

Successful elimination of rubella and congenital rubella syndrome from the American region: A historical breakthrough

Sir,

Rubella is an infectious viral disease which often affects children and young adults without any major complications.^[1] However, acquisition of the infection in pregnant females can lead to serious consequences like fetal death or congenital defects known as congenital rubella syndrome (CRS).^[1] In fact, every year in excess of 0.1 million babies are born with CRS, of which majority of cases is being reported in South-East Asia and Africa.^[1] This is a major global and serious public health concern, as an extremely cost-effective option in the form of vaccine is available for more than four decades and still health sector is failing to avoid a preventable cause of disability.^[1]

Toward the end of April 2015, an international expert committee reviewed the surveillance reports and then declared that the Americas region is the first in the world which has become free of endemic transmission of rubella.^[2,3] The efforts started from the year 2003 when the Pan American Health Organization (PAHO) laid down the target to eliminate rubella and CRS from the American region by 2010.^[3] In fact, the last endemic (naturally-transmitted) rubella case was reported in the region in 2009 and since then, only imported cases have been reported in some of the nations.^[2] Further, no evidence was available to suggest about the endemic transmission of rubella or CRS for five successive years (against the requirement of 3 years).^[3] The successful elimination of these two infections from the region has been attributed to the concerted efforts toward strengthening of routine immunization using various strategies across the 45 nations which together constitute the American region.^[2,4]

The American region was able to achieve this milestone because of ensuring achievement and maintenance of high vaccination coverage with two dosages of measles and rubella-containing vaccines; performing intensive immunization activities in areas with poor coverage; creating an atmosphere to increase the extent of political commitment; motivating

policy makers to increase the financial allocation for routine and supplementary immunization activities; identifying potential donors to support the rubella elimination campaign; facilitating strategic mobilization of the available resources; improving the advocacy efforts by developing an effective strategy; establishing and strengthening the outbreak preparedness response to enable detailed investigation for timely and effective public health response; improving the surveillance activities by expanding the definition of a CRS case; developing a monitoring system to document the number of vaccinated persons by rapid house-to-house coverage; streamlining mechanisms to evaluate the activities and progress of the immunization sessions; involving members of the community by raising their level of awareness; building confidence and increasing the demand for immunization; ensuring multi-sectoral involvement by networking with governmental and nongovernmental organizations and private sector; and promoting research to improve upon the impact of immunization activities and diagnostic tools.^[5-9]

As rubella surveillance is often integrated with measles surveillance, it provides an opportunity to the nations to even eliminate measles at the same time while working toward the elimination of rubella.^[7,10] This is also possible because of the simultaneous administration of measles and rubella vaccine (as a mumps-measles-rubella vaccine).^[7,10] Furthermore, it is a surety that by carrying out routine and supplementary immunization activities in heterogeneous settings, lives of millions of children and living standards of numerous families (by averting the stress and agony associated with the birth of a handicap child), can be improved across the globe.^[1,7]

To conclude, it is a remarkable achievement for the American region to successfully eliminate rubella and congenital rubella disease as the stakeholders have succeeded in interrupting the endemic transmission of rubella and even maintained it for 5 years. It is an inspiring story for the rest of the world, and thus policymakers of different nations should learn from the innovations and strategies implemented in the America region to strengthen and streamline the existing immunization activities.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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REFERENCES

- World Health Organization. Rubella — Fact Sheet No. 367; 2014. Available from: <http://www.who.int/mediacentre/factsheets/fs367/en/>. [Last accessed on 2015 May 05].
- Pan American Health Organization. Americas Region is Declared the World's First to Eliminate Rubella; 2015. Available from: http://www.paho.org/us/index.php?option=com_content&view=article&id=135%3AAmericas-region-free-of-rubella&Itemid=0&lang=en. [Last accessed on 2015 May 08].
- Macey JF, Tam T, Lipskie T, Tipples G, Eisbrenner T. Rubella elimination, the Canadian experience. *J Infect Dis* 2011;204 Suppl 2:S585-92.
- Castillo-Solorzano C, Marsigli C, Danovaro-Holliday MC, Ruiz-Matus C, Tambini G, Andrus JK. Measles and rubella elimination initiatives in the Americas: Lessons learned and best practices. *J Infect Dis* 2011;204 Suppl 1:S279-83.
- Tohme RA, François J, Wannemuehler K, Magloire R, Danovaro-Holliday MC, Flannery B, *et al.* Measles and rubella vaccination coverage in Haiti, 2012: Progress towards verifying and challenges to maintaining measles and rubella elimination. *Trop Med Int Health* 2014;19:1105-15.
- Flores A, Villeda JA, Rodríguez-Fernández R, Chévez AE, Barrera L, Tezaguic R, *et al.* Advocacy and resource mobilization for rubella elimination in Guatemala. *J Infect Dis* 2011;204 Suppl 2:S598-602.
- World Health Organization. Measles and Rubella Laboratory Network; 2015. Available from: http://www.who.int/immunization/monitoring_surveillance/burden/laboratory/measles/en/. [Last accessed on 2015 May 08].
- Rainey JJ, Danovaro-Holliday MC, Magloire R, Kananda G, Lee CE, Chamouillet H, *et al.* Haiti 2007-2008 national measles-rubella vaccination campaign: Implications for rubella elimination. *J Infect Dis* 2011;204 Suppl 2:S616-21.
- Teixeira AM, Samad SA, Souza MA, Segatto TC, Morice A, Flannery B. Brazilian experience with rapid monitoring of vaccination coverage during a national rubella elimination campaign. *Rev Panam Salud Publica* 2011;30:7-14.
- Fields R, Dabbagh A, Jain M, Sagar KS. Moving forward with strengthening routine immunization delivery as part of measles and rubella elimination activities. *Vaccine* 2013;31 (Suppl 2):B115-21.

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10.4103/1735-1995.168410

How to cite this article: Shrivastava SR, Shrivastava PS, Ramasamy J. Successful elimination of rubella and congenital rubella syndrome from the American region: A historical breakthrough. *J Res Med Sci* 2015;20:824-5.