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REGIONAL STRATEGY AND PLAN OF ACTION FOR CERVICAL CANCER PREVENTION AND CONTROL

Latin America and the Caribbean, 2008-2015

Introduction

1. Cervical cancer is the leading cause of cancer deaths among women in Latin America and the Caribbean (LAC) (*1*). This Region has one of the highest cervical cancer mortality rates in the world, together with sub-Saharan Africa and South East Asia. Despite its preventable nature, it persists as a significant public health problem, where it is estimated that 72,000 new cases and 33,000 deaths occur annually among women in LAC (*1*).

2. The cervical cancer incidence and mortality rates in LAC are seven times greater than those observed in North America. The highest disease burden is borne by women of the Caribbean and Central America, which has an estimated mortality rate of 16/100,000 women and 15/100,000 women respectively (*1*). Haiti has the highest cervical cancer mortality rate in the Region (48/100,000 women) (see Annex).

Background

3. The major risk factor for cervical cancer is persistent infection with certain types of human papillomaviruses (HPV). These viruses are the most common sexually transmitted viral infections and they affect men and women differently. Other known cervical cancer risk factors include high parity, increasing number of sexual partners, young age at first intercourse, low socioeconomic status, and positive smoking history. In 2006, HPV vaccines against cervical cancer became commercially available, thus providing a primary prevention tool which can impower women to prevent HPV. This is

an opportunity for the Region to develop a comprehensive strategy for cervical cancer prevention and control. Affordability of HPV vaccine, however, is a challenge.

4. Cervical cancer can also be prevented by screening asymptomatic women for precancerous cervical lesions and then treating the lesions before they progress to invasive cancer. Screening with cytology (Pap test) has been in place in the Americas for approximately 30 years, yet countries in LAC have not experienced the same declines in mortality rates as have been observed in North America (see Annex). The main reason is that it is very difficult to mount and sustain high quality screening programs, particularly due to: (a) challenges in achieving high screening coverage of women in the at risk age group (> 30 years); (b) poor quality of the Pap test results; and (c) incomplete diagnosis and treatment of women screened positive.

5. The factors which have led to failures of screening programs in LAC are related to factors in the health services, as well as to women's sociocultural, economic and educational status, and ethnicity. The factors also include:

- low awareness among women and men of the importance of screening;
- limited access to diagnostic services and treatment for pre-cancer;
- inadequate capacity for surgical and radiotherapy treatment for women detected with invasive cancer; and
- an inability to assure and sustain quality services.

6. Also contributing to the problem are sociocultural, economic, educational and ethnic factors of women; poor coordination and performance of the health system; inadequate communication between providers and clients; and the compounding influence of HIV.

7. Since 1999, PAHO has been working in partnership with the Alliance for Cervical Cancer Prevention (ACCP), with financial support from the Bill and Melinda Gates Foundation, to address this public health problem. Demonstration projects were established on novel approaches to screening and treatment of pre-cancer in Peru, El Salvador, and Suriname. Technical and financial assistance was also provided to 10 countries in the Region to strengthen their existing screening programs, and a sub-regional program was established through CAREC. With respect to cancer treatment, PAHO has a longstanding history of working in the Americas to improve radiotherapy services and strengthen treatment capacity.

8. The Fifty-eighth World Health Assembly resolution on cancer prevention and control (WHA58.22) (2005) calls for action on cervical cancer screening, early detection, treatment and palliative care. The 47th PAHO Directing Council Resolution CD47.R9

(2006) on the Regional Strategy and Plan of Action on an Integrated Approach to the Prevention and Control of Chronic Diseases, including Diet, Physical Activity, and Health provides a framework for action. These two resolutions are taken into consideration in this proposed regional strategy and plan of action.

Analysis: Effective Strategies for Prevention and Control of Cervical Cancer

9. A comprehensive approach encompasses interventions along the continuum of care, from primary prevention to screening and early detection, treatment, and palliative care. It requires a complete package of linked services consisting of health education and community empowerment, vaccination of adolescents, screening of women, treating those detected with precancerous cervical lesions or invasive cancer, and symptom management, particularly pain.

10. Primary prevention. Results of large-scale efficacy trials have demonstrated that HPV vaccines provide almost 100% protection against precancerous cervical lesions caused by the vaccine genotypes. HPV vaccines are expected to reduce the future global cervical cancer burden by 70% (*4*). Screening, however, will still need to continue for the foreseeable future. Previous models that have demonstrated the cost-effectiveness of screening for cervical cancer have been extended to include vaccines. These models on cost and impact suggest that vaccination and screening is more cost effective than the status quo (*5*).

11. Health education, including counseling of adolescents, women and men, is an integral part of primary prevention for cervical cancer. This involves informing people of cervical cancer, its causes and natural history and availability of the HPV vaccine; promoting screening; increasing awareness of signs and symptoms, and reducing fear, embarrassment and stigma. Health education is most effective when provided in community settings, with the support and involvement of families, community leaders, women's advocacy and support groups, the nongovernmental sector, and the media.

12. Screening and treatment of precancer. Effective screening programs need to be based on an effective screening test; high screening coverage; appropriate follow-up diagnosis and treatment for those with positive screening test results; and high quality of care. In addition, with the HPV vaccine introduction, screening policies will need to be re-assessed to accommodate the needs for less frequent screening, screening at later ages, and use of different screening modalities such as HPV testing.

13. The Pap test, the most commonly used screening test, has an inherent disadvantage in that it has an average sensitivity of 50% and, in low resource settings, its performance can be even poorer. For example, in a study in one district of Peru, the Pap test demonstrated a sensitivity of 27% (*6*). Another disadvantage is that it involves

multiple visits by the client, which often leads to incomplete diagnosis and treatment. For example, in a study in Peru 75% of women with abnormal Pap test results did not receive any follow up care (*7*).

14. New evidence generated by the ACCP suggests that the most efficient and effective strategy, in low resource settings, is to screen using either visual inspection (VIA) or HPV testing, then treating precancerous lesions using cryotherapy (freezing) (*8-13*). This is optimally achieved in a single visit in a primary care setting, carried out by competent providers, including nurses and trained midwives (*13*).

15. Every woman has the right to be screened at least once in her lifetime. Reports have shown low screening coverage in LAC, particularly among indigenous women. For example, in Ecuador and in Guatemala 70% and 58%, respectively, of indigenous women reported never having had a Pap test (see Annex). This illustrates the need to direct resources towards women previously unscreened, particularly those in vulnerable and disadvantaged groups, and the importance of partnering with women's advocacy groups to enhance community participation.

16. Treatment of invasive cancer: The prognosis for women with invasive cervical cancer is affected by the extent of disease at the time of diagnosis. Surgery and radiation therapy are the recommended treatment modalities, resulting in cure rates of 85% to 90% (*16,17*). The choice of treatment depends on patient factors and available local expertise.

17. Palliative Care. Palliative care services are an integral component of cancer control programs. They involve symptom control and pain relief, which includes access to opioids and palliative radiation therapy, and spiritual and psychosocial support. These services can be provided simply and inexpensively.

Proposal: Regional Strategy and Plan of Action for Cervical Cancer Prevention and Control 2008-2015

18. The Regional Strategy and Plan of Action for Cervical Cancer Prevention and Control is based on the emergence of HPV vaccines and on new evidence from ACCP on cost-effective approaches to screening and treatment of precancer. It calls upon the Secretariat and its Member States to collaborate with partner organizations, including women's advocacy and support groups, and with attention to those subregions and countries with the highest disease burden, to:

- advocate and negotiate for equitable access and affordable HPV vaccines for countries in LAC;

- assist with the revitalization of comprehensive prevention and control programs, which includes improving the effectiveness of screening and treatment services and introducing the HPV vaccine in the public sector;
- undertake social communications to raise awareness about cervical cancer and engage communities in prevention efforts, focusing on women from disadvantaged and vulnerable groups including indigenous women;
- incorporate the single-visit screen-and-treat approach with visual inspection screening or HPV testing, followed by cryotherapy in primary care centers and through outreach campaigns, particularly in settings where resources are not sufficient to guarantee quality cytology screening;
- improve the access, availability and quality of treatment services and palliative care services.

19. The Non-communicable Disease (NCD) Regional Strategy has an overall goal to prevent and reduce the burden of chronic diseases and related risk factors in the Americas. In support of this overall goal, the Cervical Cancer Regional Strategy has as its goal and purpose:

Goal: To reduce the incidence and mortality caused by cervical cancer in Latin America and the Caribbean.

- By 2015, there will be a 20% reduction in incidence from invasive cervical cancer in the Region.

- By 2015, there will be a 30% reduction in mortality from invasive cervical cancer in the Region.

Purpose: To improve country capacity for the sustained implementation of organized, comprehensive and integrated cervical cancer prevention and control programs.

- By 2015, at least 25 countries in the Region will have upgraded programs to effectively implement new technologies and approaches, linking vaccination, screening and treatment of precancer; treatment of invasive cancer; and in low resource settings incorporate novel evidence-based screening and treatment approaches.

20. The NCD Regional Strategy has four main lines of action: public policy and advocacy; surveillance; health promotion and disease prevention; and integrated management of chronic diseases and risk factors. The Cervical Cancer Regional Strategy includes components and objectives which are aligned with the NCD lines of action, as follows:

Public Policy and Advocacy

A. *Advocacy and Communication*

Political will: To raise awareness among policymakers, health professionals, and women's advocacy and support groups, in order to increase political, financial and technical commitments to cervical cancer prevention and control programs.

- By 2015, at least 25 countries will have upgraded their cervical cancer programs to be more comprehensive, linking HPV vaccination, screening followed by immediate treatment for precancer, treatment and palliative care.

Community empowerment: To reach out to women, families, civil society, media, and community groups, including women's advocacy and support groups, in order to increase adolescents' and women's involvement in cervical cancer prevention and control programs.

- By 2015, at least 25 countries, supported by regional communications efforts will have instituted ongoing social communications campaigns that result in participation of at least 80% of the target population in programs.

B. *Partnerships and Resource Mobilization*

To build and foster synergistic partnerships in order to mobilize and leverage financial, technical and other resources that promote early introduction and adoption of cost-effective technologies for cervical cancer prevention and control.

- By 2010, at least three new international partnerships will have been created and agreements established with at least two new donor agencies to implement the Regional Strategy and Plan of Action.

Health Promotion and Disease Prevention

HPV vaccine introduction: To enhance the potential for comprehensive cervical cancer control through the effective and equitable introduction of HPV vaccines.

- By 2015, HPV vaccines will be available at affordable prices in the public sector through the PAHO Revolving Fund.
- By 2015, HPV vaccines will be included on national immunization schedules of at least 10 countries.

Integrated Management of Disease

A. Screening and treatment of precancer

To initiate, improve and sustain effective and equitable services for screening and treatment of precancer, utilizing new evidence-based approaches that will ensure high screening coverage; complete follow up of screened positive women; and assure quality of care.

- By 2015, at least 25 countries will have screened 80% of women aged 30-50 years at least once and treated 100% of screened positive women.
- By 2015, at least 20 countries will have incorporated the single visit screen-and-treat approach with visual inspection or HPV testing, followed by cryotherapy treatment, into routine primary care services.

B. Diagnosis and treatment of invasive cancer

To improve capacity, access, availability, timeliness and quality of diagnostic services, and surgical and radiotherapy treatment with a patient-centered approach.

- By 2010, 100% of all cervical cancer radiotherapy treatments will follow international standards of clinical protocols, delivered by skilled providers.
- By 2015, 100% of all women detected with invasive cervical cancer will be provided with apropriate and timely surgical or radiotherapy treatment.

C. Palliative care

To increase access and availability of palliative care services, including pain management.

- By 2015, all countries in the Region will have functioning palliative care services that provide optimal symptom and pain management and psychosocial support.
- By 2015, all countries in the Region will have legislation in place for improved access to opioid medication and for physicians, nurses and pharmacists to administer opioids to patients according to needs.

21. Inherent to each of the components above, is a common set of cross-cutting themes which are reflected in the activities of the Regional Strategy and Plan of Action (see Annex). These themes include policy development, health system strengthening, program planning, implementation and management, clinical protocols and clinical

practice guidelines, quality assurance, surveillance, monitoring and evaluation, training, research, communication and information dissemination.

22. Cervical cancer incidence and mortality rates will be monitored and periodic reports will be prepared using the annual estimates reported by Member States to PAHO and also the country data compiled by the International Agency for Research on Cancer. The baseline data will be taken from the currently available estimates, which are for the year 2005. All other indicators in this Strategy will be monitored through periodic surveys, and baseline data will be from information currently collected by PAHO and Member States on activities related to cervical cancer prevention and control programs. An evaluation report will be prepared at the completion of this strategy to report on accomplishments in meeting the above indicators.

23. To implement the Regional Strategy and Plan of Action, intensified efforts will be focused on those subregions and countries with the highest mortality rates from cervical cancer. Within countries, more intensified efforts will be in those areas/districts with the highest mortality rates and in populations with disadvantaged and vulnerable groups. The Secretariat will undertake efforts in an interprogrammatic manner to ensure the successful and sustained implementation of the Regional Strategy.

Action by the Executive Committee

24. Based on the information provided, the Executive Committee is requested to consider the following actions: reaffirm cervical cancer prevention and control as a high priority; urge Member States to translate their commitment into policies, plans of action and financial support for cervical cancer prevention and control; review and strengthen the proposed Regional Strategy and Plan of Action for Cervical Cancer Prevention and Control; and support the mobilization of technical and financial resources at regional, subregional and country levels.

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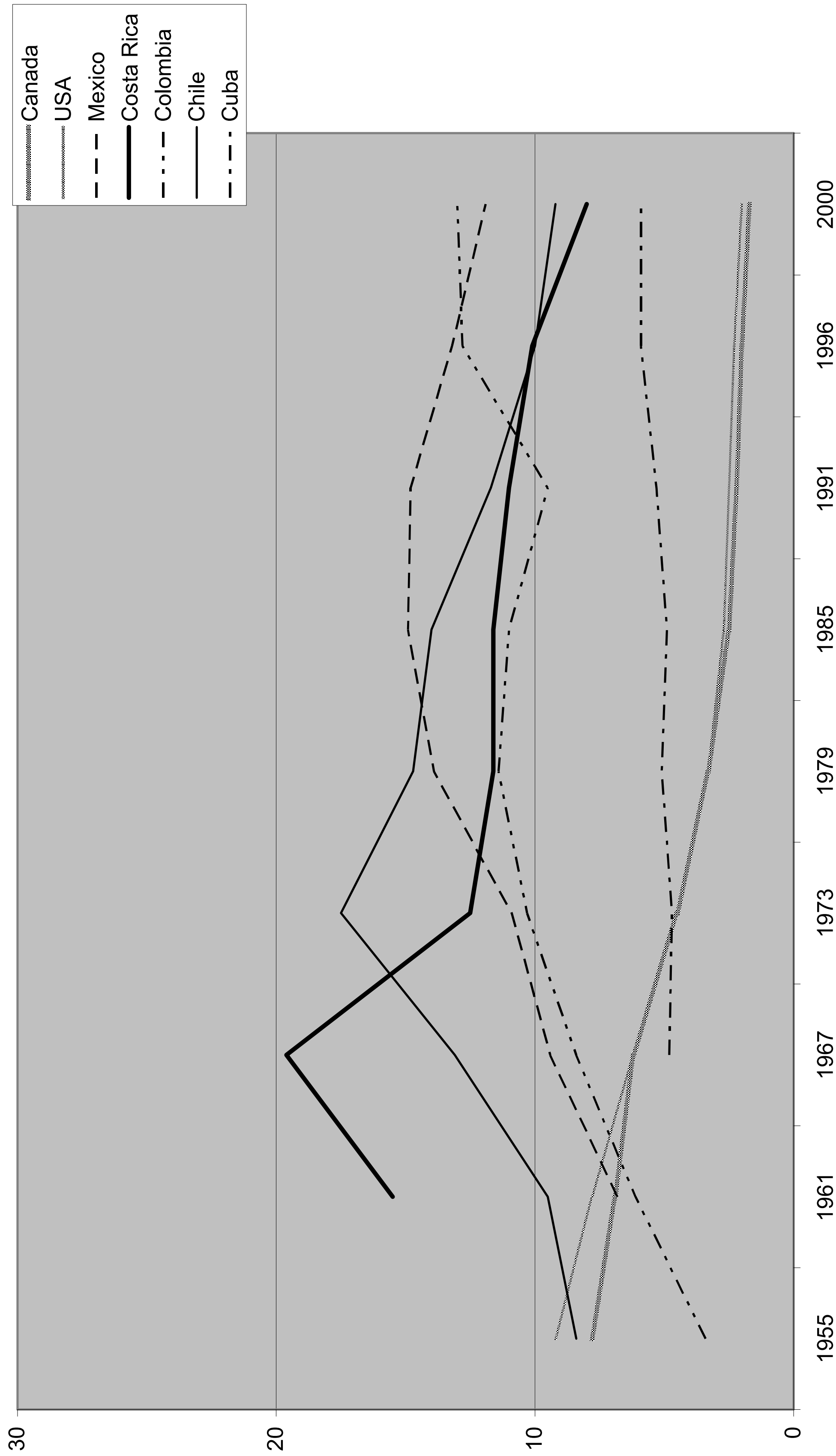
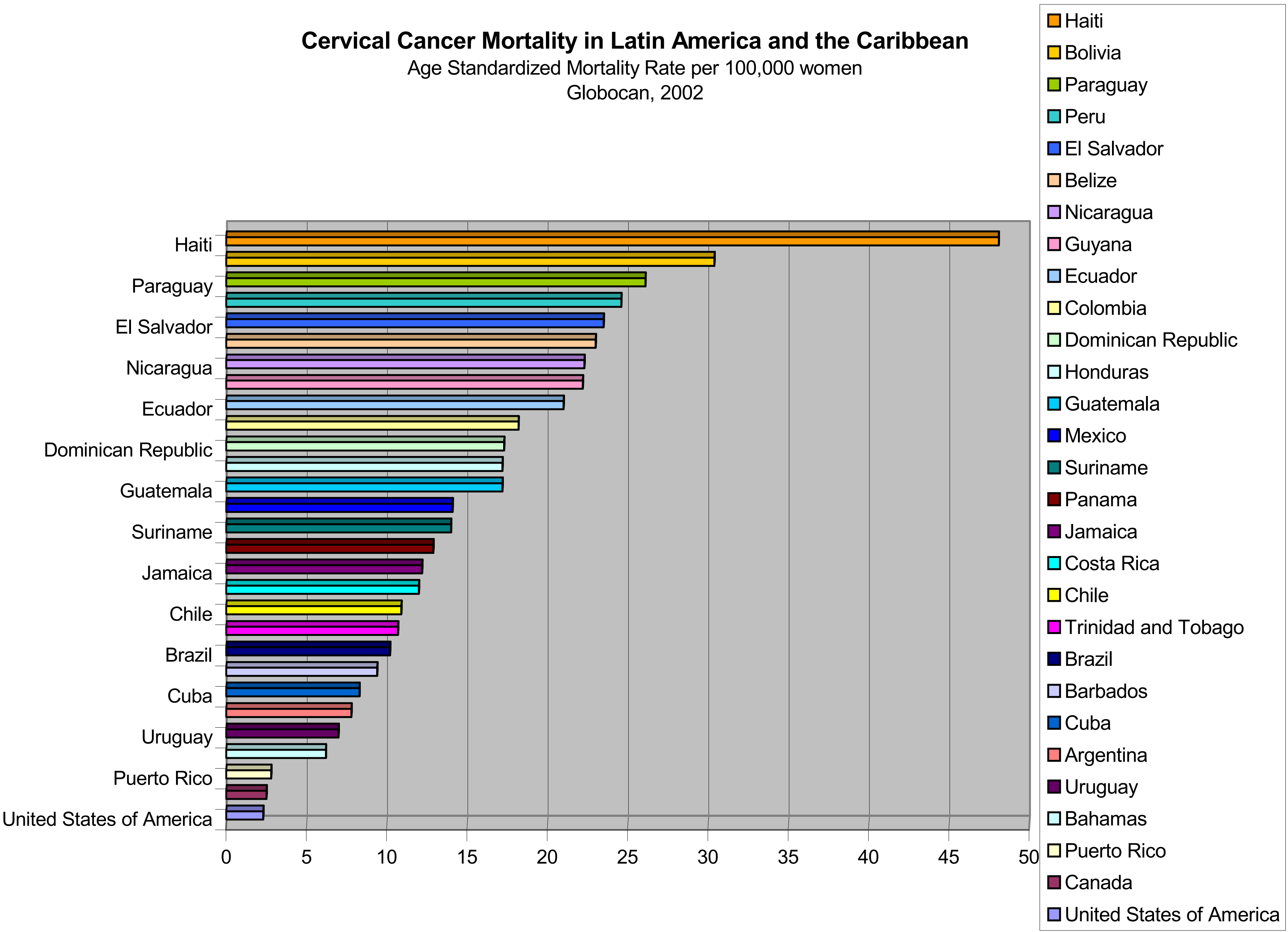
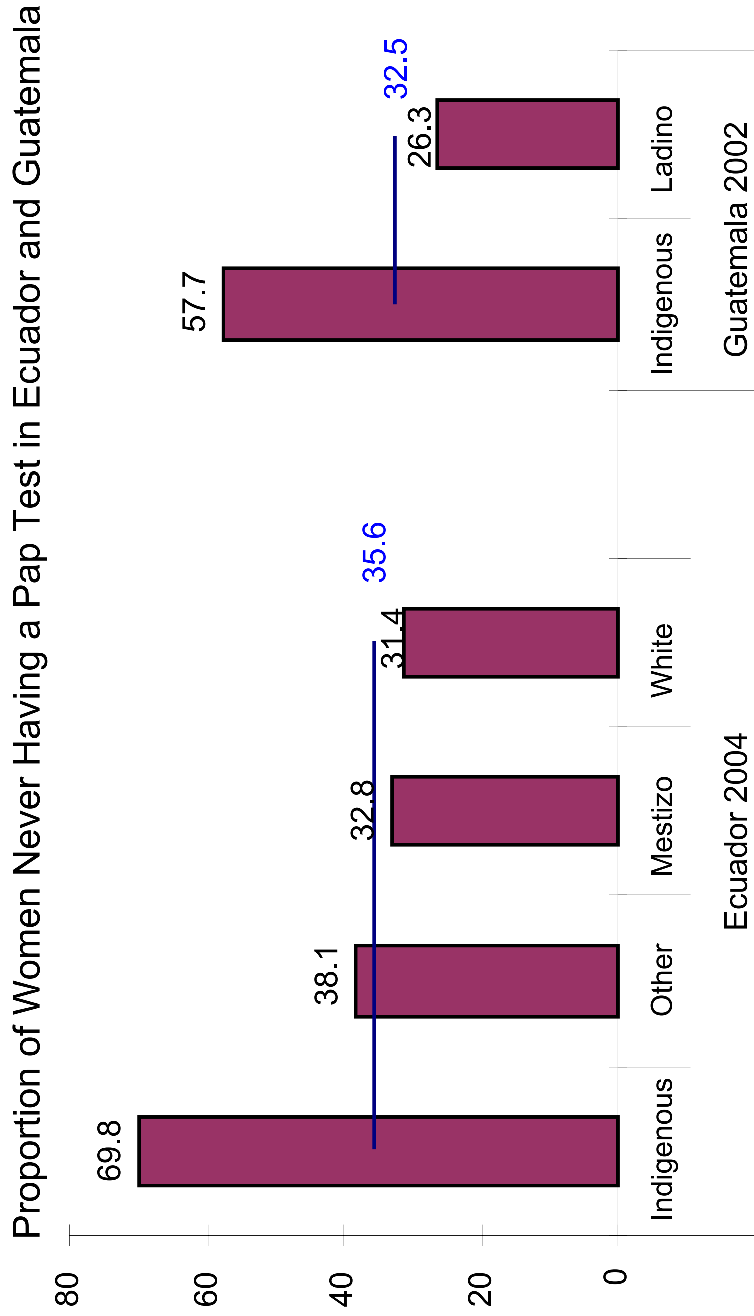
3 **Budgetary and Administrative Implications** 6


Cervical Cancer, Age-Standardized Mortality Rates in Selected Countries
source: WHO Mortality Database
Canada
USA
Mexico
Costa Rica
Colombia
Chile
Cuba
30
20
10
0
1955
1961
1967
1973
1979
1985
1991
1996
2000


Cervical Cancer Mortality in Latin America and the Caribbean
Age Standardized Mortality Rate per 100,000 women
Globocan, 2002
Haiti
Paraguay
El Salvador
Nicaragua
Ecuador
Dominican Republic
Guatemala
Suriname
Jamaica
Chile
Brazil
Cuba
Uruguay
Puerto Rico
United States of America
0
5
10
15
20
25
30
35
40
45
50
Haiti
Bolivia
Paraguay
Peru
El Salvador
Belize
Nicaragua
Guyana
Ecuador
Colombia
Dominican Republic
Honduras
Guatemala
Mexico
Suriname
Panama
Jamaica
Costa Rica
Chile
Trinidad and Tobago
Brazil
Barbados
Cuba
Argentina
Uruguay
Bahamas
Puerto Rico
Canada
United States of America


Inequities in Cervical Cancer Screening Coverage
Proportion of Women Never Having a Pap Test in Ecuador and Guatemala
80
60
40
20
0
69.8
38.1
32.8
31.4
35.6
57.7
26.3
32.5
Indigenous
Other
Mestizo
White
Indigenous
Ladino
Ecuador 2004
Guatemala 2002
Source: ENDEMAIN, ECUADOR -INEC 2004 ; DHS -2002 GUATEMALA

2. Active PAHO/WHO Collaborating Centers in Cancer

WHO Center in Supportive Cancer Care

MD Anderson Cancer Center
The University of Texas
Houston, Texas

- developing research and professional education programs in supportive cancer care for countries, primarily in Latin America.
- implementing international research programs in symptom relief and supportive care for cancer patients.
- providing a model for international diffusion of the best evidence-based supportive care practice in countries requesting assistance.
- evaluating and refining national and international training and treatment modalities in supportive care.

WHO Collaborating Center in Policy and Communications in Cancer Care

Pain and Policies Studies Group
University of Wisconsin
Madison, Wisconsin

- implementing international policy studies to identify and address barriers to opioid availability in national policy and national health care systems.
- undertaking comparative studies of national policy, development of research methods and demonstration projects.
- providing technical assistance to improve the availability of opioid analgesics for pain management and palliative care.

3. Budgetary and Administrative Implications

Linkage to the Program Budget 2006-2007

Strategic Objective: 3.0
Region-wide Expected Results: 3.1, 3.2, 3.4, 3.5

Budgetary Implications

Total estimated cost for implementation over the life-cycle of the initiative:
$10 million over 8 years (2008-2015)

Estimated cost for the biennium 2008-2009
$2.5 million

Of the estimated cost, what can be subsumed under existing programmed activities?
$200,000

Administrative Implications

Implementation locales

- PAHO headquarters, PAHO/WHO country offices, CAREC, CLAP
- Implementation will begin in 5 PAHO priority countries, which are also GAVI eligible and have among the highest rates of cervical cancer: Haiti, Bolivia, Nicaragua, Honduras, Guyana

Additional staffing requirements

- 2 FTEs: medical officer, public health specialist

Timeframes for implementation and evaluation

- 2008-2015

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