

Immunization Newsletter

Pan American Health Organization

VOLUME XXVIII, NUMBER 2 ► APRIL 2006

- 1 Measles Outbreak in Venezuela
- 1 Influenza Control in El Salvador
- 5 Creating Fiscal Space to Strengthen Immunization Programs
- 5 Analysis of Vaccination-related Legislation
- 6 The PAHO-GAVI Partnership
- 7 AFP and Measles/Rubella Indicators, 2005
- 8 International Spread of Wild Poliovirus

Measles Outbreak Reported in Venezuela

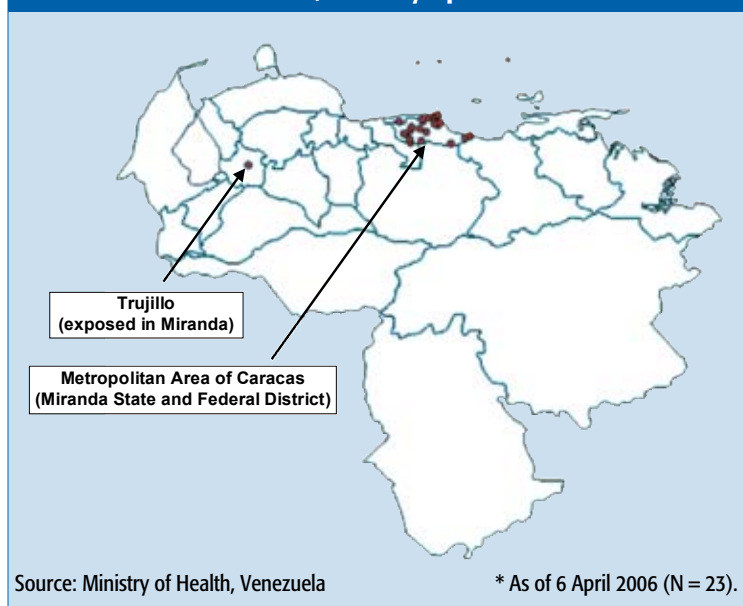
The outbreak of >2,500 confirmed measles cases that occurred between September 2001 and November 2002 in Venezuela was the last occurrence of widespread measles circulation in the Americas. In early March 2006, the Venezuelan Ministry of Health detected a measles importation that as of 6 April has resulted in the confirmation of 23 cases. All cases but one were residents of the State of Miranda (n=20) and the Federal District (n=2), specifically of the metropolitan area of Caracas (Figure 1). The remaining case occurred in the State of Trujillo, but had been exposed in the State of Miranda.

The index and primary case of this outbreak was a Venezuelan man, aged 33 years and unvaccinated, who traveled for leisure to Madrid, Spain, and Paris, France, on 1-13 February 2006. On 17 February, he developed a febrile illness, which was first self-medicated and two days later diagnosed as bronchitis at a first hospital (Hospital A). Seeing no improvements, the patient attended a second hospital (Hospital B) the evening of 22 February. He was in the emergency room of this hospital for over 12 hours before a rash developed on 23 February, when measles was suspected and the patient put on respiratory isolation. Measles was confirmed by serology (IgM EIA); virus isolation was successful and sequencing is pending as of April.

Investigation detected nine cases of first generation of transmission and 13 of second generation. All cases of first generation were likely exposed in Hospital B on 22-23 February, eight of nine in the emergency room. Eight of 13 cases of second generation were likely exposed in the emergency room of Hospital B on 6-7 March to a case of first generation returning for care to this hospital; one case was likely exposed at Hospital B on 7-9 March but not in the emergency room; three cases are family members of a first generation case; epidemiological link of one case is unknown. Figure 2 shows the age distribution of all confirmed cases. No case had a documented history of measles vaccination.

The Venezuelan Ministry of Health responded with a comprehensive plan to control this outbreak. Measles surveillance was enhanced country-wide, and active case-searches were initiated in private health facilities

Figure 1. Geographical Distribution of Confirmed Measles Cases Venezuela, February-April 2006*



of the metropolitan area of Caracas. In the emergency room of Hospital B and other health facilities considered at risk of receiving measles cases in their prodromal stages, measures were implemented to limit access to patients, to vaccinate anybody entering the facility (including any patient without contraindications to vaccination), to separate the flow of patients with fever and to triage them based on risk factors (visit to emergency room or contact with person with rash in previous 4 weeks), and to take respiratory precautions for all suspect patients. Case investigation included ring vaccination targeting people aged 6 months to 39 years

Influenza Control in El Salvador

Influenza is an acute respiratory infection caused by influenza virus type A and B. Its incubation period ranges between one and four days. Among the frequent complications from influenza infection are secondary bacterial pneumonia, exacerbation of underlying chronic diseases, and otitis media in children.

The seasonal pattern of influenza and the vaccination impact have been widely studied in temperate countries of the Northern and Southern Hemispheres. In contrast, there have been few studies on influenza seasonality in tropical regions. Specific data from Central America are lacking. It still is unclear how influenza seasonality varies with latitude. Its relation to climatic conditions has not been demonstrated convincingly, although the rainy season apparently plays an important role in tropical countries. Such is the case for El Salvador, a Central American country located at 13.5° latitude N. According to the Köppen Climate Classification System, the country has a Tropical Moist to Wet-Dry Tropical Climate in most of its territory. Some northern regions of the country have a Highland Climate.

Influenza Surveillance in El Salvador

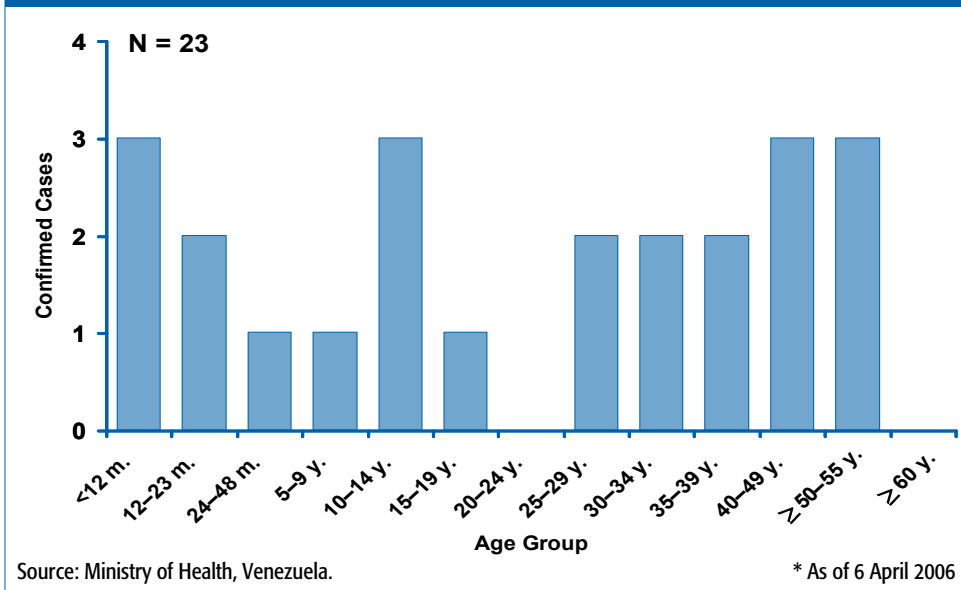
When cases of influenza occur, the majority of infected people do not seek medical care and, as a result,

See **INFLUENZA CONTROL IN EL SALVADOR** page 2

and active case-searches. Finally, Vaccination Week in the Americas took place earlier than anticipated on 9 April, with the target to vaccinate all children aged 6 months to 4 years and any susceptible child or adolescent aged 5–17 years. In the State of Miranda and the Federal District, 1.8 million people were vaccinated by 10 April. A nation-wide campaign to vaccinate all adults aged 18–39 years is being prepared for September 2006.

The origin of this outbreak is most likely a measles outbreak in Madrid, Spain, that has resulted in 59 cases reported between mid-January and mid-March. The Venezuelan situation clearly illustrates the constant risk of measles importations to which any country in the Americas is exposed. Besides maintaining high and homogeneous vaccine coverage, surveillance is critical for the early detection and control of importations. Private health hospitals and practices must be included in this surveillance system. ■

Figure 2. Age Distribution of Confirmed Measles Cases—Venezuela, February–April 2006*



Rubella Watch: A Special News Supplement to the PAHO Immunization Newsletter

Since the PAHO Directing Council adopted the initiative to eliminate rubella and congenital rubella syndrome in the Americas by the year 2010, much progress has been achieved. In fact, given the accumulating national experiences, it is believed that the target will be reached well in advance of 2010. As a special supplement to the *Immunization Newsletter*, *Rubella Watch* should be a useful tool to share more of the success stories that countries are achieving. *Rubella Watch* is an electronic newsletter distributed every other month (during the months the *Immunization Newsletter* is not published). *Rubella Watch* will provide updates on rubella activities in the countries of the Americas. If you would like to receive *Rubella Watch*, please send a request to fch-im@paho.org, providing your name and e-mail address.

INFLUENZA CONTROL IN EL SALVADOR from page 1

these cases are not registered. Moreover, influenza cases are not laboratory confirmed. The country monitors influenza indirectly through acute respiratory infections (ARIs)/pneumonia surveillance.

In El Salvador, ARIs are reported systematically through the National Epidemiological Surveillance System of the Ministry of Public Health and Social Welfare (MOH). In 1990, pneumonia reporting was added to the Weekly Epidemiological Report, and in 2000 influenza was included.

In El Salvador, pneumonia incidence peaks at the beginning of the rainy season, with an increase in the demand for health care, hospitalizations, and deaths between May and July (Figure 1).

In 2003, a pneumonia outbreak occurred in El Salvador. Incidence rates reached 136 per 10,000 population, representing over 50% increase in cases compared with the number of cases registered in previous years. Seventy-three

percent of the consultations occurred in children aged <5 years. This age group had the highest incidence rate (827 per 10,000 population), followed by the population aged ≥60 years (103 per 10,000 population).

Pneumonia-associated mortality ranked third among causes of death in 2003. The mortality rate was 6 per 100,000 population and the case-fatality rate was 0.5%. The highest mortality rate occurred in children aged <1 year (50 per 100,000 population), followed by persons ≥60 years of age (46 per 100,000 population, case-fatality rate of 4.7%). More than half the pneumonia deaths reported in 2003 came from these two population groups. The highest disease rates occurred among children aged <5 years and adults aged ≥60 years; however, the highest rate of hospitalizations for pneumonia-related causes occurred in children aged <2 years. The increase in hospitalizations overwhelmed the hospital network of the country. In 2004, the incidence of pneumonia-associated medical consultations,

hospital discharges, and deaths decreased.

Laboratory Surveillance

In July 2001, as a result of a respiratory infection and pneumonia outbreak that affected the school-aged population, the Central Laboratory, with support from the Centers for Disease Control and Prevention (CDC) conducted a study to identify the etiologic agent. This analysis detected the circulation of influenza type A. Investigation of the 2003 epidemic determined that both syncytial respiratory virus (SRV) and influenza type A were circulating. The majority of the isolates were from samples of persons aged <5 and >65 years.

In 2004, sentinel surveillance was implemented during the peaks of ARIs/pneumonia/influenza cases. With support from the Pan American Health Organization (PAHO), the number of sentinel sites was increased in 2005 and systematic sampling throughout the year was implemented.

The objectives of this sentinel surveillance are as follows:

1. To detect the circulation of influenza and other respiratory viruses early;
2. To determine the seasonality of influenza peaks;
3. To communicate the circulation of the respiratory viruses to the medical community; and
4. To participate in the selection of the influenza virus strains included in the vaccine every year as part of the network for global influenza surveillance (FluNet).

Antigenic Characterization

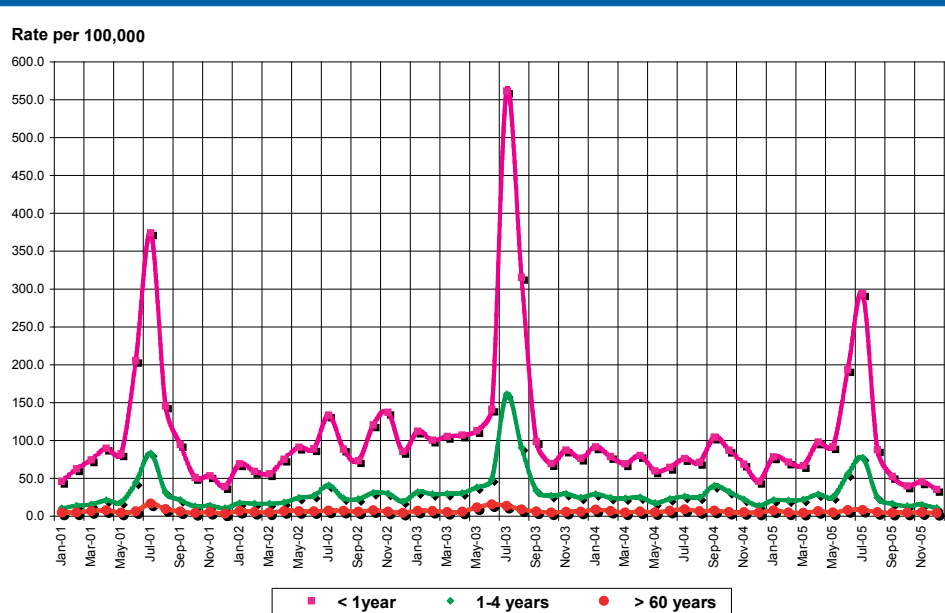
With PAHO's support, the MOH, sent isolates from positive influenza cultures to the CDC for antigenic characterization (Table 1). For the 2003 epidemic, the virus influenza A (H3N2) was isolated and was characterized as A/Korea/770/2002 H3N2. The same strain was isolated and characterized in 2004. The same strain was also reported in several states in the United States (Georgia, Indiana, Michigan, Missouri, Nevada, Texas, Virginia, and Washington) during the years 2003 and 2004. Similar isolation was reported from the Southern Hemisphere (Río Negro Province, Argentina and São Paulo, Brazil) in 2004. In 2005, the influenza strain circulating in El Salvador was identified as (H3N2) A/California/07/2004. The results obtained from laboratory monitoring have served as basis for deciding the vaccine composition to be used in El Salvador.

Seasonal Influenza Vaccine Introduction

The 2003 epidemic convinced the government of El Salvador to introduce seasonal influenza vaccine into the national immunization schedule. The first vaccination campaign against influenza was launched in January 2004 targeting persons aged ≥ 65 years; 96% of the target population was vaccinated. Weekly epidemiological surveillance demonstrated a marked decrease in the reported incidence of pneumonias, to levels even below those previously observed in non-epidemic years (Table 1).

In light of the overwhelming acceptance of the influenza vaccine in the population, evidenced by the high coverage obtained, and the analysis of the age groups at risk for influenza, the MOH decided to expand the target population for this vaccine. In 2005, children aged 6-23 months were included as well as older adults, starting at age 60. The impact observed for 2005 was not

Figure 1. Incidence Rate of Pneumonias in children aged <1 year, children aged 1-4 years, and persons aged ≥ 60 years, El Salvador, 2001-2005



Source: Unidad Nacional de Epidemiología, Ministry of Health and Social Welfare, 2001-2005.

as dramatic as the impact observed the previous year, in spite of the high coverage attained: 99% in the group of older adults, and 70% for the second dose in the children aged 6-23 months.

For its third influenza campaign, the MOH decided to start influenza vaccination in December 2005. Again, high vaccination coverage was reached: 96% in older adults and 77% for the second dose in children aged 6-23 months.¹ Health workers in direct contact with patients were vaccinated in all three campaigns. The Northern Hemisphere vaccine composition was used each year.

Conclusions

The peaks in occurrence of ARI/pneumonias in El Salvador could be associated with the circulation of influenza viruses. These peaks occur almost annually, but the incidence rates and the severity of the disease can vary considerably from year to year, depending on various factors such as the etiologic agents causing respiratory diseases, type and subtype of the circulating influenza strains, and the prevalence of protective antibodies in the population.

In 2003, an important outbreak of respiratory infections related to hospitalizations and deaths in children and adults occurred in El Salvador. This episode generated anxiety in the general public since the etiology was initially unknown and the measures for respiratory infection control seemed ineffective. Ultimately, this

¹ Preliminary data.

outbreak was associated with influenza type A and SRV. As a result of identifying the causative agents, the control measures were redirected to improve treatment. Also, laboratory surveillance was established to characterize the etiologic agents. The decision was made to introduce influenza vaccine in the groups at risk and the first campaign was conducted in January 2004.

Influenza vaccine introduction in El Salvador has generally been favorable, as evidenced by the reduction of pneumonia incidence after the vaccination campaigns, especially in 2004. However, to better understand the impact of this intervention, it is still necessary to:

- a) Investigate more thoroughly seasonal patterns of influenza in the tropics, including the relation and influence of migratory movements;
- b) Maintain laboratory surveillance of respiratory viruses;
- c) Strengthen outpatient surveillance through the establishment of sentinel outpatient sites;
- d) Strengthen hospital-based surveillance to better understand the degree of severity of diseases caused by influenza infection. It is important to isolate virus from hospitalized patients as they may differ from viruses isolated elsewhere;
- e) Strengthen the system to monitor adverse events following vaccination, particularly among children; and
- f) Evaluate the impact of annual influenza campaigns in El Salvador on pneumonia-associated mortality through indirect analysis of

pneumonia deaths, particularly during the rainy season.

Implementing the above-mentioned steps should help determine the optimal time (month) for vaccinating against influenza and the vaccine composition to be used each year. This will require close coordination with PAHO's Revolving Fund for Vaccine Procurement, since the country will not be able to determine the vaccine composition to be used until the middle or the end of the rainy season (August or September). ■

Authors: Dr. Ana Elena Chevez, Humphrey Fellow, Emory University, Dr. Nora Villatoro, National EPI Manager, El Salvador, Patricia Mira, Dr. Max Bloch Laboratory, El Salvador, and Dr. Julio Armero, Ministry of Health, El Salvador.

Acknowledgements: The authors thank the technical and administrative personnel of the Expanded Program on Immunization, and the personnel of the Area of Virology of

Dr. Max Bloch Laboratory, coordinated by Ms. Celina de Lozano.

Selected References

1. Pan American Health Organization. Influenza Vaccination among Risk Groups in Costa Rica: An Evidence-based Decision. *EPI Newsletter*. 2004; 26(3): 2-4. Available at: <http://www.paho.org/english/ad/fch/im/sne2603.pdf>. Last accessed: 24 April 2006.
2. Wong CM, Chan KP, Hedley AJ, Peiris JS. Influenza-associated mortality in Hong Kong. *Clin Infect Dis*. 2004; 39(11):1611-7.
3. Dushoff J, Plotkin JB, Viboud C, Earn DJ, Simonsen L. Mortality due to influenza in the United States—an annualized regression approach using multiple-cause mortality data. *Am J Epidemiol*. 2006;163(2):181-7.
4. Le Riverend E. La prevención de la influenza: recomendaciones para la temporada de 2005–2006. *Rev Panam Salud Pública*. 2005;18(3):210-215. [Article in Spanish] Available at: <http://journal.paho.org/uploads/1137438038.pdf> Last accessed: 24 April 2006.
5. Ministerio de Salud Pública y Asistencia Social de El Salvador. Unidad de Información. *Boletín*

Informativo. 1999-2003. [Document in Spanish]. Available at: http://www.mspas.gob.sv/boletines_estadisticos.asp. Last accessed: 24 April 2006.

6. Pan American Health Organization. Final Report. XVI Meeting of the Technical Advisory Group on Vaccine-Preventable Diseases. Mexico City – 3 - 5 November 2004. Summary of recommendations available at: <http://www.paho.org/english/ad/fch/im/sne2606.pdf>
7. Wong CM, Yang L, Chan KP, Leung GM, Chan KH, Guan Y, Lam TH, Hedley AJ, Peiris JS. Influenza-Associated Hospitalization in a Subtropical City. *PLoS Med*. 2006; 3(4):e121. Available at: <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0030121>. Last accessed: 24 April 2006.
8. Viboud C, Alonso WJ, Simonsen L. Influenza in Tropical Regions. *PLoS Med*. 2006; 3(4):e89. Available at: <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0030089>. Last accessed: 24 April 2006.
9. World Health Organization. *Weekly Epidemiological Record*. 2003; 78 (9): 58-62. Available at: <http://www.who.int/docstore/wer/pdf/2003/wer7809.pdf>. Last accessed: 24 April 2006.

Table 1. Laboratory Surveillance of Respiratory Viruses in El Salvador: Results and Comparison with Circulating Strains in the Southern and Northern Hemispheres, 2003-2005

	Year	2003	2004	2005
E L S A L V A D O R	Total Samples	177	203	516
	Influenza Detected by IF^a	Influenza A: 14 (7.9%)	Influenza A: 11 (5.4%) Influenza B: 2 (0.98%)	Influenza A: 22 (4.3%) Influenza B: 2 (0.4%)
	Other Viruses Detected by IF	SRV ^b : 49 (27.7%) Adenovirus/SRV: 1 (0.56%)	SRV: 3 (1.5%) Adenovirus: 11 (5.4%) Adenovirus/Influenza A: 2 (0.98%)	SRV: 39 (7.6%) Adenovirus: 20 (3.9%) Adenovirus/Influenza A: 1 SRV/Influenza A: 3 SRV/Adenovirus : 3 Parainfluenza I: 6 (1.2%) Parainfluenza II: 2 (0.39%) Parainfluenza III: 6 (1.2%) SRV /Parainfluenza I: 1
	Number of Isolates	Influenza A: 8 SRV: 9	Influenza A: 9	Influenza A: 20 SRV: 1 Adenovirus: 1 Parainfluenza I : 1 Parainfluenza III: 1
	Influenza Strains	A/Korea/770/2002 like (H3N2)	A/Korea/770/2002 like (H3N2)	A/California/07/2004 like (H3N2)

Year	2003	2004	2005
Southern Hemisphere	A/Panama/2007 like (H3N2) A/New Caledonia/20/99 like (H1N1) A/Fujian/411/02 (H3N2) B (not characterized)	A/Korea/770/02 like (H3N2) A/Fujian/411/02 like (H3N2) B/Sichuan/379/99 like B/Hong Kong/330/01like	A/California/07/2004 like (H3N2) B/Shanghai/361/2002 like

Year	2002-2003	2003-2004	2004-2005	2005-2006
Northern Hemisphere	A/New Caledonia/20/99 like (H1N1) A/Panama/2007/99 (H3N2) B/Victoria like B/Yamagata like	A/New Caledonia/20/99 like (H1N1) A/Panama/2007/99 (H3N2) A/Fujian/411/02 like (H3N2) B/Victoria/2/87 like B/Yamagata/16/88 like	A/New Caledonia/20/99 like (H1N1) A/Wyoming/3/2003 A/California/7/2004 B/Victoria/2/87 like B/Yamagata/16/88 like	A/New Caledonia/20/99 like (H1N1) A/California/7/2004 like (H3N2) A/Wisconsin/67/2005 like (H3N2) B/Shanghai/361/2002 like B/Yamagata like

^aIF: Immunofluorescence ^bSRV: Syncytial Respiratory Virus

Source: Dr. Max Bloch Laboratory, Ministry of Public Health and Social Welfare, El Salvador

Creating Fiscal Space to Strengthen and Expand National Immunization Programs in Latin America and the Caribbean

Immunization is one of the most cost-effective interventions available in public health and is a key tool for the promotion of socioeconomic development. In the Americas, immunization programs have eradicated wild poliovirus transmission, interrupted the endemic transmission of measles, achieved high coverage of other basic vaccines, and attained spectacular child mortality reduction results. In spite of this success, new challenges loom ahead, and much remains to be done. A priority is completing the unfinished immunization agenda of reaching the unreached, achieving rubella and congenital rubella syndrome (CRS) elimination targets, and introducing new and underutilized vaccines against killer childhood infections. Countries are also preparing to transition from child to family immunization programs. Innovative approaches and new kinds of partnerships will be needed to address these issues.

The Immunization Unit is working towards developing a Regional policy framework to assist countries in addressing the unfinished

immunization agenda and further the role of immunization in achieving the Millennium Development Goals (MDGs) of reducing child mortality and improving maternal health. New approaches to sustainable financing are currently being explored, focusing on securing longer-term and reliable funding flows for immunization programs, mainly through the creation of fiscal space.

Fiscal space is the room in a national budget that allows provision of resources without jeopardizing overall financial sustainability or economic stability. Specific strategies to create fiscal space include re-prioritizing expenditure, increasing efficiency and transparency, improving the efficiency of tax collection, and increasing indirect taxes on products causing significant public health problems, such as tobacco, alcohol, and perhaps firearms. Additional strategies include developing sources of new revenue, for example the proceeds of national lotteries, and increasing external support.

PAHO's support to countries in this regard is

focusing on the following areas:

1. Exploring mechanisms for creating fiscal space for immunization programs;
2. Strengthening vaccine legislation to reduce national transaction costs (see *Analysis of Vaccination-related Legislation in the Americas* below);
3. Forging new partnerships to deliver basic health services, including immunization (see *The PAHO-GAVI Partnership* on page 6); and
4. Improving the efficiency of the PAHO Revolving Fund for Vaccine Procurement and expanding participation in its services to ensure that countries can afford the prices of new generation vaccines.

The Regional policy framework being developed will provide Ministers of Health with the tools to effectively advocate to Ministers of Finance that the additional funds sought for financing immunization and new vaccine introduction represent outstanding value on the investment of scarce national resources.

Analysis of Vaccination-related Legislation in the Americas

Background

The sustainability of national immunization programs (NIPs) has been an important focus for countries as NIPs are faced with growing needs due to the introduction of new vaccines and technologies. This concern for sustainability became the focus of a Briefing Session during the 46th PAHO Directing Council Meeting in Washington, D.C., in September 2005.¹ The session highlighted the range of initiatives to create fiscal space for immunization and reduce transaction costs in order to improve program sustainability. Among these initiatives is an analysis of vaccine legislation² and its contribution to sustainability.

The ultimate goal of this analysis is to assist countries in identifying legislative mechanisms

to facilitate the implementation of their immunization programs and ensure sustainability as new vaccines and technologies are introduced. Using improved vaccine legislation can reduce the country's transaction costs associated with procurement of vaccines and immunization supplies. Legislation also contributes to reliable and effective program financing and the creation of fiscal space for immunization.

Immediate objectives include:

- Understanding the current practices regarding the use of legislation for vaccines and immunization;
- Identifying the legal tools that countries use to support the sustainability of their immunization programs;
- Evaluating the "quality" of the vaccination laws enacted using eleven criteria identified as key and proposed as benchmarks; and
- Drafting model legislation to serve as a benchmark to share with member countries.

Methodology

Member countries were surveyed for the laws, decrees, and other legal documentation regarding vaccines and/or vaccination in humans. Twenty-six countries confirmed existence of legislation, and 17 forwarded copies of their legislation for review. Three countries reported to be in the process of enacting vaccine laws. Survey responses were supplemented by online and library research. A review of the components and language of the legislation followed, using the 11 key criteria proposed as benchmark to evaluate the quality of the law. The criteria were proposed considering the sustainability and operation of the immunization program. These criteria were organized as follows:

1. Rationale:
 - **Free and universal** provision of vaccines by the government.
2. Resources:
 - A **budget line** in the general budget for vaccines;
 - **Disbursement regulations** guaranteeing timely and reliable disbursement of resources; and

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

² Includes laws, decrees, and lower hierarchy regulations in general.

- **Tax exemptions** for vaccines and immunization supplies.
3. Acquisition:
 - **Flexibility to contract with suppliers**, including third parties such as the PAHO Revolving Fund for Vaccine Procurement;
 - **Facilitated certification** with sanitary registries; and
 - Streamlined **customs regulations** to accelerate the importation process and reduce transaction costs.
 4. Vaccination:
 - Existing **immunization schedule**;
 - **Supply regulations** to guarantee the safe and reliable supply of vaccines;
 - **Compulsory immunization**; and
 - **Enforcement** of immunization obligations.

Preliminary Results

The review of the data found that vaccine legislation addressed the eleven criteria to varying degrees; however, no single respondent comprehensively captured all of the criteria in their legislation (Table 1).

The examination of existing legislation and identifying the strengths and weaknesses of the current body of law regarding immunization in the Americas has led to the elaboration of draft model legislation.

An intermediate result of this analysis has been an expansion of the technical advice that the Immunization Unit provides to member countries. In recent months, the Unit has consulted with member countries engaged in reforms of their vaccina-

tion legislation and financing. These consultations are contributing to stronger financing for NIPs and improved participation in the Revolving Fund.

Sustainable Immunization

The initial survey of vaccine legislation in the Americas provides the basis for the elaboration of a set of guiding principles that will serve as the foundation for consultations with countries seeking to strengthen NIPs through legal instruments. On this foundation, the Unit is pursuing further opportunities to bolster regional self-sufficiency. Vaccine legislation will continue to be essential to strengthen the sustainability of NIPs in the Americas. ■

Table 1. Analysis of Legislation in Selected Countries of the Americas

	Chile	Ecuador	Paraguay	Peru	Venezuela	Law	Decree
Date of Promulgation	2001	1997	2003	2002	1996		
Free Vaccination	✓	✓	✓	✓	✓	4	1
Budget Line	✓	✓	✓	✓	✓	5	
Disbursement Regulations	✓		✓			2	
Tax Exemptions				✓	✓	2	
Flexibility to Contract With Suppliers		✓					1
Registry Facilitation	✓			✓		1	1
Customs Regulations	✓			✓		1	1
Immunization Schedule	✓		✓	✓		1	2
Supply Regulation	✓	✓				1	1
Compulsory Vaccination	✓		✓	✓	✓	3	1
Enforceability	✓		✓		✓	2	1

The PAHO-GAVI Partnership

GAVI¹ is a collaborative effort of governments, international agencies, industry, research institutes, civil society, and venture philanthropy aimed at saving children's lives through widespread use of vaccines.² To date, GAVI support in partnership with PAHO technical cooperation to the six eligible countries in Latin America and the Caribbean – Bolivia, Cuba, Guyana, Haiti, Honduras, and Nicaragua – has included reward funding for efforts in the following areas:

1. Reaching additional children with full coverage of basic vaccines;
2. Grants to improve injection safety; and
3. Financing to introduce new vaccines.

Planned GAVI support to countries includes, in addition to existing modes, funding to address health systems strengthening linked to improved immunization program performance.

Between 2000 and 2005, Bolivia, Cuba, Haiti, Honduras and Nicaragua received funds to improve injection safety by introducing auto-disable syringes. During that period, Guyana was supported to introduce the pentavalent³ vaccine. Haiti remains eligible to receive reward funding for each additional child fully immunized. These funds will become available when Haiti confirms the actual number of additional children immunized over the baseline figure and once it

meets data quality improvement requirements. From 2006, in addition to reward funding, all GAVI countries will be eligible for health systems strengthening and new vaccine introduction support; Guyana will be eligible for an injection safety grant; and Bolivia, Honduras and Nicaragua will be eligible to receive funding for measles-containing vaccines.

The Revolving Fund will continue to play a key role with GAVI, supporting eligible countries to introduce new generation vaccines against rotavirus and pneumococcus.

GAVI has produced a number of useful tools supporting strengthened immunization planning and performance in resource-poor countries. Two of these tools – a data quality self-assess-

¹ Global Alliance for Vaccines and Immunization.

² See EPI Newsletter, Vol. XXII, Number 1, February 2000.

³ Diphtheria-Pertussis-Tetanus + hepatitis B + Haemophilus influenzae type b.

Annual Summary of AFP and Measles/Rubella Indicators, 2005

AFP (Acute Flaccid Paralysis) Surveillance Indicators (Period between Epidemiological Weeks 01 to 52, 2005)

Country	Number of Cases	AFP Rate per 100,000 <15 Years Old	% Cases Investigated <48 hrs.	% With 1 Sample Taken Within 14 Days of Onset	% Sites Reporting
Argentina	138	1.35	90	65	69
Bolivia	48	1.34	96	77	73
Brazil	609	1.11	98	74	95
Canada	...	...	...	...	...
CAREC	28	0.89 ^b	93	68	100
Chile	98	2.28	80	89	98
Colombia	136	0.97	69	83	93
Costa Rica	18	1.46	56	78	82
Cuba	31	1.42	100	97	100
Dominican Republic	18	0.58	89	67	79
Ecuador	39	0.92	95	69	71
El Salvador	129	5.52	95	92	83
Guatemala	102	2.24	92	81	56
Haiti	8	0.20	88	13	0
Honduras	93	3.23	97	96	35
Mexico	471	1.48	97	81	90
Nicaragua	31	1.45	100	100	100
Panama	7	0.71	86	71	94
Paraguay	12	0.60	83	75	91
Peru	84	0.93	89	76	0
Uruguay	10	1.22	100	70	82
USA	...	...	...	...	...
Venezuela	113	1.36	93	80	86
Total	2223	1.32	93 ^a	79 ^a	87 ^a

... Not Reporting

^a Does not include Costa Rica^b 18 AFP cases in children <15 years of age.

Measles/Rubella Surveillance Indicators (Period between Epidemiological Weeks 01 to 52, 2005)

Country	% Sites Reporting Weekly	% Cases with Adequate Investigation	% Cases with Adequate Sample	% Lab. Received ≤5 days	% Lab. Result ≤4 days	% Cases Discarded by Lab.
Argentina	81	5	93	74	87	99
Bolivia	18	97	98	85	72	100
Brazil	91	76 ^a	79	46	91	95
Canada	...	...	...	...	...	...
CAREC	100	79	95	25	95	99
Chile	99	15	86	76	96	99
Colombia	93	49	92	78	89	96
Costa Rica	85	95	100	84	83	87
Cuba	95	81 ^a	100	20	100	83
Dominican Republic	79	60	100	54	69	96
Ecuador	70	60	99	80	88	99
El Salvador	83	56	97	86	90	100
French Guiana	...	...	...	...	...	...
Guadeloupe	...	...	...	...	...	...
Guatemala	55	93	99	69	84	100
Haiti	94	98	95	58	47	89
Honduras	89	88	99	70	88	99
Martinique	...	...	...	...	...	...
Mexico	93	99 ^b	98	93	77	99
Nicaragua	100	61	100	75	89	100
Panama	94	85	96	64	88	98
Paraguay	91	75	99	90	100	98
Peru	98	88	86	77	51	90
Puerto Rico	...	...	...	...	...	...
Uruguay	45	...	100	100	88	100
USA	...	...	...	...	...	...
Venezuela	86	81	95	61	64	96
Total/Average	78	77	86	61	81	95

... Not Reporting

^a Includes information on active case-searches.^b Only considers home visit within 48 hours of notification.

Source: PESS, MESS, and country reports, Immunization Unit, PAHO.

PAHO-GAVI PARTNERSHIP from page 6

ment instrument⁴ and an immunization program costing spreadsheet – are easily adaptable to all countries wishing to strengthen administrative data reporting and cost-based financial plan-

⁴ See *Immunization Newsletter*, Vol. XXVIII, Number 1, February 2006.

ning within national immunization programs. As such, there is potential benefit across the Region from these resources, made available through the PAHO-GAVI partnership.

The challenge of introducing new generation vaccines across the Region while sustaining the advances made through support to eligible

countries by PAHO and GAVI will require even stronger and wider partnerships. PAHO is looking forward to this new era of country support and will make available to countries the technical and other assistance needed to take maximum advantage of the benefits that GAVI brings to Latin America and the Caribbean. ■

Message from WHO's Director-General: Polio Eradication and Risk of International Spread of Wild Poliovirus

On 27 April 2006, the Director-General of the World Health Organization, in a communication to Member States and Associate Members, referred to a new risk of international spread of wild poliovirus.

Analysis of 2006 year-to-date information demonstrates heightened control of polioviruses in three of the four remaining endemic countries. Control has also be heightened in most areas of Nigeria. In some northern Nigerian states, however, the incidence of polio is higher than it was at the same time in each of the previous three years. In 2006, there has been continued wild poliovirus importations from three states into Niger. The most significant risk of a new and further international spread of wild poliovirus is from northern Nigeria.

In response, large scale polio immunization campaigns have been scheduled in the affected states for May and June 2006, in advance of the mid-2006 onset of the high season for poliovirus transmission. Recognizing that the most intense transmission is in the urban center of Kano, the government of that state has elected to conduct an additional round of polio immunization there in mid-April.

WHO will continue to closely monitor the risk of new international spread of wild poliovirus and will advise Member States and Associate Members accordingly.

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.

ISSN 1814-6244

Volume XXVIII, Number 2 • April 2006

Editor: Jon Andrus

Associate Editors: Béatrice Carpano and Carolina Danovaro



**Pan American
Health
Organization**



Regional Office of the
World Health Organization

Immunization Unit

525 Twenty-third Street, N.W.
Washington, D.C. 20037 U.S.A.

<http://www.paho.org>

(Search: Immunization Newsletter)