



Measles, Rubella & CRS Rubella Watch

Rubella Watch is an electronic publication disseminated bimonthly by the Immunization Project of the Pan American Health Organization (PAHO), Regional Office for the Americas of the World Health Organization (WHO). *Rubella Watch* is a supplement to the *Immunization Newsletter* published by PAHO. The purpose is to provide you with the most up-to-date information on the measles, rubella and congenital rubella syndrome (CRS) elimination initiative currently underway in the Americas.

The goal: maintain measles, rubella and CRS elimination in the Americas!

News from January-April 2011

National Commissions Committed to Finalizing the Verification of Measles, Rubella, and CRS Elimination in the Americas for 2012

The presidents of the national commissions of 34 countries of the Region, including the territories of the United Kingdom, the Caribbean islands of the Kingdom of the Netherlands, and the Overseas Departments of France, committed to finalizing the process to document and verify measles, rubella, and congenital rubella syndrome (CRS) elimination in the Americas for 2012.

Brought together in the Regional Office of the Pan American Health Organization (PAHO) in Washington D.C. on 21-22 March 2011, the members of the International Expert Committee



(IEC) met with the presidents or representatives of the national commissions from each country with the objective of reviewing the work plan and timetable for the documentation and verification process. As well as to provide specific recommendations to the national commissions on the implementation of this process in their respective countries.

The progress made to date by PAHO Member States toward the documentation and verification of the elimination of these diseases is remarkable. All countries have established their national commissions and/or sub-regional commission (Caribbean). Furthermore the countries, through their presidents or attending members, committed to submitting their final reports by December 2011 for review, enabling the IEC to verify the attainment of the regional elimination goal and present the final report to the Pan American Sanitary Conference in 2012.

PAHO technical cooperation will be available to all countries of the Region, placing special emphasis on vaccination activities and the strengthening the integrated measles/rubella surveillance system and CRS surveillance to support countries in generating sound evidence to document the interruption of the endemic circulation of these viruses in its territories. Furthermore, the countries were encouraged to strengthen the coordination and communication between epidemiology and laboratory personnel and to document the occurrence of the last endemic CRS case through the implementation of retrospective case-finding when necessary.

In this edition:

- National Commissions Committed to Finalizing the Verification of Measles, Rubella, and CRS Elimination ... in the Americas for 2012 1
- PAHO Urges Travelers to the Americas to be Vaccinated against Measles and Rubella 2
- Measles Outbreaks in Europe Continue 3
- Measles Genotype G3 Virus Circulating in Outbreaks in Europe 4
- Measles and Rubella Follow-up Campaigns in Costa Rica and Peru 4

PAHO Urges Travelers to the Americas to be Vaccinated against Measles and Rubella

The Pan American Health Organization is urging international travelers to be vaccinated against measles and rubella prior to visiting the Americas in an effort to reduce the risk of reintroducing the viruses of these diseases that have been eliminated in the Region.

PAHO recently issued an epidemiological alert, given the likely increase in the number of international travelers to the Americas due to the proximity of several cultural and sporting events that will take place. The decision to disseminate an alert was also due to the alarming increase in the number of reported measles cases in Europe, a region that has officially reported more than 6500 cases in 33 countries. The alert has been disseminated through several different communications media at the global and regional level, including the social networks *Facebook* and *Twitter*.

At the regional level:

- PAHO home page, where epidemiological alerts are published:
http://new.paho.org/hq/index.php?option=com_content&task=view&id=5322&Itemid=1091&lang=es

At the global level:

- WHO home page: (<http://www.who.int/en/>)
- Exclusive website for IHR National Focal Points at the global level:
(<http://apps.who.int/csr/alertresponse/ihreventinfo/IHR/CurrentEvents.aspx>)
- WHO International travel and health webpage: (<http://www.who.int/ith/updates/20110427/en/index.html>)

In addition to requesting that those who visit the region be vaccinated, the alert recommends residents of the Americas receive measles-rubella containing vaccine before traveling to other regions of the world. "Travelers who have not been vaccinated against measles and rubella are at risk of contracting these diseases when visiting countries where the viruses are currently circulating," said PAHO. Special efforts should be made to ensure vaccination for women of childbearing age in order to prevent possible infections caused by the rubella virus during pregnancy.

According to the PAHO/WHO alert, international passengers aged more than 6 months that cannot provide proof that they were immunized (through a vaccination registry or laboratory results demonstrating immunity against measles and rubella) should be vaccinated against both diseases, preferably with the measles-mumps-rubella vaccine. Ideally these vaccines should be administered at least two weeks prior to departure.

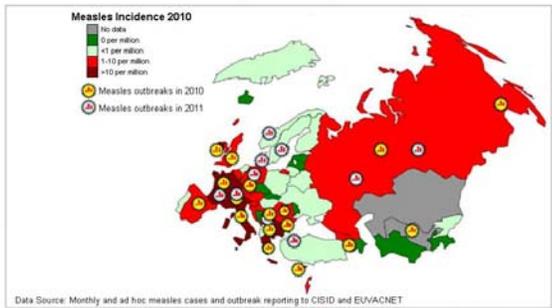
The epidemiological alert also calls for travelers to be aware of the appearance of symptoms during their trip or upon their return. These symptoms may include fever, rash, cough, runny nose, or conjunctivitis. Those who believe they may have contracted measles or rubella should remain in their place of lodging, except to go to a doctor, and should avoid public places and close contact with other people for seven days following rash onset.

This alert, which was sent to the ministries of health of PAHO/WHO Member States, urges health authorities to include the private healthcare sector in epidemiological surveillance. It also recommends alerting health workers in the public and private sector to the possible appearance of both diseases, and reminds them to report immediately to health authorities if this were to occur. The alert has also been disseminated to primary Latin American scientific societies in order to reinforce the message of timely reporting to physicians in the private sector.

The alert also recommends that health services request proof of immunity for measles and rubella as a pre-requisite to employment in the healthcare sector (medical, administrative and security personnel). Additionally, it is recommended that personnel in the tourism and transportation sectors also be immunized against measles and rubella.



Measles Incidence in 2010 and Measles Outbreaks Between January 2010 and February 2011 European Region



Graph source: EURO/WHO

Measles Outbreaks in Europe Continue

According to the World Health Organization (WHO) more than 6,500 cases of measles have been reported in 33 European countries between January and March 2011 making this figure one of the highest in recent years. These outbreaks have been confirmed in countries such as Belgium (n=100), Bulgaria (n=131), Spain (n=>600), France (n=4 937), Macedonia (n=636), Serbia (n=300), and Turkey (n=100), etc.

According to the WHO, the major cause of these outbreaks is the existence of large, unvaccinated population cohorts, particularly among the group aged 10 to 19 years. As a result of the accumulation of pockets of susceptibles, so-called herd immunity does not exist and thereby the measles virus spread quickly

causing severe complications and even death. Without herd immunity those children who were not of age to receive measles-rubella containing vaccine were in greater risk of suffering any one of these diseases. For example, 30% of cases reported in France occurred among infants, who because of their age did not receive the vaccine.

There are several reasons for the low uptake of measles-rubella containing vaccine in Europe. Firstly, the perception of risk and severity of these diseases is low among the population due to the low frequency and occurrence of these disease, namely due to high coverage previously attained. Secondly, the anti-vaccine groups have undermined the credibility of vaccines, distorting the excess of information on the possible adverse reactions, obscuring and playing down the multiple benefits of vaccination. Finally, there is the existence of groups or communities that for religious and/or psychological reasons reject vaccines and vaccination in general.

Measles outbreaks in the Americas

Epidemiological investigations and genotyping have confirmed transmission of measles virus from European countries to Argentina, Brazil, Canada, Chile, and the United States in 2011 (measles genotypes identified from these outbreaks include D4, B3, and D9). Up to epidemiological week 18 a total of 155 measles cases have been reported, affecting mainly adolescent and adult populations (58%).

Table 1: Measles Outbreaks associated with Importations in the Americas, 2011 ^(a)

Country	Total cases	No. imported cases	No. of secondary cases	No. of unknown cases	Source of infection
Argentina	3	1	2	0	- France and/or Germany (D4). - Travel history to Italy.
Brazil	4	2	0	2	France (D4).
Chile	4	0	3	1	Unknown source (D4).
Canada	31	8	19	4	- India (D8). - France (D4). - England (D9).
United States ^(b)	111	50	48	13	- China, France, England, and Dominican Republic (D4). - Germany, Spain, France, India, Indonesia, Italy, Kenya (B3). - Philippines, Malaysia, Nigeria, Pakistan, Poland, Singapore, United Kingdom, Romania, Viet Nam, (D4).
Panama	1	0	0	0	- Travel history to Israel and Poland
Dominican Republic	1	0	0	0	- Travel history to Italy.
Total	155	61	72	20	

^(a) Source: Country reports to PAHO.

^(b) Preliminary data up to the EW 18.

Outbreaks have presented a limited number of cases secondary to importation. Outbreak size has ranged between 1 to 21 secondary cases in Canada and the United States, and from 1 to 2 secondary cases in Latin America. The implementation of a rapid response to limit these outbreaks has generated an intense mobilization of human and financial resources in the countries of the Region.

Measles Genotype G3 Virus Circulating in Outbreaks in Europe

The WHO Measles and Rubella Laboratory Network (LabNet) detected the circulation of the measles genotype G3 virus in several outbreaks reported by some European countries in the last months of 2010. With the exception of a single case, none of the other cases reported travel history to southeast Asia, the source of genotypes G3.

The WHO Region of Europe has not reported outbreaks associated with genotype G3 since 2006. However, during the last 4 months of 2010 there were a total of 25 sporadic cases reported from which the G3 genotype was identified following virus isolation and sequencing.

WHO has recognized 8 clades (designated from letters A up to the H) and within these clades a total of 23 measles genotypes have been identified: A, B1, B2, B3, C1, C2, D2, D3, D4, D5, D6, D7, D8, D9, D10, E, F, G1, G2, G3, H1 and H2. In the last three years, six different measles genotypes have been identified in Europe (B3, D4, D5, D8, D9 and H1) of which genotypes B3, D4 and D5 have been the protagonist of major outbreaks that have affected several European countries.

LabNet experts recognized the existence of underreporting of measles cases associated with genotype G3 in Europe, given that cases do not always seek medical care and more importantly, specimens for viral detection and isolation are not provided on an ongoing basis. The identification of genotype G3 circulating in measles outbreaks in Europe provides an impressive argument to continue promoting the collection of specimens for viral detection and isolation from all measles cases reported in the Americas. It also provides the necessary evidence to document the importation of the virus, as well as demonstrate that the interruption of endemic measles virus circulation has been maintained in the region since 2002.

Measles and Rubella Follow-up Campaigns in Costa Rica and Peru

Within the framework of the Vaccination Week in the Americas (VWA), Costa Rica and Peru launched follow-up campaigns to maintain measles, rubella, and polio elimination in their respective countries. These campaigns will collectively protect an estimated 3.3 million children from measles and rubella by offering a second vaccination opportunity. In particular, those children that for various reasons were excluded from regular vaccination services will be protected.

In the midst of a festive town along the border between Peru and Bolivia (known as Kasani, located 3900 meters above sea level), the launching of this follow-up campaign coincided with the inaugural launching of the VWA. The event was chaired by the PAHO Director, Dr. Mirta Roses, the Vice Minister of Health of Peru, Dr. Zarela Solís, and the Minister of Bolivia, Dr. Nila Heredia.

Peru intends to vaccinate approximately 2.3 million children < 5 years with the measles-mumps-rubella (MMR) vaccine and polio until the end of May 2011. In order to achieve its goal, the country will implement intense activities of supervision and monitoring in all regions. The collection and analysis of data from the campaign will be carried out weekly using an on-line tool designed exclusively for this activity, which will permit the timely monitoring of the coverage goal. Similar to other high-quality campaigns in the region, Peru will implement rapid coverage monitoring (RCM) to support the achievement of homogeneous coverage >95% in all municipalities.

The launching of the Costa Rica campaign was chaired by the Vice-President of Costa Rica, Alfio Piva, and the Minister of Health, Dr. María Luisa Ávila Agüero, as well as the Executive President of the Costa Rican Social Security System, Dr. Ileana Balmaceda.

With an investment of US \$1,100 million in this campaign, during the month of May nearly 10,000 health workers will vaccinate all children aged 2 months to 9 years. The country will administer the MMR vaccine to children aged 15 months to 9 years. The oral polio vaccine will be given to the group aged 2 months to 4 years. Overall a total of 1,030,522 doses of the two vaccines will be administered.

In order to ensure that the goal is achieved, the country has conducted intense micro-planning activities, as well as set up a nominal registry system and a daily progress report of advances toward the goal that will be analyzed in a virtual situation room. Furthermore, partnerships have been forged with the education sector and scientific societies and “sponsors” have been assigned to each one of the 7 country regions to oversee campaign development. The campaign will conclude with the rapid coverage monitoring to ensure homogeneous coverage of ≥95%.



Upcoming events

Consultative Meeting on Mumps in the Region of the Americas

2-3 June 2011-Washington, D.C. June.

Meeting of the Measles and Rubella Laboratory Network for the Region of the Americas

20-21 June 2011-Atlanta, Georgia (Centers for Disease Control and Prevention)

Editor: Dr. Carlos Castillo-Solórzano

Associate Editors: Christina Marsigli and Pamela Bravo

