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Immunization Newsletter

Pan American Health Organization

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UNASUR's Role in the Vaccination Against Pandemic Influenza

Background

The Union of South American Nations (UNASUR) was founded on 23 May 2008 in the city of Brasilia, Brazil, where its constitutive treaty was signed. UNASUR is formed by 12 South American countries and its purpose is to provide, in a consensual and participatory manner, an opportunity for countries to unite on the cultural, social, economic, and political levels, following the European model.

The South American Health Council or UNASUR Health was created on 16 December 2008 to provide an opportunity for integration with regard to health. UNASUR Health, has 5 technical commissions: (1) Epidemiological shield, (2) Development of universal health systems, (3) Universal access to drugs, (4) Health promotion and action on social determinants, and (5) Development and management of human resources in health.

Influenza A(H1N1) 2009 Pandemic

At a meeting of the South American Health Council on 8 August 2009, the UNASUR countries, in light of the threat generated by the first influenza pandemic of the 21st century, considered the following facts:

- The influenza pandemic constituted a public health challenge.

Extraordinary Meeting of the South American Health Council on 8 August 2009 in Quito, Ecuador.

Polio in Tajikistan: A Reminder of the Risk of Importations to Polio-free Regions

A marked increase in the reported number of acute flaccid paralysis (AFP) cases last April led Tajikistan to confirm a polio outbreak due to wild poliovirus type 1. By the end of August, a total of 456 laboratory-confirmed cases of wild poliovirus type 1, including 20 deaths (Figure 1), have been confirmed. Most of the cases in Tajikistan have occurred in the Southwestern part of the country (Figure 2). Of the confirmed cases, 313 (69%) are in children aged ≤5 years and 90 (19%) in children aged 6-14 years. The last case had paralysis onset on 4 July. The virus seems to have been imported from India.

The outbreak has spread to neighboring countries. Since the beginning of 2010, the Russian Federation has reported 12 confirmed polio cases and Turkmenistan 3 cases. Kazakhstan, Kyrgyzstan, and Uzbekistan have strengthened surveillance, but no polio cases have been confirmed.

This is the first wild poliovirus importation into the European Region of the World Health Organization (WHO) since it was certified polio free in 2002. Reported OPV-3 coverage levels from Tajikistan have been ≥85% since the late 1990s and the last polio cases occurred in 1997.

In response to the outbreak, several immunization campaigns using the monovalent polio type 1 vaccine have been implemented in Tajikistan (4 rounds with coverage levels 99%

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- The global community had to found its work on the principles of solidarity, justice, and equity to provide access to vaccines, drugs, and strategic supplies in order to control H1N1 influenza.
- The production, availability, and access to vaccines, drugs, and strategic supplies was severely limited at Regional level.

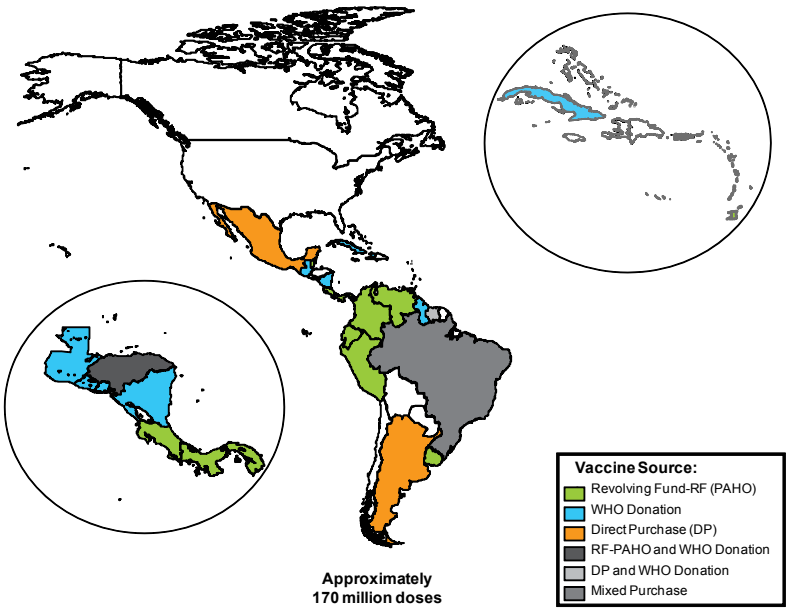
In view of the above three facts, the UNASUR countries resolved to take the following actions:

1. Ratify the concept of public health supremacy above economic and commercial interests.
2. Strengthen the collective efforts of member countries, resulting in an ability to bring concrete responses.
3. Declare as global public goods all the drugs, vaccines, and equipment that are required to respond to the pandemic.
4. Ask the World Health Organization (WHO) to urge developed nations to fulfill the joint priority protocol to guarantee equitable and timely access to vaccines by all countries.
5. Decide that intellectual property rights should not prevent Member States from adopting measures to protect public health.
6. Develop a strategic plan for Regional innovation, development, and production to guarantee access to biologicals, drugs, and supplies.
7. Support the Revolving Fund of the Pan American Health Organization (PAHO) as the strategic mechanism for Regional negotiation and urge that acquisition from Regional producers be prioritized.
8. Decide that the main strategy for short-term access to pandemic influenza vaccines will be based on joint negotiation through the PAHO Revolving Fund, in order to guarantee timely and equitable access by vulnerable populations and prevent commercial interests from taking advantage of the panic and uncertainty caused by the pandemic.

The H1N1 influenza vaccines generated great expectations for the social and political agenda of countries. Ministers of Health of South America have participated in the monitoring of procurement and vaccine delivery processes, and have received briefings from PAHO on the H1N1 situation in the Americas. The UNASUR supported PAHO during negotiations to obtain better price, quality, and claim conditions, strengthening PAHO's advisory role and articulation with other actors in health.

UNASUR countries have also endorsed the WHO and PAHO technical recommendations for vaccination with regard to the quality criteria for vaccines to be acquired and the designation of priority groups for pandemic influenza vaccination.

Figure 1. Pandemic Influenza (H1N1) Vaccine Acquisition in Latin America and the Caribbean



Source: FCH/IM, PAHO (data as of November 2010).

Guayaquil Resolution, November 2009

The South American Health Council met in November 2009 to review advances in vaccine procurement through the PAHO Revolving Fund. During the meeting, Members States resolved to: "Recognize the success achieved in the procurement of pandemic influenza vaccine through the PAHO Revolving Fund and underscore the importance of continuing to promote strategies for joint negotiation for the procurement of drugs and strategic supplies of public health interest in order to guarantee improved quality, timeliness, and equity while respecting the principles of lower price and single price."

Furthermore, the countries agreed to initiate the vaccination of priority groups, to import vaccines through diplomatic groups, to prepare mass communication guidelines supporting the prioritization of vaccination, and to share information on events supposedly attributable to vaccination or immunization (ESAVIs).

Based on this experience, UNASUR has presented new challenges, such as universal access to drugs and joint fight against illegal drugs, a continental plan against dengue, border health, and the prioritization of research for against forgotten diseases.

Conclusions

The threat of the pandemic became an opportunity for integration and joint response by UNASUR's member countries. Pandemic influenza vaccination was part of an integrated response that included pharmaceutical and non-pharmaceutical measures.

The pandemic also made it possible to regulate the industry and avoid unilateral marketing to countries, which could have endangered vaccine access through undue influence on their availability and cost, guarantee vaccine access at a lower price and a single price, and achieve equity in access. In the end, it served as a catalyst for future cooperation regarding new challenges in public health. ■

WHO Director-General Statement Following the 9th Meeting of the Emergency Committee

The Emergency Committee of the World Health Organization (WHO) held its ninth meeting by teleconference on 10 August 2010.

The Emergency Committee was given an epidemiological overview and update of the global H1N1 (2009) pandemic influenza situation by the secretariat. Particular emphasis was placed on the epidemiological situation in the southern hemisphere, where many countries are experiencing their winter influenza season. The update also covered certain countries reporting active pandemic influenza virus transmission. Representatives of the governments of Argentina, Australia, India, New Zealand, and South Africa described the most recent developments in their countries. Particular attention was given to the situation in some countries, including India and New Zealand, which are currently experiencing intense influenza epidemics largely caused by the H1N1 (2009) virus.

While noting such epidemics with concern, the Committee based its assessment on the global situation. Members noted clear indications that influenza, worldwide, is transitioning towards seasonal patterns of transmission. In the majority of countries, out-of-season outbreaks are no longer being observed, and the intensity of H1N1 (2009) transmission is lower than that reported during 2009 and early 2010. Members further noted that the H1N1 (2009) virus will likely continue to circulate for some years to come, taking on the behavior of a seasonal influenza virus.

The Committee agreed that the global influenza situation no longer represented an extraordinary event requiring immediate emergency actions on an international scale. In their view, the public health emergency of international concern, recommended following the emergence of the H1N1 (2009) virus, should be considered over. The Committee further noted that the temporary recommendations adopted in response to the public health emergency of international concern were terminated.

After extensive discussions, the Committee unanimously advised the Director-General that the world was no longer experiencing an influenza pandemic, but that some countries continue to experience significant H1N1 (2009) epidemics. Members agreed that waiting for winter data from the southern hemisphere had been necessary in order to make such a global assessment with reasonable confidence.

The Committee noted that the information from India, New Zealand, and the Pacific Island countries was consistent with the expectation that individual countries might experience significant levels of influenza associated with the H1N1 (2009) virus in the future, and expressed the need for national authorities to continue to implement outbreak response measures in those countries when such events occur. The Committee strongly emphasized the need for States to maintain vigilant disease surveillance and monitoring for influenza outbreaks and influenza-like illness as well as ensuring the availability of necessary public health measures for preventing and controlling influenza. Such measures include the continued use of H1N1 (2009) pandemic or seasonal influenza vaccines where appropriate and available. The Committee noted that the uptake of pandemic vaccine in some Pacific Island countries appeared sufficiently high to reduce the risk of outbreaks in these States.

Based on the advice of the Emergency Committee, and her own assessment of the situation, the Director-General determined that the world was no longer in an influenza pandemic and therefore terminated the public health emergency of international concern in accordance with the International Health Regulations (2005).

In light of these determinations, the Director-General thanked the members and the advisor of the Emergency Committee for their diligent service and expert advice, which were of great importance to international public health.

The work of the Emergency Committee now being ended, the names, affiliations and declared interests of the Committee members and advisor will be published on the WHO website as soon as possible. ■

Note: For more information on the meetings of the Emergency Committee concerning Influenza Pandemic H1N1 2009 and a full list of its members and advisors, please see http://www.who.int/ihr/ihr_ec/en/index.html.

Haiti: Vaccination Campaign Following the Earthquake

On 12 January 2010, a 7.0-magnitude earthquake killed an estimated 220,000 people and devastated Haiti's capital, Port-au-Prince, and surrounding areas. To date, there are still over 1 million people living in more than 800 temporary settlements.

In Haiti, the immunization program has been historically weak and some vaccine-preventable diseases (diphtheria, pertussis, tetanus, neonatal tetanus) remain as public health concerns. Non-neonatal tetanus represented 2% of the infectious causes of death, excluding the neonatal period (2000 data) and the neonatal tetanus (NNT) cases reported by Haiti represent roughly half of all reported NNT cases in the Americas. The immunization schedule only includes the basic Expanded Program on Immunization (EPI) vaccines targeting children aged <1 year: BCG, oral polio vaccine (OPV), diphtheria-tetanus-pertussis (DTP), measles, and, since 2008, rubella as the measles-rubella combination vaccine (MR). Haiti is the only country in the Western Hemisphere that does not include hepatitis B and *Haemophilus influenzae* type b (Hib) vaccines, or other vaccines for persons aged over 1 year in its national immunization schedule. Since 2000, reported coverage levels for DTP3 have fluctuated between 39-79%, with 68% coverage reported for 2009. The last wild polio case in Haiti occurred in 1989 and the last outbreak of vaccine-derived poliovirus in 2000-2001. No measles cases have occurred since 2001. Vaccination campaigns against polio and measles have maintained both diseases at bay.

National Post-Disaster Vaccination Plan

Soon after the earthquake, the National Immunization Program developed a national post-disaster vaccination plan, with support from the Pan American Health Organization/World Health Organization and UNICEF. The main objective was to minimize the occurrence of vaccine-preventable diseases in the aftermath of the earthquake. The plan was divided in phases.

Phase 0. Immediate provision of Td/TT vaccine and tetanus anti-toxin to persons injured during

the earthquake and those undergoing emergency surgeries, including amputations.

Phase 1. Vaccination of displaced population living in temporary settlements in disaster-affected municipalities. These included Port-au-Prince, Pétionville, Croix-des-Bouquets, Delmas, Tabarre, Cité Soleil, and Carrefour in the Metropolitan Area; Léogâne, Gressier, Grand-Goâve, and Petit-Goâve in the Ouest Department; and Jacmel in the Sud-Est Department. The target population and interventions included the following:

- Children aged 6 weeks to 8 months: DTP
- Children aged 9 months to 7 years: DTP, MR and vitamin A supplements
- Persons aged ≥8 years: Td
- All children aged ≥2 years: albendazole

The rationale to include DTP/Td vaccination was the fact that vaccination activities with DTP for children and Td for adults in response to a diphtheria outbreak had started in late 2009[1] but were interrupted due to the earthquake. There was sufficient stock of Td vaccine in the country at the time of the earthquake.

Phase 2. Provision of a similar package as that for Phase 1, but using OPV instead of vitamin A supplements, to all people aged <20 years living in the affected area regardless of the type of housing. The vaccination campaign provides a second dose of DTP/Td and MR for previously vaccinated persons and an additional opportunity for those not living in tents or missed during phase 1.

Strengthening Routine. The national post-disaster vaccination plan also includes intensification of routine vaccination with all the EPI vaccines as an integrated health package for children aged <5 years, even in areas not directly affected by the disaster, along with epidemiological surveillance in health institutions and at community level.

Implementation of Phase 1

Phase 1 was implemented between February and May 2010. The municipalities in the Metropolitan Area, Croix des Bouquets, Petit-Goâve and Grand-Goâve were vaccinated between February and April; Ganthier, Gressier, Jacmel and Léogâne started vaccinating in April. The target population was initially estimated at around 1.4 million people (around 250,000 children aged 6 weeks to 7 years) living in over 300 sites, using data from the Office for the Coordination of Humanitarian Affairs of the United Nations (OCHA).

The estimates by age group, were obtained by applying the age distribution in the general population (1.86% for 6 weeks to 8 months; 15.71%, 9 months to 7 years; and 82.43%, >8 years). However, the population estimates changed overtime as settlements appeared and disappeared, some sites were counted twice during the planning stage because of confusion about their names, and widespread relocation occurred among the population following the earthquake.

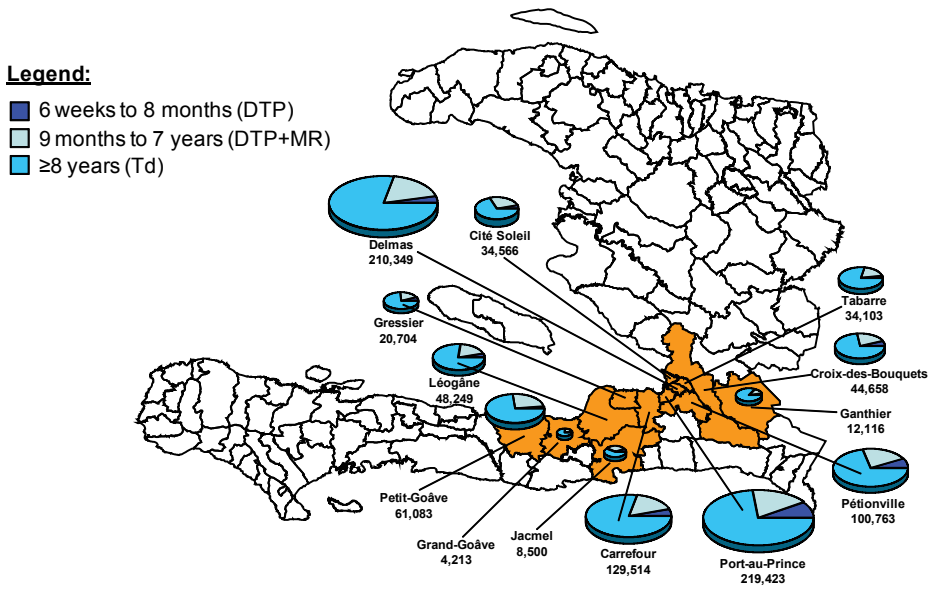
Due to the high demand for vaccination, non-governmental organizations participated in phase 1, in coordination with Haiti's EPI and the municipality health bureaus. The International Federation of the Red Cross, Médecins du Monde-Canada, the Spanish Marines, and the Cuban brigades were the main foreign institutions involved in vaccination activities during phase 1. Injection safety measures were implemented from the onset, but were also adjusted through enhanced training and supervision. Events supposedly attributable to vaccination or immunization (ESAVIs), mostly local reactions and fever, were reported by the population and health personnel working on the sites (no severe ESAVIs were reported). Several logistical problems hindered the implementation of phase 1. Health facilities, including some municipality health bureaus, had been destroyed or severely damaged. The Ministry of Health was damaged, which affected the ability of the system to distribute salaries. Vehicle rentals were affected by the increased demand, leading to skyrocketing prices. Waste disposal was another major problem due to difficulties in identifying an incineration facility charging an affordable price.

Calculating coverage was not possible due to the inability to estimate the target population. Rapid coverage monitoring (RCM) was implemented following vaccination in the sites to provide information for conducting mop-up activities. However, RCM activities could not be completed due to logistical challenges. Overall, more than 928,000 persons were vaccinated, 188,125 of them children in the 9 month-7 year age group (Figure 1). Based on the available data, coverage among children may not have reached 80%.

Conclusions

Implementation of Phase 1 of the post-disaster vaccination plan in Haiti took a long time to implement and coverage achieved during vaccination activities was insufficient. The high number of humanitarian workers traveling to Haiti from countries where measles continues to occur represents a persistent risk of measles importation given the existing pool of susceptible Haitians. In addition, diphtheria cases continue to occur in the country. Consequently, health authorities decided to halt phase 1 of the post-disaster vaccination plan and to proceed with phase 2, which was supposed to be launched in July. ■

Figure 1. Vaccine Doses Recorded by Age Group, Phase 1 Post-earthquake Vaccination, Affected Municipalities, Haiti, 2010



Source: Campaign bulletin; data as of 30 May 2010.

1 Diphtheria Outbreak in Haiti, 2009. *Immunization Newsletter*, Volume XXXI, Number 6 (December 2009).

Advances in Cervical Cancer Prevention in Latin America

It has been almost two years since the Directing Council of the Pan American Health Organization (PAHO), a governance body composed of Ministers of Health from the Americas, passed a resolution urging for the strengthening of comprehensive cervical cancer prevention programs in Latin America and the Caribbean. The resolution was passed after the Ministers reviewed and endorsed the Regional Strategy and Plan of Action for Cervical Cancer Prevention and Control outlining a seven-point action plan to improve the quality, coverage, and effectiveness of cervical cancer programs, including human papillomavirus (HPV) vaccine introduction.

As a means to stimulate further implementation of the Regional strategy, PAHO, the Ministry of Health of Panama, and PATH1 convened a meeting from 2-3 June 2010 in Panama. Over 70 health professionals from 13 Latin American countries participated. The meeting provided an opportunity to discuss recent scientific evidence regarding new screening technologies and HPV vaccines, including regional evidence being generated by Latin American studies; to discuss the importance of women's and community perspectives and the need to improve public education to increase participation in prevention programs; to discuss country experiences regarding introduction of new approaches and technologies such as the Panama experience with the introduction of the HPV vaccine and the Mexico experience with regards to introducing HPV testing and HPV vaccines; and to plan collaborative activities between countries with the assistance of international organizations to improve the effectiveness of their cervical cancer prevention efforts. Representatives from several international organizations, notably the Union for International Cancer Control (UICC), the U.S. Centers for Disease Control and Prevention (CDC), and PATH were on hand to promote information on their various resources and tools to assist program managers with their decision-making. Of note are PATH's Action Planner, a new web-based interactive tool that provides a hands-on, step-by-step approach to designing a new or improving a comprehensive cervical cancer program, and PAHO's ProVAC initiative, a project helping countries to build capacity for undertaking their own cost-effectiveness evaluations for new vaccine introduction.

The meeting participants came to the following conclusions:

- There is clear scientific evidence to support the implementation of new technologies for cervical cancer prevention programs;
- There is incredible interest, motivation, and enthusiasm on the part of program managers in the Ministries of Health to incorporate these new technologies into their current programs and the managers are of the opinion that the 2008 Directing Council resolution provides the political impetus to move forward with such changes; and
- The greatest barrier to introducing new technologies into programs is the current high cost of HPV vaccines and the HPV test. ■

1 The Program for Appropriate Technology in Health (PATH) is an international non-governmental organization.

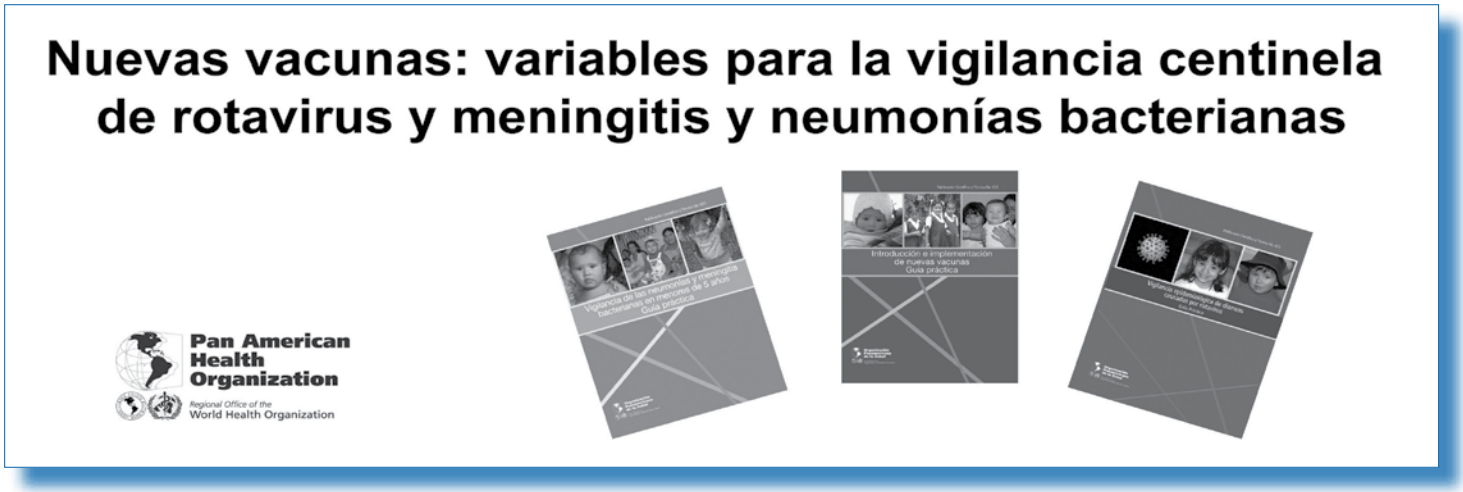
For more information, please see the PAHO webpage on the Latin American Sub-regional Meeting on Cervical Cancer Prevention, available at: http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=2300&Itemid=2318.

What's New About New Vaccine Surveillance

With the objective to globally strengthen and expand surveillance for new and underutilized vaccines, the World Health Organization (WHO) and its partners recommended in 2007 that the standardizing of surveillance data be considered a priority in the following years. Since then, various Latin American and Caribbean surveillance networks for rotavirus and invasive bacterial diseases have been working on improving their systems to (1) provide quality information for disease burden estimation, (2) support evidence-based decision-making on vaccine introduction, (3) monitor circulation of specific serotypes/genotypes and changes in serotype/genotype distribution and antimicrobial susceptibility, and (4) evaluate vaccine impact after its introduction.

From 8-13 February 2010, the Pan American Health Organization (PAHO) convened a meeting in Washington, D.C., to revise the most relevant rotavirus and bacterial pneumonia and meningitis surveillance variables applicable to children aged under five years and develop a standardized guide on variables to help countries better interpret their surveillance data.

The result of the meeting was the production, and subsequent publication in July, of the brochure *Nuevas vacunas: variables para la vigi-*



lancia centinela de rotavirus y meningitis y neumonías bacterianas (available in Spanish only), which includes selected essential variables to assist with data collection regarding rotavirus and bacterial pneumonia and meningitis at hospital and national levels.

The variables that should figure on each patient's investigation form are described in the brochure as either mandatory, recommended, or optional, and instructions are given on how to correctly complete the investigation form.

PAHO has also recently developed a new web-based software, VINUVA[1], which allows sentinel hospitals and/or countries of the American Region to capture, store, and report aggregated surveillance data directly from the country level to the regional level. The software will allow direct and systematic data reporting. This will result in a more efficient system and better data quality. The tool will become available for use by countries starting in March 2011. ■

1 Vigilancia de Nuevas Vacunas/New Vaccine Surveillance.

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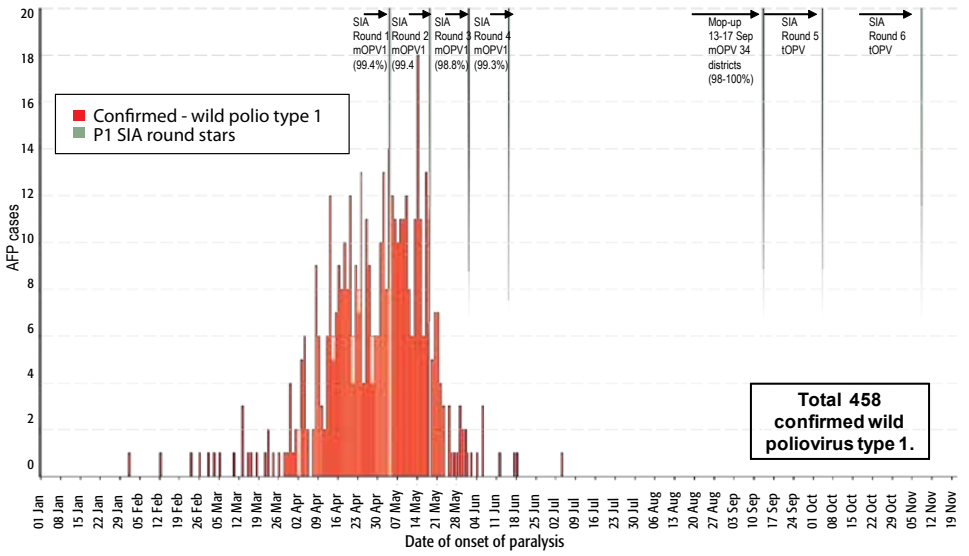
between May and June 2010). Campaigns have also been conducted or will be conducted in September in neighboring Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan. The Russian Federation has investigated contacts and implemented catch-up vaccination in areas around the confirmed cases.

WHO has maintained its recommendation not to impose restrictions to the international movement of persons. However, it is important that international travelers to and from polio-affected areas are adequately immunized against polio.

Countries of the Americas are alerted of the risk of polio importations. As illustrated by the cases in previously polio-free countries in Central Asia, while wild poliovirus continues to circulate in some areas, importations and outbreaks can occur. The last case of wild polio occurred in the Americas in Peru in 1991. To maintain the Region free of wild poliovirus, countries are encouraged to assess their risk of an outbreak from importations by analyzing their polio vaccine coverage by municipality and the capacity of the surveillance system to detect an importation in a timely manner. Countries not reaching the minimum of 1 AFP case per 100,000 children aged <15 years are encouraged to conduct active case searches in their main hospitals. ■

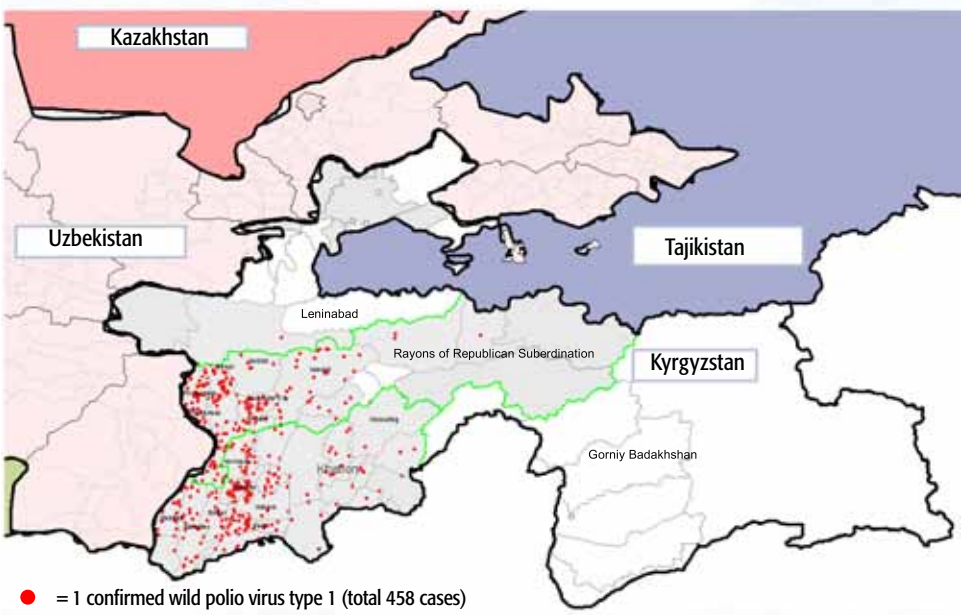
For more information: (1) Global Polio Eradication Initiative (http://www.polioeradication.org/) and (2) WHO Epidemiological Brief 7: Polio outbreak in the European Region and country responses, in English (http://www.euro.who.int/__data/assets/pdf_file/0011/121799/WHO_EPI_Brief_10sep_2010e.pdf).

Figure 1. Laboratory Confirmed Polio Cases by Date of Paralysis Onset, Tajikistan, 2010



Source: Weekly AFP reporting to WHO European Region; data as of 18 November 2010.

Figure 2. Distribution of AFP and Laboratory-confirmed Polio Cases by District,* Tajikistan, 2010



Source: Weekly AFP reporting to WHO European Region; data as of 25 November 2010.

Vaccination Questions Most Commonly Asked by Healthcare Professionals

Scheduling Vaccinations

Q: Why are vaccines generally not given to infants under 6 weeks of age

A: Mainly because little safety or efficacy data exist on doses given before 6 weeks of age, and the vaccines aren't licensed for this use. The data that exist suggest that the response to doses given before 6 weeks is poor; the response to hepatitis B and BCG vaccines is the exception.

Q: The number of injections recommended to be given at a single office visit is increasing, and we are running out of injection sites. Should we defer certain vaccines?

A: We strongly recommend that you do not defer any recommended vaccines. This would be a missed opportunity. No upper limit has been established regarding the number of vaccines that can be administered in one visit. When giving several injections at a single visit, separate 2 intramuscular (IM) vaccines by at least 1 inch (2.5 cm) in the body of the muscle to reduce the likelihood of local reactions overlapping. Here is a link to a collection of illustrations (i.e., "site maps") that shows how one can administer all indicated doses to children: www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/D/site-map.pdf.[1] If live parenteral (injected) vaccines (MMR and/or yellow fever) and live attenuated influenza vaccine (LAIV) are not administered during the same visit, they should be separated by 4 weeks or more.

Q: If I have to give more than 1 injection in a muscle, are certain vaccines best given together?

A: Since DTP and pneumococcal conjugate are the vaccines most likely to cause a local reaction, it's practical to administer them in separate limbs (if possible), so there is no confusion about which vaccine caused the reaction.

Q: What is meant by "minimum intervals" between vaccine doses?

A: Vaccination schedules are generally determined by clinical trials, usually prior to licensure of the vaccine. The spacing of doses in the clinical trial usually becomes the recommended schedule. A "minimum interval" is shorter than the recommended interval, and is the shortest time between two doses of a vaccine series in which an adequate response to the second dose can be expected.

Q: Is it necessary to start a vaccine series over if a patient doesn't come back for a dose at the recommended time, even if there's been a year or more delay?

A: For routinely administered vaccines, there is no vaccine series that needs to be restarted because of an interval that is longer than recommended. In certain circumstances, oral typhoid vaccine (which is sometimes given for international travel) needs to be restarted if the vaccine series isn't completed within the recommended time frame.

Precautions and Contraindications

Q: For which vaccines is an egg allergy a contraindication? What about MMR vaccine?

A: Influenza and yellow fever vaccines are the only vaccines that are contraindicated for people who have a history of a severe (anaphylactic) allergy to eggs. Allergy to eggs is no longer considered a contraindication for giving MMR vaccine. Though measles and mumps vaccines are grown in chick embryo tissue culture, several studies have documented the safety of these vaccines in children with severe egg allergy.

Q: What are the special recommendations for administering intramuscular injections in people with clotting disorders?

A: IM injections should be scheduled shortly after antihemophilia therapy or prior to a dose of anticoagulant. For both IM and SC (subcutaneous) injections, a fine needle (23 gauge or smaller) should be used and firm pressure (subcutaneous) applied to the site, without rubbing, for at least 2 minutes. Providers should not administer a vaccine by a route that is not approved for that particular vaccine (e.g., administration of IM vaccines by the SC route).

Administering Vaccines

Q: Is it necessary to wear gloves when we administer vaccinations?

A: No. Occupational Safety and Health Administration (OSHA) regulations do not require healthcare personnel to wear gloves when administering vaccinations, unless the healthcare worker is likely to come into contact with potentially infectious body fluids or has an open lesion on her or his hand

If a healthcare worker chooses to wear gloves, he or she must change them between each patient encounter.

Q: Are vaccine diluents interchangeable?

A: As a general rule vaccine diluents are not interchangeable.

Q: When a vaccine vial is new and the cap has just been removed, is the rubber stopper sterile, or should it be cleansed with alcohol before inserting the needle?

A: The rubber stopper is not sterile. When you remove the protective cap from a vaccine or diluent vial, you should always clean the stopper with an alcohol wipe.

Q: Is it okay to draw up vaccines at the beginning of the shift? If it isn't, how much in advance can this be done?

A: PAHO discourages the practice of prefilling vaccine into syringes, primarily because of the increased possibility of administration and dosing errors. Another reason to discourage the practice in general is that some vaccines have a very limited shelf life after reconstitution.

Q: Is it necessary to aspirate before vaccinating?

A: No. PAHO does not recommend aspirating (pulling back on the syringe plunger once the needle is in the arm before injecting, to see if you get blood return) when administering vaccines. No data exist to justify the need for this practice. IM injections are not given in areas where large vessels are present. Given the size of the needle and the angle at which you inject the vaccine, it would be very difficult to administer the vaccine intravenously.

Q: If a dose of vaccine is given by the wrong route (IM instead of SC or vice versa), does it need to be repeated?

A: Although vaccines should always be given by the route recommended by the manufacturer, if a vaccine is inadvertently given by the wrong route, PAHO recommends that it be counted as valid with two exceptions: Hepatitis B or rabies vaccine given by any route other than IM should not be counted as valid and should be repeated.

Q: What length of needle should be used to give infants IM injections?

A: PAHO recommends that a 5/8" needle be used to administer IM injections in a newborn or premature infant only if the skin is stretched tight and the subcutaneous tissues are not bunched. For infants age 1 month or older, IM injections should be given in the anterolateral thigh with a 1" needle.

Regarding Persons With Health Conditions

Q: Is there any reason to delay or adjust the immunization schedule for children with Down syndrome?

A: No. Children with Down syndrome should receive all indicated vaccines on the recommended schedule. These children are often at greater risk for complications from vaccine-preventable diseases than are children without Down syndrome.

Q: Should vaccines be withheld for patients on steroids?

A: Steroid therapies that are short term (less than 2 weeks); alternate-day; physiologic replacement; topical (skin or eyes); aerosol; or given by intra-articular, bursal, or tendon injection are not considered contraindications to the use of live virus vaccines. The immunosuppressive effects of corticosteroid treatment vary, but many clinicians consider a dose equivalent to either 2 mg/kg of body weight or a total of 20 mg per day of prednisone for 2 or more weeks as sufficiently immunosuppressive to raise concern about the safety of vaccination with live virus vaccines (e.g., MMR, varicella, LAIV, yellow fever). Providers should wait at least 1 month after discontinuation of therapy or reduction of dose before administering a live virus vaccine to patients who have received high systemically absorbed doses of corticosteroids for 2 weeks or more. Inactivated vaccines and toxoids can be administered to all immunocompromised patients in usual doses and schedules, although the response to these vaccines may be suboptimal.

Q: Should you administer vaccine to a person who is taking antibiotics?

A: Treatment with antibiotics is not a valid reason to defer vaccination. If the child or adult is otherwise well, or has only a minor illness, vaccines should be administered. But if the person has a moderate or severe acute illness (regardless of antibiotic use) one should defer vaccination until the person's condition has improved.

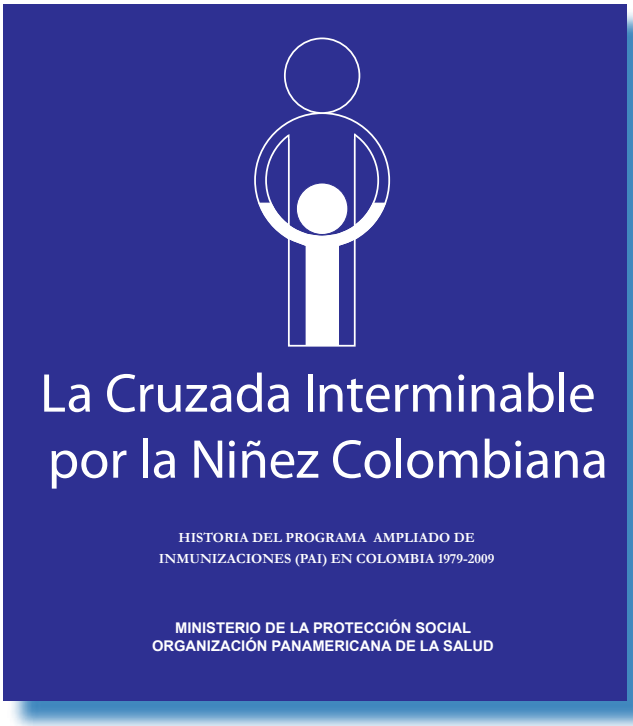
A "moderate or severe acute illness" is a precaution for administering any vaccine. A mild acute illness (e.g., diarrhea or mild upper-respiratory tract infection) with or without fever is not. The concern in vaccinating someone with moderate or severe illness is that a fever following the vaccine could complicate management of the concurrent illness (that is, it could be difficult to determine if the fever was from the vaccine or due to the concurrent illness). In deciding whether to vaccinate a patient with moderate or severe illness, the clinician needs to determine if forgoing vaccination will increase the patient's risk to vaccine-preventable diseases, as is the case if the patient is unlikely to return for vaccination or to seek vaccination elsewhere. It is important to ensure vaccination soon after the person recovers.

Note: The U.S. Centers for Disease Control and Prevention CDC publishes Vaccine Information Statements (VISs) in English only, but translations done by other sources are also available. To access all currently available VISs in more than 35 languages and some alternative formats (audio/video), go to the Immunization Action Coalition's website at www.immunize.org/vis.

Adapted from http://www.immunize.org/askexperts/experts_general.asp on 12 November 2010. We thank the Immunization Action Coalition and the U.S. Centers for Disease Control and Prevention. Additional "Ask the Experts" Q&As can be consulted online at http://www.immunize.org/askexperts.

1 Information is also available from previous issues of the *Immunization Newsletter:* How to administer Intramuscular (IM) Injections (April 2003) (available at http://www.paho.org/english/ad/fch/im/sne2502.pdf) and How to Administer Subcutaneous (SC) Injections (June 2003) (available at http://www.paho.org/english/ad/fch/im/sne2503.pdf).

History of the Expanded Program on Immunization in Colombia



On 15 June 2010, *Cruzada Interminable por la Niñez Colombiana* (Ceaseless Crusade for the Colombian Children) was launched in Bogotá, Colombia. The book retraces the thirty years of the Expanded Program on Immunization (EPI) in Colombia. It was introduced to the public in the presence of Dr. Diego Palacio Betancourt, Minister of Social Protection, Carlos Ignacio Cuervo Valencia, Vice-minister of Health and Wellbeing, Dr. Juan Gonzalo Lopez Casas, Director, National Institute of Health, and Dr. Jorge Castilla, representing the Pan American Health Organization.

In his remarks, Dr. Palacio stated that the objective of *Cruzada Interminable por la Niñez Colombiana* was to record the history of the EPI, remembering its main contributors and recalling its most salient successes. Although it is not exhaustive, the book's intent is to provide a reflection on immunization: a quiet and modest, yet historic, experience that changed the life of Colombian society. Reading through its pages, one learns about smallpox eradication and poliomyelitis eradication and, closer to our time, the imminent verification of measles, rubella, and congenital rubella syndrome elimination. Dr. Palacio also noted that many challenges remain, among others reaching homogenous coverage in all municipalities in the country and the sustainable introduction of new vaccines. Yet, the EPI can count on an extraordinary power to keep on advancing: its dedicated workforce that considers their work for the EPI as a duty, even a life mission and a *raison-d'être*. Today, the EPI functions as a highly participative process that provides each health care worker with the opportunity to contribute to the program with suggestions, initiatives, and ideas. The book is therefore a heartfelt homage to all the women and men who have worked and are working for the EPI. ■

The *Immunization Newsletter* is published every two months, in English, Spanish, and French by the 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.

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Pan American Health Organization
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Immunization Unit
525 Twenty-third Street, N.W.
Washington, D.C. 20037 U.S.A.
http://www.paho.org/immunization