

Department of Epidemiological Surveillance and Intervention

EPIDEMIOLOGICAL DATA FOR MUMPS IN GREECE, 2004-2017

(MANDATORY NOTIFICATION SYSTEM)

Key points

- Mumps is a vaccine preventable disease, presenting a decreasing frequency during the last years ranging in low levels.
- Based on data for the period 2004-2017, mumps is present in all age groups (with the exception of the age group >65 years), with the age group of 15-24 year-olds most frequently affected.
- Cases are usually either unvaccinated or not fully vaccinated.

Mumps is a viral disease. It is caused by the mumps virus, which belongs to the paramyxoviridae family. The virus is spread through airborne transmission with droplets or by direct contact with infected droplet nuclei or saliva. Mumps is a vaccine preventable disease [1].

Time trend

During the period 2004-2017, the number of reported mumps cases was 153.

Mumps notification rate during the period 2004-2017 ranged from 0.00/100,000 population to 0.44/100,000 population (Figure 1).

The mean annual notification rate for the period 2004-2017 was 0.1/100,000 population (mean number of reported cases per year: 11, total number of reported cases: 153).

Age and gender distribution

For the period 2004-2017, the number of cases with known age and gender was 122. The highest mean annual notification rate was noted in the age group of 15-24 year-olds (0.30/100,000 population). Among the other age groups, the mean annual notification rate ranged from 0 in the age group >65 years old to 0.19/100,000 population in the age group of 0-4 years old (Figure 2). The overall male-to-female ratio for all notified cases was 2.0 (males: 0.11/100,000 population, females: 0.05/100,000 population).

Geographical distribution

During the period 2004-2017, the disease presented the highest mean annual notification rate in geographical areas of Northern Greece (0.18/100,000 population) and the Aegean islands/Crete (0.16/100,000 population). The notification rate for the geographical areas of Central Greece and Attica was 0.03/100,000 population. In addition, 22 cases were of foreign origin (19 of them were UK

citizens and 3 from other countries). More specifically, during April and May of 2009, a mumps outbreak was reported from a tourist area in Crete (19 cases), concerning young British travelers, who were visiting the island as tourists or as circumstantial workers during summertime.

Laboratory data

During the period 2004-2016, 12.5% of the notified cases were laboratory-confirmed.

Vaccination status

Among the 153 notified cases for the period 2004-2017, vaccination status was known for 105 (68.6%). Fifty four (51.4%) cases reported that they had been vaccinated with MMR. Among the 27 cases, for which the respective information was available, 15 (55.5%) reported that they had been vaccinated with a single dose of the vaccine in the past.

Conclusion

Mumps notification rate is low in Greece. Mean annual notification rate for the period 2004-2017 was lower than the mean notification rate for the EU and EEA/EFTA countries (3.1/100,000 population for the year 2015) [2]. The age group most frequently affected is 15-24 year-olds similar to that of the other EU and EEA/EFTA countries [2]. Regarding the outbreak concerning young UK citizens, during April and May of 2009, it is noted that vaccination with MMR was introduced in their national vaccination programme in 1988 (one dose), whereas a second dose of the vaccine was introduced in 1996. Thus, people born in the 80's had an increased probability of being inadequately vaccinated against mumps [3]. In addition, the possibility of infection after full vaccination with MMR is unknown. In Greece, during the period 2005-2009, there was only one such case, with laboratory confirmation, while similar cases have been reported in other countries as well [4].

References

1. Heymann DL. Control of Communicable Diseases Manual. Washington DC: American Public Health Association; 2008.
2. European Centre for Disease Prevention and Control. Mumps. Annual Epidemiological Report for 2015. Stockholm: ECDC; 2017. Available from: https://ecdc.europa.eu/sites/portal/files/documents/AER_for_2015-mumps.pdf
3. Spanaki A, Hajioannou J, Varkarakis G, Antonakis T, Kyrmizakis DE. Mumps epidemic among young British citizens on the island of Crete. *Infection* 2007;35(2):104-6.
4. Karagiannis I, van Lier A, van Binendijk R, Ruijs H, Fanoy E, Conyn- van Spaendonck MAE, et al. Mumps in a community with low vaccination coverage in the Netherlands. *Euro Surveill.* 2008;13(24):pii=18901. Available from: <http://www.eurosurveillance.org/Viewarticle.aspx?ArticleId=18901>

Figure 1. Age distribution of the mean annual notification rate of mumps (cases/100,000 population), Greece, 2004-2017

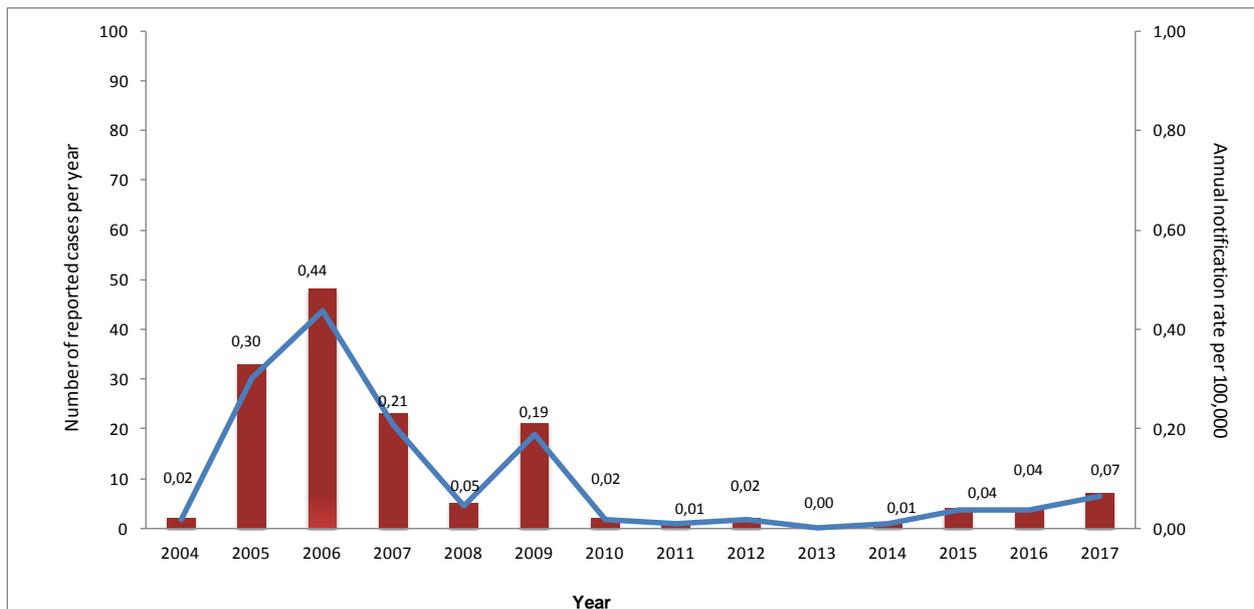


Figure 2. Mean annual notification rate (cases/100,000 population) of mumps by age group, Greece, 2004-2017 (N=122)

