

## **G. ELIMINATION OF RUBELLA AND CONGENITAL RUBELLA SYNDROME**

### **Background**

107. The Member States of the Pan American Health Organization have a long-standing commitment to the eradication and elimination of vaccine-preventable diseases. This pledge began with the eradication of smallpox and polio, and more recently targeted the elimination of measles by 2000, rubella, and congenital rubella syndrome (CRS) by 2010.

108. The countries of the Americas, working with strategic partners<sup>1</sup> and health care workers in all levels of the system, have made extraordinary progress in fulfilling the commitments outlined in Resolutions CD44.R1 (2003) and CD47.R10 (2006) to eliminate rubella and CRS by 2010. As highlighted in Resolution CSP27.R2 (2007), the Region is implementing the necessary measures to document and verify the interruption of the endemic transmission of the rubella virus.

### **Situational Analysis**

109. Rubella, usually a mild rash illness, can produce devastating consequences when a woman becomes infected during the first trimester of pregnancy. The sequelae of infection during pregnancy include a series of birth defects—blindness, deafness, and cardiac defects—known as CRS. Before wide-scale rubella vaccination, an estimated 20,000 CRS-affected children were born each year in the Americas.

110. All countries and territories of the Region of the Americas administer rubella-containing vaccine to their populations through their routine childhood vaccination programs. In addition, by December 2009, nearly 445 million people had been protected against measles and rubella through the administration of measles-rubella combined vaccine during “catch-up,” “follow-up” (to maintain measles and rubella elimination), and “speed-up” campaigns designed to eliminate rubella and CRS and strengthen measles elimination efforts. The commitment of the countries to conduct “speed-up” campaigns in adolescent and adult men and women has ultimately prevented the reestablishment of endemic measles virus transmission in the Region.

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<sup>1</sup> The American Red Cross, the U.S. Department of Health and Human Services’ Centers for Disease Control and Prevention, the Canadian International Development Agency, the GAVI Alliance, the Inter-American Development Bank, the International Federation of Red Cross and Red Crescent Societies, the Japanese International Cooperation Agency, the March of Dimes, the Sabin Vaccine Institute, the United Nations Children’s Fund, the United States Agency for International Development, and the Church of Jesus Christ of Latter-day Saints.

111. In 2007, the Americas experienced a resurgence of rubella cases due to importations of rubella virus into countries that initially vaccinated only females during mass vaccination campaigns. Confirmed rubella cases increased from 2,919 in 2006 to 13,187 in 2007, as a result of outbreaks in Argentina, Brazil, and Chile that year. A total of 4,536 confirmed rubella cases were reported in the Region in 2008, of which Argentina and Brazil accounted for 98%. These countries intensified vaccination and surveillance efforts. Chile implemented a “speed-up” campaign targeting men in 2007. Argentina (men only) and Brazil (men and women) conducted campaigns in 2008. Vaccination activities were also implemented within the framework of the first South American Technical Cooperation among Countries (TCC) project intended to immunize populations against measles and rubella along border areas of all countries that shared a border with Argentina and Brazil. In 2009, endemic rubella virus transmission was limited to only Argentina, where the last reported confirmed endemic rubella case had a date of rash onset of 3 February 2009. In addition, seven imported/import-related rubella cases were confirmed in Canada (four cases), and the United States (three cases).<sup>2</sup>

112. As an unfortunate consequence of the rubella outbreaks, in 2009<sup>2</sup> the Americas reported 17 CRS cases in Argentina (3 cases) and Brazil (14 cases). The dates of birth of the last confirmed CRS cases were 6 July 2009 and 26 August 2009 for Argentina and Brazil, respectively. Since CRS cases can excrete virus for up to 12 months, it is essential that countries that reported the last CRS cases intensify surveillance and monitor virus excretion from confirmed CRS cases until two viral negative cultures are obtained at least one month apart. This will help ensure no additional spread of endemic rubella virus.

113. Integrated case-based measles and rubella surveillance is carried out in all countries. Cases are reported weekly to the regional level. The continuous monitoring of recommended standardized measles/rubella surveillance indicators ensures high-quality surveillance in the Region. In an effort to further strengthen surveillance, countries are improving coordination with the private sector to rapidly detect and respond to outbreaks.

114. During 1997-2005, wild-type rubella virus genotype 1C was isolated from previous outbreaks in the Region; the last occurrence of 1C virus transmission was in Chile and Peru. Beginning in 2006, genotype 2B was introduced in the Region and linked to imported cases. Following virus transmission for more than a year it was considered endemic in the Americas. The last confirmed endemic rubella genotype 2B case was reported in the Region in February 2009; suggesting that the countries of the Americas have achieved the elimination goal set for 2010.

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<sup>2</sup> Data up to the Epidemiological Week 24/2010.

115. More than 112,500 CRS cases have been prevented over an analytic horizon of 15 years<sup>3</sup> in Latin America and the Caribbean as a result of the success of the rubella and CRS elimination initiative.

116. Many useful lessons are currently being shared with other Regions, including the vaccination beyond childhood, the importance of political support, the value of alliances to respond to crisis situations, to name a few. Social communication messages targeting nontraditional groups and the use of innovative communication messages (i.e. television spots, radio announcements, posters, etc.) have played a significant role in achieving high vaccination coverage in the Region. These tactics have successfully harnessed the inestimable support of sports leaders, artists, and other known personalities to represent the face of vaccination campaigns and have capitalized on the popularity and reach of their activities to encourage their fans to participate in vaccination activities.

117. The initiative has also contributed to the development of the fundamental pillars of primary health care, including the expansion of health services, an emphasis on community participation and solidarity, a sense of empowerment for making informed health related decisions, and intersectorial cooperation. Elimination strategies have also promoted the strengthening of health systems through improvements in information systems, management and supervision, development of human resources, standard of care newborn hearing screening, and related research.

### **Call to Action**

118. Follow-up to Resolution CSP27.R2 (2007), a regional Plan of Action for documenting and verifying measles, rubella, and CRS elimination has been finalized. The Plan has an overarching goal of guiding countries and their national commissions in preparing the necessary evidence that supports the interruption of wild virus transmission. The plan was formally endorsed by the Technical Advisory Group on Vaccine-preventable Diseases (TAG) during its XVIII Meeting in August 2009. The following components are included in the regional plan: epidemiology of measles, rubella, and CRS; quality of surveillance; molecular epidemiology and laboratory activities; analysis of vaccinated population cohorts; sustainability of the National Immunization Program; and the correlation and integration of evidence.

119. Currently, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Nicaragua, the French Overseas Departments in the Americas, Paraguay, and Uruguay have formed national commissions. Sixteen additional countries and two territories have

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<sup>3</sup> Estimated for each country beginning with the implementation of interventions to interrupt rubella virus transmission.

begun the process to establish commissions and the remaining eight countries<sup>4</sup> are encouraged to initiate the process in 2010.

120. The International Expert Committee (IEC) will evaluate the documentation submitted by national health authorities, in collaboration with national commissions, to verify elimination at the regional level. The data must demonstrate that endemic measles and rubella virus transmission has been interrupted for at least three continuous years in the Americas. Documentation of the interruption of endemic virus transmission should be concluded by countries by the first quarter of 2012. The final presentation on the verification of elimination in the Region of the Americas will be presented to the Pan American Sanitary Conference in 2012.

121. Many challenges remain to sustain elimination, including the inevitable risk of importations due to ongoing measles and rubella virus circulation in other regions of the world. It is imperative that countries do not become complacent. Otherwise, they risk losing all the remarkable success achieved in measles, rubella, and CRS elimination in the Region. Consequently, they must sustain a high level of preparedness to quickly and adequately respond to importations. Sustained commitment of Member States and PAHO strategic partners will also be necessary. Finally, it is vital that the Member States of the Pan American Health Organization continue to advocate that other regions also eliminate endemic measles and rubella, particularly in light of the request of the Executive Board of the World Health Organization in May 2008<sup>5</sup> to report on the feasibility of global measles elimination.

122. The Region of the Americas can not sustain these achievements alone. Given the enormous economic and social costs associated with maintaining elimination, it is time these issues gain attention at the highest political level and that a discussion on this topic is held during the Sixty-fourth World Health Assembly in 2011.

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<sup>4</sup> In 2005 the United States declared endemic rubella virus transmission eliminated.

<sup>5</sup> See document EB123/2008/REC/1, summary record of the second meeting, section 1.