B. PLAN OF ACTION FOR MAINTAINING MEASLES, RUBELLA, AND CONGENITAL RUBELLA SYNDROME ELIMINATION IN THE REGION OF THE AMERICAS

Introduction

1. This report presents the Governing Bodies of the Pan American Health Organization/World Health Organization (PAHO/WHO) with the evidence related to the interruption of endemic circulation of the measles and rubella viruses in the countries of the Americas. This report also discusses the progress made in the implementation of the Plan of Action for maintaining elimination in the Americas.

Background

2. The 27th Pan American Sanitary Conference (2007) adopted Resolution CSP27.R2, which urged the Member States to establish national commissions in each country to document and verify measles, rubella, and congenital rubella syndrome (CRS) elimination. Creation of an International Expert Committee (IEC) was also requested in order to document and verify regional elimination.

3. Furthermore, in order to maintain measles, rubella, and CRS elimination, the 28th Pan American Sanitary Conference (2012) adopted Resolution CSP28.R14 for implementation of an emergency plan of action for the next two years.

Situation Analysis

4. Measles and rubella elimination is defined by PAHO/WHO as the interruption of endemic transmission of these viruses for a period of at least 12 months, in the presence of high-quality surveillance. To confirm elimination of these diseases and sustainability of the elimination, countries had to document interruption for a period of at least three years from the last known endemic case. In order to verify the elimination, an independent International Expert Committee (IEC) along with 23 national commissions
were established, including one for the French Overseas Departments of the Americas and one subregional commission for English-speaking and Dutch-speaking Caribbean countries and territories, including Suriname.

5. Each national commission reviewed and approved the reports on elimination, which were submitted to the IEC through PAHO/WHO. These reports were reviewed by the IEC and countries received feedback for improvement of the final version.

6. IEC members visited eight countries to assess the progress made and to identify any challenges faced in maintaining the elimination. In addition, countries that presented sustained outbreaks of measles in the period 2011-2014 or that identified sporadic cases of rubella during retrospective searches, received special monitoring with national authorities.

7. No fewer than five meetings were organized between the IEC and all the national commissions to analyze the epidemiological trends of measles and rubella and to monitor advances toward verifying their elimination. These meetings were also used to continue advocating for maintaining elimination.

8. In their reports on elimination, the national commissions and the subregional commission presented evidence indicating the interruption of endemic transmission of the measles and rubella viruses in their countries and territories. The evidence—studied by the IEC at its fifth meeting, held in April 2014—is the following:

a) Member States documented the last case of endemic transmission of measles and rubella in their countries and territories. No endemic measles cases were reported between 2002-2013 in countries and territories. The last endemic cases of rubella and CRS were on 3 February 2009 and 26 August 2009, respectively.

b) From 2003 to 2013, low numbers of measles cases associated with importations were reported in the Americas. These imported cases were associated with widespread measles outbreaks in Europe and Africa.

c) There have been few rubella cases reported associated with importations for the period 2009–2013. In 2012, three import-associated cases of CRS were reported.

d) In the period 2009-2013, the Region, on average, met the targets for four of the five epidemiological surveillance indicators\(^1\) (>80%) on a continuous basis (83-91%).

e) Given the differences among and within countries in terms of sustained achievement of surveillance indicators, 16 of 23 countries with national commissions carried out active institutional and community case-finding in the

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\(^1\) The indicators are: % sites reporting weekly; % of cases with adequate investigation (indicator made up of % of cases with household visit within 48 hours following reporting, and % of cases with the following eight data points); % of cases with adequate blood specimen; % of blood specimens received in laboratory in \(<5\) days; and % of laboratory results reported in \(<4\) days.
period 2010-2013, to document the absence of measles and rubella cases in their territories. No case of measles and rubella was confirmed.

f) For the same period, and with the purpose of documenting the absence of CRS cases, 16 of 23 countries with national commissions carried out retrospective searches for suspected cases, using several sources of information. No case of CRS was confirmed.

g) Genotype D9 was isolated in the last endemic outbreak of measles reported in Colombia and Venezuela in 2002. For the period 2009-2013, genotypes D4 and D8, which mainly circulate in Europe, have been found in 88% of outbreaks; while genotype B3, which circulates mainly in Africa, was identified in the longest outbreak (Ecuador 2011-2012).

h) Rubella virus genotype 2B was identified in the last endemic outbreaks reported in Chile and Argentina in 2008-09. For the period 2009-2013, reported genotypes 1E, 1G, 1J, and 2B have been linked to imported cases.

i) The countries presented an analysis showing that all cohorts aged \(<40 \text{ years were vaccinated against measles and rubella. From 1994 to 2013, nearly 500 million people were vaccinated in catch-up campaigns (<15 years), follow-up campaigns (in general, for children aged 1–4), and speed-up campaigns (in general, for people aged 20–39).}

9. The most recent epidemiological data indicates reintroduction of measles virus in two states of Brazil, which has been circulating for more than 1 year (2013-2014). The IEC awaits the control of this outbreak, to declare the elimination of measles in the Americas. Rubella and CRS elimination has been sustained in the Americas.

10. Brazil has conducted a measles vaccination campaign aimed at children under 5 and intensified vaccination activities among vulnerable groups in the affected states, and has increased the epidemiological surveillance. Further activities are planned and PAHO will be supporting efforts to halt the outbreak.

Sustainability of Measles, Rubella, and CRS Elimination


12. Maintaining elimination requires \(\geq95\%\) coverage with two doses of MMR or MR\(^2\) at the municipal level. In order to achieve the highest possible coverage with MMR2, in 2013, the Technical Advisory Group (TAG) on Vaccine-preventable Diseases recommended administering MMR2 at 15-18 months, simultaneously with other vaccines.

\(^2\text{MMR: measles-, mumps-, and rubella-containing vaccine. MR: measles- and rubella-containing vaccine.}\)
in the regular program. The follow-up campaigns should be waived only where \( \geq 95\% \) coverage with each of the two MMR doses is guaranteed for all municipalities. Five countries implemented follow-up campaigns in 2012 and 2013, while eight countries will do so in 2014 and 2015.

13. The IEC recognizes the efforts of Member States to strengthen surveillance systems to minimize importation of measles and rubella virus, while sustaining the elimination status. As evidenced by the lack of measles transmission following major international events, such as the Soccer World Cup 2014 in Brazil and the U-20 World Cup in Colombia.

**Call to Action (Next Steps)**

14. The IEC recognizes the success of measles and rubella elimination in the Americas and calls upon the Member States and strategic partners to continue their efforts to sustain elimination. To this end and in light of recent outbreak experiences, the Member States are requested to:

a) Ensure the implementation of actions aimed at maintaining elimination and progressively integrate them into their annual immunization plans.

b) Continue to support the implementation of vaccination strategies (routine program and follow-up campaigns as indicated) to ensure high and uniform population immunity levels, as outlined in the annual plans.

c) Maintain a high-quality epidemiological surveillance system, including early case detection, data analysis, monitoring coverage and rapid response to measles and rubella importation.

d) Strengthen epidemiological and programmatic capacity at the local levels.

e) Improve risk communication activities to promote the benefits of vaccination.

15. The IEC recommends that the Brazilian national authorities implement all necessary measures to immediately stop the current measles outbreak. The IEC and PAHO stand ready to offer any type of assistance, if needed.

**Action by the Directing Council**

16. The Directing Council is invited to take note of this IEC report and support the recommendations contained therein.