

# PREVENTING CERVICAL CANCER IN LATIN AMERICA

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## Basic project identifier

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### Name of your organization and contact information

Pan American Health Organization

Chronic Disease Prevention and Control Project

Area of Health Surveillance, Disease Prevention and Control

525, 23rd St N.W., Washington DC

### Project Title

Preventing Cervical Cancer in Latin America

### Project Number

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## Executive Summary

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Despite its preventable nature and availability of effective new technologies, cervical cancer remains among the leading causes of cancer deaths in women in Latin America and the Caribbean (LAC). This reflects the lack of impact of existing cytology based cervical cancer prevention programs, which are generally weak, with insufficient coverage and low follow-up rates. In response to this situation, PAHO developed a Cervical Cancer Regional Strategy and Plan of Action which was endorsed by the Ministries of Health of the Americas in 2008 and calls for improving country capacity in four areas: health education; cervical cancer screening and pre-cancer treatment; cancer treatment and palliative care; and decision making on whether and how to introduce HPV vaccines

In alignment with the Regional Strategy, the overall goal of this project was to prevent cervical cancer among women in low resource settings in Latin America, stimulating the implementation of effective cervical cancer prevention and early detection programs in Argentina, Guatemala and Honduras.

All the objectives that were proposed in the project have been fully achieved. The implementation of the project helped to: a) increase knowledge and awareness among women, their partners, and health providers about cervical cancer risk factors, prevention and early detection; b) strengthen the competencies of health providers and capacity of the health system to deliver high quality cervical cancer screening, early detection and pre-cancer treatment; c) increase the number of women screened, in selected areas within Argentina, Guatemala and Honduras; and d) ensure adequate follow-up care for women with screening abnormalities. Furthermore, the Latin American meeting on New Technologies for Cervical Cancer Prevention and Control convened as a starting point for this project, helped establish a policy dialogue and led to crucial screening policy changes such as the introduction of HPV DNA testing in Argentina and the expansion of visual inspection with acetic acid and the “screen and treat” approach in Guatemala. All of the above mentioned achievements have greatly contributed to the implementation of the Cervical Cancer Regional Strategy and Plan of Action.

The success of this project encourages further technical and financial cooperation to support continuous improvement of cervical cancer prevention and control efforts, especially in the areas of information systems, quality of care, monitoring and evaluation.

## Background

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Despite its preventable nature, cervical cancer remains among the leading causes of cancer deaths in women in Latin America and the Caribbean (LAC), with an estimated 67,801 new cases and 31,467 deaths from this disease in 2008. Screening to prevent cervical cancer using the Papanicolaou test has been in place in most countries in the Region for over 35 years. However, the organization and quality of screening programs are generally weak, with insufficient coverage and low follow-up rates, especially in low resource areas outside capital cities. Thus, there has been very little impact on mortality rates in many LAC countries despite the existence of these programs 1,2.

Over the last decade, new and effective technologies for primary and secondary prevention have been developed, including visual inspection screening techniques, HPV DNA testing and HPV vaccination. These new approaches are safe, effective and feasible, as shown by a wealth of scientific evidence and the successful experiences in some Latin American countries 3.

In this context of high burden of disease and availability of new technologies for cervical cancer prevention, the Pan American Health Organization (PAHO) developed the Regional Strategy and Plan of Action for Comprehensive Cervical Cancer Prevention and Control. This Strategy was endorsed in 2008 by the PAHO Directing Council, composed of Ministers of Health from throughout the Americas region, and a resolution was passed to strengthen country capacity for cervical cancer 4. This Regional Strategy and Plan of Action calls for actions in four areas: health education; cervical cancer screening and pre-cancer treatment; cancer treatment and palliative care; and decision making on whether and how to introduce HPV vaccines.

This project was developed to, in part, support the implementation of this Regional Strategy and Plan of Action, building on the long standing work and technical cooperation provided by PAHO to Member States to strengthen the health education, screening and pre-cancer treatment components of existing cervical cancer screening programs in selected priority countries.

## Goals and objectives

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The overall goal of the project was to prevent cervical cancer among women in low resource settings in selected countries in Latin America. The purpose of the project was to stimulate the implementation of effective cervical cancer prevention and early detection programs in Argentina, Guatemala and Honduras.

The specific objectives proposed to achieve the overall goal and purpose of the project were:

1. To increase knowledge and awareness among women, their partners, and health providers about cervical cancer risk factors, prevention and early detection.

2. To strengthen the competencies of health providers and capacity of the health system to deliver high quality cervical cancer screening, early detection and pre-cancer treatment.
3. To increase the number of women screened, within selected countries [Guatemala, Honduras and Argentina].
4. To ensure that at least 95% of women screened and detected with cervical abnormalities in the project are followed up and treated appropriately.

During the initiation of this project, the need to establish a region wide policy dialogue and a space to share new scientific evidence and successful experiences around new technologies for cervical cancer prevention was evident. Thus, a Latin America regional meeting was planned as a starting point to achieve the overall goal of strengthening cervical cancer programs. This resulted in an additional specific objective of establishing a policy dialogue and improving program managers' knowledge and capacity for cervical cancer prevention and control, including new technologies for primary and secondary prevention.

Argentina, Honduras and Guatemala were selected for this project based on their high burden of disease at the national and state levels, as well as their political will and leadership to strengthen already existing programs for cervical cancer prevention and control. Nevertheless, they have very different political, geographical and socioeconomic contexts as well as different levels of development of both their health systems and cervical cancer prevention and control programs. For this reason, the activities proposed within each specific objective had to be adapted accordingly to the needs and context of each country.

## Activities

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The major activities accomplished during this project include the following:

- A policy dialogue for cervical cancer prevention through the Latin American Meeting on New Technologies for cervical cancer primary and secondary prevention, Panama, June 2010.
- Community education and outreach, including development of educational materials, media messages and training of health promoters, to inform women about cervical cancer prevention and attract them to screening services.
- Re- training of primary health care providers in cervical cancer screening methods to improve quality of testing.
- Re-training specialized health care providers (gynecologists) in diagnosis and pre-cancer treatment procedures.
- The provision of necessary equipment, supplies and other inputs to strengthen access and quality of cervical pre-cancer treatment services.

- The development of an information system to monitor and measure the screening coverage, follow up pre-cancer treatment rates and other programmatic indicators.

The project activities were planned for a duration of one year, but the project was extended to 20 months due to some delays in the execution of activities, especially in Guatemala and Honduras, caused by issues outside the control of the Ministries of Health. Additional delays were experienced in Guatemala due to adverse weather conditions and natural disasters in 2010, which affected road communications in rural areas.

A detailed description of the activities carried out in this project, and for each country, is provided below.

## **1. Latin America sub-regional meeting for cervical cancer prevention: “New technologies for cervical cancer prevention: from scientific evidence to program planning”, Panama City, Panama, June 2010.**

The purpose of this sub-regional meeting, organized in collaboration with PATH and the Ministry of Health of Panama, was to establish a policy dialogue based on the current scientific evidence on the use of new technologies for cervical cancer prevention and the positive experiences in Latin American countries, and begin planning activities that promote collaboration and the strengthening of programs based on an inter-programmatic approach, seeking synergies between the cancer, immunization, sexual and reproductive health, and adolescent health programs. Seventy-three representatives from 13 Latin American countries and 15 partner organizations, associations, universities, and research centers participated in the meeting. The Vice Minister of Health of Panama was also present. During the meeting, he announced the official launch of the National Plan for the Prevention and Control of Cancer and the National Palliative Care Program of Panama, as well as highlighted their advancements in HPV vaccination.

During the first day of the meeting, the scientific evidence was reviewed on HPV vaccines, new technologies for cervical cancer screening (including visual inspection with acetic acid and HPV DNA testing), cervical cancer prevention and control planning strategies based on the availability of resources, and communication strategies to improve women’s participation in screening programs. Each series of presentations was accompanied by a presentation on successful experiences in the countries of the region and followed by discussions. On the second day, available initiatives and resources for cervical cancer prevention and control were presented in a roundtable followed by a space for questions and answers. The rest of the day was structured around joint project planning to strengthen programs in three working groups established to identify short-, medium-, and long-term priorities and activities, as well as opportunities for collaboration with partner organizations and other countries in the region. The results of the working groups were presented at the plenary session.

Prior to the meeting, a SharePoint site was created on the PAHO intranet to circulate the agenda for the meeting, relevant documents on the prevention and control of cervical cancer (e.g., Regional Strategy

for Cervical Cancer, key WHO documents on the HPV vaccine and cervical cancer, monograph on HPV and cervical cancer in the Region of the Americas in the journal Vaccine), and links to partner organizations and Internet resources. The presentations by the speakers and the posters presented by the participants were also available on the SharePoint site. Finally, as preparation for the working groups, the managers of the cancer programs were asked to complete a brief situation analysis on their programs. The results of these surveys were published in a separate report.

In conclusion, throughout the meeting it was shown that there is clear, well-established scientific evidence in favor of the new technologies for preventing cervical cancer and that the implementation of these technologies is feasible, as shown by the successful experiences in some Latin American countries. In addition, the participants showed great interest, motivation, and enthusiasm about introducing new technologies in cervical cancer programs to improve their effectiveness and impact. In this process of change, one of the main barriers identified was the high cost of HPV vaccines and the HPV DNA screening test. However, the availability of resources was demonstrated and the international partner organizations that are willing to support the countries in strengthening their programs were identified. All of the above suggests that the region is at a turning point in which the conditions are ripe for introducing changes in the programs that will lead to a positive impact on the burden of disease associated with cervical cancer in Latin America.

Links to the Regional meeting report, the situation analysis survey report (both available in English and Spanish) and other products resulting from the meeting can be found in the attachments/deliverables section of this report.



*Participants of the Latin American Subregional Meeting, Panama 2010*

## 2. Argentina:

This project helped to stimulate improvements in the overall quality of Argentina's existing cytology based cervical cancer screening program; increase education, community outreach, screening coverage, and follow up care in the highest burden provinces, namely Jujuy, Chaco and Misiones; and initiate an HPV demonstration project in one province. The detailed activities implemented in the project, for each objective, are described below.

### ***2.1. Specific Objective: To increase knowledge and awareness among women, their partners, and health providers about cervical cancer risk factors, prevention and early detection.***

#### **2.1.1. Short film contest**

The Ministry of Health in partnership with PAHO, the National Cancer Institute (INC) and the National Film and Audiovisual Arts Institute (INCAA), launched a short film contest titled "Movies, Health and Women" to promote cervical cancer prevention.

The contest terms and conditions were established during the second semester of 2010 by a technical team specifically designated for this task. A call for projects was launched during 2011, directed towards film producers, film directors, audiovisual students and different artistic environments. A total of 33 project proposals were received and 6 of them were awarded. These 6 projects are currently being edited and will be projected in theaters across Argentina, with the support of the National Film and Audiovisual Arts Institute.

#### **2.1.2. Educational video on cervical cancer prevention**

An educational video for cervical cancer screening was produced to inform the general population about cervical cancer, its causes and means for prevention and create awareness about women's rights to health care.

This video was used in training activities and helped raise awareness among health care providers at the primary health care level, and served as a powerful tool for different organizations involved in cervical cancer prevention and control activities, including NGOs, women's groups and other stakeholders.

Activities carried out during the project included the development of the video's general concept and script; the selection of the producer, actresses and presenters; the shooting and the final editing of the footage. Thanks to this process an innovative audiovisual tool was made available for use in different contexts such as waiting rooms of healthcare facilities or workshops with the community.

#### **2.1.3. Educational materials including brochures and radio spots**

Educational materials including brochures and radio spots were developed by the National Program as part of a communications strategy for cervical cancer prevention and control. These materials are for the general

public as well as for health care professionals and they have been developed using a gender perspective taking into consideration multi-cultural, indigenous languages and local specific characteristics.

Links to graphic materials and radio spots can be found in the attachments/deliverables section of this report.

#### 2.1.4. First National Forum of Women For the Right to Health

The Ministry of Health, together with the National Council of Women, organized a 2 day meeting on cervical cancer prevention with a health rights perspective. This involved over 250 participants of women's organizations from all over the country. The purpose of the meeting was to facilitate the coordination of women's groups and create a space for dialogue and sharing experiences.



*First International Forum of Women for the Right to Health, Buenos Aires, Argentina*

The first day consisted of 4 working groups established to identify strengths and weakness with regards to women's access to gynecological services, contraceptive methods, cytological screening and treatment of precancerous lesions. During the second day available resources and tools to improve access to health care services were discussed in a plenary session and specific recommendations and plans of action were elaborated for each region to coordinate the work of women's organizations with the national cervical cancer and sexual and reproductive health programs.

Through this initiative the Ministry of Health established a dialogue with women's groups to learn from their experiences, recognize their central role in the expansion of women's rights and access to health care services and count on their active participation to elaborate public policies for cervical cancer prevention.

**2.2. Specific objective: To strengthen the competencies of health care providers and capacity of the health system to deliver high quality cervical cancer screening, early detection and pre-cancer treatment.**

### **2.2.1. Training of health care professionals and infrastructure reinforcement:**

Training of health care professionals was conducted in the prioritized provinces of Jujuy, Misiones and Chaco with a special focus on primary health care personnel and reinforcement of cytology laboratories. The main activities conducted for this purpose include:

- Training of over 100 health promoters for active recruitment of at-risk women.
- In service training of cytotechnicians in four hospitals: Pablo Soria Hospital (Jujuy), Perrando Hospital (Chaco), Salvador Mazza Hospital (Chaco) and Madariaga Hospital (Misiones).
- The first training course for cytotechnicians was convened at the Posadas Hospital, Buenos Aires, with the participation of 10 professionals from the provinces.
- Ongoing internal quality controls established in the cytology labs of 3 hospitals in Chaco (Perrando, Salvador Mazza and Ramón Carrillo Hospitals) and one hospital in Misiones (Madariaga Hospital).
- Infrastructure improvements in the above mentioned cytology labs.

### **2.2.2. International seminar “Planning, quality control and evaluation of Cervical Cancer Screening Programs”, September 20-22, 2010.**

This seminar was organized jointly with the Ministry of Health and the United Nations Family Planning Association, with the purpose of reviewing the epidemiology of cervical cancer, the scientific evidence



*International seminar “Planning, quality control and evaluation of Cervical Cancer Screening Programs”*

on new technologies for cervical cancer prevention and successful experiences from Mexico, Colombia, Costa Rica and the UK. The meeting was attended by more than 120 professionals from all provinces of Argentina, as well as international experts on cervical cancer and representatives from several professional associations, including the Buenos Aires Association of Gynecologists, the Argentinean Society of Cytology and the Argentinean Society of

Colposcopists. As a result of the meeting, the national health authorities received the recommendation

of strengthening already existing cytology based screening services and introducing HPV DNA testing as the primary screening test in Argentina. This recommendation led to the design and implementation of a Demonstration Project for HPV DNA testing in Jujuy.

### **2.2.3. Technical interchange on cervical cancer prevention between Mexico and Argentina**

An interchange of one week was conducted between the national cervical cancer program manager of Argentina and a relevant counterpart in Mexico. The purpose was to learn from the Mexican experience on introducing HPV DNA testing as a primary screening test for cervical cancer and apply the lessons to the Argentina program. The coordinator of the Argentinean National Program had the opportunity to visit relevant Mexican institutions and set the basis for technical cooperation between the two countries, including training of human resources for the introduction of the HPV screening test in Argentina. As a result of the interchange, Mexican health authorities were incorporated into the Argentina HPV Advisory Committee and participated in several meetings. This interchange also led to better planning for the HPV testing demonstration project in the province of Jujuy, Argentina.

### **2.2.4. Establishment of an HPV lab at Pablo Soria Hospital, Jujuy**

As part of the HPV DNA testing demonstration project, an HPV lab was established at the Pablo Soria Hospital of Jujuy. The lab is expected to process between 30,000 and 40,000 HPV test samples annually, and receive quality assurance support from the national reference laboratory which includes capacity for HPV testing.

### **2.3. Specific objective: To increase the number of women screened in 12 months, in selected areas within selected countries.**

Based on the above mentioned strategies to strengthen screening services capacity, the following activities were conducted to increase the number of women screened in the high burden provinces:

- Community outreach through “Jornadas Culturales” (“Cultural Days”) in which a mobile unit performed pap tests to women between 25 and 64 years of age, together with a cervical cancer and sexual and reproductive health counseling service. This “Jornadas Culturales” were carried out in a festive environment, together with cultural activities and free music events.
- Active recruitment of at-risk women through home visits carried out by trained health promoters.
- HPV DNA testing as the primary screening test was initiated in the province of Jujuy, in collaboration with the National Program, the Ministry of Health of Jujuy and the National Cancer Institute. HPV DNA testing will be used as the primary screening test in women over 30 years of age followed by cytology as a triage test in HPV positive women. The program plans to screen over 20,000 women during the first year of implementation and the experience and lessons learned will guide the extension of HPV DNA testing to the rest of the country.



Active recruitment of at-risk women through home visits



Mobile unit to perform pap tests



“Jornadas culturales”



Community outreach activities

**2.4. Specific objective: To ensure that at least 95% of women screened and detected with cervical abnormalities in the project are followed up and treated appropriately.**

The main activity conducted to ensure adequate follow up of screened women was the implementation of a screening information system (SITAM). This information system consists on a nominal registry that compiles all available data about cervical cancer prevention and control services received by each woman, including screening, diagnostic tests, biopsy results and treatment of precancerous lesions. For the first time in Argentina it will possible to have disaggregate information on how screening and precancerous lesions follow up and treatment is carried out, enabling a detailed and active follow up of each woman’s specific process. The SITAM system has already been implemented in 13 of the 23 provinces of the country, including the 3 provinces prioritized for this project.



Training on the SITAM information system



### 3. Guatemala

This project helped to expand access to cervical cancer screening and pre-cancer treatment services and establish Cervical Cancer Early Detection Clinics in 8 high burden health areas of the country. Screening and pre-cancer treatment services were brought closer to women's communities and a single visit screen and treat approach was employed to increase coverage and follow up care. Through this project, national standards for screening and treatment procedures were established and reinforced, improving the quality and consistency of care for women across the country. The detailed activities implemented in the project, for each objective, are described below.

#### ***3.1. Specific Objective: To increase knowledge and awareness among women, their partners, and health providers about cervical cancer risk factors, prevention and early detection.***

As part of the program's education, communication and information strategy, educational materials intended for women and the community were distributed in the 29 Health Care Areas in which the country is divided. These materials are used for educational sessions in the health care centers and community outreach activities carried out by health promoters. As a complement to these materials, women testimonials were gathered with the purpose of giving Guatemalan women a voice to advocate for their right to access cervical cancer prevention and control services.

#### ***3.2. Specific objective: To strengthen the competencies of health care providers and capacity of the health system to deliver high quality cervical cancer screening, early detection and pre-cancer treatment.***

##### **3.2.1. Development of national norms and guidelines and training in their application**

Cervical cancer norms, guides and standardized protocols for early detection and treatment of pre-cancerous lesions were developed, printed and distributed in the 29 Health Care Areas of the country. Additionally a "Cervical Cancer Pathology Manual" was elaborated, published and distributed. This handbook contains the normative framework under which clinics for cervical cancer screening and treatment of precancerous



*National norms and guidelines for cervical cancer prevention and control in Guatemala*

lesions should operate. Finally, a Colposcopy Manual was published, which serves as the theory basis for basic, intermediate and advanced training courses; and 2 training kits -consisting of 75 sheets each- were distributed per health care area to support visual inspection with acetic acid and colposcopy trainings.

### 3.2.2. Training of primary health care providers and gynecologists to deliver high quality cervical cancer screening, early detection and pre-cancer treatment.

- Over 250 primary health care providers from 9 health care areas as well as the sexual and reproductive health care teams received VIA training. These competence-based courses use adult education principles, behavior modeling and humanistic methods during 5 day theoretical and practical sessions (see chronogram in the attachments/deliverables section). Additionally, continuous education activities and “Training of trainers” courses were planned, with a total of 29 professionals certified to replicate VIA trainings. Training courses are certified by the Medical Association of Guatemala and the San Carlos University of Guatemala.

- An international basic and intermediate colposcopy course was organized with support from the San Carlos University of Guatemala and the Mariano Gálvez University. Through this course, 38 colposcopists from 16 health care areas were trained.



*VIA and colposcopy training sessions*

### 3.2.3. Infrastructure improvements and provision of necessary equipment, supplies and other inputs.

Equipment and supplies were provided to improve early detection and treatment of precancerous lesions including cryotherapy equipment (6), colposcopes (5) and Kevorkian biopsy forceps. Additionally infrastructure improvements were carried out in 3 cytology labs in San Marcos, Petén and Baja Verapaz. *Table 1* shows a detailed description of materials and equipments acquired by department.

Table 1. Infrastructure reinforcement by health departments

Material/equipment	Number	Health Departments
Kevorkian biopsy forceps	15	Baja Verapaz, Totonicapán, Chiquimula and Santa Rosa
Cryotherapy equipment	7	Baja Verapaz, Totonicapán, Chiquimula, Santa Rosa, Maternidad Zona 13, Pedro de Betancourt Hospital (Antigua) and DAS Izabal
Colposcopes	5	Baja Verapaz, Totonicapán, Chiquimula, Santa Rosa and Retalhuleu
Electrosurgery equipment	2	San Marcos and Chiquimula
Cytology lab improvements	3	San Marcos, Petén and Baja Verapaz



Infrastructure improvements and provision of colposcopy and cryotherapy equipment

**3.3. Specific objective: To increase the number of women screened in 12 months, in selected areas within selected countries.**

Visual inspection with acetic acid (VIA) was strategically introduced in rural and semi-urban areas with limited or no access to cytological screening, in order to increase coverage of the most vulnerable at-risk women, especially those who have never been screened. This has been possible thanks to well planned training activities and infrastructure improvements, with a special focus on those health departments with the highest burden of disease. *Table 2* shows the geographical distribution of trained human resources with regards to burden of disease according to 2007 mortality rates. The impact of this intervention in terms of increased number of women screened will be seen in the coming years.

*Table2 . VIA training workshops: professionals trained per department*

Department	Number of providers trained	Age standardized mortality rate (per 100,000 women)*
Baja Verapaz	33	19.62
Sololá and Quetzaltenango	34	Sololá: 5.37 Quetzaltenango: 9.78
Guatemala Sur and Nursing School	32	Guatemala Sur: 4.65
Jutiapa and Jalapa	45	Jutiapa: 9.49 Jalapa: 22.52
Sexual and Reproductive Health Teams	29 Sexual and Reproductive Health teams	
Totonicapán	35	5.87
Chiquimula	32	18.03
Santa Rosa	36	15.19

\* Source: VIGEPi 2007



*Guatemalan women accessing cervical cancer screening services*

**3.4. Specific objective: To ensure that at least 95% of women screened and detected with cervical abnormalities in the project are followed up and treated appropriately.**

The main strategy employed in Guatemala to assure improved follow up care was to utilize the single visit ‘screen and treat’ approach, in which women detected with pre-cancerous cervical lesions through visual inspection screening would receive cryotherapy treatment (if eligible) during the same visit. This single visit approach has improved access to treatment and reduced losses to follow up care, as well as overcoming economic, geographic and socioeconomic barriers that prevent women from accessing colposcopy services. Those women who required higher level health care were referred to a colposcopist, and program staff verified with colposcopy clinics that women with screen positive results did truly receive follow up care.

In addition, the above mentioned infrastructure strengthening activities ensured that all colposcopy centres were well equipped and had re-trained staff to deliver high quality diagnosis and treatment services. Cervical Cancer Early Detection Clinics, which include colposcopy, cryotherapy and electrosurgical services, are now available in 8 health areas of Guatemala, in those areas with highest rates of cervical cancer.

Finally, a monitoring and evaluation system based on 20 quality of care standards has been introduced in 17 of the 29 Health Care Areas; and the country’s information system has included VIA in the cervical cancer screening data collection form.



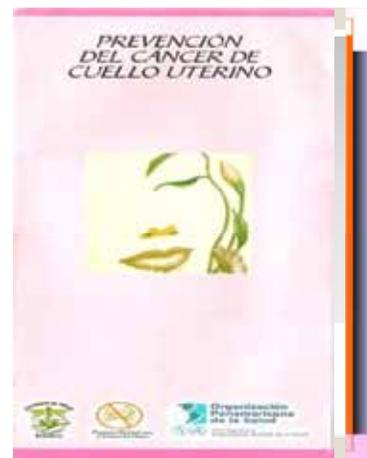
*Data collection forms for VIA screening*

## 4. Honduras

Through this project, the Honduras national cervical cancer program updated their national guidelines for cervical cancer screening, pre-cancer treatment and invasive cancer treatment, thus harmonizing the procedures employed by public health professionals across the country. Educational outreach and health promotion activities were undertaken to help increase the very low screening coverage, and colposcopy services were analyzed and re-enforced with infrastructure and in-service trainings. The most important development in this project was the creation of an information system to allow patient monitoring and evaluation of the impact of the cervical cancer program. The detailed activities implemented in the project, for each objective, are described below.

### ***4.1. Specific Objective: To increase knowledge and awareness among women, their partners, and health providers about cervical cancer risk factors, prevention and early detection.***

Educational materials, including 37,500 brochures on cervical cancer prevention were printed and distributed widely to women attending health clinics and community health education seminars. In addition, a health providers educational workshop on health promotion and cervical cancer prevention was organized, with the participation of the main health care providers from leading institutions in the country: the Social Security Institute of Honduras, San Felipe General Hospital, the National Institute of Women and various programs in the Ministry of Health, including the health promotion department. A total of two workshops were held and 81 health care providers participated in the events.



*Cervical Cancer prevention brochure*

### ***4.2. Specific objective: To strengthen the competencies of health care providers and capacity of the health system to deliver high quality cervical cancer screening, early detection and pre-cancer treatment.***

The Honduras National Norms and Procedures for Cervical Cancer Prevention and Control were developed, with broad stakeholder involvement and consensus. They were widely disseminated throughout the country, through dissemination workshops, to ensure that all public health providers applied the new norms in their clinical practice.

A pilot project was then undertaken to apply part of these new norms and specifically for cytology sampling and processing. The project included the acquisition of materials and inputs as well as follow up meetings with cytology laboratory staff and health providers, and an updated protocol for cytology sampling and processing. This protocol was adapted into an educational dossier and 100 copies were printed and distributed for use in workshops with health care professionals. Four of these workshops have been carried

out resulting in 131 professionals from 66 Health Units re-trained in cytology. Additionally, infrastructure improvements were carried out in the 3 main cytology laboratories serving the public health sector.

**4.3. Specific objective: To increase the number of women screened in 12 months, in selected areas within selected countries.**

As a result of the introduction of the new norms and the reinforcement of the main cytology laboratories, an additional 14,672 pap smears were taken in 2010 as compared with 2009.

**4.4. Specific objective: To ensure that at least 95% of women screened and detected with cervical abnormalities in the project are followed up and treated appropriately.**

An information system consisting of a nominal cervical cancer registry was developed and implemented, to enable better patient monitoring and ensure follow up care. The information system was developed with broad stakeholder input and to agree with potential users on the final system. The main stakeholders involved included the Honduran Social Security Institute, Medical labs, the Emma Romero de Callejas Center and the Honduran Asociacion for Family Planning (ASHONPLAFA), among others. This was an important step to ensure consensus and acceptability from institutions that will be using the information system. The information system is now operational in 4 main cytology laboratories and 31 professionals from the laboratories were trained on how to use the information system.

A strategy was developed to improve the country’s capacity for colposcopy services, which involved conducting a situation analysis of the country’s clinics. The public health sector infrastructure was reviewed in all health regions and information regarding availability and condition of colposcopes, types of professionals performing colposcopy and equipment performance was gathered. The deficiencies with existing equipment were identified, with centers where colposcopes have never been used due to lack of trained personnel or because colposcopy is not explicitly included in the services provided by that particular health care facility. As a result of this situation analysis, relocation of equipment and trainings will be planned to ensure adequate use of resources and availability of services. *Table 3* summarizes the main findings of the colposcopy situation analysis.

*Table 3. Public health sector infrastructure to provide colposcopy services*

<b>PUBLIC HEALTH SECTOR INFRASTRUCTURE FOR COLPOSCOPY SERVICES</b>	<b>Number</b>
Regions visited	20
Number of colposcopy clinics	22
Number of colposcopes	29
Number of colposcopes in good conditions	24
Number of clinics with a gynecologist	20
Number of clinics where colposcopy is being done by a general practitioner	2
Number of functioning clinics	14
Number of colposcopies performed in 2010	2,120
Number of colposcopies performed until October 2011	1,070

## Participation of Population Group

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The target population group of this project, namely middle aged women, were actively involved in several activities in each of the countries. The development of education, communications and information messages and materials involved focus groups with women to seek their input on messages and content. In Argentina, women’s groups and organizations were involved by the Ministry of Health in the planning process of cervical cancer prevention strengthening, through the first national forum of women organized for the right to health. Finally, initiatives to assess women’s satisfaction with cervical cancer screening services has been introduced, especially in Guatemala where women’s needs and satisfaction have played a central role in the introduction of the “screen and treat” approach.

## Partnerships and Intersectoral Collaboration

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The main partners of this project have been the Ministries of Health from the 3 participating countries: Argentina, Honduras and Guatemala. For the activity of the Latin American Sub-regional meeting for cervical cancer prevention, a partnership with the Ministry of Health of Panama and with PATH, an international nongovernmental organization, was established to organize and execute the regional event. Further partnerships and alliances were established at the country level to facilitate the implementation of the project activities, including other sectors of the government, academic institutions and civil society organizations.

*Table 4 . Partnerships and alliances established during this project’s implementation at the country level.*

ARGENTINA	<ul style="list-style-type: none"> <li>- National Cancer Institute of Argentina</li> <li>- National Film and audiovisual arts Institute</li> <li>- National Council of Women</li> <li>- National Council for the Coordination of Social Policies</li> <li>- Gynecology Society of Buenos Aires (SOGIBA)</li> <li>- Argentina Society of Cytology</li> <li>- Argentina Society of Lower Tract Genital Infections and Colposcopy</li> <li>- Hospital de Clínicas de la Universidad de Buenos Aires</li> <li>- Public Health Institute of Mexico</li> </ul>
GUATEMALA	<ul style="list-style-type: none"> <li>- Medical Association of Guatemala</li> <li>- San Carlos University of Guatemala</li> <li>- Mariano Gálvez University</li> </ul>
HONDURAS	<ul style="list-style-type: none"> <li>- Social Security Institute of Honduras</li> <li>- San Felipe General Hospital</li> <li>- National Cardiopulmonary Institute</li> <li>- National Institute of Women</li> <li>- Center of Emma Romero de Callejas</li> <li>- The Honduran Association for Family Planning (ASHONPLAFA)</li> </ul>

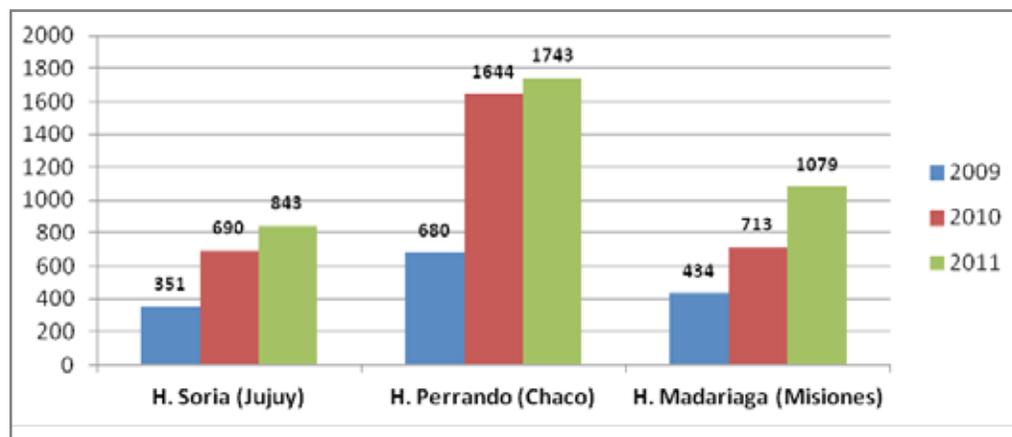
## Results

The major accomplishment of this project was to stimulate and intensify cervical cancer screening and pre-cancer treatment, along with community education, in order to have a greater impact on cervical cancer mortality in 3 countries [Argentina, Guatemala, Honduras]. In addition, the Latin America Sub-regional Meeting for cervical cancer prevention deepened knowledge of the available scientific evidence regarding new technologies for cervical cancer prevention, including new screening tests and HPV vaccines. All in all, this project helped advance the implementation of the PAHO Regional Strategy and Plan of Action for Comprehensive Cervical Cancer Control. A detailed list of main results from each participating country is described below.

### 1. Argentina

- Over 11 million women aged 25 to 65 years targeted with media outreach, including media messages in indigenous languages.
- Over 100 health promoters trained for active recruitment of at-risk women.
- Cytology labs strengthened in the 3 prioritized provinces (Jujuy, Misiones and Chaco), including installing the SITAM information system, in-services training of cytotechnicians, infrastructure improvements and establishment of ongoing internal quality controls.
- Over twice as many women screened compared to previous periods in prioritized high burden provinces, as shown by a clear increase in the average number of samples processed by the reference cytology labs in these provinces (*Figure 1*).

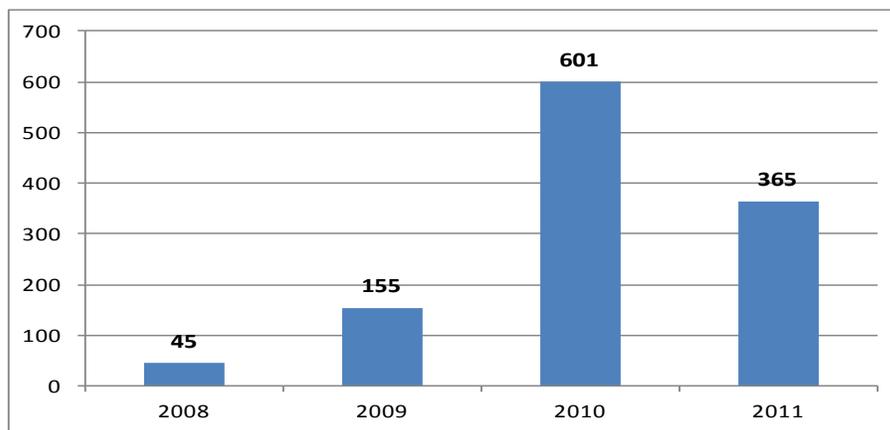
*Figure 1 . Average number of pap smears processed monthly by provincial cytology laboratory, Argentina.*



## 2. Guatemala

- Norms, guides and standardized protocols for early detection and treatment of pre-cancerous lesions and 2 training kits for VIA and colposcopy were distributed in the 29 Health Care Areas. This included dissemination of 200 manuals on cervical cancer pathology.
- Strengthened infrastructure with the acquisition of 5 colposcopes, 7 cryotherapy equipments, 2 electrosurgery equipment and 15 biopsy forceps.
- Over 250 primary Health care providers trained in the use of visual inspection with acetic acid as a cervical cancer screening test.
- 38 gynecologists from 16 health care areas received a colposcopy training.
- 214,046 screening tests and 2,208 colposcopies performed during 2010. 61% (131,111) of all screening tests performed in 2010 were VIA tests. Average positivity rate was 8.1% for VIA and 1.2% for standardized pap test.
- 49% of all precancerous lesions were treated in a single visit during 2010, as a result of the implementation of the “screen and treat” approach. Figure 2 shows the increasing number of women managed with this modality of care.

Figure 2. Women managed with the screen and treat approach, Guatemala



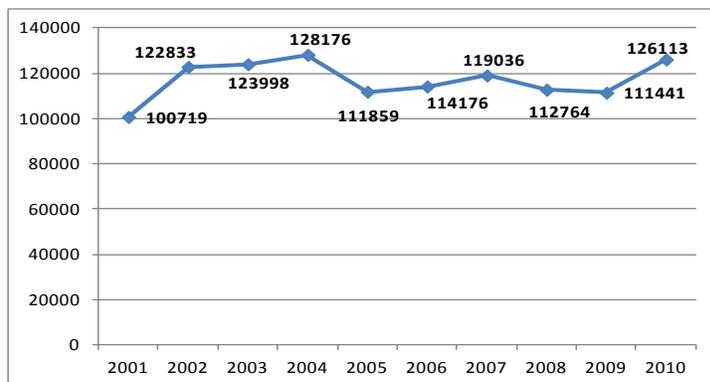
Note: 2011 data only reflects number of women treated until June, 2011.

## 3. Honduras

- 14,672 additional pap smears were taken in 2010 as compared with 2009. Figure X shows the number of cytologies processed annually in the period 2001-2010.
- 131 professionals from 66 health centres trained in the new guidelines for cytology testing.

- 100 dossiers on the new pap technique were printed and distributed for use in workshops with health care professionals.

Figure 3. Annual cytologies processed in Honduras, 2001-2010



## Evaluation

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This project was coordinated by PAHO-Washington, DC with counterparts in the PAHO country offices from Argentina, Guatemala and Honduras. The project was led in each country by the national cervical cancer program manager of the Ministry of Health. Project workplans were submitted by the project lead to PAHO, and project monitoring consisted of routine conference calls, and email communication between the PAHO project coordinators and in-country lead persons. Periodic progress reports were supplied to PAHO by the in-country lead person. In this process, collaboration from PAHO/WHO country offices and the in-country lead was crucial to ensure progress of planned activities and necessary adjustments in order to meet project objectives in a timely format. A formal evaluation of the project was not carried out, but rather a review of activities and accomplishments.

## Recommendations

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Latin American countries, especially those participating in this project are poised to adopt new strategies and tools to drastically reduce the high rates from cervical cancer. This project helped demonstrate that it is feasible to incorporate a screen and treat approach, as well as HPV DNA testing, along with strengthening cytology laboratories, colposcopy clinics and develop information systems for better patient monitoring. The countries will continue to expand their community outreach, screening and pre-cancer treatment services, and trainings of health providers well beyond the duration of this project. The success of this project, however, encourages further technical and financial cooperation to support sustained and continuous improvement of cervical cancer prevention and control efforts, especially in the areas of information systems, quality of care, monitoring and evaluation.

## Attachments/Deliverables

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The links to the main products, materials, or publications produced as part of this project are included below.

### 1. Latin American Sub-regional Meeting for Cervical Cancer Prevention and Control

- Report of the Regional Meeting

-Spanish: [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Informe\\_Panama\\_sp.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Informe_Panama_sp.pdf)

-English: [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Panama\\_report\\_en.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Panama_report_en.pdf)

### 2. Argentina

- Brochures and radio spots

-Brochures: <http://www.msal.gov.ar/cancer-cervico-uterino/grafica.html>

-Radio spots: <http://www.msal.gov.ar/cancer-cervico-uterino/spot-radiales.html>

- Report of the international seminar

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Informe-II-Seminario-Internacional-2010.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Informe-II-Seminario-Internacional-2010.pdf)

### 3. Guatemala

- Link to or pictures of Cervical cancer norms, guides and standardized protocols as well as the “Cervical Cancer Clinic Handbook” and the colposcopy manual.

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Guia\\_practica\\_tamizaje\\_cacu\\_Guatemala.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Guia_practica_tamizaje_cacu_Guatemala.pdf)

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Manual\\_bolsillo\\_tc\\_inspeccion\\_visual\\_Gua.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Manual_bolsillo_tc_inspeccion_visual_Gua.pdf)

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/manuales\\_cacu\\_guatemala.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/manuales_cacu_guatemala.pdf)

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Protocolo\\_diagnostico\\_tratamiento\\_cacu\\_Gua.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Protocolo_diagnostico_tratamiento_cacu_Gua.pdf)

- Colposcopy training

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/Curso\\_colposcopistas\\_san\\_marcos.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/Curso_colposcopistas_san_marcos.pdf)

### 4. Honduras

- Cervical cancer prevention brochure and The Honduras National Norms and Procedures for Cervical Cancer Prevention

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/cxca\\_brochure\\_HON.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/cxca_brochure_HON.pdf)

- Colposcopy situation analysis presentation

- [http://dl.dropbox.com/u/21983709/PHAC\\_Cxca/COLPO-HON.pdf](http://dl.dropbox.com/u/21983709/PHAC_Cxca/COLPO-HON.pdf)

## References

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1. International Agency for Research on Cancer (IARC). GLOBOCAN 2008: Cancer Incidence and Mortality Worldwide [Internet]. Lyon: IARC; 2010. [Last visited 16/12/2011]. Available from: <http://globocan.iarc.fr/>
2. Pan American Health Organization. Cervical Cancer Prevention and Control Programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO; 2010.
3. Pan American Health Organization. New Technologies for Cervical Cancer Prevention and Control. Report of the Latin American Sub regional Meeting on Cervical Cancer Prevention. 2-3 June 2010, Panama. Washington, D.C.: PAHO; 2010. Available from: [http://new.paho.org/hq/dmdocuments/2010/Panama\\_report\\_en.pdf](http://new.paho.org/hq/dmdocuments/2010/Panama_report_en.pdf)
4. Pan American Health Organization (PAHO). Regional Strategy and Plan of Action for Cervical Cancer Prevention and Control in Latin America and the Caribbean. Washington D.C.: PAHO; 2008. Available from: [http://new.paho.org/hq/dmdocuments/2011/PAHO\\_Cervical\\_Cancer\\_Strategy\\_En.pdf](http://new.paho.org/hq/dmdocuments/2011/PAHO_Cervical_Cancer_Strategy_En.pdf)

