

Plague

Annual Epidemiological Report for 2018

Key facts

For 2018, no cases of plague were reported by EU/EEA countries.

Methods

This report is based on data for 2018 retrieved from The European Surveillance System (TESSy) on 10 September 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].

For 2018, 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 2018, 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 locally-acquired cases were reported in 2017 [6].

Suggested citation: European Centre for Disease Prevention and Control. Plague. In: ECDC. Annual epidemiological report for 2018. Stockholm: ECDC; 2019.

Stockholm, December 2019

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Madagascar accounts for most cases of plague worldwide and reported between 250 and 680 cases annually during the period 2010–2015 [5]. In 2017 and 2018, Madagascar experienced a particularly severe outbreak of plague. 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]. Seventy-seven percent of the reported cases were classified as pneumonic plague, 15% as bubonic plague, one case as septicæmic plague, and 207 cases had not yet been classified at the time of the report. There was no international spread related to this outbreak. In 2018, numerous pneumonic cases were reported in Madagascar. Since 19 August 2018, the cumulative number of confirmed and suspected cases in Madagascar was higher than the maximum for the period 2012–2016 [9].

Public health implications

Plague has been absent from Europe for over half a century, however it should be considered in symptomatic travellers coming back from risk areas [10]. In risk areas, plague can be avoided by reducing contact with wild rodents and their fleas, either through personal protection or environmental sanitation, including rodent and flea control [11]. In natural foci, monitoring programmes should be set up so that control can be promptly initiated. There is no approved vaccine, but antibiotics can be used as prophylaxis. Prophylactic treatment is only recommended for persons who have been in close contact with plague cases, or who have experienced other high-risk exposures, such as bites from fleas or direct contact with the bodily fluids or tissues of infected animals [10]. Healthcare workers should apply appropriate protective measures (i.e. wear gloves and masks) when dealing with cases, particularly of pneumonic plague [10].

References

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