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

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Pan American Health Organization/World Health Organization
Epidemiological Transition in LAC

Communicable diseases

Non-communicable diseases

Source: PAHO, mortality database. 2011
Breast cancer is the most common cancer in LAC.

Cervical cancer is also a significant problem.

Source: GLOBOCAN 2008.
# Breast and Cervical Cancer in the Americas

<table>
<thead>
<tr>
<th></th>
<th>No. new cases (ASIR)</th>
<th>No. deaths (ASMR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breast Cancer</strong></td>
<td></td>
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<tr>
<td>NAm</td>
<td>205,500 (76.7)</td>
<td>45,600 (14.8)</td>
</tr>
<tr>
<td>LAC</td>
<td>114,900 (39.7)</td>
<td>36,950 (12.4)</td>
</tr>
<tr>
<td><strong>Cervical Cancer</strong></td>
<td></td>
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<tr>
<td>NAm</td>
<td>12,490 (5.7)</td>
<td>4,400 (1.7)</td>
</tr>
<tr>
<td>LAC</td>
<td>68,220 (23.5)</td>
<td>31,700 (10.8)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>400,100</td>
<td>118,600</td>
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</table>

**Regions:**
- **NAm**: North America
- **LAC**: Latin America and the Caribbean

**Note:** All numbers are approximate.
Within Country Disparities: 
The case of Colombia

cervical cancer mortality

breast cancer mortality

BREAST CANCER MORTALITY TRENDS
SELECTED LATIN AMERICAN COUNTRIES

Source: PAHO, mortality database. 2012
Breast and Cervical Cancer Mortality: 3 Scenarios

Source: PAHO Mortality Database, 2012
PROJECTIONS FOR BREAST AND CERVICAL CANCER INCIDENCE IN LAC

2008:
- Breast cancer: 114,900
- Cervical cancer: 68,200
- Total: 199,300

2030:
- Breast cancer: 111,000
- Cervical cancer: 111,000
- Total: 222,000

70% increase

Source: Globocan, 2008
COMPREHENSIVE CANCER PROGRAM

COMMUNITY

PRIMARY HEALTH CARE

SECONDARY HEALTH CARE

TERTIARY HEALTH CARE

PRIMARY PREVENTION
- awareness
- health education
- counselling
- HPV vaccination

SCREENING & EARLY DETECTION
- cxca screening: cytology, HPV test, VIA
- breast cancer: clinical breast exam, mamography

DIAGNOSIS, TREATMENT & PALLIATIVE CARE
- pathology labs
- surgery, radiotherapy, chemotherapy
- supportive care, survivorship, palliative care

ORGANIZED PROGRAM
[training, quality control, cancer registry for monitoring and evaluation]
# Capacity for Cancer Control in LAC

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

Source: PAHO Survey of National NCD Program Managers, 2012
HPV VACCINE INTRODUCTION, 2012

Source: Cervical Cancer Action. Progress in Cervical Cancer Prev
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 a, Attila Lóricza b, Aurelio Cruz-Veldeza b, Jorge Salmerón a, Patricia Uribe a, Eduardo Velasco-Mondragón a, Pilar Hernández-Navarre a, Rodrigo Díaz Acosta a, Mauricio Hernández-Aviña a

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

Oscar Andre-González a, Yolanda Chocheza a, Nicole García-Molina b, Jorge Díaz a, Gilberto García Mendoza a, Pedro Alberto Londoño a, Maritza Sánchez-Mejias a, Ricardo Sánchez-Mejias a

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 a, b, Caterina Ferreccio c, Jennifer L. Winkler c, Jack Cuzick c, Vivien Tsui d, Sylvia Robles e, f, Rina Takahashi f and Peter Sasieli f

A Comparison of Single and Combined Visual, Cytologic, and Virologic Tests as Screening Strategies in a Region at High Risk of Cervical Cancer

Innovation in Cervical Cancer Prevention and Control in Mexico

Eduardo Lazcano-Ponce a and Betania Allen-Leigh b

Cervical cancer screening with naked-eye visual inspection in Colombia

Raul Murillo a, b, Joaquin Luna b, Oscar Gamboa a, Elkin Osorio c, Jairo Bonilla d, Ricardo Cervical Cancer Screening Study Group a

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

Jorge Salmerón a, Eduardo Lazcano-Ponce a, Attila Lóricza b, Mauricio Hernández a, Pilar Hernández a, Ahíded

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

Adhemar Longatto-Filho a, Paulo Naud a, Sophie FM Derchain a, Cecilia Roteli-Mi b, Silvio Tatti a, Luciano Serpa Hammes a, Luis Otavio Sarian c, Menjú Rezende a, Margherita Branca a, Jean Carlos de M Neto a, Renata Gontijo a, Marta V. S. Maeda a, Temístocles Lima a, Silvano Costa a, Stínika Kari Syrjänen a

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

Raul Murillo, MD, MPH a, Carolina Wiessler, MD, MPH a, Ricardo Cendales, MD, MSc b, Marlon Piñeros, MD, MSc b, Sandra Tovar, Lic en Enf b
NEW STRATEGIES FOR CERVICAL CANCER SCREENING IN LAC

- Cytology testing
- Visual inspection screening + cytology
- HPV DNA testing
- Visual inspection screening only
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

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
PAHO’s Radiation Health Program

Radiological Services

• diagnostic imaging
• radiation therapy

Radiation Protection
## PAHO’s REVOLVING FUND & STRATEGIC FUND

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<thead>
<tr>
<th>REVOLVING FUND</th>
<th>STRATEGIC FUND</th>
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<td>HPV Vaccines</td>
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### REVOLVING FUND

- Asparaginase
- Bleomycin
- Calcium folinate
- Chlorambucil
- Cisplatin
- Cyclophosphamide
- Cytarabine
- Dacarbazine
- Dactinomycin
- Daunorubicin
- Doxorubicin
- Etoposide
- Mercaptopurine
- Mesna
- Morphine
- Methotrexate
- Tamoxifen
- Procarbazine
- Vinblastine
- Vincristine

### STRATEGIC FUND

- Trastuzumab
- Carboplatin
- Docetaxel
- Fluorouracil
- Ifosfamide
- Paclitaxel

Forthcoming additions
PAHO’s support to Palliative Care

• Clinical practice guide
• Guidelines for opioid availability
• Palliative care program development
• Workshops with regulators and health professionals
WOMEN’S CANCER INITIATIVE
A public-private partnership of the PAFNCD
WOMEN’S CANCER INITIATIVE
A joint commitment to save lives

CERVICAL CANCER
- Communications & advocacy
- Capacity building
- Increasing access & Strengthening programs
- Operational research

BREAST CANCER

Cervical Cancer Project
Founding partners: PAHO-USG-ACS

Breast Health Global Initiative guideline implementation

SAVE >24,000 WOMEN’S LIVES