

## **2010 FIFA World Cup in South Africa and Risk of Measles/Rubella Virus Importation into the Americas**

In 2002 endemic measles virus was eliminated in the Region of the Americas and in 2009 endemic rubella virus transmission was interrupted. In order to prevent the reintroduction of endemic measles and rubella viruses into the Region, residents of the Americas traveling to South Africa should be protected against measles and rubella prior to traveling.

Recent measles outbreaks have been reported in several South African countries: Botswana, Namibia, South Africa, Swaziland, and Zimbabwe. Since January 2009 South Africa has reported 9,583 confirmed measles cases\* and the ongoing outbreak has reached all 9 provinces.<sup>(1)</sup>

The official matches of the 2010 FIFA World Cup will take place in Bloemfontein, Cape Town, Durban, Johannesburg, Nelspruit, Polokwane, Port Elizabeth, Pretoria, and Rustenburg during the period 11 June to 11 July 2010. All eight teams representing countries of the Americas are scheduled to play in at least two provinces. The provinces most affected by the outbreak to date are Gauteng Province (n=4,608), KwaZulu-Natal Province (n=1,251), and Western Cape Province (n=968).\*

A mass immunization campaign planned for 12-23 April 2010 in South Africa is likely to reduce the numbers of cases by targeting over 14,360,000 children aged 9 months-15 years with measles-containing vaccine.

Travelers who are not fully immunized against measles and rubella are at risk when visiting countries or areas where measles or rubella viruses are circulating. Particular attention should be paid to ensuring the protection of women of childbearing age against rubella to prevent possible infection with rubella virus during pregnancy.

The Pan American Health Organization (PAHO) recommends that every country in the Region adopt the following measures to prevent importation of measles and rubella viruses to the Americas from overseas:

1. Any resident of the Americas, including participating teams in the World Cup and tourists traveling to the event, traveling outside the Western Hemisphere should be immune to measles and rubella *before* departure; and
2. Health care workers in the *public and private* sectors should be alerted to the possibility of measles and rubella importations.

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\* Data until 19 March 2010.

Travelers can be considered immune to measles and rubella if:

- They have **written proof of receipt of a measles-rubella containing vaccine** (preferably two doses, the first received after the first birthday and the second dose at least four weeks later). However, countries should establish an upper age limit beyond which the vaccination requirement does not apply. This age limit should be based on the year of measles and rubella vaccine introduction, measles and rubella vaccine coverage thereafter, and occurrence of measles and rubella epidemics.  
Or
- They have **laboratory evidence of measles and rubella immunity** (measles and rubella specific IgG antibodies).

Travelers who cannot provide the above documents should be advised to receive measles-rubella containing vaccines, preferably as measles-mumps-rubella (MMR) or measles-rubella (MR), ideally at least two weeks **before** departure. Exceptions include travelers with medical contraindications to measles-rubella containing vaccines.

The importance of **including the private health care sector and facilities providing health care to tourists in the surveillance system** needs to be emphasized. In many countries, people who can afford intercontinental travel are more likely to seek care in private health facilities.

In addition to the measures mentioned above, **proof of measles and rubella immunity should be a requirement for employment in the health care sector** (medical, administrative, and security personnel alike). It is further advised that personnel from the tourism and transportation industries be also immune to measles.

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**References:**

- 1) National Institute for Communicable Diseases (NICD) website: <http://www.nicd.ac.za/>. Last accessed on 24 March 2010.
- 2) World Health Organization. International Travel and Health: situation as on 1 January 2010. Available online at: <http://www.who.int/ith/ITH2010.pdf>. Last accessed on 19 March 2010.
- 3) Pan American Health Organization. Measles/Rubella Weekly Bull 2010;16(11). Available online at: <http://www.paho.org/English/AD/FCH/IM/sme1552.pdf>. Last accessed on 25 March 2010.