

SURVEILLANCE REPORT

Annual Epidemiological Report for 2015

Plague

Key facts

- No cases of plague were reported in EU/EEA countries in 2015.

Methods

This report is based on data for 2015 retrieved from The European Surveillance System (TESSy) on 12 December 2016. 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.

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

An overview of the national surveillance systems is available online [2].

Additional data on this disease are accessible from ECDC's online *Surveillance atlas of infectious diseases* [3].

The EU case definition was used by 24 countries. Four countries used an alternative case definition (Denmark, France, Germany and Italy), and two countries did not specify the case definition (Belgium and Finland).

Surveillance is compulsory in 27 EU/EEA countries (voluntary in France, non-specified in Latvia and in the United Kingdom), comprehensive, mostly passive, and data reporting is case based [2]. Data were obtained from 30 EU/EEA countries.

Epidemiology

No cases of plague were reported in EU/EEA countries in 2015.

Discussion

Plague, caused by the bacterium *Yersinia pestis*, is enzootic in wild rodents in central and eastern Asia, Africa, and North America, and remains endemic in many natural foci around the world. Recent outbreaks have shown that

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plague may reoccur in areas that have long remained unaffected. Humans can be infected through 1) the bite of an infected flea carried by a rodent or, rarely, other animals, 2) direct contact with contaminated tissues, or 3), in rare cases, inhalation of respiratory secretions from infected persons or animals [4]. Untreated plague, particularly the pneumonic form, is often fatal. While urban plague has been controlled in most of the world, it remains a public health problem in rural areas in many countries.

Autochthonous plague has not occurred in Europe for several decades.

Worldwide, 320 cases of plague including 77 deaths were reported in 2015 [4]. Cases were reported mainly in Africa (94% of the total): Madagascar (275 cases, 63 deaths) and the Democratic Republic of Congo (18 cases, five deaths). In the USA, 16 cases including four deaths were reported [5,6]. There is a downward trend in global incidence reported in recent years, which may seem to reflect the real situation [5]. However, possible re-emergence of the disease, particularly in poor urban settings, remains a concern.

This further emphasises the need to take into consideration environmental factors when planning prevention and control measures for diseases that have a nonhuman reservoir.

References

1. European Centre for Disease Prevention and Control. Introduction to the Annual epidemiological report for 2015. In: ECDC. Annual epidemiological report for 2015. Stockholm: ECDC; 2017. Available from: <https://ecdc.europa.eu/en/annual-epidemiological-reports-2016/methods>
2. European Centre for Disease Prevention and Control. Surveillance systems overview [internet]. Stockholm: ECDC; 2017. Available from: https://ecdc.europa.eu/sites/portal/files/documents/Table-surveillance_systems_overview_0.xlsx
3. European Centre for Disease Prevention and Control. Surveillance atlas of infectious diseases [internet]. Stockholm: ECDC; 2017 [cited 30 May 2017]. Available from: <http://atlas.ecdc.europa.eu>
4. World Health Organization. Global alert and response (GAR) – Plague 2015 [Internet]. Geneva: WHO; 2015 [cited 30 May 2017]. Available from: <http://www.who.int/csr/disease/plague/en/index.html>
5. Bertherat EG. Plague around the world: 2010–2015. Wkly Epidemiol Rec 2016, 91 (8):89-104
6. Centers for Disease Control and Prevention. Plague: maps and statistics [Internet]. 2016. Available from: <http://www.cdc.gov/plague/maps/index.html>