Immunization Newsletter

Pan American Health Organization

Volume XXXV Number 5 | Immunize and Protect Your Family | October 2013

Progress Made in the Integration of EPI Costing and Planning

If we compare the situation of the Expanded Program on Immunization (EPI) in the year in which it was created (1974) with the current situation, we find that: 1) Early on, the EPI had vaccines against 6 diseases (tuberculosis, polio, diphtheria, pertussis, tetanus and measles) available. It currently protects against 14 diseases (including hepatitis B, *Haemophilus influenzae* type b, rubella, mumps, pneumococcal disease, rotavirus, yellow fever, influenza and human papilloma virus). 2) The EPI used to administer a total of 10 doses per child, while currently it delivers up to 20 doses per child. 3) The EPI used to vaccinate children exclusively, while it now vaccinates entire families. Today, adolescents, pregnant women, occupational risk groups and the elderly receive vaccines. 4) The annual cohort to vaccinate in the Region in 1975 was approximately five million children under 1 year of age, while for 2011 the cohort comprised nearly 15 million children less than one year of age. 5) The cost per child vaccinated was less than five dollars then, while it is currently approximately 70 dollars per child immunized, only taking into account the cost of the vaccines. Given the above considerations, planning and costing for the EPI requires careful work based on data for adequate decision-making and to ensure the program's sustainability.

In 1974, with the creation of the EPI, an annual planning tool was generated that included nine areas of action or components of the plan of action (biologicals and supplies, cold chain, training, social mobilization, operating expenses, supervision, epidemiological surveillance, research and evaluation). Due to the rapid development of the program, countries independently introduced other required components according to their scope of work (i.e. management, coordination, logistics, new vaccines, etc.). Thus, countries currently send PAHO their plans of action with a variable number of EPI components and they include different activities in one component or another according to their own criteria. At the same time, PAHO requests that countries submit separate plans for certain activities (such as campaigns) that are not included in the master plan of action. This makes it difficult to compare across different country plans or to adequately interpret each plan, since it is not clear which activities have been included

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Local and international experts with members of the EPI at the Honduras costing meeting, 2013.

In This Issue

Workshop for Rotavirus Genotyping

On 11-22 March, representatives from ten out of 16 national rotavirus laboratories in the Region (Bolivia, Chile, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru and Venezuela), as well as officials from the Pan American Health Organization (PAHO) and the Oswaldo Cruz Foundation met in Rio De Janeiro, Brazil to train representatives of national laboratories in techniques for the detection and genotyping of rotavirus and to review the role of the national laboratories in the hospital-based sentinel surveillance of rotavirus (RV) diarrhea in the Americas.

The workshop participants discussed various aspects related to RV, such as general characteristics, pathophysiology of infection, detection of RV through the polymerase chain reaction, basic phylogenetic analysis, multiplex reverse transcription polymerase chain reaction for RV genotyping, the study and characterization of emerging RV genotypes and their epidemiological importance, challenges with RV vaccines, and the progress and challenges related to RV hospital-based sentinel surveillance.

In order to facilitate the comparability of results among countries, PAHO and WHO have recommended that different procedures used in the lab network be standardized, particularly those related to sample storage, Ribonucleic Acid (RNA) extraction, and the use of primers and commercial reagents. Following recommendations by the Technical Working Group of the Global Network of WHO Rotavirus Surveillance in 2012, the importance of harmonizing genotyping protocols was also highlighted. Standardized practices and protocols will facilitate better training of laboratorians, decrease the percentage of non-typeable strains (NT), and improve the quality of genotyping data in the Americas. Other recommendations focused on technical issues intended to improve genotyping data, good practices for quality control/quality assurance, and strategies to enhance the role of national laboratories in rotavirus sentinel surveillance. ■

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in each component. For all of these reasons, PAHO has proposed the standardization of all of the existing tools (Plan of Action form, PAHO-WHO-UNICEF Joint Reporting Form, multi-year immunization plans and the GAVI report, among others) through the creation of a standard definition of the 12 components of the EPI and their content.

Countries in the Region consistently conduct a planning process based on: 1) national government and, specifically, health sector planning, 2) the reality in the country 3) the teams' technical capacity 4) the team's participation, as well as that of other actors involved in the process, 5) monitoring and evaluation, as it allows for the adaptation of activities, and 6) a defined budget framework. This systematic process has contributed to strengthening EPI management and the mobilization of resources for the EPI. However, greater integration is still required in order to avoid duplicative efforts and to facilitate the management and monitoring of the plan's execution.

It is important to perform adequate costing of past activities periodically, in order to provide greater clarity on details of budget execution. This facilitates better understanding of the components and activities that consume the greatest amount of resources, as well as the identification of inefficiencies and opportunities for improvement in the operational and logistic aspects of the EPI.

Currently, the majority of countries do not routinely perform costing studies at every level of the EPI; nor do they have a methodology or tool to perform these studies adequately, which requires gathering information on costs and resource use through adequate sampling of healthcare facilities throughout the country. The ProVac initiative has developed a tool and methodology called CostVac, which is a package of materials designed so that EPI coordinators can select an adequate sample of vaccination centers, adapt surveys to the national situation, and analyze the information gathered within a standard, consistent framework. In 2012 and 2013, a pilot study was conducted on EPI costing in Honduras using the CostVac tool and methodology. For the first time, the Honduran EPI gathered information on costs and the use of resources at the local level at 71 health facilities in 8 of the country's regions. The information gathered from the healthcare facilities and regional offices showed that over 50 percent of the economic costs of the EPI are incurred at the healthcare facility level. These costs are generally underestimated at the central level, and taking them into account can help in distributing limited resources more efficiently. In addition, a more precise estimate of the real cost of the EPI will serve as an important input for management of the EPI and mobilization of resources.

PAHO has proposed a tool to integrate the planning and costing of the program that countries can use to produce simpler costing information annually. This will be useful for the planning and budgeting of the following year. They will also be able to do more thorough five-year costing (accompanied by an international evaluation of the EPI or independently) for the purpose of performing closer analysis of the efficiency of the program and identifying challenges and opportunities for improvement. The information on cost of immunization should be complemented with information regarding the benefit provided by the program, such as prevention of disease and reduction of costs regarding hospitalization, treatment, rehabilitation services, days-off and immeasurable suffering. The cost of immunization should always be compared with its absence. Therefore, it should be considered a sound investment because health is essential for economic development.

2013 TAG Recommendation

➤ **Recognizing the costing of the EPI is important to make informed decisions when planning immunization activities and negotiating the budget; countries should test and adopt the tools proposed by PAHO.** ■

Evidence-Based Decision-Making for New Vaccine Introduction

New vaccines are considerably more expensive than traditional vaccines and their introduction into national immunization programs in the Region imposes greater resource requirements. Given that national budgets for immunization are slow to expand relative to the needs of the programs, the scarce resources available must be used as efficiently as possible and mechanisms should be sought to protect them. Arguments for increasing national immunization budgets must be strongly grounded in evidence given the many other existing public health priorities. The Global Vaccine Action Plan approved during the 2012 World Health Assembly calls for the incorporation of evidence assessment into immunization policy-making with the aim of maximizing health impact and efficient resource use.

The Region of the Americas has always been a pioneer and a global leader in immunization.These achievements are now potentially at risk due to the increased complexity of the decision-making and planning that must be undertaken by the national immunization programs (NIPs). New vaccine adoption without an adequate evidence base and careful planning could lead to an overall decrease in performance of the NIPs. The Programs could start facing problems of underfunding and inefficiencies, resulting in decreased public health benefits. This would also affect other health programs that benefit from the structure and reach of the national immunization programs to provide additional health services and interventions.

Recognizing this need, PAHO established the ProVac Initiative in 2004 with the goal of strengthening national capacities for evidence-based decision-making around new vaccine introduction, with a particular focus on the use of economic evaluations in the decision-making process. In 2006, the ProVac Initiative was officially endorsed by PAHO's Governing Bodies through resolution CD47.R10. Then, in 2009, the ProVac Initiative was awarded a five-year grant by the Bill & Melinda Gates Foundation to support country decision-making around new vaccine introduction.

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In 2010, the ProVac Network of Centers of Excellence was formed, including academic institutions in Latin America with expertise on economic evaluations to develop tools and guides for countries conducting economic studies with local and regional data. Thus far, over 25 economic evaluations and costing studies have been conducted by multidisciplinary national teams in 15 countries. The cornerstone of all technical assistance provided by the ProVac Initiative has been the bolstering of national capacities, South-South cooperation, and country ownership of the process of evidence generation.

These efforts to strengthen national capacities in the Americas have gained global recognition and have led to repeated requests for support by other WHO Regions. Accordingly, in 2012 PAHO was awarded an additional grant to provide time-limited support for the use of economic evaluations in immunization decision-making in select countries of Africa, Europe, and the Eastern Mediterranean. This work is being carried out in collaboration with international partners: Agence de Médicine Préventive (AMP), PATH, CDC, Sabin Vaccine Institute and WHO headquarters, regional and country offices.

Despite these important steps that countries have taken thus far, much remains to be done to incorporate evidence into the immunization decision-making process. Countries must strive to create a broad, nationally based evidence framework for their decision-making, one that will consider not only technical criteria but also programmatic, financial, and social criteria. Countries have successfully used cost-effectiveness analysis as an initial framework for generating information about new vaccine introduction related to the anticipated incremental program costs and projected cost savings from health service visits and hospitalizations averted. However, these data do not provide much guidance on logistical, financial, or social concerns, such as equity. While countries undoubtedly recognize the importance of incorporating these other criteria into national immunization decision-making, there is a need for additional tools and guidance on how to evaluate all these criteria—technical, programmatic, financial, and social.

To ensure that NIPs are equipped with the necessary capacities to meet decision-making challenges, a three-pronged approach is proposed:

I. Expand the evidence base beyond cost-effectiveness: The technical aspects of immunization policy-making should always be balanced with the programmatic and social aspects and should be considered in the context of the health system overall. In particular, the Region of the Americas is affected by the crippling effects of inequities within countries, in health and other areas of life, and immunization policy should aim to redress some of these inequities. Other dimensions that countries should include in their policy evaluations include assessing how the new vaccine could prevent high out-of-pocket health care expenditures and assessing subnational variations in the likely impact of the new vaccine.

II. Institutionalize an evidence-based decision-making process for new vaccine introduction: Institutionalization of NITAGs or similar technical advisory bodies, through ministerial decree or national law, is advisable to ensure continuity of policy recommendations and to establish explicit relationships between the advisory bodies and government agencies. These legal frameworks should also ensure financial support to carry out relevant research and operational studies to inform national immunization policies. Technical working groups should be formally established to expand the national evidence base, further cementing the infrastructure necessary to have a comprehensive, national, evidence-based decision-making process.

III. Integrate policy-making and planning for NIPs: Policy decisions followed by successful planning for adoption of new vaccines into national routine immunization schedules requires collaboration between several actors and harmonization of processes that have generally been treated separately. Integration of costing, budgeting, and planning processes and their accompanying tools will ensure that the incorporation of new vaccines in the routine program generates positive and sustainable results. The integration of these processes can be supported by existing ProVac tools and methodologies and by technical cooperation from PAHO's regional immunization program.

This approach is proposed as the basis for the work plan of the ProVac Initiative in its second phase, which is planned for the period 2014 to 2019.

2013 TAG Recommendations

- TAG recognizes the National Immunization Programs in the Region for their efforts in incorporating economic evidence into new vaccine policymaking processes.
- TAG commends the efforts and achievements of the ProVac Initiative in providing technical support to Member States for more informed decisions around new vaccine introduction.
- TAG recommends that PAHO Director and Member States provide their support for a future phase of the ProVac Initiative which will address issues related to equity and societal financial risks and the institutionalization of an evidence-based decision-making process.
- TAG encourages the ProVac Initiative to continue sharing lessons learned around the evidence-based decision-making for new vaccine introduction with other WHO Regions. ■

Member States Endorse the Continued Strengthening of Evidence-Based Policy-Making for National Immunization Programs

During the Pan American Health Organization's (PAHO) 52nd Directing Council meeting, high-level health authorities of the Americas approved a Resolution calling on the Region's countries to consider the policy approaches described in the document "Evidence-Based Policy-Making for National Immunization Programs." This Resolution highlights the regional priority for strengthening national capacities for evidence-based immunization decision-making. Delegates pledged to strengthen National Immunization Technical Advisory Groups (NITAGs) or sub-regional policy bodies that serve the same purpose. At the same time, Member States will work to ground immunization policy-making on a broad national evidence base comprising the technical, programmatic, financial, and social criteria necessary to make informed decisions. The document also captures the Member States' request to incorporate specific considerations for equity into the decision-making process. Delegates also signed on to promote the implementation of activities to harmonize the planning and costing processes of national immunization programs, forming strong links between the routine use of costing data to inform annual budgets and planning, as well as strategic decision-making. Furthermore, they recognized the need for measures that formalize these policy approaches and committed to seeking them by establishing administrative and legal frameworks to ensure political support and resources to back these initiatives. Through this Resolution, PAHO Member States also urged the PAHO Director to continue providing Member States with institutional support to strengthen capacities for the generation and use of evidence in their national immunization decision-making processes throughout the regional immunization program's ProVac Initiative. ■

Update on the Status of PAHO's Revolving Fund for Vaccine Procurement and Progress Report on Regional Development of Vaccines and Hemoderivatives

For over 32 years, PAHO's Revolving Fund for vaccine procurement (RF) has been the strategic tool of countries in the Region, in order to gain access to a continuous, timely supply of good-quality vaccines at the lowest available price. During the TAG meeting, key figures regarding the operation of the RF were presented and the context in which the RF operates and the importance of the countries' participation were explained.

In 2012, the RF purchased 60 products including 28 different biologicals on behalf of 35 countries and 6 territories. A total of 180 million doses were procured for a total purchase value of US$512 million dollars. The RF coordinated and monitored a total of 1200 shipments, arranging for their timely arrival. In that same year, the capital fund, which allows countries to reimburse PAHO for the purchase cost 60 days after the arrival of their orders, amounted to US$102 million dollars. This is the result of the solidarity contribution of 3% over the countries' purchase value. More than 80% of the purchases were made using the line of credit, which to date amounts to US$9 million dollars for each country.

Its mission has not only contributed to the elimination of vaccine-preventable diseases, but also to quick and sustained introduction of

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The 52nd Directing Council of the Pan American Health Organization (PAHO) Passes a Resolution in Support of the Revolving Fund and its Guiding Principles

Delegates to the 52nd Directing Council passed a Resolution endorsing the time-honored principles and procedures of the PAHO Revolving Fund for Vaccine Procurement. The Resolution, introduced by the Minister of Health of El Salvador, Dr. María Isabel Rodríguez, recognizes the central role the Revolving Fund has played in the success of immunization efforts in the Americas, urges countries to participate in the Fund by acquiring vaccines through it, and calls for the strict adherence to the Fund's established principles, terms and conditions, and procedures. Established in 1979, the PAHO Revolving Fund consolidates the vaccine requirements of Member States to achieve economies of scale and obtain the lowest prices from producers. During 2012, 35 countries and six territories participated in the Fund. To promote equitable access, the Fund guarantees all Member States access to vaccines at a single price per vaccine. In addition, the Fund's contractual terms and conditions ensure that the vaccines it procures are the lowest price globally. In the past, a few exceptions to the Fund's principles had been granted. PAHO Member States voted to ensure that the Fund no longer makes such exceptions. Over 95% of vaccines in Latin America and the Caribbean (LAC) are covered by national funds. A majority of delegates argued that the achievements of national immunization programs in LAC would not have been possible without the Revolving Fund and its policies, objectives, terms and conditions. Both the high levels of vaccine coverage and the adoption of new, more expensive vaccines would not have been possible, they said, without the low prices countries have obtained through the Fund. The Resolution was approved by a vast majority of Member States. Delegates recognized the global initiatives that promote vaccination in developing countries, such as the GAVI Alliance, and requested PAHO to continue supporting these efforts without jeopardizing the advances made in this Region. ■

PAHO Member States' Delegates voting in favor of the Revolving Fund at 52nd Directing Council, October 2013.

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new vaccines, as well as the financial self-sustainability of immunization programs in the Region. The continuous success of its mission mainly depends on three factors: the context of the global vaccine market, PAHO's role in the management of the mechanism, and countries' active, committed participation.

Currently, the global vaccine market poses challenges with regard to covering the Region's total demand and obtaining lower prices. There is a limited supply of vaccines, such as yellow fever, oral polio and acellular pertussis, to meet the global demand. In addition, limited competition in the supply of new vaccines (i.e. pneumococcal conjugate, rotavirus, human papillomavirus), plus the existence of other actors in the market, make providing access at even lower prices a challenge. The RF constantly seeks ways to meet the challenges found in the global vaccine context, while preserving its principles of Pan-Americanism, equity, universal access and quality.

Another challenge the RF has faced is related to the seasonal influenza vaccine. The RF has facilitated countries' access to it; however, the content of the inserts of some of the producers does not clearly indicate the use of the vaccine in recommended populations, such as pregnant women. In addition, given that, in the case of some producers, the same vaccine does not cover all of a country's target populations, from children to adults, awarding the bids according to countries' programmatic needs, ensuring competition among producers, has been a challenge.

With regard to the management of the RF, its Working Group, composed of representatives of PAHO technical and management areas, analyzes, recommends and implements policies, processes and tools for continuous improvement of the RF's performance. A planning tool for improved demand and the implementation of management monitoring systems that facilitate monitoring the timely arrival of orders and the use of the capital fund, for example, are some of the improvements. In order to meet the challenges of the global vaccine market, long-term purchase agreements have been established and communication with the producers has been increased. In addition, coordination with other partners, such as the GAVI Alliance and UNICEF, is being improved in situations where the global supply is limited.

Once more, emphasis is placed on the fact that in order to maintain and strengthen the economy of scale and benefits of the RF, active and committed participation of countries and territories is important. Their commitment to oversee increasingly precise forecasts of demand, as well as timely payment of obligations, contributes to producers' trust in the RF. Changes in demand or cancellations on the part of countries mean that the producers assume opportunity costs, which affects the credibility of the RF with them and the supply in terms of quantity and price for everyone. In addition, requirements that were not planned originally are lost opportunities with regard to obtaining lower prices and are a challenge to the timely deliveries, as producers may not have the stock readily available.

Progress Report: Developing Regional Vaccine and Hemoderivative Manufacturing Capacity

Some Latin American and Caribbean countries have an important manufacturing capacity for vaccines and blood derived products. This capacity could potentially lead to the further development of a regional capacity. Following TAG recommendations in October 2012, PAHO held a workshop bringing together regionally-based vaccine manufacturers, national authorities from the ministries of health and the national regulatory authorities and other relevant stakeholders with the aim of strengthening this Regional capacity.

The objectives of this workshop were:

- establish a network to facilitate information sharing and actively cooperate in strengthening initiatives;
- identify political, financial, expertise and regulatory hurdles;
- explore suitable mechanisms to determine medium and long-term vaccine demand.

Meeting participants agreed on the following list of recommendations:

- strengthen regional capacity to forecast and quantify future demands to better inform manufacturing decisions;
- facilitate and maintain an ongoing dialogue with other similar initiatives at the global and regional level, and, taking advantage of PAHO's leadership, enable discussions between different actors to meet any challenges that may emerge;
- PAHO, manufacturers, and national authorities should map the current needs for production and innovation on vaccine and blood derivatives to better inform the manufacturing decisions and to develop regional RD&I agendas for these products;
- ensure that technology transfer agreements respond to regional needs and don't have negative effects on the overall access to health technologies due to market segmentation;
- taking into account the capacity of regulatory agencies in the Region, PAHO should explore viable alternatives to expand the eligibility of vaccines to expand the supply and access to additional vaccines and hemoderivatives, while ensuring quality requirements.

The development of a regional network that can share knowledge, information and other resources and advocate for necessary changes was identified as the foundation for the overall program of work. Regional National Regulatory Authorities (NRAs) play a fundamental role in ensuring the safety and quality of the products and facilitate their introduction into the health systems. Thus, the proposed regional network and eventual work plan should include a strong regulatory component and close coordination with Regional NRAs.

Based on these general recommendations, participants agreed on the following next steps:

- develop a Community of Practice within PRAIS to bring together regional manufacturers, national health and regulatory authorities and other relevant stakeholders, under PAHO's supervision, to improve coordination and communication towards improving access of vaccines and blood derivatives in the Region;
- map the current strengths, opportunities and needs of the supply of vaccines and blood derivatives. PAHO will circulate a survey among regional manufacturers to collect the necessary information;
- coordinate and link with other relevant initiatives and networks to look for synergies at the regional and global levels;
- develop network bylaws, once the survey information is systematized, structure a work plan that can guide the activities of the network. The proposal should encompass technical, political and financial components. The initiative needs to ensure funds to implement any work plan.

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2013 TAG Recommendations

- TAG reiterates its recognition of the RF as a key pillar of immunization programs and reconfirms its recommendations made in October 2012 on the importance of countries' ongoing participation, and that PAHO maintain communication and coordination with the main partners in the global field of immunization, in order to take advantage of opportunities and meet the challenges of the global vaccine market.
- TAG recommends that countries ensure more accurate demand forecasts. The Revolving Fund should provide the countries with support on the planning and follow-up process.
- PAHO should continue with its commitment to strengthen the operating and financial management of the Revolving Fund in order to provide increasingly better service and greater capacity to extend credit to participating countries and territories.
- The TAG ratifies the importance of developing regional vaccine production capacity as a strategy to strengthen implementation of immunization and health programs in the region. PAHO should continue to lead the network and its work program. It also calls for the producers, regulatory agencies, health authorities and actors to maintain an active interest in the work program as soon as it is established.

Measles & Rubella Meetings

During 7-9 May, 2013, two large measles and rubella meetings took place at the Pan American Health Organization (PAHO) in Washington, DC. The International Expert Committee (IEC) met with the National Commissions to document and verify the elimination of endemic measles, rubella and congenital rubella syndrome (CRS) in the Americas. More specifically, the objectives of this meeting were to review the progress made on documenting and verifying the regional elimination of measles, rubella and CRS, including the outcomes of the IEC's visits to countries; review the approaches for implementing and monitoring the Plan of Action to maintain regional elimination; discuss the measures taken to reduce the impact of virus importations; and discuss further work plans for technical cooperation in 2013-2014. This was the fourth annual meeting of the IEC and the second one involving the National Commissions, with the goal to follow-up on the process of documenting and verifying the elimination of these diseases.

Also during this time, measles and rubella laboratory experts from FIOCRUZ (Brazil), National Microbiology Laboratory (Canada), the U.S. Centers for Disease Control and Prevention (CDC) , and the Caribbean Public Health Agency (CARPHA), officials from the Pan American Health Organization (PAHO), representatives from the national laboratories, and the WHO's global lab coordinator met to discuss the performance and challenges of the Measles and Rubella Laboratory Network in the Americas, explore the main findings of the members of the IEC during their visits to the countries and laboratories in the Region, and discuss the expected role of the national, sub-regional, and regional laboratories in the post-elimination phase. Some of the technical discussions included the status of the measles and rubella laboratory network in the Americas, its achievements and challenges; molecular surveillance of measles and rubella in Canada; the experience of a regional reference laboratory (RRL) in maintaining and supporting laboratory surveillance capacity to monitor measles, rubella and CRS elimination and provide evidence of endemic and imported genotypes; support of the sub-RRL in the elimination of measles, rubella and CRS; main laboratory findings on measles and rubella elimination related to the documentation and verification process; expected role of the laboratory network during the verification and post-elimination phases; and plan of action to maintain the elimination that includes rapid assessments of surveillance systems. Recommendations about operations and quality control, case classification and laboratory testing, and sustainability of laboratory surveillance were also addressed. The purpose of the IEC surveillance assessment visits was also discussed. It was agreed that these visits serve to assess the national surveillance system and to determine if surveillance is adequate for documenting measles, rubella and CRS elimination. Laboratory testing should be considered during the IEC surveillance assessment visits and the IEC review team should include a laboratory expert. However, these visits should not be used to accredit the laboratory. ■

Participants of the IEC Meeting in Washington, DC, May 2013.

Measles/Rubella/Congenital Rubella Syndrome Surveillance Data. Final Classification, 2012

Country	Total Measles/ Rubella Suspect Cases Notified	Confirmed Measles			Confirmed Rubella			Congenital Rubella Syndrome	
		Clinical	Laboratory	Total	Clinical	Laboratory	Total	Suspected	Confirmed
Anguilla	3	0	0	0	0	0	0	0	0
Antigua & Barbuda	0	0	0	0	0	0	0	0	0
Argentina	696	0	2	2	0	1	1	114	0
Bahamas	4	0	0	0	0	0	0	0	0
Barbados	7	0	0	0	0	0	0	0	0
Belize	91	0	0	0	0	0	0	0	0
Bermuda	0	0	0	0	0	0	0	0	0
Bolivia	215	0	0	0	0	0	0	10	0
Brazil	6094	0	2	2	0	0	0	153	0
Canada	0	0	10	10	0	2	2	0	0
Cayman Islands	0	0	0	0	0	0	0	0	0
Chile	183	0	0	0	0	0	0	81	0
Colombia	2702	0	1	1	0	1	1	281	0
Costa Rica	35	0	0	0	0	0	0	0	0
Cuba	1249	0	0	0	0	0	0	0	0
Dominica	0	0	0	0	0	0	0	0	0
Dominican Republic	135	0	0	0	0	0	0	0	0
Ecuador	1826	0	72	72	0	0	0	14	0
El Salvador	431	0	0	0	0	0	0	0	0
French Guiana	13	0	0	0	0	0	0	0	0
Grenada	0	0	0	0	0	0	0	0	0
Guadeloupe	5	0	0	0	0	0	0	0	0
Guatemala	386	0	0	0	0	0	0	0	0
Guyana	50	0	0	0	0	0	0	0	0
Haiti	130	0	0	0	0	0	0	3	0
Honduras	97	0	0	0	0	0	0	127	0
Jamaica	364	0	0	0	0	0	0	0	0
Martinique	2	0	0	0	0	0	0	0	0
Mexico	5844	0	0	0	0	2	2	0	0
Montserrat	0	0	0	0	0	0	0	0	0
Nicaragua	129	0	0	0	0	0	0	0	0
Panama	123	0	0	0	0	0	0	1	0
Paraguay	700	0	0	0	0	0	0	0	0
Peru	641	0	0	0	0	0	0	0	0
St. Kitts & Nevis	1	0	0	0	0	0	0	0	0
St. Lucia	0	0	0	0	0	0	0	0	0
St. Vincent & the Grenadines	0	0	0	0	0	0	0	0	0
Suriname	32	0	0	0	0	0	0	0	0
Trinidad & Tobago	6	0	0	0	0	0	0	0	0
Turks & Caicos	0	0	0	0	0	0	0	0	0
United States	0	0	55	55	0	9	9	0	3
Uruguay	10	0	0	0	0	0	0	0	0
Venezuela	715	0	1	1	0	0	0	0	0
Virgin Islands (UK)	0	0	0	0	0	0	0	0	0
TOTAL	**22919**	**0**	**143**	**143[a]**	**0**	**15**	**15**	**784**	**3**

(a) imported or related to importation

The *Immunization Newsletter* is published every two months, in English, Spanish, and French by the Comprehensive Family Immunization Project of the Pan American Health Organization (PAHO), Regional Office for the Americas of the World Health Organization (WHO). The purpose of the *Immunization Newsletter* is to facilitate the exchange of ideas and information concerning immunization programs in the Region, in order to promote greater knowledge of the problems faced and possible solutions to those problems.

An electronic compilation of the *Newsletter,* "Thirty years of *Immunization Newsletter:* the History of the EPI in the Americas", is now available at: www.paho.org/inb.

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ISSN 1814-6244
Volume XXXV Number 5 • October 2013

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Recent SAGE Recommendations on Influenza

During the SAGE meeting held in November 2012, it was recommended that countries using or considering the introduction of the seasonal influenza prioritize 5 groups as follows:

Pregnant women have a high risk of severe complications and death. This risk is exacerbated by the presence of co-morbidities. Infection in pregnant women causes complications in the fetus, including low birth weight, fetal death or child mortality. The effectiveness and safety of the Tetravalent Influenza Vaccine (TIV) has been demonstrated for the mother and the child. (Children under 6 months of age have high rates of hospitalization associated with influenza.)

Children under five, especially children 6-23 months of age, experience a high burden of disease due to influenza. Protection of this immunologically naive group requires two doses of the vaccine, and its effectiveness particularly depends on a match between vaccine strains and circulating viruses. Children from 2–5 years of age also have a high burden of disease, although lower than the under 2 years of age group, and may respond better to influenza vaccines.

Healthcare workers are at greater risk of contracting influenza than the population at large. In this group, the vaccine not only protects the individual, but also vulnerable patients, and may reduce absenteeism from work. Immunization of healthcare workers should be considered as part of a broad hospital infection control program.

Seniors (or older adults) have a greater risk of serious disease and mortality associated with influenza, due to which they continue to have high priority for vaccination. Although evidence shows that the vaccines are less effective, they continue to be a very important measure, due to the high vulnerability of this group.

People with chronic diseases include groups at high risk for influenza as well as those with HIV, asthma, and cardiac and lung diseases.

Other recommendations were: ***1)*** countries should increase vaccination coverage in healthcare workers and identify the reasons for non-vaccination in this group in order to reduce these obstacles; ***2)*** countries should improve the quality of coverage data on the influenza vaccine in high-risk populations, including the standardization of denominators; ***3)*** TAG encourages countries to continue evaluating the effectiveness and impact of the vaccine, which entails an effort to strengthen epidemiological surveillance, as well as immunization and laboratory programs. ■