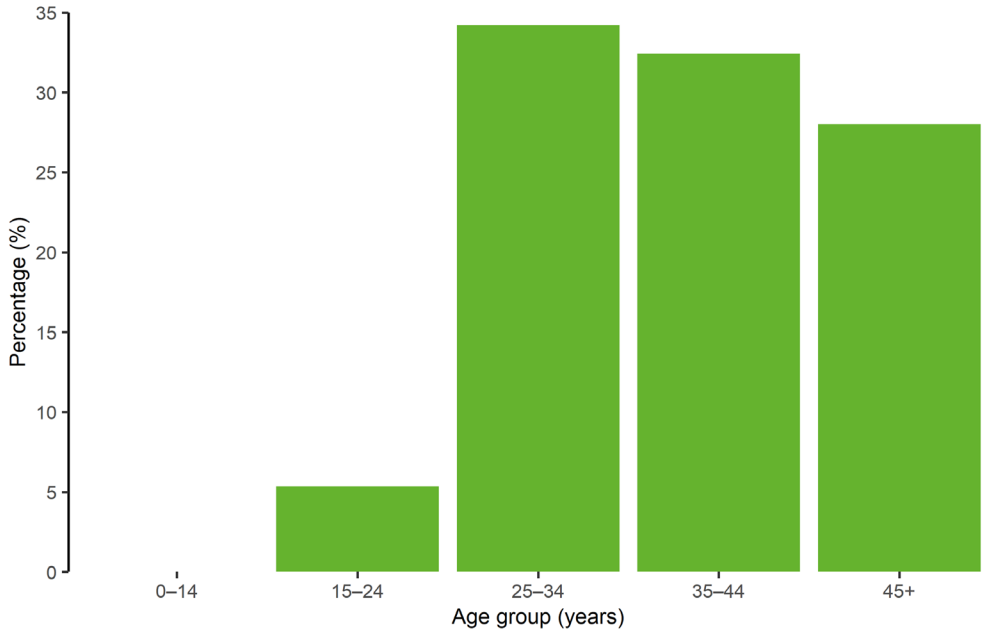


Age and gender

Age was reported for >99% of cases, with 67% of cases reported among 25–44-year-olds (Figure 2).

Gender was reported for all but one case (>99%). Most cases reported in 2023 were among men, with only 35 cases reported among women and five cases reported as 'Other'.

Figure 2. Lymphogranuloma venereum cases by age group, EU/EEA, 2023



Source: Country reports

Transmission category and HIV status

Transmission category was reported for 1 794 cases in 2023 (58% of all reported cases). All but 26 of these were reported among men who have sex with men.

In 2023, information on HIV status was available for 1 214 cases (39% of all reported cases). Of these, 455 (37%) were HIV positive. In the four countries reporting HIV status consistently between 2019 and 2023 (Czechia, Hungary, the Netherlands and Portugal), the proportion of LGV cases with HIV-negative status increased from 56% in 2019 to 63% in 2023.

Discussion

After an overall decline in the number of reported LGV cases in 2020 and 2021 – likely due to the COVID-19 pandemic's impact on the availability and/or accessibility of STI care services, changes in sexual behaviour, reduced testing opportunities and a decrease in STI surveillance capacity [7] – there was a noticeable increase in cases in the majority of reporting countries in 2022. These increases continued in 2023, although not in all countries.

Across the EU/EEA, there has been a notable inversion of LGV trends. Before 2019, most cases were reported among HIV-positive men who have sex with men (MSM). Since 2020 there has been a shift, with more than 60% of cases now reported in the HIV-negative MSM population. This change in the epidemiological distribution of LGV cases can be attributed to changes in testing recommendations and public health response measures. Moving from a testing approach more focused on HIV-positive MSM or individuals with symptoms, towards more comprehensive testing strategies (such as universal testing for LGV among all MSM regardless of HIV status) has resulted in a higher proportion of cases identified in this group [8].

Increasing trends of LGV among HIV-negative and asymptomatic MSM in the Netherlands is related to changes in testing recommendations in 2015, from selective to universal rectal chlamydia testing for all MSM and universal LGV testing in all rectal *C. trachomatis*-positive MSM [9]. A similar rise in LGV diagnoses among HIV-negative and/or asymptomatic MSM was reported from Belgium, where testing for LGV on all chlamydia-positive samples from MSM irrespective of their HIV status was indicated as a public health response measure to control an LGV outbreak [10]. In line with such changes in testing practices, the updated European guidelines on the management of LGV, published in 2019, recommended that all MSM with anorectal samples positive for *C. trachomatis* be tested for LGV irrespective of symptoms and that HIV-positive MSM and those who are eligible for HIV pre-exposure prophylaxis (PrEP) be considered a priority for testing [8]. This is highly relevant, as the number of chlamydia diagnoses among MSM have increased by almost 50% between 2019 and 2023 [11].

The case numbers described in this report are likely to be an underestimation, as many countries do not have a national surveillance system for LGV and, in certain countries, confirmation of LGV infection through molecular diagnostics is not widely available. Substantial underdiagnosis of LGV was identified by an ECDC-funded pilot study in the following participating countries: Austria, Croatia and Slovenia [12]. The updated European guidelines on the management of LGV published in 2019 also highlighted the need for appropriate LGV molecular diagnostics in all European countries [8]. 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 indicate an increased vulnerability to transmission within this population group. Nonetheless, this trend illustrates the impact of changes in clinical guidelines and more frequent testing of MSM using PrEP for HIV. This shift in epidemiological trends highlights the importance of adapting strategies to effectively control and monitor LGV outbreaks. Effective interventions need to be identified and tailored to groups of MSM who engage in sexual risk behaviours such as condomless sex with multiple partners. In addition, clinical suspicion and early diagnosis is essential to prevent severe complications. In many parts of Europe, there continues to be limited diagnostic capacity for LGV infection, which makes controlling the spread of infection difficult and limits the availability of surveillance data.

The upsurges in bacterial STIs across the EU/EEA are of concern and were discussed at meetings of the Health Security Committee (HSC) in 2024. An HSC opinion on this issue was published in January 2025[1], outlining public health actions to deal with the increases in STIs at EU/EEA and Member-State levels [13].

[1] https://health.ec.europa.eu/publications/opinion-health-security-committee-sexually-transmitted-infections_en

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