

Immunization Newsletter

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Immunize and Protect Your Family

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The International Expert Committee Meets in Brazil and Reviews Evidence to Verify the Interruption of Endemic Measles Circulation

On December 2nd, the International Expert Committee (IEC) for Documenting and Verifying Measles, Rubella, and Congenital Rubella Syndrome (CRS) Elimination in the Americas held a meeting at the country office of the Pan American Health Organization (PAHO) in Brasilia. The major objective of this gathering was to analyze and discuss the evidence verifying the interruption of endemic measles transmission in Ceará, five months after the last reported case in the country (date of rash onset: July 6, 2015).

During the meeting, health authorities from the Brazilian state of Ceará presented the epidemiological situation of the measles outbreak that lasted for 20 months during 2013-2015. They also presented compelling evidence indicating that the outbreak had finally been interrupted, meeting PAHO's verification criteria (laboratory, surveillance and vaccination components). The commitment of the federal, state and municipal governments was fundamental to provide all of the necessary resources and to implement the adequate outbreak control measures. Other elements that were key for Ceará's success included the collaboration with PAHO and the support of educational institutions and scientific societies.

The IEC was satisfied with the evidence provided and agreed with the federal and state health authorities that the measles outbreak had been interrupted. Nevertheless, the IEC indicated the importance of Brazil maintaining efforts to ensure that there are no new cases of endemic measles for a period of one year following the last endemic case, or until July 2016. The IEC remains confident that Brazil will succeed in this goal and PAHO will be able to declare the Americas as a Region free of measles during next year's Directing Council meeting (September 2016).

In addition to members of the IEC, meeting participants included authorities from Brazil's Ministry of Health, health authorities from the states of Pernambuco and Ceará, members of the National Verification Committee and immunization advisors from PAHO.



National surveillance, immunization and laboratory officers celebrate the declaration of Brazil as free of rubella during the IEC meeting. Photo credit: PAHO.



The technical team from the Brazilian state of Ceará in attendance at the IEC meeting. Photo credit: PAHO.

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Regional Immunization Action Plan is Approved by PAHO Member States at the 54th Directing Council

During the 54th Directing Council meeting of the Pan American Health Organization (PAHO) in September 2015, Member States approved a resolution to adopt the Regional Immunization Action Plan (RIAP) as the framework to identify and overcome immunization challenges currently faced by the countries of the Americas. The creation of the RIAP was the result of an extensive consultation process conducted among those involved in the Region's immunization programs, including national managers of the Expanded Program on Immunization (EPI), PAHO immunization focal points and other key partners.

The challenges facing the Region include certifying the elimination of the endemic transmission of measles; adding a dose of the injectable polio vaccine and switching from the use of the trivalent oral polio vaccine (tOPV) to the bivalent oral polio vaccine (bOPV), in accordance with the Polio Eradication and Endgame Strategic Plan, 2013-2018; overcoming a limited global supply of certain biologicals; identifying better strategies to reach vulnerable populations at the local level; and improving immunization data quality for decision-making and strategic interventions.

In order to provide decisive guidance to confront these challenges and achieve technical excellence, an overarching regional framework for immunization is critical. Over the last eight years (2007-2015), PAHO's Regional Immunization Vision and Strategy (RIVS) has served this purpose as the roadmap for national immunization programs across the Region.

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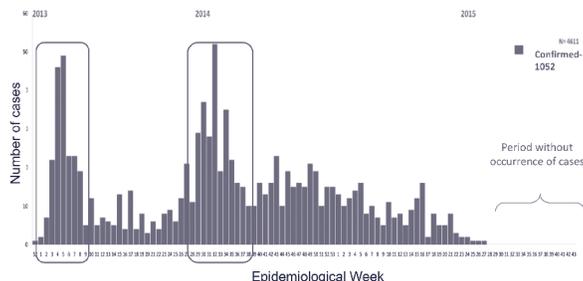
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The meeting ended on a festive note, when the president of the IEC presented Brazil's Minister of Health with a certificate stating that the country had officially eliminated rubella, an achievement that is the result of numerous efforts of health workers and authorities.

Lessons learned from the Brazilian outbreak include the need to implement an aggressive and rapid response to any reported measles case, in order to immediately interrupt virus circulation and to avoid the slow but continuous transmission of measles cases ("drop by drop" transmission). The outbreak also highlighted

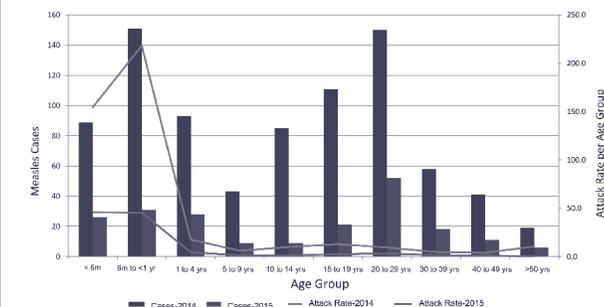
how high reported administrative coverage can mask pockets of susceptible individuals, leading to a false sense of security among immunization program managers. Finally, the establishment of strategic partnerships was seen as critical to confront and resolve this health crisis. ■

Epidemic Curve of Measles Cases in Ceará, 2013 to 2015*



Source: SESA/COPROM/NUVEP/SINAN. * Updated on: 09/10/2015

Attack rate and proportion of confirmed measles cases by age group, Ceará, 2014 & 2015*



Source: SESA/COPROM/NUVEP/SINAN. * Updated on: 11/24/2015

Measles Outbreak in Ceará

A total of 1,052 measles cases were confirmed in the state of Ceará, Brazil between December 25, 2013 and July 6, 2015, in 38 out of 184 municipalities. Because the outbreak persisted for over one year, endemic measles transmission was considered re-established in the country.

The genotype identified was D8. Adolescents and adults between 15-39 years of age were the most affected group by this outbreak (39%), followed by children aged 6-11 months (28%). Around 62.1% of the confirmed cases were unvaccinated; 44% of the unvaccinated individuals (n=288) were aged 15-39 years. Among vaccinated individuals who were affected by the outbreak (18%), 93% had received one dose of the measles, mumps, rubella (MMR) vaccine and 7% had received two doses. These data suggest that one dose of the MMR vaccine is insufficient for interrupting measles transmission.

Among the confirmed cases, 192 were hospitalized; 23% (n=45) were rated as severe (on average, seven days of hospitalization) and 77% (n=147) were considered moderate (on average, four days of hospitalization). Sixty-eight percent (n=131) of cases occurred among children aged less than five years. The main reason for hospitalization was diarrhea (38%), and severe pneumonia was recorded in 10% of the cases. All hospitalized patients were discharged without sequelae. No deaths were reported.

Outbreak control strategies that were implemented in Ceará included the investigation of cases and surveillance of contacts; the intensification of vaccination and house-to-house mop-up activities among the population aged 5-29 years in municipalities with virus circulation; an aggressive social communication campaign to increase population awareness of the disease, while encouraging vaccination; and active case finding of suspected measles cases in prioritized health units.

Permanent monitoring of the above strategies was essential in order to ensure high quality implementation at the local level. The Brazilian Ministry of Health provided unconditional support to the authorities in Ceará throughout the implementation of these strategies. ■

REGIONAL IMMUNIZATION ACTION PLAN continued from page 1

In May 2012, the Global Vaccine Action Plan (GVAP) was adopted by the World Health Assembly. In October 2012, the GVAP was presented to PAHO's Technical Advisory Group on Vaccine-preventable Diseases (TAG) and it was affirmed that the Region would move forward in tailoring the global goals and strategies defined in the GVAP to fit the needs of the Member States in the Americas. The RIAP is the result of this adaptation process and will replace the RIVS framework as the strategic document for immunization in the Region from 2016-2020.

Through its four strategic areas of work, the RIAP aims to provide Member States with the rationale, guiding principles, general and strategic objectives and monitoring and evaluation frameworks to enable national immunization programs in the Region to align successfully with the GVAP and implement strategies to ensure that all citizens of the Americas will benefit from immunization through 2020 and beyond.

The vision of the RIAP is that "the population of the Region of the Americas is protected against vaccine-preventable diseases and the

Member States promote universal and equitable access to immunization services, with safe and affordable vaccines throughout the life cycle." This approach will also permit the integration of immunization with other primary care services, such as prenatal care, adolescent sexual and reproductive health, the health of older adults and the prevention of chronic diseases, such as liver and cervical cancer. The guiding principles of the RIAP are equity, shared responsibility, solidarity, universality, sustainability and quality. The plan proposes four strategic lines of action along with both general and strategic objectives,

REGIONAL IMMUNIZATION ACTION PLAN continued from page 2

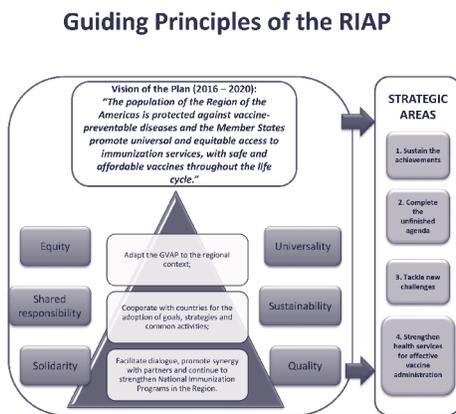
to be adapted by Member States, taking into account their individual contexts, needs and priorities. The strategic lines of action are to:

- a) Sustain the achievements;
- b) Complete the unfinished agenda in order to prevent and control vaccine-preventable diseases;
- c) Tackle new challenges in the introduction of vaccines and assess their impact;
- d) Strengthen health services for effective vaccine administration.

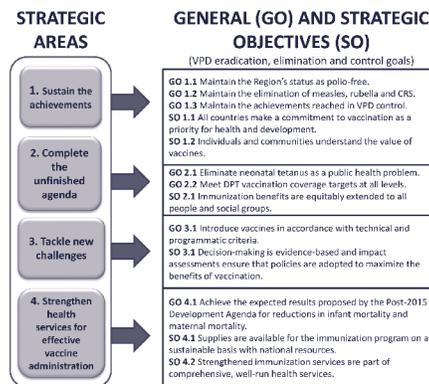
Monitoring and evaluating the RIAP will be conducted in accordance with PAHO's results-based management framework, as well as its performance management processes. In addition, the RIAP will contribute to achieving the GVAP's goals and objectives. As an initial step, each country will be asked to evaluate its progress towards achieving the RIAP objectives, together with its National Immunization

Committee. PAHO's TAG will then evaluate advances at the regional level and progress reports will be prepared annually for PAHO's Executive Management, as well as at the end of every biennium for PAHO's Governing Bodies. A final evaluation of the plan will be completed to determine the strengths and weaknesses of its implementation. The information needed

will be obtained from the following sources: a) reports by the countries' ministries of health, b) PAHO-WHO/UNICEF's Joint Reporting Form on immunization (JRF) and c) the compilation of research and other available sources. ■



Organization of the RIAP



Vaccination Campaign against Influenza in Ecuador, 2014-15

Background

Acute respiratory infection is the leading cause of morbidity among mandatory reportable diseases in Ecuador. Influenza is a major health problem, due to the morbidity and mortality that it can cause, as well its consequent economic and social costs.

During 2014, intensified severe acute respiratory infection (SARI) surveillance in Ecuador identified a higher burden of hospitalizations associated with respiratory viruses among children under four years of age, adults over 60 years of age, people with some type of comorbidity and pregnant women.

In 2015, Ecuador's influenza surveillance system reported cases of respiratory infections associated with the influenza A/H1N1pdm09, influenza A/H3N2 and influenza B viruses, as well as deaths associated with infections due to influenza A/H1N1pdm09 in risk groups, but to a lesser extent than what had been reported by the same system in 2013-14.

In 2006, the Ministry of Public Health of Ecuador incorporated the seasonal influenza vaccine into the national immunization schedule with the goal of reducing the burdens of morbidity and mortality associated with influenza virus infections. Ecuador also carries out a national vaccination campaign before the start of the

anticipated influenza season each year. This strategy is complemented by offering the vaccine through routine health services during the influenza season until the supply depletes or expires. Ecuador uses the northern hemisphere vaccine formulation, typically available in October-November.

Following recommendations from the Strategic Advisory Group of Experts on Immunization (SAGE) of the World Health Organization (WHO) and the Technical Advisory Group on Vaccine-preventable Diseases (TAG) of the Pan American Health Organization (PAHO), the following groups at high risk for influenza-associated complications have progressively been included as vaccination target groups: pregnant women, children under five years of age, health workers, adults over 65 years of age and people with chronic illnesses. Starting in the 2014-15 season, the Ministry of Health also included the population of adults aged 50 to 64 years old due to the burden of disease that affected this group during the 2013-14 season.

Development of the influenza vaccination campaign, 2014-15

In 2014-2015, the Ministry of Health defined 5,382,917 people in priority risk groups as its target population for influenza vaccination, as detailed in **Table 1**:

Table 1. Population to vaccinate according to age group and risk group

Age and Risk Groups		Target Population
6-11 months	1st dose	168,103
	2nd dose	
1 year		336,294
2 years		337,132
3 years		338,027
4 years		338,524
50-59 years		1,315,491
60-64 years		479,490
65-74 years		652,424
75 years+		424,909
Pregnant women		420,258
People with chronic illnesses		507,919
Health workers		64,346
Total		5,382,917

Compliance with the overall campaign goal during the 2014-15 period was 95% (**Table 2**), one of the highest percentages achieved in recent years. Of 5,382,917 scheduled vaccine doses, 5,129,545 doses were administered between November 2014 and April 2015. **Table 2** summarizes vaccination coverage reached by age group and risk group.

VACCINATION CAMPAIGN AGAINST INFLUENZA continued from page 3

Table 2. Summary of vaccination coverage reached by age group and risk group

Age and Risk Groups		Percent coverage of the planned goal
6-11 months	1st dose	83
	2nd dose	53
1 year		76
2 years		76
3 years		87
4 years		>100
50-59 years		82
60-64 years		91
65-74 years		75
75 years+		76
Pregnant women		69
People with chronic illnesses		>100
Health workers		>100

The performance of the campaign shows great effort on the part of health teams to achieve high coverage. In the group of children aged six to 11 months, coverage with the first dose reached 83%, however coverage with the second vaccine dose was lower (53%). It is noteworthy that among health workers and people with chronic illnesses, coverage exceeded 100%, suggesting a possible error in the coverage calculation. On one hand, it is possible that people who do not belong to these target groups were included as

part of the numerators. On the other hand, it can be difficult to get accurate information to define a reliable denominator, to estimate vaccination coverage for people with chronic illnesses, health workers and pregnant women.

Administering the first dose of the influenza vaccine among children at six months of age coincides with completing the basic schedule for the pentavalent, oral polio and pneumococcal vaccines. Therefore, coverage for the first dose of the influenza vaccine benefits from this schedule. The second dose at seven months however, does not coincide with another vaccine in the national schedule or with another child health visit. Therefore, there are many missed opportunities for vaccination with the second dose of the influenza vaccine.

Like other tropical countries in Latin America and the Caribbean (LAC), Ecuador is in the process of reviewing data from the epidemiological and virological surveillance of influenza to determine seasonal epidemics and consequently, the most opportune time for vaccination. The WHO recommends that countries use the formulation of the vaccine most recently made available, just prior to the start of the period with the largest number of influenza cases.

Conclusions

Ecuador achieved a successful vaccination campaign during the 2014-15 season, reaching high coverage among target groups. Some operational challenges were identified, however,

mainly in defining high-risk populations and measuring their coverage.

It is important to emphasize the importance of improving the quality of the data used to estimate coverage among target groups, including more accurate denominators. As part of optimizing the benefits of vaccination, health teams should also identify strategies to actively capture target groups, especially pregnant women, people with chronic illnesses and children under nine years of age who require a second dose after being vaccinated for the first time.

The characterization of influenza virus seasonality that Ecuador is currently carrying out will be very useful for the immunization program to ensure timely and effective vaccination.

Sentinel SARI surveillance provides valuable information to inform the decision-making of immunization programs. In addition to descriptions of seasonal influenza epidemics and their severity, high-quality surveillance data also allow for the annual monitoring of vaccine effectiveness and contribute to medium or long term impact assessments of influenza vaccination programs.

Social communication is also key for effectively reaching target groups. Raising the awareness of target group populations on the importance of vaccination could improve the demand for vaccination in health services. ■

Seasonal Influenza Vaccination: Current Efforts in LAC Countries

Using the REVELAC-i network and other opportunities, PAHO has been working with LAC countries to:

- Obtain better denominators for coverage estimates among target groups.
- Homogenize the definitions of influenza risk groups.
- Improve immunization data quality and the quality of information systems, including the development of electronic immunization registries.
- Estimate the annual effectiveness of the seasonal influenza vaccine, using the platforms of influenza surveillance and the Expanded Program on Immunization (EPI) in selected countries, and assess vaccine impact.
- Characterize the seasonality of influenza viruses in the tropical countries of LAC, to ensure that immunization activities are conducted at the most opportune time.
- Develop social communication plans to reach risk groups more effectively.
- Document good practices and experiences from vaccinating pregnant women.

Progress in Implementing PAHO's Toolbox to Monitor the Coverage of Integrated Public Health Interventions

Monitoring and evaluating coverage is an essential part of achieving effective access to health services, because it provides the necessary information to identify populations that are not being captured, characterize the gaps in access to health services and implement actions to capture those who are not being reached. Due to the relevance of this information and its usefulness for decision-making, ensuring the quality and timeliness of coverage data is a priority for health systems and services. Therefore, monitoring and information systems should incorporate different methodologies that allow for a more comprehensive analysis of the situation and of coverage trends.

All of the methodologies used in the analysis of coverage have both limitations and advantages, therefore each methodology has specific indications that complement one another (**Table 1**). For example, monitoring vaccination coverage is primarily based on administrative data; therefore, systematic and regular analysis allows for identifying, explaining and solving data problems, leading to improvements in data quality. To varying degrees, however, denominators and numerators can have limitations, therefore it is also necessary to conduct field studies to help verify data and guide vaccination efforts. To this end, non-probability-based tools like rapid coverage monitoring (RCM) can be used, as well as survey-based studies that apply statistical sampling techniques and allow for the analysis of more complex data, and the estimation of coverage.

The Region of the Americas has a wealth of experiences and lessons learned in the implementation of methodologies to monitor vaccination coverage. As a result, PAHO's Comprehensive Family Immunization Unit and the Neglected, Tropical and Vector-Borne Diseases Unit developed a toolbox that uses

an algorithm to integrate all of the available tools together¹. Step by step, the toolbox develops the concepts and procedures for administrative data analysis, RCM in the field, data quality assessment, surveys and the analysis of data from databases and nominal registries.

The purpose of the toolbox's modules is to support health teams from all management levels in the analysis and monitoring of vaccination and deworming coverage, among other public health interventions. The tools included in the modules provide the answers to the following questions:

- Is the estimated coverage based on administrative data high and homogeneous?
- Did the target population receive the intervention?
- Is the data reliable (of good quality)?
- Do probabilistic studies need to be conducted to estimate coverage?

During 2015, four trainings were conducted on the application of concepts and the implementation of coverage monitoring tools in the following countries: Mexico (120 participants), Honduras (70 participants) and El Salvador (30 participants). Additionally, a regional workshop was held in Roatán, Honduras, where the host country was joined by participants from Colombia (2), Paraguay (2), Mexico (2), Nicaragua (1) and the Dominican Republic (2). One of the advantages of the toolbox is its modular design, which was easily adapted in accordance with the different objectives of the trainings. The purpose of the workshops in Mexico and Honduras was to strengthen immunization data analysis, while the workshop in El Salvador and the regional workshop encompassed methods applicable

to both immunization activities, as well as to deworming efforts. Workshop participants came from all levels of national health programs.

Fieldwork and practical exercises were some of the highlights of the workshops. Participants indicated that the participatory and practical elements of the workshops facilitated learning because they allowed them to apply their knowledge and interpret results. The importance of incorporating various disciplines into the learning process was also highlighted, given that the workshops counted on the participation of individuals from the areas of epidemiology, immunization, health service networks and statistics. All of these disciplines have roles and functions related to improving data quality, coverage analysis and decision-making, both to prevent diseases by raising the population's level of immunity and implement epidemiological surveillance and control efforts.

An important agreement coming out of the workshops was the need to advance training at the local levels, as these are the areas where the interventions are implemented. Therefore, it is necessary that local teams have the knowledge and skills required to analyze their own coverage and take the appropriate actions to improve their populations' access to interventions.

Finally, it is important to note that this training process facilitated the identification of points of contact to define agreements and commitments to take advantage of the strengths of both the immunization and neglected infectious disease programs. The workshops created a very favorable space for participants to share experiences and move towards the greater integration of public health interventions. ■

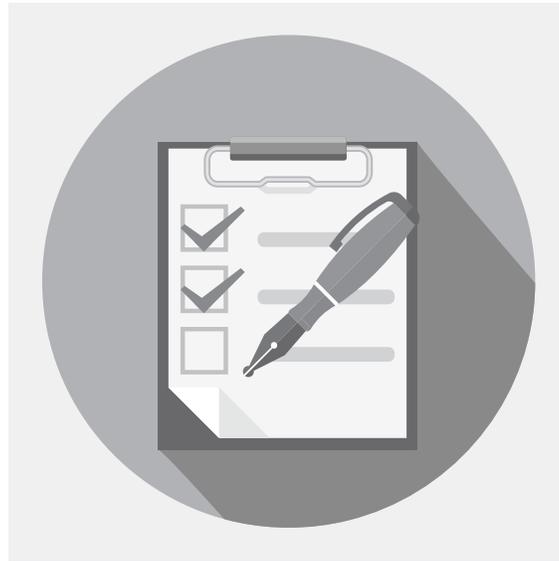
¹ "Integrated Monitoring Toolbox is Validated in Nicaragua." Immunization Newsletter. February 2014; Vol. XXXVI; No. 1; (p. 1-2). Available at www.paho.org/immunization/newsletter

PROGRESS IN IMPLEMENTING PAHO'S TOOLBOX continued from page 5

Table 1. Characteristics, advantages and limitations of the methodologies utilized for vaccination coverage monitoring

Methodology	Characteristics	Advantages	Limitations
Coverage based on administrative registries	<ul style="list-style-type: none"> • Uses the report of the number of vaccinated people as a numerator and the official population data as the denominator. • May or may not be nominal. 	<ul style="list-style-type: none"> • Provides periodic information to monitor coverage progress. • Systematically supplies information on the coverage for each type of vaccine, according to time, place and person. 	<ul style="list-style-type: none"> • Depending on data quality for both numerators and denominators, it may over- or underestimate coverage. • The numerators may be affected by an inadequate registry of place of residence or by including the migrant population that had not initially been a part of the total target population of the program. • If revaccinated people are registered and the registry is not nominal, the coverage is overestimated. • The official demographic data may have errors or biases.
House-to-house rapid coverage monitoring	<ul style="list-style-type: none"> • Quickly evaluates the proportion of those vaccinated in a small area selected for convenience. • It is used as a supervision tool. 	<ul style="list-style-type: none"> • It is a simple low cost tool that provides information immediately. • It is implemented by the local health team, with supervision from other levels, promoting program performance evaluation and service improvement. 	<ul style="list-style-type: none"> • The obtained data are not representative of the evaluated area; data cannot be aggregated and statistical inferences regarding coverage cannot be made. • Results can give the false impression that the entire population of the catchment area is well vaccinated, if the areas that were visited have a higher probability of being properly vaccinated or if multiple houses with no information were excluded or did not participate in the RCM.
Lot quality assurance sampling	<ul style="list-style-type: none"> • Random selection of lots that are relatively homogeneous internally. • Establishes a minimum coverage value and a maximum coverage value as criteria for acceptance. 	<ul style="list-style-type: none"> • The instruments for data collection are relatively simple. • Notes the heterogeneity of coverage among lots. • It is not necessary to have information from all of the lots to make decisions. Specific decisions are made with respect to each lot as soon as the results become available. 	<ul style="list-style-type: none"> • The methodology does not estimate the coverage for each lot – it only indicates if the lot is in compliance with the acceptance criteria or not. • By establishing a minimum value to decide whether or not to accept a lot, there is a risk of believing that lots above this cutoff do not require interventions. Consequently, the conditions of lots that do meet the selection criteria should also be analyzed. • For high acceptance margins (for example, 95% coverage), with narrow acceptability limits, large sample sizes are required, which have the same cost-related and logistical limitations as cluster surveys.
Vaccination coverage cluster surveys	<ul style="list-style-type: none"> • The sample design is probabilistic, with a random selection of the population; it allows for statistical inferences to be made. 	<ul style="list-style-type: none"> • Provides a direct measurement of universal population coverage. • Facilitates the collection of information on a larger number of variables, by using more extensive forms than those employed by rapid methodologies. 	<ul style="list-style-type: none"> • Requires detailed planning and organizing, specialized professionals, resources and logistics. • Represents a significant investment of time and resources for the input, processing, tabulation and analysis of data. • In contrast to lot quality assurance sampling, conclusions cannot be made with respect to each of the clusters included in the sample. Coverage estimates are interpreted upon aggregating data from all of the sampling units. • The results may be affected by biases.

Quiz: Immunization & Vaccine Administration



True False

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Mild illness is a reason to withhold vaccination. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. If a mother is breastfeeding, she shouldn't be given routinely recommended vaccines. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. A child's temperature should be checked routinely before vaccinations are administered. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. A pregnancy test should be performed routinely for adolescent females before giving them MMR vaccines. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. If there is an immunosuppressed child in the household, siblings should be given MMR vaccines on schedule. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. If the first dose of the hepatitis B vaccine was given more than one year ago and no subsequent doses were given, you should repeat the first dose. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. All healthcare workers who have contact with patients and who have no contraindications should receive the influenza vaccine every year. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Never recap or clip needles prior to disposal. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. If both hepatitis A and B vaccines are indicated, it is acceptable to mix the two vaccines together in one syringe. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. A new needle and syringe must be used for each vaccination. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. The vastus lateralis (lateral thigh) is the muscle of choice for administering an intramuscular injection to a child less than 12 months of age. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. When more than two intramuscular vaccines are given to an infant at one visit, the gluteal (buttock) muscle should be used. |

Quiz Answers

1-F 2-F 3-F 4-F 5-T 6-F 7-T 8-T 9-F 10-T 11-T 12-F

This quiz was adapted from the Immunization Action Coalition (www.iac.org) with translation into Spanish and French by the Pan American Health Organization (PAHO). According to the IAC website, "if you missed any of these questions, you can find explanations for the answers in CDC's Epidemiology and Prevention of Vaccine-Preventable Diseases (a.k.a. "The Pink Book"), which you can download from CDC's website at www.cdc.gov/vaccines/pubs/pinkbook/index.html."

Starting in 2015, the Immunization Newsletter will be published four times a year, in English, Spanish, and French by the Comprehensive Family Immunization Unit 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.

References to commercial products and the publication of signed articles in this Newsletter do not constitute endorsement by PAHO/WHO, nor do they necessarily represent the policy of the Organization.

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**Pan American
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REGIONAL OFFICE FOR THE **Americas**

COLUMN: What I have Learned...

By Dr. Merceline Dahl-Regis, chair of the International Expert Committee (IEC) for Documenting and Verifying Measles, Rubella and Congenital Rubella Syndrome Elimination in the Americas.

Successes in eliminating and controlling vaccine-preventable diseases are due in no small measure to the hard work and commitment of health care workers at the global, regional, national and local levels. The evidence of success is not only a reduction in child mortality, but also improvements in the quality of life for many family members, benefits to caregivers in various institutions and the provision of assistance to governments to better use health dollars.

Over the years, countries have seen firsthand the burden of acute respiratory failure and death from diphtheria, the central nervous insults from whooping cough, intense muscle spasms from neonatal tetanus, the never-ending problems associated with measles encephalopathy and the disabilities of congenital rubella syndrome (CRS). Today, the world can celebrate saving and improving more lives during these first fifteen years of the millennium.

The Region of the Americas understands that measles, mumps and rubella immunization is the best public health investment of all times. Furthermore, there is reason to be optimistic, as there are many regions of the world implementing strategies to interrupt the transmission of measles

and to eliminate CRS in their respective countries. I believe that all countries in the Americas will declare the elimination of the transmission of measles, rubella and CRS, as we have seen true Pan-Americanism in the pursuit of this objective. This accomplishment will be achieved through solidarity, political will, passionate and committed leadership and major contributions from great scientists, but most of all, credit must be given to a dedicated public health workforce that risked their lives to serve the hard-to-reach vulnerable groups in very hostile environments.

Additionally, the global leadership and financing from many donor countries and organizations deserve special recognition for saving lives, supporting the immunization infrastructure and promoting country ownership. These pillars ensure a bright future even for the unborn.

Working with the IEC, the PAHO Secretariat and the leaders of the countries of the Americas over the past six years has been a rewarding experience. The contributions from members of the U.S. Centers for Disease Control and Prevention and the Public Health Agency of Canada to this initiative have greatly impacted the work of the IEC.

I am grateful for the opportunity to have observed and worked with the great champions at PAHO, WHO, the Strategic Advisory Group of Experts on Immunization (SAGE), Gavi and in many fora, including many World Health Assemblies. Dr. Ciro de Quadros was special to all who knew him in



Dr. Merceline Dahl-Regis, 2010.
Photo credit: PAHO.

the immunization family. Drs. Tore Godal and Bo Stenson were great mentors and Drs. Phillippe Duclos and Jon Andrus are only a few of the immunization champions who were my teachers as well. I also extend a special thank you to those who gave a listening ear to this person from The Bahamas, from those small islands in the Atlantic Ocean, who challenged the world community for the global elimination of measles.

The objective of the "What I have Learned" column is to provide a space for immunization professionals from across the Americas to share their unique experiences and lessons learned. Individuals who are interested in authoring a column are encouraged to contact Hannah Kurtis at kurtisha@paho.org. ■