



PAN AMERICAN HEALTH ORGANIZATION  
WORLD HEALTH ORGANIZATION



## **28th PAN AMERICAN SANITARY CONFERENCE** **64th SESSION OF THE REGIONAL COMMITTEE**

*Washington, D.C., USA, 17-21 September 2012*

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*Provisional Agenda Item 4.11*

CSP28/16 (Eng.)  
20 August 2012  
ORIGINAL: ENGLISH

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

#### **Introduction**

1. This document reports to the Governing Bodies of the Pan American Health Organization (PAHO) on progress made in the implementation of Resolution CSP27.R2, documenting and verifying the elimination of measles, rubella, and congenital rubella syndrome (CRS) in the Region of the Americas and the remaining challenges and risks to maintaining the Region free of these diseases. It also proposes an emergency plan of action to maintain the elimination of endemic measles, rubella, and CRS in the Region.

#### **Background**

2. In 1994, during the 24th Pan American Sanitary Conference, ministers of health adopted Resolution CSP24.R16, setting a goal to eliminate measles from the Region of the Americas by 2000. Approval of the resolution was based on the impressive and rapid reduction in measles demonstrated by countries that pioneered the use of immunization strategies for elimination.<sup>1</sup> The Region of the Americas achieved the goal of measles elimination in November 2002.

3. The strengthening of measles surveillance also revealed that rubella and congenital rubella syndrome had emerged as significant public health problems in the Region. In 1999, the PAHO Technical Advisory Group on Vaccine-Preventable Diseases (TAG) recommended accelerated rubella control and CRS prevention with campaigns

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<sup>1</sup> The measles elimination goal was reaffirmed by subsequent Resolutions CD38.R6 (1995), which approved a Plan of Action for Measles Elimination in the Americas, and CE118.R14 (1996), which urged all countries to allocate the necessary human and financial resources to fully implement the strategies outlined in the regional plan.

targeting a wide age range, including young adults. In 2003 the 44th Directing Council adopted Resolution CD44.R1, calling on Member States to eliminate rubella and congenital rubella syndrome from their countries by 2010. In addition, the resolution called on the Director to “elaborate a regional plan of action and mobilize resources in support of a rubella/CRS elimination goal for 2010.” The last endemic rubella and CRS cases in the Region were reported in 2009.

4. In October 2007, considering the elimination of measles in 2002 and the progress achieved toward the rubella and CRS elimination goals, the 27th Pan American Sanitary Conference approved Resolution CSP27.R2. This resolution urged Member States to establish National Commissions to document and verify measles, rubella, and CRS elimination in each country, and it authorized the formation of an International Expert Committee (IEC) to document and verify the interruption of transmission of endemic measles and rubella viruses in the Region of the Americas. To ensure a standardized approach to documentation, PAHO developed a regional plan of action that was approved by the IEC. The plan was created to guide countries and their National Commissions in compiling and analyzing evidence that endemic measles and rubella transmission has been interrupted.

### **Situation Analysis**

5. In accord with Resolution CSP27.R2 of the Pan American Sanitary Conference, an International Expert Committee has been formed and 23 National Commissions have been established, including a Commission for the French Overseas Departments in the Americas. In addition, a Subregional Commission was established for the English-speaking and Dutch-speaking Caribbean countries and territories, including Suriname.

6. As of April 2012, 20 commissions, including those for the French Departments and the English/Dutch-speaking Caribbean, have submitted their final elimination reports to PAHO for review and comment by the International Expert Committee. The remaining four countries (Colombia, Ecuador, Haiti, and Peru) will submit their reports by the end of August.

7. After careful analysis of the reports submitted by the National Commissions and Subregional Commission, it appears that the interruption of endemic measles and rubella virus transmission has been achieved. However, the Region of the Americas continues to be exposed to high risk of virus importations, given the continuing circulation of measles and rubella viruses in other regions of the world. Additionally, some of the countries have reported weaknesses and failures in their national surveillance systems and routine immunization programs, which make them particularly vulnerable to the risk of reintroduction of viruses that can cause outbreaks.

8. Between 2003 and 2010, historically low numbers of measles cases were reported in the Americas. During this eight-year period, 34 of 45 countries and territories (76%) reported no measles cases, and another 5 countries (11%) together reported 10 confirmed measles cases. The remaining 6 countries (13%) reported a total of 1,239 cases, accounting for 99% of the 1,249 confirmed cases in the Region during this period. The occurrence of measles was mainly limited to cases that were internationally imported or import-linked. Moreover, all the genotypes identified from outbreaks occurring in the Americas since 2003 have been imported to the Region.

9. In 2011, however, 1,379 measles cases were reported in the Americas, an eightfold increase over the previous annual average of 156 cases between 2003 and 2010. This increase coincided with several large outbreaks in Europe and Africa. Of the 45 countries and territories, 33 (73.3%) reported no measles cases, and 9 (20%) reported 14 confirmed measles cases. Three countries—Canada, Ecuador, and the United States (6.7%)—reported a total of 1,290 cases, 93% of the 1,379 confirmed cases in the Region (unconfirmed data for 2012, as of EW28/2012). The most commonly identified genotypes in these three countries include D4, which is circulating on the European continent; B3, from Africa; and D8 and D9, from Southeast Asia and the Pacific, respectively.

10. The most recent measles outbreaks, with several secondary transmissions, have similar characteristics. The vast majority of cases have occurred in specific groups of unvaccinated persons (religious groups or other groups that reject vaccination) or in specific geographic areas, such as in indigenous communities, in large cities (especially on the peripheries), and in rural and border areas with limited access to health care. Almost all measles cases are import-associated.

11. The current outbreaks in the Region put measles elimination at risk. In 2011, 171 outbreaks due to imported measles viruses were documented, and the imported viruses have caused persistent transmissions in at least three countries. To highlight the challenges, the three largest outbreaks are summarized below.

12. The largest outbreak, with a duration of seven months (EW14/2011–EW40/2011), occurred in Canada and resulted from an importation of D4 measles virus from Europe. In Canada 803 cases of measles were reported in 2011, 61% of all reported cases in the Region in 2011. A large proportion of these cases, 684 (70%), were centered in a single province, Quebec. Exposure was highest in schools ( $n=329$ , 48%), followed by community settings ( $n=220$ , 32%). Of all cases that occurred in Quebec in 2011, the majority (68%) were unimmunized; 9% received one dose, 14% received two doses, and 9% reported being immunized but lacked proof. The authorities implemented a province-wide school-based vaccination activity, targeting members of the school community who were not fully immunized against measles with the recommended two doses of measles-mumps-rubella vaccine, or who lacked proof of adequate immunization.

13. The second-largest outbreak in the Region occurred in Ecuador, where it appears that children in some rural indigenous localities have continued to be missed during routine and supplementary immunization activities, thus creating pockets of susceptible population. The outbreak spread to nine different provinces across the country. A total of 265 confirmed measles cases occurred in six provinces in 2011, with 63 additional cases in three provinces in 2012 (data as of EW27/2012). The most affected age group has been children under 5 years. Cases with genotype B3, which is commonly found in Africa, have been identified, along with one case of D4 usually found in Europe. To ensure rapid response to this measles outbreak, a follow-up campaign targeting children up to 15 years of age was rescheduled to start earlier. According to the Ministry of Health, vaccination coverage among children up to 5 years of age was  $\geq 95\%$  in the majority of the provinces. Ecuador has also completed vaccination activities for the age group from 5 to 14 years. The last measles case was reported in EW25/2012 (data as of July 2012). After the country has not reported any new measles case for a 12-week period, health authorities will implement three main activities to verify the interruption of measles virus circulation: (a) rapid coverage monitoring; (b) active case searches for measles; and (c) retesting negative dengue specimens for measles. The results of these activities, including the final statement of the National Commission on the elimination of endemic viruses in Ecuador, will be in the final national report.

14. The state of São Paulo, Brazil, reported the third-largest outbreak. Of the 27 confirmed cases in seven municipalities, 20 were part of three transmission chains and the remaining 7 were isolated cases. All cases were confirmed by laboratory criteria or epidemiological link. Ten of the reported cases had received at least one dose of measles vaccine, and 9 were under 1 year of age. Genotype D4 was isolated in 9 of the 27 cases, including 7 cases that were part of transmission chains and 2 isolated cases. Only 2 of the 7 isolated cases reported previous travel abroad. Despite extensive epidemiological investigations, it was not possible to identify the source of infection for all isolated cases. Additionally, it was not possible to confirm the source of infection of the three index cases that resulted in disease transmissions, although identified genotypes indicate disease importations. The National Commission for documenting/verifying measles and rubella elimination, based on a review of the epidemiology and results of the retrospective case searches, concluded that there is no transmission of endemic measles virus in the area.

15. During 1998–2006, confirmed rubella cases in the Americas decreased by 98%, from 135,947 to 3,005. In 2007, however, the Americas experienced a resurgence of rubella cases due to importations of rubella virus into countries that initially targeted only females during mass vaccination campaigns. Confirmed rubella cases increased from 3,005 in 2006 to 13,187 in 2007 as a result of outbreaks in three countries. A total of 4,536 confirmed rubella cases were reported in the Region in 2008; cases in two countries accounted for 98% of them. As an unfortunate consequence of the rubella outbreaks of 2008–2009, a total of 27 CRS cases were reported in these two countries.

The last confirmed CRS case was a child born on 26 August 2009 in Brazil. In response to these outbreaks, countries intensified surveillance activities and vaccination interventions by conducting supplementary immunization activities among adolescents and adults. Countries that completed campaigns for adolescent and adult males and females have not reported any endemic rubella cases. The last confirmed endemic rubella case was reported in February 2009. In 2009, two countries reported 7 import-associated rubella cases; in 2010, the Regional total was 15 import-associated rubella cases; and in 2011, it was again 7 import-associated rubella cases (provisional data as of April 2012). No endemic CRS cases were reported in 2010 or 2011.

16. Despite limited molecular epidemiology information, the rubella virus genotype 1C has been identified as endemic only in the Americas, as it has not been identified in other regions of the world. The last occurrence of 1C virus transmission was in 2005. Between 2006 and 2009, the genotype 2B was isolated from the outbreaks reported in three countries and was considered to be endemic to the Americas, but endemic transmission was interrupted in 2009. Since 2009, viruses of genotypes 1E, 1G, 1J, and 2B have been linked to imported cases.

17. During the analysis of measles, rubella, and CRS elimination data, Colombia identified several cases of clinical and laboratory-confirmed rubella in 2008, 2009, and 2011. The first detected case was a laboratory-confirmed rubella case from 2011, without genotype information available. Retrospective investigations in the same department of Colombia revealed 8 more rubella cases with laboratory or clinical confirmation between 2008 and 2009. The majority of affected people had no vaccination history. Retrospective and active case searches were conducted to complement the epidemiological investigation, but they were not able to identify the source of infection of all these cases. Colombia still needs to implement active case searches in the epidemiologically silent areas of the country and submit the results of the investigation together with the statement of the National Commission on the elimination of endemic rubella in Colombia.

18. Although progress toward the goal of documenting and verifying the elimination of measles, rubella, and CRS was on track by the end of 2011, some of the National Commissions have concluded that the epidemiological surveillance is not sufficiently robust to ensure maintenance of the elimination of rubella and CRS. Nevertheless, the Commissions state that documentation to verify the absence of the endemic diseases in the Region can be achieved if the weaknesses identified are corrected promptly. To that end, countries are urged to take prompt actions to correct challenges identified during the verification process to ensure that the achievements in eliminating endemic diseases will be maintained.

19. Ensuring timely vaccination responses to imported measles and rubella viruses has become increasingly important as progress is made toward documenting and verifying elimination of the endemic viruses. Member States have taken costly additional

measures to reduce the risk of new outbreaks caused by the international spread of measles and rubella viruses. These measures include supplementary and routine immunization activities to close gaps in population immunity, rapid coverage monitoring, vaccination of vulnerable populations, and timely investigations of each imported case. In the supplementary campaigns for measles and rubella elimination in the Region, 485 million people have been vaccinated, often with simultaneous campaigns taking place in border areas of neighboring countries. Actions to contain outbreaks pose substantial direct costs to the public health budget and the health care system, with a net public sector cost of as much as US\$ 10,000 per case.<sup>2</sup>

20. In light of the remaining challenges for maintaining elimination of measles and rubella in the Region of the Americas, the 150th Session of the Executive Committee recommends that the 28th Pan American Sanitary Conference adopt a resolution on an emergency plan of action. This resolution should urge Member States to strengthen active surveillance of these diseases and to maintain high population immunity through vaccination.

### **Proposal**

21. With a view to maintaining the Regional goal of elimination of measles, rubella, and congenital rubella syndrome, and following guidance from TAG, the IEC, and PAHO, an emergency action plan was formulated for the next two years to address weaknesses identified in the immunization and surveillance programs for measles, rubella, and CRS.

22. Member States were requested to verify the interruption of endemic measles, rubella, and CRS cases in all the countries of the Americas for a period of at least three years from the last known endemic case, in the presence of high-quality surveillance and with coordination and guidance from PAHO. Elimination means the interruption of endemic disease transmission for a period of at least 12 months under high-quality surveillance. To sustain and build on this elimination achievement, PAHO urges Member States to implement the following actions, which are highly recommended by the IEC:

- (a) Maintain high-quality, elimination-standard surveillance, including full compliance with indicators, and ensure timely and effective outbreak response measures to any wild virus importation. To ensure high-quality surveillance, the following activities should be conducted, as required:

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<sup>2</sup> Sugerma DE, Barskey AE, Delea MG, et al., "Measles outbreak in a highly vaccinated population, San Diego, 2008: Role of the intentionally undervaccinated," *Pediatrics* 2010;125(4):747-55.

- i. implement external rapid assessments of measles, rubella, and CRS surveillance systems to increase robustness and quality of case detection and reporting and strengthen registries of congenital anomalies;
  - ii. conduct active case searches and review the sensitivity of surveillance systems in epidemiologically silent areas;
  - iii. issue health alerts for mass-gathering events (such as the Olympic Games and the FIFA World Cup);
  - iv. involve the private sector in disease surveillance with a special focus on inclusion of private laboratories in the Regional Measles and Rubella Laboratory Network;
  - v. enhance collaboration between epidemiological and laboratory teams to improve measles and rubella surveillance and the final classification of suspected cases;
  - vi. improve molecular genotyping of the confirmed cases throughout outbreaks;
  - vii. address gaps and failures in surveillance systems, as identified by the National Commissions.
- (b) Maintain high population immunization coverage against measles and rubella ( $\geq 95\%$ ). Toward this end, the following activities are recommended:
- i. implement rapid coverage monitoring to identify populations susceptible to measles and rubella, focusing particularly on persons of high-risk populations who:
    - live in high-traffic border areas,
    - live in densely populated areas such as urban fringe settlements,
    - live in areas with low vaccination coverage or high vaccination dropout rates,
    - live in areas not reporting suspected cases (epidemiologically silent),
    - live in areas of high population density that also receive a large influx of tourists and other visitors, especially workers related to the tourism industry (such as those related to airports, seaports, hotels and hospitality sector, tour guides) as well as those in low density or isolated areas (ecotourism destinations),
    - are geographically, culturally, or socioeconomically difficult to reach, and

- are engaged in commerce/trade (such as through fairs, markets) or live in highly industrialized areas;
- ii. implement immediate vaccination activities in the areas where rapid coverage monitoring finds coverage to be under the recommended threshold of 95%;
- iii. implement high-quality follow-up vaccination campaigns. To ensure high levels of immunity, countries have made commitments to implement such campaigns (2008–2014) while the Region is in the process of verifying its status as free of endemic transmission of measles and rubella.

23. Full implementation of intensified vaccination activities to maintain elimination status will be essential to ensure high immunization coverage, especially in areas that have susceptible populations. In the areas where measles and rubella viruses are still circulating, further efforts to interrupt virus transmission and conduct epidemiological investigations should focus on unvaccinated vulnerable population groups and on high-risk areas.

24. Countries should integrate the proposed activities for maintaining measles, rubella, and CRS elimination in their annual plans of action for national immunization programs, which will reflect an ongoing political commitment and sufficient financing.

25. To ensure implementation of the emergency plan of action 2012–2014 for maintaining the Region free of measles, rubella, and CRS, the budget of US\$ 1.5 million must be fully *financed*.

#### **Action by the Pan American Sanitary Conference**

26. The Conference is invited to review the progress made toward the documentation and verification of the elimination of measles, rubella, and congenital rubella syndrome in the Americas, take note of the actions necessary to maintain the elimination goal, and consider adopting the proposed resolution in Annex A.





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CSP28/16 (Eng.)  
Annex A  
ORIGINAL: ENGLISH

### ***PROPOSED RESOLUTION***

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

##### ***THE 28th PAN AMERICAN SANITARY CONFERENCE,***

Having considered the report presented by the Director, *Plan of Action for Maintaining Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Region of the Americas* (Document CSP28/16), which reviews progress toward documenting and verifying the absence of endemic measles and rubella viruses in the Region;

Having reviewed the recommendations of the International Expert Committee for maintaining the Region of the Americas free of endemic measles, rubella, and congenital rubella syndrome;

Recognizing the tremendous amount of work that Member States have done to monitor the progress in documenting and verifying the interruption of endemic measles and rubella transmission in the Americas, as requested in Resolution CSP27.R2;

Noting that tremendous progress has been achieved in the interruption of transmission of endemic measles and rubella viruses;

Observing with concern that continuing measles and rubella virus transmission anywhere in the world will continue to pose a risk to the Region of Americas and cause possible virus importations and outbreaks until transmission of both viruses is interrupted globally;

Taking into account that, while documenting and verifying the elimination of the viruses in the Region, several PAHO Member States identified challenges in their immunization programs, such as weak surveillance and heterogeneous coverage, that put at risk the elimination of measles and rubella;

Mindful that considerable efforts are still needed to sustain the elimination goals and that these will require collaboration between governments and partner organizations, with stronger ties between the public and private sectors;

Acknowledging the need to develop an emergency plan of action for maintaining the Region free of measles and rubella, as well as the need to manage the long-term risks of reintroduction of viruses through importations that could lead to the reemergence of measles and rubella,

***RESOLVES:***

1. To congratulate all Member States and their health personnel on the progress to date in achieving and maintaining the elimination of measles, rubella, and congenital rubella syndrome (CRS) in the Americas and in documenting and verifying the interruption of endemic transmission of these diseases in the Region.
2. To express appreciation to and request continued support from the various organizations that, together with PAHO, have offered crucial support to national immunization programs and national efforts to eliminate rubella and CRS. These organizations include the United States Department of Health and Human Services, United States Centers for Disease Control and Prevention, United States Agency for International Development, Canadian International Development Agency, Global Alliance for Vaccines and Immunization, Inter-American Development Bank, International Federation of Red Cross and Red Crescent Societies, Japanese International Cooperation Agency, Spanish Agency for International Development Cooperation, Sabin Vaccine Institute, United Nations Children's Fund, Measles and Rubella Initiative, Lions Clubs International Foundation, March of Dimes, and Church of Jesus Christ of Latter-day Saints.
3. To urge all Member States to:
  - (a) Maintain high-quality, elimination-standard surveillance and ensure timely and effective outbreak response measures to any wild virus importation. To ensure high-quality surveillance, the following activities should be conducted, as required:

- i. implement external rapid assessments of measles, rubella, and CRS surveillance systems to increase robustness and quality of case detection and reporting and strengthen registries of congenital anomalies;
  - ii. conduct active case searches and review the sensitivity of surveillance systems in epidemiologically silent areas;
  - iii. issue health alerts for mass-gathering events (such as the Olympic Games and the FIFA World Cup);
  - iv. involve the private sector in disease surveillance, with a special focus on inclusion of private laboratories in the Regional Measles and Rubella Laboratory Network;
  - v. enhance collaboration between epidemiological and laboratory teams to improve measles and rubella surveillance and the final classification of suspected cases;
  - vi. improve molecular genotyping of the confirmed cases throughout outbreaks;
  - vii. address gaps and failures in surveillance systems, as identified by the National Commissions.
- (b) Maintain high population immunization coverage against measles and rubella ( $\geq 95\%$ ). Toward this end, the following activities are recommended:
- i. implement rapid coverage monitoring to identify populations susceptible to measles and rubella, focusing particularly on persons of high-risk populations who:
    - live in high-traffic border areas,
    - live in densely populated areas such as urban fringe settlements,
    - live in areas with low vaccination coverage or high vaccination dropout rates,
    - live in areas not reporting suspected cases (epidemiologically silent),
    - live in areas of high population density that also receive a large influx of tourists and other visitors, especially workers related to the tourism industry (such as those related to airports, seaports, hotels and hospitality sector, tour guides) as well as those in low density or isolated areas (ecotourism destinations),
    - are geographically, culturally, or socioeconomically difficult to reach, and
    - are engaged in commerce/trade (such as through fairs and markets) or live in highly industrialized areas;

- ii. implement immediate vaccination activities in the areas where rapid coverage monitoring finds coverage to be under the recommended threshold of 95%;
    - iii. implement high-quality follow-up vaccination campaigns to ensure high levels of immunity while the Region is in the process of verifying its status as free of endemic transmission of measles and rubella.
  - (c) Integrate the proposed activities for maintaining measles, rubella, and CRS elimination in their annual plans of action for national immunization programs.
4. To request the Director to:
- (a) continue providing technical support to Member States to strengthen national capacity within the framework of routine immunizations, using strategies that focus on improving surveillance and reporting and increasing immunization coverage among vulnerable and hard-to-reach populations;
  - (b) continue efforts to mobilize the additional resources necessary to overcome the challenges described in Document CSP28/16;
  - (c) continue to support strong advocacy and resource mobilization to maintain the regional elimination of measles and rubella in light of continuous virus importations from abroad that continue to challenge the goals achieved;
  - (d) continue to advocate with other WHO Regions and their development cooperation partners to step up their efforts to increase measles and rubella coverage, with a view to achieving elimination worldwide.



## Report on the Financial and Administrative Implications for the Secretariat of the Proposed Resolution

**1. Agenda item:** 4.11. Plan of Action for Maintaining Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Region of the Americas

**2. Linkage to Program Budget 2012-2013:**

**(a) Area of work:** Expanded Program on Immunization (FCH/IM)

**(b) Expected result:** Decreasing mortality and morbidity due to measles, rubella and congenital rubella syndrome (CRS) in the Region of Americas and improving population health by maintaining the Region free of endemic measles and rubella (MDG 4, MDG 5)

After careful analysis of the regional study on the elimination of the viruses produced as part of the process of verifying the absence of the endemic measles and rubella viruses in Americas, it appears that the interruption of endemic measles and rubella virus transmission has been achieved in the Region of the Americas. Despite these successes, several trends in the region are of concern.

The Region continues to be in risk of virus importations resulting diseases outbreaks. Moreover several member countries identified weaknesses in their immunization programs and surveillance systems during the documentation process that might put in the risk of the maintenance of the regional elimination if these gaps are not corrected promptly. The maintenance of the elimination of rubella and congenital rubella syndrome (CRS) in the Region of the Americas will be achieved by ensuring that all 39 Member States and territories will continue integrated measles/rubella surveillance and strengthened CRS surveillance and that all the member states and territories of the Region will continue implementing effective immunization interventions, including the strengthening of routine vaccination services and the implementation of follow-up campaigns. It urges Member States to remain vigilant and take appropriate action to enhance sensitivity of the active surveillance of these diseases, to assure homogenous vaccination coverage and high quality of the laboratory services and to prepare a plan for minimizing the risks of virus re-introductions and re-emergence of endemic measles, rubella and CRS in the Region.

**3. Financial implications**

**(a) Total estimated cost for implementation over the lifecycle of the resolution (estimated to the nearest US\$ 10,000, including staff and activities):**

The resolution, which will be presented to the Pan American Sanitary Conference complements the document on the measles, rubella and CRS elimination by focusing on the Regional emergency action plan for maintaining the elimination of the endemic measles and rubella viruses transmission in the Region of the Americas for 2012-2013. The estimated costs are described in the table below.

| Activity                                                                                                                                                      | Estimated Cost \$ | Year      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|
| Address gaps and failures in surveillance systems, as identified by the National Commissions                                                                  | 120,000           | 2012-2013 |
| Conduct active case searches to review the sensitivity of surveillance systems in epidemiologically silent areas                                              | 50,000            | 2012      |
| Involve private sector in disease surveillance with special focus on inclusion of private laboratories in the Regional Measles and Rubella Laboratory Network | 35,000            | 2012-2013 |
| Enhance collaboration between epidemiology and laboratory teams to improve measles and rubella surveillance and the final classification suspected cases      | 220,000           | 2012-2013 |
| Improve molecular genotyping of the confirmed cases throughout outbreaks                                                                                      | 250,000           | 2012-2013 |
| Rapid coverage monitoring focusing on high risk populations followed by immediate vaccinations in the areas where the coverage is under 95%                   | 250,000           | 2012-2013 |
| Support high quality follow-up campaigns                                                                                                                      | 500,000           | 2012-2013 |
| Support outbreak containment activities                                                                                                                       | 50,000            | 2012-2013 |
| Issue health alerts for mass-gathering events                                                                                                                 | 25,000            | 2012-2013 |
| <b>TOTAL</b>                                                                                                                                                  | <b>1,500,000</b>  |           |

**(b) Estimated cost for the biennium 2012-2013 (estimated to the nearest US\$ 10,000, including staff and activities):**

The document on *Elimination of Measles, Rubella and Congenital Rubella Syndrome in the Region of the Americas*, which includes the Regional Emergency Plan of Action for maintaining the Region of Free of endemic viruses, estimates that the implementation of the plan would cost \$1, 5 million (2012-2013).

**(c) Of the estimated cost noted in (b), what can be subsumed under existing programmed activities?**

The resources for the programmed activities for the period 2012-2013 have been earmarked (a) to strengthen integrated measles/rubella and CRS surveillance, (b) to implement supplementary immunization activities, (c) to conduct trainings among health and laboratory workers, (d) to evaluate measles and rubella elimination related interventions, and (e) to expenses associated with the finalization of the process of documenting and verifying the elimination of the endemic measles, rubella and CRS in the Region. Relatively high proportion of the funds were executed to support the intensified vaccination activities in Haiti to increase the MR and polio vaccination coverage since the country has been considered as a

high risk areas due the lowest population immunity against these diseases in the Region.

The implementation of the Regional Emergency Plan of Action for maintaining the elimination of measles, rubella and CRS, as described by the new resolution, has been partially incorporated into the activities supported by the CDC-PAHO Cooperative Agreement for sustaining measles, rubella, and CRS elimination in the Americas (expires by April 2014); also some small amount of the Health and Human Services (HHS) funds will cover some components of the project to enhance molecular genotyping. However, a large financial gap (estimated gap of \$1, 4 million) needs to be fulfilled in order to conduct activities to maintain the Regional elimination status. This means additional funds to support the maintenance plan needs to be mobilized through the collaborative efforts of PAHO and its partners.

#### **4. Administrative implications**

##### **(a) Indicate the levels of the Organization at which the work will be undertaken:**

After careful analysis of the reports submitted by the National Commissions and Subregional Commission as the final part of the project on documenting and verifying the elimination of the endemic measles and rubella viruses, it appears that the interruption of endemic virus transmissions has been achieved. However, in light of the remaining challenges for maintaining elimination of measles and rubella in the Region of the Americas, it is deemed necessary to develop a plan of action to maintain achieved results. The Emergency Plan of Action focuses main activities at the country level by strengthening their surveillance systems and assuring the high homogenous vaccination coverage throughout the countries. The plan complements and strengthens regular already planned activities to sustain technical and administrative support at the Regional and country level for the successful implementation of effective strategies, such as mass vaccination campaigns and the strengthening of high-quality integrated measles/rubella surveillance and CRS surveillance and the routine vaccination programs.

##### **(b) Additional staffing requirements (indicate additional required staff full-time equivalents, noting necessary skills profile):**

No additional required full-time equivalents are required to carry out the recommended activities. The IEC recommendations are implemented by the countries themselves with the support of PAHO's existing technical staff at the headquarters and in the regional offices.

However, based upon the adoption of the new resolution, that includes the Emergency Action Plan to Maintain the Regional Elimination of Measles, Rubella and CRS, by the Pan American Sanitary Conference in September 2012, PAHO might need to deploy two experts to support the Member States to implement the recommendations of the International Expert Committee promptly to maintain achieved elimination results. These field-based short term consultant(s) (STC) would support the maintenance of measles and rubella elimination in the Region by aiding countries to address the gaps and failures identified during the documentation and verifying the regional elimination of the endemic viruses. These short-term external experts will mainly focus on the evaluating the measles/rubella surveillance systems, and helping in assessing the immunization coverage (focus on high risk areas) by using rapid coverage monitoring – the activities recommended in the Emergency Plan of Action. The duration of the field-based assignment will vary depending on assignment, but

total of accumulative months will not exceed 12 weeks.

**(c) Time frames (indicate broad time frames for the implementation and evaluation):**

The recommended activities will be implemented in 2012 and start with the evaluating of vaccination coverage and quality of surveillance systems in the high risk countries. These activities should be finalized by the end of 2012 or as soon as the funds are available. The results of the assessments will guide further these countries to refine their vaccination programs and surveillance systems to maintain the regional elimination status. The corrective actions based on the recommendations of the IEC and the results of the assessments will be implemented partially in the last half of the year 2012 and during 2013.





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*Pan American Sanitary Bureau, Regional Office of the*  
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CSP28/16 (Eng.)

Annex C

**ANALYTICAL FORM TO LINK AGENDA ITEM WITH ORGANIZATIONAL MANDATES**

**1. Agenda item:** 4.11. Plan of Action for Maintaining Measles, Rubella, and Congenital Rubella Syndrome Elimination in the Region of the Americas

**2. Responsible unit:** Comprehensive Family Immunization Project (FCH/IM)

**3. Preparing officer:** Cuauhtémoc Ruíz Matús

**4. List of collaborating centers and national institutions linked to this Agenda item:**

- Ministries of Health (all Latin American and Caribbean countries)
- World Health Organization
- UNICEF
- United States Department of Health and Human Services
- Public Health Agency of Canada
- Caribbean Epidemiology Centre
- Latin American Center for Perinatology and Human Development
- Regional Technical Advisory Group on Vaccine-preventable Disease
- Centers for Disease Control and Prevention
- Canadian International Development Agency
- GAVI Alliance
- Inter-American Development Bank
- Spanish Agency for International Development Cooperation
- International Federation of Red Cross and Red Crescent Societies
- Japanese International Cooperation Agency
- March of Dimes
- Measles and Rubella Initiative
- Sabin Vaccine Institute
- United Nations Children's Fund
- United States Agency for International Development
- Church of Jesus Christ of Latter-day Saints
- Lions Club International Foundation

**5. Link between Agenda item and Health Agenda for the Americas 2008-2017:**

The agenda item is linked to the principles, values, and areas of action described in the Health Agenda for the Americas.

Principles and values: human rights, universality, access, and inclusion; Pan American solidarity; and equity in health.

The agenda item is linked directly to the following action items: reducing the risk and burden of disease and strengthening health security

The agenda item is indirectly linked to the following action items: strengthening the national health authority; tackling health determinants; increasing access to quality health services; strengthening the management and development of health workers; and harnessing knowledge, science, and technology.

**6. Link between Agenda item and Strategic Plan 2008-2012:**

- SO1: To reduce the health, social and economic burden of communicable diseases (RER 1.2 and RER 1.3)
- SO4: To reduce morbidity and mortality and improve health during key stages of life, including pregnancy, childbirth, the neonatal period, childhood and adolescence, and improve sexual and reproductive health and promote active and healthy aging
- SO10: To improve the organization, management and delivery of health services
- SO12: To ensure improved access, quality and use of medical products and technologies.

**7. Best practices in this area and examples from countries within the Region of the Americas:**

The Region of the Americas has important experiences in implementing elimination and eradication strategies for measles, rubella and CRS. Due to the elimination efforts made by the Member States, endemic measles has been eliminated; encouraging advances have been made in endemic rubella, for which transmission seems to be interrupted in all the countries resulting no endemic cases of rubella and CRS cases in the past years.

- (a) Role of measles and rubella vaccination programs in strengthening health worker capacity, sustaining political and community commitment, and for mortality and morbidity especially among children.
- (b) Strategies for elimination and maintaining the elimination of measles, rubella and CRS, including improvements in surveillance and laboratory capacity to meet new challenges in the post-elimination era.
- (c) Evolution and sustainability of national immunization programs with capacity to support maintenance of the Regional elimination of measles, rubella and CRS.
- (d) Rapid response to endemics and improved national capacity for addressing disease importations.
- (e) Increased national capacity for making evidence based decisions.
- (f) Development of strategies/initiatives to reach vulnerable populations with quality vaccine services.
- (g) Lessons learned to support the transition from child to family immunization programs.

Given that the Americas have progressed faster than any other WHO region in regards to the elimination of these diseases, the Region plays an important role in terms of sharing best practices and lessons learned to the other regions and countries in the world.

**8. Financial implications of this Agenda item:**

The estimated program budget for the biennium 2012-2013 is \$1.5 million. This means that funds to support the maintenance plan needs to be mobilized through the collaborative efforts of PAHO and its partners.