



# **PAHO-USAID UMBRELLA AGREEMENT 2007-2010**

**(GRANT No. LAC-G-00-07-00001)**

## **ANNUAL REPORT**

**(OCTOBER 2008 – SEPTEMBER 2009)**



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## 1. List of Acronyms and Abbreviations

ALAPE	Asociación Latinoamericana de Pediatría
AMR	Antimicrobial Resistance
ANLIS	Administración Nacional de Laboratorios e Institutos de Salud/Argentina
CDC	Centers for Disease Control and Prevention
CEPAL	Comisión Económica para América Latina
CIDA	Canadian International Development Agency
CLAP	Latin American Center for Perinatology and Human Development
CMX	Cotrimoxazole
EPHF	Essential Public Health Functions
EQA	External Quality Assurance
FCI	Family Care International
FEPPEN	Federación Panamericana de Profesionales de Enfermería
FIGO	International Federation of Gynecology and Obstetrics
FLASOG	Federación Latinoamericana de Sociedades de Obstetricia y Ginecología
GANM	Global Alliance for Nursing and Midwifery
GHI	Global Health Initiatives
HCAI	Health Care Associated Infections
HDM/CD	Health Surveillance and Disease Management Area/Communicable Diseases
HIS	Health Information Systems
HMN	Health Metrics Network
HMN-TSP	Health Metrics Network-Technical Support Partnership
IADB	Inter-American Development Bank
ICM	International Confederation of Midwives
ICPD	International Conference on Population and Development
IDHN	Integrated Delivery Health Networks
IFC	International Finance Corporation
INH	Isoniazid
IMCI	Integrated Management of Childhood Illnesses
INEI	Instituto Nacional de Enfermedades Infecciosas, Dr. Carlos Malbrán, Argentina
INSP	Instituto Nacional de Salud Pública
IRTF	Interagency Regional Task Force
LAC	Latin American and the Caribbean

LACHEALTHSYS	Health Systems Strengthening in Latin America and the Caribbean Web Site
MDG	Millennium Development Goals
MMSS	Maternal Mortality Surveillance Systems
MNH	Maternal and Neonatal Health
MOH	Ministry of Health
MPH	Ministry of Public Health
MPHI	Mesoamerican Public Health Initiative
MSP	Ministry of Social Protection
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organizations
NHA	National Health Authority
NSO	National Statistic Office
PAHO/WHO	Pan American Health Organization/World Health Organization
PHC	Primary Health Care
PPM	Public-private mix
PRISM	Performance of Routine Information System Management
RAMOS	Reproductive Age Mortality Survey
RHINO	Routine Health Information Network
RTF	Regional Task Force
SAIDI	South America Infectious Disease Initiative
SNRL	Supra National Reference Laboratory
SOP	Standard Operating Procedure
SP	Strategic Plan
TAG	Technical Advisory Group
TB	Tuberculosis
TOR	Terms of Reference
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCPH	Virtual Campus of Public Health
WBMSS	Web-based Maternal Mortality Surveillance System

## 2. Project Background

The Pan American Health Organization (PAHO/WHO) and the United States Agency for International Development (USAID) have a long history of partnering their efforts with the aim to strengthen health priority areas in the Latin America and Caribbean (LAC) Region. In 2007, PAHO and USAID signed a new three-year US\$4 million regional partnership agreement to strengthen health systems in the context of Primary Health Care (PHC) and to improve the quality of services.

The objective of the component on strengthening health systems in the context of PHC is to improve the steering role capacity of the National Health Authority (NHA) to develop policies and implement strategies that reduce fragmentation in health through the integration of services, public health capacity building and the creation of synergies between programs and systems. Outcomes focus on the following areas: improving the leadership of the NHA; strengthening health information systems; implementing comprehensive policies that promote universal access and effective interventions; and improving maternal and child health within the context of the continuum of care approach.

The objective of the second component on improving quality of health services emphasizes the strengthening of national capacity to organize and develop appropriate and accessible quality health care services that are evidence-based and reflect recognized standards and best practices. Outcomes focus on the following areas: PHC accreditation processes; improved capacity for increased coverage of HIV, malaria and TB prevention, treatment and care among vulnerable populations; strengthening of communicable disease surveillance and response capacity, and the implementation of a Neonatal Regional Plan of Action.

The PAHO-USAID collaboration contributes to four Strategic Objectives (SO) from the PAHO Strategic Plan 2008-2012, which are:

- **SO 2:** To combat HIV/AIDS, tuberculosis and malaria;
- **SO 4:** To reduce morbidity and mortality and improve health during key stages of life, including pregnancy, childbirth, the neonatal period, childhood and adolescence, and improve sexual and reproductive health and promote active and healthy aging for all individuals;
- **SO 10:** To improve the organization, management and delivery of health services;
- **SO 11:** To strengthen leadership, governance and the evidence base of health systems

This report is divided in four main sections. The first section reviews the progress achieved regarding the indicators established in the Grant Agreement. The second section assesses progress in the completion of activities during Year 2. The third section presents a list of success stories that have resulted from the PAHO-USAID cooperation. The final section assesses progress on specific USAID indicators.

### 3. Progress on Achievement of Indicators

Cross-Cutting Theme #1  
Strengthening Health Systems and Services in the context of Primary Health Care (PHC)

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
<b>Outcome 1 – Steering Role Capacity of the NHA at the national/subnational levels strengthened</b>			
<b>Key Personnel Responsible for Outcome 1: José Ruales (HSS)</b>			
1.1 Number of countries that show improvement in the performance of the steering role as measured by the assessment of Essential Public Health Functions	- Throughout Year 2, USAID and PAHO have continued to support countries in the identification of gaps in Steering Role and EPHF performance and in the use of results to implement strengthening strategies. Cooperation efforts have focused on the use of the results obtained with previous measurements to identify gaps and define priorities for interventions.	- Technical support to continue the Health Sector Transformation process has been provided to <b>Ecuador</b> , with emphasis on the drafting of a national health policy and a clear definition of the steering role, particularly as it relates to the conduct/lead and regulation dimensions. - In <b>Peru</b> technical cooperation has been provided to the Ministry of Health (MOH) for the strengthening of the steering role in the context of decentralization. - <b>Brazil</b> conducted EPHF subnational evaluations in the states of Bahia and Rio Grande do Sul, and carried out strengthening workshops, with the elaboration of strengthening agendas, for Bahia and Tocantins. - A framework for the assessment and strengthening of public health capacities has been developed for <b>Mexico</b> which entailed a performance evaluation of EPHF 9 (quality assurance), <b>Brazil</b> with a focus on	- In the EPHF experience in Brazil, it was interesting to notice that unlike EPHF evaluation exercises carried out in each state which are based on a structured and defined methodology, the process of developing EPHF strengthening agendas requires a case-by-case approach due to the differences in local capacity, the varying degrees of institutional development of state health secretariats, and local priorities.

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
		<p>EPHF 1 (situation analysis) and <b>Colombia</b> with a focus on EPHF 2 (public health surveillance).</p> <ul style="list-style-type: none"> <li>- Students from <b>Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Paraguay, and El Salvador</b> are participating in the Spanish version of the EPHF Virtual Course and are currently drafting EPHF strengthening proposals.</li> <li>- In <b>El Salvador</b>, technical cooperation was provided to the MOH to support the process of reorganization of the Ministry of Health with the creation of two Vice Ministries: one dedicated to the Sectoral Health Policies, which will focus on development of EPHF 3 (health promotion and intersectoriality) and EPHF 8 (human resources development), among others; and another dedicated to Health Networks and Programs. Support was also provided to strengthen the capacity of the National Health Institute for the implementation of EPHF 1, EPHF 2 and EPHF 10 (research).</li> </ul>	

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
1.2 Number of countries that report progress in implementing PHC-based Health Systems according to PAHO's Position Paper and Regional Declaration on PHC	- All of the activities under Outcome 1 of CC Theme 1 focus on developing aspects of a PHC-based system namely, strengthening the steering role, improving EPHF performance, integrating services and systems, and maximizing synergies between global health initiatives and the health system. During Year 2, continuing progress has been made in the incorporation of attributes of PHC-based systems into country health plans and policies.	- In <b>Paraguay</b> , technical cooperation was provided to National and Local Health Directors from 18 Health Regions to redefine the functions of the health system, applying the principles and elements of the Renewed PHC Strategy. - In <b>Peru</b> , an effort was made to develop human resources capacity for the provision of integrated and comprehensive care in the Ica Region and Huaytará Province. - In <b>Ecuador</b> , the Health Sector Transformation process is based on the principles of universality, gratuity and health as a human right, all of which constitute the core values of a PHC-based health system.	- Even though the principles of universality, gratuity and right to health are enshrined in the Ecuador Constitution, it became clear that the actual implementation of these principles would require a new, stronger steering role of the National Health Authority, with new functions and a new national health policy.
1.3 Number of countries that have adopted PAHO's policy recommendations for integrating the health care delivery networks, including public and non-public providers	- While in Year 1, efforts focused on the development of a regional consensus around the theme of Integrated Delivery Health Networks (IDHN), which included the preparation of a Position Paper and its discussion and validation in technical consultations at the subnational/national/regional levels, during Year 2, efforts centered on supporting countries to incorporate attributes of IDHNs in their health plans and policies, and implement the IDHN approach in their national health systems.	- In <b>Ecuador</b> , support has been provided to develop integrated networks and basic health teams in five provinces of the northern border and an effort was made to systematize and evaluate the experience to expand to five additional provinces in the southern border of the country. - In <b>El Salvador</b> , lines of action and recommendations for the reorganization of the health system around integrated networks of services have been identified.	On Sept.-Oct. 2009, the 49 <sup>th</sup> Directing Council approved Resolution CD49.R22 on Integrated Health Services Delivery Networks Based On Primary Health Care, which urges Member States to elaborate plans of action to promote the creation of integrated health services delivery networks as the preferred modality for health services delivery. This will give new impetus to technical cooperation efforts in the Region.

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
		<ul style="list-style-type: none"> <li>- In <b>Paraguay</b>, a plan was drafted to strengthen the organization and management of health services provided by the Ministry of Health around integrated networks and based on family and community health teams in the first level of care of health districts.</li> <li>- In <b>Peru</b>, technical cooperation has been provided to identify strategies to develop departmental and local integrated health networks.</li> <li>- <b>All PAHO Member States</b> which have approved Resolution CD49.R22 during the 49<sup>th</sup> Directing Council have made a commitment to implement IDHN.</li> </ul>	
<b>Activity 1.1 – Support member countries to strengthen the leadership and regulation dimensions of the NHA and improve public health capacity</b>			
<b>Key Personnel Responsible for Activity 1.1: José Ruales (HSS)</b>			
1.1.1 Number of countries that have developed strategies to strengthen the steering role of the National Health Authority, including the capacity to perform the EPHF.	Several countries in the Region have already assessed their NHA's capacity to perform the Steering Role and the EPHF. The results of the evaluations have been and continue to be used to support the elaboration of health plans and the identification of priorities for intervention.	<ul style="list-style-type: none"> <li>- <b>Ecuador, Peru, El Salvador and Paraguay</b> have defined strategies to strengthen the steering role of the NHA</li> <li>- <b>Brazil</b> has conducted EPHF strengthening workshops and elaborated strengthening agendas for selected states.</li> <li>- Students from <b>14 countries</b> are currently preparing EPHF strengthening projects as part of the EPHF virtual course.</li> </ul>	N/A

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
		- <b>Mexico</b> has conducted an evaluation exercise for EPHF 9, while <b>Brazil</b> and <b>Colombia</b> have advanced in the framework for public health capacities assessment for EPHF 1 and 2, respectively.	
1.1.2 Number of new approaches successfully introduced	<ul style="list-style-type: none"> <li>- The LACHEALTHSYS Web site continues to expand, with the incorporation of information and lessons learned on policies, programs and methodologies for strengthening health systems based on PHC.</li> <li>- A specific section on the PAHO-USAID Agreement was created in the webpage. This session incorporates all the information produced within the scope of the umbrella agreement, with the inclusion of products, success stories, and progress reports.</li> <li>- Spanish version of the Virtual Course on EPHF adapted to the context of the LAC Region offered through the Virtual Campus on Public Health.</li> </ul>	All countries of the Region.	N/A
<b>Activity 1.2 – Provide technical cooperation to implement integrated health service delivery networks</b>			
<b>Key Personnel Responsible for Activity 1.2: José Ruales (HSS)</b>			
1.2.1. Number of countries that have reported progress in implementing integrated health services networks.	- During Year 2, the framework for integrating health systems and services was widely disseminated, and strong regional support was generated for implementing integrated systems.	As mentioned previously, technical cooperation for the development of IDHN in <b>Peru, Paraguay and Ecuador</b> has been provided.	See more information about this topic on Indicator 1.3.

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
1.2.2. Number of new approaches successfully introduced	- Resolution CD49.R22 on Integrated Health Services Delivery Networks Based On Primary Health Care approved by the 49 <sup>th</sup> Directing Council (Sept./Oct. 2009)	- All Countries of the Region.	N/A
<b>Activity 1.3 – Promote efforts to scale up health systems based on PHC</b>			
<b>Key Personnel Responsible for Activity 1.3: José Ruales (HSS)</b>			
1.3.1 Number of countries that have identified strategies to scale up health systems based on PHC through the integration of targeted programs.	- As countries are working towards implementing integrated services delivery networks, they are also searching for synergies between priority programs and the overall health systems.	As mentioned previously, technical cooperation for the development of IDHN and integration of priority programs has been provided to <b>Peru, Paraguay and Ecuador</b> .	Efforts at the regional level have been accompanied by a strong push at the global level to search for synergies between GHI and country health systems. In June 2009, WHO convened a meeting titled “High Level Dialogue on Positive Synergies between Health Systems and Global Health Initiatives”.
1.3.2. Number of countries that have monitored their health systems through the elaboration of Health Systems Profiles and/or Health Sector Analyses.	- Countries continue to update their Health Systems Profiles based on the revised Methodology and using the profile as a tool for disseminating information on the health system within their own countries and across the region.	- Profiles for <b>Belize, Honduras and Barbados</b> finalized and available in English and Spanish in the LACHEALTHSYS Webpage. - Profiles for <b>Mexico, Uruguay and Colombia</b> in the process of completion. - Health Sector Analysis for the Border Zone between <b>Ecuador and Colombia</b> finalized.	N/A
1.3.3. Number of new approaches successfully introduced	In order to advance with the implementation of the scaling up framework, it became clear that further research was needed to inform policy and actions. Therefore, a series of case	- <b>Peru</b> : case study on the integration of HIV/AIDS - <b>Colombia</b> : case study on the integration of TB programs - <b>Guatemala</b> : case study on the	These case studies will be discussed in a Regional Consultation Meeting on “Integrated Health Services Networks and Vertical Programs: Maximizing Synergies for Collaborative Work”.

Indicator	Progress	Number of countries (when applicable)	Comments (including constraints)
	studies in the region were commissioned.	integration between Ministry of Health and Social Security Institute. - <b>Chile</b> : Case studies on the integration of services networks, and maternal and child health programs. - <b>Brazil</b> : case study on the integration of HIV/AIDS in the Unified Health System, as well as integration of services networks. - <b>Trinidad and Tobago</b> : case study on the integration of HIV/AIDS. - <b>Dominican Republic</b> : case study on the integration of HIV/AIDS.	which will take place in Peru in November 2009.
<b>Activity 1.4 – Integrate public and private practitioners in TB control</b>			
<b>Key Personnel Responsible for Activity 1.4: Mirta del Granado (HSD)</b>			
1.4.1 Number of countries that have implemented public-private and public-public mix (PPM) experiences as a component of the Stop TB Strategy	Countries involved in the project continue to develop public-public and public-private collaboration on TB control with emphasis on prisons, social security institutions and private NGOS and FBOs.	ECU, DOR, MEX, ELS, BOL, BRA, COL, GUT, HON	Involvement of some private institutions continue to be a challenge, especially large private hospitals.
1.4.2 Number of TB cases under DOTS in the private sector that are reporting to the national TB Program	The information is limited to some countries and not at Regional level.		As mentioned in the previous annual report, this information is very difficult to obtain and we had requested dropping this indicator.

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 2 – Health information systems strengthened at the regional, sub-regional and national level</b>			
<b>Key Personnel Responsible for Outcome 2: Alejandro Giusti (HSD)</b>			
2.1. Number of countries that have implemented Health Information Systems performance monitoring processes.	<ul style="list-style-type: none"> <li>- Ecuador and Costa Rica (CRI) were included in semester 2 to assess their HIS and prepare a Strategic Plan.</li> <li>- Peru and Dominican Republic have conducted an assessment and are developing a Strategic Plan.</li> <li>- Honduras prepared a proposal for funding its Strategic Plan which was presented to CIDA Canada.</li> <li>- The PAHO/USAID project is working in alliance with HMN and Proyecto Mesoamericano de Salud (PMS, through its HIS component) to harmonize National HIS Strategic Plans among countries in the Region</li> </ul>	Follow-up activities in MEX, PAR, HON, DOR, PER and ECU (CRI under the TC of PMS).	<ul style="list-style-type: none"> <li>- Technical assistance to HON has been provided to prepare a funding proposal for CIDA.</li> <li>- The strategic alliance with HMN and PMS will be reflected in the REDLACSIS (Latin American and Caribbean network for strengthening HIS) to be presented in February 2010 in a meeting in Lima, PER.</li> <li>- A document on best practices and technical issues is currently under development.</li> </ul>
2.2. Number of countries with improved surveillance in maternal, perinatal, child and adolescent health			
<b>Activity 2.1 – Support the implementation of HIS performance monitoring process</b>			
<b>Key Personnel Responsible for Activity 2.1: Alejandro Giusti (HSD)</b>			
2.1.1 Number of countries with national HIS teams leading the development of HIS	Honduras, Paraguay, Peru, Dominican Republic, Ecuador, Costa Rica and Guatemala have inter-institutional committees conducting activities to develop either HIS assessments and SPs.	5 under the PAHO/USAID Project; 2 (Costa Rica and Guatemala) under the collaboration with Proyecto Mesoamericano de Salud and HMN.	PAHO and MEASURE-Evaluation team participated in a interagency group integrated by Proyecto Mesoamericano de Salud, HMN and HMN-TSP.
2.1.2 Number of countries that have improved HIS performance	All countries included in the project are implementing activities to improve		

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
indicators.	HIS performance indicators.		
2.1.3 Number of reports about HIS assessment and situation analysis.	Dominican Republic and Peru have reports. Costa Rica and Guatemala are preparing a report.	2	It is expected that reports from Costa Rica and Guatemala will be available by December 2009. Ecuador is beginning the assessment in November 2009.
2.1.4 Number of HIS Strategic Plans elaborated.	Dominican Republic and Peru are preparing a SP.		It is expected that Dominican Republic, Peru and Ecuador will have a SP by March 2010.
2.1.5 Number of case studies with good practices in HIS performance monitoring processes.	PAHO-MEASURE team is preparing the final report for the Dominican and the Peruvian experience.		The report will include best practices for Honduras, Paraguay, Peru and Dominican Republic.
2.1.6 Number of capacity-building and training activities on good practices in the development and improvement of HIS performance monitoring processes carried out.	Horizontal cooperation through training activities in implementing HMN and PRISM tools were developed by Paraguay and Peru to Dominican Republic, Costa Rica, Guatemala and Ecuador.		These activities were developed with the collaboration of Proyecto Mesoamericano de Salud.
2.1.7 Number of new approaches (e.g.: tools, technologies, operational procedures, information systems, etc.) successfully introduced.	A new HMN tool to define a Strategic Plan was presented in a meeting in Cuernavaca with the collaboration of Proyecto Mesoamericano de Salud and HMN-TSP.		The tool was presented to all countries in the Region that have applied the HMN tool to assess the HIS. A participant from Paraguay participated in a workshop organized by HMN-TSP to be trained in the use of the HMN tool to develop a SP.
<b>Activity 2.2 – Develop and implement standardized frameworks, methods and tools on HIS</b>			
<b>Key Personnel Responsible for Activity 2.2: Alejandro Giusti (HSD)</b>			
2.2.1 Number of countries that have improved their capacity for evidence-based decision-	All countries mentioned in Activity 2.1		

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
making in health services management.			
2.2.2 Number of new approaches (e.g.: tools, technologies, operational procedures, information systems, etc.) successfully introduced.	A new HMN tool to define a Strategic Plan was presented in a meeting in Cuernavaca with the collaboration of Proyecto Mesoamericano de Salud and HMN-TSP.		The tool was presented to all countries in the Region that have applied the HMN tool to assess the HIS. A participant from Paraguay participated in a workshop organized by HMN-TSP to be trained in the use of the HMN tool to develop a SP.
<b>Activity 2.3 – Improve countries capacities in the development and implementation of maternal mortality surveillance systems</b>			
<b>Key Personnel Responsible for Activity 2.3: Bremen de Mucio (FCH/CLAP)</b>			
2.3.1 Number of new approaches (e.g.: tools, technologies, operational procedures, information systems, etc.) successfully introduced.	2.3.1.1 During this year, Phase 1 of a web-based maternal mortality surveillance system (WBMSS) was field tested under the leadership of the Ministry of Social Protection of Colombia, with technical support of PAHO, in collaboration with the U. of Antioquia MCH NACER/CALDAS group, CDC and WHO. The field test was carried out during the period of Nov. 08-Mar. 09 in four sites located in three Colombian Departments (Antioquia, Caldas, Valle del Cauca) and the District Capital of Bogota. It is noteworthy that SIVIGILA, the Colombia national surveillance system continued to operate during WBMSS Phase 1 pilot testing. The final report was discussed and agreed with national and international	2.3.1.1 Colombia	2.3.1.1 The WBMSS project has 3 phases. Phase 1 was completed during this period. However, due to internal problems in CDC administrative processes, phase 2 activities have been delayed.

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
	<p>partners (PAHO, CDC, USAID, MSP and the University of Antioquia-Reproductive Health Center NACER/CALDAS groups). All instruments and tools were pretested to assess feasibility including: understanding of questions, duration of application of forms, and acceptability of the new proposal. After pretest, all instruments were modified. Phase 1 was successfully completed.</p> <p>Phase 2 was delayed. Please see comments in column 4. However, during this period PAHO Colombia had several discussions with Ministry of Social Protection, and carried out training activities on MM surveillance at local levels.</p> <p>2.3.1.2 Prospective RAMOS was concluded in Paraguay. In July 2009 a meeting took place to present research findings. This meeting had the participation of high level authorities of Paraguay and great coverage by media. The research confirms the difficulties for maternal mortality surveillance in Paraguay.</p>	<p>2.3.1.2 Paraguay</p>	<p>2.3.1.2 As a survey's results, National authorities defined to extend to all the country RAMOS methodology.</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 3 – Comprehensive policies, plans and strategies to promote universal access and effective interventions</b>			
<b>Key Personnel Responsible for Outcome 3: Bremen de Mucio (FCH/CLAP)</b>			
3.1 Number of target countries that have developed integrated policies on universal access and effective interventions for improving maternal, newborn and child health.	3.1.1 Partnerships and alliances continue to be an effective approach to support country efforts to develop or strengthen midwifery as a skilled attendance strategy. Utilization of electronic communication systems for exchange of experiences, sharing technical resources, networking, research and continuing education facilitates country and regional level efforts.	14 Ecuador, Guyana, Bolivia, Honduras, Nicaragua, Paraguay, Dominican Republic, Trinidad, Jamaica, Costa Rica, Chile, Mexico, Brazil, Haiti with support for midwifery/midwifery skills. 75 countries represented for English and 29 for Spanish Midwifery and Nursing Making Pregnancy Safer Communities of Practice	Organizations continue to develop capacity for working collaboratively in support of midwifery policy, education, service and research at both country and regional levels.
<b>Activity 3.1 – Strengthen networks, alliances including communities of practice in maternal and perinatal health</b>			
<b>Key Personnel Responsible for Activity 3.1: Bremen de Mucio (FCH/CLAP)</b>			
3.1.1 Number of partnerships and alliances with NGOs, civil society, collaborating centers and national institutions of excellence, and private sector to advance maternal, newborn, child and adolescent health.	<p><b>3.1.1.1 Collaborative Partnership</b> Coordination of 20 Members by PAHO and the Collaborating Center in Chile with 2009 work plan and subsequent follow-up, virtual meetings, initiatives (maternal mortality surveillance; virtual continuing education programs; research on midwifery in Latin America and publication in Spanish) and support to countries as described in 3.1.2</p> <p><b>3.1.1.2 Knowledge Gateway: GANM-Communities of Practice</b> Midwifery and Nursing Communities</p>	<p><b>3.1.1.1</b> Twenty Members represent 10 countries plus PAHO offices in 8 additional countries.</p> <p><b>3.1.1.2</b> English community has 381 Members in 75 countries; Spanish community has 183 members in 29</p>	<p><b>3.1.1.1</b> Work Plans were developed considering the Action Plan 2006-2011 which includes 5 components: Policy, Education, Services, Monitoring/Research and Support to Countries. Participation in the virtual meetings has been inconsistent. Facilitating the meetings and reporting in English and Spanish continues to be a challenge.</p> <p><b>3.1.1.2</b> These communities are sub communities of the Global Alliance for Nursing and Midwifery (GANM), so</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
	<p>for Making Pregnancy Safer in English carried out a global forum on changing practice with evidence between September 30 and October 10, 2008. The purpose of this discussion was to promote dialogue and exchange on how to change practice using research-based evidence focused on Active Management of the Third Stage. A survey of Members in both communities following the discussion identified future topics and provided feedback for planning. The Spanish community also carried out a number of informal discussions. One on measuring cervical dilatation without vaginal exam generated an idea for a multisite clinical research project. Another on a gender perspective for maternal mortality led to a virtual continuing education program.</p> <p><b>3.1.1.3 The PAHO/WHO Collaborating Centers</b> continue to support Regional and country level projects and initiatives based upon their terms of reference and work plans. Annual reports reflect these activities in detail.</p>	<p>countries.</p> <p><b>3.1.1.3</b> Collaborating Centers involved are in Brazil, Chile, Mexico, Canada, and USA, including Puerto Rico.</p>	<p>they have been affected by some delays in plans for relaunching GANM later this year.</p> <p><b>3.1.1.3</b> The WHO Collaborating Centers for Nursing and Midwifery have a global network with the Secretariat in the Collaborating Center in Brazil. A Regional network, the Pan American Network of Collaborating Centers for Nursing and Midwifery is coordinated by the Center in Univ. of Alberta in Canada.</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
3.1.2 Percentage of births attended by a doctor, nurse or trained midwife.	<p><b>3.1.2.1 Strategy for improving skilled attendance by strengthening midwifery</b></p> <p>Consultations (curriculum PAR, ECU, GUY), research projects (MEX, DOR, HON, CHI, COR, BRA) quality improvement programs (HON, DOR), training (NIC), midwifery education (HAI, BOL, TRT, JAM, BRA), (including in cases as BOL intercultural training models); study visits (ECU) supported considering needs assessment, multi-year plans, monitoring of progress and resource mobilization.</p> <p>Two new modules of the WHO Midwifery Tool Kit translated to Spanish and reviewed by midwifery experts. These modules will be disseminated virtually along with the other 7 modules in the earlier version.</p>	<p><b>3.1.2.1- 14</b> Ecuador, Guyana, Bolivia, Honduras, Nicaragua, Paraguay, Dominican Republic, Trinidad, Jamaica, Costa Rica, Chile, Mexico, Brazil, Haiti</p> <p>All countries in the Region will have access to the electronic version of the Midwifery Tool Kit.</p>	<p><b>3.1.2.1</b> Support for countries is an ongoing process facilitated by involvement and commitment of all stakeholders. Activities which support one aspect such as education/curriculum are most successful if they are accompanied by activities which address other aspects such as authorization of new practices by midwives or the creation of posts for newly trained providers. Delays in carrying out planned for activities between consultant visits sometimes affects progress.</p>
3.1.3 Number of people trained in maternal and/or newborn health and nutrition care through USG-supported programs.	<p><b>3.1.3.1 Virtual Continuing Education programs for midwifery and nursing.</b></p> <p>- Six short virtual continuing education programs in Spanish for nursing and midwifery personnel on a variety of topics and utilizing different mechanisms are being developed and tested during 2009 to be disseminated and evaluated in 2010. Five</p>	<p><b>3.1.3.1</b> Series is expected to be made available in all Spanish language countries. Special continuing education program in Nicaragua may be replicated in other countries. Program with Bolivia is ongoing.</p>	<p><b>3.1.3.1</b> Effective use of electronic communications systems for continuing education programs is hampered by lack of access, pressure of other work and/or negative attitudes regarding the use of virtual modalities for continuing education in favor of face-to-face learning.</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
	<p>programs are in development or under review as of October 2009.</p> <ul style="list-style-type: none"> <li>- Program to provide updates including clinical experience for handling obstetrical emergencies as needed for 265 nurse-midwives was developed in Nicaragua.</li> <li>- Continued support for education of 11 Bolivian nurses to become midwives and midwifery faculty including a special course on intercultural aspects of care.</li> </ul>		

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 4 – Effective functioning of regional partnership (MNH Task Force) to promote policy dialogue in neonatal health</b>			
<b>Key Personnel Responsible for Outcome 4: Yehuda Benguigui (FCH)</b>			
<p>4.1 Number of countries that have national policies and plan of action in Maternal and Neonatal Health.</p>	<p>- IRTF was re-launched in Dec. 2008. A new organizational structure was developed, including a secretariat, which is integrated by UNFPA, IADB, FCI, USAID and PAHO-CLAP. One face-to-face meeting took place on Dec. 2008 in Panama City, and 8 conferences calls took place in 2009. According to 2009 work plan, IRTF developed an electronic bulletin (in Spanish and English), an institutional brochure, and a magazine on sexual and reproductive health. It has translated from English to Spanish, and printed The Lancet Series on Maternal Mortality. These documents will be delivered in Oct. 2009. IRTF is coordinating a Women Leaders Meeting (WLM) that will take place on May 2010. The goals of the meeting are to encourage action to reduce MMR, and generate stronger political commitment around remaining challenges. A document on "Articulating intersectoral agreements for the reduction of maternal mortality in Latin America and the Caribbean: lessons learned in the application of the Document of Interagency Strategic</p>	<p>36 LAC Countries received the e-bulletin. 18 Spanish speaking countries will receive The Lancet Series on maternal mortality. 10 LAC countries of high maternal mortality and/or high impact by its population size will participate in WLM. All LAC countries will receive Document of Interagency Strategic Consensus - DISC. MEX, HON, NIC, HAI, DOR, (National TF).</p>	<p>After an inactivity period the IRTF has revitalized its work. It is in the process of expanding the membership and re-launching the Interagency Strategic Consensus.</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
	Consensus" was developed and is available electronically. Mexico and Mezzo-American Countries received support to develop a national TF on MM.		
<b>Activity 4.1 – Support the functioning of the regional partnership (MNH Interagency Task Force)</b>			
<b>Key Personnel Responsible for Activity 4.1: Yehuda Benguigui (FCH) and Bremen de Mucio (CLAP)</b>			
4.1.1 Number of countries with a functioning neonatal alliance.	- Six countries with functioning neonatal alliances.	BOL, HON, NIC, PER, PAR	Partners include: UNFPA, UNICEF, IADB, WB, Population Council, Family Care International (FCI), Federación Latinoamericana de Sociedades de Obstetricia y Ginecología (FLASOG), Federación Panamericana de Profesionales de Enfermería (FEPPEN), Regional ICM (International Confederation of Midwives)
4.1.2. Number of newborns receiving essential newborn care through USG supported programs	- We estimate that approximately 1,200 newborns received essential newborn care through USAID in priority countries	BOL, ECU, HON, NIC, DOR	<p>- Partners include: Save the Children, Access, USAID, Basics, UNICEF, Plan International, Asociación Latinoamericana de Pediatría (ALAPE), Federación Latinoamericana de Obstetras y Ginecología (FLASOG), International Confederation of Midwives (ICM), and the Federación Panamericana de Profesionales de Enfermería (FEPPEN)</p> <p>- <i>Regional Technical Forum: Advancing Neonatal Health through Partnerships</i>, Lima, Peru, Sept. 2009</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
			<p>-- Newborn Alliance developed agenda, organized logistics and oversaw invitation of experts from MOH, Professional Associations, Alliance member organizations, and other key national and regional neonatal health professionals to attend meeting.</p> <p>--133 professionals from 15 countries participated in the successful two-day meeting. Sharing of experiences, lessons learned, and best practices in newborn and perinatal health.</p> <p>-- Memorandum of Understanding signed between Newborn Alliance and ALAPE, ICM, FEPPEN, and FLASOG. Newborn Alliance and Associations will work together on joint activities in the future; this will be established during monthly conference calls.</p> <p>- Support to countries establishing national replication of the Regional Alliance with agencies and NGOs, regarding child health in the context of the continuum of care approach in selected countries (DOR, ECU, NIC, PAR, PER).</p> <p>- Support countries to in the development and implementation of National Plans of Action of Neonatal Health in the context of the continuum of care approach. Country support</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
			<p>achieved through the support of neonatal plans in the framework of the continuum of care in: BOL, DOR, ECU, GUT, HON, NIC, and PAR.</p> <p>- Design and creation of the <a href="http://Alianzaneonatal.org">Alianzaneonatal.org</a> website by sub-committee from Newborn Alliance. Site (will go live by the end of 2009).</p>

**Cross-Cutting Theme #2**  
**Improving Quality of Health Care Services**

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 1 – PHC Accreditation Model adapted to the characteristics and priorities of countries</b>			
<b>Key Personnel Responsible for Outcome 1: José Ruales (HSS)</b>			
1.1 Number of countries that report progress in their quality improvement programs	In order to adequately apply quality evaluations, it was deemed necessary to first strengthen the definition of the resolution capacity and portfolios of entitlements at the first level of care.	- Ecuador has validated the guidelines for PHC networks accreditation, adapted and applied it to evaluate local PHC networks, using as a basis for the analysis the attributes and criteria defined in the IDHN position paper.	N/A
1.2 Number of new approaches successfully introduced.	The Virtual Course for Development of Competencies for PHC was launched in the Virtual Campus of Public Health in June 2009. Students from Bolivia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Paraguay, El Salvador, and Uruguay are participating in the 6-month course.	- Guidelines for Accreditation of PHC Networks. - Virtual Course for Development of Competencies for PHC available in Spanish, Portuguese, French and English.	- This second iteration of the Virtual Course contains a module on Accreditation of PHC Networks based on the Guidelines developed in Year 1.
<b>Activity 1.1 – Development of a PHC Accreditation Model</b>			
<b>Key Personnel Responsible for Activity 1.1: José Ruales (HSS)</b>			
1.1.1 Primary Care Accreditation Model tested and validated.	PHC Accreditation Model developed, pilot tested and validated.	Brazil, Costa Rica and Nicaragua	N/A
1.1.2 Number of countries implementing the accreditation system.	Accreditation of PHC networks implemented in one country.	Ecuador	N/A

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 2 – Enhanced capacity of endemic countries for increased coverage of HIV, malaria and TB prevention, treatment and care</b>			
<b>Key Personnel Responsible for Outcome 2: Mirta del Granado (HSD)</b>			
2.1. Number of countries detecting 70% of estimated cases of pulmonary Tuberculosis with a positive smear test.	According to the latest available information (2007) more countries have achieved the target	22 countries out of 35 have achieved the target (5 more than the previous year)	The available data from 2007 only reflects partially the benefits of this project.
2.2. Number of countries with a treatment success rate of 85% for Tuberculosis control patients.	According to the latest available information of cohort analysis (2006) progress is limited due to rapid DOTS expansion, affecting the quality of data.	9 countries in the Region have reached this target	The available data for this indicator does not cover the period of this grant. For this reason in the last annual report we had requested to drop this indicator.
2.3. Number of countries providing PAHO/WHO with annual data on surveillance, monitoring and financial allocation data for inclusion in the annual global reports on control of, and the achievement of targets for TB/HIV co-infection.	All countries in the Region have reported during 2009.	35 countries	First time that all countries report using a web-based data collection form.
<b>Activity 2.1 – Increase and improve managerial capacity of TB Laboratory Networks</b>			
<b>Key Personnel Responsible for Activity 2.1: Mirta del Granado (HSD)</b>			
2.1.1 Percent of laboratories performing TB microscopy with over 95% correct microscopy results.	Several countries are improving their external quality assurance (EQA) with high rate of correct microscopy results.	25 countries	Limited access to this type of information from English-speaking Caribbean countries.
2.1.2 Percent of the estimated number of new smear positive TB cases that were detected under DOTS	According to available information (2007) 73% of the estimated new smear positive TB cases were detected under DOTS		The available data from 2007 only reflects partially the benefits of this project.

<b>Activity 2.2 – Train national TB professionals/consultants on the new Stop TB Strategy</b>			
<b>Key Personnel Responsible for Activity 2.2: Mirta del Granado (HSD)</b>			
2.2.1 Percent of the estimated number of new smear positive TB cases that were detected under DOTS	According to available information (2007) 73% of the estimated new smear positive TB cases were detected under DOTS		The available data from 2007 only reflects partially the benefits of this project.
2.2.2 Number of countries that received technical assistance from consultants	The fellows have participated in most of the planned TB monitoring missions and accompanied some technical assistance visits	4 countries (ELS, JAM, COL, BRA)	The H1N1 Influenza epidemic postponed or cancelled many of the planned activities in countries.
<b>Activity 2.3 – Strengthen the implementation and monitoring of recommended TB/HIV collaborative activities</b>			
<b>Key Personnel Responsible for Activity 2.3: Mirta del Granado (HSD)</b>			
2.3.1 Percentage of all registered TB patients who are tested for HIV.	According to available information (2007) 49% of all registered TB cases were tested for HIV representing a 17% increase from the previous year.		The available data from 2007 only reflects partially the benefits of this project.
2.3.2 Number of TB/HIV collaborative activities implemented in priority countries.	All priority countries in the Region are implementing the TB/HIV collaborative activities in different degrees.		Most of the success of this indicator is due to the activities funded by this project. Despite progress, some collaborative activities like the 3 Is need to be further implemented by HIV programs.

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 3 – Provision of policy and technical support to enhance capacity to carry out communication disease surveillance and response</b>			
<b>Key Personnel Responsible for Outcome 3: Pilar Ramón (HSD)</b>			
3.1 Surveillance systems for Health Care Associated Infections and antimicrobial resistance strengthened	- Antimicrobial resistance national data have been collected for 2006 and 2007. - External Quality Assurance Program for national laboratories maintained. Two surveys were coordinated from the INEI Dr. Carlos Malbrán, Argentina. Report on Survey # 14 received: 87.7% correct bacterial identification; 85.4% susceptibility test correct interpretation. Survey # 15, already done, final report pending.	18 Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela	- Spite of the progress of the national reference laboratories, a specific strategy should be developed for strengthening the sentinel laboratories, regarding quality assurance. - Follow – up of the distribution and dissemination of the Annual Reports should be done, in order to assess the need for a hard copy publication.
3.2 Number of new and improved anti-microbial resistance (AMR) tools, interventions and implementation strategies whose effectiveness has been determined to appropriate institutions for policy decisions.	- 2009 Clinical Laboratory Standard Institute documents were translated into Spanish, edited and are pending distribution.	NA	These microbiology standards for antibiograms are published every three years. This Spanish version is essential for the sentinel sites and national reference laboratories, in order to strictly follow quality standards.
<b>Activity 3.1 – Strengthen nosocomial infection surveillance, with an emphasis on AMR surveillance</b>			
<b>Key Personnel Responsible for Activity 3.1: Pilar Ramón (HSD)</b>			
3.1.1 National surveillance systems assessed in at least 2 countries per year	- Although evaluation visits were planned in conjunction with field test exercise on WHO guidelines, because the pandemic influenza emergency, the countries postponed the visits.	---	Implementation of the surveillance assessments was delayed, pending of discussing political and

			operational details with the target countries' authorities and PAHO's focal points. Lack of resources constrained the achievement of this indicator.
3.1.2 Technical Advisory Group (TAG) meeting	- TAG meeting was held in Washington DC, October 23-24, back to back with the 2008 ICAAC/IDSA Joint Meeting, Washington DC, October 25-29.	N/A	The TAG meeting provided useful reflections and strategic directions for the next two years. International experts and leaders on antimicrobial resistance and infection control discussed a comprehensive agenda on surveillance, research priorities, advocacy, antibiotic use, and evidence based tools for AMR containment.
3.1.3 Annual expert group meeting and recommendation developed	- Activity is planned for December 4-5, in Lima, Peru.		Activity scheduled upon receipt of 3 <sup>rd</sup> year funds.
3.1.4 AMR annual surveillance report developed for each year	- The <b>Annual Report on Antimicrobial Resistance, 2006</b> is available in electronic format and was published by the <i>Revista de Infectología Tropical</i> in 2009. - <b>Annual Report on Antimicrobial Resistance, 2007</b> is currently ready for design and subsequent publication. Format has been modified looking for a more user-friendly presentation.		
3.1.5 At least 4 National evaluation groups supported from regional level for year	- National Evaluation Groups on Infection Control were successfully established in El Salvador and Honduras. Technical support was provided to the 1st National Conference on Infection Control in El Salvador, promoting the dissemination of successful experiences among countries.	1	Results from the evaluations were published in a Supplement of the Revista Panamericana de Infectología <a href="http://www.api.org">www.api.org</a>

Activity 3.2 – Promote rational use of antibiotics as a component of a multisectorial approach, SOPs for prevention and control			
Key Personnel Responsible for Activity 3.2: Pilar Ramón (HSD)			
3.2.1	Quality assurance in academic curricula for bacteriology and susceptibility testing improved during 2 year	- After the successful experience in introducing quality assurance in academic curricula in Paraguay, the tools and lessons learned will be shared and adapted to selected countries.	NA  Contacts has been initiated with Universities (El Salvador, Ecuador, Bolivia and Paraguay), INSP in Mexico and PAHO virtual campus to develop and promote educational materials on infection control and rational use of antibiotics. Lack of programmed resources constrained the achievement of this indicator.
3.2.2	4 <sup>th</sup> edition of Clinical Guidelines reproduced and distributed during 2 year	- The treatment guidelines were developed and published. A meeting to review and update the clinical guideline: " <i>Tratamiento de las Enfermedades Infecciosas, 2009-2010</i> " (4 <sup>th</sup> edition) was held in Montevideo, Uruguay, January 26-30 with the experts. The updated version was edited and printed. The 4 <sup>th</sup> edition was launched during the XIV <i>Congreso de la Asociación Panamericana de Infectología</i> , Brazil, April 25-28 <sup>th</sup> .	NA  Dissemination of this publication currently ongoing. It was presented in the <i>Congress of the Asociación Panamericana de Infectología</i> and Annual Conference of the <i>Sociedad Latinoamericana de Infectología Pediátrica</i> .
3.2.3	Restrictive use of antibiotics implemented in four hospitals from four countries for each year	- Honduras developed a national manual on infection prevention and control in health settings, which is being implemented in selected province hospitals. - Guatemala is implementing guidelines to restrict the use of antibiotics at hospital level. El Salvador also is implementing restrictive guidelines for the use of antibiotics at hospital level.	3 Honduras, El Salvador, and Guatemala  Technical cooperation at country level should be strengthened with appropriate local action plans on (i) AMR containment, and (ii) infection prevention and control. These will be addressed during the year 3 of the project.

Activity 3.3 – Organize an electronic regional community forum on health care acquired infections and AMR			
Key Personnel Responsible for Activity 3.3: Pilar Ramón (HSD)			
3.3.1 PAHO's AMR web page updated	<p>- A number of materials, tools, and document have been uploaded in the PAHO AMR website:</p> <p>(a) "<i>Manual de esterilización</i>" aimed at strengthening health centers' capacity on sterilization:  <a href="http://www.paho.org/English/AD/DPC/CD/amr-manual-esterilizacion.htm">http://www.paho.org/English/AD/DPC/CD/amr-manual-esterilizacion.htm</a></p> <p>This manual is being translated into English with WHO support to be distributed in Africa and Asia.</p> <p>(b) "<i>Lectura interpretada del antibiograma</i>", intended to foster microbiologists' critical interpretation of the antibiogram.  <a href="http://www.paho.org/common/Display.asp?Lang=S&amp;RecID=11910">http://www.paho.org/common/Display.asp?Lang=S&amp;RecID=11910</a></p> <p>(c) The Supplement of the <i>Revista Panamericana de Infectología</i> is online. Hard copies are being distributed among the opinion leaders on infectious diseases in Latin America. This Supplement summarizes the "state of the art" on AMR and infection control issues in the Region.  <a href="http://www.revista-api.com/Suplemento%201-2008/pgs/sumario.html">http://www.revista-api.com/Suplemento%201-2008/pgs/sumario.html</a></p>	NA	
3.3.2 Regional forum on HCAI organized	<p>AMR PAHO Share Point updated and currently in use by PAHO focal points at country level. This experience will be utilized for the design and potential use of the forum by external users (infectious diseases specialists, microbiologists, health science students and others). Specific interventions on Infection Prevention and Control were related with the pandemic H1N1 2009 virus.</p>	NA	<p>Specific recommendations on the implementation and potential utility of this forum were discussed during the TAG meeting.</p>

Indicator	Progress	Number of Countries (when applicable)	Comments (including constraints)
<b>Outcome 4 – Outcome 4 – Implement the Neonatal Regional Plan of Action with the continuum of care approach</b>			
<b>Key Personnel Responsible for Outcome 4: Yehuda Benguigui (FCH)</b>			
4.1 Number of countries implementing strategies for increasing coverage with neonatal health and development initiatives.	Nine countries implementing strategies for increasing coverage for neonatal health	BOL, BRA, ECU, GUT, HON, NIC, PAR, PER, DOR	
4.2 Number of countries that have implemented the neonatal continuum care approach	Five countries have implemented neonatal continuum of care approach	BOL, GUT, HON, NIC, DOR	
<b>Activity 4.1 – Develop and present the Regional plan of action to the 48th PAHO Directive Council and scale-up the distribution/use existing tools</b>			
4.1.1 Regional Plan of Action developed and approved by 48th Directing Council	Nine countries implement strategies for increasing coverage for neonatal health	BOL, BRA, ECU, GUT, HON, NIC, PAR, PER, DOR	<ul style="list-style-type: none"> <li>- The preparation of the National neonatal actions plans promotes the four lines of action proposed in the Regional neonatal action plan, which targets mechanisms to increase coverage of health facilities as well as actions at the level of the community. Partners: Save the Children, Access, USAID, Core Group, Plan International, ALAPE and FLASOG.</li> <li>- Neonatal Regional Plan of Action approved by PAHO's Directing Council in 4 languages (English, Spanish, French and Portuguese); published in April 2009.</li> <li>- Regional Plan of Action disseminated in print, CD and through the internet in May 2009.</li> </ul>

<p>4.1.2 Guidelines and protocols distributed (doctors, nurses, and midwives) in selected countries.</p>	<p>Three guidelines (neonatal and child profile, model for national neonatal plan of action, and monitoring and supervision) have been distributed in health facilities</p>		<ul style="list-style-type: none"> <li>- Partners: Save the Children, USAID, Basics, UNICEF, CORE Group and SNL, Plan International, ALAPE, FLASOG, ICM, FEPPEN, ALADEFE</li> <li>- Consultants briefed on the development of the methodology of the national Plans of Action. 12 consultants were trained to support the process at the regional level and in the countries.</li> <li>- Updated information on neonatal interventions in the context of the continuum Maternal, newborn and child care disseminated. The module on neonatal evidence-based interventions within the continuum of care published and disseminated in: BRA, DOR, GUT, HON, NIC, PER.</li> <li>- Selected countries supported in the development of the National Neonatal Plan of Action. Technical cooperation provided to: BOL, DOR, HON, NIC.</li> <li>- Technical cooperation in neonatal health in: ARG, BRA, ECU, GUT, NIC, PAR and PER.</li> <li>- Consultation with countries: Objectives achieved-orientation meeting in Dominican Republic.</li> </ul>
<p>4.1.3 Number of newborns receiving essential newborn care through USG supported programs</p>	<p>- We estimate that approximately 1,200 newborns received essential newborn care through USAID in priority countries</p>	<p>BOL, ECU, HON, NIC, DOR</p>	

Activity 4.2 -- Monitor and evaluate progress in the Neonatal Regional Action Plan.			
Key Personnel Responsible for Activity 4.1: Yehuda Benguigui (FCH)			
4.2.1 Increase follow-up and evaluation of Neonatal Regional Action Plan	1. Consultants briefed in regard to the development of the methodology of the national Plans of Action. 12 consultants were trained to support the process at the regional level and in the countries.		Partners: Save the Children, USAID, Basics, UNICEF, CORE Group and SNL, Plan International, ALAPE, FLASOG, ICM, FEPPEN, ALADEFF
	2. Updated information disseminated on neonatal interventions in the context of the continuum Maternal, newborn and child care. The module on neonatal evidence based interventions within the continuum of care was published and disseminated in: BRA, DOR, GUT, HON, NIC, and PER.	BRA, DOR, GUT, HON, NIC, and PER.	
	3. Selected countries supported in the development of the National Neonatal Plan of Action. Technical cooperation provided to: ARG, BRAECU, BOL, DOR, GUT, HON, NIC, PAR and PER	ARG, BRAECU, BOL, DOR, GUT, HON, NIC, PAR and PER	
	4. Updated information disseminated on neonatal interventions in the context of the continuum Maternal, newborn and child care. The module on neonatal evidence based interventions within the continuum of care was published and disseminated in: BRA, DOR, GUT, HON, NIC, and	BRA, DOR, GUT, HON, NIC, and PER.	

	PER.  5. Selected countries supported in the development of the National Neonatal Plan of Action. Technical cooperation provided to: BOL, DOR, HON, NIC.	BOL, DOR, HON, NIC	
4.2.2 Number of newborns receiving essential newborn care through USG supported programs	- We estimate that approximately 1,200 newborns received essential newborn care through USAID in priority countries	BOL, ECU, HON, NIC, DOR	

#### 4. Progress by Outcome on the Achievement of USAID Indicators: Investing in People

Cross Cutting Theme #1  
Strengthening Health Systems and Services in the context of Primary Health Care (PHC)

Indicators  Outcomes	Existence of multi-drug resistance TB Quality Control Standard at the national level	Number of improvements to laws, policies, regulations or guidelines related to improved access to and use of health services drafted with USG support	Number of information gathering or research activities	Number of institutions with improved Management Information Systems, as a results of USG assistance	Number of people trained in other strategic information management	Number of special studies	Number of new approaches successfully introduced through USG-supported programs
<p><b>Outcome 1 – Steering Role Capacity of the NHA at the national/subnational levels strengthened</b></p>	N/A	<p>- Ecuador: new political Constitution with changes that affect the health system, such as integration of the public network of health services.</p>	<p>- The Lachelathsys Web site was expanded including new sections on lessons learned on policies, programs and methodologies for strengthening health systems based on PHC.</p>	N/A	<p>- Sixty-six students participating in the Spanish version of the EPHF Virtual Course (May – Nov. 2009).</p> <p>- Nearly 40 participants (National Directors and Directors from 18 Health Regions) in Health Systems Strengthening Workshop in Paraguay.</p> <p>- Nearly 80 participants (Directors of Hospitals, health areas and health</p>	<p>- Resolution CD49.R22 on Integrated Health Services Delivery Networks Based On Primary Health Care</p> <p>- Position Document on Integration of Health Systems and Services: Concepts, Policy Options and Roadmap</p>	<p>- Virtual Course on EPHF translated into Spanish and offered through Virtual Campus of Public Health.</p> <p>- Gradual inclusion of private laboratories in national TB lab networks</p>

Indicators  Outcomes	Existence of multi-drug resistance TB Quality Control Standard at the national level	Number of improvements to laws, policies, regulations or guidelines related to improved access to and use of health services drafted with USG support	Number of information gathering or research activities	Number of institutions with improved Management Information Systems, as a results of USG assistance	Number of people trained in other strategic information management	Number of special studies	Number of new approaches successfully introduced through USG-supported programs
					centers) participated in the IDN Workshop in Pichincha, Ecuador.	for Implementation in the Americas.  Health Systems Profiles: Monitoring and Analyzing Health Systems Change/Reform for Belize, Honduras and Barbados.  Health Sector Analysis for Border Zone between Ecuador and Colombia.	





Cross Cutting Theme #2  
Improving Quality of Health Care Services

Outcomes Indicators	Existence of multi-drug resistance for TB at the national level	Number of improvements to laws, policies, regulations or guidelines related to improved access to and use of health services drafted with USG support	Number of information gathering or research activities	Number of institutions with improved Management Information Systems, as a results of USG assistance	Number of people trained in other strategic information management	Number of special studies	Number of new approaches successfully introduced through USG-supported programs
Outcome 1 – PHC Accreditation Model adapted to the characteristics and priorities of countries	N/A	N/A	N/A	N/A	<ul style="list-style-type: none"> <li>- Forty participants (National and Regional Health Directors) in the Workshop on Strategies for the Development and Strengthening of Primary Health Care Teams in Paraguay.</li> <li>- Over 60 students participating in the Virtual Course on Developing Capacity for the Renewal of PHC (Jun – Dec. 2009).</li> </ul>	N/A	<ul style="list-style-type: none"> <li>- Guidelines for Accreditation of PHC Networks validated in Ecuador.</li> <li>- Second iteration of the Development of Competencies for the Renewal of PHC currently under implementation (Jun – Dec. 09)</li> <li>- Portuguese, English and French versions of the Development of Competencies for the Renewal of PHC available for application by country offices.</li> </ul>

Indicators  Outcomes	Existence of multi-drug resistance for TB at the national level	Number of improvements to laws, policies, regulations or guidelines related to improved access to and use of health services drafted with USG support	Number of information gathering or research activities	Number of institutions with improved Management Information Systems, as a results of USG assistance	Number of people trained in other strategic information management	Number of special studies	Number of new approaches successfully introduced through USG-supported programs
<b>Outcome 2 –</b> Enhanced capacity of endemic countries for increased coverage of HIV, malaria and TB prevention, treatment and care	Varies from one country to another. Some are 0, others 1,2 or 3	0	0	15 Ministries of Health: BOL, BRA, COL, COR, CHI, ELS, GUT, HON, MEX, NIC, PAN, PAR, PER, DOR (On TB lab info.)	0	0	2 (Introduction of 3 Is on TB/HIV collaboration and creation of Regional TB Lab working group – see )
<b>Outcome 3 –</b> Provision of policy and technical support to enhance capacity to carry out communication disease surveillance and response	NA	1 Treatment guidelines on infectious diseases, 4 <sup>th</sup> Edition.	24 papers published in the Revista Panamericana de Infectologia	19 National Reference Laboratories are currently using WHONET software for AMR surveillance.	0	1 Study on antibiotic use in community acquired pneumonia, pediatric patients	0
<b>Outcome 4 –</b> Implement the Neonatal Regional Plan of Action with the continuum of care approach	NA	NA	NA	NA	NA	NA	2: Evidence-based interventions to reduce neonatal mortality; M&E of Neonatal IMCI: Methodology and generic instruments

## 5. Progress on Completion of Activities

### Cross-Cutting Theme #1 Strengthening Health Systems and Services in the context of Primary Health Care (PHC)

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 1 – Steering Role Capacity of the NHA at the national/subnational levels strengthened</b>						
<b>Key Personnel Responsible for Outcome 1 (Activities 1.1 – 1.3): José Ruales (HSS)</b>						
<b>Key Personnel for Activity 1.4: Mirta del Granado (HSD)</b>						
1.1 Support member countries to strengthen the leadership and regulation dimensions of the NHA and improve public health capacity	<p><u>Steering Role Strengthening:</u></p> <p>i. Document with lessons learned in the application of the Steering Role Methodology in Colombia and Dominican Republic finalized and disseminated in the region.</p> <p>ii. Health Systems Strengthening Workshop carried out in Paraguay (see also Activity 1.2) to map the actors and interactions in the system and define the guidelines for health policy and organization of the health care model.</p> <p>iii. Technical cooperation to Ecuador MOH Health Sectoral Transformation Team to formulate the national health</p>	<p>i. Lessons learned in the application of the Steering Role Methodology in Colombia and Dominican Republic disseminated in the region.</p> <p>ii. Proceedings of the HSS workshop in Paraguay.</p> <p>iii-v. Reports from technical cooperation missions in Ecuador, El Salvador and Peru.</p>	Peru Paraguay Ecuador El Salvador Colombia Dominican Republic	Ministry of Health of countries involved	The continuing support provided to the Sectoral Transformation Process in Ecuador, particularly at a time that the principles set forth in the transformation process begin to be operationalized.	In the case of Ecuador, even though the Constitution declared the Ministry of Health as the NHA, it became clear that clearly defining the responsibilities of the NHA was necessary. In order to have any impact over the private and social security sectors, the functions of each actor, particularly those of the NHA steering role, needed to be clearly defined.

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
	<p>policy and adjust the NHA steering role to the new changes entailed by the sectoral transformation.</p> <p>iv. Technical cooperation provided to Peru for the strengthening of the steering role in the context of decentralization.</p> <p>v. Technical cooperation was provided to the MOH El Salvador to support the process of reorganization of the Ministry of Health.</p>					
	<p><u>EPHF Strengthening:</u></p> <p>i. Subnational EPHF evaluations carried out in Rio Grande do Sul and Bahia, and strengthening agendas developed for Bahia and Tocantins.</p> <p>ii. Performance evaluation of EPHF 9 (quality assurance) carried out in Mexico.</p> <p>iii. Based on operational parameters defined in Year 1, framework for public health</p>	<p>i. Sub-national EPHF performance assessment results for two states in Brazil, including strengthening agendas for selected states.</p> <p>ii. Results of the performance evaluation of EPHF 9 in Mexico.</p> <p>iii. Document with framework for rapid</p>	<p>Brazil Mexico Colombia</p> <p>Countries participating in the EPHF Virtual Course: Bolivia Chile Colombia Costa Rica Dom. Republic Ecuador Guatemala Honduras</p>	<p>Ministry of Health of Brazil (State Health Secretariats)</p> <p>Ministry of Health of Mexico</p> <p>Ministry of Health of Colombia</p> <p>Universidad de la Sabana, Colombia</p>	<p>The Virtual Course on EPHF provides a forum for knowledge and experience sharing on critical issues related to EPHF implementation. Sixty-six students are enrolled in the six-month course which started in May and will culminate in the elaboration of an EPHF intervention project in November 2009.</p>	<p>N/A</p>

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
	<p>capacity assessment under elaboration for EPHF 1 (health situation analysis) in Brazil, EPHF 2 (surveillance) in Colombia, and EPHF 9 (quality assurance) in Mexico.</p> <p>iv. Spanish version of the EPHF Virtual Course, adapted to the LAC Region, currently under pilot application (May-Nov. 2009).</p>	<p>assessment of public health capacities for EPHF 1, 2 and 9.</p> <p>iv. Spanish version of Virtual Course on EPHF offered through the Virtual Campus of Public Health.</p>	<p>Mexico Nicaragua Panama Peru Paraguay El Salvador</p>	<p>Universidad de Antioquia, Colombia</p>		
	<p><u>LACHEALTHSYS Website:</u></p> <p>i. Website maintenance.</p> <p>ii. Development of new sections dedicated to lessons learned on policies, programs and methodologies for strengthening health systems based on PHC.</p> <p>iii. Expansion of the PAHO-USAID Cross-Cutting section where progress reports, success stories and products of the Umbrella Agreement are displayed.</p>	<p>i. Website continuously maintained and updated.</p> <p>ii. New section on policies, programs and methodologies for strengthening health systems based on PHC.</p> <p>iv. New PAHO-USAID Cross-Cutting section created.</p>	<p>All countries of the Region.</p> <p>Countries from other regions.</p>	<p>None.</p>	<p>- Increased usage of the LACHEALTHSYS Website: -- Total Hits - 566,380 -- Total Visits - 33,198 -- Total Gbytes transferred – 70</p> <p>-- Increasing number of countries/territories (154) accessing the site, with 91% of users from the Americas, followed by Europe (6%), Asia (2%) and others (1%).</p>	<p>The PAHO Web 2.0 was launched and the LACHEALTHSYS Web site was incorporated into the new platform, under HSS, allowing users to contextualize the information provided within the broader work carried out by PAHO.</p>

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
1.2 Provide technical cooperation to implement integrated health service delivery networks	<p>i. Regional Consultation on Integrated Health Delivery Networks carried out in Nov. 2008 in Belo Horizonte, Brazil.</p> <p>ii. Position Paper on <i>Integration of Health Systems and Services: Concepts, Policy Options and Roadmap for Implementation in the Americas</i> finalized based on contributions from Regional Consultation participants.</p> <p>iii. Workshop on IDN carried out in Ecuador to define the orientations of local health networks. The Integration Index was applied to identify gaps.</p> <p>iv. Technical cooperation was provided to Peru to identify strategies to develop department and local health networks and incorporate them in the country's broader health plan</p> <p>v. Health Systems Strengthening Workshop carried out in Paraguay to</p>	<p>i. Proceedings from the Regional Consultation.</p> <p>ii. Position Paper on the <i>Integration of Health Systems and Services: Concepts, Policy Options and Roadmap for Implementation in the Americas</i>, including roadmap for implementation.</p> <p>iii. Proceedings from IDN Workshop in Ecuador.</p> <p>iv. Report from technical cooperation activities in Peru.</p> <p>v. Proceedings from the Health Systems Strengthening Workshop in Paraguay.</p>	<p>Peru Paraguay Ecuador</p> <p>All countries in the Region that approved Resolution CD49.R22</p>	<p>- The Brazilian Government is PAHO's main partner in the implementation of this activity through a cooperation agreement.</p>	<p>On Sept.-Oct. 2009, the 49<sup>th</sup> Directing Council approved Resolution CD49.R22 on Integrated Health Services Delivery Networks Based On Primary Health Care, which urges Member States to elaborate plans of action to promote the creation of integrated health services delivery networks as the preferred modality for health services delivery. This will give new impetus to technical cooperation efforts in the Region.</p>	N/A

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
	identify intervention areas for the development of integrated health services networks.					
1.3 Promote efforts to scale up health systems based on PHC through the incorporation of targeted programs into the overall health system.	<p><u>Scaling up Health Systems</u></p> <p>i. Elaboration of case studies on the integration of priority programs into the overall health system:</p> <ul style="list-style-type: none"> <li>- Peru: case study on the integration of HIV/AIDS</li> <li>- Colombia: case study on the integration of TB programs</li> <li>- Guatemala: case study on the integration between Ministry of Health and Social Security Institute</li> <li>- Chile: Case studies on the integration of services networks, and maternal and child health programs</li> <li>- Brazil: case study on the integration of HIV/AIDS in the Unified Health System, as well as integration of services networks</li> <li>- Dominican Republic: case study on the integration of HIV/AIDS.</li> <li>- Trinidad &amp; Tobago: case study on the integration of</li> </ul>	<p>i. Case studies will lessons learned for Peru, Colombia, Guatemala, Chile, Brazil, Trinidad and Tobago, and Dominican Republic available in English and Spanish.</p> <p>ii. Scope and purpose and agenda for the Experts Meeting and Regional Consultation.</p> <p>iii. Reports from Technical Cooperation missions to El Salvador and Ecuador.</p>	Peru Colombia Guatemala Chile Brazil Dominican Republic Ecuador El Salvador Trinidad and Tobago	None	In preparation for the Regional Consultation, a strong effort was made to incorporate other PAHO technical areas in the definition of objectives and agenda-setting. In addition, the meeting will convene representatives from major international funding organizations, which will allow a discussion of the opportunities and challenges for integration.	The Experts Meeting and Regional Consultation were scheduled to take place before the end of FY 08-09. However, due to the H1N1 pandemic, a decision was made to postpone the two events to 9-12 November 2009.

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
	<p>HIV/AIDS</p> <p>ii. Definition of the scope and purpose and organization of an experts meeting and regional consultation to discuss lessons learned from the case studies to be carried out in Nov. 2009 in Lima, Peru.</p> <p>iii. Technical cooperation provided to Ecuador and El Salvador also includes strategies for integrating vertical programs into the overall health system.</p>					
	<p><u>Health Systems Profiles and Health Sector Analyses</u></p> <p>i. Health Systems Profiles for Belize, Honduras and Barbados finalized and available in English and Spanish in the LACHEALTHSYS Webpage.</p> <p>ii. Profiles for Mexico, Uruguay and Colombia in the process of completion.</p> <p>iii. Health Sector Analysis for the Border Zone between</p>	<p>i. Documents with Health Systems Profiles for Belize, Honduras and Barbados.</p> <p>ii. Health Sector Analysis for Border Zone between Ecuador and Colombia.</p>	<p>Belize, Honduras Barbados Ecuador Colombia</p>	<p>Ministries of Health of the countries involved.</p>	<p>- The finalization of the Health Sector Analysis for the Border Zone between Ecuador and Colombia is one of the major accomplishments of this activity. The joint work conducted as part of this exercise opens the door for strengthening cooperation in health between the two countries.</p>	<p>- A major constraint for the elaboration of Health Sector Analyses continues to be the length and complexity of the tool. Thus, in order to facilitate the process, countries can concentrate on particular sections of the methodology according to their needs and expand the analysis on that topic.</p>

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
	Ecuador and Colombia finalized.					
1.4 Integrate public and private practitioners in TB control activities at the country level	Hiring of PPM Regional focal point	Update of the PPM situation in the Region	ECU, DOR, MEX, ELS, BOL, BRA, COL, PER, URU, GUA, HAI		PPM activities in place in beneficiary countries	Planned technical assistance visits postponed or cancelled due to H1N1 Influenza epidemic

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 2 – Health information systems strengthened at the regional, sub-regional and national level</b>						
<b>Key Personnel Responsible for Outcome 2 (Activities 2.1 – 2.2): Alejandro Giusti (HSD)</b>						
<b>Key Personnel for Activity 2.3: Bremen de Mucio (FCH/CLAP)</b>						
2.1 Support the implementation of the Health Information System performance monitoring processes in the countries of the Region of the Americas	<ul style="list-style-type: none"> <li>- M&amp;E of activities in countries with National HIS and strategic plans (SP).</li> <li>- Harmonization of National HIS assessments and SP.</li> </ul>	<ul style="list-style-type: none"> <li>- National HIS and SP monitored and evaluated.</li> <li>- National HIS harmonization ongoing.</li> </ul>	PAHO/USAID countries (MEX, HON, PAR, DOR, PER, ECU)  HMN countries (BEL, PAN, NIC, ELS, GUA, BOL)  PMS countries (CRI).	MEASURE-Evaluation  HMN, HMN-TSP  Proyecto Mesoamericano de Salud (PMS)	<ul style="list-style-type: none"> <li>- SP in 6 countries</li> <li>- Network for HIS Strengthening in Spanish speaking LAC (REDLACSIS)</li> </ul>	Delays in developing the activities because of the AN1H1 pandemic.
2.2 Develop and implement standardized frameworks, methods and tools on Health Information Systems (HIS) to support decision-making in public health and health services management.	<ul style="list-style-type: none"> <li>- Design of subregional tools and standards.</li> </ul>	<ul style="list-style-type: none"> <li>- Document on tools and best practices (ongoing).</li> </ul>	REDLACSIS Network is developing.	MEASURE-Evaluation  HMN, HMN-TSP.  Proyecto Mesoamericano de Salud (PMS)	<ul style="list-style-type: none"> <li>- Collection of country reports to be harmonized in a regional document.</li> </ul>	N/A

2.3 Improve countries capacities in the development and implementation of maternal mortality surveillance systems	2.3.1 A monitoring and evaluation tool for field testing was developed and implemented. Collected data will serve as a basis for planning and implementation of phase 2.	2.3.1 Maternal mortality surveillance system framework and WBMSS tools field tested	2.3.1 Colombia	2.3.1 CDC, University of Antioquia Georgia Tech Ministry of Social Protection National Institute of Health 30 departmental and local health institutions	2.3.1 Phase 1 WBMSSS introduced and completed	2.3.1 Due to administrative problems in CDC, phase 2 has been delayed. Based on several consultations and discussions among all stakeholders, the kick-off phase 2 workshop is expected to take place early Dec. 09 or Jan. 10.
	2.3.2 Technical support provided to Paraguay for data analysis, preparation of final report, and meeting coordination.	2.3.2 National workshop for field testing data and system analysis. Dissemination of findings of Prospective RAMOS in Paraguay Meeting for the public launching of the final report of Prospective RAMOS.	2.3.2 Paraguay	2.3.2 CDC, MoH of Paraguay.	2.3.2 Meeting for the launching of the document had a wider participation of national authorities, stakeholders and media. Results have been used to plan improvements in the MM surveillance system in all Paraguay.	2.3.2 Maternal mortality surveillance systems of Paraguay are deficient and deserve greater technical support for its improvement.

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 3 – Comprehensive policies, plans and strategies to promote universal access and effective interventions</b>						
<b>Key Personnel Responsible for Outcome 3: Bremen de Mucio (FCH/CLAP)</b>						
3.1 Strengthen networks, alliances including communities of practice in maternal and perinatal health.	<ul style="list-style-type: none"> <li>- Coordinated work of the Collaborative Partnership with University of Chile (Collaborating Center) with work plans, progress reports and regular virtual meetings.</li> <li>- Supported development of the midwifery and nursing communities of practice for making pregnancy safer by training leaders, holding virtual discussions and maintaining resource bank.</li> <li>- Technical support provided</li> </ul>	<ul style="list-style-type: none"> <li>- Work Plan and Progress Report.</li> <li>- Virtual discussions.</li> <li>- Increased membership in communities of practice.</li> <li>- Consultant reports with plans and recommendations.</li> <li>- Training/education programs.</li> </ul>	All countries in the Region. Priority countries for direct support. Ecuador Guyana Paraguay Bolivia Nicaragua	<ul style="list-style-type: none"> <li>20 Members of Collaborative Partnership</li> <li>Steering Committee of GANM</li> <li>WHO Collaborating Centers</li> <li>Other organizations supporting midwifery development.</li> <li>Ministries of Health of countries supported</li> <li>Universities</li> </ul>	<ul style="list-style-type: none"> <li>- 2009 Work Plan and Progress Report of the Collaborative Partnership reflect activities carried out and results of efforts.</li> <li>- Group working on research on midwifery in Latin America and publication in Spanish</li> <li><u>Ecuador</u> -consultation on curriculum -Study visit to Chile to observe role of midwife in services</li> <li><u>Guyana</u> -Updated Curriculum to be used by all midwifery schools. -faculty development including simulation and clinical labs - review of direct entry midwifery program</li> </ul>	Attendance in virtual meetings is inconsistent. Modifying agenda and process to encourage attendance and participation during the meetings. Scheduling issues have delayed planning and follow up in several countries. Communication problems with several countries have been resolved and plans are moving forward.

	to countries for development of midwifery with consultations, assessments, study visits, training/education programs, tools and other cooperation efforts.				<u>Paraguay</u> -Consultation on curriculum  <u>Bolivia</u> -training midwifery faculty for 3 universities -training staff of clinical sites for future midwifery students -course on cultural competence for 11 faculty  <u>Nicaragua</u> -Plan for update and clinical practice for nurse-midwives.	
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Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 4 – Effective functioning of regional partnership (MNH Task Force) to promote policy dialogue in neonatal health</b>						
<b>Key Personnel Responsible for Outcome 4: Yehuda Benguigui (FCH)</b>						
<b>Key Personnel for Task 4.1.1: Bremen de Mucio (FCH/CLAP)</b>						
4.1 Support the functioning of the regional partnership (MNH Interagency Task Force) to promote policy dialogue in neonatal health within the context of the continuum of care approach in maternal, neonatal and child health.	<u>CLAP</u> - Coordinated work between Agencies in the framework Task Force (TF) secretariat.  - Supported ongoing development of documents and communications of the TF.  - Technical support provided to countries for development of national TF.	<u>CLAP</u> - Work plan defined, e-bulletin available (Spa. and Eng.), institutional brochure developed, magazine on sexual and reproductive health translated into Spanish and printed, Lancet Series on Maternal Mortality translated into Spanish and printed.  - Document called "Articulating intersectoral agreements for maternal mortality reduction in Latin America and the Caribbean: lessons learned in the application of the Document of Interagency Strategic	<u>CLAP</u> All Countries.  National TF on MM MEX.	<u>CLAP</u> UNFPA, IFC, IADB, Population Council, CEPAL, FIGO (FLASOG), IMC, UNICEF.	<u>CLAP</u> Re-launching of the TF. Redefinition of its objectives. Increased membership and strengthened visibility in the Region.	<u>CLAP</u> Attendance in virtual meetings is inconsistent.

		Consensus" updated.				
	<u>FCH</u>	<u>FCH</u>	<u>FCH</u>	<u>FCH</u>	<u>FCH</u>	<u>FCH</u>
	<ul style="list-style-type: none"> <li>- Supported the functioning of the Regional Newborn Alliance emphasizing the Continuum of Maternal, Prenatal and Infant Health.</li> <li>- Continued participation in periodical and monthly technical meetings and supported with meeting notes, development of a database for focal points, logo, webpage and Alliance brochure.</li> </ul>	<ul style="list-style-type: none"> <li>- Revision of Action Plan technical document presented at Directing Council.</li> <li>- Newborn Alliance webpage (in progress).</li> <li>- Database of newborn health focal points disseminated among partners of the Newborn Alliance at the Regional level.</li> <li>- Indicators (process and impact) agreed by all partners (in progress)</li> <li>- Support for launch of "Neonatal Interagency Strategic Consensus" in the countries with partners (PAR, NIC, HAI)</li> </ul>	All countries in the Region	<ul style="list-style-type: none"> <li>USAID, URC-CHS, BASICS, ACCESS, Save the Children/SNL, CORE</li> <li>Technical References: ALAPE, FLASOG</li> </ul>	<ul style="list-style-type: none"> <li>- Consensus between members of the Alliance in relation to the 4 principal lines of action that constitute the "Regional Strategy and Plan of Action for Neonatal Health Within the Continuum of Maternal, Newborn and Child Care" approved by PAHO's 48<sup>th</sup> Directing Council.</li> <li>- Co-financing between the partners for different products: <ul style="list-style-type: none"> <li>-- Alliance web-page</li> <li>-- Publication: "Neonatal Interagency Strategic Consensus"</li> <li>-- National launching workshops of the "Neonatal Interagency Strategic Consensus"</li> </ul> </li> </ul>	Administrative difficulties regarding review of resources between the different partners. The solution has been to co-finance parts of the activities or processes by each of the agencies.

Cross-Cutting Theme #2  
Improving Quality of Health Care Services

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 1 – PHC Accreditation Model adapted to the characteristics and priorities of countries</b>						
<b>Key Personnel Responsible for Outcome 1: José Ruales (HSS)</b>						
1.1 Development of a PHC Accreditation Model	i. PHC Networks Accreditation Guidelines completed.  ii. Workshop on Strategies for the Development and Strengthening of Primary Health Care Teams carried out in Paraguay.  iii. PHC Networks Accreditation Guidelines validated in Ecuador, including adaptation and application to evaluate local PHC networks.  iv. Second	i. PHC Networks Accreditation Guidelines.  ii. Proceedings from Workshop on Strategies for the Development and Strengthening of Primary Health Care Teams in Paraguay.  iii. Results of application of PHC Network Accreditation Guidelines validation in Ecuador.  iv. Virtual Course on Development of Competencies for the Renewal of Primary Health Care offered in Spanish through the Virtual Campus of Public	Ecuador Paraguay  Countries participating in the PHC Virtual Course: Bolivia Costa Rica Dom. Republic Ecuador Guatemala Honduras Mexico Nicaragua Peru Paraguay El Salvador Uruguay	Ministry of Health of Ecuador  Ministry of Health of Paraguay	Workshop on PHC in Paraguay: The MOH is reorganizing its services provision network implementing the recommendations of the initiative on IDHN base don PHC, and the tools to evaluate the attributes of networks. Three rounds of technical cooperation missions have supported the elaboration of an action plan that will begin implementation in November 2009.	N/A

	<p>iteration of the Virtual Course on Development of Competencies for the Renewal of Primary Health Care for Spanish speaking countries (June-December 2009).</p> <p>v. Virtual course on Development of Competencies for the Renewal of Primary Health Care translated into English, French and Portuguese.</p>	<p>Health</p> <p>v. French, Portuguese and English translations of the Virtual Course on Development of Competencies for the Renewal of Primary Health Care available for application by country offices.</p>				
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Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 2 – Enhanced capacity of endemic countries for increased coverage of HIV, malaria and TB prevention, treatment and care</b>						
<b>Key Personnel Responsible for Outcome 2: Mirta del Granado (HSD)</b>						
2.1 Increase and improve the managerial capacity of the TB Laboratory Network by providing technical assistance to selected National Laboratories from TB priority countries.	- Preparations and development of Regional Meeting of National Laboratories for TB (Rio de Janeiro, Sept. 09)	-Concrete recommendations on strengthening national laboratory networks. - Document with the creation of the Regional Laboratory working group	All 12 priority countries for TB: BOL, BRA, COL, DOR, ECU, GUA, GUY, HAI, HON, MEX, NIC, PER	CDC  Supranational laboratories of Chile, Mexico and Guadeloupe  Public Laboratory of Massachusetts	- Successful Regional Laboratory meeting where commitment to work closer between the NTPs and the national reference laboratory was achieved. - Creation of the Regional Laboratory working group	Not enough coordination still exists in several countries between the NTP and national reference laboratories. Half of the Regional meeting had participation of both and the issue was addressed.
2.2 Train national TB professionals/consultants on the new Stop TB strategy to provide technical assistance at country level.	- Selection and recruitment of 2 fellows (May and July respectively)  - Participation of fellows in Regional trainings and country missions.	- The fellows have been supporting the Regional TB program with emphasis on Pediatric TB and laboratory. - Regional meeting reports prepared by the fellows.	All countries of the Region	USAID	Fellows fully involved in the dynamics of the Regional TB program.	Long internal recruitment process. The selection of the next fellow will start earlier.
2.3 Strengthen the implementation and monitoring of the recommended TB/HIV collaborative activities in priority countries within the frame of the new Stop TB Strategy.	- Preparations and development of Regional TB/HIV meeting (San Jose, Costa Rica, Oct. 08) - Printing of TB/HIV	-Concrete TB/HIV activities planned and underway in all priority countries.  - Availability of TB/HIV managerial course in Spanish	All countries in the Region.	TBCAP  USAID  KNCV	- Increasing number of TB patients tested for HIV - Stronger commitment of HIV programs to work jointly with NTPs - Further TB/HIV	Stronger commitment of national HIV programs to work on TB/HIV jointly with NTPs. After last Regional meeting full support was obtained from Regional HIV

	managerial course in Spanish (co-funded with TBCAP) - Initiation of updating the Regional TB/HIV clinical guidelines				managerial training in the Region	program in stimulating national HIV programs to accomplish it.
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Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 3 – Provision of policy and technical support to enhance capacity to carry out communication disease surveillance and response</b>						
<b>Key Personnel Responsible for Outcome 3: Pilar Ramón (HSD)</b>						
3.1 Strengthen nosocomial infection surveillance with an emphasis on antimicrobial resistance surveillance components	<p>1. Annual meeting aimed at data collection process revision and quality control of the surveillance network.</p> <p>2. 2006 AMR Data collection on selected pathogens and antibiotics.</p> <p>3. Revision of the 2006 and 2007 data.</p> <p>4. Preparation of the 2006 and 2007 AMR Report.</p>	<p>Annual Report published (2006 data).</p> <p>Annual Report, 2007 data pending of publication.</p>	18	<p>ANLIS "Dr C. Malbrán", Argentina.</p> <p>Bacteriology and Enteric Diseases Program National Microbiology Laboratory Public Health Agency of Canada, Winnipeg, Manitoba, Canada.</p> <p>CDC.</p> <p>PAHO SIREVA 2 Network (THR).</p> <p>European Antimicrobial Resistance Surveillance System (EARSS).</p>	<p>Annual Report (2006 data) available.</p> <p>Awareness on AMR at country level.</p>	<p>Quality of the data should be improved; detailed checking by an external consultant was performed for 2006 and 2007 data.</p> <p>Data submission is paper based, with occasional sharing of excel files. Should be developed a user-friendly system to notify the data from national to regional level.</p>

<p>3.2 Promote rational use of antibiotics under the scope of a multisectoral approach, develop SOPs for prevention and control of associated health care infections, based on evidence.</p>	<p>1. Gathering and publication of available evidence.  2. Guidelines for restricting the use of antibiotics in Guatemala.  3. Collaboration on training on hand hygiene and promotion of clean care is safer care practices.  4. Support the preparation of the 1<sup>st</sup> National Congress on Infection Prevention and Control in El Salvador (Nov 2008)</p>	<p>Publication on "<i>Legislation on Infection Control in Latin America</i>" printed and distributed.</p>	<p>4  (Guatemala, , Costa Rica, Colombia and El Salvador)</p>	<p>PAHO THR/EM.  Alliance for the Prudent Use of Antibiotics (APUA).  Patient Safety Alliance (Regional level)</p>	<p>National and/or local policies for rational use of antibiotics implemented.  Hand hygiene implemented at hospital level.</p>	<p>Limited number of countries reached. A detailed scaling plan should be prepared, in order to Specific communication with key stakeholders and policy decision makers should be strengthened</p>
<p>3.3 Organize and maintain an electronic regional community forum on health care acquired infections and AMR.</p>	<p>1. Gathering publication and tools  2. Discussion with PAHO web page Technical Support.</p>	<p>Web page updated. Share point available and routinely used for communication with countries.</p>	<p>NA</p>	<p>PAHO/IKC</p>	<p>AMR information and documents available for consultation.</p>	<p>Difficulty to assess the use and impact of the publications or tools. Specific impact</p>

Activity	Steps	Deliverables/ Products	Beneficiary Countries	Partner Institutions	Major Accomplishments	Problems and Solutions
<b>Outcome 4 – Implement the Neonatal Regional Plan of Action with the continuum of care approach</b>						
<b>Key Personnel Responsible for Outcome 4: Yehuda Benguigui (FCH)</b>						
4.1. Develop and present the Regional Plan of Action and scale up the distribution and use of existing tools (standards, training courses, and guidelines) in selected countries.	<ul style="list-style-type: none"> <li>- Edit and produce Neonatal Regional Plan of Action in 4 languages</li> <li>- National launches of "Interagency Neonatal Consensus" with the Neonatal Regional Plan of Action in selected countries</li> <li>- Disseminate Plan of Action:               <ul style="list-style-type: none"> <li>-- through the bulletin "News on Integrated Care"</li> <li>-- to networks of IMCI consultants, members of IMCI Technical Group, pediatrician professors and ALAPE members</li> <li>-- through PAHO Web site.</li> </ul> </li> </ul>	- Disseminate Neonatal Regional Plan of Action approved by the 2008 Directing Council	All	USAID, UNICEF, BASICS, Save the Children/SNL, Core Group, Plan International, ALAPE, ALADEFE		

	<ul style="list-style-type: none"> <li>- Launching of the document “Interagency Neonatal Consensus” and Neonatal Regional Plan of Action in selected countries</li> <li>- National workshops on the development of the Neonatal National Plan according to the Regional Plan of Action in selected countries</li> <li>- Support for the publication and dissemination of “National plan of action in the context of the continuum of care” in selected countries</li> </ul>	<ul style="list-style-type: none"> <li>- National action plans in the framework of the Continuum of Care developed, published and disseminated</li> </ul>	BOL, DOR, ECU, NIC PAN, PER	UNICEF, USAID, Save the Children/SNL, URC, Plan International ALAPE, FLASOG	<ul style="list-style-type: none"> <li>- Establishment of national partnerships in replication of the Regional Interagency Alliance in selected countries: BOL, DOR, NIC, PER</li> </ul>	
4.2 Monitor and evaluate progress in the Neonatal Regional Action Plan.	<ul style="list-style-type: none"> <li>- Working group meeting to develop a guide in monitoring and evaluation for health care personnel at</li> </ul>	<ul style="list-style-type: none"> <li>- “Regional monitoring and evaluation guide to asses progress in neonatal health” developed, tested, published and</li> </ul>	BOL, DOR, GUT, HON, NIC, PAN	UNICEF, USAID, Save the Children/SNL, Plan International		Need to mobilize resources to continue disseminating plans of action in the countries, and to adapt monitoring and evaluation guides to

	<p>primary level in neonatal health in the framework of the continuum of care</p> <ul style="list-style-type: none"> <li>- Field test in BOL and NIC</li> <li>- Publication of "Regional monitoring and evaluation guide to asses progress in neonatal health"</li> <li>- National adaptation of "Regional monitoring and evaluation guide to asses neonatal health" in selected countries</li> </ul>	<p>disseminated</p> <ul style="list-style-type: none"> <li>- National adaptation of "Regional monitoring and evaluation guide to asses neonatal health" in selected countries</li> </ul>				<p>countries</p>
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## 6. Success Stories

### Cross Cutting Theme #1 Strengthening Health Systems and Services in the context of Primary Health Care (PHC)

#### *Building Integrated Delivery Networks in Ecuador*

The Constitution of the Republic of Ecuador, approved in September 2008, determines in Art. 360 that the National Health System shall be organized with a Primary Health Care (PHC) approach and function through integrated networks offering universal and equitable health services, under the leadership of the National Health Authority. This entails a challenge for the Ministry of Public Health (MPH) of Ecuador. In order to build integrated health services networks based on PHC, the MPH must tackle the fragmentation and segmentation that pervade its health system.



*A Basic Health Team making visits in Ecuador.*

As a first step in that direction, and based on the Integrated Health Delivery Networks (IHDN) Initiative developed by PAHO with the support of USAID, an evaluation of the primary care network in five provinces of the northern border - Esmeraldas, Carchi, Ibarra, Coca y Sucumbios - was carried out in 2009. The Initiative defines 12 attributes of IHDN for which specific components were identified, whose presence or absence shows the degree of integration/fragmentation of the network at a given time. As part of this operational research, a General Integration Index was developed. The Index allows a fast, precise and objective overview of the key network components in need of strengthening and helps in the prioritization of interventions areas, design of strategies, and evaluation.

The methodology as a whole and the General Integration Index in particular are powerful tools that can be used not only for comparative purposes but also as a set of instruments and processes that can support health systems decision making at the time of design and implementation of interventions to strengthen networks within a specific health model or strategy.

## *Virtual Course on Essential Public Health Functions*

### *Building networks to tackle problems and share solutions in Latin America*

The Virtual Course on Essential Public Health Functions (EPHF) is an online continuous education course developed by PAHO with the support of USAID whose main goal is to develop leadership and capacity for EPHF strengthening in the Region. The course, which provides a forum for knowledge and experience sharing on critical issues related to EPHF implementation, is currently being offered through the PAHO Virtual Campus of Public Health, through a network learning platform called *Moodle*.

Sixty-six students are enrolled in the six-month course which started in May and will culminate in the elaboration of an EPHF intervention project in November 2009. Participating in the course are public health leaders in the region, including social security directors, viceministers or national health directors, health secretaries from departments or provinces, and professors from public health schools. In addition to utilizing virtual tools that allow reaching remote locations, the course provides working professionals flexibility and the opportunity to enhance their skills while staying in their workplace. One result of the course thus far has been the creation of a network of public health professionals and experts in the region that share problems and solutions.

Dr. Javier Góngora Ortega is one of the students currently enrolled in the EPHF Virtual Course. Dr. Góngora is a Tenured Researcher and Professor at the Health Institute of the State of Aguascalientes, Autonomous University of Aguascalientes. Thus far, Dr. Góngora feels that the Virtual Course has equipped him with expanded knowledge on public health objectives, scope and functions; the recognition of the importance of intra and intersectoral action; a better comprehension of the essential functions; and the incorporation of lessons learned from other countries through experience-sharing with fellow virtual students.

According to Dr. Góngora, participating in a Virtual Course offers a series of benefits such as better time management; less cost; flexibility of schedule; and the possibility of meeting students from other countries and adapting their experiences to his own scenario when tackling similar problems. He believes the *Moodle* platform is very user-friendly and allows a great deal of communication among participants. Dr. Góngora will apply the knowledge and competencies learned through the EPHF Virtual Course by increasing and improving public health research as part of the activities of the Institute's Health Research Unit, advising other areas within the Institute, and disseminating up-to-date knowledge to public health students and students from other departments within the health track. Direct beneficiaries include the Institute's Managers, university students, Heads of Departments and indirectly the population of the State of Aguascalientes.



*Public health students in their 5<sup>th</sup> semester participate in a Health Campaign Day [Jornada de Salud] in a marginalized community in the State of Aguascalientes. This effort involved the participation of the university, the municipality and the Health Institute.*

Dr. Góngora believes that, with courses such as the EPHF Virtual Course, Health Campaign Days and other similar types of activities can be strengthened, applying and disseminating the EPHF approach among Human Resources through education and intersectoral participation. As countries are attempting to be more efficient with limited resources, and improve health outcomes, the EPHF Virtual Course offers an important platform for strengthening public health capacity in the region.

## ***Peru's decentralized Health Information System***

### ***Introducing HMN Diagnostic Tool and PRISM outcomes at the sub national level***

The Health Information System (HIS) experience in Peru is unique as the development of the system is being worked simultaneously within the decentralization process.

From May 2008 to March 2009, Peru adopted the Health Metrics Network (HMN) diagnostic tool and the Performance of Routine Information System Management (PRISM) framework to assess its HIS. During the initial process, the PAHO/USAID project, and MEASURE Evaluation provided technical assistance to the country team in the application and use of both the HMN and PRISM tools. Best practices from tool application in Paraguay were used to support the process. The technical team in Peru later adopted the tools and fine-tuned them to the country's context. The team developed a road map consisting of four stages for application of the HMN and PRISM frameworks, and standards for HIS development.

The HMN assessment was applied at the national level with the participation of 42 institutions. The PRISM tools were first applied in seven regions: Cusco, Ayacucho, Junin, Pasco, Huanuco, Ucayali and San Martin. These are regions in which USAID/Peru through the Health Policy Initiative project is providing some type of technical cooperation and already has some presence. Subsequently, Lima and Callao were included. The General Office of Epidemiology later expanded the sample by incorporating seven additional regions (Madre de Dios, Apurimac 1 and 2, Huancavelica, Cajamarca and Loreto) and offered resources for implementation. Additionally, PAHO/Peru financed the application of the PRISM tools in the northern part of Peru (Trujillo) as well as in the south (Arequipa) in order to have complete coverage at the national level.

Approximately 180 local facilitators were trained by the technical team in Peru in using the PRISM tools in the first seven regions where USAID has a presence. Approximately 20 micro-networks (health facilities at the local level) and hospitals in the regions of San Martin, Cusco, Ucayali, Huanuco, Ayacucho and Junin have been completely assessed. There are regional assessment reports available as well as 80 local action plans for continuous improvement of HIS performance. In Lima and Callao, 150 facilitators were trained and assessments were carried out.

Dissemination of results and the process for improving HIS in Peru culminated in a national workshop which took place in Lima on March 17, 2009. Representatives from all the regions were present. Next steps include the elaboration of a National Health Information System Strategic Plan reflecting all of the local action plans developed. Key outcomes of the PRISM application were: a) registry of health personnel for HIS; b) inventory of human and physical resources available in the current HIS; c) local strategies and action plans; and d) evaluation of human resources deficiencies, in terms of actual abilities, at the national and regional level.

It was positive to see the response of the representatives from the subnational levels, who felt empowered by their own diagnosis. This inspired other regions to strongly advocate for their participation in follow-up activities to assess their situation in the development of a national strategic plan that includes/reflects the unmet needs at the local level.

## *Realizing the power to produce information at the local level in Peru*

Increasingly, health information is recognized as a basic input for public policy formulation, monitoring, and evaluation. There is also an increasing realization that the local level - where health events take place, health is generated, and care is provided - is the instance where the process of data production for decision-making begins.

This is a success story from a Latin American, multi-ethnic, and multicultural country that prior to the Spanish colonization was the seat of one of the richest and most prolific civilizations in the world: Peru and the Incas. It is also an individual story, albeit collective, in that a large group of social actors, users, and producers of information become aware and realize that they are the key generators of the health information that a country produces.

The information recorded by persons who are at the local level, sometimes using an ordinary instrument, constitutes the essential basis for producing a public good that should be appropriated by them. An adolescent who has her first child at 14 years of age, an AIDS patient, a malnourished child, are all single cases that when added together constitute the basic element for making decisions about the health of populations. Recording of these events and their use at the local level is the starting point so that those at the higher levels accept the collective reality of individual events.



National participants of the project funded by USAID and implemented by PAHO and MEASURE-Evaluation in Peru thus visualized from the start that the diagnosis of the Health Information System at the local level would help to uncover the differences often hidden in averages. With this goal in mind, they took the proposal to apply locally standardized tools (HMN and PRISM<sup>1</sup>) with the participation of 12 of the 24 regions of Peru. The project sought to create awareness regarding the importance that actors at the local level have to ensure that the country has reliable, timely, valid, and complete data. Through this initiative, they were able to find different regional problems and recognize that there are no single solutions to the challenges encountered.

When project results and future proposals were presented, the remaining 12 departments demanded the right to stop being passive producers of information and urged to be included as active participants in the definition of their own problems and solutions. Nothing is better than to share in the construction of one's own history, and the actors who use and produce information at the local level realized the role they can play in drafting the history of information in their country.

<sup>1</sup> HMN Health Metrics Network diagnostic tool for Health Information Systems and PRISM Performance of Routine Information System Management, developed by MEASURE-Evaluation. These tools were applied in Mexico, Honduras, Paraguay, Peru, Dominican Republic and Ecuador.

## *Enhancing Maternal Mortality Surveillance in Colombia*

### *Challenge*

The fifth Millennium Development Goal (MDG) is to improve maternal health by reducing the maternal mortality ratio by three-quarters between 1990 and 2015. The United Nations state that it is complex to measure improvements in maternal deaths due to unreliable data. Most vital registration systems are insufficient to monitor maternal mortality.

In the case of Colombia, a PAHO/CDC feasibility assessment conducted in September 2007 concluded that the country's infrastructure provided a great opportunity for developing a web-based maternal mortality surveillance system. The country's maternal mortality ratio is estimated at 73 maternal deaths per 100,000 live births. Colombia also ranks second in the World as having the highest number of internally displaced persons.

### *Initiative*

Since 2008, the Ministry of Social Protection (MSP) of Colombia, the National Institutes of Health (NIH), PAHO, CLAP, Georgia Tech, NACER/CALDAS of the University of Antioquia and Caldas in Colombia, WHO, CDC's Division of Reproductive Health/WHO Collaborating Center, and USAID are collaborating in the implementation of a Web Based Maternal Mortality Epidemiological Surveillance System (WBMMESS). This will be a prospective, active and real time system to facilitate policy makers and program managers' decision making to improve maternal health outcomes.

This initiative aims to place urgency on reducing maternal mortality through active surveillance and timely public health notification, investigation (clinical audit and family interviews), response and systems improvement. Critical to the system's implementation are epidemiological and informatics principles, processes and tools for the elucidation of maternal health inequalities driven by health, social, behavioral, and community determinants.

The initiative operates in three Departments, including Antioquia, Caldas, and Valle del Cauca and Bogota District (capital of Colombia), and integrates strategies from the local to the national and PAHO regional levels. The initiative is guided by principles of consensus-building and collaboration across institutions for enhanced maternal mortality surveillance. Project beneficiaries include women of reproductive age and their families, including internally displaced women.

### *Results*

To date, Phase 1 of the WBMMESS field test has been completed. Data collection tools and instruments have been developed for case ascertainment and analysis. Furthermore, technical requirements have been tested for designing and field testing the web-based maternal mortality platform. Another important objective of Phase I was to strengthen the technical capacity of program managers at the municipal, departmental, and national levels to undertake WBMMESS field tests. To do so, a Community of Practice on maternal mortality surveillance was introduced in October 2008. The Community of Practice convenes individuals who share information, insight, experience, and tools about maternal mortality surveillance. This effort aims



Photo: Antioquia University/Joaquin Gomez

*"This initiative has provided crucial support to the Colombian epidemiological surveillance program to achieve an important breakthrough in advanced data management and epidemiological surveillance. This allows decision-makers and health workers to improve the implementation of effective evidence-based interventions to prevent maternal mortality in the country" said Dr. Victor Hugo Alvarez, Public Health Epidemiological Surveillance group Coordinator, Ministry of Social Protection.*

to improve competencies through the systematic sharing and exchange of knowledge for improving the quality of the surveillance system.

This initiative will enhance existing surveillance systems rather than creating a parallel system. This will be done through re-engineering, integration and standard policy application of the existing system. The lessons learned from the Colombian application will be disseminated for adaptation in other countries.

## *Midwives in Guyana bring curriculum into the 21<sup>st</sup> century*

*Preparing new midwives to acquire life-saving skills is the goal of the curriculum revision*



Photo: U. PENN/Kate McHugh

Young midwives filling out a partograph, during the attention of a woman in labor in public hospital in Guyana.

*Preparing the new midwives to obtain skills that save lives is the goal of the curriculum update.*

In November 2008, the updating of the national curriculum for midwives in Guyana, a collaborative effort sponsored by PAHO CLAP/WR with USAID funding, was completed. Faculty members from midwifery schools worked with officials from the Division of Health Sciences Education of the Ministry of Health, and the Nursing Council to examine the curriculum which dated from the 1980s. As the stakeholders worked on the new curriculum, efforts were made to incorporate a woman-centered philosophy for maternity care. Revisions included content on HIV/AIDS, emergency measures for obstetric hemorrhage, and new skills for neonatal assessment and resuscitation. Consultants from the PAHO/WHO Collaborating Center at the University of Pennsylvania, School of Nursing, facilitated the effort.

Providing high quality education for nurse-midwives in Guyana is difficult because of a significant shortage of faculty members and clinical instructors. Migration of nurse-midwives has decreased their ranks, which makes delivery of pre-service education a real challenge. At the same time, in-service education and faculty development efforts are handicapped by the nursing and midwifery shortage. PAHO plans to offer ongoing faculty development workshops to support a modernized educational model, including web and computer skills.

The finished curriculum is in a modular format that promotes adult self-directed learning. It was implemented in a class that started in December 2008. Future plans include training of faculty to staff health science skills labs, and evaluation of the curriculum of the community midwives program, which provides midwifery services in rural areas.

### *Inter-Agency Task Force as a tool to reach MDG 5 in the Region*

Reducing maternal mortality is a regional priority in Latin America and the Caribbean (LAC); however implementation at the country level presents unique challenges. Although safe motherhood policies are largely in place, political commitment to safe motherhood needs to be strengthened and focused on effective strategies and interventions. A great divide has developed between maternal health services for the rich versus the poor, for urban versus rural, and the needs of certain groups, such as indigenous and adolescent women, are seriously neglected.

The Regional Task Force (RTF) was initiated with the technical support of the PAHO Mortality Reduction Initiative team, under the scope of the PAHO-USAID Agreement. While its primary focus is on supporting country efforts, it also facilitates inter-agency communication, both at the regional and global levels (the latter through linkages with the global Safe Motherhood Inter-Agency Group). The Task Force's agenda and operating principles are based on globally-accepted agreements and experience, including: the International Conference on Population and Development (ICPD) commitments; PAHO's Regional Plan for Maternal Mortality Reduction (which the region's Ministers of Health considered as a priority in 2002); and the lessons learned in the first ten years of the Safe Motherhood Initiative.

The goals of the Task Force are to:

1. Promote interagency cooperation to develop regional and national strategies and consensus for the reduction of maternal deaths;
2. Promote policy dialogue for the implementation of evidence-based interventions;
3. Share best practices, lessons learned and innovative models; and
4. Maximize the use of limited financial resources through collaboration and interagency harmonization.

In order to follow up on these issues, PAHO transferred the Secretariat of the RTF to UNFPA for the period 2009-2010. UNFPA will be accompanied in the RTF management by an Executive Committee comprised of representatives from USAID, IADB, IFC and PAHO. On December of 2008 a new work plan was agreed for the following two years.

International and national partners have been collaborating for more than a decade to reduce maternal mortality and morbidity, and in that time, significant progress has been made and lessons have been learned on a global level. There is also a growing body of international agreements that advance and broaden the priorities for reducing maternal mortality. Although the RTF is one of the first regional intersectional bodies created to specifically address maternal mortality, its work plan is framed within each member agency's efforts to advance and implement existing international agreements relating to women's health and rights, such as the Cairo Agenda and the Summit for Children, and to promote forward-looking goals, such as the Millennium Development Goals, and the upcoming activities to mark the tenth anniversary of the International Conference on Population and Development.

## ***Advocating for Newborn Health in Peru***

### *The Role of the Neonatal Health Collective in favor of Newborn Health*

In Peru, the coverage of institutionalized delivery has increased, and accordingly the professional care of newborns. However, the average figures conceal extreme situations; for example, the risk of neonatal death is 11 times greater among the poorest populations than among the richest populations. This situation does not necessarily stem from the lack of interventions, but from the fact that it is difficult to ensure that interventions are sustainable and appropriate for the particular social and cultural characteristics of each region and community. History demonstrates that in order to properly address neonatal mortality, interventions have to extend from pregnancy up to childbirth, the neonatal period and beyond.

**The Neonatal Health Collective in Peru** emerged from the need for increased support and promotion of neonatal health in Peru. The Collective bases its policies and activities on technical documents produced by the Newborn Health Alliance for Latin America and the Caribbean, which was formed in 2005 as an interinstitutional effort to promote Newborn Health in Latin America and the Caribbean within the continuum of care for mothers, newborns, and children. The Neonatal Health Collective was formed by PAHO/WHO, UNICEF, CARE, and PRISM; since its inception, other members have joined, including representatives from the Ministry of Health and from Pediatric and Gynecological/Obstetric Scientific Societies; all members use the framework of the achievements of this Regional Partnership.

In the country, thanks to advocacy carried out at the highest level, neonatal health has become a state policy and receives an adequate budget. The following results demonstrate the success of the efforts to promote newborn health:

- **Protection of infant health in the public budget:** the State has identified 11 priority interventions for children, among them comprehensive care of the neonate.
- The Ministry of Health has developed the **Neonatal Maternal Strategic Program** and ensures resources through the budget based on results and with a focus on life cycle.
- The Ministry of Health approved and launched **Technical Standards of Health**.



*A mother with her baby in Peru.*

The Collective hopes to ensure that cost effective interventions are structured into packages and are included in the Essential Plan of Universal Assurance that is being initiated in priority regions of the country; to expand the Collective, inviting and calling on other public and private institutions to participate; to support the Ministry of Health in the implementation of both approved Technical Standards of Health; and to ensure that investment in infant and particularly neonatal health is prioritized at the regional level.

**Cross-Cutting Theme #2**  
**Improving Quality of Health Care Services**

***Implementation of collaborative TB/HIV activities in the countries of the Americas***

Since 2004, a series of regional meetings have been organized by tuberculosis and HIV/AIDS programs. These meetings provide an opportunity for updating TB and HIV/AIDS program managers on current management guidelines for TB/HIV co-infection, epidemiological and operational situation analysis of TB/HIV co-infection, and review and updating of interprogrammatic action plans. The joint meetings are held thanks to the financial support of USAID.

Throughout the implementation of these activities, it became clear that HIV/AIDS program managers had begun to implement collaborative TB/HIV efforts as part of their work in the last 2 years. Tuberculosis program managers, on the other hand, have taken on this task from the start. Thanks to this impetus given by the tuberculosis programs to work towards greater interprogrammatic collaboration between TB and HIV/AIDS within PAHO and in the countries, greater commitment on the part of the HIV/AIDS programs has been obtained. HIV/AIDS programs have begun to take on key activities, such as infection control, intensification of TB case-finding in people with HIV, and preventive treatment with isoniazid (INH) in people with HIV without tuberculous disease.

This progress has been shown in a survey conducted by PAHO in 2008 which reveals an increase in coverage of HIV testing in patients with TB, preventive treatment with cotrimoxazole (CMX) of those co-infected with TB/HIV, and antiretroviral therapy in TB/HIV patients. The results obtained are still insufficient, and the goal is to offer comprehensive care for every patient with TB and every person with HIV. However, countries of the Americas have made great progress in recent years.

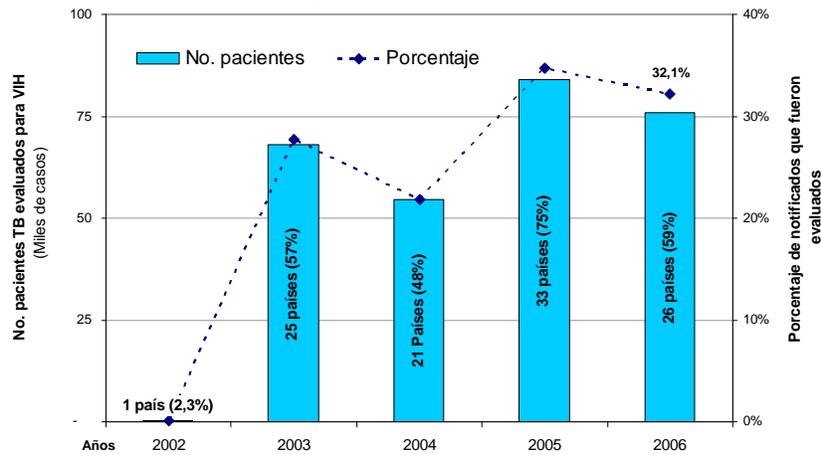
**Implementation of collaborative TB-HIV activities in the countries of LAC, 2008**

Country	A1	A2	A3	A4	B1	B2	B3	C1	C2	C3	C4	C5	Total
Argentina					Yes	Yes	Yes					Yes	33%
Belize	Yes	Yes	Yes			Yes	83%						
Brazil	Yes		Yes	Yes	92%								
Colombia	Yes		Yes		Yes	Yes	83%						
Costa Rica		Yes					Yes	Yes	Yes		Yes	Yes	50%
Cuba	Yes		Yes	Yes	92%								
Ecuador	Yes		Yes				Yes			Yes	Yes	Yes	50%
El Salvador	Yes	100%											
Guatemala	Yes		Yes	Yes	92%								
Guyana		Yes	92%										
Haiti	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	75%
Honduras	Yes	Yes	Yes		Yes			Yes		Yes	Yes	Yes	67%
Mexico	Yes		Yes	Yes	92%								
Nicaragua		Yes		Yes	Yes	Yes	83%						
Panama			Yes								Yes	Yes	25%
Paraguay	Yes		Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	75%
Peru	Yes		Yes	92%									
Rep. Dominican	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	83%
Uruguay	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	75%

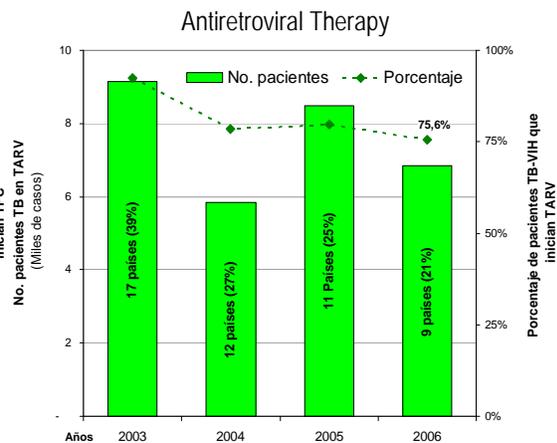
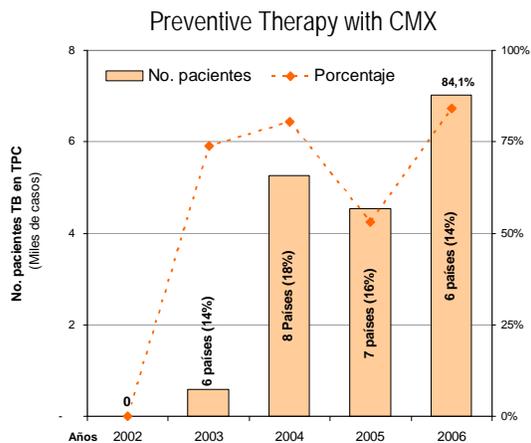
Venezuela	Yes	92%											
Total	15	14	16	11	15	16	16	17	14	10	19	20	
Percentage	75%	70%	80%	55%	75%	80%	80%	85%	70%	50%	95%	100%	

- A1 Creation of an organ of coordination of TB and HIV activities at all levels
- A2 Monitoring of the prevalence of HIV among patients with TB
- A3 Joint planning of TB/HIV activities
- A4 Monitoring and evaluation of the activities
- B1 Intensification of TB case-finding
- B2 Introduction of preventive treatment with `Isoniazid`
- B3 Control of tuberculous infection in health agencies and collective institutions
- C1 Delivery of counseling services and HIV screening tests
- C2 Introduction of preventive methods for HIV infection
- C3 Introduction of preventive treatment with cotrimoxazole
- C4 Guarantee of attention and support for patients with HIV/AIDS
- C5 Introduction of antiretroviral therapy

Evaluation for HIV in patients with TB, the Americas, 2002-2006



Preventive Therapy Coverage with CMX and Antiretroviral in TB-HIV co-infection, the Americas, 2002-2006



## *Creation of the Regional TB Working Group on Laboratory in the Americas*

One of the priorities for the implementation of the Stop TB Strategy and the Regional Plan for Tuberculosis 2006-2015 in the Americas is to strengthen national laboratory networks to meet the need for diagnosis of pulmonary and extrapulmonary tuberculosis, drug-sensitive or resistant, associated or not with HIV.

Since 2004, PAHO organizes an annual meeting of the TB Supranational Reference Laboratories (SNLs) for the Americas with the National Reference Laboratories of priority countries to strengthen the laboratory capacity to respond to the needs of the Stop TB Strategy. In the 2009 meeting, funded by USAID, the group of SNLs decided to become the Laboratory Working Group on tuberculosis for the Americas to assist PAHO's Regional TB Program.



*2009 Annual Laboratory Meeting which took place in the Olympic City of Rio de Janeiro, Brazil, during the first week of September.*

The members of this working group include:

- Massachusetts State Laboratory Institute, United States (supranational laboratory)
  - Mycobacteriology/TB Laboratory, CDC, Atlanta, United States (supranational laboratory)
  - Public Health Institute, Santiago, Chile (supranational laboratory)
  - National Institute for Infectious Diseases, Buenos Aires, Argentina (supranational laboratory)
  - Institute for Diagnosis and Epidemiological Reference InDRE, Mexico DF, Mexico (supranational laboratory)
  - Pedro Kouri Institute, Havana, Cuba (Collaborating Center)
- National Institute for Respiratory Diseases, Santa Fe, Argentina (Collaborating Center)
  - Pasteur Institute of Guadeloupe, Guadeloupe, France (supranational laboratory)

The working group's objectives are to:

- Identify and prioritize the needs of the Region's laboratory networks.
- Prepare and/or adapt regulations, technical guides, standard operating procedures, technical specifications, and position papers for the Region to guide the policies and activities of the Region's TB laboratory networks.
- Issue recommendations for the adoption of new technologies, based on an evaluation of the evidence, and provide technical support for the introduction and quality control of new diagnostic techniques.
- Provide technical assistance to the national TB laboratories and laboratory networks to accelerate laboratory capacity building through: situation analysis and the identification of critical points and areas of opportunity; identification of specific strategies that will make it possible to boost technical capacity and improve laboratory technical assistance for TB control; and programming of activities.
- Conduct specific evaluations based on the needs identified by the NTP, the national reference laboratory, or the management of the laboratory network in the countries.
- Design and contribute to the development of a program to upgrade the skills of human resources at the central and reference levels and offer training in:
  - Laboratory management and networks;
  - Management and analytical interpretation of information
  - Quality management programs
  - Laboratory techniques and procedures
  - Biosafety in the laboratory

- Carry out missions to evaluate or monitor laboratory networks with a team that also includes the components of the NTP.
- Prepare and/or coordinate the preparation of scientific papers on different aspects of TB laboratories.
- Encourage, guide, and coordinate research that will make it possible to learn about and strengthen the technical capacity of the Region's laboratory networks

### ***Containing super bugs in health centers in El Salvador***

*A national initiative has created awareness of an existing problem and defined strategies for its containment*

Multidrug resistant bacteria are also called “super bugs” since they represent an extraordinary potential for untreatable infection. Super bugs increase mortality, morbidity, and prevalence/incidence of disease. These resistant strains can spread rapidly in health care settings, where immunocompromised hosts and debilitated patients are located. In addition to the direct impact on mortality, economic consequences are also remarkable, especially in resource-constrained settings. National authorities in El Salvador were amazed by the high economic burden of the ventilator-associated pneumonia and catheter-associated infections, which account for 14% of the annual hospital budget.



Photo – Workshop participants learning on adequate care of respiratory devices - 1 National Conference on Prevention and Control of Hospital Infections. San Salvador, El Salvador.

### ***Clean hands are vital in the prevention of ventilator-associated pneumonia.***

practices among future health care professionals.

In addition, the strategy “Infections: the solution is in your hands” was launched during the conference’s opening ceremony. This strategy was originally defined and successfully implemented in Bolivia, under the South America Infectious Disease Initiative (SAIDI), also funded by USAID. Materials and technical documents were brought from Bolivia, and experts introduced the strategy and shared experiences with conference participants. This activity validated the efficacy of South-South cooperation, when countries share available resources, lessons learned and human expertise.

To tackle the spread of resistant pathogens, widespread implementation of adequate infection control practices among health care workers is urgently needed. After the conformation of a National Inter-Hospital Committee on Prevention and Control of Health Care Associated Infections, a national conference was organized around this topic.

During this First National Conference on Prevention and Control of Hospital Infections (San Salvador, November 2008), a number of training workshops organized by PAHO with the support of USAID were held. Selected facilitators covered “Strategies to Prevent Catheter-Associated Blood Stream Infections”, “Basic practices to prevent ventilator-associated pneumonia” and “Hand hygiene techniques”. More than 150 people actively participated in the workshops. The National Inter-Hospital Committee is responsible for follow-up activities with participating hospitals and universities in order to strength the implementation of adequate



Photo – Manual “Prevention and Control of Infections in Health Services”. SAIDI - PAHO. Bolivia. Display at the Congress.

***Manuals were distributed among health students and congress delegates.***

## ***Hand Hygiene Reduces Health Care-Associated Infection***

*From epidemiological data to efficient interventions*

Many health care associated infections, especially in orthopedic and trauma units, are related with methicillin resistant *Staphylococcus aureus* (MRSA). MRSA infection or colonization contributed to an increased length of hospital stay; and a significant proportion of the positive patients still carried MRSA on discharge, increasing the risk of community dissemination. Data show the importance of diagnosing MRSA in hospital and emphasize that understanding its epidemiology is crucial to secure a decrease in the incidence of MRSA. Since hand hygiene is an essential component of control of MRSA spread, epidemiological data should be used to reinforce hand hygiene in health centers.



*Health care professionals provide information to their colleagues and patients on the appropriate method for hand hygiene, based on the WHO Multimodal Hand Hygiene Improvement Strategy.*

*“Hand hygiene contributes to a significant, measurable reduction in the burden of disease attributable to health care-associated infections” said Dr Duenas, president of the Committee of Infection Control in the Hospital de Niños.*

To address this problem, a two-pronged initiative was developed based on AMR surveillance, and AMR containment.

In regards to **AMR Surveillance**, El Salvador is part of the Latin American Antimicrobial Resistance Surveillance Network, funded primarily by USAID, and provides data on hospital isolates of *S. aureus*. Of the 21 countries part of the Network, 14 notified hospital isolates of *S. aureus* in 2007. The total number of isolates of *S. aureus* notified was of 23,338. The percentage of strains with resistance to methicillin notified by each country was between 27 and 72%. El Salvador reported more than 50% of the *S. aureus* isolated at hospitals as methicillin resistant. The high percentage of methicillin resistance reported has important implications for the election of the prophylaxis and adequate treatment of hospital infections in which *S. aureus* can be implied.

In regards to **AMR containment**, as the general strategy for preventing resistant strains spread in hospitals deals with educating professionals about appropriate containment measures, including hand hygiene, a specific training course was developed in the Hospital de Niños Benjamin Bloom, San Salvador. More than 247 people were trained, including health care providers, patients and other community members. Specific training materials and brochures were designed and the activity is linked with the Patient Safety Alliance 1<sup>st</sup> Challenge: “Clean care is safer care”. A significant impact in decreasing the prevalence of MRSA is expected by the Control Infections Committee of the Hospital Bloom.

## Success Stories in the implementation of IMCI in Nicaragua



Photo: PAHO/Francisco Martinez

*Candida Rodriguez Ortiz, who was treated for preeclampsia and high blood pressure during her pregnancy, is checked by Dr. Ileana Arias Hernandez at La Concepción Health Center in Nicaragua.*

The Minister of Health in Nicaragua, Dr. Guillermo Gonzalez, along with more than 100 health professionals from the PAHO regional program; major public and private medical schools; obstetric and gynecological, pediatric and perinatal medical societies; and other agencies and NGOs, launched the National Plan for the Reduction of Neonatal Mortality on September 3, 2008.

One of the main instruments that the country will utilize to achieve Millennium Development Goal 4 is the application of Neonatal Integrated Management of Childhood Illnesses (IMCI) with cost-effective evidence-based interventions that have already started to give positive results.

The two success stories that follow demonstrate the application of Neonatal IMCI by trained medical staff for two mothers who suffered from two of the three most common causes of neonatal mortality: preeclampsia/chronic arterial hypertension and vaginal bleeding. The health professionals at both health centers and Masaya Hospital where the mothers sought care were trained in Clinical Neonatal IMCI, thanks to the support of PAHO and USAID in the region.

***Mom and newborn saved by trained medical workers***

*Doctors and nurses trained in the Integrated Management of Childhood Illnesses (IMCI) act quickly to save a woman with complications early in her labor*

When Priscila del Rosario Gómez Mérida, a pregnant 28-year-old woman from Guatemala, visited her partner's mother in Nicaragua in February 2008, she never imagined she would experience complications that would result in an early birth. In Guatemala, Priscila had had regular prenatal checkups and ultrasounds, and everything seemed fine. However, during her visit in Nicaragua, she started bleeding and was taken to the Catarina Health Center. After staff that had been trained in IMCI evaluated Priscila and recognized the signs that she could have a difficult delivery that would put her and her baby at risk, she was referred to the Masaya Hospital, where her daughter, Katerin Gabriela, was delivered by C-section.

The medical staff at Catarina Health Center was able to recognize that Priscila's bleeding – one of the most common killers of pregnant women and newborns – would mean a high-risk labor and delivery thanks to their training in IMCI. This strategy, developed by WHO and implemented partially with funding from USAID, provides medical personnel with specific step-by-step instructions that indicate how to respond to a high risk situation in a local health center and when to refer a patient to a hospital that may be better equipped.



Although Katerin was born two weeks early and there were initial complications in the labor, both Priscila and Katerin left the hospital in excellent condition. When a community health volunteer took Priscila and Katerin for a check up at the Catarina Health Center three days later, medical workers were pleased to see that they were both well and that Priscila was breastfeeding her daughter. "I'm very pleased that my daughter is healthy," Priscila said. "And this is thanks to the excellent care we received by the staff who took care of us at the Catarina Health Center and the Masaya Hospital."

## ***Doctor detects life-threatening condition in pregnant woman***

*IMCI-trained doctor's smart decision to refer an ill pregnant woman saves her and her child*



Photo: PAHO/Francisco Martinez

Dr. Ileana Arias Hernandez examines the daughter of Candida Rodriguez Ortiz, a Nicaraguan woman who was diagnosed with preeclampsia at the end of her pregnancy.

***“By applying Neonatal IMCI, we have been able to provide better care to pregnant mothers and children, improve timely references to the hospital and overall lower maternal and infant mortality.”***

After Dr. Ileana Arias Hernandez diagnosed Candida Rodriguez Ortiz, a 35-year-old pregnant woman in Nicaragua, with preeclampsia and chronic hypertension, she knew she had to act quickly. Preeclampsia is one of the leading causes of complications in pregnancy; if left untreated, it can kill the mother and her baby. Dr. Arias recognized that an emergency C-section would be needed to safely deliver Candida's child before her condition worsened. However, the La Concepción Health Center where Candida was being treated was not properly equipped for this procedure. For this reason, Dr. Arias referred Candida to the Masaya Hospital, where doctors delivered a healthy baby girl, who Candida named Ashley Nahomi Guevara Rodriguez.

Dr. Arias was quickly able to identify that Candida would have a high-risk labor by following the steps of the IMCI strategy. With financial, logistical and human resource support from PAHO and USAID, this strategy is implemented to help health care providers determine the steps that need to be taken when evaluating a pregnant mother, newborn or

child under the age of five. Part of the IMCI strategy indicates when a patient should be referred to a more specialized health facility.

“We are very happy with the IMCI strategy,” Dr. Arias said. “By applying Neonatal IMCI, we have been able to provide better care to pregnant mothers and children, improve timely references to the hospital and overall lower maternal and infant mortality.”

At a follow-up visit at the La Concepción Health Center when Ashley was one month old, she was diagnosed with a respiratory infection. Again using the Neonatal IMCI strategy, the medical staff provided the proper care and treatment, and she made a full recovery.

“I'm very grateful to the La Concepción Health Center and Masaya Hospital,” Candida said. “They provided excellent care to me and my daughter when we were sick.”

## *Improving quality of care for newborns in the Hospital Isidro Ayora in Quito, Ecuador*

### *Delayed Cord Clamping and Immediate Breastfeeding*

Delayed umbilical cord clamping (i.e., at the end of cord pulsations, or approximately 2-3 minutes after birth), and immediate breastfeeding are two simple and inexpensive delivery care practices that have the potential to improve the short- and long-term nutrition and health of infants. In many cases these cost-effective interventions are carried out or promoted by birth attendants during and after delivery of babies. However, the Obstetric Center of the Hospital Isidro Ayora in Quito, Ecuador, was not succeeding in carrying out delayed umbilical cord clamping nor teaching immediate breastfeeding to new mothers.

With a goal promote early breastfeeding and delayed cord clamping among mothers and their newborns in the short-term, a 5-month program (Programa Clampeo Oportuno y Lactancia Precoz-HGOIA) was carried out at the Isidro Ayora hospital from August 1 through December 30th, 2008. Specific objectives were 1) 90% of newborns initiating breastfeeding within the first 30 minutes after birth; 2) 90% of newborns receiving delayed cord clamping, and 3) achieving a 90% satisfaction rate among external users (mothers) related to early breastfeeding and delayed cord clamping.



*Practice of delayed umbilical cord clamping following birth.*

A program report by Dr. Linda Delgado and Dr. Isidro Arroyo showed that at baseline, 0% of new mothers (N=30) were carrying out early breastfeeding or skin-to-skin contact. Also at baseline, no studies of delayed cord clamping had been carried out and thus statistics were unknown. At the conclusion of the program, some main results included:

- In relation to delayed cord clamping, the norm of 2 to 3 minutes was achieved;
- The delay of cutting the umbilical cord increased by 1 minute and 52 seconds in relation to the baseline;
- The level of hemoglobin increased by 4.18g/dl, assuring adequate reserves to avoid anemia in the newborns;
- 96% of newborns received early breastfeeding, which surpassed the original goal of 90%.

As well as seeing quantitative results, there were also qualitative ones. At baseline (August 2008), 94% of mothers had expressed dissatisfaction while by the end of the program, 90% had expressed satisfaction in having early contact and immediate breastfeeding with their babies. Also, 95% of mothers indicated that they would continue to breastfeed their babies.

## ***Successful Neonatal IMCI Implementation at the Humberto Alvarado Hospital, Masaya, Nicaragua***

*Delayed cord clamping, exclusive breastfeeding in the first hour of life, and skin-to-skin contact*



Evidence-based interventions to reduce neonatal mortality – a key component of the Neonatal IMCI strategy – have been included in Nicaragua's national plan for the reduction of neonatal mortality since it was launched in September of 2008 with participants from PAHO/WHO; the deans of the schools of medicine from national universities such as the University of Managua and Leon, American University of Nicaragua and the University of the Military Hospital; the Nicaraguan Gynecology and Obstetric Society (SONIGOB); the Nicaraguan Society for Perinatal Medicine (SONIMEP) and technical cooperation agencies like UNICEF,

USAID and others. Since then, evidence-based interventions have been a fundamental tool in reducing neonatal and perinatal mortality and are already starting to have some preliminary results in some Local Comprehensive Health Care Systems (LCHCS) around the country.

As part of a national program to train health workers in the implementation of clinical IMCI to evaluate, classify and treat children between the ages of 2 months and 5 years, all doctors and nurses have been trained under technical support from PAHO in the Masaya LCHCS, where the ministry of health's Humberto Alvarado Hospital is located. Neonatal IMCI has been implemented with greater emphasis at this hospital since 2008, when the national plan was launched.

Mrs. Karen García Centeno lives in Sacuannjoche, a neighborhood in Masaya, 28 Km from Managua. Pregnant with her first child, on the evening of October 4, 2009, she went to the health center closest to her house because she was experiencing labor pains. The health care personnel at the center recognized the danger signs from Neonatal IMCI and referred her to the hospital in Masaya, as she was only 18 years old at the time and it was her first pregnancy. When she arrived at the hospital, she was taken to the High Risk Obstetrics Service, where she was monitored closely. Because her labor was not progressing, the doctors decided to perform a C-section the next day, and a healthy baby girl was born.

Even though Karen's baby was delivered by C-section, the Obstetrics personnel delayed umbilical cord clamping until pulsing had stopped, as they had been trained in Neonatal IMCI courses on evidence-based interventions. Delaying cord clamping significantly decreases anemia and its consequences, such as morbidity, mortality and learning disorders. Karen was discharged from the hospital without complications three days later, and both she and her family were pleased with the results for her and her baby, who Karen said will be exclusively breastfed. "We are thankful to God and to the doctors and nurses at the health center and hospital for taking good care of Karen and making good decisions to help her and the baby," said Karen's family.

In another instance, Mrs. Fany Leticia Esteban Aguilar, a pregnant 25-year-old woman from the municipality of Nindirí in Masaya, went to the Nindirí health center with labor pains on October 5, 2009. Because it was her first pregnancy, she was referred to the hospital in Masaya, where she was given satisfactory care and gave birth four hours later to a baby girl with a gestational age of 39 weeks as calculated through the Capurro method. The health care personnel at the hospital applied neonatal IMCI and evaluated the baby's need for resuscitation; they found that she was a healthy pink color and had a strong cry and good muscle tone, and therefore did not need it.

Routine care in the first minutes of life includes early initiation of exclusive breastfeeding and skin-to-skin contact, which facilitates exclusive breastfeeding until the baby is 6 months old. Initiating breastfeeding within the first hour of life eases the intrauterine-extrauterine transition for the baby, reduces the risk of infection and lowers neonatal mortality up to 22%.

After Fany Leticia was discharged from the hospital, she continued exclusively breastfeeding her daughter. "I'm very happy and grateful to the doctors and nurses who took care of us", she said. Thanks to the IMCI algorithm, Fany Leticia feels she was properly taken care of, and will continue to follow her doctor's suggestion to exclusively breastfeed for six months and then switch to complementary feeding.