



## SURVEILLANCE REPORT

Annual Epidemiological Report for 2015

# Yellow fever

### Key facts

- In 2015, no cases of yellow fever were reported in EU/EEA countries.

### 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].

Data were obtained from 30 EU/EEA countries, with the exception of Liechtenstein.

Twenty-three countries used the EU case definition, four countries used an alternative case definition, and three countries did not specify the definition they used.

Surveillance is compulsory in 29 EU/EEA countries, comprehensive in all countries, and mostly passive. Active disease surveillance is conducted in the Czech Republic, Portugal and Slovakia. Data reporting is case-based and at the national level [2].

### Epidemiology

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

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## Discussion

Yellow fever is endemic in several countries in Africa and South America [4]. According to WHO, there is an estimated 200 000 cases of yellow fever worldwide each year, causing 30 000 deaths, with 90% occurring in Africa. More specifically, for the year 2013 the yellow fever burden in Africa was estimated as 130 000 cases with fever and jaundice or haemorrhage (95% CI 51 000–380 000), including 78 000 deaths (95% CI 19 000–180 000) [5].

In 2015, 73 cases including nine deaths were reported to WHO from Brazil (nine cases, five deaths) and Peru (64 cases, four deaths). No outbreaks were reported in Africa [6]. In 2014, only 21 cases of yellow fever and 12 deaths were reported: the Democratic Republic of Congo reported two outbreaks involving seven cases, Brazil one case, and Peru reported 13 cases, including 12 deaths. These numbers show a substantial underreporting in Africa [7].

A large outbreak began in early December 2015 in Luanda province, Angola, which spread to the Democratic Republic of Congo (DRC). The outbreak was confirmed in January 2016 [8]. Angola reported 4 306 suspected cases and 376 deaths. Of these cases, 884 cases (121 of them fatal) were laboratory confirmed. The DRC reported 2 987 suspected cases, with 81 laboratory-confirmed cases and 16 deaths. The last case detected in Angola was on 23 June 2016, and the last detected case in the DRC was on 12 July 2016 [9,10].

Preventive mass vaccination campaigns were carried out in Sudan and Cameroon in 2015 [6]. A shortage of yellow fever vaccines worldwide remained a major concern [9].

## Public health implications

Vaccination is the most important preventive measure against yellow fever. The vaccine is safe, affordable and highly effective, and a single dose of yellow fever vaccine is sufficient to confer sustained immunity and lifelong protection against yellow fever disease. A booster dose of yellow fever vaccine is not needed. The vaccine provides effective immunity within 30 days for 99% of the vaccinated people [4].

## References

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