

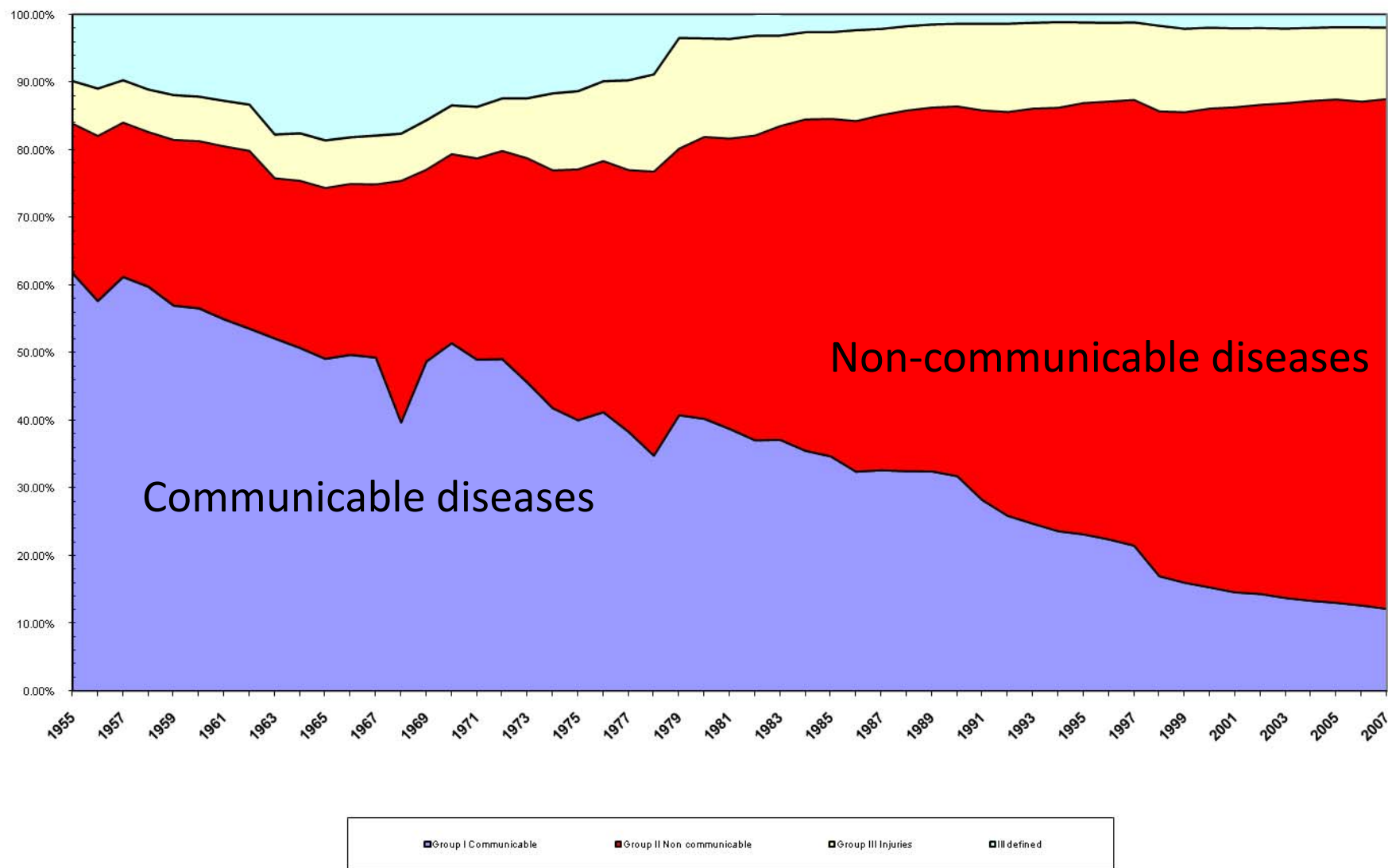


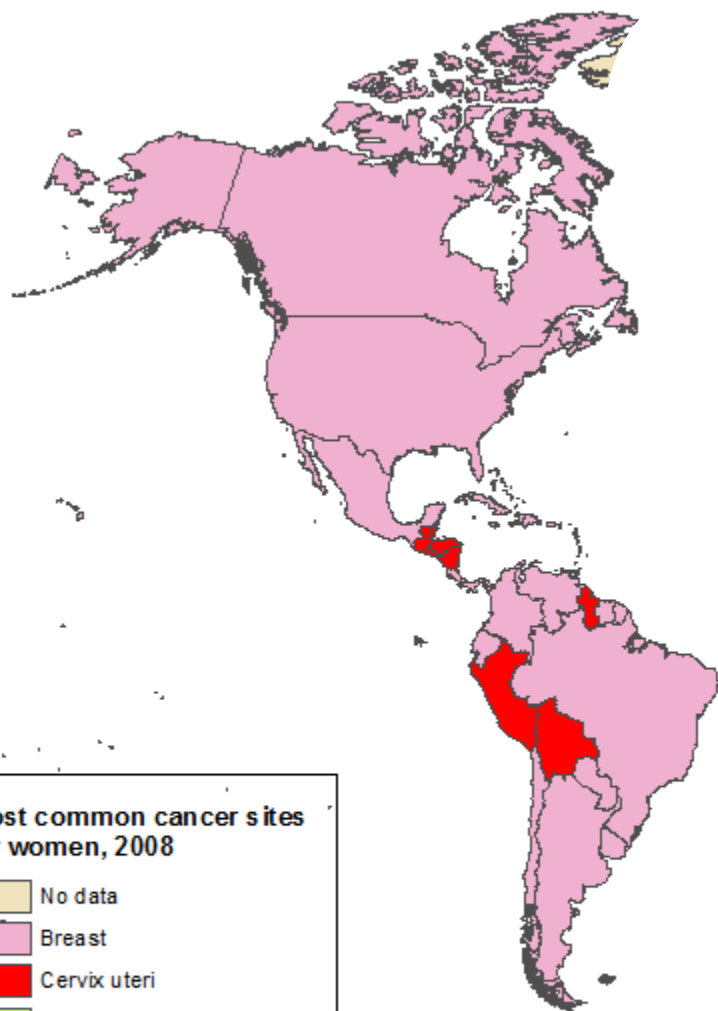
# **BREAST AND CERVICAL CANCER IN THE AMERICAS: Situation Analysis and Way Forward**

Silvana Luciani

Area of Health Surveillance, Disease Prevention and Control  
Pan American Health Organization/World Health Organization

# Epidemiological Transition in LAC



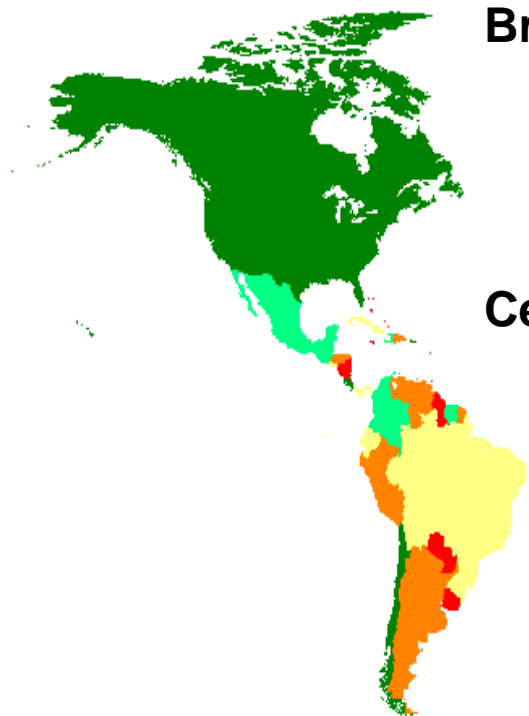


Breast cancer is the most common cancer in LAC.

Cervical cancer is also a significant problem.

# Breast and Cervical Cancer in the Americas

International Agency for Research on Cancer



## Breast Cancer

NAm

No. new cases  
(ASIR)

205,500 (76.7)

No. deaths  
(ASMR)

45,600 (14.8)

LAC

114,900 (39.7)

36,950 (12.4)

## Cervical Cancer

NAm

12,490 ( 5.7)

4,400 ( 1.7)

LAC

68,220 (23.5)

31,700 (10.8)

TOTAL

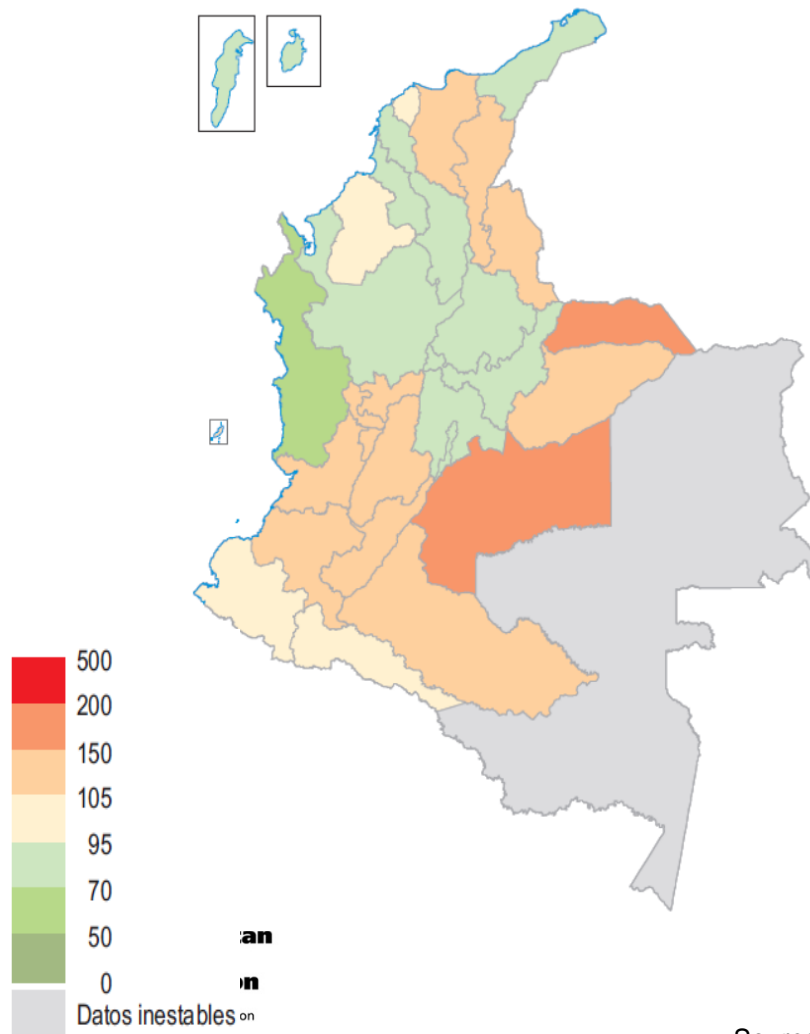
400,100

118,600

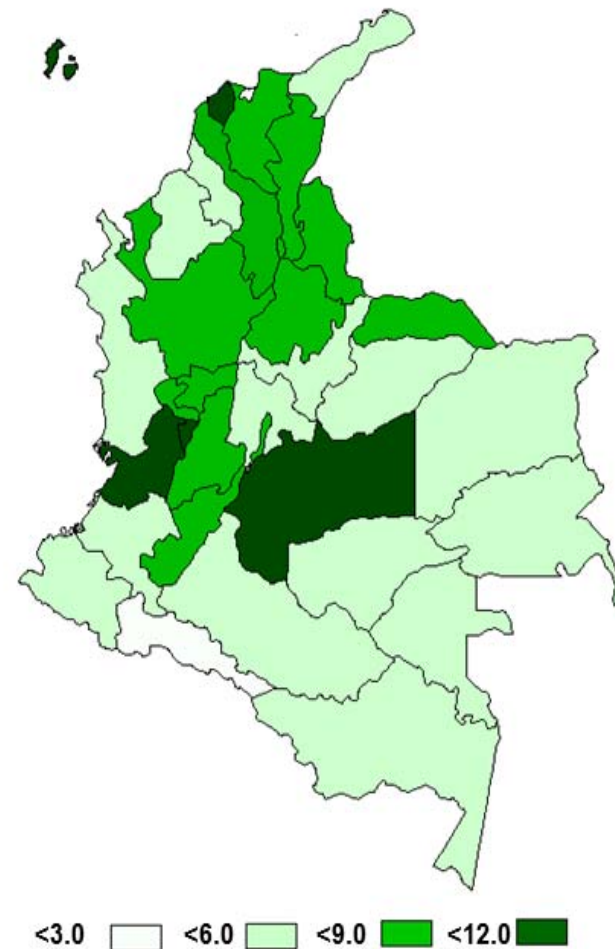
■ < 19.4 ■ < 22.5 ■ < 24.6 ■ < 28.0 ■ < 43.1

# Within Country Disparities: The case of Colombia

cervical cancer mortality



breast cancer mortality

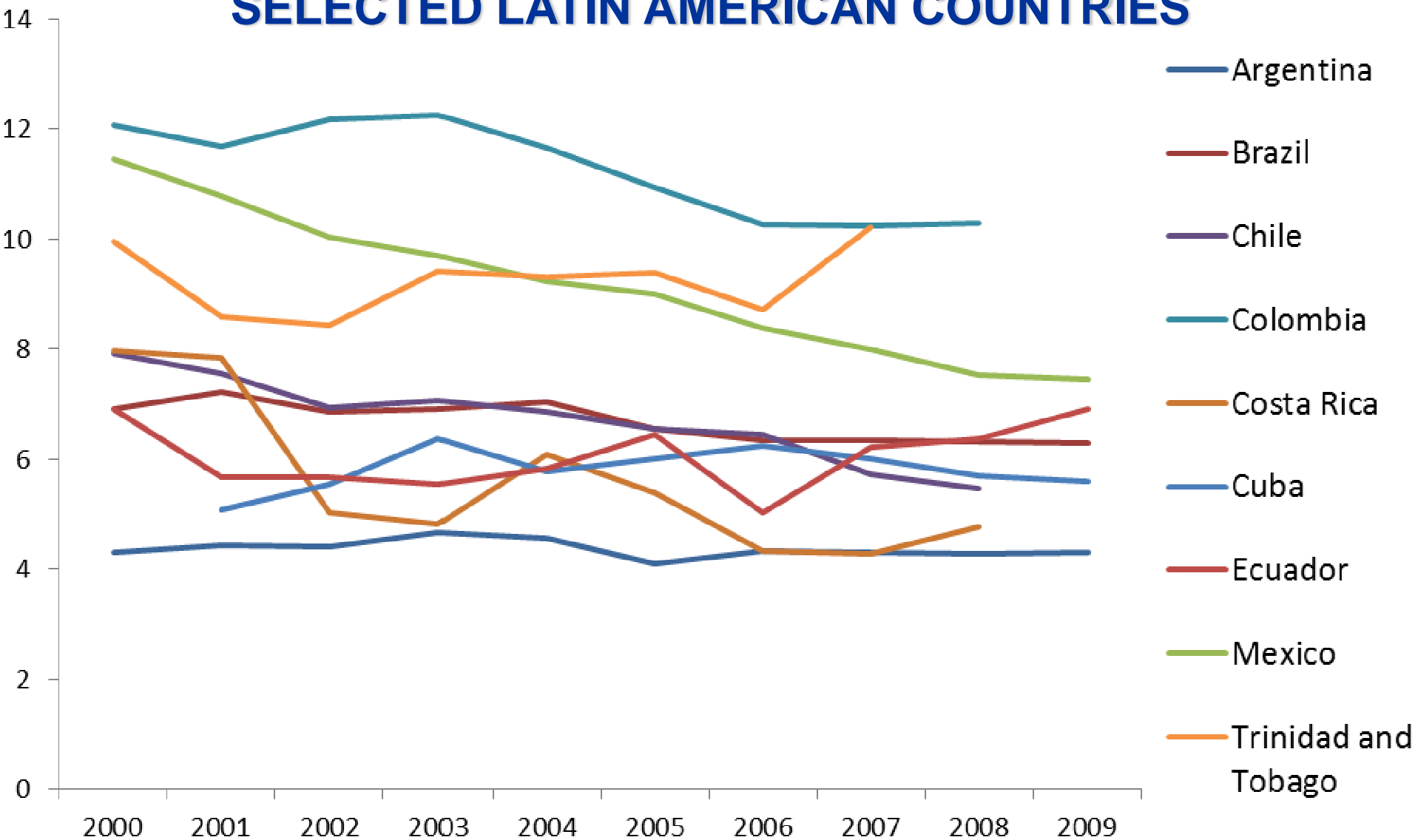


Source: Pedraza AM et al. Breast Cancer Res Treat 2012 & National Cancer Institute of Colombia, 2012



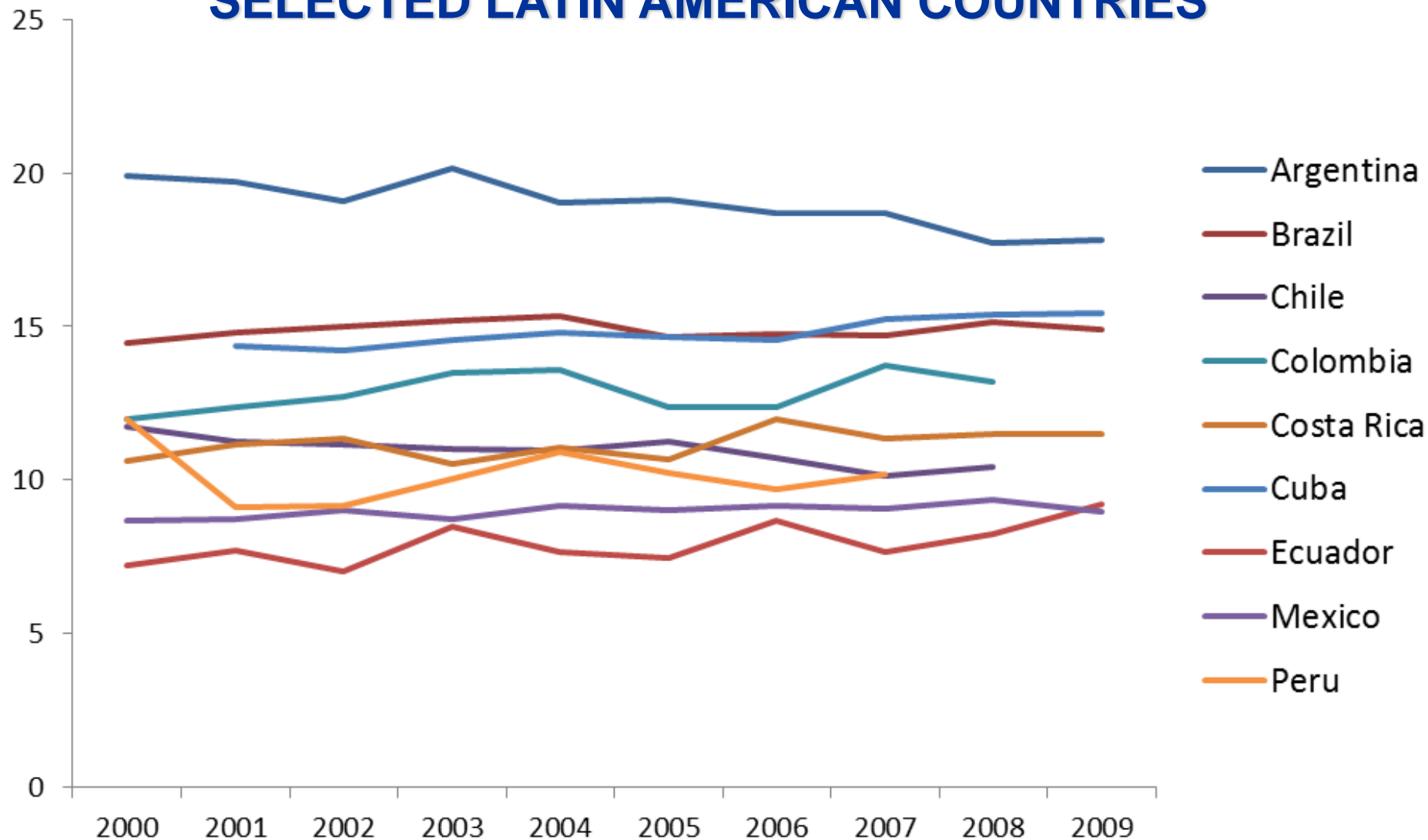
# CERVICAL CANCER MORTALITY TRENDS

## SELECTED LATIN AMERICAN COUNTRIES

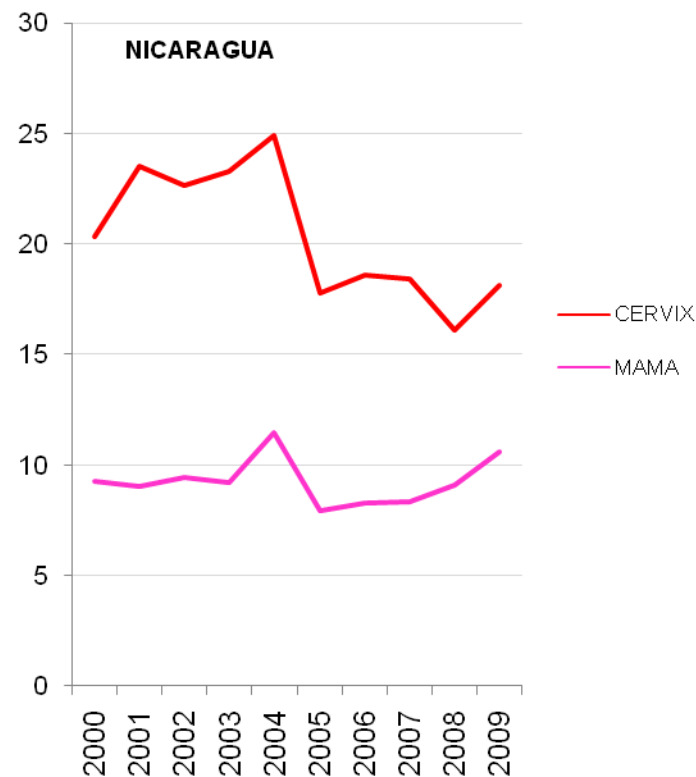
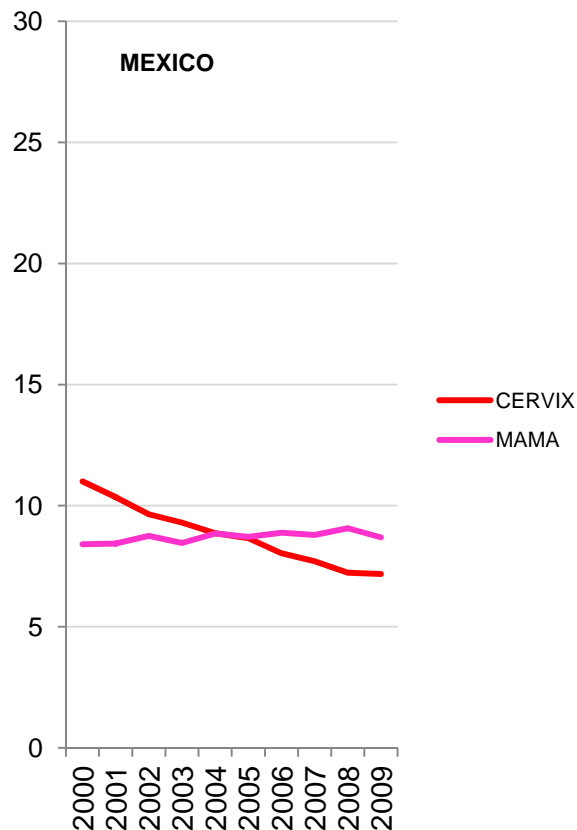
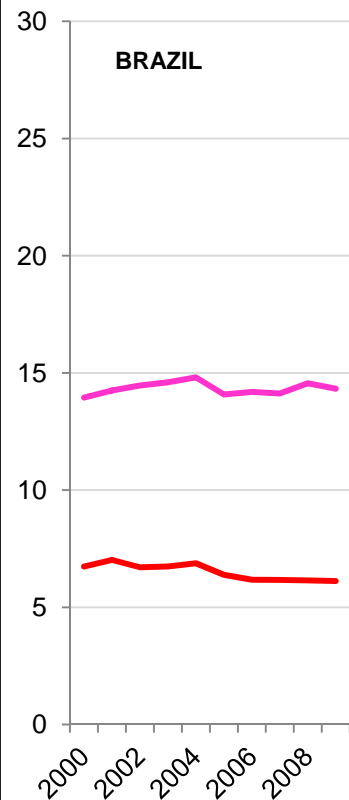


Source: PAHO, mortality database. 2012

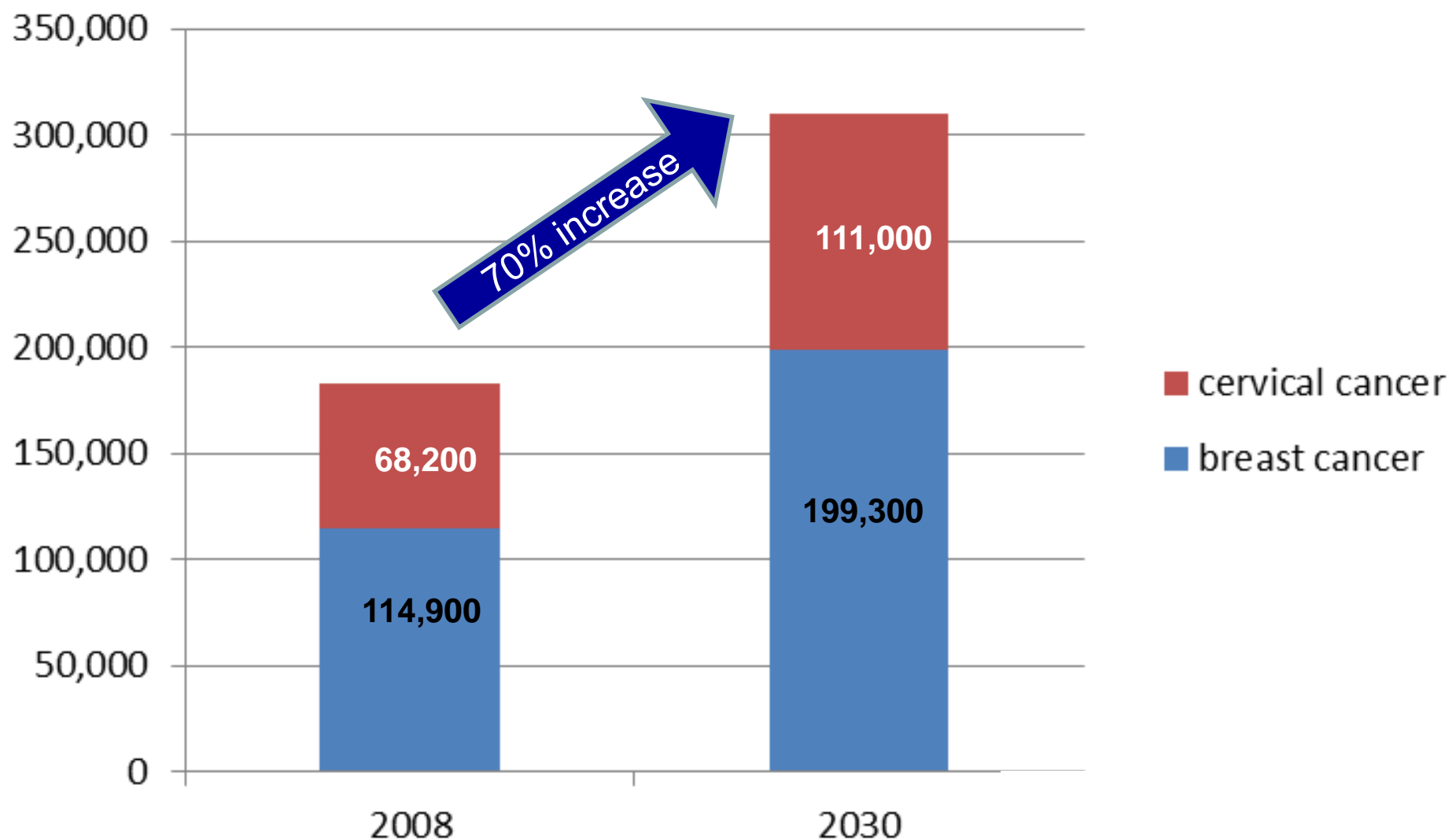
# BREAST CANCER MORTALITY TRENDS SELECTED LATIN AMERICAN COUNTRIES



# Breast and Cervical Cancer Mortality: 3 Scenarios



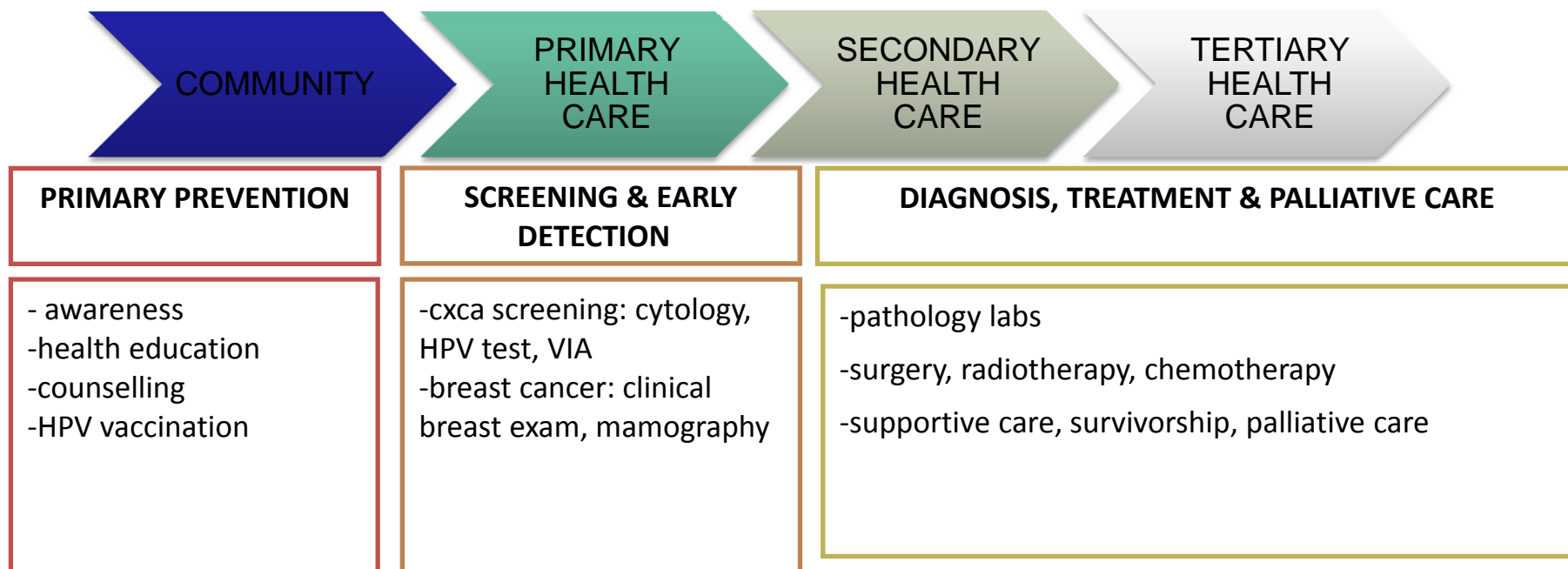
# PROJECTIONS FOR BREAST AND CERVICAL CANCER INCIDENCE IN LAC



source: Globocan, 2008



# COMPREHENSIVE CANCER PROGRAM



## ORGANIZED PROGRAM

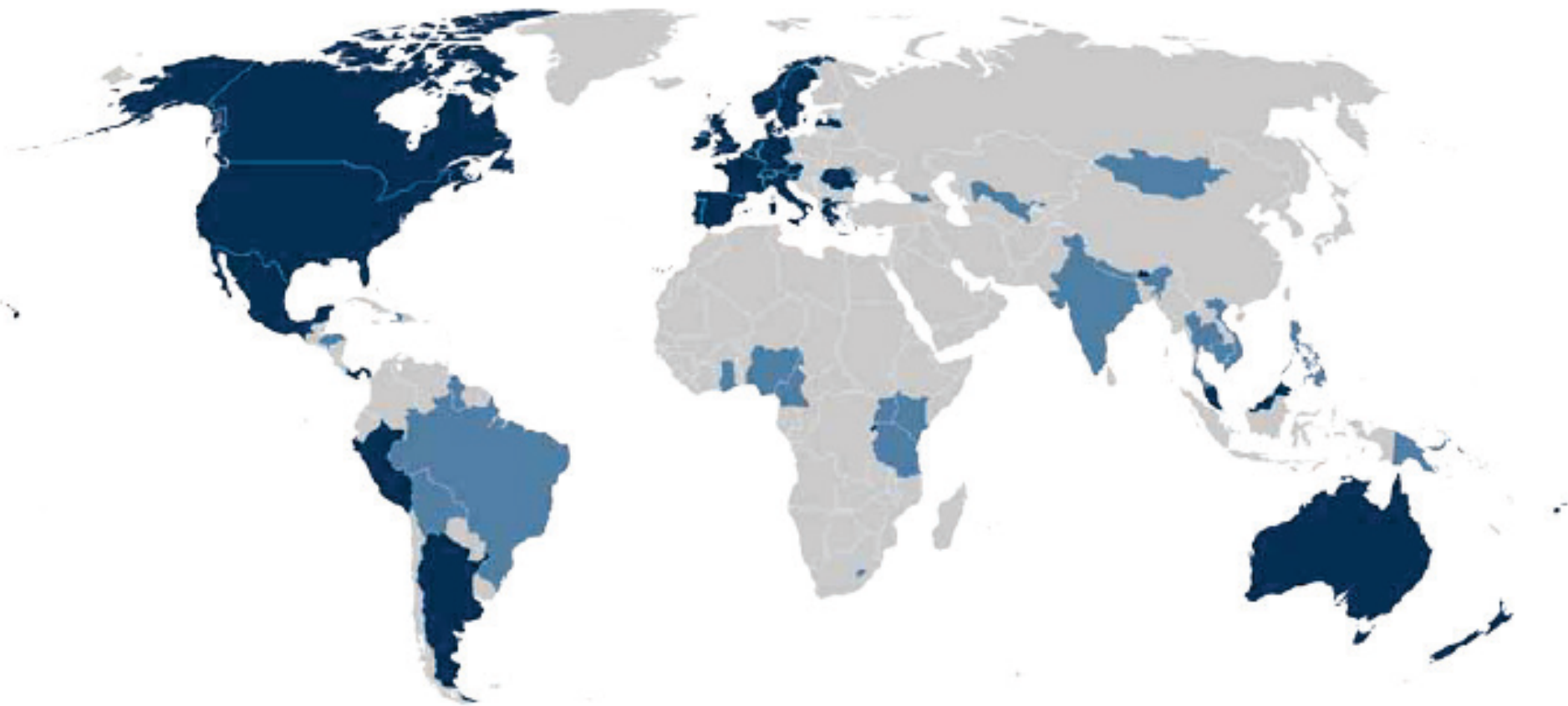
[training, quality control, cancer registry for monitoring and evaluation]

# Capacity for Cancer Control In LAC

		No. Countries (%)
National Cancer Plan		19/31 (61%)
Budget for the cancer program		12/19 (63%)
Monitoring and evaluation		12/19 (63%)
Screening services	cervical cytology	24/25 (96%)
	free service	21/24 (87.5%)
	clinical breast exam	24/32 (84%)
	free service	21/24 (87.5%)
	mammography	21/25 (59%)
	free service	8/21 (38%)
Chemotherapy available		23/25 (92%)
Radiotherapy available		17/25 (68%)
Oral morphine available		18/25 (72%)



# HPV VACCINE INTRODUCTION, 2012



- 
- **NATIONAL PROGRAMS:** HPV VACCINE IN NATIONAL NORMS AND AVAILABLE ON A LIMITED OR UNIVERSAL BASIS THROUGH THE PUBLIC SECTOR
  - **PILOT PROGRAMS:** HPV VACCINE AVAILABLE THROUGH PILOT OR DEMONSTRATION PROJECTS ORGANIZED BY THE MINISTRY OF HEALTH OR NGO PARTNERS
  - **NO HPV VACCINE PROGRAM**

Source: Cervical Cancer Action. Progress in Cervical Cancer Prevention  
The CCA Report Card



# RESEARCH ON SCREENING TEST PERFORMANCE IN LAC

## Self-collection of vaginal specimens for human papillomavirus testing in cervical cancer prevention (MARCH): a community-based randomised controlled trial

Eduardo Lazcano-Ponce<sup>a,\*</sup>, Attila Tibor Lorincz<sup>a</sup>, Aurelio Cruz-Valdez, Jorge Salmerón, Patricia Uribe, Eduardo Velasco-Mondragón, Pilar Hernandez Nevarez, Rodrigo Diaz Acosta, Mauricio Hernández-Avila

## New Approaches to Cervical Cancer Screening in Latin America and the Caribbean

Rolando Herrero<sup>a,\*</sup>, Catterina Ferreccio<sup>b</sup>, Jorge Salmerón<sup>c</sup>, Maribel Almonte<sup>d,e</sup>, Gloria Ines Sánchez<sup>f</sup>, Eduardo Lazcano-Ponce<sup>g</sup>, José Jerónimo<sup>h,i</sup>

## Cost-effectiveness of conventional cytology and HPV DNA testing for cervical cancer screening in Colombia

Oscar Andrés-Gamboa, MD<sup>(1)</sup>, Liliana Chicaiza, PhD<sup>(1,2)</sup>, Mario García-Molina, PhD<sup>(1,2)</sup>, Jorge Díaz, MSc<sup>(1,2)</sup>, Mauricio González, MD<sup>(1)</sup>, Raúl Murillo MD, MSc<sup>(1)</sup>, Mónica Ballesteros MD, MSc<sup>(1)</sup>, Ricardo Sánchez MD, MSc<sup>(1,2)</sup>

## Cervical Cancer Prevention in Peru: Lessons Learned from the TATI Demonstration Project

## Human Papillomavirus Testing in the Prevention of Cervical Cancer

Mark Schiffman, Nicolas Wentzensen, Sholom Wacholder, Walter Kinney, Julia C. Gage, Philip E. Castle

## Cervical screening by visual inspection, HPV testing, liquid-based and conventional cytology in Amazonian Peru

Maribel Almonte<sup>1,2</sup>, Catterina Ferreccio<sup>3</sup>, Jennifer L. Winkler<sup>4</sup>, Jack Cuzick<sup>1</sup>, Vivien Tsu<sup>4</sup>, Sylvia Robles<sup>5,6</sup>, Rina Takahashi<sup>7</sup> and Peter Sasieni<sup>1\*</sup>

## A Comparison of Single and Combined Visual, Cytologic, and Virologic Tests as Screening Strategies in a Region at High Risk of Cervical Cancer<sup>1</sup>

### REVIEW ARTICLE

## Innovation in Cervical Cancer Prevention and Control in Mexico

Eduardo Lazcano-Ponce<sup>a</sup> and Betania Allen-Leigh<sup>b</sup>

### CLINICAL ARTICLE

## Cervical cancer screening with naked-eye visual inspection in Colombia

Raul Murillo<sup>a,\*</sup>, Joaquin Luna<sup>b</sup>, Oscar Gamboa<sup>a</sup>, Elkin Osorio<sup>c</sup>, Jairo Bonilla<sup>d</sup>, Ricardo Cendales<sup>e</sup>, and INC Cervical Cancer Screening Study Group

## Comparison of HPV-based assays with Papanicolaou smears for cervical cancer screening in Morelos State, Mexico

Jorge Salmerón<sup>1,\*</sup>, Eduardo Lazcano-Ponce<sup>2</sup>, Attila Lorincz<sup>3</sup>, Mauricio Hernández<sup>2</sup>, Pilar Hernández<sup>2</sup>, Ahideé

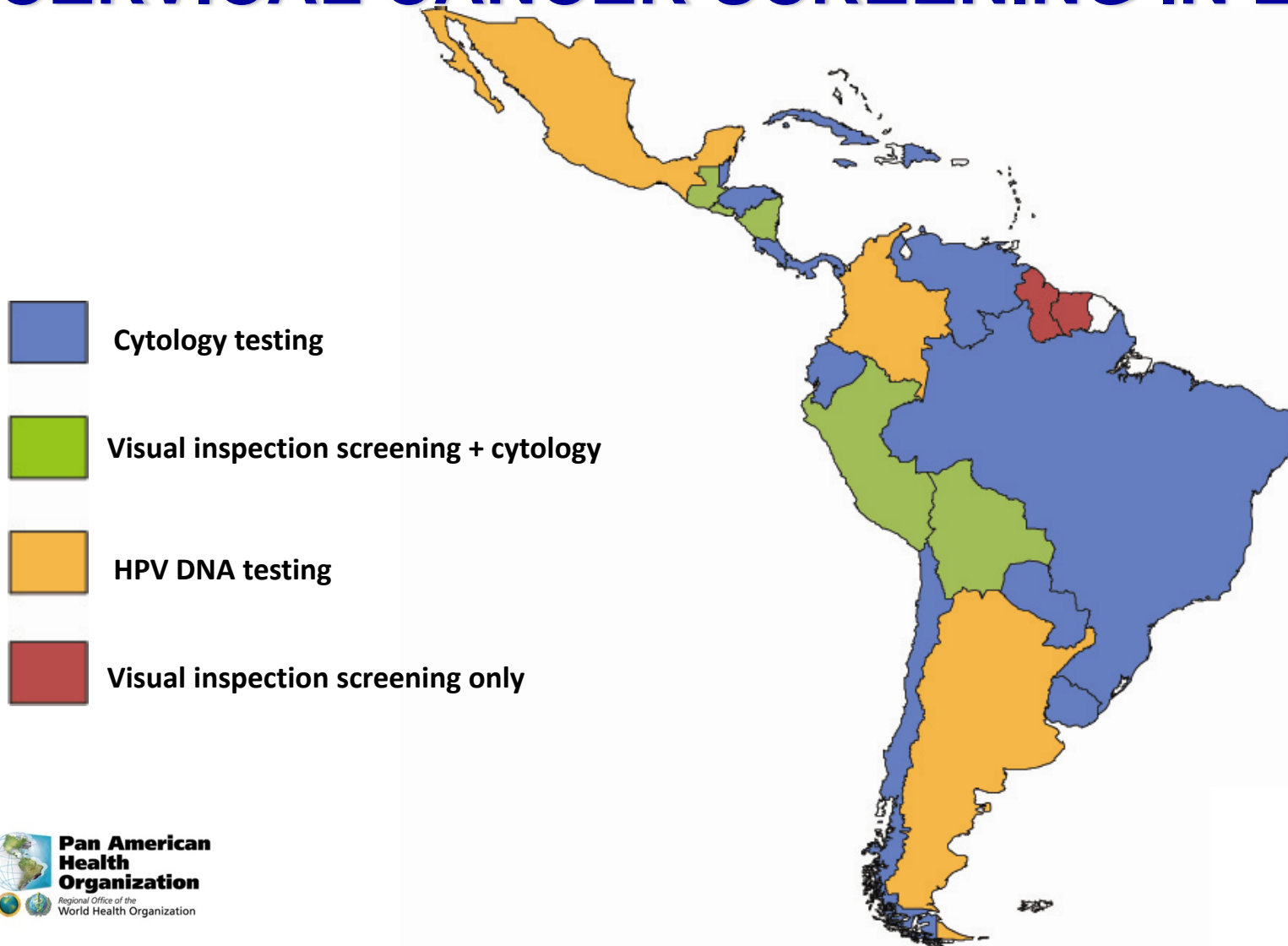
## Performance characteristics of Pap test, VIA, VILI, HR-HPV testing, cervicography, and colposcopy in diagnosis of significant cervical pathology

Adhemar Longatto-Filho • Paulo Naud • Sophie FM Derchain • Cecilia Roteli-Ma • Silvio Tatti • Luciano Serpa Hammes • Luis Otavio Sarian • Mojca Eržen • Margherita Branca • Jean Carlos de M. Renata Gontijo • Marina Y. S. Maeda • Temístocles Lima • Silvano Costa • Stina Kari Syrjänen

## Comprehensive evaluation of cervical cancer screening programs: the case of Colombia

Raúl Murillo, MD, MPH<sup>(1)</sup>, Carolina Wiesner, MD, MPH<sup>(2)</sup>, Ricardo Cendales, MD, MSc<sup>(2)</sup>, Marion Piñeros, MD, MSc<sup>(3)</sup>, Sandra Tovar, Lic en Enf<sup>(2)</sup>

# NEW STRATEGIES FOR CERVICAL CANCER SCREENING IN LAC



# CHALLENGES TO SCALE UP NEW STRATEGIES IN LAC



**competing public health priorities**



**limited awareness and demand**



**resistance to change**

**cost of new technologies**



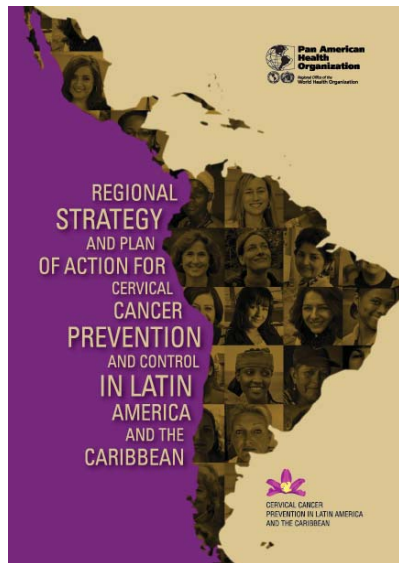
# PAHO'S RESPONSE

- Mobilize political commitment
- Assess and plan cancer programs
- Technical cooperation & building capacity
- Access to vaccines, medicines, radiotherapy
- Multi-sector partnerships





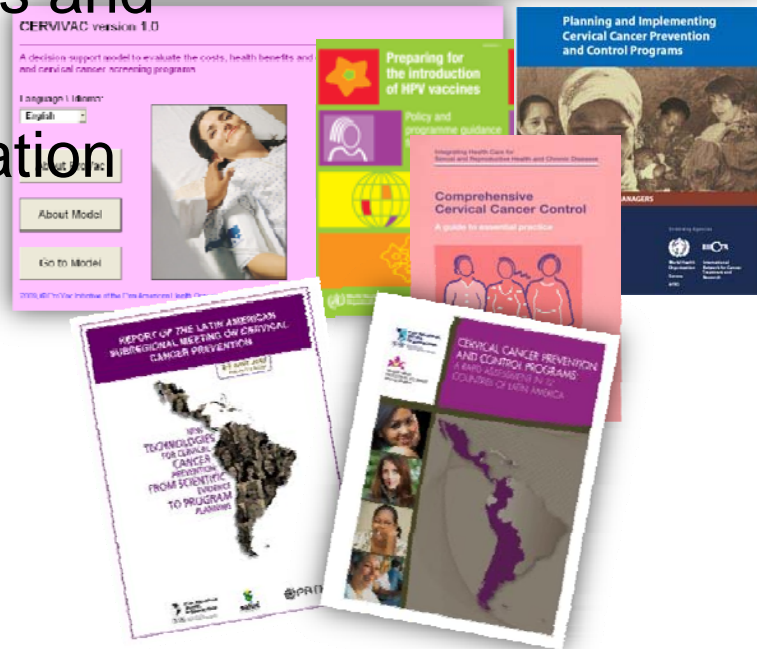
# PAHO REGIONAL STRATEGY FOR CERVICAL CANCER



1. Conduct a situation assessment
2. Intensify information, education and counseling
3. Fortify screening and pre-cancer treatment
4. Establish or strengthen information systems and cancer registries
5. Improve access and quality of cancer treatment and of palliative care
6. Generate evidence for decision making on HPV vaccine introduction
7. Advocate for equitable access and affordable comprehensive cervical cancer prevention

# PAHO's Support for Cervical Cancer

- Policies and guidelines
- Needs assessment/program evaluation
- Demonstration projects
- Training of providers
- PROVAC Initiative for HPV vaccines and cervical cancer screening
- HPV vaccine monitoring and evaluation
- Knowledge exchange



# PAHO's Support for Breast Cancer

A review of breast cancer care and outcomes in Latin America



## Review of breast cancer care in Latin America



## Training in mammography and breast ultrasound

## BHGI Guidelines stratified to resource levels

- early detection
- diagnosis
- treatment
- supportive and palliative care
- health system

Level of resources	Public Education and Promotion	Detection Methods
Basic	Development of culturally sensitive, significantly expanded local education programs for target populations to boost value of early detection, breast cancer risk factors and breast health awareness (individual + self-examination)	Clinical history and CSE
Low-level	Culturally and linguistically appropriate targeted individualization emphasizing CSE for age groups at higher risk addressed in environmental, teaching health care providers (in the field)	Diagnostic breast US in diagnostic mammography in women with positive CSE Mammography screening of target group*
Enhanced	Regional awareness programs regarding breast health risks to general health and women's health programs	Mammography screening every 2 years in women ages 50-69* Consider mammography screening every 12 months in women ages 40-49*
Advanced	National awareness campaigns regarding breast health using media	Consider annual mammography screening in women ages 40 and older Other imaging techniques as appropriate for "high-risk groups"



# PAHO's Radiation Health Program

## Radiological Services

- diagnostic imaging
- radiation therapy



## Radiation Protection





PAHO's REVOLVING FUND &  
STRATEGIC FUND

REVOLVING FUND		
HPV Vaccines		
STRATEGIC FUND		
Currently available		Forthcoming additions
asparaginase	doxorubicin	trastuzumab
bleomycin	etoposide	carboplatin
calcium folinate	mercaptopurine	docetaxel
chlorambucil	mesna	fluorouracil
cisplatin	morphine	ifosfamide
cyclophosphamide	methotrexate	paclitaxel
cytarabine	tamoxifen	
dacarbazine	procarbazine	
dactinomycin	vinblastine	
daunorubicin	vincristine	



# PAHO's support to Palliative Care



- Clinical practice guide
- Guidelines for opioid availability
- Palliative care program development
- Workshops with regulators and health professionals

International Agency for Research on Cancer



Cervical Cancer  
**ACTION**

A Global Coalition to STOP Cervical Cancer



The Breast Health Global Initiative



FRED HUTCHINSON  
CANCER RESEARCH CENTER  
A LIFE OF SCIENCE

CANADIAN PARTNERSHIP  
AGAINST CANCER



PARTENARIAT CANADIEN  
CONTRE LE CANCER



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HEALTHY CARIBBEAN COALITION



POLICY  
WISDOM



SPECTRUM  
Where health, science and communications meet

Healthy lives. Measurable results.



# WOMEN'S CANCER INITIATIVE

A public-private partnership of the PAFNCD



# WOMEN'S CANCER INITIATIVE

A joint commitment to save lives

