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## Measles: worldwide

### A measles reminder for health professionals and travellers

[Measles](#) is one of the most communicable infectious diseases with the potential for serious and life threatening complications.

Measles is endemic in many countries and [measles outbreaks](#) are reported worldwide.

Travel remains an important factor in the international spread of measles.

All UK travellers should ensure they are up-to-date with the [Measles, Mumps and Rubella](#) (MMR) vaccination, according to current UK recommendations.

MMR can be given from six months of age in some circumstances, e.g. before travel to an endemic country and/or where an outbreak is occurring.

## Measles: global update

As of 9 February 2015, The Pan American Health Organization/ World Health Organization reported several ongoing outbreaks in the region of the Americas [1]:

**Brazil:** between 2013 and 2015, a total of 971 confirmed measles cases were reported, the majority (718) from Ceará state.

**USA:** from 1 January to 1 May 2015, 169 people from 20 states and the District of Columbia were reported to have measles; 117 of these cases were linked to an outbreak connected to an amusement park in California [2].

**Canada:** two separate measles outbreaks are being investigated; one in Quebec, suspected to be connected to the ongoing outbreak in California, and another in Ontario province [1]. As of 25 April 2015, the provinces of Manitoba, Quebec and British Columbia have reported recent measles activity. Some cases have been linked to travel outside Canada [3].

In **Europe**, of the 3,760 cases reported from the 30 countries undertaking surveillance between March 2014 and February 2015, 73% were unvaccinated. **Germany** reported the highest number of cases (1,239) followed by, followed by Italy (1,199), the **Czech Republic** (224) and France (203)

[4].

In **France**, between 1 January and 30 April 2015, 95 cases were reported; 62 (65%) occurred during an outbreak in the Upper Rhine, Alsace (the department of Haut-Rhin, bordering Germany and Switzerland) in April [5-6]. This outbreak has been linked to a school trip to Berlin, Germany, where a measles outbreak has been ongoing since October 2014 [6].

In addition to the ongoing outbreak in Berlin, other areas of Germany (Erfurt, Weimar (Bauhaus University), Dresden, Gotha and Thuringia) have reported cases during 2015 [6].

In **Austria**, 152 cases of measles were reported between 1 January and 21 April 2015, compared with 117 cases for the whole of 2014. All provinces, with the exception of Vorarlberg and Burgenland, are affected, with Lower Austria and Upper Austria reporting most cases [6].

In other parts of the world, including **China, the Philippines, Viet Nam, the Solomon Islands** and **Papua New Guinea**, large outbreaks of measles were reported during 2014 [7,8]. Since the start of 2015, outbreaks have been reported from **Serbia, Russia, Kyrgyzstan, Mongolia** and **Brazil** [6].

**Brunei Darussalam, Cambodia** and **Japan** have been verified as having achieved measles elimination by the Measles Regional Verification Commission [9].

In Africa, large outbreaks have been reported from **Angola, Ethiopia, Guinea, Liberia, the Republic of the Congo**, and **Sudan**[6].

Some verified outbreak reports for measles, mumps and rubella worldwide are available on [Outbreak Surveillance Database](#).

## About measles

Measles is a highly infectious viral illness spread by airborne or droplet transmission. Initial symptoms can include fever, runny nose, conjunctivitis and cough. A rash usually appears a few days later that starts at the head and spreads to the trunk and limbs over three to four days. Individuals are infectious from the time when the first symptom appears to four days after the appearance of the rash. The incubation period is about ten days (ranging between seven and 18 days) [10].

Complications of measles infection can occur and in the UK, death occurs in approximately one in

5,000 cases. The risk of death from measles infection is age-related; it is high in children under one year of age, lower in children aged one to nine years and rises again in teenagers and adults [10].

Countries experiencing or recovering from a conflict or natural disaster are particularly prone to outbreaks of measles. Damage to health infrastructure and health services can interrupt routine immunisation schedules and overcrowding in residential camps greatly increases the risk of infection [11].

## Advice for travellers

As part of your preparation for overseas travel to Europe or beyond, you should ensure you are up-to-date with all vaccines, according to [current UK recommendations](#).

If you have never had measles infection or you are unvaccinated or incompletely vaccinated, you may be at risk from measles when visiting countries reporting cases, especially if staying with friends or family and mixing with the local population.

Measles vaccine can be given from six months of age in some circumstances, e.g. before travel to an endemic country and/or where an outbreak is occurring.

## Advice for health professionals

Guidance on measles vaccination is available in [Immunisation against infectious disease Chapter 21](#).

Advice on immunisation against measles is also available for those whose [immunisation status is uncertain](#).

In the UK, measles is a [notifiable disease](#). Any case of suspected measles should be notified to the [local Health Protection Team](#).

## References

[1. Pan American Health Organization/ World Health Organization. Epidemiological Alert: Measles outbreaks and implications for the Americas; 9 February 2015. \[Accessed 11 May 2015\]](#)

- [2. US Centers for Disease Control and Prevention. Measles \(Rubeola\). \[Accessed 11 May 2015\]](#)
- [3. Public Health Agency of Canada. Measles and Rubella Weekly Monitoring Report Week 16, 2015: 19 April to April 25, 2015. \[Accessed 11 May 2015\]](#)
- [4. European Centre for Disease Prevention and Control \(ECDC\). Surveillance data. \[Accessed 11 May 2015\]](#)
- [5. Institut de Veille Sanitaire. Épidémie de rougeole en France. Actualisation des données de surveillance au 5 mai 2015. Publié le 7/05/15. In French. \[Accessed 11 May 2015\]](#)
- [6. European Centre for Disease Prevention and Control \(ECDC\). Communicable Disease Threats Report. Week 18, 26 April-2 May 2015. \[Accessed 11 May 2015\]](#)
- [7. World Health Organization. Western Pacific Region. Measles and Rubella Bulletin. December 2014; 8:12 \[Accessed 11 May 2015\]](#)
- [8. World Health Organization. Western Pacific Region. Emerging disease surveillance and response: Pacific Syndromic Surveillance Report. \[Accessed 11 May 2015\]](#)
- [9. World Health Organization. Western Pacific Region. Brunei Darussalam, Cambodia, Japan verified as achieving measles elimination. \[Accessed 11 May 2015\]](#)
- [10. Public Health England. Measles. Chapter 21, Immunisation against Infectious Disease. 1 July 2013 \[Accessed 11 May 2015\]](#)
- [11. World Health Organization. Measles. Fact Sheet No. 286. February 2015. \[Accessed 11 May 2015\]](#)