

Immunization Newsletter

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Vaccination Week in the Americas, 2013

During the last week of April, the countries and territories of the Americas celebrated Vaccination Week in the Americas (VWA), an initiative dedicated to increasing equity and access to vaccination. VWA began in 2003 and sparked a global movement culminating in the establishment of World Immunization Week (WIW), which was celebrated for the second time in 2013. The theme for this year's initiative was "Vaccination: a shared responsibility." This theme highlighted the importance of each person's role in fighting vaccine-preventable diseases (VPDs). Governments, national immunization programs, healthcare workers, communities and families all contribute to their population's health by ensuring their children are vaccinated. Country participation in VWA is flexible and based on national health priorities. Over the last eleven years, more than 465 million people have been vaccinated under the umbrella of the initiative, which has become an exceptional illustration of what can happen when countries work together, across borders and in different languages, to improve their population's health. Forty-four countries and territories participated in VWA 2013, carrying out a wide variety of activities to vaccinate more than 53.8 million people against VPDs. Of note, several countries conducted immunization or awareness campaigns focused on the human papillomavirus (HPV) vaccine. Thirteen countries and territories also reported integrating other preventative interventions with vaccination such as deworming, supplementation with vitamin A, growth monitoring, and health screenings. Most countries in the Region conducted national or bi-national VWA launching events. In addition to the regional launching events that took place at the Adjacency Zone between Belize and Guatemala on 24 April and in Port-au-Prince, Haiti on 27 April, local, national and international launching events were held across the Region. Argentina, Brazil, Colombia, El



PAHO director Dr. Carissa F. Etienne with Ministers of Health from Belize (left) and Guatemala (right).

Salvador, Honduras, Nicaragua, Panama, Peru, Uruguay and many more countries and territories in Latin America and the Caribbean held national events to celebrate the initiative. Additionally, international launches took place between the borders of Colombia, Brazil and Peru; Honduras and Guatemala; Costa Rica and Panama; Panama and Colombia; and Guyana and Suriname, among others. Please visit the initiative's website

www.paho.org/vwa/. ■

Reducing Injection Pain during Vaccination and the Risk of Local Reactions and Abscesses

Reducing pain during vaccination is becoming increasingly relevant as more vaccines become available and two or more vaccines may need to be administered simultaneously. While in some countries, up to four injectable vaccines have been administered simultaneously for years (e.g., United States with DTaP, Hib, IPV and pneumococcal conjugate vaccine-PCV recommended at the same ages and often given as separate vaccines), most Latin American countries are only now starting to give multiple injections simultaneously. Oftentimes, pentavalent (DTP-Hib-Hep B) is given in one thigh and PCV in the other; when IPV gets more widely used, two injections will have to be administered in the same limb. While there are no contraindications to administer vaccines simultaneously, or in the same limb if the injections are separated by about 2.5 centimeters (1 inch), mothers and health care workers are more and more concerned over the pain inflicted on the infant, and the potential for local reactions.

Surprisingly, only a few studies have been conducted regarding interventions to reduce pain during vaccination. In this short article, we present the interventions for which the available evidence suggests they work in reducing pain during vaccination, and recommendations to reduce the risk of local reactions and abscesses following vaccination.

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The Canadian Department of Foreign Affairs, Trade and Development and PAHO's Comprehensive Family Immunization Unit: A Partnership to Strengthen the Routine Expanded Program on Immunization in Latin America and the Caribbean

The collaboration between the Canadian International Development Agency (CIDA), now known as the Canadian Department of Foreign Affairs, Trade and Development (DFATD), and the Comprehensive Family Immunization Unit (IM) of the Pan American Health Organization (PAHO) has spanned two decades. The overarching objective of the most recent phase of this partnership (2010-early 2013) was to reduce morbidity and mortality caused by vaccine-preventable diseases (VPDs) among vulnerable populations living in all corners of Latin America and the Caribbean (LAC), through strengthening the routine Expanded Program on Immunization (EPI). Throughout the project, efforts strived to reduce inequalities in health by expanding access to immunization services and strengthening their quality and safety.

Project History

In early 2010, a project proposal was presented by PAHO to CIDA which focused on 13 priority countries¹, each chosen due to their high infant mortality rates and/or proportion of municipalities with immunization coverage below 95%. By the end of 2010, the opportunity arose for additional support from CIDA and the project

was expanded to include all of LAC (33 countries²). The total budget for the project was US\$ 10,385,582, including PAHO's indirect costs of 13%.

Project Components

The technical components of this project were multifaceted, inter-related and included:

- 1) Reaching priority municipalities with low vaccination coverage;
- 2) Implementing activities for Vaccination Week in the Americas;
- 3) Strengthening information systems, including the transition to nominal registries in selected countries;
- 4) Ensuring the quality of vaccines and syringes, including improving the capacity of National Regulatory Authority (NRAs) and laboratory control of syringes;
- 5) Supporting the Surveillance System for the Bacterial Agents Responsible for Pneumonia and Meningitis Network (SIREVA II) in order to implement quality control and quality assurance procedures;
- 6) Strengthening country capacity for notification and investigation of Events Supposedly Attributable to Vaccination or Immunization (ESAVI).

To monitor progress in each of these components, ultimate, immediate and intermediate indicators and outputs were developed and monitored, with results being reported back to CIDA at the end of the project period.

Results

1) Reaching priority, low coverage municipalities

This technical component was at the heart of the CIDA-PAHO collaboration and activities were supported at both the regional and national level to help ensure that coverage improved in targeted municipalities and that gains were sustained across the period of the project throughout the Region. Targeted municipalities were chosen by countries, which helped to ensure that resources were directed to those areas most in need. Specific activities supported by CIDA spanned all the immunization program components, but a particular emphasis was given to planning and coordination, supervision, and the development of standardized regional tools.

Some of the key activities and results implemented at the regional and country levels to reduce the percentage of municipalities with low coverage are included in the chart below:

Key activities and results, regional

Periodic revision of country biennial work plans and linkages to PAHO's Strategic Plan to ensure country ownership of the project.

Identification of appropriate operational strategies, such as the implementation of data quality assessments during international EPI evaluations to address numerator and denominator issues and compilation of qualitative information regarding why individuals are unvaccinated.

Development of a standard guide for the preparation of technically sound country EPI plans of action to improve delivery of vaccination services.

Technical cooperation provided to countries through sub regional meeting sessions, virtual sessions, and ongoing dialogue.

Support to countries to adopt the indicators included in the Global Vaccine Action Plan (GVAP).

Training to build the capacity of national staff, including vaccine and supply management and data analysis.

Use of surveys to determine vaccination coverage more accurately.

Development of culturally appropriate social communication and advocacy materials.

¹ Bolivia, Dominican Republic, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Paraguay, Suriname, Trinidad and Tobago, and Venezuela.

² Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela.

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Key activities and results, country

Identification of priority municipalities based on specific risk criteria indicators (e.g. vaccination coverage, unmet basic needs, proximity to service delivery network, concentration of children, epidemiological silent areas, areas of high tourist concentration, etc.). Use of specific indicators varied country-to-country.

Organization of coordination meetings to prepare the EPI plans of action. In some countries, these meetings included UN partners and non-government organizations (NGOs). More than 500 people across the LAC countries were involved in the participatory planning process.

Inclusion of integrated child health activities in EPI plans of action: (e.g. deworming and vitamin A supplementation in El Salvador, Honduras, Nicaragua, and Paraguay).

Establishment of national immunization technical advisory groups (NITAGs) in 4 countries (Costa Rica, El Salvador, Guatemala and Suriname).

Work with stakeholders in 6 countries (Dominican Republic, El Salvador, Guatemala, Panama, Paraguay, and Peru) to establish vaccination laws and/or country regulations.

Training on all EPI components for health workers (a total of 9,148 technicians, nurses, doctors, pediatricians, and other health professionals) from 1,130 municipalities across the Region.

Hiring of health workers and logistical support to facilitate the implementation of identified interventions, including micro-planning to define catchment areas.

Supervision

- 2,233 supervisory visits were carried out per year in all countries; 70% of the targeted municipalities were reached with these visits.
- 3,880 sessions of rapid monitoring were performed annually to assess advances in vaccination coverage and identify unvaccinated populations. Over the life of the project, a total of 73,306 houses were visited.

Social mobilization activities with community leaders, indigenous populations and other priority groups in 67% of LAC countries.

Evaluation

- 40 meetings were held per year across the region to evaluate the advances with national EPI plans of action at all levels of the health system (national, subnational, and local level). In some cases, these meetings included UN partners and NGOs.
- Implementation of operational evaluations to identify the reasons that individuals were not vaccinated in the Dominican Republic, Honduras, Paraguay, and Venezuela. Guatemala also conducted a user satisfaction survey.

Overall, using DPT3 as the tracer indicator, upon the project's conclusion, on average, regional coverage had increased from 90% (2009) to 94% (2011). Additionally, as of 2011, no country in the Region was reporting DPT3 vaccination coverage under 70% (versus 2 countries in 2009) and only two countries reported coverage in the range from 70-79%.

2) Implementation of Vaccination Week in the Americas

Over more than a decade in the region, Vaccination Week in the Americas (VWA) has evolved from a sub-regional proposal to protect the Region against the re-emergence of measles, into a key annual opportunity to promote equity and access to immunization. VWA activities boost national immunization programs by placing the regional media spotlight on the essential role of vaccination

in preventing disease. The flexible nature of the initiative allows countries to tailor their activities to current public health priorities, which have included the introduction of new vaccines, targeted antigen-specific vaccination campaigns, and educational/training efforts. At its core however, VWA has always been an initiative to "reach-the-unreached" and improve coverage of the routine EPI at the local level, thereby clearly fitting into the framework of PAHO's collaboration with CIDA.

Planning for VWA activities has been institutionalized across the Region; however, the precision in the definition of target populations varies due to the diversity of campaigns. Over the course of the CIDA project, VWA country activities included mass campaigns against polio, measles and rubella, vaccination activities targeting women of childbearing age and

occupational risk groups for tetanus/diphtheria vaccination, hepatitis B, seasonal influenza and yellow fever vaccination, and efforts to complete childhood vaccination schedules with particular emphasis placed on high-risk, isolated, border, and indigenous populations. Many countries (11 in 2012, 12 in 2011 and 13 in 2010)³ also integrated other preventative interventions as part of their VWA efforts.⁴

The success of VWA in the Americas has helped spark initiatives in other regions of the WHO, leading to the establishment of World Immunization Week, celebrated for the first time in 2012 and subsequently endorsed by the World Health Assembly.

3) Strengthening of information systems

The majority of vaccination coverage monitoring in Latin America currently relies on

³ 2010: Bahamas, Bolivia, Guyana, Haiti, Honduras, Mexico, Montserrat, Nicaragua, Panama, St. Lucia, St. Maarten, St. Vincent, Suriname; 2011: Belize, Grenada, Guyana, Haiti, Honduras, Mexico, Montserrat, Nicaragua, Panama, St. Lucia, St. Maarten, St. Vincent; 2012: Belize, Brazil, Haiti, Honduras, Mexico, Montserrat, Nicaragua, Panama, St. Kitts, St. Maarten, St. Vincent.

⁴ Integration efforts from 2004-2009 were documented in the article: http://jid.oxfordjournals.org/content/205/suppl_1/S120.long.

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aggregated administrative data, however this approach has several shortcomings that limit its use for the follow-up of individuals' vaccination status. The move towards nominal immunization registries (NIR) has the potential to improve workflow efficiency, data quality and use, and to assist health care workers in identifying and targeting under-vaccinated persons; the transition process however, is lengthy, requiring great inputs in terms of time and resources.

PAHO/WHO has been working with Latin American countries to define best practices on NIR development, implementation and use, and to provide guidance on basic functionalities for countries starting registry development. Support from the PAHO-CIDA collaboration helped catalyze this process in selected countries through technical cooperation efforts, trainings, help with the purchase of required hardware and software and the sharing of experiences. At the conclusion of the project, all selected countries had initiated the transition to NIR to varying extents (early development/planning, piloting/early implementation or implementation at the national level). Ongoing efforts are required to ensure that these transitions are completed so lessons learned may be shared with other countries and regions embarking on this endeavor.

4) Ensuring the quality of vaccines and syringes

National immunization programs are tasked with the responsibility of providing quality, safe, effective, and affordable vaccines, syringes and other products to their citizens. The increasing complexity and sophistication of biological products and technologies, the rapid growth in EPI programs as new vaccines are introduced, and the implementation of post-marketing surveillance, present additional challenges for National Regulatory Authorities (NRA). In order to underscore and strengthen this area of work, and through the CIDA partnership, PAHO worked with countries to improve NRA procedures and quality control efforts. As part of this technical component of the project, multiple trainings were held with NRA representatives across the

Region; currently seven NRAs in the Americas are considered to be competent and efficient in the performance of the six World Health Organization (WHO) recommended regulatory functions. Four countries are also in compliance with the WHO assessment tool for vaccine regulation. Capacity for quality control testing of syringes was also addressed.

5) Supporting SIREVA II

Since 2004, the SIREVA II network has been strengthened from the CIDA-PAHO collaboration and has generated quality information to accurately characterize invasive isolates of *S. pneumoniae*, *H. influenzae*, and *N. meningitides* in LAC. During the current phase of the project, the quality and accuracy of information generated by the network was fortified, providing countries with information for decision making regarding the introduction of new vaccines. Key activities which were implemented included the timely purchase of essential supplies, updating of technologies and standard operating procedures, information generation to accurately characterize invasive isolates of *S. pneumoniae*, *H. influenzae*, and *N. meningitides*, and continued participation of all laboratories in external quality assessment and control procedures.

6) Strengthening country capacity for notification and investigation of ESAVIs

The final technical component of the CIDA project focused on activities to help countries strengthen their investigation, reporting and classification of ESAVI. Supported activities included country training on vaccination safety topics (including NRAs, quality laboratory control, safe injection practices, technical and clinical aspects of ESAVI, introduction to causality concepts and risk-benefit considerations, ESAVI monitoring system, and creating media alliances); the completion of advanced causality assessment modules to help countries build national capacity in final ESAVI classification, vaccine safety data analysis, and implementation of corrective actions; the finalization and piloting of a web-based platform (E-SAVI) to strengthen ESAVI reporting and investigation, and the

initiation of a process to establish a Pan American Committee on Vaccine Safety.

Reach of CIDA support, involved stakeholders and long-term sustainability

Support from the CIDA partnership was far-reaching; all LAC countries with the exception of Mexico were the recipients of support (both technical and financial) through the collaboration. Levels of resource execution were high at both the regional (98%) and country levels (99%). The collaboration brought together a wide variety of stakeholders, including PAHO staff in multiple technical areas at the regional and country offices, Ministries of Health throughout LAC, National Immunization Technical Advisory Groups (NITAGs), health care workers at all levels, regulatory authorities, non-governmental organizations (NGOs), and other partners, including the Global Alliance for Vaccines and Immunization (GAVI), PATH, the Spanish Agency for International Cooperation (AECID), the United Nations Children's Fund (UNICEF), the United States' Health and Human Services (HHS) and United States Centers for Disease Control and Prevention (CDC), and the WHO, who helped to co-finance certain activities in the targeted areas of work.

The long-term sustainability of the multiple efforts undertaken as part of this collaboration was addressed through multiple pathways which included political advocacy efforts to place the work undertaken on political agendas, training and empowerment of health workers at the local level, and strengthening of additional partnerships to assure co-financing and ongoing support. The Comprehensive Family Immunization Unit continues to collaborate with CIDA as part of the larger PAHO umbrella agreement "Improved Health and Increased Protection from Communicable Diseases for Women, Children and Excluded Populations in Latin America and the Caribbean" and is greatly appreciative of this long-term relationship which has been critical to strengthening the EPI and improving the health of people in the Americas. ■

Haiti Makes Efforts to Strengthen its National Immunization Program

Haiti has recently taken several steps to strengthen its National Immunization Program. Among these is a Vaccination Supply Stock Management workshop, a visit to the Dominican Republic to share lessons learned on rotavirus vaccine introduction, and holding the first meningitis and rotavirus surveillance workshops.

The Vaccination Supply Stock Management workshop took place 6 - 10 May with staff from both central and from five department level stores, representatives from the Brazilian Tripartite Cooperation, the US Centers for Disease Control and Prevention (CDC), and UNICEF. The purpose of the workshop was to train staff on using and implementing Vaccination Supply Stock Management (VSSM), a vaccine and supply management software, developed by the World Health Organization (WHO)⁵. The workshop specifically trained cold chain technicians and the staff responsible for managing the cold stores on how to install and use VSSM. The software is a management tool that targets the operations related to the reception, storage and distribution of vaccine, syringes and other immunization supplies. The reports and information provided by VSSM also support the shaping of supply chain and logistics operations. VSSM provides specific reports for managers and staff regarding vaccine and immunization supplies. This information will improve the flow of the products, prevent stocks-outs, and ensure that vaccines with short shelf-life are used first or recalled if they have passed their expiration date. As with any immunization management inventory software, the ultimate goal of is to ensure that all service providers have the required vaccine doses to support the everyday delivery of immunization services as required. Furthermore, given that Haiti will be introducing rotavirus and pneumococcal vaccines that occupy more volume per dose stored when compared to the traditional Expanded Program on Immunization (EPI) vaccine, VSSM will assist managers and cold chain technicians with logistic operations according to the given storage capacity available at the service point. The VSSM workshop was conducted by a PAHO Regional Advisor and PAHO consultants.

Following the VSSM workshop, a Haitian team from the EPI joined the EPI team of neighboring Santo Domingo to learn from the experiences of the Dominican Republic introducing the rotavirus vaccine to the National Immunization Program in 2012.⁶ The Haitian

team included the EPI Assistant Director, national head of logistics and cold chain, national head of communication and a consultant from PAHO; the Dominican Republic delegation included the national EPI technical team and PAHO. The 20 - 24 May visit focused on sharing all the management aspects of the planning and organization for each EPI component, down to the operational level. The Dominican team shared major activities that took place, significant challenges, achievements, and constraints that had risen during the various stages of the process of rotavirus introduction.

The exchange between the two countries included meetings, discussions, reviews of documentation, visits to health facilities and vaccination posts, and logistics risk analyses. Points that were repeatedly emphasized included: the importance of having sufficient cold chain equipment before the introduction of the vaccine, as the presentation of the rotavirus vaccine can be bulky; using adult training methodologies that take different learning methods into consideration; the importance of vaccinating children early in posts close to their homes; and the mechanisms to adequately monitor compliance with the recommended rotavirus vaccination schedule. In terms of the managerial points, monitoring mechanisms were socialized through indicators of consistency, including the monitoring of the reception of all vaccinations at the time of contact with the service, the drop-out rates to assess compliance with the service when the quality of health care is good, in addition to the second dose coverage, the implementation of monitoring tools and, tools for logistics management. The experience of this sharing of information opened the possibility for other meetings to take place between the two neighboring countries that would allow the analysis of other issues in order to strengthen various EPI components.

Finally, Haiti's first meningitis and Rotavirus surveillance workshops were conducted in Port-au-Prince on 17 - 20 June. Laboratory staff, clinicians, pediatricians, nurses and epidemiologists were on-hand participants at



Sharing experiences between the Dominican Republic and Haiti on the introduction of the rotavirus vaccine, May 2013.

these workshops, whose purposes were to train Hospital La Paix staff on rotavirus and meningitis surveillance. These workshops were prompted by the fact that Haiti will be introducing the rotavirus and pneumococcal vaccines in its National Immunization Program in September 2013 and during the first semester of 2014, respectively. The workshops included a total of 30 participants, and were conducted in collaboration with the country's Ministry of Health: the EPI, the National Laboratory (DELR); the Centers for Disease Control and Prevention (CDC), and PAHO. Key participants from the country included the DELR Director, Chief Laboratory in charge of new vaccines surveillance, the DELR Chief of Services, and the Hospital La Paix Services Chief of Pediatrics.

The workshops were divided into three parts: laboratory, clinical and surveillance tool training. The laboratory training focused on cytology, Gram stain and culture of cerebrospinal fluid (CSF) for meningitis; and specimen collection, storage, transportation and detection of rotavirus. The clinical training included case definitions, general overview of new vaccines in the Region of the Americas, as well as a review of the roles and responsibilities of staff at the sentinel hospitals. The last day of the training was dedicated to the new vaccines surveillance tool VINUVA.⁷ The participants were able to register and familiarize themselves with the tool. The workshops were a good opportunity for all stakeholders to communicate with each other and know the importance this surveillance will play in measuring the impact of new vaccines on rotavirus diarrhea and pneumococcal morbidity and mortality in Haiti. ■

⁵ "Paraguay's New Immunization Information System". Immunization Newsletter. December 2012; Vol. XXXIV. No. 6 (p.6).

⁶ "The Dominican Republic Introduces Rotavirus Vaccine Into National Immunization Schedule". Global Immunization Newsletter. July 2012; (p.6).

⁷ "VINUVA - New Tool for the Monthly Reporting of Data from Sentinel Surveillance of Rotavirus, Pneumonia and Meningitis". Immunization Newsletter. December 2011; Vol. XXXIII. No. 6 (p.7).

REDUCING INJECTION PAIN continued from page 1

Selected interventions to reduce injection pain during vaccination

- Hold infants and have children sit-up (vs. lying on their back)
(See *Positioning a Child for Injections* on page 7)
- Inject the least painful vaccine first (when two or more vaccines are injected during the same visit)
 - In general, the pentavalent vaccine seems to be less painful than PCV
- Ensure proper intramuscular (IM) administration, for vaccines given IM (pentavalent, PCV, IPV, etc.)
 - Use a 90° angle
 - Give a rapid injection without aspiration
- Stroke the skin or apply pressure close to the injection site, before and during injection
 - Do not massage after injection
- Breastfeed the infant during and after injection
 - Sweet-tasting fluids, may also be useful
- Use distraction techniques

Evidence does not support the use of antipyretics before or at the time of vaccination, but they can be used to manage pain and fever following vaccination.

Reducing the Risk of Local Reactions and Abscesses following Vaccination

- Give sterile injections
 - Wash hands
 - Prepare vaccines, with an aseptic technique, in a clean designated physical area in the clinic or health facility
 - Use a new syringe and needle for every vaccine and person
 - Inspect the syringe packaging to make sure it is intact
 - ◆ Discard the syringe or needle if the packaging has been punctured, torn or damaged in any way
 - Do not touch any part of the needle
 - Clean the skin (if needed)
 - ◆ If the skin is not visually dirty, clean water is sufficient
 - ◆ If the skin does not seem clean, soapy water can be used

When administering injections, gloves and masks are not needed.

- Give the correct vaccine
 - Ensure that the vaccine is the correct vaccine for the child
 - Check the expiry date for the vial



"Pricking a Mother's Heart." Photo taken by Lorenzo Pezzoli. It won First Place at the 2012 EAN Photo Contest (ssl.voozahoo.net/vooean/code/scripts/aindex.php.)

- Ensure correct reconstitution
 - Use the correct diluent for each freeze-dried vaccine
- Check that both the vaccine and the diluent are produced by the same manufacturer
- Check the expiry date for the diluent
- Use all the diluent from the vial
 - Ensure that both the vaccine and the diluent are at the same temperature (between 2°C and 8°C)
 - Use a sterile syringe and needle to reconstitute each vaccine vial
 - Shake properly
 - Discard reconstituted vaccines at the end of the vaccination session, or after 6 hours, whichever comes first
- Maintain the vaccines at the right temperature (avoid vaccine freezing)
 - To check for freezing conduct the shake test¹
- Use the correct injection technique
 - BCG must be intradermal
 - Intramuscular (IM) vaccines must be administered properly in a muscle² (most vaccines used routinely are given IM, with the exception of intradermal for BCG and subcutaneous for measles-containing vaccines, yellow fever, and varicella)
 - Ensure the correct anatomical site
- Thighs are recommended for infants and deltoids for older children and adults²
- If two vaccines have to be given in the same limb, ensure a separation of at least 2.5 centimeters (1 inch) to avoid overlapping reactions³
- Position children securely to avoid unexpected motion at the time of injection (See *Positioning a Child* on page 7)
- Provide correct information to the mother/caregiver
 - Give the key messages to the parents about the vaccines given, expected reactions and what to do after the vaccines (See page 7).



- Never leave the needle in the top of a vaccine vial
- Do not prefill the syringes
- Always discard used syringes in a safety box

¹ "How to Perform the Shake Test". Immunization Newsletter. April 2010; Vol. XXXII. No. 2 (p.7).

² "How to Administer Intramuscular (IM) Injections". Immunization Newsletter. April 2003; Vol. XXV. No. 2 (p.7).

³ "Questions and Answers about Vaccination". Immunization Newsletter; August 2010; Vol. XXXII. No. 4 (p.7) and www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/D/vacc_admin.pdf

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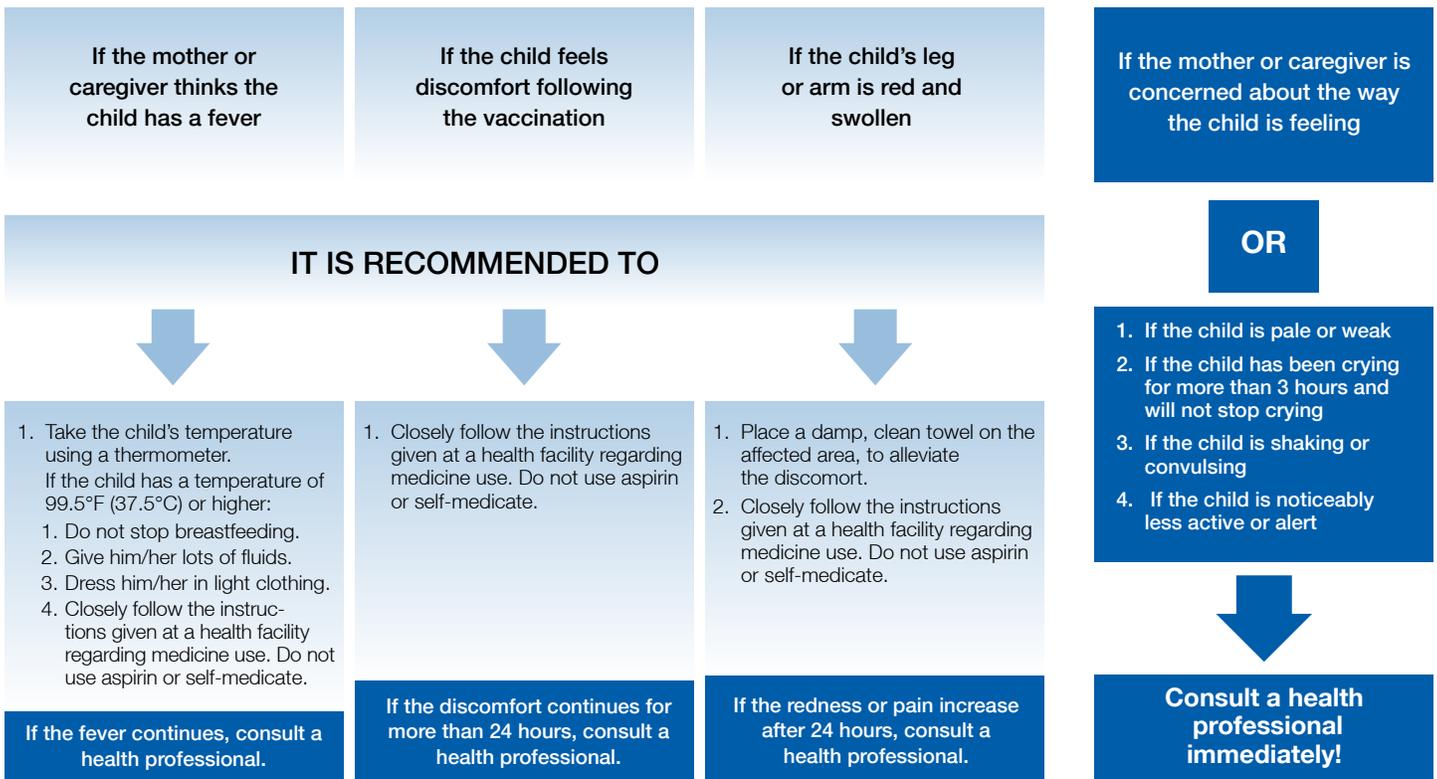
Positioning a Child for Injections



- The mother or caregiver sits and places the child on their lap.
- One of the caregiver's arms needs to be behind the child's back.
- One of the child's arms wraps around the caregiver's side (child's shoulder under the caregiver arm or armpit) and the child's other arm may be held by the caregiver.
- The caregiver may tuck the child's legs between his/her own legs to secure them, or may hold the child's legs with his/her arm.
- Vaccinators should not hold the child – they need both hands for administering the injection.
- The vaccinator should always tell the mother or caregiver when they are about to give the injection.

After the Vaccines...

Information the child's mother or caregiver should have regarding post-vaccine care.



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.

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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Paraguay and Uruguay Introduce the Human Papilloma Virus Vaccine

In March and April 2013, Paraguay and Uruguay became the ninth and tenth countries of the Region of the Americas, respectively, to nationally introduce a vaccine against human papillomavirus (HPV). The age-standardized cervical cancer mortality rate estimated for 2008 was 16.6 and 6.8 deaths per 100,000 women for Paraguay and Uruguay, respectively (the estimate for Latin America and the Caribbean was 10.8). In Paraguay, HPV vaccination targets girls aged 10 and 11 years (i.e., cohorts born in 2002 and 2003) and vaccination is mainly school-based. The significance of the introduction of this vaccine is that Paraguay is the first lower-middle income country in the Americas to vaccinate against HPV nationally. This vaccine introduction is part of a comprehensive national plan for cervical cancer prevention and control. The implementation plan includes specific efforts to reach out to the indigenous population, girls

living with disabilities, and vulnerable groups, through volunteers from health colleges. In Uruguay, the HPV vaccine is offered to girls aged 12 years in health care clinics and physician offices. HPV vaccination is not mandatory and those interested in receiving the vaccine are requested to sign an informed consent, unlike other vaccines included in the national immunization schedule. Public messages

highlight the importance to complete the three dose immunization series. HPV vaccine introduction is part of the Program for the Prevention, Diagnostics and Treat-



Ministry of Health, Expanded Program on Immunization, Ministry of Education, the first three girls who received the HPV vaccine, and the National Secretariat for Children and Adolescents in Paraguay, 2013.

ment of cervical cancer. This plan reaffirms access to PAP screening for adult women. HPV vaccination is also leveraged to provide sexual education to the adolescents. ■