Immunization Newsletter

Pan American Health Organization

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The Elimination of Rubella and Congenital Rubella Syndrome in Nicaragua

Background

In October and November 2005, Nicaragua conducted a national immunization campaign against rubella, targeting all men and women aged 6 to 39 years. The slogan for the campaign was *"Together let's eliminate rubella once and for all"*. The entire population of Nicaragua came together during the campaign to achieve rubella elimination. Their efforts have left a legacy: no child in Nicaragua will be born deaf, blind, or mentally handicapped due to the fetal infection caused by the rubella virus.

The national immunization campaign has proven to be a cost-effective intervention. Estimates indicated that the campaign would help avoid 810 cases of congenital rubella syndrome (CRS) over the next 15 years. In economic terms, this translates to savings of an estimated US \$48.6 million in medical costs. The campaign's cost was US \$4.2 million; therefore, each dollar invested produced a savings of US \$11.6. These figures are very conservative since they do not take into account the social cost from disabilities associated with the disease, nor its impact on families and society.

Planning and Organization

The vaccination strategy used to eliminate rubella required that 100% coverage rates be achieved in diverse target groups (school-age children, adolescents, and adult males and females) over eight weeks. Accordingly, Nicaragua developed a detailed plan of action beginning six months before the start of the campaign (Figure 1).



Children and mothers proudly displaying their vaccination cards received during the rubella immunization campaign. (Nicaragua, 2005)

One of the conditions of this first stage of planning was to establish technical and operational guidelines. Those represented the strategic and methodological framework for the documents used in the campaign (Vaccination Manual, ESAVI¹ Surveillance Protocol, Protocol for the Follow-up of Pregnant Women Inadvertently Vaccinated, Questions and Answers, and Advocacy Packet). The guidelines also helped serve to monitor vaccination safety during the campaign.

Event Supposedly Attributable to

Vaccination or Immunization.

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XIV Meeting of the Andean Region and XVII Meeting of the Southern Cone on Vaccine-Preventable Diseases

The XIV Meeting of the Andean Region and the XVII Meeting of the Southern Cone on Vaccine-preventable Diseases were held in Asunción, Paraguay, from 25-26 October 2005.



Dr. Nicanor Duarte Frutos, President of Paraguay, receiving the certificate of appreciation on behalf of his country.

In an unprecedented fashion, the President of Paraguay, Dr. Nicanor Duarte Frutos, attended the meeting. Dr. Jon Andrus, Chief, Immunization Unit at PAHO Headquarters, handed him a certificate of appreciation to recognize Paraguay's achievements during the rubella campaign the country conducted in April and May 2005. In his address, President Duarte thanked each member of the team that made the campaign a success. He indicated that public health is a priority in Paraguay, as it represents a means to achieving social development, prosperity, and peace. He stressed that increasing the health budget is necessary, but that better spending and innovation

See ANDEAN REGION & SOUTHERN CONE MEETINGS page 3 Figure 1. Measles-Rubella Vaccination Campaign in Men and Women Aged 6-39 Years: Timeline and Activities, Nicaragua, 2005

April	Мау	June	July	August	September	October	November	December			
		Planning	g and O	organizatio	Implem	Evaluation					
		Nati	onal Lev	vel	Vaccination wh	∇ Coverage Certification					
			Region	al and Loc	al Levels		V Lessons Learned				
						Post-partum Vaccination					

Campaign Launch 🔺

Starting in July 2005, **training** was implemented, specially adapted to the national, departmental, and local levels. The objectives of the training workshops were to form the vaccination teams, develop specific work schedules, and develop microplans in all the country's 162 municipalities. This training was an opportunity to improve staff performance and strengthen the Expanded Program on Immunization as a whole.

Since close to 70% of the country's total population was vaccinated during this campaign, **monitoring vaccination safety** was an essential component. Forming crisis-response teams, funding the purchase of supplies for storing and administering vaccines, as well as appropriate waste disposal, were also important activities. Joint collaboration between the National Committee for Immunization Practices, the medical and scientific societies, and the media served to better inform the population regarding vaccine safety.

The Ministry of Health (MINSA) launched a strong **communication strategy** to raise awareness among a multitude of social actors and involve them in the campaign. The strategy also served to mobilize resources and establish agreements and commitments with the media, scientific societies, community movements, non-governmental organizations, international cooperation entities, the Ministries of Education, Culture and Sports, and Nicaragua's Institute of Social Security. A ministerial resolution declared the campaign a public health priority, which strengthened political participation at the highest level.

Social mobilization efforts were extraordinary. The Government of Japan donated the vaccines and strengthened the national cold chain; the Centers for Disease Control and Prevention of the United States, the Sabin Vaccine Institute, the Canadian International Development Agency, the Pan American Health Organization (PAHO), and the United Nations Children's Fund (UNICEF) provided technical and financial support throughout the campaign, as did other technical and financial cooperation agencies, such as the Inter-american Development Bank and the Governments of Scandinavian countries. At local and departmental levels, many public and private organizations became new allies for the promotion of the rubella elimination strategy.

Supervision was implemented at all levels (national, departmental, and local). This process focused on strategies targeting three separate key stages of the campaign: (1) before it began, to jointly revise the microplans; (2) after vaccinating in areas where the population congregates (work places, schools, markets, etc.), to evaluate the results obtained in relation to the plan; and (3) after completing the door-to-door vaccination, to perform rapid coverage monitoring (RCM).

Campaign Implementation

The campaign was launched, showcasing the involvement of Nicaragua's society and the commitment of the media (*"Hablatón Nacional por la Salud"*). For this event, radio and televi-

sion broadcasters signed a collaboration agreement with the Ministry of Health. On Saturday, 1 November 2005, those media simultaneously broadcasted for three hours to all the local health care systems of the country with a single slogan: "A united community for a healthy Nicaraqua".

Implementing the national strategy required the use of different tactics to



The information system and the work of the "operation centers" were instrumental in the implementation stage of the campaign. Teams at the centers analyzed the coverage on a daily basis, identified the areas that were falling behind, monitored the implementation of safe vaccination practices, and assessed the need to strengthen information messages, modify tactics and adapt priorities for action. The teams reported advances daily to all stakeholders.

After the first month of the campaign, 80% of the target population had been vaccinated. Final mop-up activities brought the coverage rate up to 105% (Figure 2); 101% in men and 109% in women. Figures >100% can be explained by the lack of accurate population denominators, and by the vaccination of individuals outside the target population. In all age and gender groups, coverage rates were >95%. RCM results revealed that local coverage was >98%. Furthermore, the "non-vaccinated" people identified during the RCM were then vaccinated.

During campaign implementation, Nicaragua encountered several complications. These included a dengue outbreak, communities stranded due to heavy rains and flooding, strikes among medical staff, and the effects from



Figure 2. Measles-Rubella Vaccination Campaign in Men and Women Aged 6-39 Years: Cumulative Coverage, Nicaragua, 2005

Source: Operations Center, Rubella Campaign, Ministry of Health, Nicaragua.

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Hurricane Beta, which battered the Caribbean coast at the end of October. Health authorities and personnel kept moving ahead in spite of these critical situations. Where problems existed opportunities were sought. Vaccination took place in the camps where people took refuge from the hurricane. In addition to vaccinating against rubella, educational messages for the prevention of dengue and respiratory infections were dispersed. The campaign was seen as an opportunity to raise the coverage rate of primary health care services throughout the country's most remote areas. Since the combined measles-rubella (MR) vaccine was administered, the intervention also helped with strengthening measles elimination.

Final Evaluation and Coverage Certification

To verify that all of the population (males and females aged 6-39 years) was vaccinated, municipalities not only conducted door-todoor RCM, but also checked vaccination cards in coordination with businesses, schools, and universities and reviewed campaign results to ensure completion with microplanning objectives. This process allowed for the identification and vaccination of the "non-vaccinated" and the completion of official campaign coverage registries. A team of external evaluators was formed to support local efforts and certify campaign coverage at national and local levels. Data collected by each municipality was analyzed, including reviewing the completion of microplans and production goals, municipal coverage data by age and gender, RCM results, and decisions taken based on the findings. On the basis of this analysis and joint discussions with local teams, the external evaluators conducted additional RCM in selected communities, as a prior step to final certification.

Lessons Learned

The rubella vaccination campaign in Nicaragua generated many lessons, most importantly the systematic monitoring of the campaign's progress, starting at the planning stage. Other key lessons are described in the box at right.

Nicaragua has demonstrated that, even when facing difficult socio-economic and epidemiological circumstances, it is possible to identify opportunities and reach the disease elimination goals while impacting other health crisis. The motivation, positive attitude, and commitment characterizing the staff from the Ministry of Health; the active participation of a network of volunteers and brigade members; and the enthusiastic response of the population were the cornerstones of the campaign's success

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from page 1

are also critical. President Duarte added that health workers had written a new chapter in Paraguay's history and helped with improving the life of its people.

Delegations from Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela participated in the meeting. Paraguay also invited health workers from all levels of its health care system. Representatives of the Ministry of Education, the Social Security scheme, UNICEF, the Center for Population Studies, the Inter-American Development Bank, *Plan internacional*, and the Paraguayan Red Cross also attended the meeting.

Dr. Carmen Serrano, PAHO Representative in Paraguay, welcomed the participants. Dr. Andrus, highlighted the information guiding countries in their efforts to prioritize the unfinished agenda in immunization. Dr. Roberto Dullack, Vice-Minister of Public Health and Social Welfare of Paraguay, inaugurated the meeting and emphasized the Pan Americanism of the Immunization Program. Dr. Maria Teresa León Mendaro, Minister of Health of Paraguay, presented the results and lessons learned from the vaccination campaign for the elimination of rubella and congenital rubella syndrome (CRS) conducted in Paraguay in 2005.

Meeting Objectives

- Discuss what countries are doing to achieve uniform coverage and timely detect the reintroduction of wild measles virus, and how they plan to prevent indigenous circulation.
- Review the countries' current situation and progress towards the elimination of measles, rubella, and CRS.
- Review the current mumps situation.
- Review the results of the 2005 Vaccination Week in the Americas (VWA) and plan for the 2006 VWA.¹

¹ See Immunization Newsletter, Vol.XXVII, Number 5, October 2005.

Key Components for Success

- Political commitment and effective advocacy;
- Extensive communication and social participation;
- Thorough organization, training, and planning;
- Adequate use of information for decisionmaking;
- Partnerships at all levels with multiple social actors;
- Effective and adequate monitoring of vaccination safety;
- Identifying vaccination opportunities;
- Implementing integrated health activities; and
- Seeking opportunities when faced with difficult situations.

References:

- Ministry of Health, Nicaragua. Manual de lineamientos técnicos operativos de la campaña de vacunación para la eliminación de la rubéola. Managua, Nicaragua: Ministerio de Salud, 2005.
- Ministry of Health, Nicaragua. Campaña Nacional de Vacunación contra la rubéola [Web Site]. Available at http://www.minsa.gob.ni/rubeola/index.htm
- Pan American Health Organization. Elimination of Rubella and Congenital Rubella Syndrome: Field Guide. Washington, D.C. 2005. Scientific and Technical Publication N° 606.
- Analyze the current status of vaccination against seasonal influenza and review some strategies for vaccination in a pandemic.
- Analyze the current status and future perspectives regarding new vaccine introduction.
- Review aspects of the immunization program management such as sustainability, evaluation of the PAHO Revolving Fund, and syringe quality control.

Measles

In South America, three cases of measles were reported in 2003 (two in Brazil, one in Chile), none in 2004, and six in 2005 (all part of one outbreak in Brazil). All these cases were imported or related to importation; the majority of the patients had not been vaccinated against measles.

Experience indicates that, when a high and uniform coverage is achieved with measles vaccine, the reliable detection and aggressive monitoring of suspect cases will limit the impact of measles virus importations. All countries of the sub-region but one have reported measles coverage >90% in 2003 and 2004. Venezuela reported coverage of 82% in 2003 and 80% in 2004. Furthermore, six countries-Argentina, Brazil, Chile, Colombia, Paraguay, and Uruguayrecommend a second dose of measles vaccine in their national schedule. Paraguay and Uruguay (2003), Brazil (2004), and Argentina (2005) have conducted follow-up campaigns in order to limit the accumulation of susceptibles. Chile will conduct a follow-up campaign starting in November 2005. The greater accumulation of measles susceptibles occurs in Venezuela, where the last follow-up campaign took place in 2001. A campaign planned by 2005 has been postponed to 2006. In spite of high overall measles coverage levels, significant pockets of susceptibles exist in South America. According to 2004 data (or 2003 data if 2004 data are not available), measles coverage in 48% of municipalities was <95%. The proportion of municipalities with coverage <80% is particularly significant in Colombia (57%), Venezuela (55%), and Bolivia (53%), although it is possible that some of these results reflect denominator problems.

All the countries have achieved a good integration of measles and rubella surveillance. However, challenges remain regarding reaching some surveillance indicators, and solutions need to be tailored to the situation of each country. A high level of inter-country coordination is critical for the success of integrated surveillance in border areas.

Recommendations:²

- Countries should continue monitoring the accumulation of measles susceptibles. Countries that recommend a second dose of measles vaccine in the routine vaccination schedule should systematically collect coverage data. A follow-up campaign continues to be necessary each time evidence exists of an accumulation of susceptibles.
- Countries should strengthen their efforts to reach measles vaccine coverage >95% in all municipalities. Municipalities at risk should be identified and plans of action developed and implemented to improve coverage.
- Remote or marginalized population groups in need of supplementary immunization activities, for example in the context of the VWA, need to be identified.
- Active epidemiological surveillance of measles/rubella should take place in all

municipalities, including active case-finding in high-risk municipalities and in silent areas. Furthermore, rapid epidemiological investigation (before the availability of serology results), including obtaining representative samples for viral detection, should be ensured.

- Countries should reevaluate the fulfillment of the measles/rubella integrated surveillance indicators. They should take measures to guarantee adequate surveillance, such as implementation of new means of collection of blood samples (filter paper) and use of buccal swabs, and consider new solutions.
- Plans to respond to importations should be in place, ensuring that a responsible team and available funds can be liberated rapidly.

Rubella and CRS

Following the resolution to eliminate rubella and CRS by the year 2010, adopted by PAHO's 44th Directing Council in 2003, the countries of the Andean Region and Southern Cone have shown notable advances in the implementation of strategies for effective interruption of endemic rubella transmission. Chile (1999) and Brazil (2001-2002) have conducted vaccination campaigns targeting only women. Ecuador (2004) and Paraguay (2005) have conducted mass vaccination campaigns targeting adolescents and adults (men and women), reaching coverage levels over 95%. Venezuela conducted the first phase of its campaign, vaccinating children aged under 16 years, in June 2005. At the time of the meeting, Colombia was in the midst of a campaign targeting men and women aged 14-39 years. All ten countries are reporting rubella cases to PAHO weekly. Seven of them also report CRS weekly; however, CRS surveillance is still incomplete.

Recommendations:²

- The complexity of adult vaccination and the lessons learned from the campaigns recently conducted in the Region have shown that very good planning, particularly microprogramming with community participation for the search for resources, is required. Also, the surveillance data presented showed the need to include men in the vaccination campaigns.
- Countries should continue their efforts to mobilize and allocate sufficient resources, through interagency, intersectoral, and inter-institutional coordination, needed to guarantee all the aspects of the rubella elimination plan, particularly to implement vaccination campaigns in the remaining countries.

- Countries that have conducted mass vaccination campaigns in women only need to determine the degree of rubella virus transmission and susceptibility among males. This will allow finding the most appropriate strategy to reduce the number of susceptible men.
- At this stage of elimination, the total integration of measles and rubella active surveillance, adequate epidemiological investigation, and monitoring of contacts are required. Reaching and maintaining surveillance indicators >80%, and of at least 95% for cases discarded by laboratory, is recommended. Countries should strive to identify the source of infection of confirmed cases and classify them as imported, importrelated, or indigenous.
- Health workers should collect samples for viral detection and isolation at the first contact with the patient (0-5 days). Throat swabs are the first choice for viral isolation. In extensive chains of transmission, such as in outbreaks, samples of 5-10 cases collected at the beginning of the outbreak, followed by subsequent samples collected at periodic intervals every 2 to 3 months, and towards the end of the outbreak, will be required.
- For special situations, such as pregnant women, cases thought to be vaccine-related, and "false positives" or "cross-reactions", a detailed epidemiological analysis should be done on a case-by-case basis. Complementary methods of laboratory confirmation, such as viral detection and isolation should always be considered. Special cases should be classified by a national panel of experts who are part of the National Committee of Immunization Practices.
- CRS surveillance activities should be strengthened by: a) improving the monitoring of pregnant women exposed to or suffering from rubella during pregnancy; b) identifying the signs that should trigger an alert for CRS suspicion at the first level of care (periodic checkup of healthy children); c) using the computerized CRS surveillance system for weekly report; and d) collecting samples for IgM testing and viral detection from all CRS suspect cases.

Mumps

In 2005, Uruguay experienced an extensive mumps outbreak with 1,171 reported cases until epidemiological week 40. This outbreak affected mainly young people of high socioeconomic level in the age group 17-26 years, most of whom had received a single dose of measles-

² For complete recommendations please contact the Immunization Unit at fch-im@paho org.

mumps-rubella (MMR). As of 2005, all the countries of the Americas, with the exception of Haiti, include one or two doses of MMR vaccine in their schedules.

Recommendations:²

- Countries are urged to make mumps a notifiable disease, or intensify surveillance if it already exists, in order to better understand the behavior of this disease in the Region.
- Mumps data should be presented during the next meeting of the Technical Advisory Group (TAG) on vaccine-preventable diseases to evaluate its importance in the context of measles and rubella elimination plans.

Influenza

Currently, the world is in phase 3 of the six WHO phases of pandemic alert due to the increased activity of the highly pathogenic bird flu A (H5N1), causing some cases in humans but with no significant human-to-human transmission. WHO and PAHO have urged countries to elaborate influenza pandemic preparedness plan. To date, Argentina, Brazil, and Chile have completed such plans.

Routine vaccination against seasonal influenza targeting groups at high risk of complications contributes to the reduction of the influenza burden. Furthermore, the systematic annual use of the vaccine helps increase the global production capacity, important for manufacturing pandemic vaccine.

In an effort to expand equity and access to influenza vaccination in the Region, the PAHO Revolving Fund (FR) began to offer seasonal influenza vaccine in 2003. At present, 12 countries are purchasing the vaccine through the FR, and for 2006 19 countries of the Region have requested the vaccine.

PAHO supports countries in Latin America, especially Mexico and Brazil, to increase their productive capacity of influenza vaccines. To that end, alliances with vaccine-producing laboratories are being forged to support technology transfer to countries in the Region.

Recommendations:

- Countries should prioritize the development of influenza pandemic preparedness plans. Given that the availability of a pandemic vaccine will be limited, different scenarios must be considered to define which high risk groups should be vaccinated during a pandemic.
- Immunization managers are urged to actively participate in the National Pandemic Preparedness Committees and in the development and implementation of pandemic preparedness plans.
- In response to avian influenza outbreaks in the Region, agricultural workers exposed to birds infected by the avian virus should be vaccinated against seasonal influenza in order to minimize the risk of coinfection with avian and human viruses.

- Countries should conduct studies on the burden of disease and economic impact of the annual influenza epidemics to serve as a basis to formulate and implement vaccination policies in the context of other national health priorities.
- Groups at risk such as older people, patients with chronic illnesses, immunodeficient populations, health professionals, pregnant women, and children aged 6-23 months should be vaccinated against seasonal influenza as recommended by WHO and the TAG in 2004.
 If limited resources exist, priority should be given to older people.

Program management

Countries were requested to address the unfinished agenda of improving immunization coverage in low performing districts, while introducing underutilized vaccines, including seasonal influenza and yellow fever, and new vaccines (where epidemiologically indicated) into routine schedules.

The increasing cost of the basic bundle of vaccines was highlighted. New approaches to sustainable financing, focusing on the creation of fiscal space and the critical role of effective national immunization legislation, were presented. Also discussed were current PAHO initiatives to improve the efficiency of the RF and the Regional plan for quality control and safety of syringes.

Recommendations Regarding New Vaccines

General Recommendations

- All national immunization programs should request that the National Committees on Immunization Practices evaluate the risks and benefits of new vaccines and prioritize the issues related to vaccine introduction.
- The National Committees on Immunization Practices should fully participate in the evaluation process of new vaccine. Special attention should be paid to financial sustainability; legislation can be a tool to ensure vaccine procurement.
- The commitment to maintaining a permanent vaccine supply should be established. Surveillance should be in place to monitor the impact of the intervention.

Rotavirus

With the present possibility of rotavirus vaccine introduction, it is imperative that countries im-

plement a surveillance system for rotavirus diarrhea. PAHO is supporting countries in establishing hospital-based sentinel surveillance systems for rotavirus diarrhea in children aged <5 years.

Recommendations:²

- Countries that have implemented the sentinel rotavirus surveillance systems should strengthen them. Those countries that have not begun are urged to prepare their study protocols and implement surveillance promptly.
- To allow data comparisons across countries, the use of standard case definitions, exclusion criteria, laboratory techniques, and data collection, following the WHO generic protocol and PAHO guidelines, is recommended.
- The methodology for economic studies, such as cost-benefit and cost-effectiveness, should be standardized in order to facilitate comparison across countries.
- · Countries should strengthen their systems

to monitor adverse events following vaccination, in coordination with National Regulatory Authorities.

Human Papilloma Virus

In Latin America and the Caribbean, the annual number of new cases of invasive cervical cancer is 77,291; with 30,570 of them resulting in death. Vaccines against the human papilloma virus (HPV), a major cause of cervical cancer, are likely to become available in 2006.

Recommendations:

- Countries should collect relevant data on cervical cancer, particularly burden of disease and its costs.
- Cost-effectiveness studies and studies on the acceptability of an HPV vaccine in our countries should be conducted.
- Advocate the prevention of cervical cancer using HPV vaccinates.

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Recommendations:

 Countries should use immunization legislation to ensure a budget line for vaccines and supplies, thereby opening fiscal space for immunization programs. Countries that do not have such legislation in place are encouraged to work with their ministries of finances and congress to create a budget line for immunization.

 The RF evaluation should be completed in order to expand its role as in-bulk purchaser, improve its efficiency, and position it for the future in the context of new vaccine introduction. Additionally, the RF can have an PAN AMERICAN HEALTH ORGANIZATION

influence on the creation of fiscal space for vaccines at national level.

 The Regional quality control plan for syringes purchased through the RF, from their procurement to their final disposition, should be completed

Partnering for HPV Vaccine Introduction

On 5 October 2005, the Pan American Health Organization (PAHO) conducted a meeting in Washington, D.C. on Partnering for Human Papilloma Virus (HPV) Vaccine Introduction. The specific purpose of this meeting was to accelerate and strengthen the dialogue between invited partner agencies¹ regarding their interests and plans related to the introduction of HPV vaccines. Nine partner agencies and two vaccine suppliers² participated in this meeting.

Some major challenges associated with the introduction and sustainability of new vaccines were identified as costs; national budgets and public health priorities; inequities between developed and developing countries regarding the pace of new vaccine adoption; and insufficient vaccine supplies for satisfying the global demand. Important requisites for minimizing these challenges included:

- The need to create effective global partnerships not only in support of vaccine research and development but to specifically enhance the likelihood that new vaccines would become available at affordable prices;
- The need for Governments to create fiscal space in their national budgets in order to address sustainability issues; and
- The continued need to promote the development of the PAHO Revolving Fund as a regional vaccine procurement mechanism.

One of the recurrent themes emerging from this meeting was that the introduction of HPV vaccination must be viewed as complementary to cervical cancer screening in a post-HPV vaccine era. A number of areas for joint and

² GlaxoSmithKline Biologicals and Merck & Company, Inc.

complementary work and research were identified among the participants. Expressions of interest and willingness of partners to work with PAHO were mainly focused on the following areas:

- The conceptual and technical design and development of HPV surveillance systems and tools;
- The development of other systems for monitoring HPV vaccine impact;
- Cervical screening in a post-HPV vaccine era so as to enhance the possibility for comprehensive cancer control;
- The exploration of different strategies to reach underserved populations and reduce cancer burden disparities;
- The application of the lessons learned in relation of the operations of the PAHO Revolving Fund; and
- Data sharing from clinical studies and mathematical modeling exercises in order to

contribute evidence for advocacy and public health decision-making.

Some of the recommendations emerging from this meeting were as follows:

- A follow-up technical workshop of a broader group of partners and researchers will be convened with members of the Technical Advisory Group (TAG) on Vaccine-preventable Diseases in May 2006.
- This partnership will review WHO's Technical Position Paper on HPV vaccines, when the latter becomes available during the first quarter of 2006.
- The report of this meeting should be shared with all PAHO Member States.
- The opportunity is taken to promote the recommendations emerging from this meeting at the UICC-sponsored World Cancer Congress, which is scheduled to take place in July 2006, in Washington, D.C.

In addition to furthering the work already initiated, PAHO will, in the coming months, invite country participation and proceed to consolidate and formalize this partnership



Participants to the meeting on Partnering for Human Papilloma Virus Vaccine Introduction during a break.

PAHO, the World Health Organization (WHO), the International Union Against Cancer (UICC), the American Cancer Society (ACS), the United States Agency for International Development (USAID), the United States National Cancer Institute (NCI), the United States Centers for Disease Control and Prevention (CDC), Program for Appropriate Technology in Health (PATH), and the Bill and Melinda Gates Foundation.

7

Reported Cases of Selected Diseases 2003-2004

Number of reported cases of measles, rubella, congenital rubella syndrome (CRS), poliomyelitis, tetanus , diphtheria, and whooping cough

	Measles		Rubella				Tetanus			Dinktharia		Wheening Couch			
Country	Confirmed		Confirmed		CKS	PUIIU		Non Neonatal Neonat			natal	Ital			
A.,	2004*	2003*	2004*	2003*	2004	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003
Anguilla	-	-	-	-	-	-	-		-	-	-	-	-		-
Antigua & Barbuda	-	-	-	-	-	-	-	-					-		
Argentina	-	-	6	8	-	-	-	25	25	-	-	-	1	976	643
Bahamas	-	-	-	-	-	-	-	-		-		-	-	-	
Barbados	-	-	-	-		-	-	-		-			-		-
Belize	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bermuda	-	-	-	-		-	-	-		-		-	-	-	-
Bolivia	-	-	12	41	-	-	-	29	16	4	3	2	3	6	46
Brazil	-	2**	319	563	16	-	-	463	513	14	15	15	49	1,146	1,110
British Virgin Islands	-	-	-	-		-	-	-			-	-	-		-
Canada	7**	15**			1	-	-	2	-	-	-	1	2	2,697	1,863
Cayman Islands	-	-	-	-		-	-	-	-	-	-				-
Chile	-	1**	3	2	-	-	-	10	10	-	-	-	-	1,059	1,106
Colombia	-	-	45	47	-	-	-		-	8	7	-	1	25	140
Costa Rica	-	1**	-	-	-	-	-	-	-	-	1	-	-	13	27
Cuba	-	-	18	-	-	-	-	-	3	-	-	-	-	-	-
Dominica	-	-	-	-		-	-	-		-			-		_
Dominican Republic	-	-	7	4	-	-	-	49	53	5	4	122	38	53	23
Fcuador	-	-	79	94		_	-	4		12	7	-	-	-	127
El Salvador	-	-	1	3	-	-	-	7	6	1	-	-	-	1	8
French Guiana	_	_	•	-				,	Ŭ	•					Ū
Cronada															
Cuadeloune	-	-	-	-		-	-	-	-	-	-	-	-		-
Customala				 E					 E					701	750
Gualemala	-	-	30	5	2	-	-	5	5	1	1	-	-	591	550
Guyalla	-	-		-	-	-	-	-	-	-	-	-	-		-
Haiti	-	-	3	2		-	-	-	-	33	4	37	2	44	5
Honduras	-	-	1	1	-	-	-	13	23	1	4	-	-	104	93
Jamaica	-	-	-	-	-	-	-	11	2	-	-	-	-	5	5
Martinique															
Mexico	64	44**	699	35	5	-	-	68	82	4	4	-	-	137	72
Montserrat	-	-	-	-		-	-		-		-		-		-
Netherlands Antilles															
Nicaragua	-	-	6	5	-	-	-	5	5	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	2	1	1	-	-	-	12	11
Paraguay	-	-	1	11	1	-	-	12	22	5	4	4	2	40	48
Peru	-	-	1,759	328	1	-	-	52	58	4	11	-	-	201	68
Puerto Rico	-	-	-	-		-	-								
St Vincent/Grenadines	-	-	-	-	-	-	-	-		-		-		-	
St. Kitts/Nevis	-	-	-	-	-	-	-		-	-	-	-	-	-	-
St. Lucia	-	-	-	-	-	-	-	-	1	-	-		-		-
Suriname	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Trinidad & Tobago	-	-	-	-		-	-	-		-		-		-	
Turks & Caicos	-	-	-	-	-	-	-	-	-	-	-		-		-
United States	37§	56t	10	7	1	-	-	34	20			-	1	25,827	10,098
Uruguav	-	-	-	-	-	-	-	1	1	-		-	-	-	1
Venezuela	-	-	96	36		-	-	35	34	-	-	-	-	715	408
TOTAL	108	119	3,101	1,192	27	-	-	825	881	93	65	181	99	32,452	16,252

Data not availableMagnitude zero

** Due to importation

* Laboratory and clinically confirmed cases

§ Of which 23 cases were imported

† Of which 24 cases were imported

Source: Country Reports to Immunization Unit, PAHO

Updated 21 December 2005

New Publications from the Immunization Unit: A Series of Six Immunization Field Guides

In an effort to promote technical excellence, the Pan American Health Organization is issuing six practical field guides prepared by the Immunization Unit (Family and Community Health Area). The poliomyelitis, measles, and neonatal tetanus field guides are second editions of previous publications. The rubella, the yellow fever, and the diphtheria, pertussis, tetanus, *Haemophilus influenzae* type b infections, and hepatitis B field guides are three new publications. State-of-the-art strategies for disease elimination and enhancing and accelerating the control of vaccine-preventable diseases are presented in the field guides. The field guides also include standardized methods and procedures for conducting epidemiological surveillance and maintaining an up-to-date information system that makes it possible to take timely and effective decisions.

These field guides are based on the latest scientific information and they bring together the experience of prominent health professionals in the field. As a result, they are particularly suitable for promoting strategies that have already proven to be effective. The strengthening of prevention activities, the reduction of health inequities, and the promotion of technical expertise in vaccination services were the principles that guided the preparation of the guides.

Additional information on how to obtain the field guides can be found at: http://www.paho.org/english/ad/fch/im/FieldGuide_Index.htm

Erratum: 2005 Immunization Schedules

Following the publication in our April issue (Vol. XVII, Number 2) of Immunization Schedules for Latin America, changes for Chile, Colombia, and Costa Rica were brought to our attention. See http://www.paho.org/English/AD/FCH/IM/

sne2702.pdf for updated schedule.

Following the publication in our August issue (Vol.XVII, Number 4) of Immunization Schedules for the Caribbean, Canada, and USA, changes for Anguilla, Aruba, British Virgin Islands, the Netherland Antilles (Bonaire, Curaçao, Saba, St. Eustatius, St. Maartens), and St. Vincent and the Grenadines were brought to our attention. See http://www.paho.org/English/AD/FCH/IM/ sne2704.pdf for updated schedule.

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.

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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Immunization Unit

525 Twenty-third Street, N.W. Washington, D.C. 20037 U.S.A. http://www.paho.org (Search: Immunization Newsletter)

