

SURVEILLANCE REPORT

Annual Epidemiological Report for 2017

Plague

Key facts

- For 2017, no cases of plague were reported by EU/EEA countries.

Methods

This report is based on data for 2017 retrieved from The European Surveillance System (TESSy) on 10 December 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 online [2].

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

For 2017, 30 EU/EEA countries reported case-based plague data (Liechtenstein did not report). Twenty-five countries used the EU case definition, three (Denmark, Germany and Italy) used an alternative case definition and two (Finland and France) did not specify the case definition they used. Surveillance is compulsory in 28 EU/EEA countries (non-specified in Belgium and the United Kingdom), comprehensive and mostly passive.

Epidemiology

For 2017, no cases of plague were reported by EU/EEA countries. Autochthonous plague has not occurred in Europe for several decades.

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 [4]. Recent outbreaks have shown that plague may reoccur in areas that have long remained unaffected [5]. While urban plague has been controlled in most of the world, the disease remains a public health problem in rural areas in many countries. In the US, five cases were reported in 2017 [6].

Madagascar accounts for most cases of plague worldwide and reported between 250 and 680 cases yearly between 2010–2015 [5]. From 1 August to 26 November 2017, 2 417 cases of plague, including 209 deaths (case fatality: 9%), were reported from 57 of 114 districts in Madagascar [7–8]. Analamanga Region in central Madagascar was the most affected, with 68% of all recorded cases. Seventy-seven percent of the reported cases were classified as pneumonic plague, 15% as bubonic plague, one as septicaemic plague and 207 had not yet been classified at the time of the report. There was no international spread related to this outbreak.

Possible re-emergence of the disease, particularly in poor urban settings, remains a concern. This further emphasises the need to take environmental factors into consideration when planning prevention and control measures for diseases that have an animal reservoir.

References

1. European Centre for Disease Prevention and Control. Introduction to the Annual Epidemiological Report [Internet]. In: ECDC. Annual epidemiological report for 2017. Stockholm: ECDC; 2017 [cited 10 December 2018]. Available from: <http://ecdc.europa.eu/annual-epidemiological-reports/methods>.
2. European Centre for Disease Prevention and Control. Surveillance systems overview for 2017 [Internet, downloadable spreadsheet]. Stockholm: ECDC; 2018 [cited 10 December 2018]. Available from: <http://ecdc.europa.eu/publications-data/surveillance-systems-overview-2017>.
3. European Centre for Disease Prevention and Control. Surveillance atlas of infectious diseases [Internet]. Stockholm: ECDC; 2018 [cited 10 December 2018]. Available from: <http://atlas.ecdc.europa.eu/public/index.aspx?Dataset=27&HealthTopic=39>.
4. World Health Organization. Global distribution of natural plague foci as of March 2016. Geneva: WHO; 2016. Available from: <http://www.who.int/csr/disease/plague/Plague-map-2016.pdf>.
5. Plague around the world, 2010–2015. Wkly Epidemiol Rec. 2016 Feb 26;91(8):89-93.
6. Centers for Disease Control and Prevention. Maps and Statistics – Plague in the United States [Internet]. Atlanta: CDC; 2018 [cited 1 February 2019]. Available from: <http://www.cdc.gov/plague/maps>.
7. World Health Organisation Regional Office for Africa. Plague Outbreak Madagascar – External Situation Report 14. Brazzaville: WHO Regional Office for Africa; 2017. Available from: <http://apps.who.int/iris/bitstream/handle/10665/259556/Ex-PlagueMadagascar04122017.pdf>.
8. European Centre for Disease Prevention and Control. Rapid risk assessment: Outbreak of plague in Madagascar, 2017 – 9 October 2017. Stockholm: ECDC; 2017. Available from: <http://ecdc.europa.eu/publications-data/rapid-risk-assessment-outbreak-plague-madagascar-2017>.