

Rapid communications

MEASLES IS STILL A CAUSE FOR CONCERN IN EUROPE

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EUVAC.NET is a European Union surveillance network for vaccine-preventable diseases and receives funding from the European Commission (Health and Consumer Protection Directorate General, DG SANCO) under grant agreement no. 2004205.

Despite efforts to eliminate measles in Europe [1] outbreaks still continue unabated and even cause deaths. In 2006 and 2007 several countries have reported high numbers of cases and outbreaks. The larger outbreaks such as those described in Switzerland [2], Germany [3,4] and Spain [5] mostly involved the general population. Other outbreaks were described primarily

affecting particular groups such as the travellers' communities in the United Kingdom [6,7] and Norway [8], Roma and Sinti populations in Italy [9], Roma and immigrant families in Greece [10] and orthodox Jewish communities in Belgium [11] and the UK [7,12]. The groups in the UK are known to historically have low vaccine uptake [13].

Based on preliminary data for 2007 from 31 European countries (Table 1) reporting to EUVAC.NET, a total of 3,826 measles cases was registered. The highest reported indigenous incidence of measles was reported from Switzerland followed by the UK with

TABLE 1

Reported incidence rates of indigenous measles cases per 100,000 inhabitants by country, 2007*

High incidence (>1.0)	
Ireland (1.62)	United Kingdom (1.64)
Romania (1.62)**	Switzerland (14.06)
Moderate incidence (0.1-1.0)	
Belgium (0.50)	Malta (0.49)
Germany (0.67)	Poland (0.11)
Italy (0.59)	Spain (0.61)
Low incidence (< 0.1)	
Austria (0.04)	Greece (0.02)
Czech Republic (0.01)	The Netherlands (0.04)
Estonia (0.08)	Norway (0.02)
France (0.05)	Sweden (0.01)
No indigenous cases	
Bulgaria (0)	Latvia (0)
Croatia (0)	Lithuania (0)
Cyprus (0)	Luxembourg (0)
Denmark (0)	Portugal (0)
Finland (0)	Slovakia (0)
Hungary (0)	Slovenia (0)
Iceland (0)	

*EUVAC.NET preliminary data. All clinical, laboratory-confirmed or epidemiologically linked cases meeting the requirements for national surveillance were included in this table. The proportion of laboratory-confirmed cases varies in different countries.

** For Romania the crude incidence is quoted in this table as data on importation status of cases was not included in the dataset provided.

Note: To date, no reports were received from Turkey.

FIGURE

Incidence categories of reported indigenous measles cases per 100,000 inhabitants by country, 2007*



* EUVAC.NET preliminary data. All clinical, laboratory-confirmed or epidemiologically linked cases meeting the requirements for national surveillance were included. The proportion of laboratory-confirmed cases varies in different countries.

Note: For Romania the crude incidence is represented in this figure as data on importation status of cases was not included in the dataset provided. To date, no reports were received from Turkey.

14.06 and 1.64 per 100,000 inhabitants respectively. Thirteen countries reported no indigenous cases (Table 1 and Figure).

As expected, the majority of measles cases were unvaccinated (87%) where vaccination status was known (92%). Although no deaths have yet been reported for 2007 cases, four countries reported 19 deaths for 2005-2006 cases (Table 2), 15 of which (80%) were in children under 5 years of age. Pneumonitis was the established cause of death in 13 cases and acute encephalitis in four cases. In the remaining two cases the cause was unknown or not reported. Overall, for the period 2005-2007, acute encephalitis was reported in 21 cases and distributed in the following age-groups: <1 year (14%); 1-14 years (38%); 15-19 years (19%) and ≥20 years (29%). It was the cause of four deaths mentioned above. In 2007, of the 97% with a known hospitalisation status, 859 cases were hospitalised (23%).

Despite a 53% drop in the number of reported measles cases compared with the previous year for the same 31 countries, the high incidence rates in some countries still cause concern and threaten the success of measles elimination in the region. The World Health Organization Regional Office for Europe reported that in 2007 the majority (60%) of measles cases in the WHO European Region occurred in Western Europe countries [14]. To achieve the goal of eliminating measles in Europe by 2010, greater political will and commitment in these countries are necessary to improve policies that aim to better target susceptible individuals with measles vaccination programmes in both the general population and particular risk groups. These programmes should aim at a minimum of 95% vaccination coverage with two doses of the combined measles-mumps-rubella vaccine (MMR). Such activities will have to be supported by information campaigns highlighting the importance and benefits of the MMR vaccine. Additionally, all suspected measles cases need to be investigated thoroughly to identify transmission patterns thereby enabling better contact tracing and ensuring swift control to limit the spread of the disease.

TABLE 2
Number of reported measles-related deaths and measles cases by country, 2005-2006*

Country	2005		2006	
	Number of measles-related deaths (n=13)	Number of reported measles cases	Number of measles-related deaths (n=6)	Number of reported measles cases
Germany	1	778	2	2,307
Romania	11	5,647	3	3,196
Turkey	1	6,206	0	34**
United Kingdom	0	78	1	773

* Only countries reporting fatal cases of measles were included in this table.

** For Turkey, 2006 data consisted of laboratory-confirmed cases only.

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References

- World Health Organization. Eliminating measles and prevention congenital rubella infection, WHO European Region strategic plan 2005-2010. [cited February 28, 2008] Available from: <http://www.euro.who.int/document/E87772.pdf>
- Richard J, Masserey Spicher V. Ongoing measles outbreak in Switzerland: results from November 2006 to July 2007. *Euro Surveill* 2007;12(7):E070726.1. Available from: <http://www.eurosurveillance.org/ew/2007/070726.asp#1>
- Bernard H, Santibanez S, Siedler A, Ludwig M, Hautmann W. An outbreak of measles in Lower Bavaria, Germany, January-June 2007. *Euro Surveill* 2007;12(10):E071004.1. Available from: <http://www.eurosurveillance.org/ew/2007/071004.asp#1>
- Bernard H, Fischer R, Wildner M. Ongoing measles outbreak in southern Bavaria, Germany. *Euro Surveill* 2008;13(1). Available online: http://www.eurosurveillance.org/edition/v13n01/080103_02.asp
- Torner N, Martinez A, Costa J, Mosquera M, Barrabeig I, Rovira A, et al. Measles outbreak in the Barcelona Region of Catalonia, Spain, October 2006 to February 2007. *Euro Surveill* 2007;12(2):E070222.2. Available from: <http://www.eurosurveillance.org/ew/2007/070222.asp#2>
- Cohuet S, Morgan O, Bukasa A, Heathcock R, White J, Brown K, et al. Outbreak of measles among Irish Travellers in England, March to May 2007. *Euro Surveill* 2007;12(6):E070614.1. Available from: <http://www.eurosurveillance.org/ew/2007/070614.asp#1>
- Ashmore J, Addiman S, Cordery R, Maguire H. Measles in North East and North Central London, England: a situation report. *Euro Surveill* 2007;12(9):E070920.2. Available from: <http://www.eurosurveillance.org/ew/2007/070920.asp#2>
- Løvøll Ø, Vonen L, Nordbø S, Vevatne T, Sagvik E, Vainio K, et al. Outbreak of measles among Irish Travellers in Norway: an update. *Euro Surveill* 2007;12(6):E070614.2. Available from: <http://www.eurosurveillance.org/ew/2007/070614.asp#2>
- Filia A, Curtale F, Kreidl R, Morosetti G, Nicoletti L, Perrelli F, et al. Cluster of measles cases in the Roma/Sinti population, Italy, June-September 2006. *Euro Surveill* 2006;11(10):E061012.2. Available from: <http://www.eurosurveillance.org/ew/2006/061012.asp#2>
- Georgakopoulou T, Grylli C, Kalamara E, Katerelos P, Spala G, Panagiotopoulos T. Current measles outbreak in Greece. *Euro Surveill* 2006;11(2):E060223.2. Available from: <http://www.eurosurveillance.org/ew/2006/060223.asp#2>
- Lernout T, Kissling E, Hutse V, Top G. Clusters of measles cases in Jewish orthodox communities in Antwerp, epidemiologically linked to the United Kingdom: a preliminary report. *Euro Surveill* 2007;12(11):E071115.3. Available from: <http://www.eurosurveillance.org/ew/2007/071115.asp#3>
- Stewart-Freedman B, Kovalsky N. An ongoing outbreak of measles linked to the United Kingdom in an ultra-orthodox Jew-ish community in Israel. *Euro Surveill* 2007;12(9):E070920.2. Available from: <http://www.eurosurveillance.org/ew/2007/070920.asp#1>
- Health Protection Agency. Confirmed measles, mumps and rubella cases in 2007: England and Wales. Health Protection Report, [serial online] 2008. [cited 19 March 2008]; 2 (8): news. Available from: <http://www.hpa.org.uk/hpr/archives/2008/hpr0808.pdf>
- World Health Organization. Measles and Rubella Surveillance Bulletin. January 2008.

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