

CANCER IN THE AMERICAS

COUNTRY PROFILES 2013



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INTRODUCTION

Rationale for the report

Cancer is the second leading cause of death in the countries of the Americas (1), yet there is limited information available on how each country in this Region is responding to this public health problem. The recent global and regional commitments on noncommunicable diseases (NCD), including cancer, have called attention to the need for more available and accurate information on the country situation with respect to epidemiological status of NCDs and the capacity for public health programs for prevention and control. Furthermore, the World Health Organization (WHO) global monitoring framework (2) includes specific indicators related to cancer, and which require on-going monitoring and reporting on global progress towards NCD. Meanwhile, the Member States of the Pan American Health Organization (PAHO) provide annual mortality statistics, as well as information about their NCD programs and services through the national capacity survey of NCD programs.

Purpose and objectives

The purpose of *Cancer in the Americas: Country Profiles 2013* is to disseminate data made available to the Pan American Health Organization by its Member States on the current state of cancer risk factors, cancer mortality, and cancer plans, policies and services. The objective is to synthesize, in one reference document, the state of cancer control in countries in the Americas. Cancer incidence data are, unfortunately, not provided in this report, as this information is not available to the Pan American Health Organization in a systematic manner.

How the report is organized

The country profiles are arranged according to the main subregions of the Americas: Northern America; Mexico, Central America and Latin America Caribbean; South America; and non-Latin Caribbean. By grouping the countries by subregion, it enables the reader to review each country profile in relation to other countries which share geographic, historic and socioeconomic situations.

Each country profile has the same structure, and summarizes the following country specific information:

- sociodemographic indicators;
- main cancer risk factors (tobacco, alcohol, diet, physical inactivity, obesity);
- ranking of the 10 most frequent cancer types in terms of mortality, by sex, for the latest year with available mortality data;
- trends in cancer mortality during the period 2000-2010, for all cancer types (excluding skin non-melanoma) and 7 most common cancer types (breast, cervix, colorectal, liver, lung, prostate and stomach), by sex ; and
- capacity of ministry of health for cancer plans, policies and services.

The information sources used in this report, as well as the methods used to calculate cancer mortality trends are described in the Methods chapter. In addition, each country profile includes a reference on the data sources.

METHODS AND DATA SOURCES

The principle data sources used in preparing this report include the PAHO/WHO Survey on National Capacity for the Prevention and Control of Noncommunicable Diseases, 2013; the PAHO/WHO Mortality Database, 2012; and the PAHO/WHO Basic Health Indicators on Noncommunicable Diseases, 2011. Additional information was obtained through various sources, using publically accessible databases and documents, as described below and as indicated in the data sources section of each country profile.

Socio-demographic indicators

PAHO/WHO prepares an annual report on the basic indicators for health, using data supplied by its Member States. These data include sociodemographic information such as population size and age structure, total deaths, life expectancy, literacy, and gross national income. These data are included in this report, from the 2012 PAHO/WHO Basic Indicators, as general background about the country's situation.

Cancer risk factor data

The main cancer risk factors included in this report include tobacco use, alcohol, diet, physical inactivity and obesity. Data on tobacco use includes prevalence (%) of current smokers of tobacco aged 18 years of age and older; as well as among adolescents 13-15 years of age. The percentage of the population who eat 5 or more servings of fruits and vegetables are reported as the indicator for diet. For alcohol, the prevalence (%) of adult alcohol consumers is reported. Low physical activity is reported as the prevalence of adults who are physically active for <600 met minutes; and obesity is reported as the prevalence (%) of adults with a body mass index > 30. Data on these risk factors are taken from the PAHO/WHO Noncommunicable Diseases in the Americas, Basic Indicators 2011, as well as the PAHO/WHO Tobacco Control Report for the Region of the Americas 2013, and the WHO Global Information System on Alcohol and Health.

In addition, the prevalence of human papilloma virus (HPV), as the risk factor for cervical cancer, is included in this report and is defined as the prevalence of HPV among the general population of women with normal cytology. Data was extracted from the database of the ICO (Institut Català d'Oncologia) Information Center on HPV and Cancer.

Cancer mortality

Data on cancer mortality were extracted from the 2012 PAHO/WHO Regional Mortality Database, which includes deaths registered in national vital registration systems and reported annually to PAHO by the Member States. All deaths whose underlying cause was classified in the ICD-10 as C00-97, except C44 were extracted (Annex 1), from the year 2000 to the latest available year for 33 countries with complete data. This time period was used since it is when all countries of the Americas applied the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10) to code mortality.

Cancer deaths from approximately 10 cancer types, which represent the vast majority of cancers that occur in the countries of the Americas are included in this report. Age-standardized mortality rates for both sexes were estimated using the direct method and changes in mortality rates over the study period were calculated using Poisson Regression models, excluding those countries with small populations and large fluctuations in yearly data. Data were analyzed separately for each country, and are presented for all cancer types (excluding skin non-melanoma) and for 7 common cancer types: breast, cervix, colorectal, liver, lung, prostate and stomach.

In the case of the non-Latin Caribbean, due to small population size, mortality data from the following countries were combined to present changes in cancer mortality for this subregion: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Turks and Caicos Islands, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Virgin Islands (UK) and Virgin Islands (USA).

Ministry of health capacity for cancer prevention and control

Information on the public health program capacity for cancer was extracted from the PAHO/WHO Survey on National Capacity for the Prevention and Control of Noncommunicable Diseases, conducted in April – June 2013 and consisting of a structured questionnaire completed by the person(s) responsible for the NCD program in the country's national ministry of health. A total of 35 countries from the Americas provided written responses to the questionnaire, which included information on their cancer policy and plans, cancer registration, prevention policies, cancer screening services, treatment and palliative care services. All responses to the survey were checked and cleared by senior health officials at the ministry of health before submission to PAHO. Upon receipt of the questionnaires, PAHO/WHO carried out additional validation on a number of survey item responses. Where discrepancies were noted, clarifications were sought from the country and responses were updated. An additional round of consultation and updating with Member States was undertaken in September 2013.

To supplement information on the country's capacity for cancer control, we used several additional data sources and these specific data sources are all referenced in the country profiles. Overall sources include the following. For cervical, breast and prostate cancer screening guidelines, and program coverage, we reviewed documents available from the ministry of health websites, or where available in the scientific literature, as well as responses to the PAHO/WHO cervical cancer program assessment questionnaire (2013 for the Caribbean countries; 2010 for the Latin America countries). For HPV vaccination and for HBV vaccination, information was provided by the PAHO/WHO Comprehensive Family Community Immunization program and from WHO 2013 country immunization profiles. For cancer treatment, we extracted data on radiotherapy capacity (total energy teletherapy units, radiotherapy centres, radiation oncologists, medical physicists) from the Directory of Radiotherapy Centres (DIRAC) database of the International Atomic Energy Agency. For palliative care, opioid consumption data were extracted from the opioid consumption database from the WHO Collaborating Centre for Pain Policy and Palliative Care at the University of Wisconsin.

CANCER DEATHS IN THE AMERICAS

Table 1 provides an overview of the cancer mortality data, for both sexes, made available to PAHO/WHO by the Member States for the period of 2000-2010. Empty cells signify no data provided for that year. This data was analyzed and the results are presented in the following country profiles.

Table 1. PAHO/WHO Mortality Database, 2012 – number of cancer deaths, both sexes, by country and year.

Countries	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Anguilla	9	4		13	10	20	11		14	15	17
Antigua and Barbuda	86	69	75	67	97	71	65	93	83	69	
Argentina	53,260	52,925	52,829	54,458	54,520	55,870	56,382	57,147	56,565	57,034	57,459
Bahamas	217	284	285	312			285	311	354		
Barbados	459	381	442	503	482		476	433	505		
Belize	137	189	139	131	155	166	158	180	155	155	
Bermuda	138	119	118	132	96	108	104	100	103		
Brazil	155,761	163,779	169,962	177,416	184,199	182,629	187,966	180,709	185,621	189,948	194,675
Canada	62,474	63,589	64,877	65,769	66,725	67,096	66,366	69,301	70,248	70,755	
Chile	18,142	18,281	19,017	19,574	19,773	20,326	20,662	20,528	20,899	22,424	
Colombia	31,904	32,427	34,353	36,102	38,230	36,743	37,538	40,102	41,000	41,288	
Costa Rica	3,012	3,085	2,929	3,050	3,330	3,233	3,297	3,567	3,614	3,753	4,181
Cuba		16,587	17,256	18,066	18,495	18,933	19,512	20,160	20,981	21,085	21,967
Dominica		82	137	119	123	99	123	102	97	116	130
Dominican Republic	6,792	7,311	7,362	7,213	7,154						8,433
Ecuador	7,803	8,230	8,376	9,079	9,746	9,855	10,321	10,693	11,076	11,586	10,488
El Salvador	4,532	4,738	5,298	5,149	5,263	5,107	5,146	5,010	4,999	4,922	
Guatemala						6,842	7,285	6,791	6,859	7,065	
Guyana	866	419	364	391	393	421	367	419	449	395	
Jamaica							2,754				
Mexico	54,088	55,182	57,516	58,907	60,257	62,044	62,655	64,021	65,827	67,135	68,008
Montserrat	5	11	7	11	7	7	1	8	9	5	1
Nicaragua	2,934	3,123	3,148	3,292	3,442	3,030	3,202	3,149	3,121	3,253	3,142
Panama	2,342	2,300	2,376	2,625	2,727	2,525	2,757	2,845	2,898	2,686	
Paraguay	4,459	4,760	5,033	5,184	4,817	4,927	4,883	5,167	5,359	5,128	4,974
Peru	23,646	21,509	23,278	23,583	25,957	26,839	27,879	28,180		28,975	29,049
Puerto Rico	4,710	4,719	4,679	4,735	4,786	4,793	4,774	4,935	4,957	5,039	
Saint Kitts and Nevis	40	23	44	46	56	44	75	66	59	57	55
Saint Lucia	135	143	166	175	181	160			172		
Saint Vincent and the Grenadines	118	50	40	118	111	104	120	100	113	117	118
Suriname	247	273	323	299	305	289	334	307	399	341	
Trinidad and Tobago	1,201	1,206	1,273	1,315	1,355	1,364	1,318	1,406	1,417		
United States	550,865	551,348	554,901	554,510	551,550	556,872	557,271	560,226	562,865	564,765	
Uruguay	7,861	7,647		7,855	7,885					7,347	
Venezuela	17,415	17,790	19,191	19,506	20,859	20,765	21,552	18,952	19,501	20,004	
Virgin Islands (UK)	22	21	16	24	27		15	112	100	109	

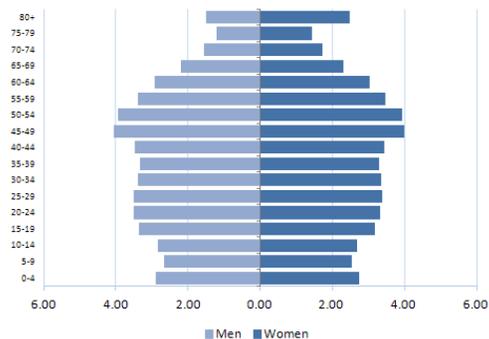
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NORTHERN AMERICA

CANADA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 34,349,600
- **Average annual deaths:** 262,800
- **Life expectancy at birth (years):**
Total: 81 Male: 79 Female: 83
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 41,980

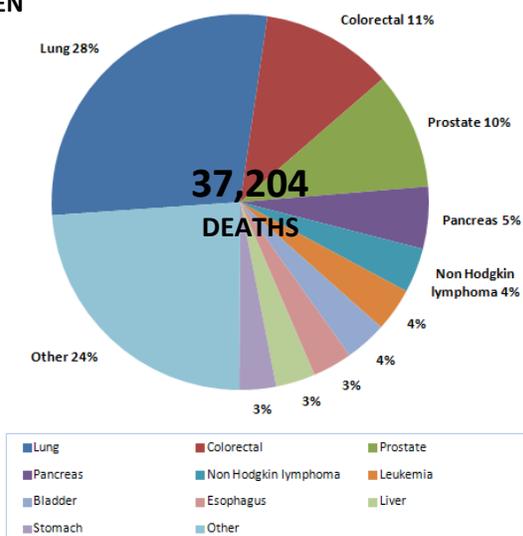
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	18.0	20.0	15.0
Current use of any tobacco product among youth ²	2.8	2.8	2.7
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	77.6	81.2	74.2
Low physical activity in adults ^{1,b}	33.9	32.3	35.4
Obesity among adults (BMI ≥30) ¹	24.0	26.0	23.0
HPV prevalence (women with normal cytology) ⁴	...	...	9.9

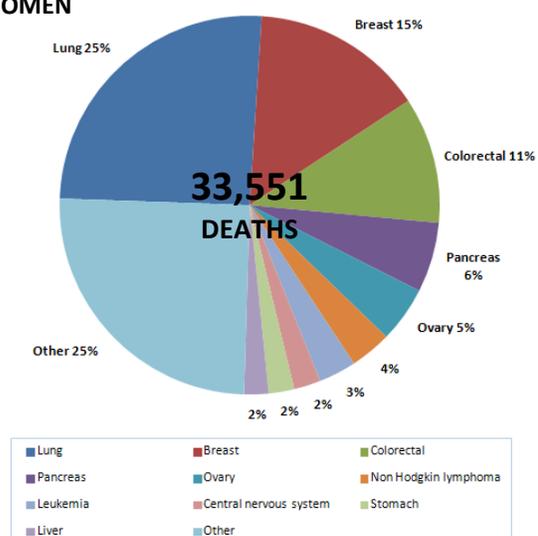
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	37,204	145.56	-1.87*
	Female	33,551	108.02	-1.12*
Breast cancer		4,944	16.68	-2.46*
Cervical cancer		370	1.45	-2.61*
Colorectal cancer	Male	4,203	16.33	-1.01*
	Female	3,607	10.61	-0.92*
Liver cancer	Male	1,256	5.01	1.90*
	Female	694	2.16	1.59*
Lung cancer	Male	10,572	51.54	-2.1*
	Female	8,540	28.52	0.2
Prostate cancer		3,745	13.50	-3.6*
Stomach cancer	Male	1,177	4.64	2.88*
	Female	734	2.24	2.58*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2010
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2006
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Both
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free ⁵
Raised taxes on tobacco?	Taxes are 64% of the final price
Health warning labels about the dangers of tobacco?	Large warnings with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on television, radio and print media and some but not all forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2010)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2007-2009/varies by province/schools
Estimated 3-dose coverage (calendar year)	85%-58% (varies by province)
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1998/early infancy (3 doses) or pre-teen (2-3 doses)
Estimated 3-dose coverage (calendar year)	70%

Note: ⁵: While there is no national smoke-free legislation, at least 90% of the population is protected by subnational 100% smoke-free laws.

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-69 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage¹⁰	79.6% of target population

CANCER SCREENING	
Breast cancer	
Guidelines¹¹	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Mammography/women aged 50-69 years/every 2 years (province specific)
Availability and coverage of screening services	
Clinical breast examination⁶	Generally not available in the public and the private sectors
Mammogram⁶	Generally available in the public and the private sectors
Screening coverage¹⁰	72.4% of target population
Colorectal cancer	
Guidelines¹²	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (Tests/Age groups/Frequency)	FT or FTi/50-74 years of age/every 2 years (province specific)
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage¹⁰	42.8% of target population

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹³		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	8.2	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	53	Appears in the national list of essential medicines?	N/A
Radiation oncologists	358	Opioid consumption¹⁴	
Medical physicists	346	Total morphine equivalence, per capita	753.4
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public health sector for people with advanced stages of NCDs?	Generally available

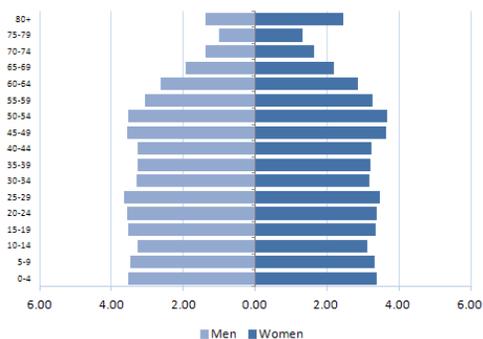
Notes: ...: Information not available; N/A: Not applicable; FT: Fecal test; FTi; Immunochemical fecal-occult blood test.

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UNITED STATES OF AMERICA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 313,085,400
- **Average annual deaths:** 2,621,700
- **Life expectancy at birth (years):**
Total: 79 Male: 76 Female: 81
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 46,360

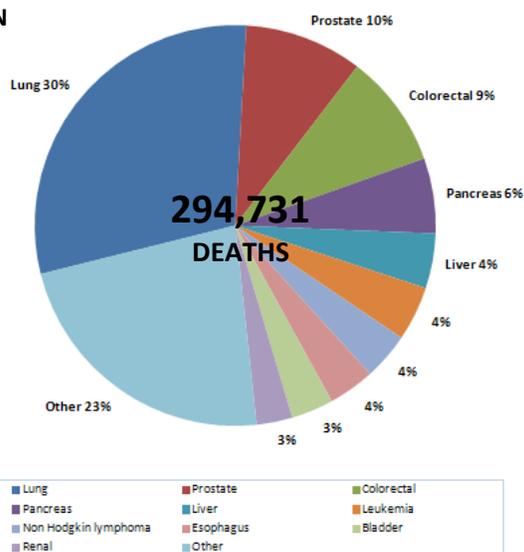
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	19.0	21.6	16.5
Current use of any tobacco product among youth ³	8.0	8.2	7.8
Fruit and vegetable intake in adults ^{1,b}	23.4	19.2	27.7
Alcohol consumers, past 12 months ⁴	65.4	71.7	59.5
Low physical activity in adults ^{1,c}	40.5	43.5	47.4
Obesity among adults (BMI ≥ 30) ¹	26.9	28.6	26.0
HPV prevalence (women with normal cytology) ⁵	...	...	13.3

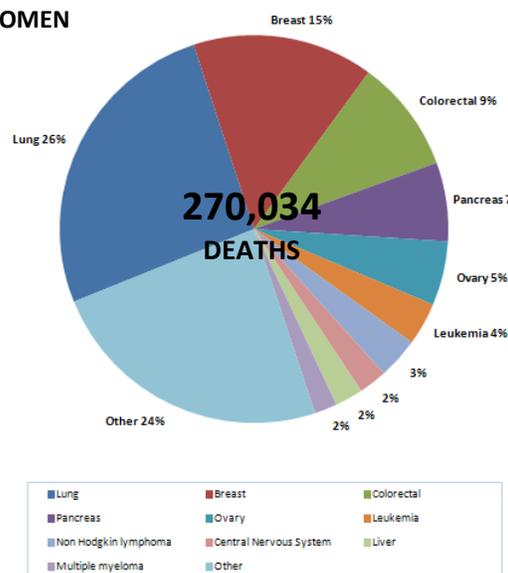
Notes: a: Adults aged 18 years and older; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁶

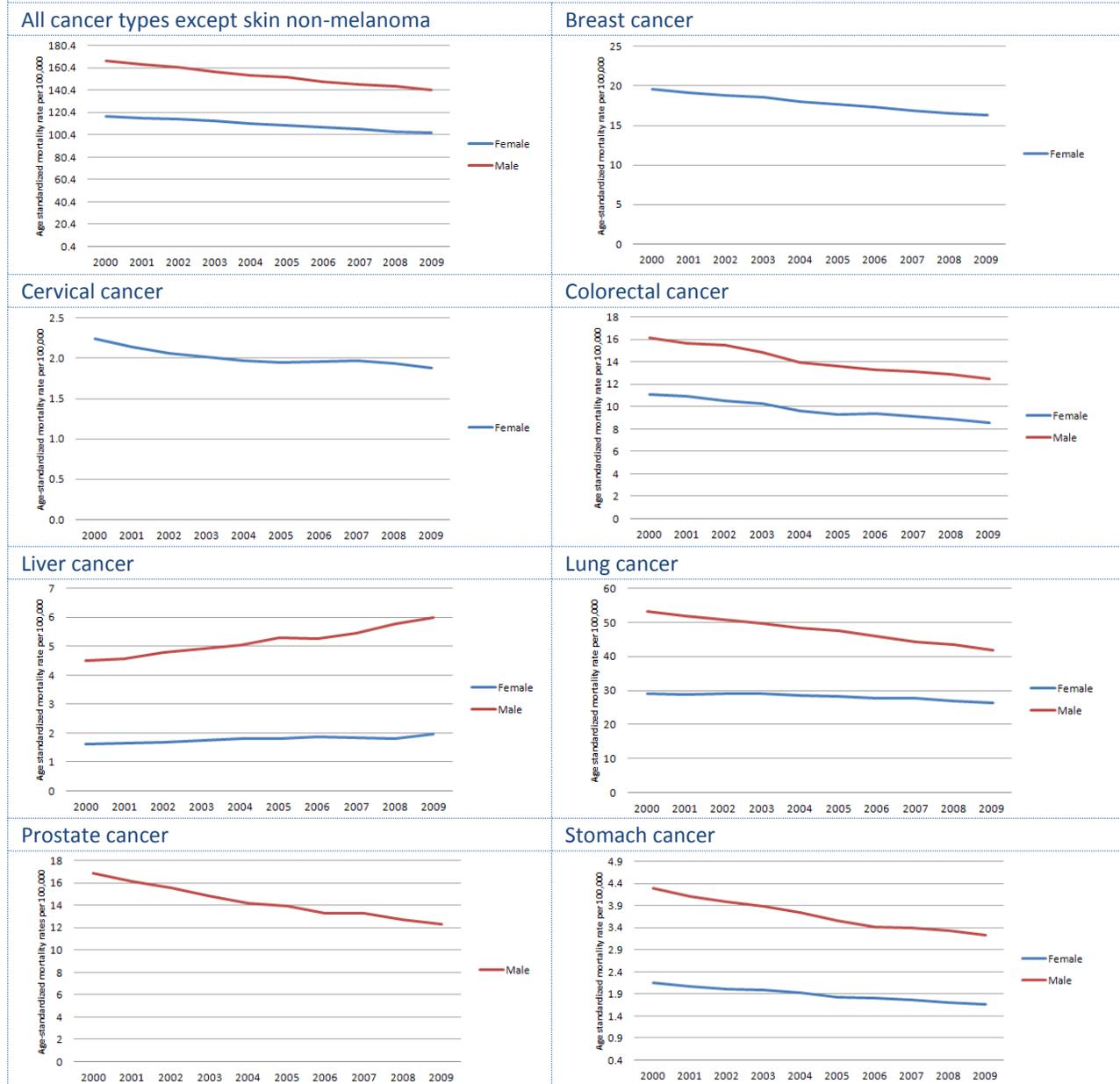
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁶



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009) ⁶				
Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	294,731	141.05	-1.85*
	Female	270,034	102.03	-1.53*
Breast cancer		40,684	16.31	-2.10*
Cervical cancer		3,913	1.88	-1.8*
Colorectal cancer	Male	26,976	12.89	-2.81*
	Female	25,424	8.93	-2.76*
Liver cancer	Male	13,038	6.40	2.94*
	Female	6,319	2.36	1.51*
Lung cancer	Male	87,744	42.31	-2.6*
	Female	70,417	26.82	-1.0*
Prostate cancer		28,091	12.28	-3.4*
Stomach cancer	Male	6,666	3.22	-3.1*
	Female	4,522	1.65	-2.83*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁷

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2010
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2010
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2009

CANCER PRIMARY PREVENTION POLICIES

Tobacco control³	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 43% of the final price
Health warning labels about the dangers of tobacco?	Medium size warning with all appropriate features or large warning lacking one or more appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Complete lack of ban, or ban that does not cover national television, radio and print media
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2010)
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2010)
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	2006/boys and girls aged 11-12 years/primary care providers and health centers
Estimated 3-dose coverage (calendar year)	32% of target population (2010)
HBV vaccination in national immunization program?⁹	
Year of introduction/target age group	1991/newborn, 1-2m, 6-18m
Estimated 3-dose coverage (calendar year)	91%

CANCER SCREENING

Cervical cancer	
Guidelines¹⁰	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/21-65 years of age/every 3 years HPV and cytology/30-65 years of age/every 5 years
Availability and coverage of screening services	
Cervical cytology⁷	Generally available in the public and the private sectors
Visual Inspection with acetic acid⁷	Generally not available in the public and the private sectors
Screening coverage¹¹	83% of women with a Pap test within the past 3 years (2010)

CANCER SCREENING	
Breast cancer	
Guidelines¹²	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Mammography/50-74 years of age/every 2 years
Availability and coverage of screening services	
Clinical breast examination⁷	Generally available in the public and the private sectors
Mammography⁷	Generally available in the public and the private sectors
Screening coverage¹¹	70.4% women 50-74 with a mammogram in the past 2 years (2010)
Colorectal cancer	
Guidelines¹³	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Fecal occult blood test, sigmoidoscopy or colonoscopy/50-75 years of age
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁷	Generally available in the public and the private sectors
Exam or colonoscopy⁷	Generally available in the public and the private sectors
Screening coverage¹¹	58.6% adults up-to-date with colorectal cancer screening (2010)

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁴		Oral morphine⁷	
Availability of services in the public health sector? ⁷	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	12.6	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	2,734	Appears in the national list of essential medicines?	Yes
Radiation oncologists	2,683	Opioid consumption¹⁵	
Medical physicists	1,739	Total morphine equivalence, per capita	693.45
Chemotherapy⁷		Community/home care⁷	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public health sector for people with advanced stages of NCDs?	Generally available

Notes: ...: Information not available; N/A: Not applicable; m: months.

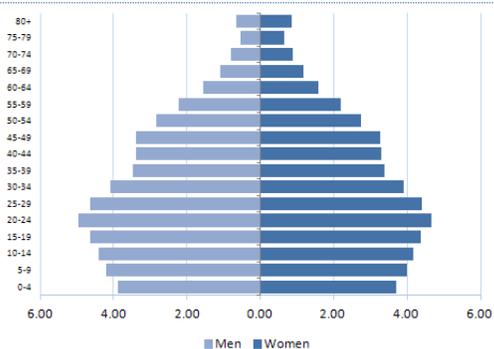
Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (4) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhuqZ>.
- (5) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
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- (7) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
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- (13) U.S: Preventive Services Task Force. Screening for colorectal cancer. 2008, retrieved August 28, 2013, from: <http://bit.ly/f2eT5q>
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MEXICO, CENTRAL AMERICA AND LATIN CARIBBEAN

COSTA RICA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 4,726,600
- **Average annual deaths:** 20,400
- **Life expectancy at birth (years):**
Total: 79 Male: 77 Female: 82
- **Adult literacy rate:** 96.1%
- **Gross national income US\$ per capita:** 6,260

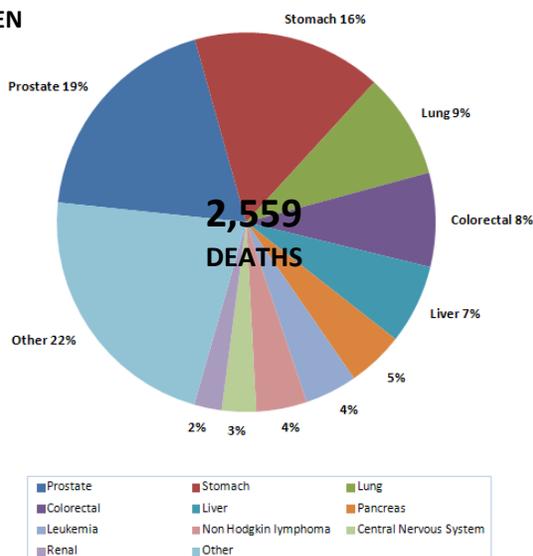
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	16.0	24.0	8.0
Current use of any tobacco product among youth ²	14.6	15.9	13.1
Fruit and vegetable intake in adults ^{1,b}	22.3	24.2	20.4
Alcohol consumers, past 12 months ³	55.7	68.7	42.5
Low physical activity in adults ^{1,c}	50.9	38.6	63.4
Obesity among adults (BMI ≥30) ¹	26.0	21.2	31.0
HPV prevalence (women with normal cytology) ⁴	...	...	30.2

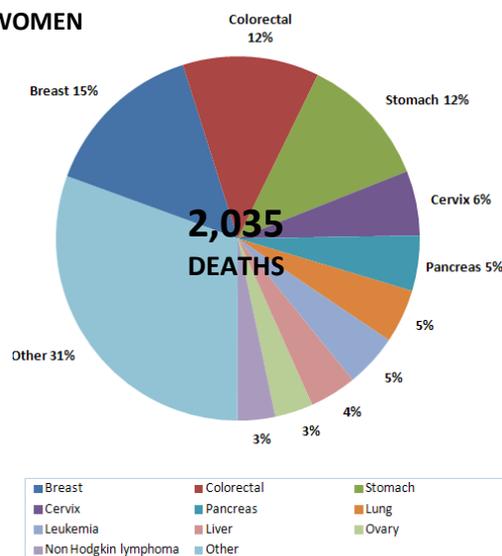
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2011)⁵

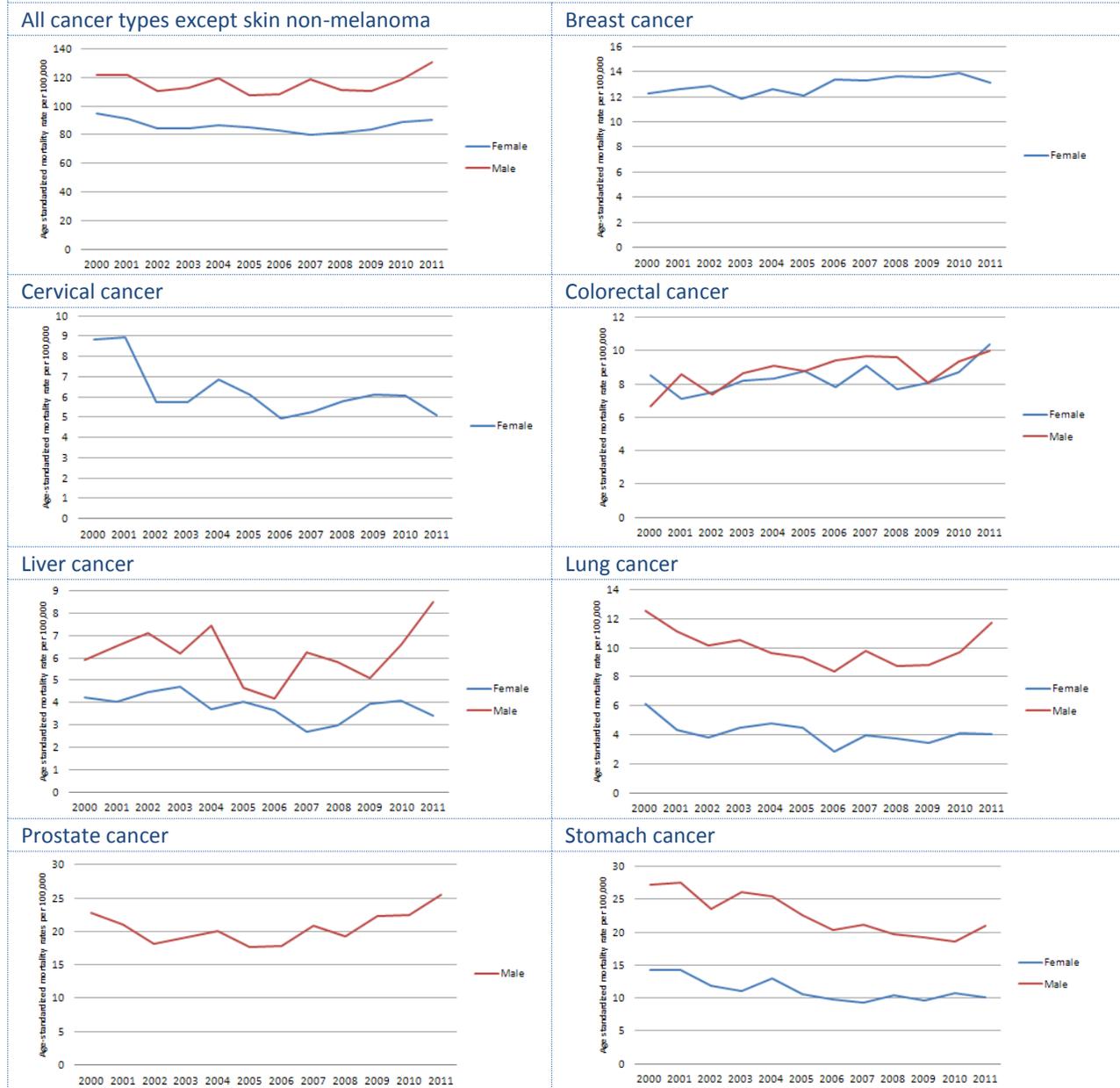
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2011)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2011)⁵

Cancer type	Sex	Number of deaths (2011)	ASMR (2011)	AAPC
All cancer types	Male	2,559	130.83	0.17
	Female	2,035	90.46	0.6
Breast cancer		296	13.10	1.03*
Cervical cancer		117	5.12	-3.45*
Colorectal cancer	Male	205	10.37	2.26*
	Female	247	10.75	1.43
Liver cancer	Male	173	8.92	0.29
	Female	85	3.82	-2.04
Lung cancer	Male	230	12.11	0.8
	Female	97	4.41	-2.47
Prostate cancer		485	25.45	2.2
Stomach cancer	Male	414	21.38	-3.35*
	Female	239	10.49	-3.09*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2011
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 72% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media, and some but not all other forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Under development
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2000/newborn-2m-6m; risk groups, health care professionals
Estimated 3-dose coverage (2012)	91%

CANCER SCREENING

Cervical cancer	
Guidelines⁸	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	Pap test/women aged 20 years and older/annual
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage⁹	35% women aged 35 years and older with a Pap test in the past 2 years (2010)

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Mammography/women aged 40 years and older/annual
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	1.7	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	3	Appears in the national list of essential medicines?	Yes
Radiation oncologists	18	Opioid consumption¹²	
Medical physicists	13	Total morphine equivalence, per capita	9.64
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally <u>not</u> available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally <u>not</u> available

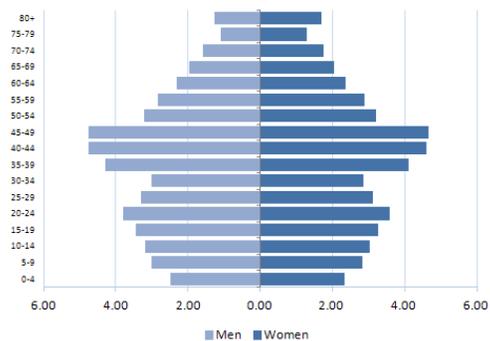
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) PAHO/WHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
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- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

CUBA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 11,253,700
- **Average annual deaths:** 83,900
- **Life expectancy at birth (years):**
Total: 79 Male: 77 Female: 81
- **Adult literacy rate:** 99.8%
- **Gross national income US\$ per capita:** 5,500

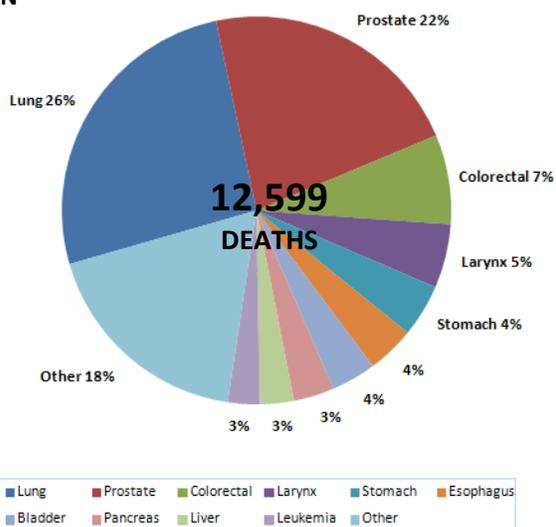
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	23.7	31.1	16.4
Current use of any tobacco product among youth ³	17.1	19.8	15.0
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ⁴	45.6	67.2	24.5
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	20.5	13.3	27.5
HPV prevalence (women with normal cytology) ⁵	...	...	...

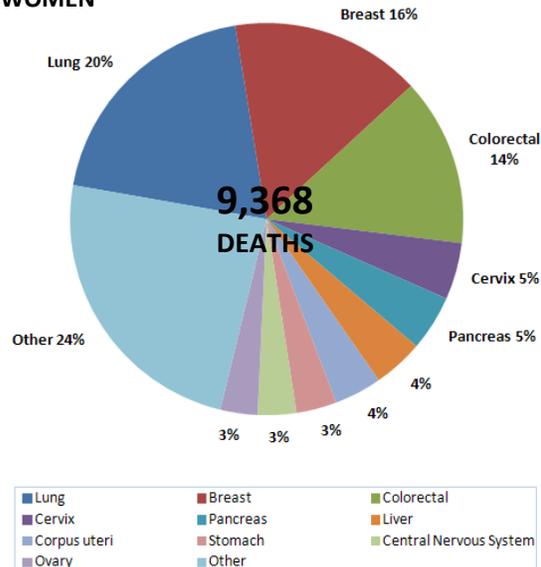
Notes: a: current tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁶

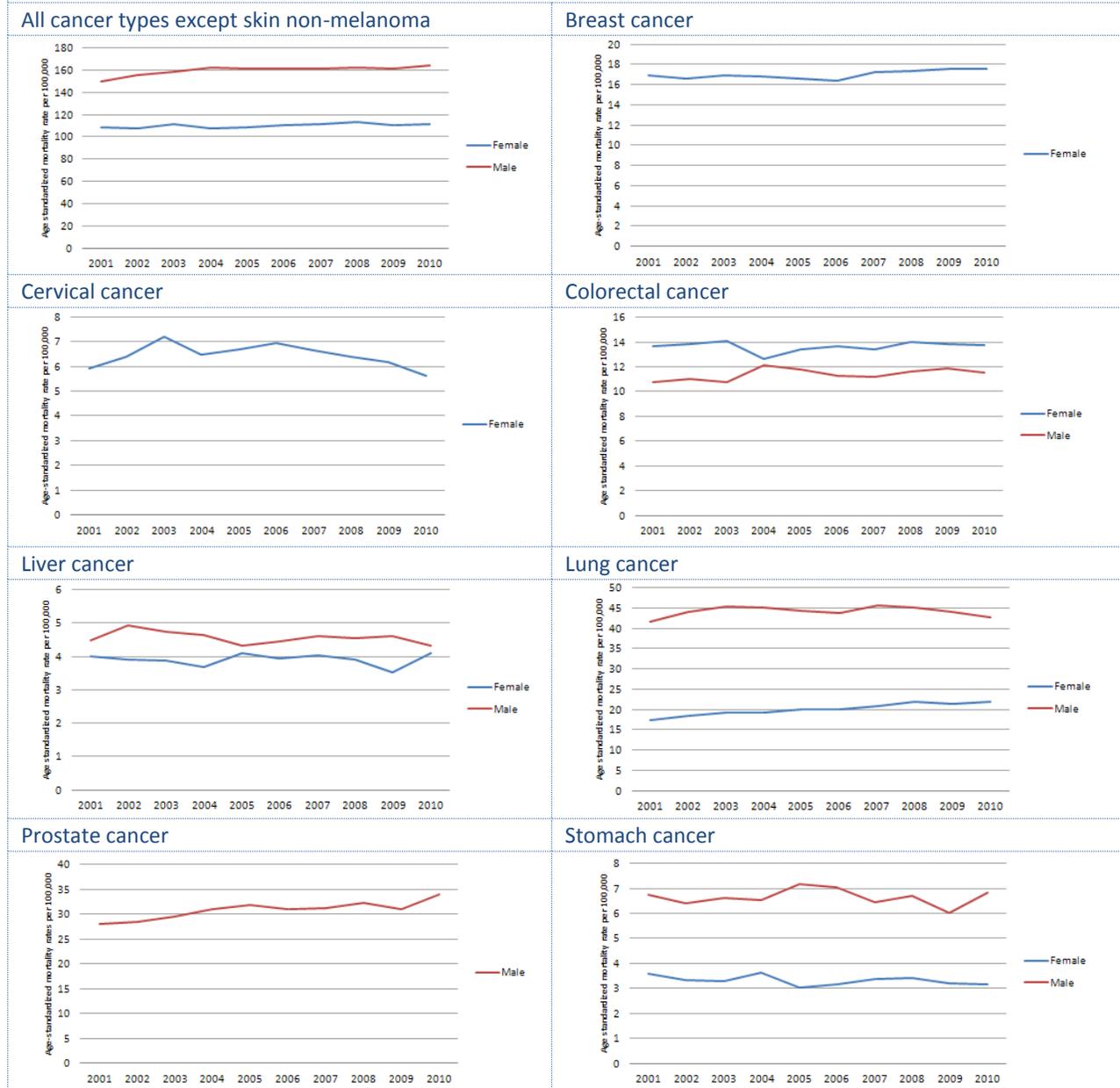
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2001-2010)⁶



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2001-2010)⁶

Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	12,599	164.31	0.8*
	Female	9,368	112.01	0.43*
Breast cancer		1,470	17.58	0.55*
Cervical cancer		439	5.64	0.1
Colorectal cancer	Male	938	11.95	0.73
	Female	1,295	14.14	0.13
Liver cancer	Male	357	4.71	-0.59
	Female	387	4.50	-0.14
Lung cancer	Male	3,286	43.20	0.5
	Female	1,842	22.19	2.42*
Prostate cancer		2,779	34.06	1.67*
Stomach cancer	Male	552	7.21	-0.26
	Female	311	3.56	-0.78

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁷

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2009
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2009

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Three to five types of public spaces completely smoke-free
Raised taxes on tobacco?	Taxes are 75% of the final price
Health warning labels about the dangers of tobacco?	Medium size warning lacking one or more appropriate features or large warning lacking four or more appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Complete lack of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2008)
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2002)
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1990/newborn-2m-4m-6m
Estimated 3-dose coverage (2012)	100%*

Note: *Reported coverage >100%.

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-64 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁷	Generally available in the public sector
Visual inspection with acetic acid⁷	Generally <u>not</u> available in the public sector
Screening coverage⁹	70% of target population (2010)

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	CBE/women aged 30 years and older Mammography/50-64 years of age/every 3 years
Availability and coverage of screening services	
Clinical breast examination⁷	Generally available in the public sector
Mammography⁷	Generally available in the public sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁷	Generally available in the public sector
Exam or colonoscopy⁷	Generally available in the public sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁷	
Availability of services in the public health sector? ⁷	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.2	Covered by health insurance or publically funded?	No
Total radiotherapy centers	9	Appears in the national list of essential medicines?	No
Radiation oncologists	38	Opioid consumption¹²	
Medical physicists	29	Total morphine equivalence, per capita	2.30
Chemotherapy⁷		Community/home care⁷	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

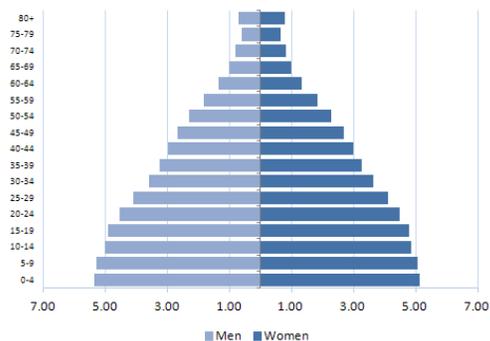
Notes: ...: Information not available; N/A: Not applicable; m: months; CBE: Clinical breast examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (4) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (5) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (6) PAHO/WHO Mortality Database, 2012.
- (7) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
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- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

DOMINICAN REPUBLIC

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 10,056,200
- **Average annual deaths:** 60,100
- **Life expectancy at birth (years):**
Total: 74 Male: 71 Female: 76
- **Adult literacy rate:** 88.2%
- **Gross national income US\$ per capita:** 4,550

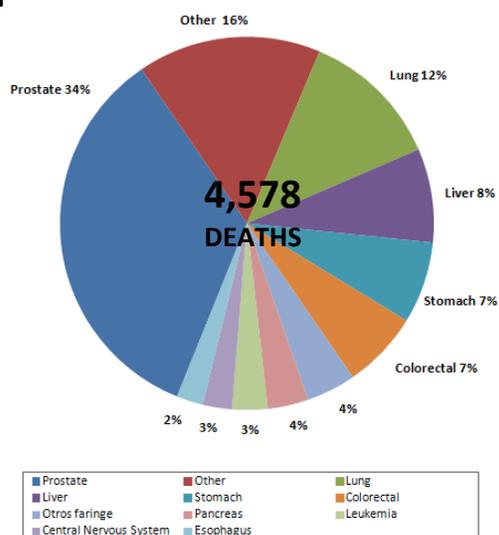
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	16.0	17.0	16.0
Current use of any tobacco product among youth ²	18.6	24.3	14.0
Fruit and vegetable intake in adults ^{1,b}	24.8	29.6	19.8
Alcohol consumers, past 12 months ³	56.7	69.6	43.9
Low physical activity in adults ^{1,c}	35.7	31.5	40.0
Obesity among adults (BMI ≥ 30) ¹	16.4	12.7	18.3
HPV prevalence (women with normal cytology) ⁴	...	...	...

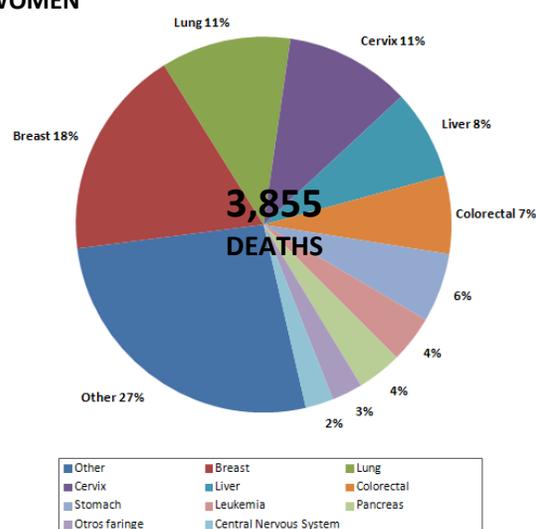
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

MEN



WOMEN



*Note: Cancer mortality data for Dominican Republic are only available to PAHO for 2000-2004 and 2010, thus a mortality trend analysis was not possible.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	No
First year of implementation	2010
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	1996
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2013

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 59% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1994/newborn-2m-4m-6m
Estimated 3-dose coverage (2011)	80%

CANCER SCREENING

Cervical cancer	
Guidelines^{8,9}	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/35-64 years of age/annual
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	BSE/women aged 18 and older/monthly CBE/women aged 35 and older/any contact with a healthcare provider Mammography/35-40 years of age, every 2 years/women over 40 years of age, annual
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.1	Covered by health insurance or publically funded?	No
Total radiotherapy centers	7	Appears in the national list of essential medicines?	Yes
Radiation oncologists	12	Opioid consumption¹²	
Medical physicists	6	Total morphine equivalence, per capita	0.99
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally not available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

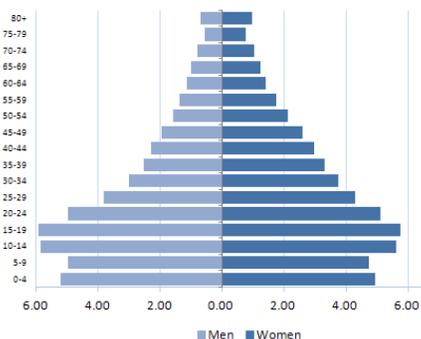
Notes: ...: Information not available; N/A: Not applicable; m: months; BSE: Breast self examination; CBE: Clinical breast examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) Ministry of Health and Social Assistance of Dominican Republic. Normas nacionales de Salud Reproductiva. 2004, retrieved August 28,2013 from <http://bit.ly/1bTgILP>.
- (9) PAHO/WHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
- (10) Ministry of Health and Social Assistance of Dominican Republic. Normas nacionales para la prevención y manejo de patologías de mama. Series de Normas Nacionales No.37. República Dominicana, retrieved August 28,2013 from <http://bit.ly/14CZYhg>.
- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

EL SALVADOR

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 6,227,500
- **Average annual deaths:** 41,000
- **Life expectancy at birth (years):**
Total: 72 Male: 67 Female: 77
- **Adult literacy rate:** 84.1
- **Gross national income US\$ per capita:** 3,370

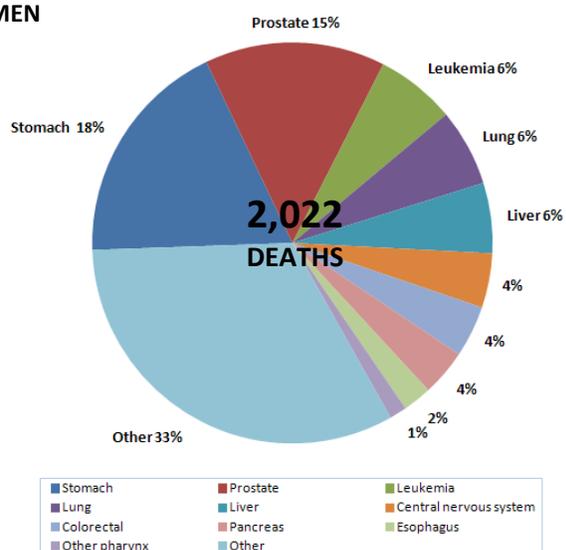
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	13.0	24.0	3.0
Current use of any tobacco product among youth ²	14.6	18.2	11.0
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	23.7	19.9	27.1
HPV prevalence (women with normal cytology) ⁴	...	...	...

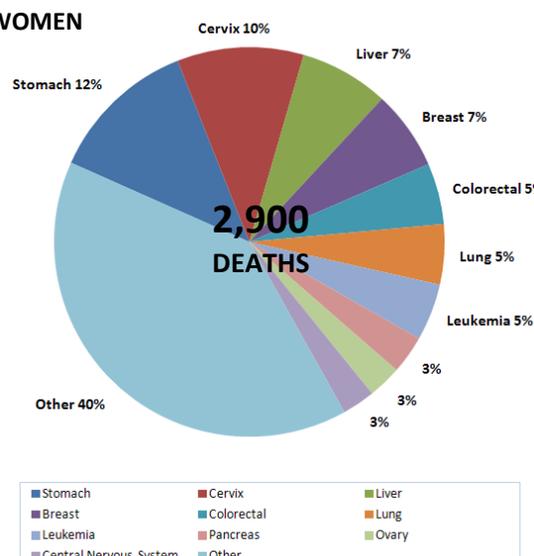
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	2,022	91.15	-0.7
	Female	2,900	101.79	-1.2*
Breast cancer		191	7.07	1.45
Cervical cancer		304	11.26	-4.09*
Colorectal cancer	Male	84	3.93	-0.84
	Female	147	5.04	0.84
Liver cancer	Male	115	5.50	-0.86
	Female	214	7.49	-1.07
Lung cancer	Male	126	5.73	-3.08
	Female	145	5.00	-1.9
Prostate cancer		294	12.76	0.24
Stomach cancer	Male	374	17.22	-2.93*
	Female	358	12.31	-2.41*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2011
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 52% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media, and some but not all other forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2012)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1999/newborn-2m-4m-6m-15m
Estimated 3-dose coverage (2011)	89%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available? ⁸	Yes
Guideline recommendations (tests/age groups/frequency) ⁹	Pap test/30-59 years of age/every 2 years VIA/reproductive ages in rural areas/every 2 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage⁹	17.8% Pap/information not available for VIA

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	BSE/all women after menarcho/monthly CBE/all women/any contact with a health care worker
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally not available in the public sector and generally available in the private sector
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	0.8	Covered by health insurance or publically funded?	No
Total radiotherapy centers	3	Appears in the national list of essential medicines?	No
Radiation oncologists	7	Opioid consumption¹²	
Medical physicists	7	Total morphine equivalence, per capita	3.51
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

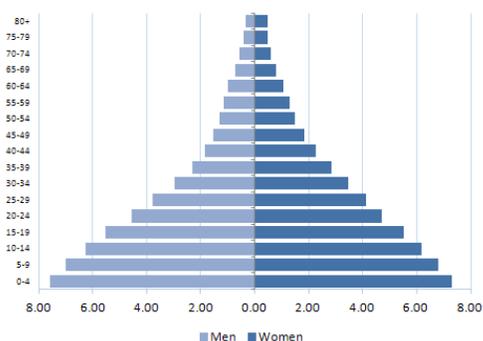
Notes: ...: Information not available; N/A: Not applicable; m: months; BSE: Breast self examination; CBE: Clinical breast examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) Ministry of Health and Social Assistance of El Salvador. Guía técnica de prevención y control del cáncer de cérvix. 2007, retrieved August 28, 2013 from <http://bit.ly/1d2gsZw>.
- (9) PAHO/WHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
- (10) Ministry of Health and Social Assistance of El Salvador. Guía técnica de prevención y control del cáncer de mama, 2006, retrieved August 28, 2013 from <http://bit.ly/14WKaop>.
- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

GUATEMALA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 14,757,300
- **Average annual deaths:** 80,500
- **Life expectancy at birth (years):**
Total: 71 Male: 68 Female: 75
- **Adult literacy rate:** 74.5%
- **Gross national income US\$ per capita:** 2,650

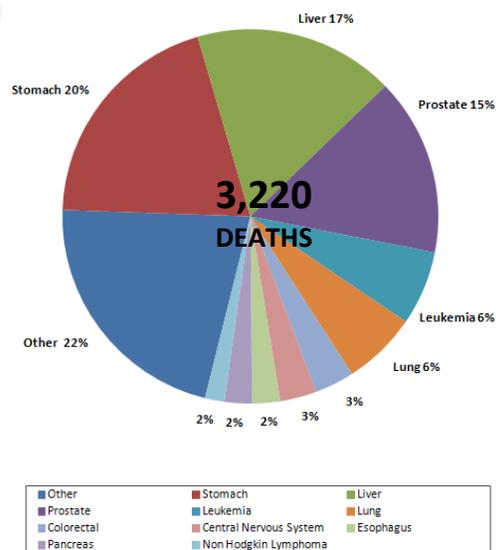
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	10.0	20.0	2.0
Current use of any tobacco product among youth ²	16.6	19.7	13.3
Fruit and vegetable intake in adults ^{1,b}	19.0	20.4	18.1
Alcohol consumers, past 12 months ³	22.8	41.6	5.8
Low physical activity in adults ^{1,c}	50.4	56.0	45.0
Obesity among adults (BMI ≥ 30) ¹	21.3	16.0	25.8
HPV prevalence (women with normal cytology) ⁴	...	...	33.2

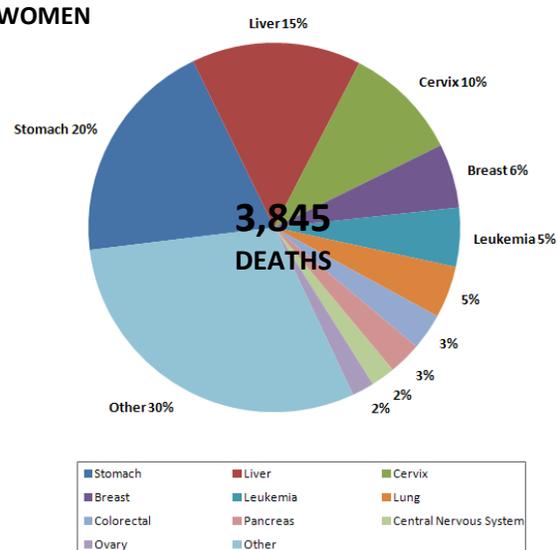
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



*Note: Cancer mortality data for Guatemala are only available to PAHO for 2005-2009, thus a mortality trend analysis was not possible.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2010
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2011
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Subnational
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 49% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete lack of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2005/newborn-2m-4m-6m
Estimated 3-dose coverage (2012)	96%

CANCER SCREENING

Cervical cancer	
Guidelines^{8,9}	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-54 years of age/every 3 years VIA/25-54 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally not available in the public sector and generally available in the private sector
Visual inspection with acetic acid⁶	Generally available in the public sector and generally not available in the private sector
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally not available in the public sector and generally available in the private sector
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁰		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	0.7	Covered by health insurance or publically funded?	No
Total radiotherapy centers	7	Appears in the national list of essential medicines?	No
Radiation oncologists	10	Opioid consumption¹¹	
Medical physicists	5	Total morphine equivalence ME/Per capita	1.19
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

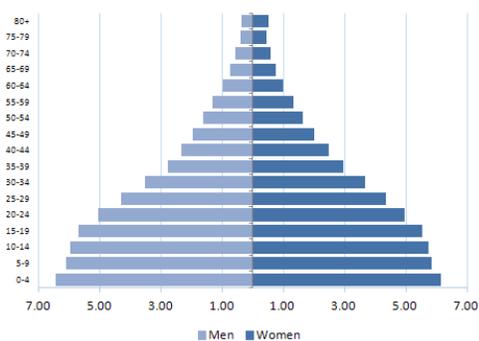
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) Ministry of Public Health and Social Assistance of Guatemala. Manual para el tamizaje del cáncer cervicouterino, retrieved August 28, 2013 from <http://bit.ly/16wfmix>.
- (9) PAHO/WHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

HONDURAS

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 7,754,100
- **Average annual deaths:** 37,500
- **Life expectancy at birth (years):**
Total: 73 Male: 71 Female: 76
- **Adult literacy rate:** 83.6%
- **Gross national income US\$ per capita:** 1,800

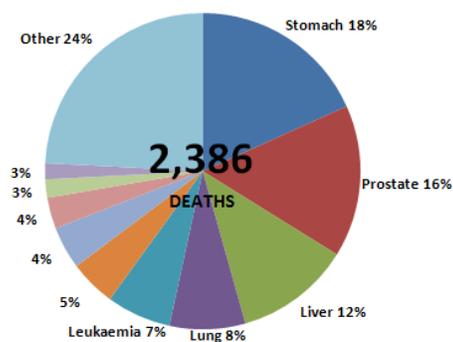
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ²	...	...	...
Current use of any tobacco product among youth ^{2,a}	20.4	22.8	18.2
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	19.3	15.5	24.5
HPV prevalence (women with normal cytology) ⁴	...	...	36.8

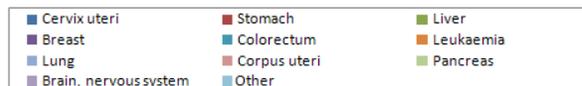
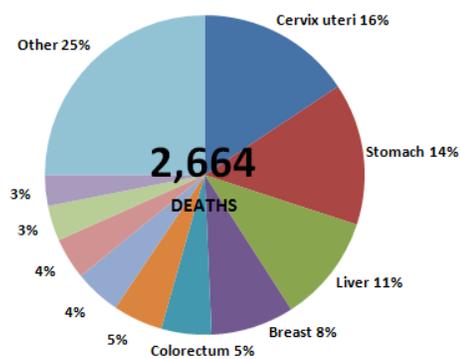
Notes: a: Subnational data from Global Youth Survey, Tegucigalpa, 2003; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2012)⁵

MEN



WOMEN



*Note: Mortality data for Honduras are not available to PAHO, thus a mortality trend analysis was not possible.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	No
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2010
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2004

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 34% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media and on some but not all forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1999/newborn-2m-4m-6m; risk groups
Estimated 3-dose coverage (2012)	88%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available? ⁸	Yes (1998)
Guideline recommendations (tests/age groups/frequency) ⁹	Pap test/30-59 years of age/every 3 years following 2 consecutive normal annual Pap tests
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage⁹	41.84% of target population

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally not available in the public sector and generally available in the private sector
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁰		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.0	Covered by health insurance or publically funded?	No
Total radiotherapy centers	5	Appears in the national list of essential medicines?	No
Radiation oncologists	4	Opioid consumption¹¹	
Medical physicists	3	Total morphine equivalence, per capita	0.63
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

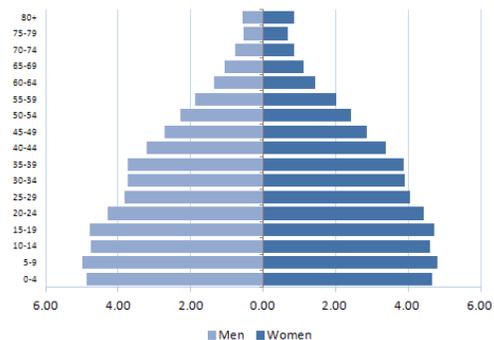
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray, F. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013, retrieved February 20,2014 from <http://globocan.iarc.fr>.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) Ministry of Health of Honduras. Manual de Normas y Procedimientos para la Prevención y Control de Cáncer Cervico Uterino. 1997.
- (9) PAHO/WHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

MEXICO

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 114,793,300
- **Average annual deaths:** 549,400
- **Life expectancy at birth (years):**
Total: 77 Male: 75 Female: 79
- **Adult literacy rate:** 93.4%
- **Gross national income US\$ per capita:** 8,960

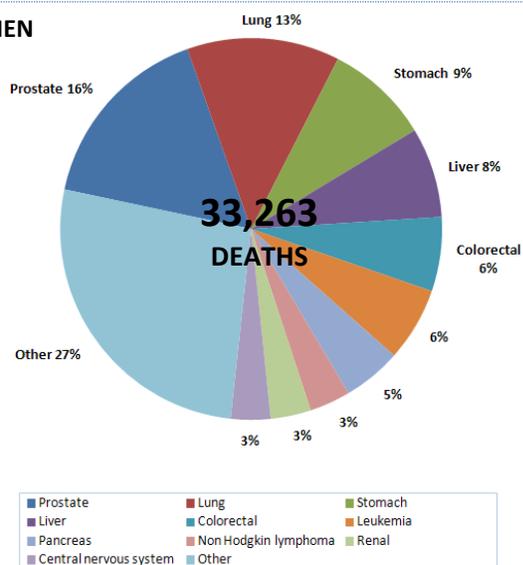
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	17.0	27.0	8.0
Current use of any tobacco product among youth ²	19.8	21.6	17.7
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	31.0	45.1	18.0
Low physical activity in adults ^{1,c}	37.7	37.1	38.4
Obesity among adults (BMI ≥30) ¹	...	26.1	35.6
HPV prevalence (women with normal cytology) ⁴	...	...	9.4

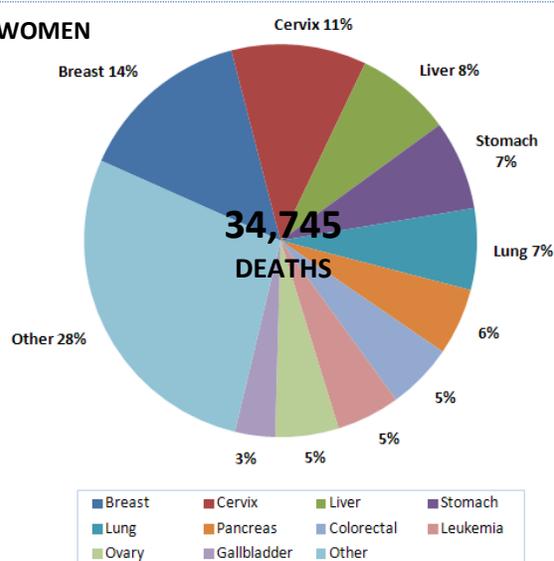
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

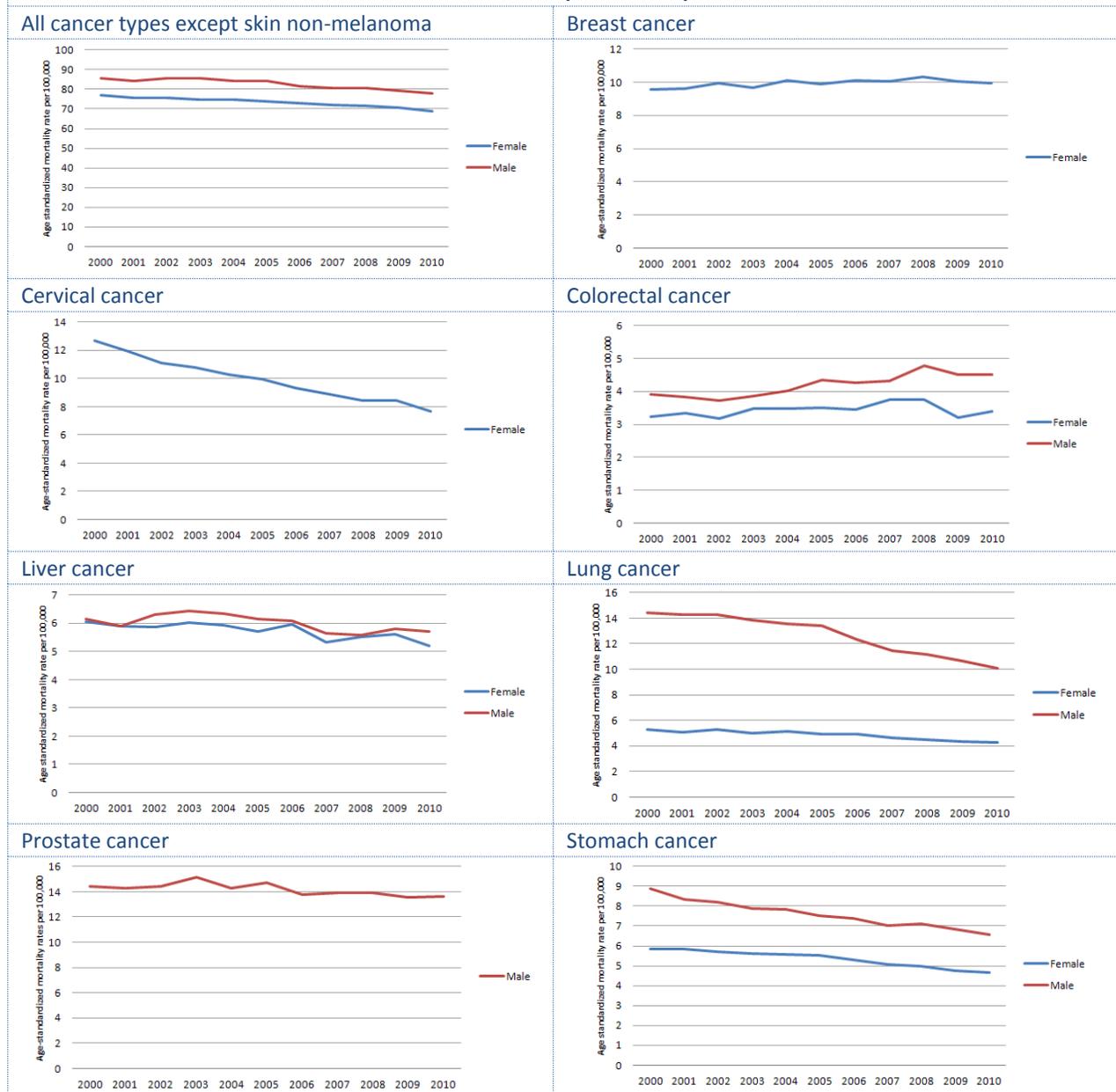
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2010)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2010) ⁵				
Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	33,263	78.30	-1.0*
	Female	34,745	69.39	-1.0*
Breast cancer		4,966	9.92	0.51*
Cervical cancer		3,864	7.69	-4.61*
Colorectal cancer	Male	2,090	4.90	1.98*
	Female	1,892	3.79	0.59
Liver cancer	Male	2,539	6.12	-0.93*
	Female	2,746	5.60	-1.16*
Lung cancer	Male	4,300	10.47	-3.7*
	Female	2,331	4.70	-1.96*
Prostate cancer		5,404	13.62	-0.73*
Stomach cancer	Male	2,944	6.98	-2.56*
	Female	2,556	5.08	-2.3*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	No
First year of implementation	1998
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2012

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Smoking areas are allowed, but they must be isolated, completely enclosed, and under very strict technical conditions
Raised taxes on tobacco?	Taxes are 67% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	DK
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2008/girls aged 9-12 years/mixed ^a
Estimated 3-dose coverage (calendar year)	67% (2010) ^b
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1998/newborn-2m-6m
Estimated 3-dose coverage (calendar year)	99%

Note: a: Extended dosing schedules are being used at 0, 6 and 60 months; b: Two-dose coverage for the extended schedule adopted in 2009, targeting girls aged 9-12 years for the first two doses.

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available? ⁹	Yes
Guideline recommendations (Tests/age groups/frequency) ¹⁰	Pap test/25-34 years of age/every 3 years HPV test/35-64 years of age/every 5 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	DK
Screening coverage¹⁰	70.7% of women with a Pap test in the previous 3 years (2003)

CANCER SCREENING

Breast cancer	
Guidelines¹¹	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	BSE/women aged 20 years and older/monthly CBE/women aged 25 years and older/annual Mammography/50-69 years of age (40-59 if high risk)/every 2 years
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines¹²	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Fecal occult blood test or fecal immunological test/general population aged 50 years or older/annual
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	DK
Exam or colonoscopy⁶	DK
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy ¹³		Oral morphine ⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	DK
Total energy teletherapy units/million inhabitants	1.1	Covered by health insurance or publically funded?	DK
Total radiotherapy centers	86	Appears in the national list of essential medicines?	DK
Radiation oncologists	205	Opioid consumption ¹⁴	
Medical physicists	38	Total morphine equivalence, per capita	8.76
Chemotherapy ⁶		Community/home care ⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

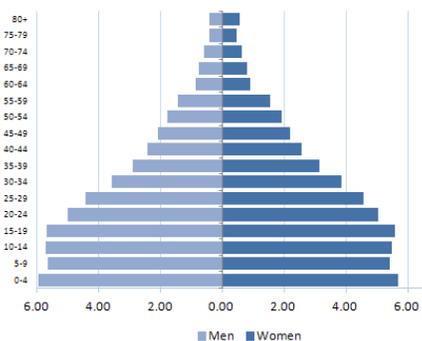
Notes: ...: Information not available; N/A: Not applicable; DK: Don't know; m: months; BSE: Breast self-examination; CBE: Clinical breast examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcntr.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Ministry of Health of Mexico. Modificación a la Norma Oficial Mexicana NOM-014-SSA2-1994, Para la prevención, detección, diagnóstico, tratamiento, control y vigilancia epidemiológica del cáncer cérvico uterino. Diario Oficial, Jueves 31 de mayo de 2007.
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- (11) Ministry of Health of Mexico. PROYECTO de Modificación a la Norma Oficial Mexicana NOM-041-SSA2-2002, Para la prevención, diagnóstico, tratamiento, control y vigilancia epidemiológica del cáncer de mama; para quedar como Proyecto de Norma Oficial Mexicana PROY-NOM-041-SSA2-2009, Para la prevención, diagnóstico, tratamiento, control y vigilancia del cáncer de mama. Diario Oficial. Viernes 19 de noviembre de 2010.
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- (13) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (14) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

NICARAGUA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 5,869,900
- **Average annual deaths:** 27,500
- **Life expectancy at birth (years):**
Total: 74 Male: 71 Female: 77
- **Adult literacy rate:** 93.6%
- **Gross national income US\$ per capita:** 1,000

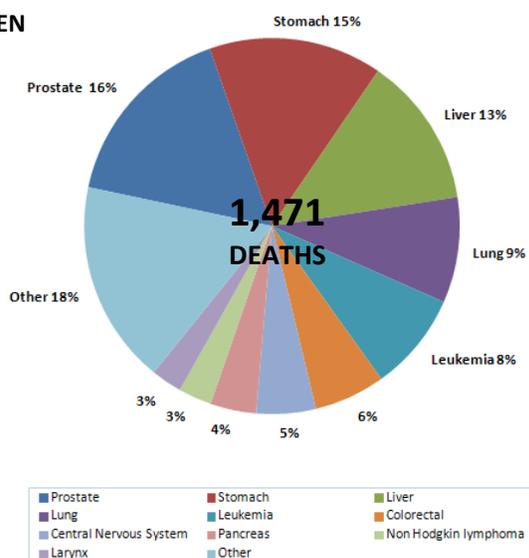
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ²	...	...	...
Current use of any tobacco product among youth ^{2,a}	25.1	30.4	20.5
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	26.2	43.3	9.6
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	29.1	23.8	34.2
HPV prevalence (women with normal cytology) ⁴	...	...	...

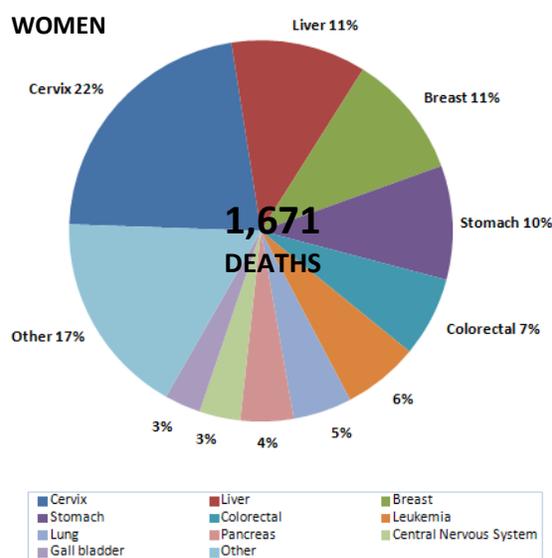
Notes: a: Subnational data from Global Youth Tobacco Survey, Centro Managua, 2003; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2011)⁵

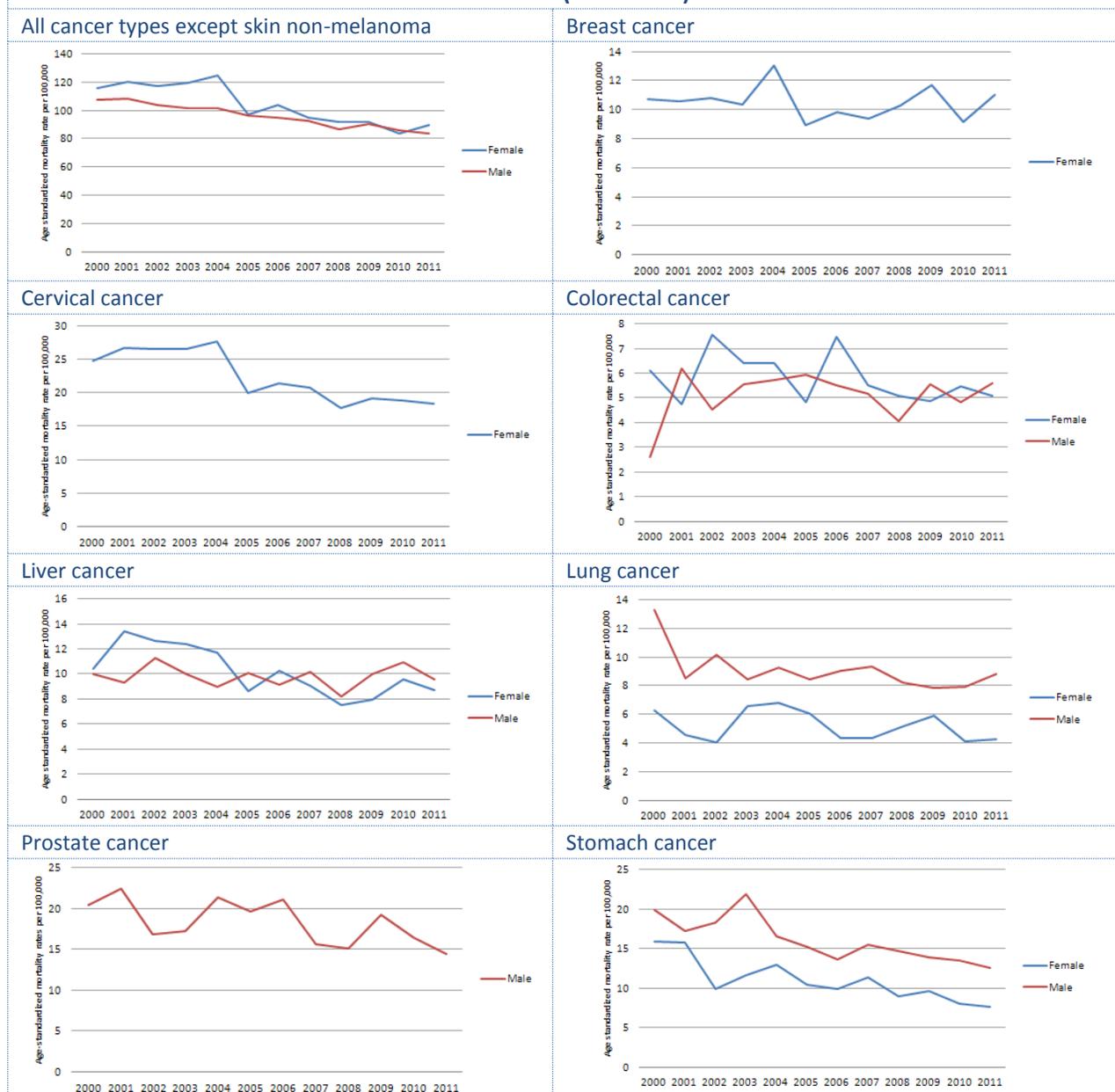
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2011)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2011)⁵

Cancer type	Sex	Number of deaths (2011)	ASMR (2011)	AAPC
All cancer types	Male	1,469	83.72	-2.38*
	Female	1,846	89.77	-3.42*
Breast cancer		219	11.03	-0.50
Cervical cancer		374	18.43	-3.91*
Colorectal cancer	Male	102	6.01	1.80
	Female	112	5.47	-1.63
Liver cancer	Male	161	9.96	-0.20
	Female	179	9.10	-3.73*
Lung cancer	Male	153	9.22	-2.31*
	Female	90	4.66	-1.73
Prostate cancer		221	14.44	-2.50*
Stomach cancer	Male	216	12.94	-3.85*
	Female	163	8.03	-4.1*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Under development
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2012

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Six to seven types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 29% of the final price
Health warning labels about the dangers of tobacco?	Medium size warnings with all appropriate features or large warning lacking one or more appropriate features (regulation or implementation pending)
Bans on tobacco advertising, promotion and sponsorship?	Complete lack of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1999/2m-4m-6m; health workers
Estimated 3-dose coverage (calendar year)	100%*

Note: *: reported coverage >100%.

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available? ⁸	Yes
Guideline recommendations (tests/age groups/frequency) ^{8,9}	Pap test/25-64 years of age/every 3 years following 3 consecutive normal annual Pap tests VIA/30-50 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage⁹	10% for Pap test

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁰		Oral morphine⁶	
Availability of services in the public health sector?	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	0.3	Covered by health insurance or publically funded?	No
Total radiotherapy centers	1	Appears in the national list of essential medicines?	No
Radiation oncologists	3	Opioid consumption¹¹	
Medical physicists	1	Total morphine equivalence, per capita	1.18
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

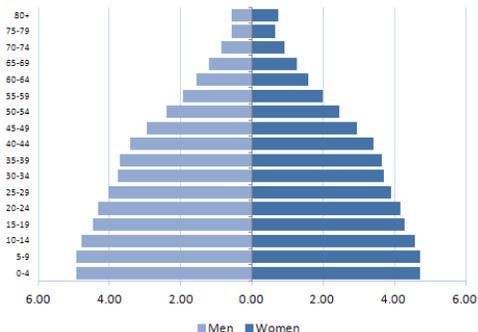
Notes: ...: Information not available; N/A: Not applicable; m: months; VIA: Visual inspection with acetic acid.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
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- (9) PAHO/WHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

PANAMA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 3,571,200
- **Average annual deaths:** 18,100
- **Life expectancy at birth (years):**
Total: 76 Male: 74 Female: 79
- **Adult literacy rate:** 93.6%
- **Gross national income US\$ per capita:** 6,570

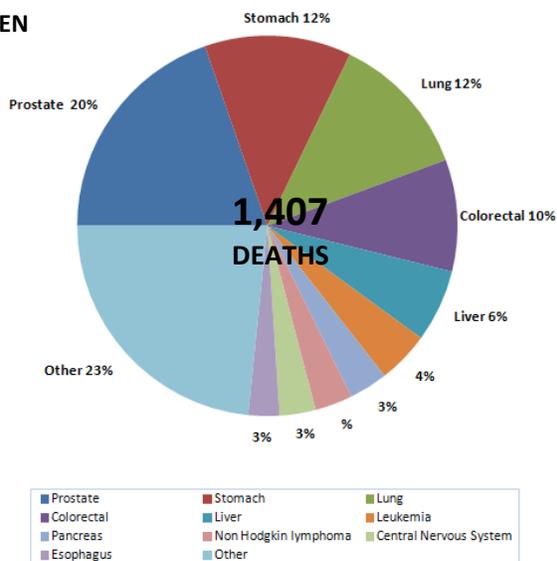
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	14.0	23.0	4.0
Current use of any tobacco product among youth ²	12.7	15.1	10.2
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	23.2	19.7	25.1
HPV prevalence (women with normal cytology) ⁴	...	...	...

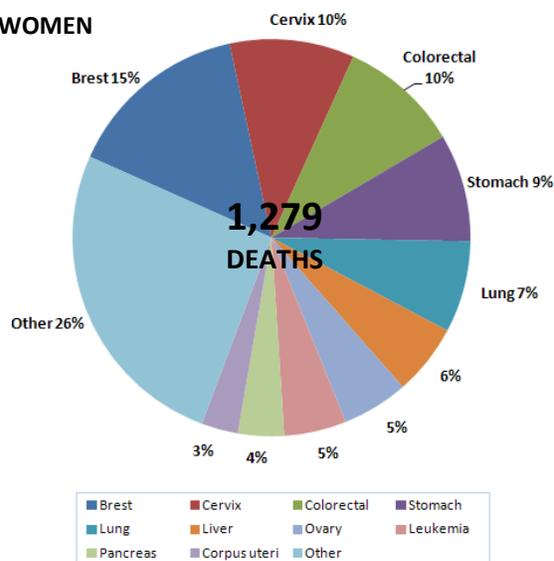
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	1,407	105.72	-1.18*
	Female	1,279	85.56	-0.93
Breast cancer		191	12.62	-1.5
Cervical cancer		130	8.48	-5.3*
Colorectal cancer	Male	134	10.03	-0.31
	Female	125	8.50	-0.54
Liver cancer	Male	87	5.03	0.18
	Female	74	6.48	3.17
Lung cancer	Male	172	13.16	-0.68
	Female	95	6.51	-1.37
Prostate cancer		277	22.07	-2.69*
Stomach cancer	Male	175	13.14	-1.82
	Female	112	7.44	-1.02

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Not in effect
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Under development
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2011

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 57% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on all forms of direct and indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2009)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2008)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2008/girls aged 10/mixed
Estimated 3-dose coverage (calendar year)	67% (2010)
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1999/newborn-2m-4m-6m; 10-11 years; health workers
Estimated 3-dose coverage (2012)	85%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/21-59 years of age(or 2 years after sexual debut)/every 2 years HPV test/30-64 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	
Visual inspection with acetic acid ⁶	Generally not available in the public and the private sectors
Screening coverage⁹	
	14.1% with Pap test (2008)

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	BSE/all women/monthly CBE/all women/any contact with health care provider Mammography/baseline at 35; annual or every 2 years in women aged 40-50 years; annual in women over 50 years of age
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally not available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.4	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	2	Appears in the national list of essential medicines?	Yes
Radiation oncologists	11	Opioid consumption¹²	
Medical physicists	7	Total morphine equivalence, per capita	3.21
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

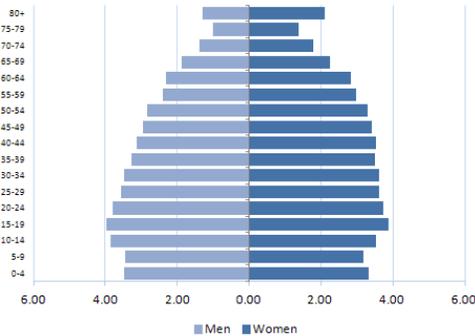
Notes: ...: Information not available; N/A: Not applicable; m: months; BSE: breast self-examination; CBE: clinical breast examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Ministry of Health of Panama. Normas de prevención, detección y guías de manejo y seguimiento de las lesiones preinvasoras del cuello uterino. República de Panamá. 2010, retrieved August 28, 2013 from: <http://bit.ly/14mtvPX>.
- (10) Ministry of Health of Panama. Normas técnico-administrativas y manual de procedimientos. Programa salud integral de la mujer. 2007, retrieved August 28, 2013 from: <http://bit.ly/15dve9Y>.
- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

PUERTO RICO

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 3,745,500
- **Average annual deaths:** 29,100
- **Life expectancy at birth (years):**
Total: 79 Male: 75 Female: 83
- **Adult literacy rate:** 90.5%
- **Gross national income US\$ per capita:** ...

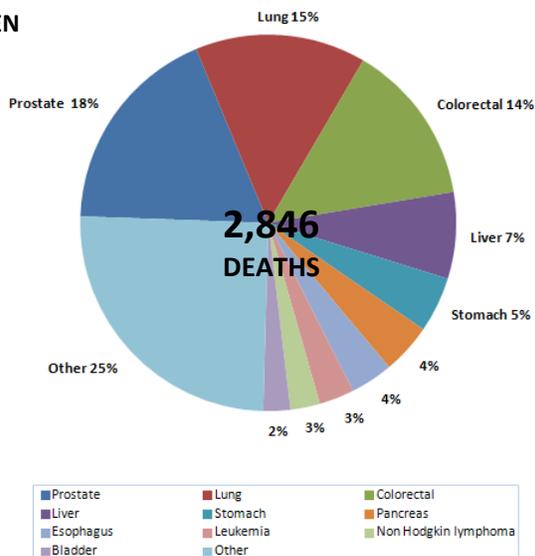
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	...	...	...
Current use of any tobacco product among youth ²	...	...	...
Fruit and vegetable intake in adults ^{1,b}	17.7	17.1	18.3
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	27.5	29.3	25.9
HPV prevalence (women with normal cytology) ⁴	...	...	30.7

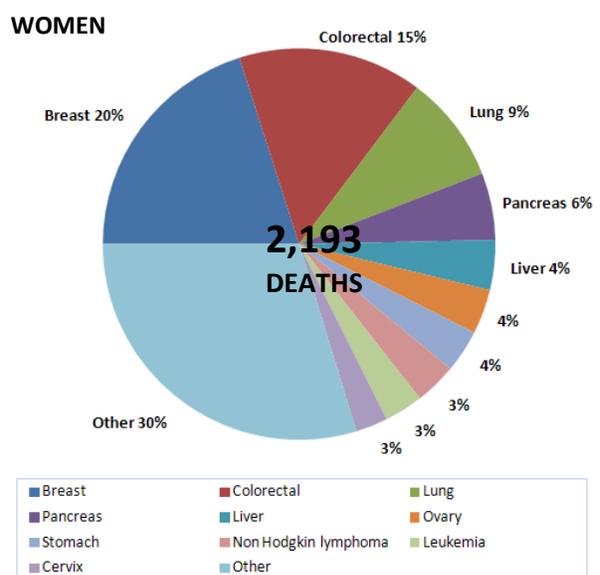
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	2,846	117.21	-0.4
	Female	2,193	70.90	-0.36
Breast cancer		440	15.53	0.79
Cervical cancer		58	2.16	-0.94
Colorectal cancer	Male	397	16.59	2.13*
	Female	334	9.93	0.41
Liver cancer	Male	90	9.07	0.72
	Female	212	2.79	-0.50
Lung cancer	Male	417	17.18	-0.99
	Female	194	6.10	-0.17
Prostate cancer		518	19.08	-0.61
Stomach cancer	Male	136	5.53	-4.06*
	Female	77	2.34	-5.32*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2008
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2008
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Data not categorized
Raised taxes on tobacco?	Data not categorized
Health warning labels about the dangers of tobacco?	Data not categorized
Bans on tobacco advertising, promotion and sponsorship?	Data not categorized
Overweight and obesity prevention and contro⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2007)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (1972)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2006/boys and girls aged 11-12 years/primary care providers and health centers
Estimated 3-dose coverage (calendar year)*	21% of 13-15 year old girls (as at Oct 2013)
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1991/newborn, 1-2m, 6-18m
Estimated 3-dose coverage (calendar year)	...

*data provided by the Immunization Program of the Puerto Rico Department of Health

CANCER SCREENING

Cervical cancer	
Guidelines⁸	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/21-65 years of age/every 3 years HPV and Pap test/30-65 years of age/every 5 years
Availability and coverage of screening services	
Cervical cytology⁶	
Visual inspection with acetic acid ⁶	Generally not available in the public and the private sectors
Screening coverage	
	...

CANCER SCREENING	
Breast cancer	
Guidelines⁹	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Mammography/50-74 years of age/every 2 years
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines¹⁰	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Fecal occult blood test, sigmoidoscopy or colonoscopy/50-75 years of age
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	3.2	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	6	Appears in the national list of essential medicines?	Yes
Radiation oncologists	15	Opioid consumption¹²	
Medical physicists	6	Total morphine equivalence, per capita	3.21
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

Notes: ...: Information not available; N/A: Not applicable.

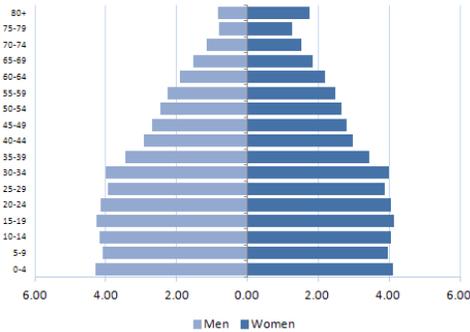
Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) Ortiz. AP. HPV prevalence population-based study of 600 women 16-64 years, using self-sampling methodology (unpublished).
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) U.S: Preventive Services Task Force. Screening for cervical cancer. Current recommendation, 2012, retrieved August 28, 2013 from <http://bit.ly/cyDcWj>.
- (9) U.S: Preventive Services Task Force. Screening for breast cancer. 2009, retrieved August 28, 2013 from: <http://bit.ly/aJl6O7>.
- (10) U.S: Preventive Services Task Force. Screening for colorectal cancer. 2008, retrieved August 28, 2013 from: <http://bit.ly/f2eT5q>.
- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

SOUTH AMERICA

ARGENTINA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 40,764,561
- **Average annual deaths:** 315,600
- **Life expectancy at birth (years):**
Total: 76 Male: 72 Female: 80
- **Adult literacy rate:** 97.7%
- **Gross national income US\$ per capita:** 7,550

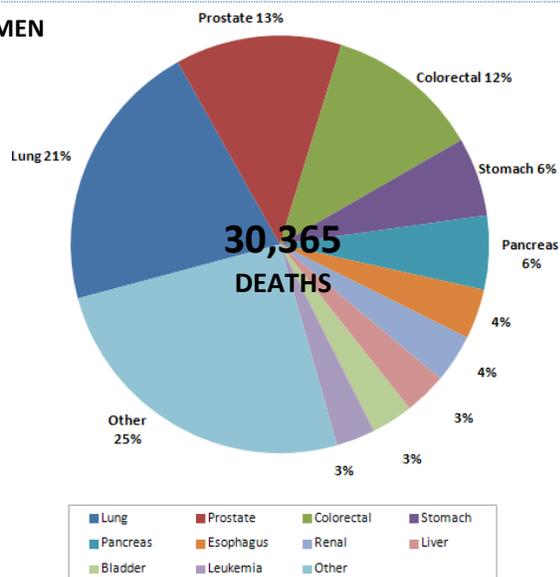
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	23.0	30.0	16.0
Current use of any tobacco product among youth ²	24.1	22.7	25.4
Fruit and vegetable intake in adults ^{1,b}	4.6	4.1	5.0
Alcohol consumers, past 12 months ³	82.5	93.7	72.3
Low physical activity in adults ^{1,c}	54.5	52.2	56.5
Obesity among adults (BMI ≥ 30) ¹	20.5	22.0	19.0
HPV prevalence (women with normal cytology) ⁴	...	...	20.1

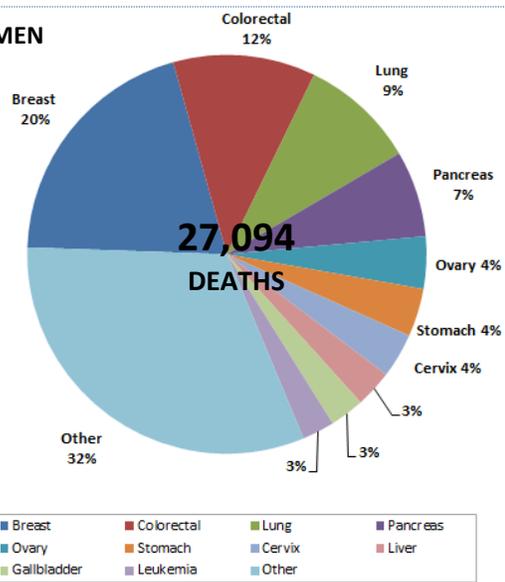
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

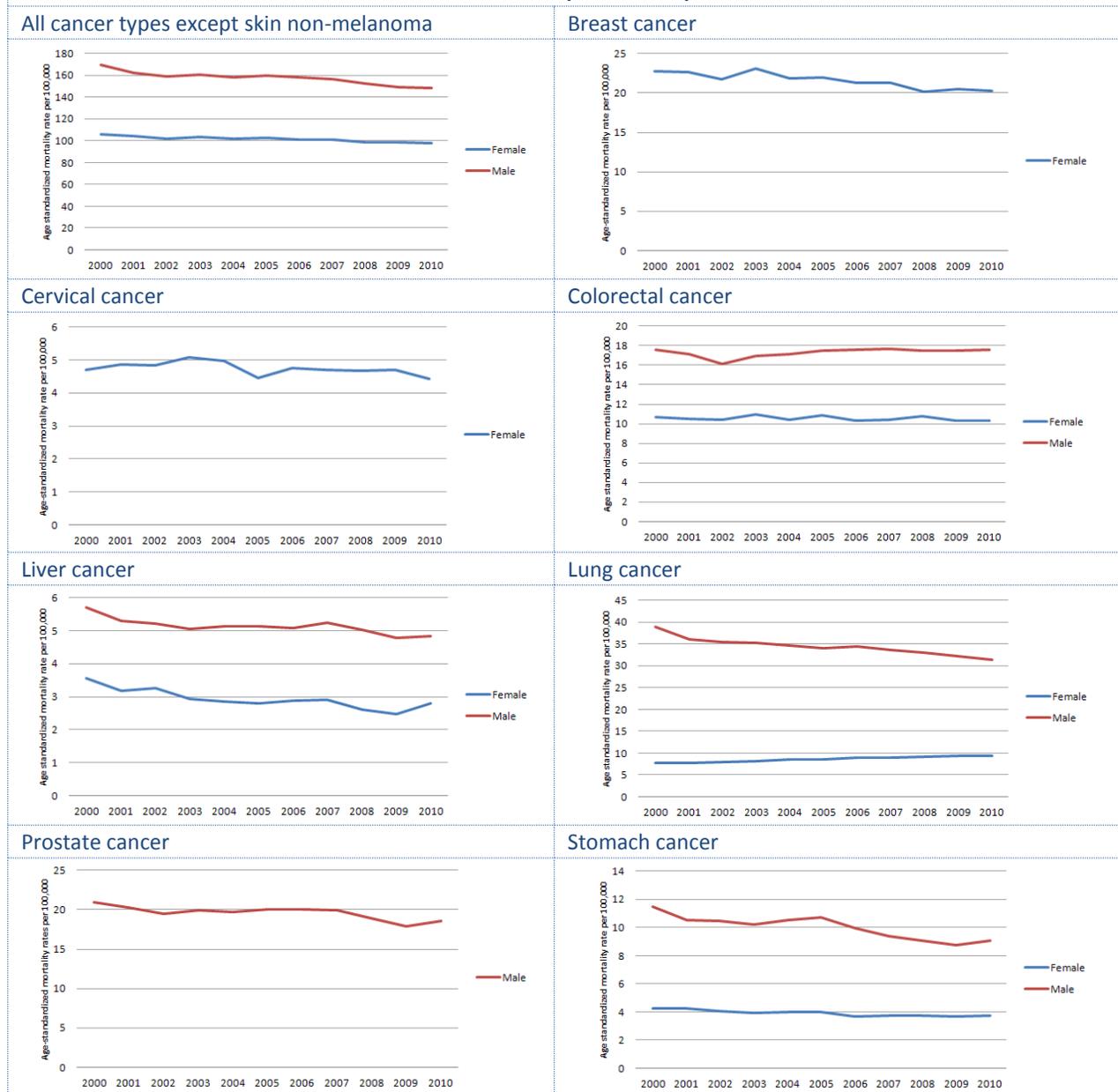
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2010)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2010)⁵

Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	30,365	148.02	-1.08*
	Female	27,094	97.98	-0.67*
Breast cancer		5,446	20.30	-1.27*
Cervical cancer		980	4.43	-0.68
Colorectal cancer	Male	3,623	17.60	0.4
	Female	3,127	10.34	-0.20
Liver cancer	Male	992	4.83	-1.17*
	Female	817	2.81	-2.63*
Lung cancer	Male	6,394	31.30	-1.68*
	Female	2,540	9.45	2.32*
Prostate cancer		3,903	18.63	-1.05*
Stomach cancer	Male	1,849	9.04	-2.1*
	Female	1,056	3.73	-1.46*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2009
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2010
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National and subnational
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2012

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 68% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media and some but not all forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2012)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2011)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2011/girls aged 11 years old/mixed
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1997/newborn-2m-4m-6m; school children aged 11 years
Estimated 3-dose coverage (2012)	91%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/35-64 years of age/every 3 years after 2 consecutive negative annual Pap Tests HPV testing + triage with Pap test /30-64 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage¹	60.5% of women aged 25-64 years have had a Pap test within the last 3 years

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Clinical breast examination/40-50 years of age/annual Screening mammography/50-70 years of age/every 2 years
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage¹¹	46.3% of women aged 50-70 years had a mammogram within the last two years (2005)
Colorectal cancer	
Guidelines¹²	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	FOB followed by colonoscopy of positives /general population aged 50-74 years/annual Colonoscopy/in high risk groups /according to risk evaluation
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹³		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	2.8	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	80	Appears in the national list of essential medicines?	Yes
Radiation oncologists	176	Opioid consumption¹⁴	
Medical physicists	98	Total morphine equivalence, per capita	13.07
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

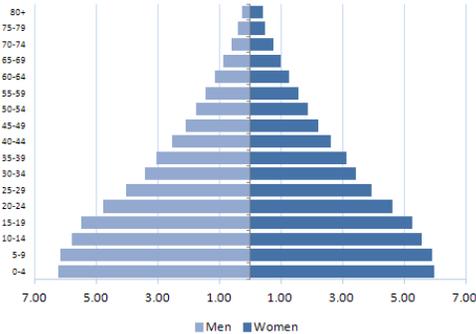
Notes:: Information not available; N/A: Not applicable; m: months; FOB: Fecal occult blood test.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Ministry of Health of Argentina. Guía programática abreviada para la prevención del cáncer cérvico uterino. Programa Nacional de Cáncer Cérvico Uterino, retrieved August 28, 2013 from <http://bit.ly/13T1mL2>; Ministry of Health of Argentina. Prevención del cáncer cervicouterino: Recomendaciones para el tamizaje, seguimiento y tratamiento de mujeres para la prevención del cancer cervicouterino en el marco de la incorporación de la prueba de VPH, retrieved August 28, 2013 from <http://bit.ly/18vq0a5>.
- (10) Ministry of Health of Argentina. El cáncer de mama en 8 palabras. Una guía breve para Atención Primaria de la Salud, retrieved August 28, 2013 from <http://bit.ly/13Tm65o>.
- (11) Ministry of Health of Argentina. Cáncer de mama en Argentina: organización, cobertura y calidad de las acciones de prevención y control, retrieved August 28, 2013 from: <http://bit.ly/1bdvNpm>.
- (12) Ministry of Health of Argentina. Guía para Equipos de Atención Primaria de la Salud. Información para la prevención y la detección temprana del cáncer colorrectal, retrieved August 28, 2013 from <http://bit.ly/1dQ91p>.
- (13) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (14) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

BOLIVIA (Plurinational State of)

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 10,088,100
- **Average annual deaths:** 72,900
- **Life expectancy at birth (years):**
Total: 67 Male: 65 Female: 69
- **Adult literacy rate:** 90.7%
- **Gross national income US\$ per capita:** 1,630

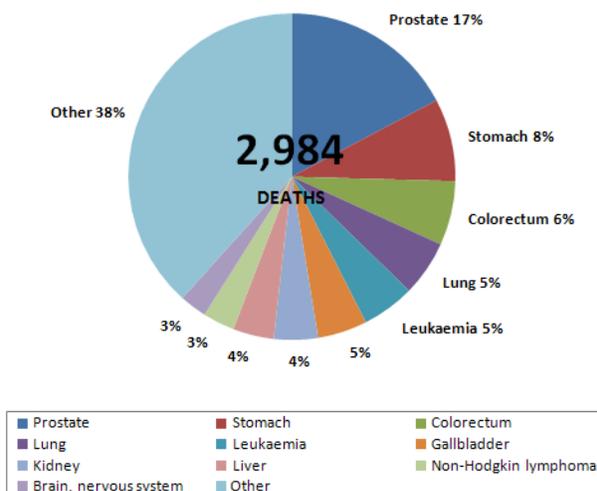
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	30.0	42.0	18.0
Current use of any tobacco product among youth ²	18.7	20.9	16.4
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	59.9	65.0	55.0
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	18.9	10.0	27.1
HPV prevalence (women with normal cytology) ⁴	...	...	...

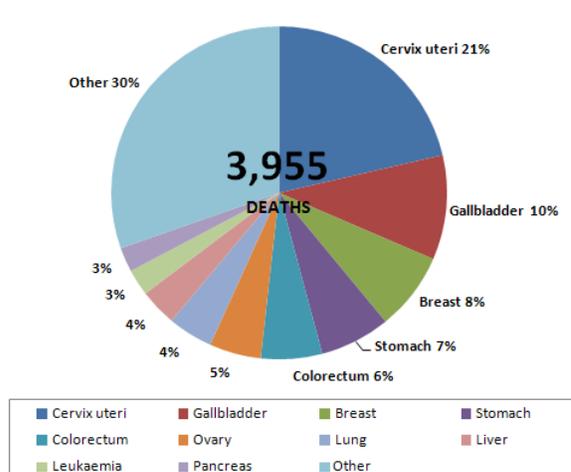
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2012)⁵

MEN



WOMEN



*Note: Mortality data for Bolivia are not available to PAHO, thus a mortality trend analysis was not possible.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2010
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2009
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2011

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	3 to 5 public spaces completely smoke-free
Raised taxes on tobacco?	Taxes are 42% of final price
Health warning labels about the dangers of tobacco?	Large warnings with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media, and some but not all forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2007)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2000/2m-4m-6m
Estimated 3-dose coverage (2012)	80%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/women aged 25-64 years/every 3 years, following two consecutive annual normal tests VIA/women aged 25-64 years/ every 3 years, following two consecutive annual normal tests
Availability and coverage of screening services	
Cervical cytology⁶	
Visual inspection with acetic acid (VIA) ⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage ⁹	12% for Pap test (information not available for VIA)

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	Breast self examination/women 25-64 years of age
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	0.6	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	5	Appears in the national list of essential medicines?	N/A
Radiation oncologists	11	Opioid consumption¹²	
Medical physicists	5	Total morphine equivalence, per capita	0.1701
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

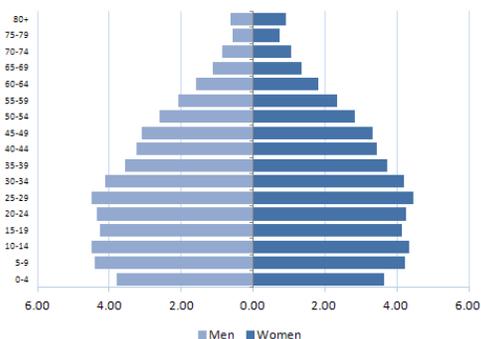
Notes: ...: Information not available; N/A: Not applicable; m: months; VIA: Visual inspection with acetic acid.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray, F. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013, retrieved February 20,2014 from <http://globocan.iarc.fr>.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Year of introduction-- Country Reports to PAHO/WHO; Schedules--PAHO/WHO Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Coverage--PAHO/WHO Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) PAHO. Cervical cancer prevention and control programs: A rapid assessment in 12 countries of Latin America. Washington D.C.: PAHO, 2010.
- (10) Ministry of Health and Sport of Bolivia. Plan nacional de prevención, control y seguimiento de cáncer de mama, 2009-2015, retrieved August 28,2013 from <http://bit.ly/1728SjI>.
- (11) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

BRAZIL

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 196,655,000
- **Average annual deaths:** 1,261,100
- **Life expectancy at birth (years):**
Total: 74 Male: 70 Female: 77
- **Adult literacy rate:** 90%
- **Gross national income US\$ per capita:** 8,070

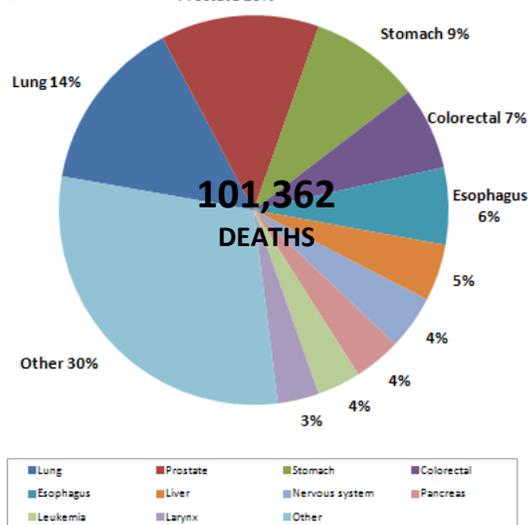
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ²	17.4	16.5	18.2
Current use of any tobacco product among youth ^{3,a}	7.6	7.9	7.3
Fruit and vegetable intake in adults ^{2,b}	34.0	26.9	40.1
Alcohol: heavy episodic drinking, past 30 days ²	18.4	27.9	10.3
Physical inactivity ^{2,c}	14.9	15.2	14.6
Obesity among adults (BMI ≥ 30) ¹	17.4	16.5	18.2
HPV prevalence ⁴	...	...	40.4 (pregnant women)

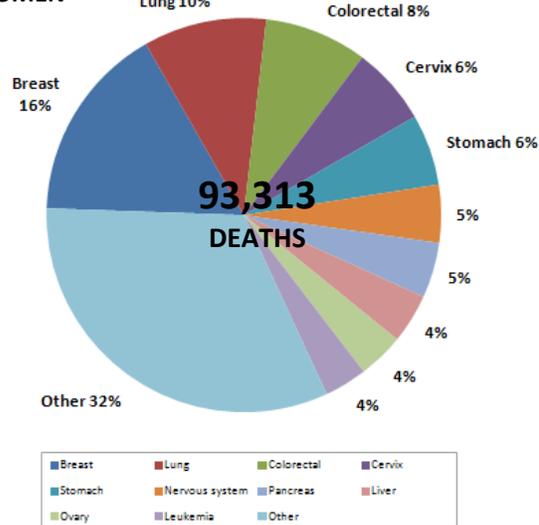
Notes: a: National School Health Survey includes 9th grade (PeNSE 2012); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who have not practiced any physical activity in the last 3 months, who do not exert intense physical efforts in their work, who do not go to work or school by foot or bicycle, for a minimum of 10 minutes, and who do not participate in heavy cleaning in their household ; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

MEN

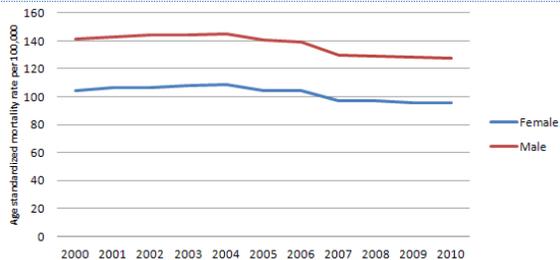


WOMEN

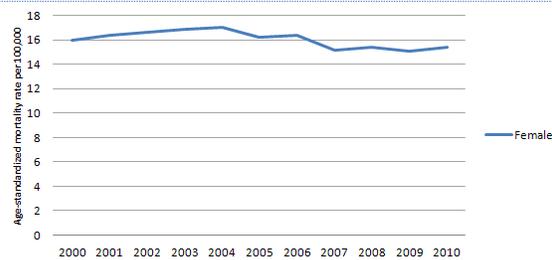


AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2010)⁵

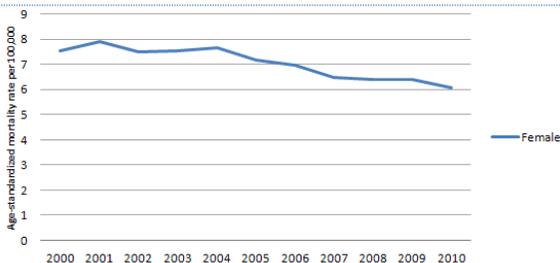
All cancer types except skin non-melanoma



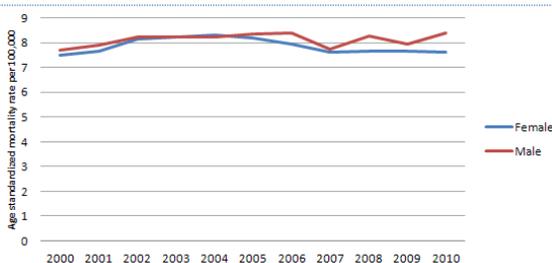
Breast cancer



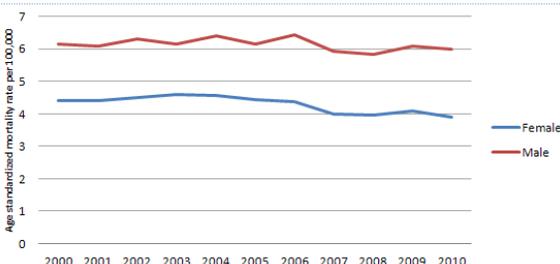
Cervical cancer



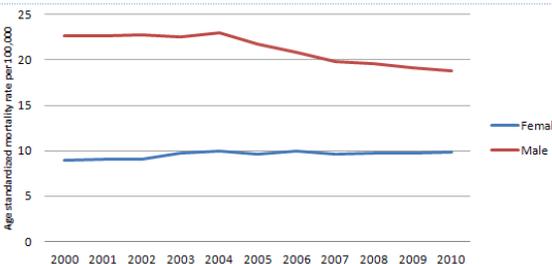
Colorectal cancer



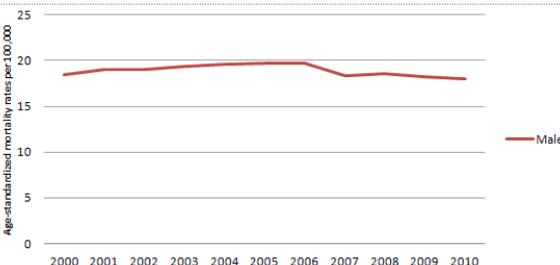
Liver cancer



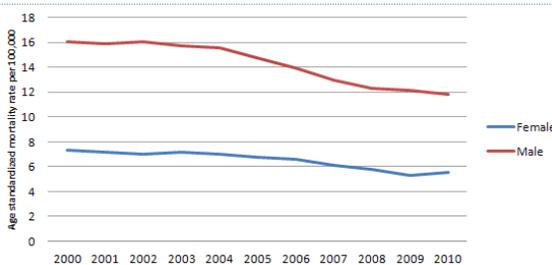
Lung cancer



Prostate cancer



Stomach cancer



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2010)⁵

Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	101,362	127.71	-1.5*
	Female	93,313	95.74	-1.3*
Breast cancer		15,087	15.39	-1.0
Cervical cancer		6,006	6.08	-2.53*
Colorectal cancer	Male	6,963	8.81	0.31
	Female	7,860	8.03	-0.3
Liver cancer	Male	4,786	6.00	-0.37
	Female	3,786	3.91	-1.5*
Lung cancer	Male	14,664	18.85	-2.0*
	Female	9,418	9.80	0.7
Prostate cancer		13,369	17.98	-0.6
Stomach cancer	Male	9,321	11.81	-3.2*
	Female	5,447	5.57	-3.3*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2011
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2005
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Subnational
Type of registry (population vs. hospital based)?	Population based and hospital based
Last year with available data	2009

CANCER PRIMARY PREVENTION POLICIES

Tobacco control³	
Smoke free environments?	All public spaces are completely smoke free (pending regulation and/or implementation)
Raised taxes on tobacco?	Taxes are 63% of final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate feature
Bans on tobacco advertising, promotion and sponsorship?	Ban on all forms of direct and indirect advertising
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	2014/girls aged 10-11 years/Mixed
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁹	
Year of introduction/target age group	1998/newborn-1m-6m
Estimated 3-dose coverage (2012)	97%

CANCER SCREENING

Cervical cancer	
Guidelines¹⁰	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-64 years of age/every 3 years, following 2 consecutive normal Pap tests done annually
Availability and coverage of screening services	
Cervical cytology⁶	
Visual inspection with acetic acid ⁶	Generally not available in the public and the private sectors
Screening coverage¹¹	
	79.3% of target population (2008)

CANCER SCREENING	
Breast cancer	
Guidelines¹²	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Breast clinical examination/40-69 years of age/annual Mammography screening/50-69 years of age/every 2 years In women with family history of breast cancer (high risk women), mammography screening every year starting at aged 35 years of age
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage¹³	Unknown, but nationally 50% of women older than 50 years have had at least one mammogram.
Colorectal cancer	
Guidelines¹⁴	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	Fecal occult blood test/50 years of age or older/annual
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁵		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	1.8	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	222	Appears in the national list of essential medicines?	Yes
Radiation oncologists	391	Opioid consumption¹⁶	
Medical physicists	256	Total morphine equivalence, per capita	11.72
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

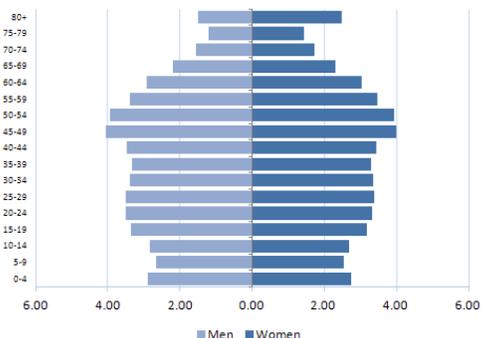
Notes: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) Brazil Ministry of Health, Secretary of Health Surveillance. Vigitel Brasil 2012: Chronic disease risk factor surveillance via telephone survey.
- (3) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013
- (4) Brazil. Ministry of Health. Secretary of Health Surveillance. National Program on STI and AIDS. Prevalence and relative frequency of sexually transmitted infections in populations selected in 6 Brazilian capital cities, 2005. Brasilia: Ministry of Health, 2008.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Brazil. Ministry of Health. Health Portal, 2013.
- (8) Network of National Cancer Institutes of the South American Union (RINC/UNASUR). Newsletter, retrieved August 28,2013 from <http://bit.ly/155SWoO>
- (9) PAHO/WHO Comprehensive Family Immunization Unit. Year of introduction-- Country Reports to PAHO/WHO; Schedules--PAHO/WHO Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Coverage--PAHO/WHO Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (10) Ministry of Health of Brazil, National Cancer Institute. Diretrizes brasileiras para o rastreamento do cancer do colo do útero. Ministério de Saude. Instituto Nacional de Cancer. 2011, retrieved August 28,2013 from <http://bit.ly/pdUK4N>.
- (11) Network of National Cancer Institutes of the South American Union (RINC/UNASUR). Informe preliminar reducido sobre la situación del control del cáncer de cuello uterino en 8 países de Latinoamérica. 2012.
- (12) Ministry of Health of Brazil. Deteccao precoce do cancer de mama, 2012, retrieved August 28,2013 from <http://bit.ly/14vB6as>.
- (13) Lee BL, et al.Breast cancer in Brazil: present status and future goals. Lancet Oncol. 2012 Mar;13(3):e95-102.
- (14) Ministry of Health of Brazil. Deteccao precoce cancer colorretal, retrieved August 28,2013 from: <http://bit.ly/19vyluV>.
- (15) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (16) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

CHILE

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 17,269,500
- **Average annual deaths:** 98,200
- **Life expectancy at birth (years):**
Total: 79 Male: 76 Female: 82
- **Adult literacy rate:** 98.6
- **Gross national income US\$ per capita:** 9,470

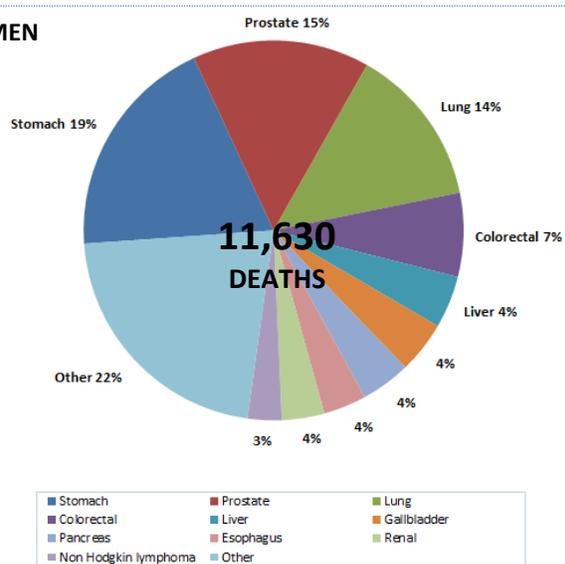
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	41.0	44.0	38.0
Current use of any tobacco product among youth ^{2,b}	35.1	29.8	39.8
Fruit and vegetable intake in adults ^{1,c}	15.8	13.6	17.9
Alcohol consumers, past 12 months ³	67.6	75.3	60.2
Low physical activity in adults ^{1,d}	75.4	79.1	71.8
Obesity among adults (BMI ≥30) ¹	28.7	21.8	35.5
HPV prevalence (women with normal cytology) ⁴	...	...	11.2

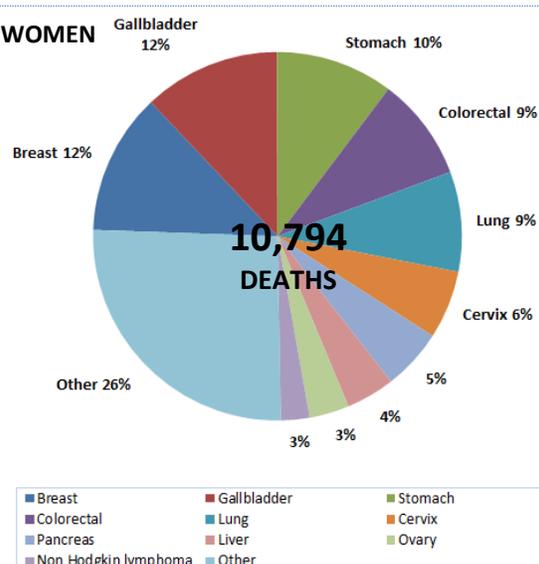
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: Subnational data from the Global Youth Tobacco Survey, Santiago, 2008; c: % who eat 5 or more servings of fruit and vegetables per day; d: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	11,630	143.41	-1.48*
	Female	10,794	102.26	-1.40*
Breast cancer		1,338	12,92	-0.83
Cervical cancer		646	6,38	-3.76*
Colorectal cancer	Male	829	10.25	1.54*
	Female	977	8.92	0.46
Liver cancer	Male	518	6.40	0.92
	Female	461	4.24	2.06*
Lung cancer	Male	1,585	19.56	-1.35*
	Female	947	9.07	1.47*
Prostate cancer		1,753	22.11	-0.97*
Stomach cancer	Male	2,235	27.49	-3.29*
	Female	1,115	10.16	-2.81*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2012
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2005
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Subnational
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2011

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
All public spaces are completely smoke free	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 81% of the final price
Health warning labels about the dangers of tobacco?	Large warnings with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on all forms of direct and indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2011)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2010)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1996/2m-4m-6m
Estimated 3-dose coverage (2012)	90%

CANCER SCREENING

Cervical cancer	
Guidelines⁸	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/women aged 25-64 years/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage⁹	60% women aged 25-64 years with a Pap test in the past 3 years (2011)

CANCER SCREENING	
Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Mammography/women 50-74 years of age/every 2 years
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage¹¹	31.8% women aged 50 years (public sector, 2006-2008)
Colorectal cancer	
Guidelines¹²	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Fecal occult blood test/50 years of age or older/annual
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹³		Oral morphine⁶	
Availability of services in the public sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	2.9	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	27	Appears in the national list of essential medicines?	Yes
Radiation oncologists	55	Opioid consumption¹⁴	
Medical physicists	16	Total morphine equivalence, per capita	11.28
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

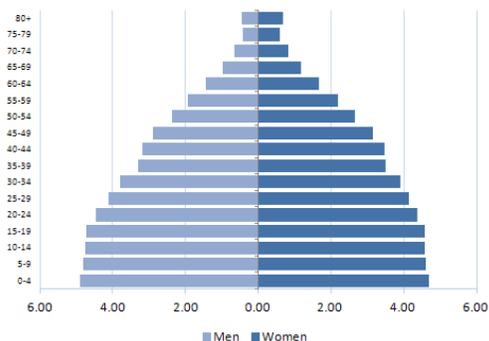
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) Ministry of Health of Chile. Guía Clínica Cáncer Cervicouterino. Gobierno de Chile, 2010, retrieved August 28, 2013 from: <http://bit.ly/19vPmFd>.
- (9) Network of National Cancer Institutes of the South American Union (RINC/UNASUR). Informe preliminar reducido sobre la situación del control del cáncer de cuello uterino en 8 países de Latinoamérica. 2012
- (10) Ministry of Health of Chile. Guía clínica cancer de mama. Ministerio de salud, 2010, retrieved August 28, 2013 from <http://bit.ly/14YD8H8>.
- (11) Ministry of Health of Chile. Programa nacional de cáncer de mama Chile, 1995-2009. Taller internacional de tamizaje de cáncer de mama, 2009, retrieved August 28, 2013 from <http://bit.ly/19vSJMk>.
- (12) Ministry of Health of Chile. Guía Clínica AUGÉ. Cáncer colorectal en personas de 15 años y más. Series Guías Clínicas MINSAL 2013. Gobierno de Chile, retrieved August 28, 2013 from <http://bit.ly/1dq1DxH>.
- (13) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (14) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

COLOMBIA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 46,927,100
- **Average annual deaths:** 260,600
- **Life expectancy at birth (years):**
Total: 74 Male: 70 Female: 77
- **Adult literacy rate:** 93.2
- **Gross national income US\$ per capita:** 4,990

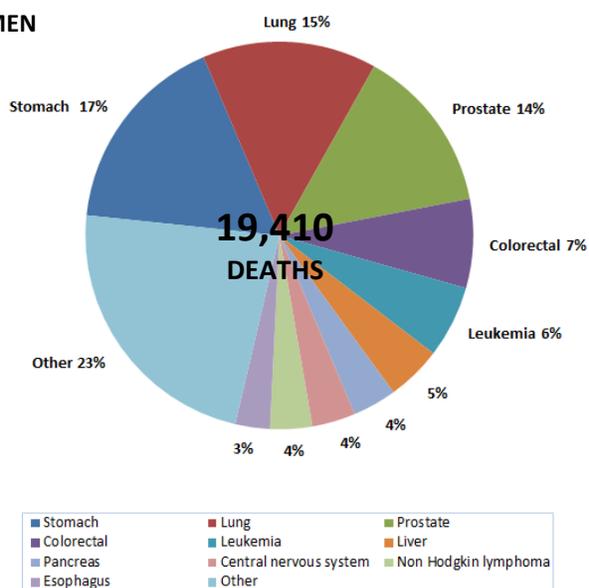
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	18.0	31.0	5.0
Current use of any tobacco product among youth ²	27.6	27.0	27.8
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	80.6	86.3	75.3
Low physical activity in adults ^{1,c}	79	...	...
Obesity among adults (BMI ≥30) ¹	12.8	19.5	7.4
HPV prevalence (women with normal cytology) ⁴	...	...	15.9

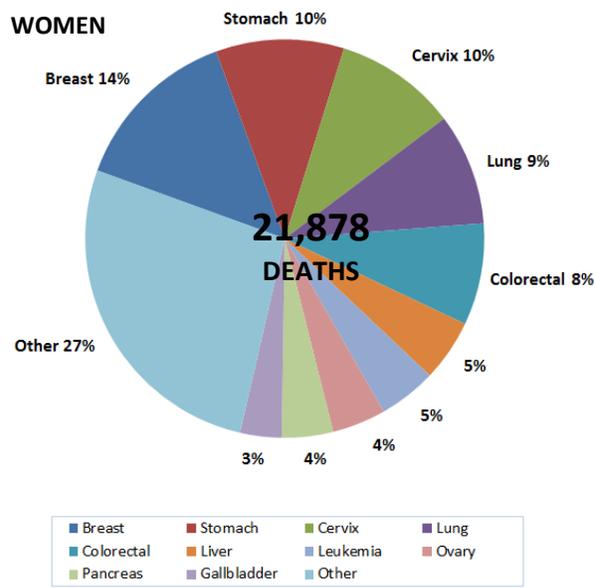
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN

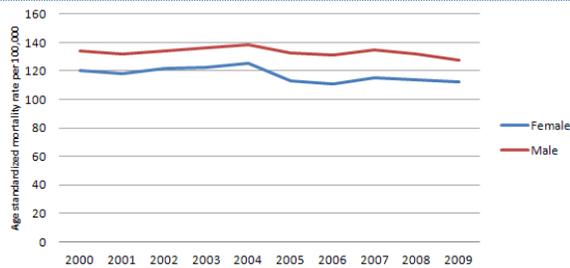


WOMEN

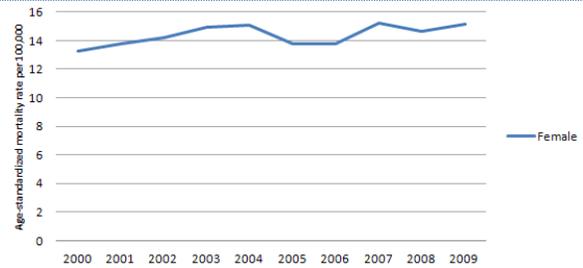


AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵

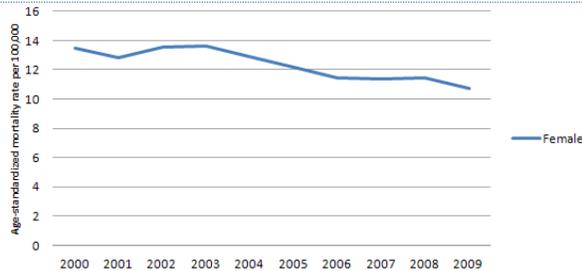
All cancer types except skin non-melanoma



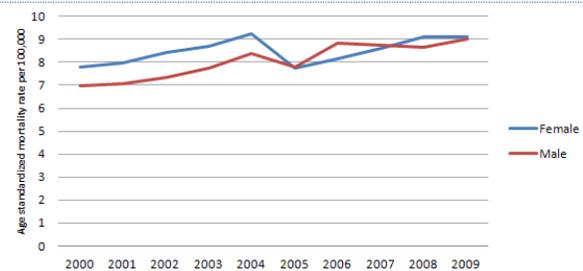
Breast cancer



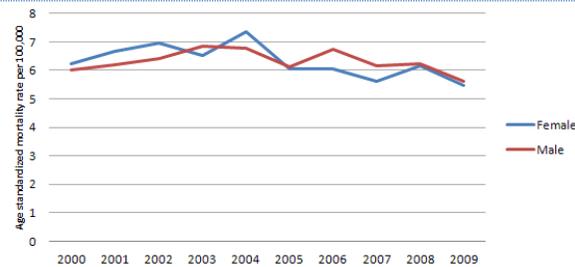
Cervical cancer



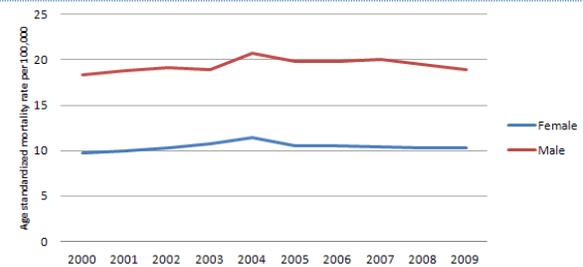
Colorectal cancer



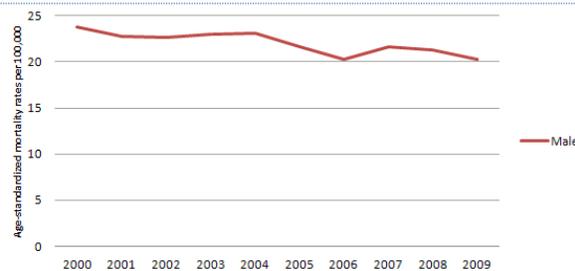
Liver cancer



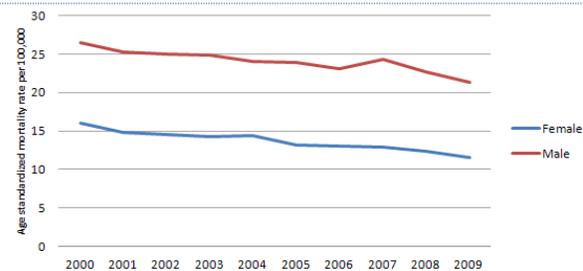
Lung cancer



Prostate cancer



Stomach cancer



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	19,410	128.31	-0.31
	Female	21,878	113.0	-0.93*
Breast cancer		3,030	15.18	1.00
Cervical cancer		2,169	10.75	-2.56*
Colorectal cancer	Male	1,441	9.39	2.88*
	Female	1,809	9.52	1.23
Liver cancer	Male	890	6.01	-0.56
	Female	1,096	5.86	-1.82*
Lung cancer	Male	2,820	19.28	0.51
	Female	1,981	10.69	0.5*
Prostate cancer		2,684	20.30	1.56*
Stomach cancer	Male	3,287	21.76	-1.81*
	Female	2,275	11.92	-3.06*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2011
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2013
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Both
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2008

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 44% of the final price
Health warning labels about the dangers of tobacco?	Medium size warning with all appropriate features or large warning lacking one or more appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on all forms of direct and indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2011)
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2012/4 th grade school girls aged 9 years or older*/schools*
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1994/newborn-2m-4m-6m; risk groups
Estimated 3-dose coverage (2012)	92%

Note: *HPV vaccination is introduced in two phases: the first phase targets fourth grade school girls aged 9 years and older, and the second phase will include girls out of schools in rural and urban areas.

CANCER SCREENING

Cervical cancer	
Guidelines^{9,10}	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/21-69 years of age/every 3 years after 2 consecutive normal annual Pap tests HPV test/30-65 years of age/every 5 years VIA/30-50 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage¹⁰	79% women aged 25-69 with a Pap test in 2010

CANCER SCREENING

Breast cancer

Guidelines ¹¹	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	CBE/women aged 30 years or older/Annual Mammography/every 2 years in women aged 40-50 years/annual in women aged 50 years and older
Availability and coverage of screening services	
Clinical breast examination ⁶	Generally available in the public and the private sectors
Mammography ⁶	Generally available in the public and the private sectors
Screening coverage ¹²	34.2% CBE (2009); 54% mammography (2009)*
Colorectal cancer	
Guidelines ¹³	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Fecal occult blood test/ 50 years and older/every 2 years
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test ⁶	Generally available in the public and the private sectors
Exam or colonoscopy ⁶	Generally available in the public and the private sectors
Screening coverage	...

Note: * Coverage data for Bogota D.C. and neighboring municipalities, based on a telephone survey

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy ¹⁴		Oral morphine ⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	1.4	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	44	Appears in the national list of essential medicines?	Yes
Radiation oncologists	87	Opioid consumption ¹⁵	
Medical physicists	49	Total morphine equivalence, per capita	6.74
Chemotherapy ⁶		Community/home care ⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

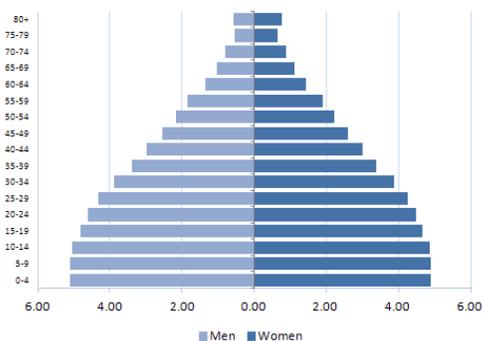
Notes: Information not available; N/A: Not applicable; m: months; VIA: Visual inspection with acetic acid; CBE: Clinical breast examination.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Pediatric Society of Colombia. Pedivoz. Boletín informativo de la Sociedad Colombiana de Pediatría. Julio 2012, retrieved August 28, 2013 from <http://bit.ly/XDpO6U>.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Recomendaciones para la tamización de neoplasias del cuello uterino en mujeres sin antecedentes de patologia cervical (preinvasora o invasora) en Colombia. Guías de práctica clínica (No.3). Available from: <http://bit.ly/1cYxDv2>.
- (10) Network of National Cancer Institutes of the South American Union (RINC/UNASUR). Informe preliminar reducido sobre la situación del control del cáncer de cuello uterino en 8 países de Latinoamérica. 2012
- (11) National Cancer Institute of Colombia. Recomendaciones para la tamización y la detección temprana del cáncer de mama en Colombia. Bogotá: INC, 2006, retrieved August 28, 2013 from <http://bit.ly/12mNOLM>.
- (12) Arboleda W et al. Cobertura de examen clínico y mamografía de tamización para cáncer de mama en mujeres bogotanas. RevColombCancerol 2009;13(2):69-76.
- (13) National Cancer Institute of Colombia. Guía de práctica clínica explícita basada en la evidencia de tamización de cáncer colorrectal para Colombia. 201, retrieved August 28, 2013 from <http://bit.ly/14TX7QI>.
- (14) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (15) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

ECUADOR

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 14,757,300
- **Average annual deaths:** 74,500
- **Life expectancy at birth (years):**
Total: 76 Male: 73 Female: 79
- **Adult literacy rate:** 84.2%
- **Gross national income US\$ per capita:** 3,970

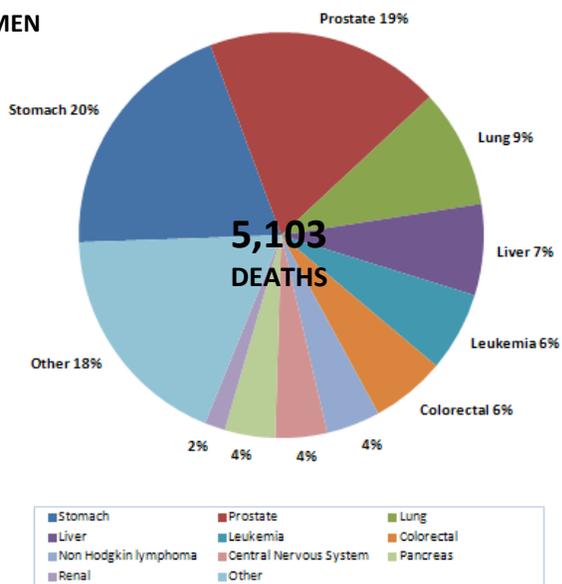
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	...	...	...
Current use of any tobacco product among youth ²	28.6	31.2	26.1
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	31.4	43.6	19.4
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	22.0	15.7	28.2
HPV prevalence (women with normal cytology)	...	...	...

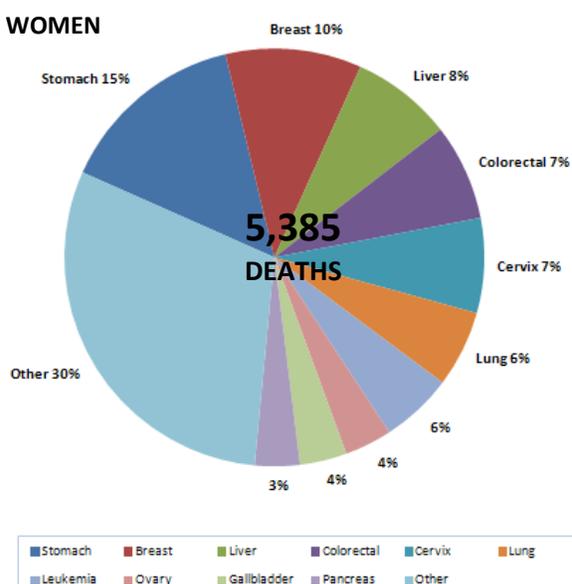
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁴

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2010)⁴



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2010)⁴

Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	5,103	93.96	-0.2
	Female	5,385	87.03	0.02
Breast cancer		564	9.29	1.56*
Cervical cancer		395	6.49	-0.12
Colorectal cancer	Male	302	5.63	4.20*
	Female	401	6.47	2.49*
Liver cancer	Male	372	6.97	-0.22
	Female	420	6.84	-0.26
Lung cancer	Male	483	9.11	0.26
	Female	319	5.24	1.67
Prostate cancer		956	18.51	1.29
Stomach cancer	Male	1,014	18.94	1.66*
	Female	785	12.59	2.11*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁵

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2013
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Under development
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Subnational
Type of registry (population vs. hospital based)?	Hospital-based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces completely smoke-free
Raised taxes on tobacco?	Taxes are 73% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media and some but not all forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁵	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁵	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Yes (2013)
HPV vaccination in national immunization program?	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁶	
Year of introduction/target age group	1999/newborn-2m-4m-6m; school children aged 11 years; health workers; risk groups
Estimated 3-dose coverage (2012)	100%*

Note: *Reported coverage >100%.

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	Under development
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁵	
	Generally available in the public and the private sectors
Visual inspection with acetic acid⁵	
	Generally not available in the public sector/Information not available for the private sector
Screening coverage⁷	
	64.3% women aged 15 to 49 screened at least once (2004)

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	Under development
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁵	Generally available in the public and the private sectors
Mammography⁵	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	No
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁵	Generally available in the public and the private sectors
Exam or colonoscopy⁵	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹³		Oral morphine⁵	
Availability of services in the public health sector? ⁵	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.01	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	10	Appears in the national list of essential medicines?	Yes
Radiation oncologists	24	Opioid consumption⁹	
Medical physicists	12	Total morphine equivalence, per capita	1.51
Chemotherapy⁵		Community/home care⁵	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

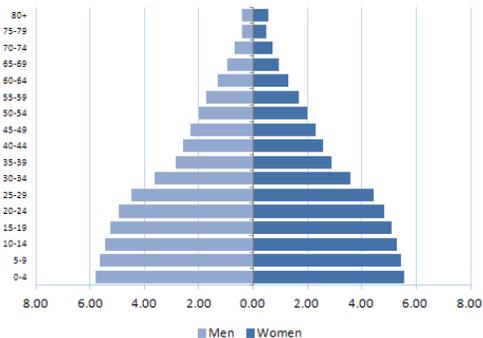
Notes:: Information not available; N/A: Not applicable; m: months; FOB: Fecal occult blood test.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C., USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C., USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) PAHO/WHO Mortality Database, 2012.
- (5) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (6) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (7) ICO. Information Centre on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (8) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (9) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

PARAGUAY

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 6,568,300
- **Average annual deaths:** 36,100
- **Life expectancy at birth (years):**
Total: 73 Male: 71 Female: 75
- **Adult literacy rate:** 94.6%
- **Gross national income US\$ per capita:** 2,250

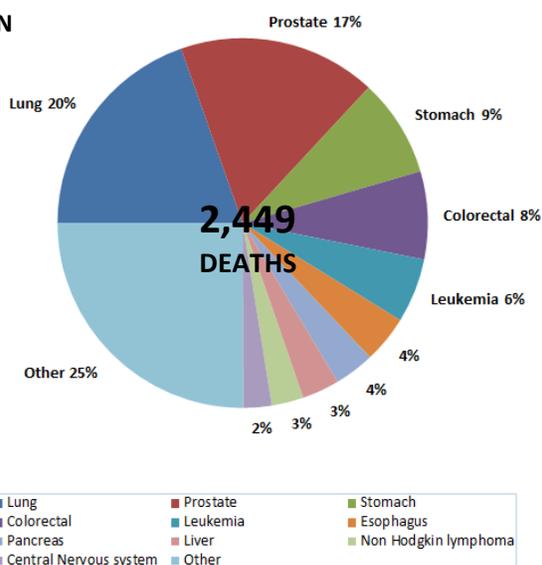
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	19.0	30.0	8.0
Current use of any tobacco product among youth ²	16.7	20.8	12.9
Fruit and vegetable intake in adults ^{1,b}	6.3	10.7	9.2
Alcohol consumers, past 12 months ³	61.7	73.5	49.8
Low physical activity in adults ^{1,c}	23.9	19.0	28.4
Obesity among adults (BMI ≥ 30) ¹	28.5	25.4	31.3
HPV prevalence (women with normal cytology) ⁴	...	...	19.8

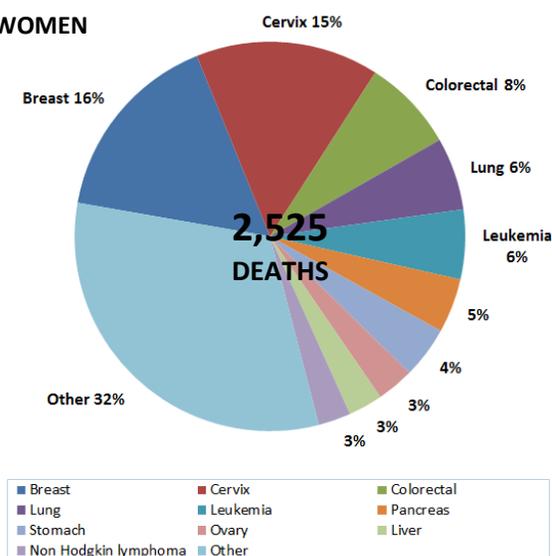
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2010)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2010)⁵

Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	2,449	116.65	-2.5*
	Female	2,525	106.92	-2.9*
Breast cancer		407	17.64	0.41
Cervical cancer		383	16.04	0.34
Colorectal cancer	Male	188	8.94	3.02*
	Female	194	8.37	1.49
Liver cancer	Male	80	3.80	-4.06*
	Female	72	3.03	-2.39
Lung cancer	Male	480	23.44	-1.08
	Female	152	6.80	-0.58
Prostate cancer		424	23.18	-0.30
Stomach cancer	Male	210	9.83	-6.70*
	Female	108	4.74	-7.69*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	No
First year of implementation	2008
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2008
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 17% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2013/girls aged 10-11 years/schools
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2002/2m-4m-6m
Estimated 3-dose coverage (2012)	74%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-49 years of age/every 3 years after 3 consecutive negative annual Pap tests
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally not available in the public and the private sectors
Exam or colonoscopy⁶	Generally not available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁰		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	0.76	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	3	Appears in the national list of essential medicines?	DK
Radiation oncologists	7	Opioid consumption¹¹	
Medical physicists	4	Total morphine equivalence, per capita	...
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

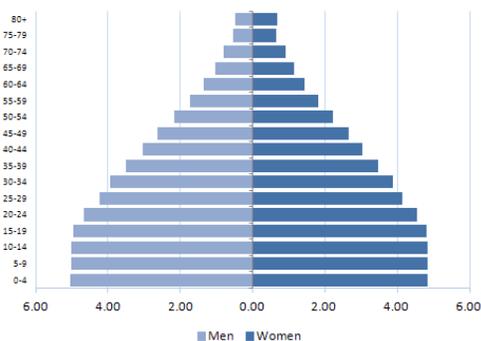
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Ministry of Education and Culture of Paraguay, retrieved August 28, 2013 from <http://bit.ly/12sROWg>.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Ministry of Health of Paraguay. Manual nacional de normas y procedimientos para la prevención y el control del cáncer cervicouterino. República del Paraguay, 2010, retrieved August 28, 2013 from: <http://bit.ly/15dNgJg>.
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

PERU

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 29,399,800
- **Average annual deaths:** 161,400
- **Life expectancy at birth (years):**
Total: 74 Male: 72 Female: 77
- **Adult literacy rate:** 89.6%
- **Gross national income US\$ per capita:** 4,200

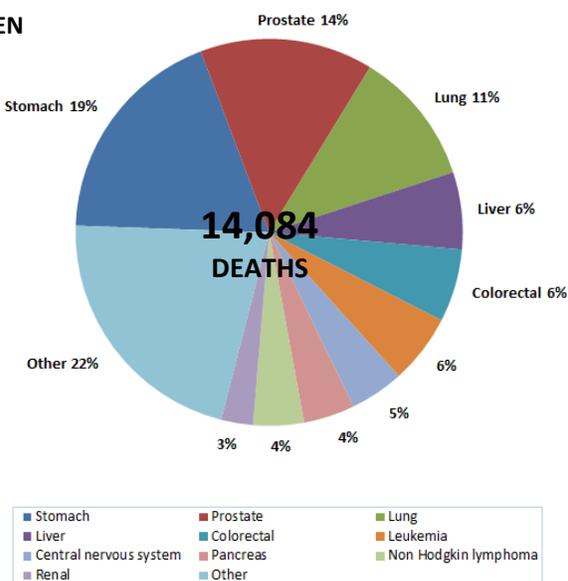
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	13.3	19.7	7.8
Current use of any tobacco product among youth ³	19.4	21.5	16.5
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ⁴	69.0	80.3	57.9
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	16.5	11.1	21.7
HPV prevalence (women with normal cytology) ⁵	...	...	7.5

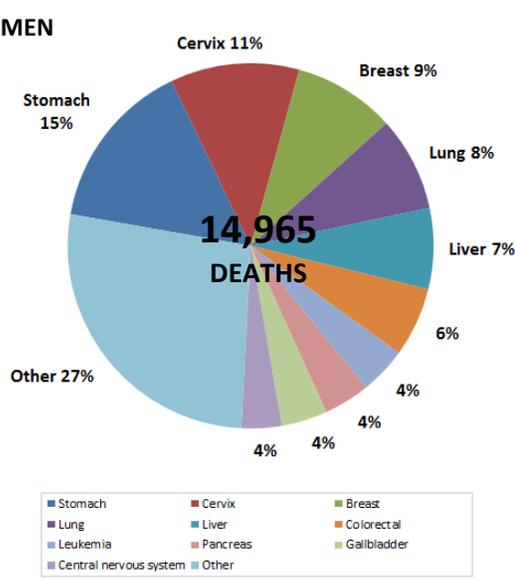
Notes: a: Adults 12-64 years of age; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁶

MEN

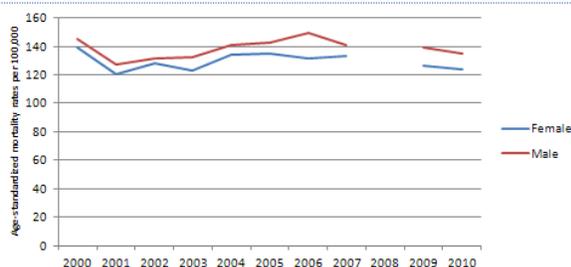


WOMEN

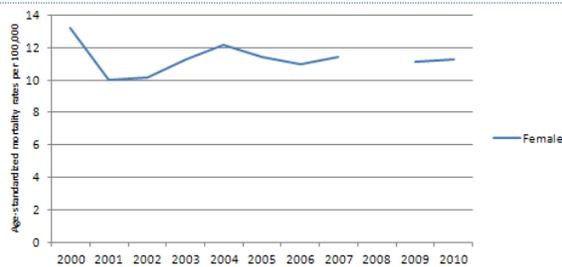


AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2010*)⁶

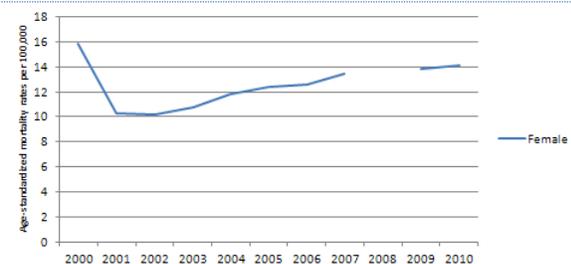
All cancer types except skin non-melanoma



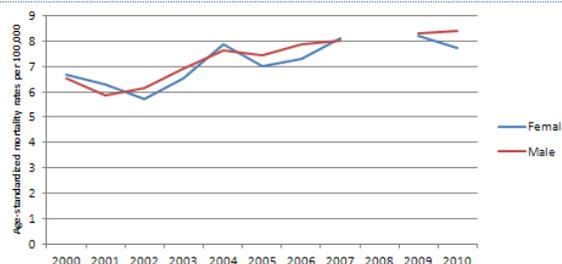
Breast cancer



Cervical cancer



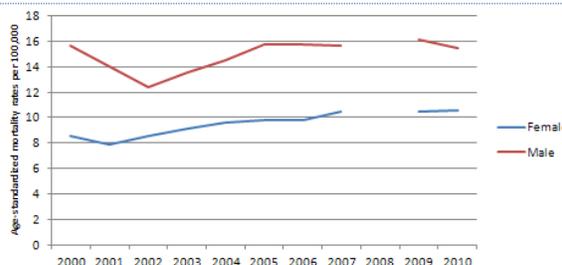
Colorectal cancer



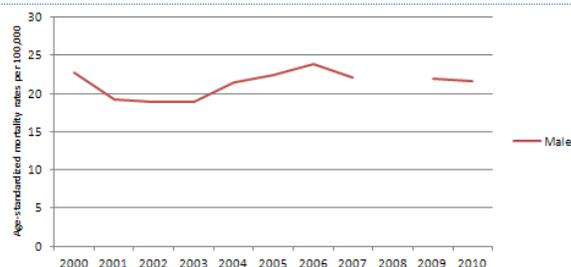
Liver cancer



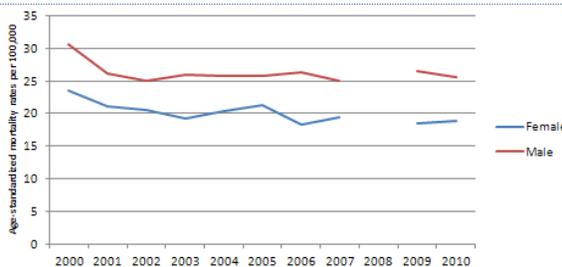
Lung cancer



Prostate cancer



Stomach cancer



Note: * Data was not available to PAHO for 2008.

Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2010) ⁶				
Cancer type	Sex	Number of deaths (2010)	ASMR (2010)	AAPC
All cancer types	Male	14,084	134.78	0.31
	Female	14,965	123.95	-0.21
Breast cancer		1,349	11.27	-0.13
Cervical cancer		1,707	14.16	0.2
Colorectal cancer	Male	859	8.42	3.54*
	Female	921	7.72	2.84*
Liver cancer	Male	908	8.49	-0.62
	Female	1,070	8.92	-0.09
Lung cancer	Male	1,583	15.50	0.0
	Female	1,252	10.54	2.79*
Prostate cancer		2,040	21.59	1.04
Stomach cancer	Male	2,632	25.64	-1.3*
	Female	2,261	18.93	-1.76*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁷

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	No
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2012
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control³	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 42% of the final price
Health warning labels about the dangers of tobacco?	Large warnings with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2005)
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	2011/girls aged 10 years/schools
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁹	
Year of introduction/target age group	1998/newborn-2m-4m-6m; risk groups
Estimated 3-dose coverage (calendar year)	95%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available? ¹⁰	Yes
Guideline recommendations (tests/age groups/frequency) ¹¹	Pap test/30-50 years of age/annual VIA/30-50 years of age/every 2 years HPV test/30-50 years of age/every 5 years
Availability and coverage of screening services	
Cervical cytology⁷	Generally available in the public and the private sectors
Visual inspection with acetic acid⁷	Generally not available in the public and the private sectors
Screening coverage¹¹	51.3% (2009)

CANCER SCREENING

Breast cancer	
Guidelines¹²	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	BSE/women aged 20 years and older Mammography/women aged 40 years and older
Availability and coverage of screening services	
Clinical breast examination⁷	Generally not available in the public and the private sectors
Mammography⁷	Generally not available in the public and the private sectors
Screening coverage¹²	30% women aged 40 years and older with a mammogram
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁷	Generally not available in the public and the private sectors
Exam or colonoscopy⁷	Generally not available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy ¹³		Oral morphine ⁷	
Availability of services in the public health sector? ⁷	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	1.2	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	15	Appears in the national list of essential medicines?	Yes
Radiation oncologists	47	Opioid consumption ¹⁴	
Medical physicists	29	Total morphine equivalence, per capita	1.78
Chemotherapy ⁷		Community/home care ⁷	
Availability of services in the public health sector?	Generally not available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

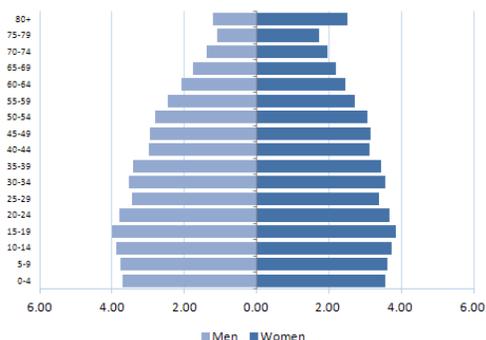
Notes: ...: Information not available; N/A: Not applicable; m: months; BSE: Breast self examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (4) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (5) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (6) PAHO/WHO Mortality Database, 2012.
- (7) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (8) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (9) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (10) Ministry of Health of Peru. Norma técnica oncológica para la prevención, detección y manejo de lesiones premalignas del cuello uterino a nivel nacional. 2007.
- (11) Network of National Cancer Institutes of the South American Union (RINC/UNASUR). Informe preliminar reducido sobre la situación del control del cáncer de cuello uterino en 8 países de Latinoamérica. 2012
- (12) González-Robledo L.M et al. Acciones gubernamentales para la detección temprana del cáncer de mama en América Latina. Retos a futuro. Salud Publica Mex 2010;52:533-543.
- (13) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (14) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

URUGUAY

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 3,380,000
- **Average annual deaths:** 31,300
- **Life expectancy at birth (years):**
Total: 77 Male: 74 Female: 81
- **Adult literacy rate:** 98.3%
- **Gross national income US\$ per capita:** 9,010

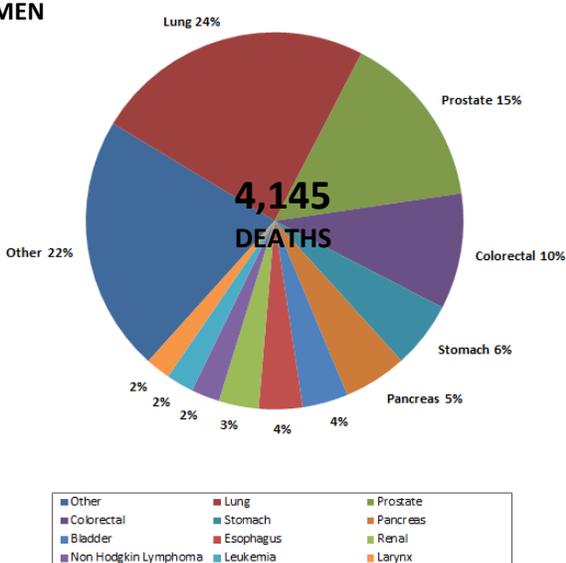
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	25.0	29.0	21.0
Current use of any tobacco product among youth ²	23.2	21.4	24.5
Fruit and vegetable intake in adults ^{1,b}	15.1	14.9	15.1
Alcohol consumers, past 12 months ³	47.0	59.2	36.3
Low physical activity in adults ^{1,c}	35.1	29.0	40.7
Obesity among adults (BMI ≥ 30) ¹	19.9	19.4	20.5
HPV prevalence (women with normal cytology) ⁴	...	...	...

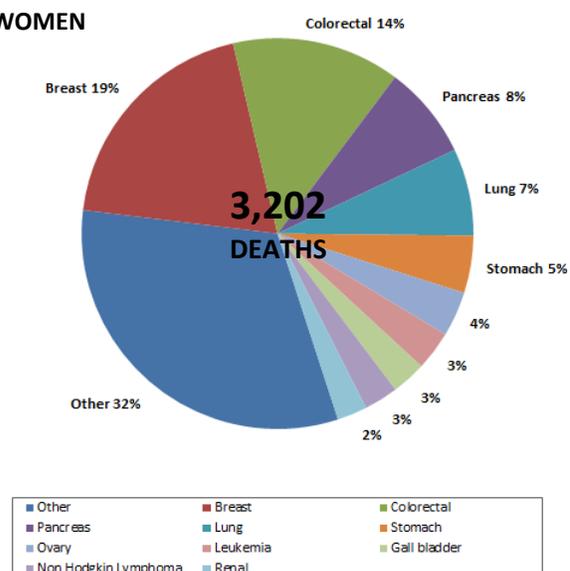
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN



WOMEN



*Note: Cancer mortality data for Uruguay are only available to PAHO for 2000-2001, 2003-2004 and 2009, thus a mortality trend analysis was not possible.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2005
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2006
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2008

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 69% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Ban on national television, radio and print media and some but not all forms of direct and/or indirect advertising
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2013/girls aged 12 years/health care facilities
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1999/2m-4m-6m-15m; 12 years of age (3 doses, 0-1m-6m); health workers
Estimated 3-dose coverage (calendar year)	95%

CANCER SCREENING

Cervical cancer	
Guidelines⁸	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap/30-64 years of age/every 3 years
Availability and coverage of screening services	
Cervical cytology⁶	
	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	
	Generally not available in the public sector and generally available in the private sector
Screening coverage⁹	
	55.2% of women aged 18-69 (2003)

CANCER SCREENING

Breast cancer	
Guidelines¹⁰	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	CBE/women aged 20-39 years, every 3 years; women aged 40 years and older, annually Mammography/women aged 40 years and older/every 1-2 years
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines¹¹	
Are there colorectal cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy¹²		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	5.3	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	10	Appears in the national list of essential medicines?	Yes
Radiation oncologists	45	Opioid consumption¹³	
Medical physicists	10	Total morphine equivalence, per capita	5.86
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

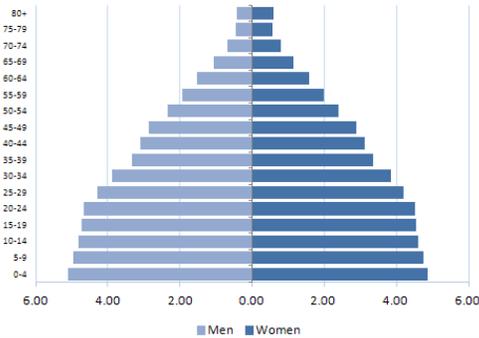
Notes: ...: Information not available; N/A: Not applicable; m: months; CBE: Clinical breast examination.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcntr.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) Programa de prevención de cáncer de cuello uterino en el Uruguay "Dr. Enrique Pouey". 2007. Available from: <http://bit.ly/1dx67m4>.
- (9) ICO Information Centre on Human Papilloma Virus (HPV) and Cancer, 2013. Available from: <http://bit.ly/16ADEYL>.
- (10) González-Robledo LM. Acciones gubernamentales para la detección temprana del cáncer de mama en América Latina. Retos a futuro. Salud Publica Mex 2010;52:533-543.
- (11) Plan nacional de prevención y detección precoz del cáncer colo-rectal. Ministerio de Salud Pública Uruguay. 2008
- (12) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (13) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

VENEZUELA (Bolivarian Republic of)

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 29,436,900
- **Average annual deaths:** 153,100
- **Life expectancy at birth (years):**
Total: 75 Male: 72 Female: 78
- **Adult literacy rate:** 95.2%
- **Gross national income US\$ per capita:** 10,090

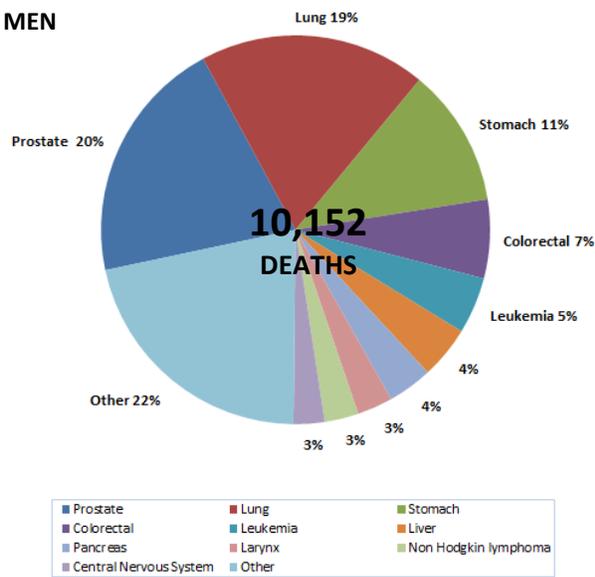
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	21.5	28.9	14.4
Current use of any tobacco product among youth ³	9.4	11.0	7.2
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ⁴	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	30.8	26.6	34.8
HPV prevalence (women with normal cytology) ⁵	...	...	...

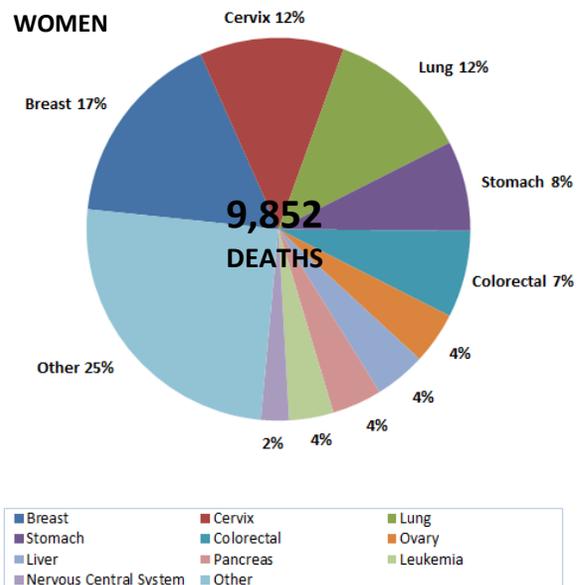
Notes: a: Adults aged 18-65 years; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁶

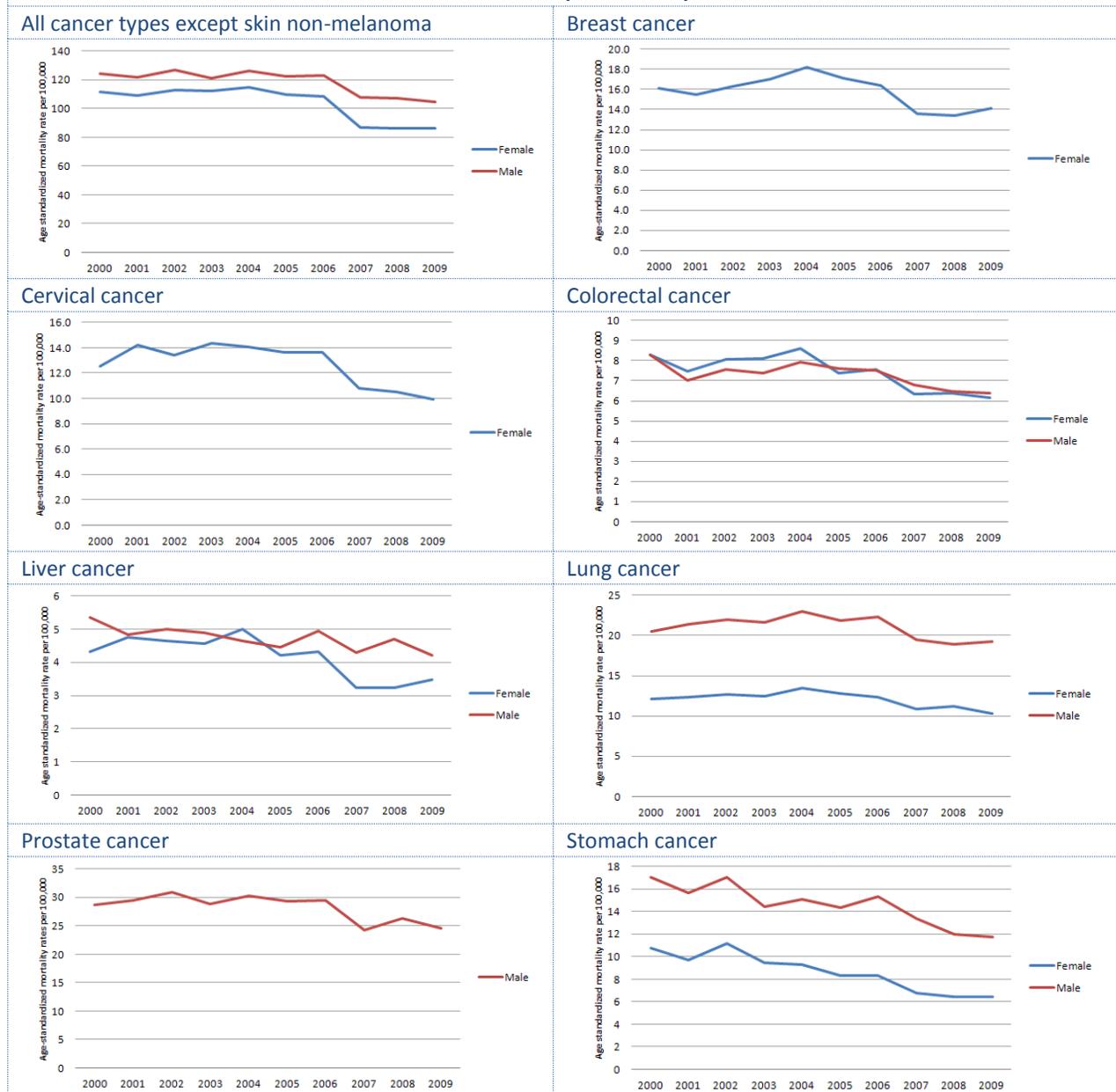
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁶



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁶

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	10,152	104.86	-2.0*
	Female	9,852	86.38	-3.1*
Breast cancer		1,643	14.12	-1.8
Cervical cancer		1,199	9.91	-3.1*
Colorectal cancer	Male	655	6.79	-1.94*
	Female	722	6.55	-3.5*
Liver cancer	Male	443	4.60	-1.75*
	Female	424	3.87	-3.71*
Lung cancer	Male	1,916	19.69	-1.0
	Female	1,184	10.71	-1.7*
Prostate cancer		2,076	24.57	-2.03*
Stomach cancer	Male	1,167	12.16	-3.56*
	Female	750	6.50	-5.92*

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁷

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2005
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	1946
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2010

CANCER PRIMARY PREVENTION POLICIES

Tobacco control³	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 71% of the final price
Health warning labels about the dangers of tobacco?	Large warning with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Under development
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2000/newborn-2m-4m-6m-18m; risk groups, health workers
Estimated 3-dose coverage (2012)	81%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-64 years of age/every 3 years after 2 consecutive negative annual Pap tests
Availability and coverage of screening services	
Cervical cytology⁷	Generally available in the public and the private sectors
Visual inspection with acetic acid⁷	Generally available in the public and the private sectors
Screening coverage⁹	25% of target population (2011)

CANCER SCREENING

Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁷	Generally available in the public and the private sectors
Mammography⁷	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁷	Generally available in the public and the private sectors
Exam or colonoscopy⁷	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy¹⁰		Oral morphine⁷	
Availability of services in the public health sector? ⁷	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	2.4	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	58	Appears in the national list of essential medicines?	Yes
Radiation oncologists	172	Opioid consumption¹¹	
Medical physicists	47	Total morphine equivalence, per capita	2.88
Chemotherapy⁷		Community/home care⁷	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

Notes: ...: Information not available; N/A: Not applicable; m: months.

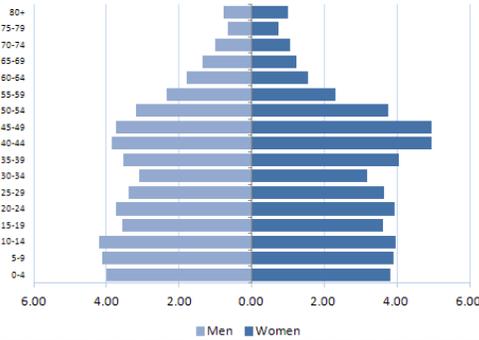
Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (4) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (5) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (6) PAHO/WHO Mortality Database, 2012.
- (7) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Network of National Cancer Institutes of the South American Union (RINC/UNASUR). Informe preliminar reducido sobre la situación del control del cáncer de cuello uterino en 8 países de Latinoamérica. 2012
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

NON LATIN CARIBBEAN

ANGUILLA

SOCIODEMOGRAPHIC INDICATORS¹



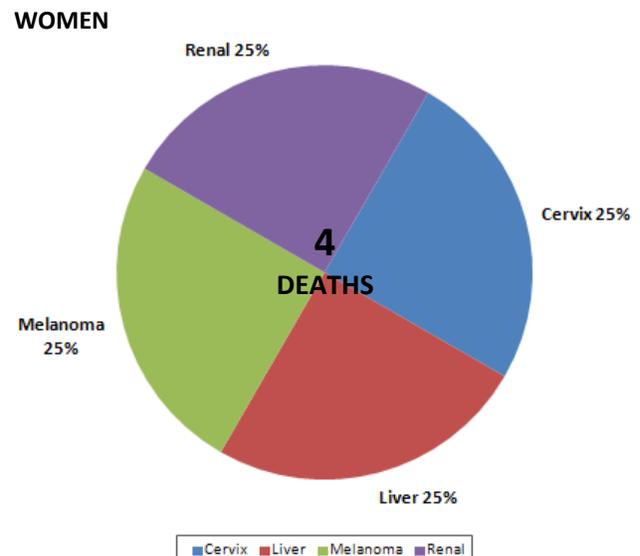
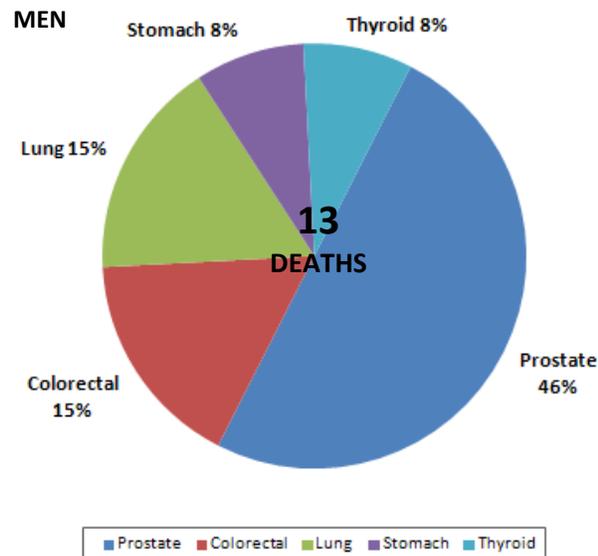
- **Total population:** 15,100
- **Average annual deaths:** 1,000
- **Life expectancy at birth (years):**
Total: 81 Male: 78 Female: 84
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** ...

RISK FACTORS

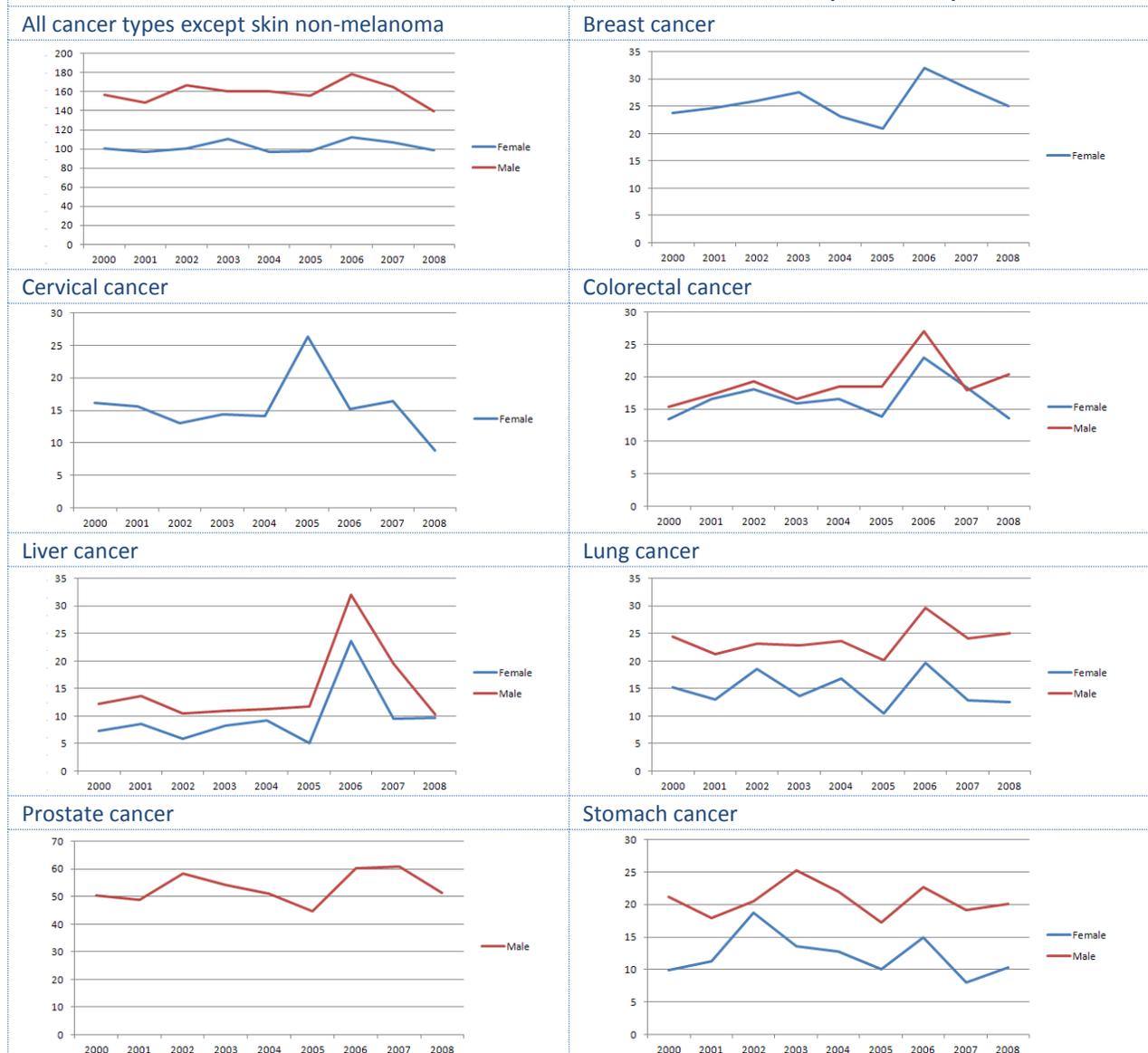
Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}
Current use of any tobacco product among youth ²
Fruit and vegetable intake in adults ^{1,b}
Alcohol consumers, past 12 months ³
Low physical activity in adults ^{1,c}
Obesity among adults (BMI ≥30) ¹
HPV prevalence (women with normal cytology) ⁴

Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁵ Caribbean Islands[‡]

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	No
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	...
Raised taxes on tobacco?	...
Health warning labels about the dangers of tobacco?	...
Bans on tobacco advertising, promotion and sponsorship?	...
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2013)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1997/3m-5m-7m
Estimated 3-dose coverage (2012)	100%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	
	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	
	Generally not available in the public sector/ Information not known for the private sector
Screening coverage	
	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally not available in the public sector/ Information not known for the private sector
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption¹⁰	
Medical physicists	...	Total morphine equivalence, per capita	...
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally not available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

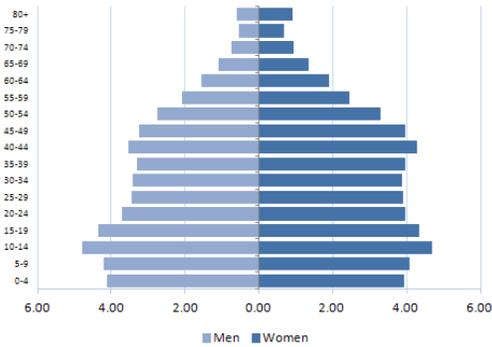
Notes: ... Information not available; N/A: Not applicable; m: months.

Sources:

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- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Year of introduction-- Country Reports to PAHO/WHO; Schedules--PAHO/WHO Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Coverage--PAHO/WHO Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (10) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

ANTIGUA AND BARBUDA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 87,900
- **Average annual deaths:** 500
- **Life expectancy at birth (years):**
Total: 76 Male: 74 Female: 78
- **Adult literacy rate:** 99%
- **Gross national income US\$ per capita:** 12,130

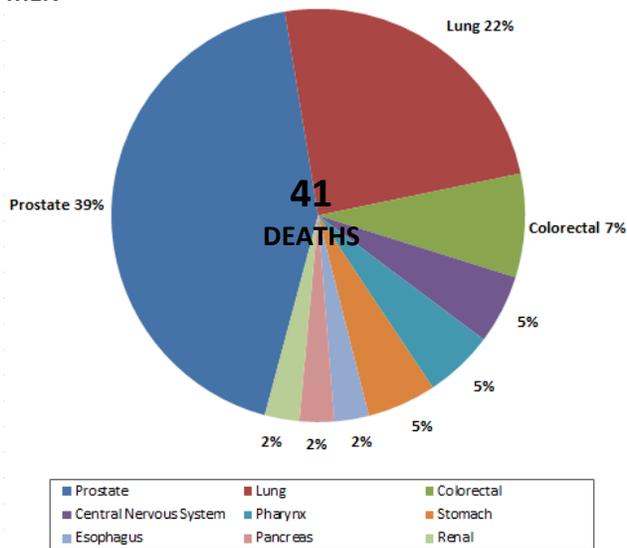
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	...	...	...
Current use of any tobacco product among youth ²	20.1	24.3	15.9
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	25.8	18.1	33.1
HPV prevalence (women with normal cytology) ⁴	...	...	...

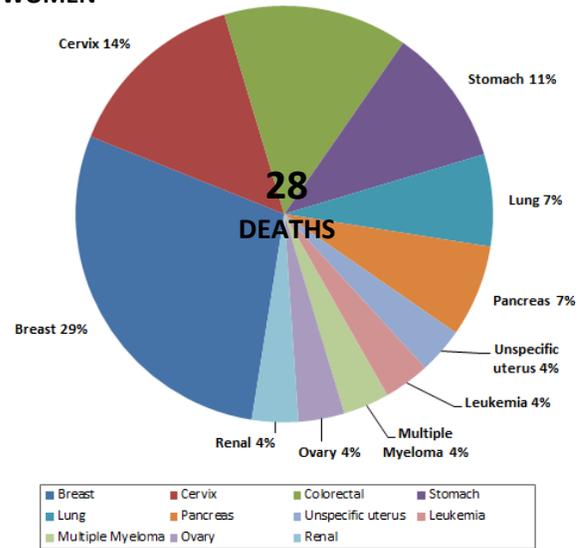
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

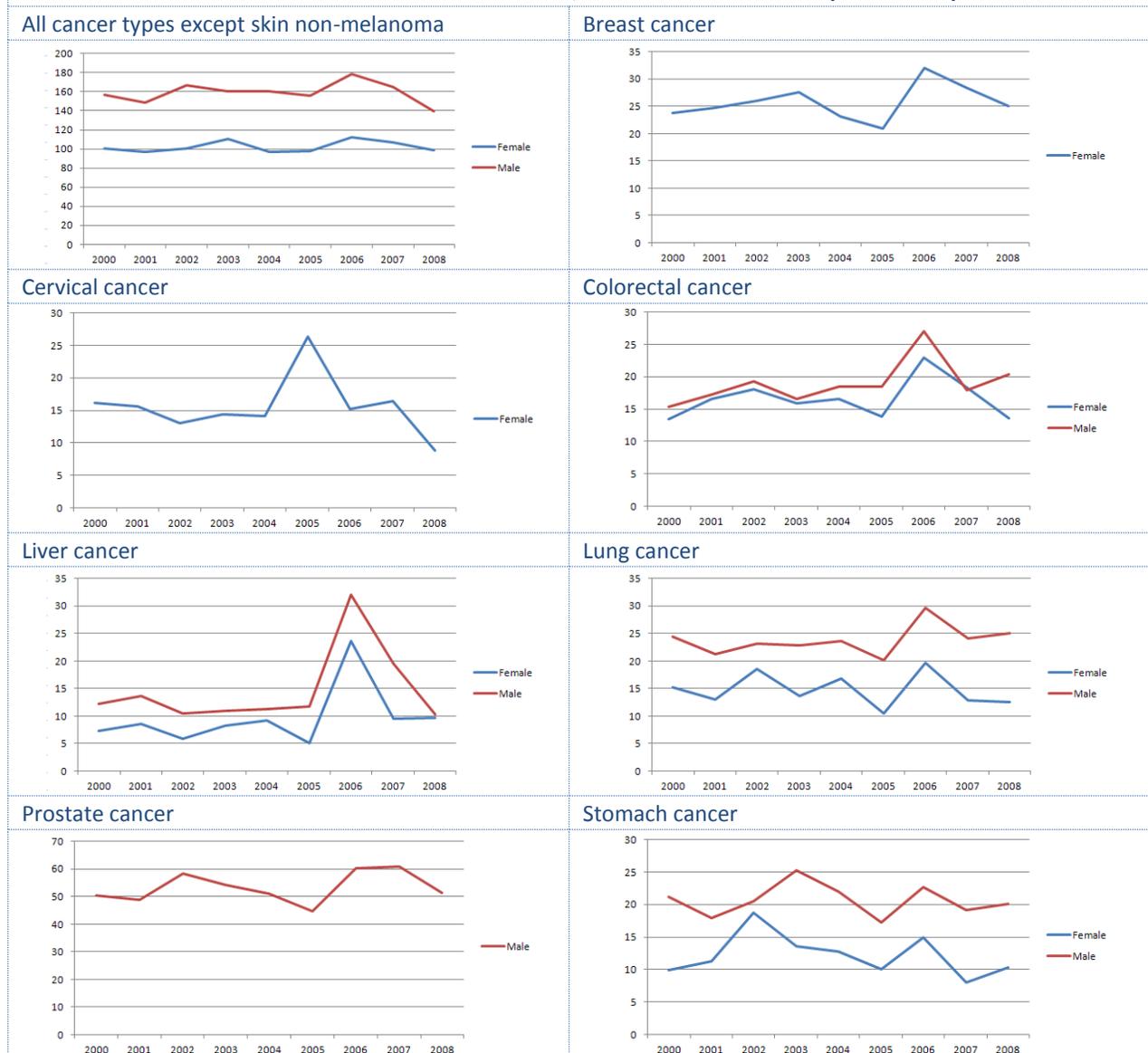
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008) ⁵ Caribbean Islands [‡]				
Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	No
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 7% of the final price
Health warning labels about the dangers of tobacco?	No warnings or small warnings
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	1999/first contact, +6weeks, +6 m
Estimated 3-dose coverage (2012)	98%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	No
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption¹⁰	
Medical physicists	...	Total morphine equivalence, per capita	...
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

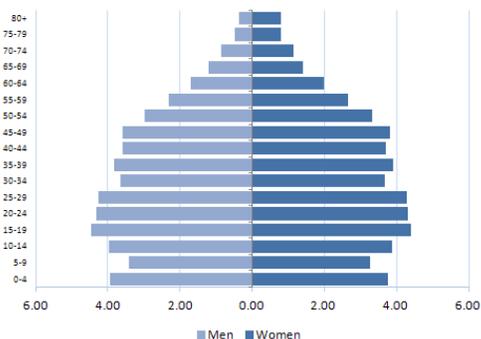
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Year of introduction-- Country Reports to PAHO/WHO; Schedules--PAHO/WHO Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Coverage--PAHO/WHO Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (10) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

BAHAMAS

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 347,200
- **Average annual deaths:** 1,900
- **Life expectancy at birth (years):**
Total: 76 Male: 73 Female: 79
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 29,550

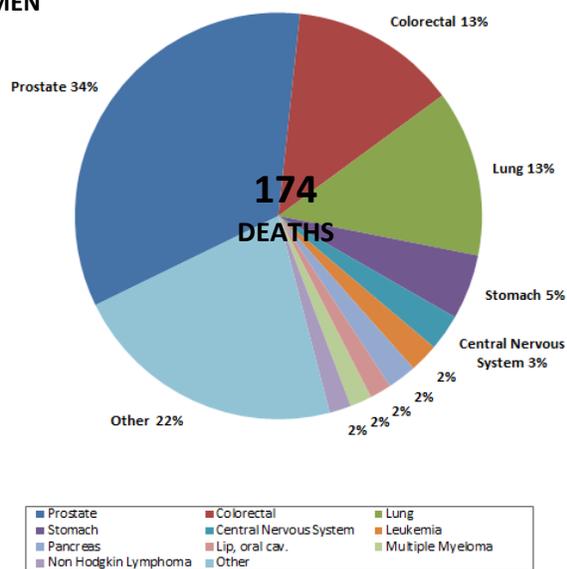
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	...	...	...
Current use of any tobacco product among youth ²	16.4	17.8	15.1
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	53.0	42.5	60.5
HPV prevalence (women with normal cytology) ⁴	...	...	...

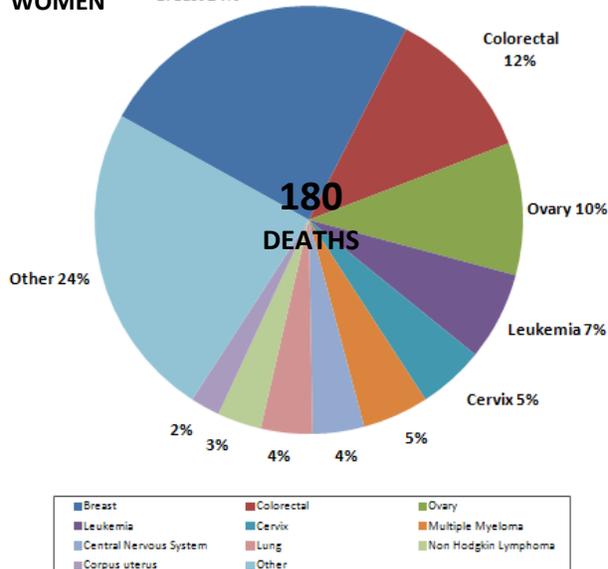
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2008)⁵

MEN

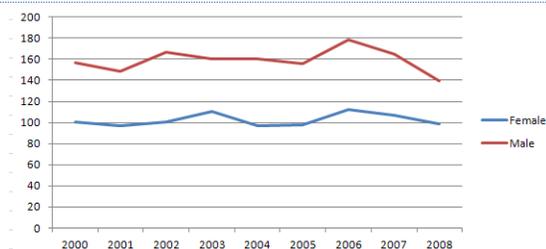


WOMEN

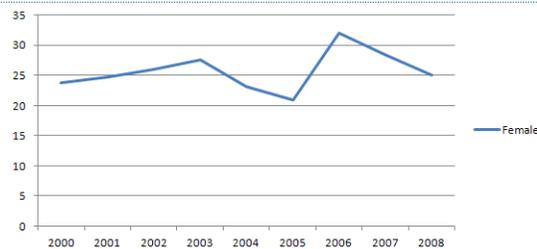


AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵

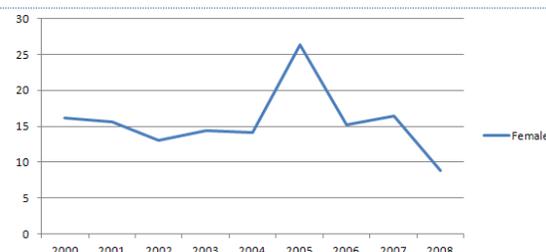
All cancer types except skin non-melanoma



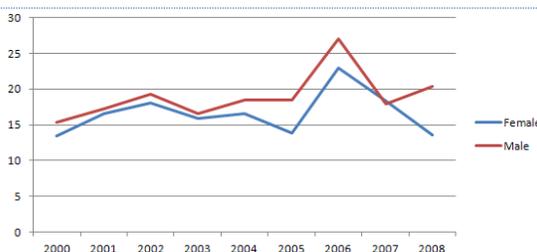
Breast cancer



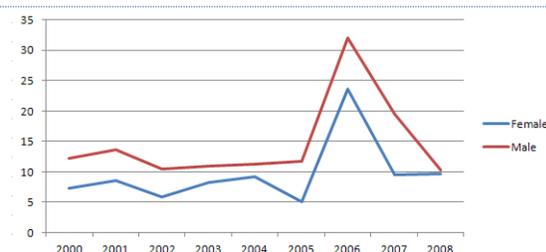
Cervical cancer



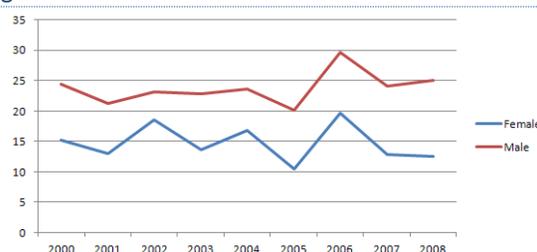
Colorectal cancer



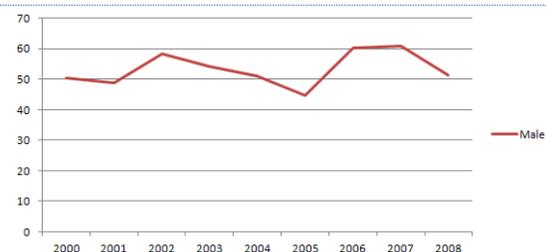
Liver cancer



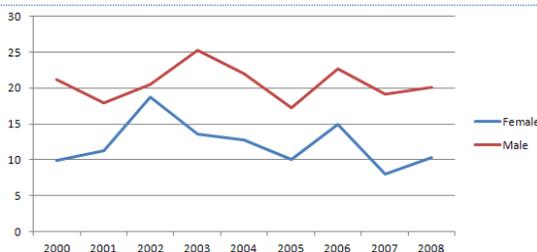
Lung cancer



Prostate cancer



Stomach cancer



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁵ Caribbean Islands[‡]

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 38% of the final price
Health warning labels about the dangers of tobacco?	No warnings or small warnings
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2001/2m-4m-6m
Estimated 3-dose coverage (2012)	96%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations* (tests/age groups/frequency)	Pap Test/sexually active women or women aged 21 and older/annual
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage	...

Note: *Ministry of health recommendations

CANCER SCREENING	
Breast cancer	
Guidelines⁹	
Are there breast cancer screening guidelines available?	Yes
Guideline recommendations* (tests/age groups/frequency)	Breast self-examination/monthly
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

Note: *Ministry of health recommendations

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁰		Oral morphine⁶	
Availability in the public health sector ⁶ ?	Yes	Availability in the public health sector ⁶ ?	Yes
Total energy teletherapy units/million inhabitants	2.8	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	1	Appears in the national list of essential medicines?	Yes
Radiation oncologists	3	Opioid consumption¹¹	
Medical physicists	3	Total morphine equivalence, per capita	10.76
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

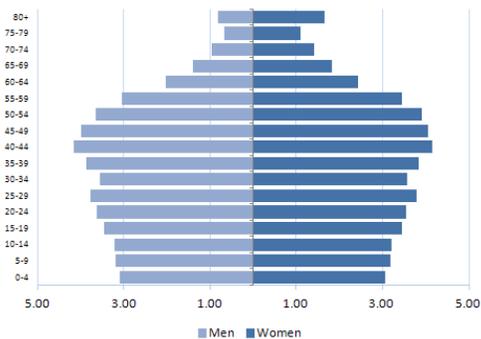
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
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- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Year of introduction-- Country Reports to PAHO/WHO; Schedules--PAHO/WHO Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Coverage--PAHO/WHO Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) Ministry of Health of Bahamas. Breast and cervical cancer screening recommendations, available from: <http://bit.ly/1d0LTm4>.
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

BARBADOS

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 286,700
- **Average annual deaths:** 2,400
- **Life expectancy at birth (years):**
Total: 74 Male: 72 Female: 77
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 18,850

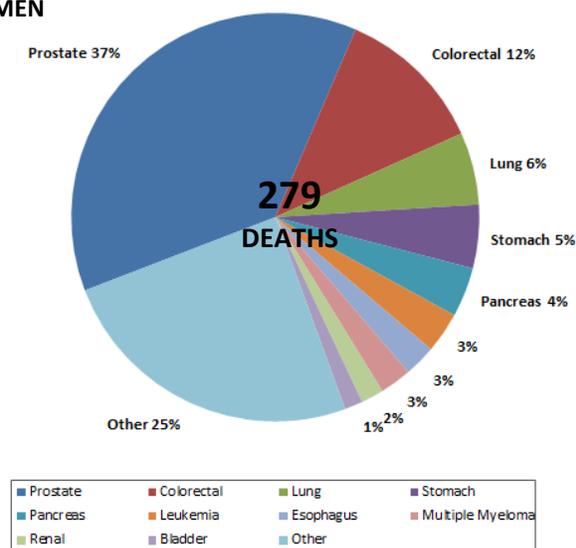
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	7.0	13.0	2.0
Current use of any tobacco product among youth ²	28.6	34.5	23.2
Fruit and vegetable intake in adults ^{1,b}	4.6	3.4	5.7
Alcohol consumers, past 12 months ³	40.9	54.9	28.3
Low physical activity in adults ^{1,c}	51.3	42.5	59.0
Obesity among adults (BMI ≥ 30) ¹	28.5	20.3	35.5
HPV prevalence (women with normal cytology) ⁴	...	...	...

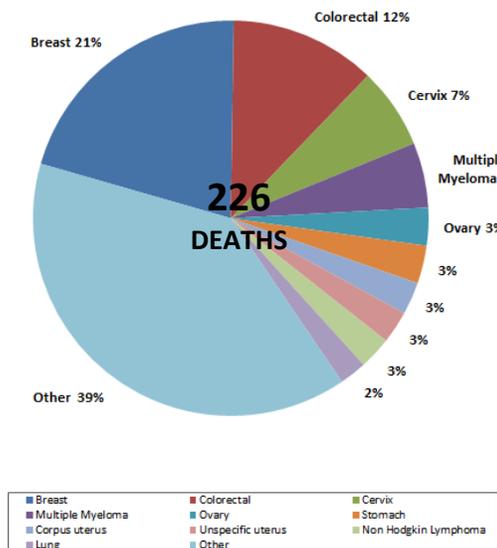
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2008)⁵

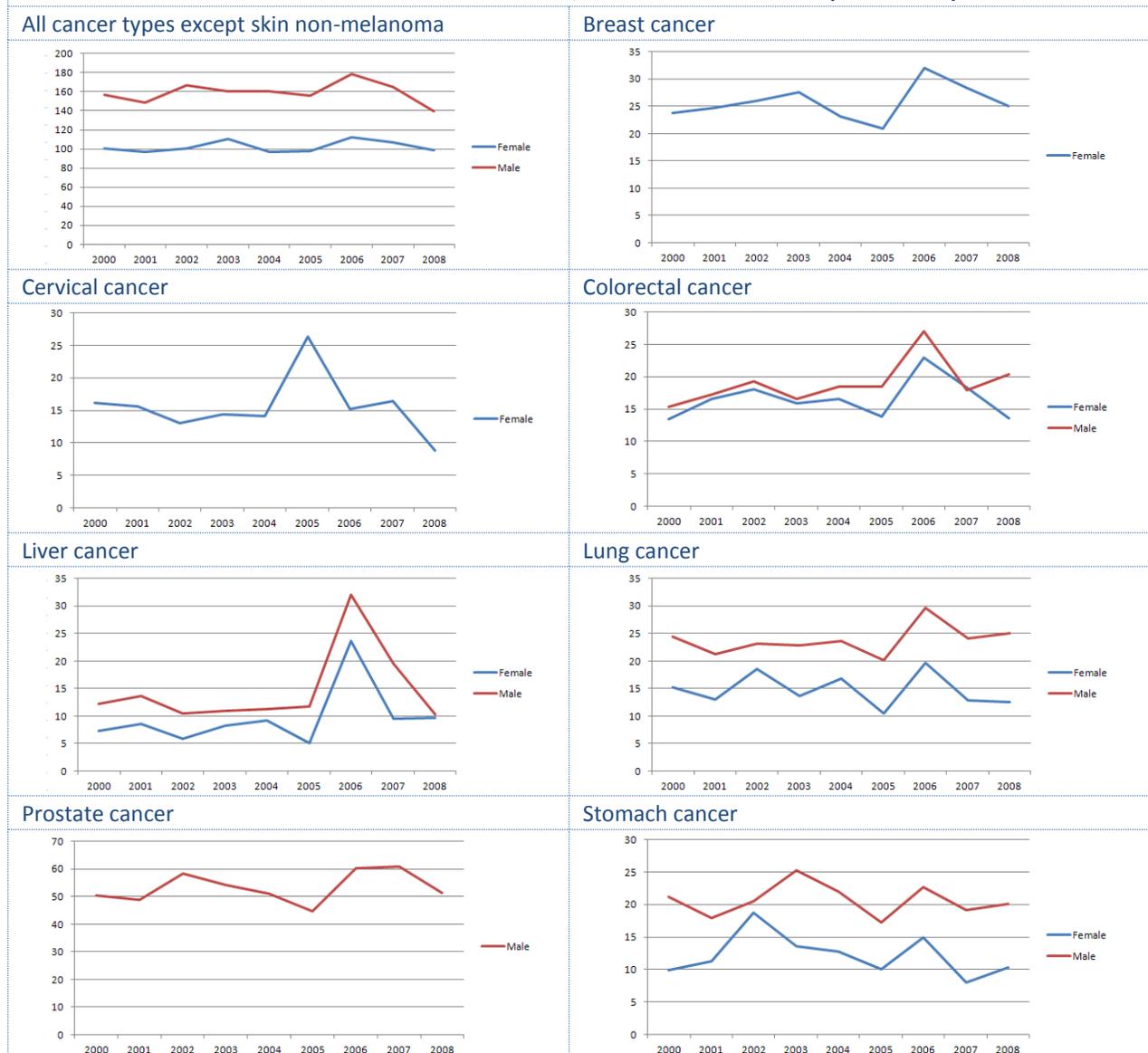
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁵ Caribbean Islands[‡]

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2009
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2012

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 49% of the final price
Health warning labels about the dangers of tobacco?	No warnings or small warnings
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2009)
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2000/2m-4m-6m
Estimated 3-dose coverage (2012)	87%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁸		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	3.5	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	1	Appears in the national list of essential medicines?	Yes
Radiation oncologists	1	Opioid consumption⁹	
Medical physicists	1	Total morphine equivalence, per capita	...
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

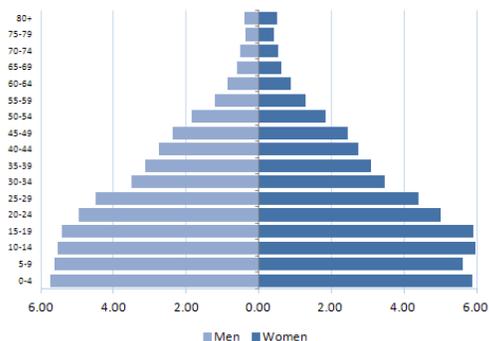
Notes: ...: Information not available; N/A: Not applicable; m: months.

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- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (9) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

BELIZE

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 317,900
- **Average annual deaths:** 1,200
- **Life expectancy at birth (years):**
Total: 76 Male: 75 Female: 78
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 3,740

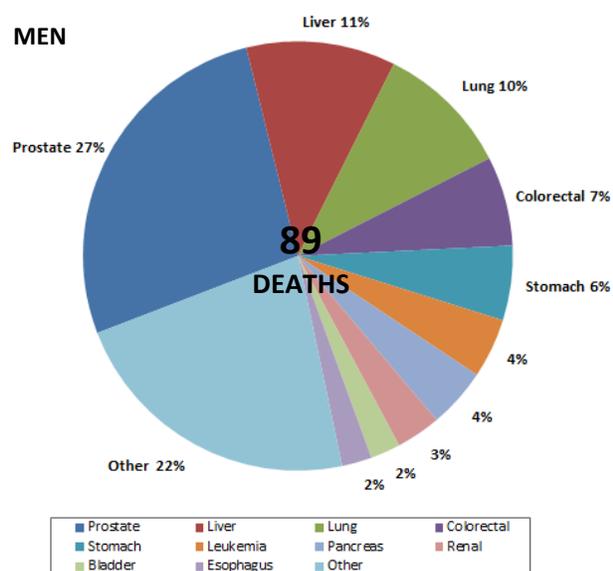
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	12.0	22.0	2.0
Current use of any tobacco product among youth ²	18.3	21.8	15.3
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	35.4	51.2	19.4
Low physical activity in adults ^{1,c}	42.7	40.4	45.0
Obesity among adults (BMI ≥30) ¹	37.9	26.7	48.8
HPV prevalence (women with normal cytology) ⁴	...	...	10.1

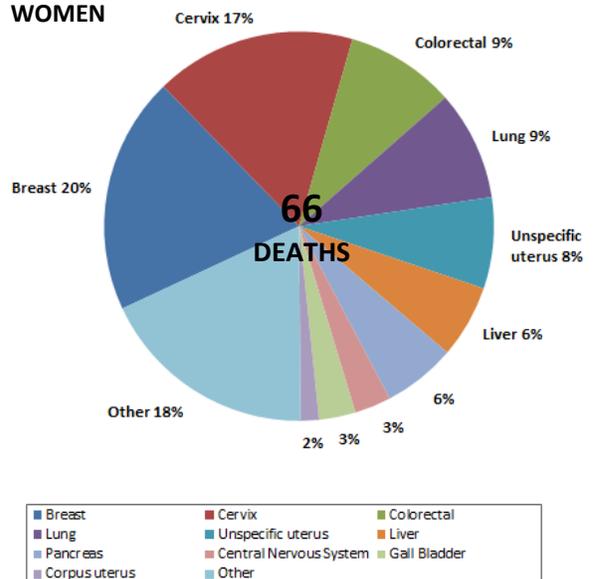
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁵

MEN

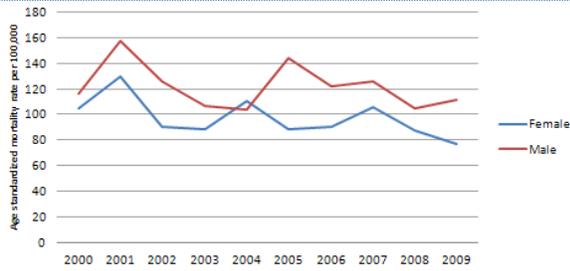


WOMEN

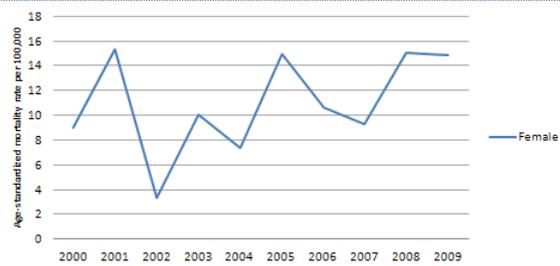


AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁵

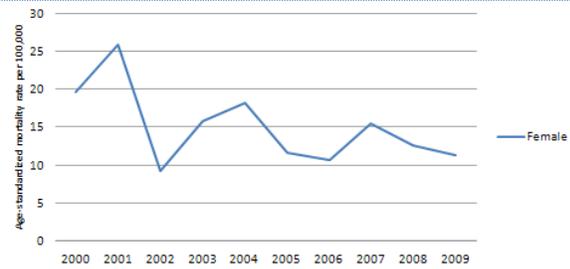
All cancer types except skin non-melanoma



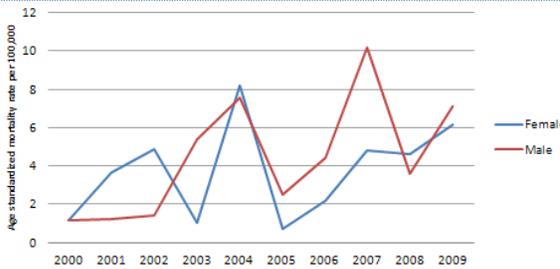
Breast cancer



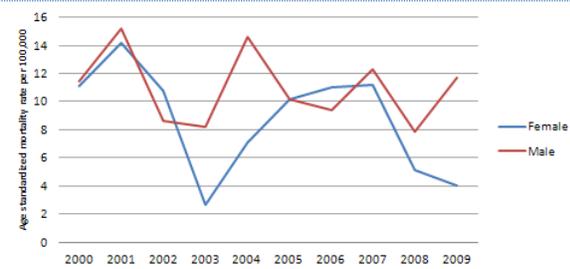
Cervical cancer



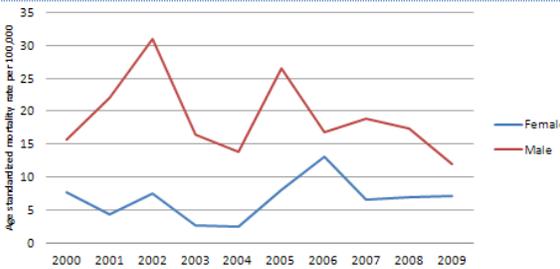
Colorectal cancer



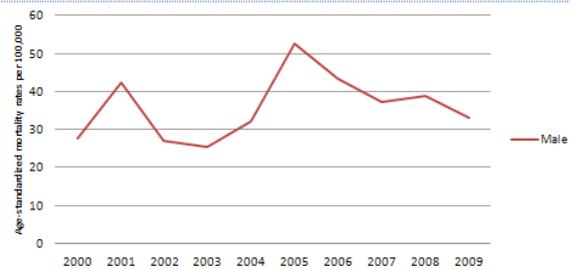
Liver cancer



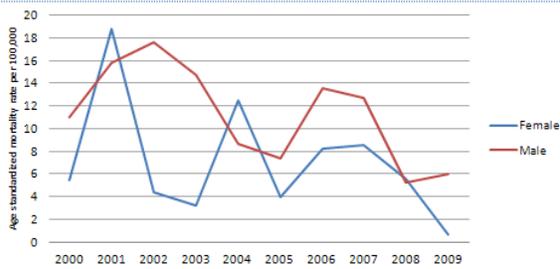
Lung cancer



Prostate cancer



Stomach cancer



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁵

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	89	112.25	-1.91
	Female	66	77.14	-2.94
Breast cancer		13	14.85	-
Cervical cancer		11	11.29	-
Colorectal cancer	Male	6	7.51	-
	Female	6	6.55	-
Liver cancer	Male	10	12.13	-
	Female	4	4.39	-
Lung cancer	Male	9	12.27	-
	Female	6	7.46	-
Prostate cancer		24	33.05	-
Stomach cancer	Male	5	6.39	-
	Female	1	1.04	-

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Under development
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 21% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Under development
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2000/2m-4m-6m; >12 years
Estimated 3-dose coverage (2012)	98%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	
	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	
	Generally not available in the public sector/ Information not known for the private sector
Screening coverage	
	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammogram⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption¹⁰	
Medical physicists	...	Total morphine equivalence, per capita	...
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally not available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

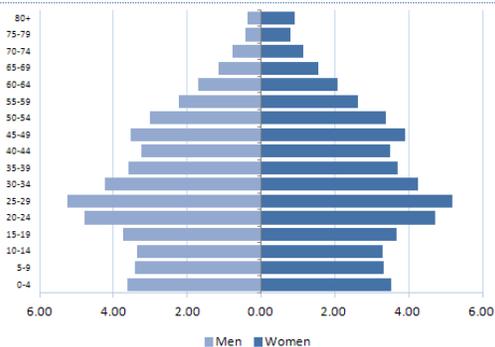
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhuqZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) Markowitz LE et al. Vaccine. 2012 Nov 20; 30 Suppl 5:F139-48.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Year of introduction-- Country Reports to PAHO/WHO; Schedules--PAHO/WHO Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Coverage--PAHO/WHO Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (10) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

DOMINICA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 73,100
- **Average annual deaths:** 600
- **Life expectancy at birth (years):**
Total: 76 Male: 73 Female: 79
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 4,900

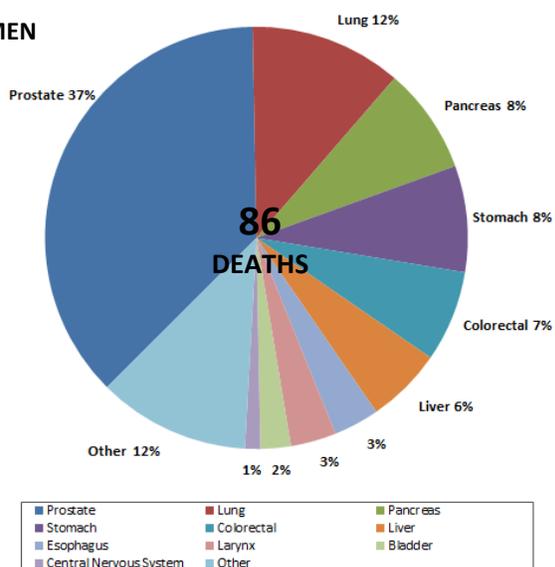
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	8.0	11.0	4.0
Current use of any tobacco product among youth ²	25.3	30.4	19.8
Fruit and vegetable intake in adults ^{1,b}	8.7	8.9	7.4
Alcohol consumers, past 12 months ³	59.0	71.6	46.8
Low physical activity in adults ^{1,b}	24.0	14.5	34.3
Obesity among adults (BMI ≥ 30) ¹	20.2	8.6	32.7
HPV prevalence (women with normal cytology) ⁴	...	...	...

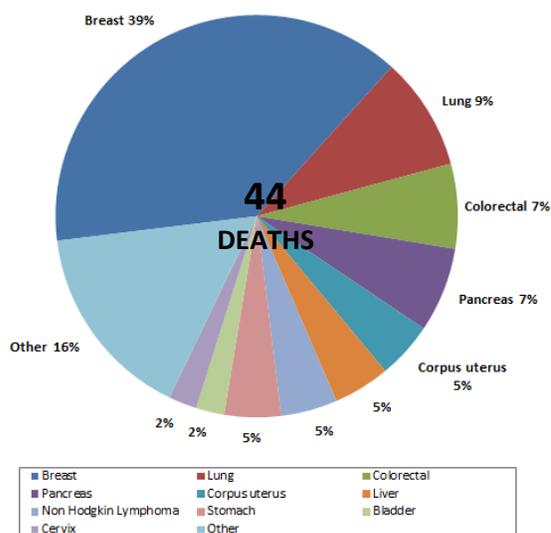
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

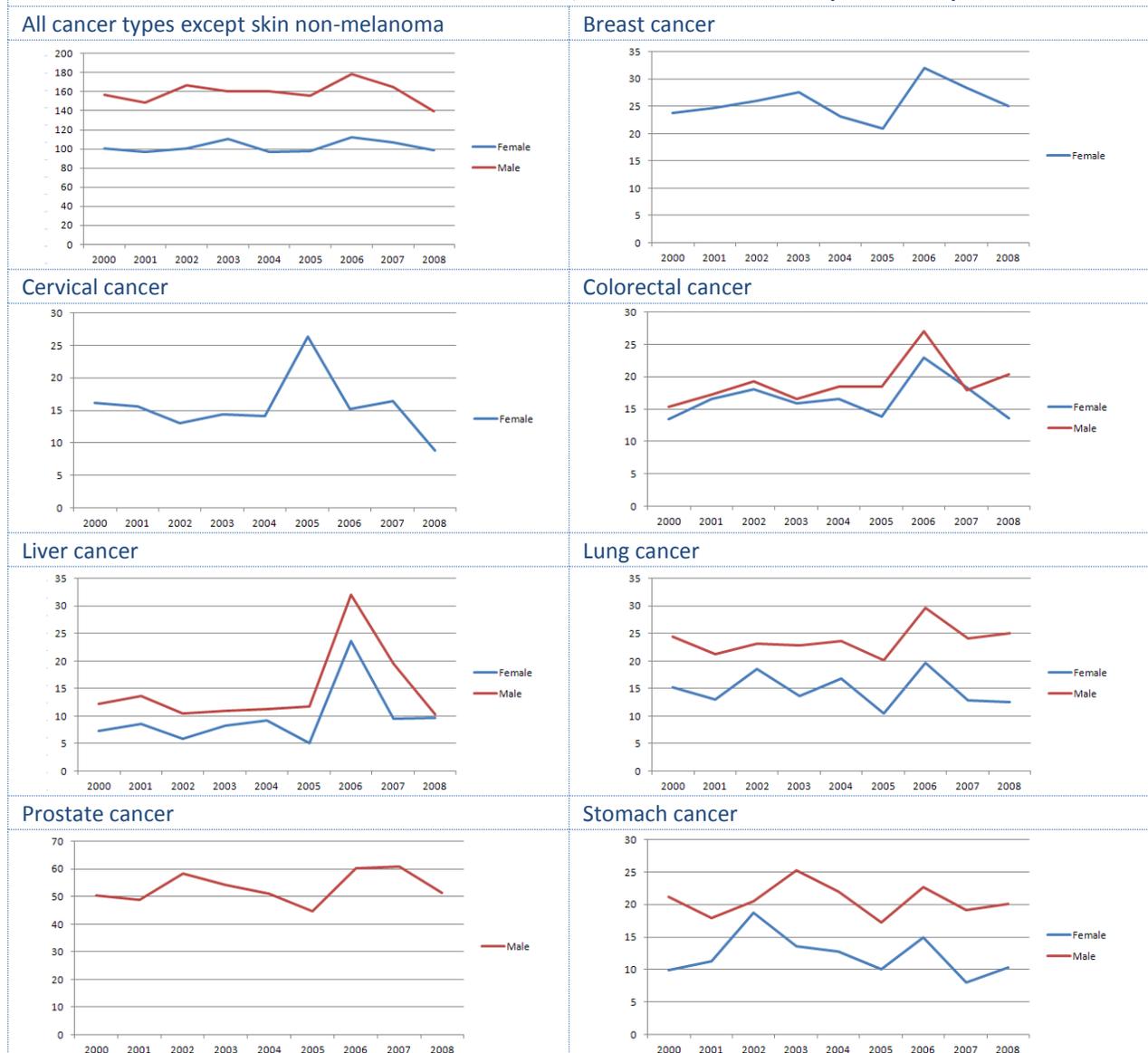
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁵ Caribbean Islands[‡]

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 23% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2006/2m-4m-6m; 3 doses at risk groups*
Estimated 3-dose coverage (2012)	74%

Note: *: administered to health workers, infants of HIV+ mothers, and infants of Hepatitis B+ mothers.

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁸		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption⁹	
Medical physicists	...	Total morphine equivalence, per capita	2.47
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

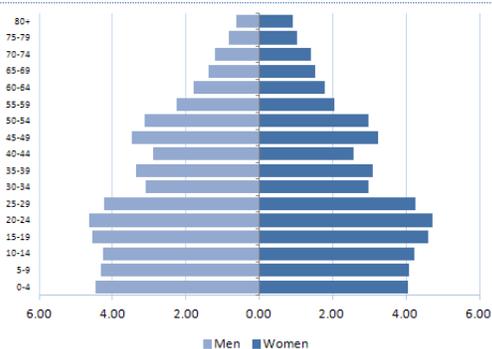
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
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- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (9) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

GRENADA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 108,400
- **Average annual deaths:** 900
- **Life expectancy at birth (years):**
Total: 73 Male: 71 Female: 76
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 5,580

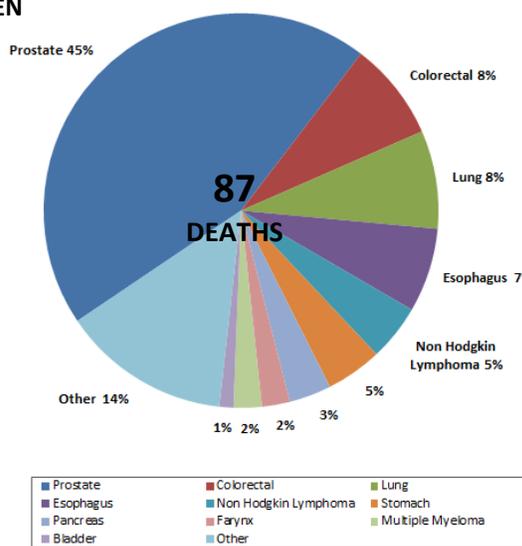
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	18.6	30.3	6.5
Current use of any tobacco product among youth ²	20.5	24.5	16.7
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	...	...	...
HPV prevalence (women with normal cytology) ⁴	...	...	...

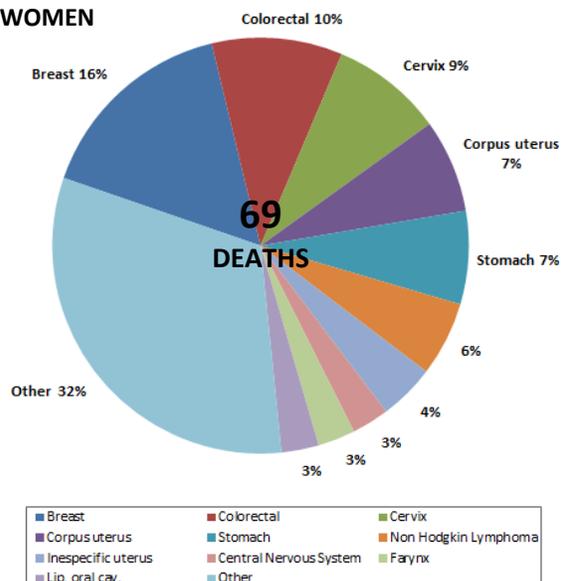
Notes: a: Adults aged 25-64 years; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

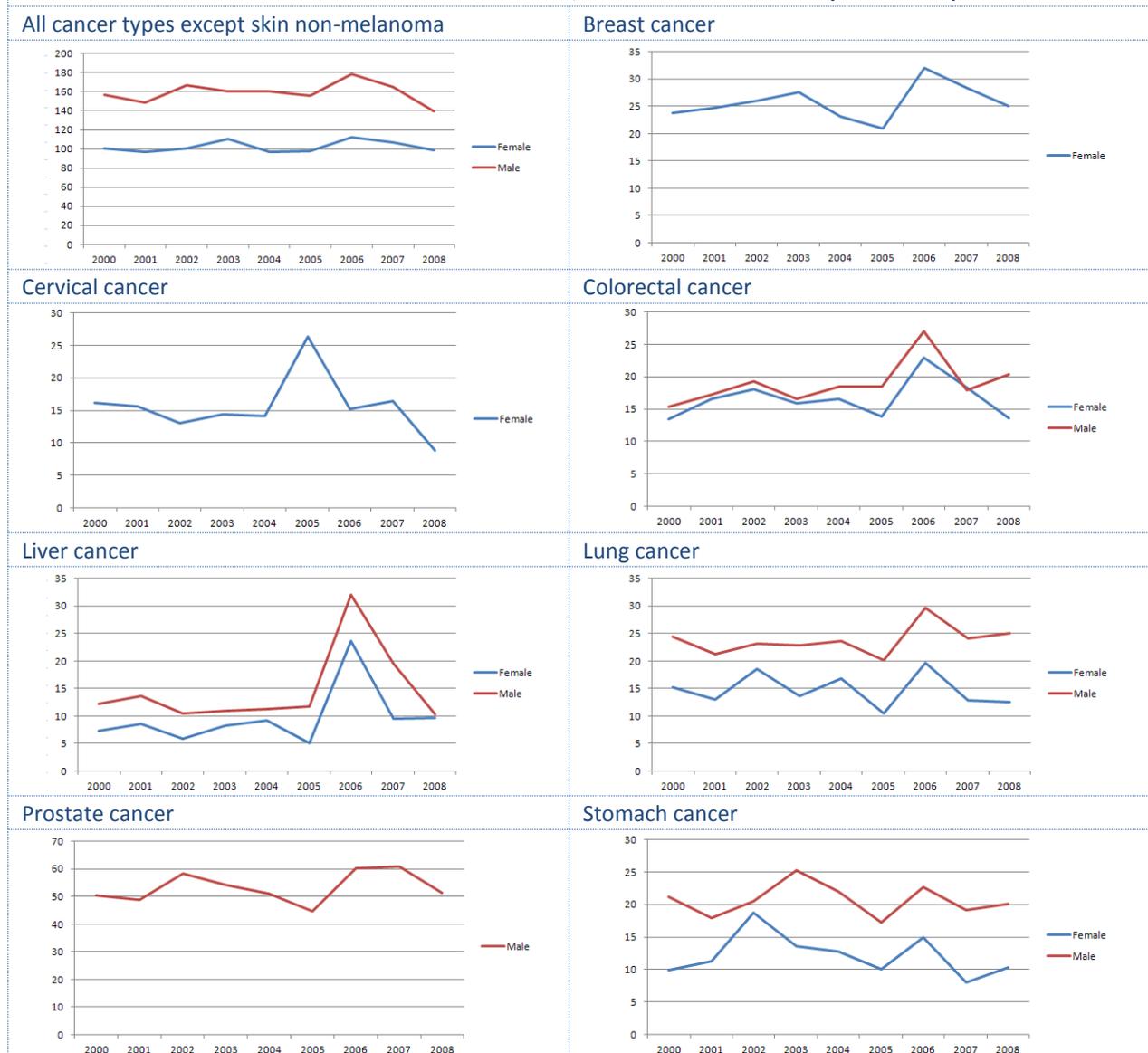
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008) ⁵ Caribbean Islands [‡]				
Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
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Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	No
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Data not reported
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2000/6-8w, 16-20w, 24-28w; risk groups and health care workers
Estimated 3-dose coverage (2011)	97%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage	...

CANCER SCREENING

Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammogram⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy ⁸		Oral morphine ⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption⁹	
Medical physicists	...	Total morphine equivalence, per capita	0.8
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

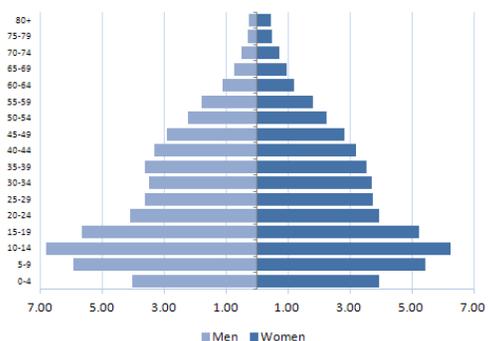
Notes: ...: Information not available; N/A: Not applicable; w: weeks.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (9) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

GUYANA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 756,000
- **Average annual deaths:** 4,400
- **Life expectancy at birth (years):**
Total: 70 Male: 67 Female: 73
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 2,660

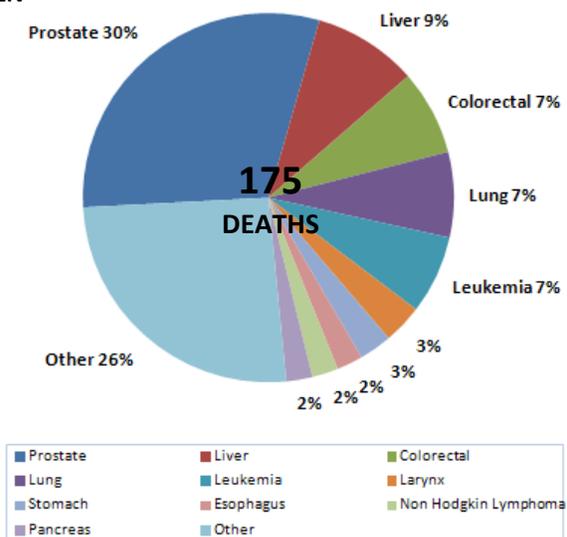
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	16.0	27.0	6.0
Current use of any tobacco product among youth ²	21.9	25.3	16.0
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,b}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	22.4	14.3	26.9
HPV prevalence (women with normal cytology)	...	...	...

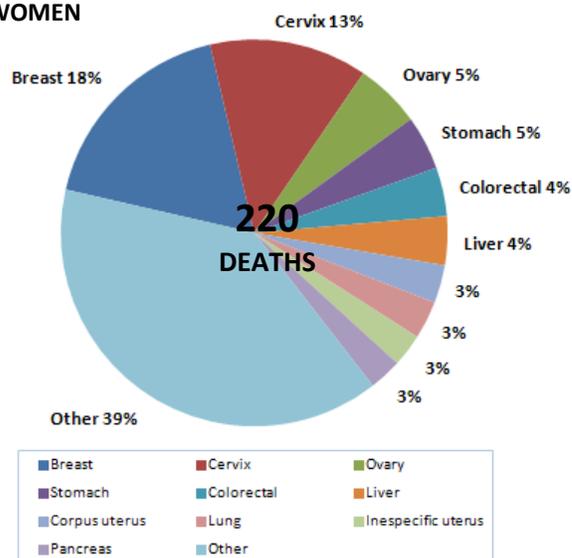
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁴

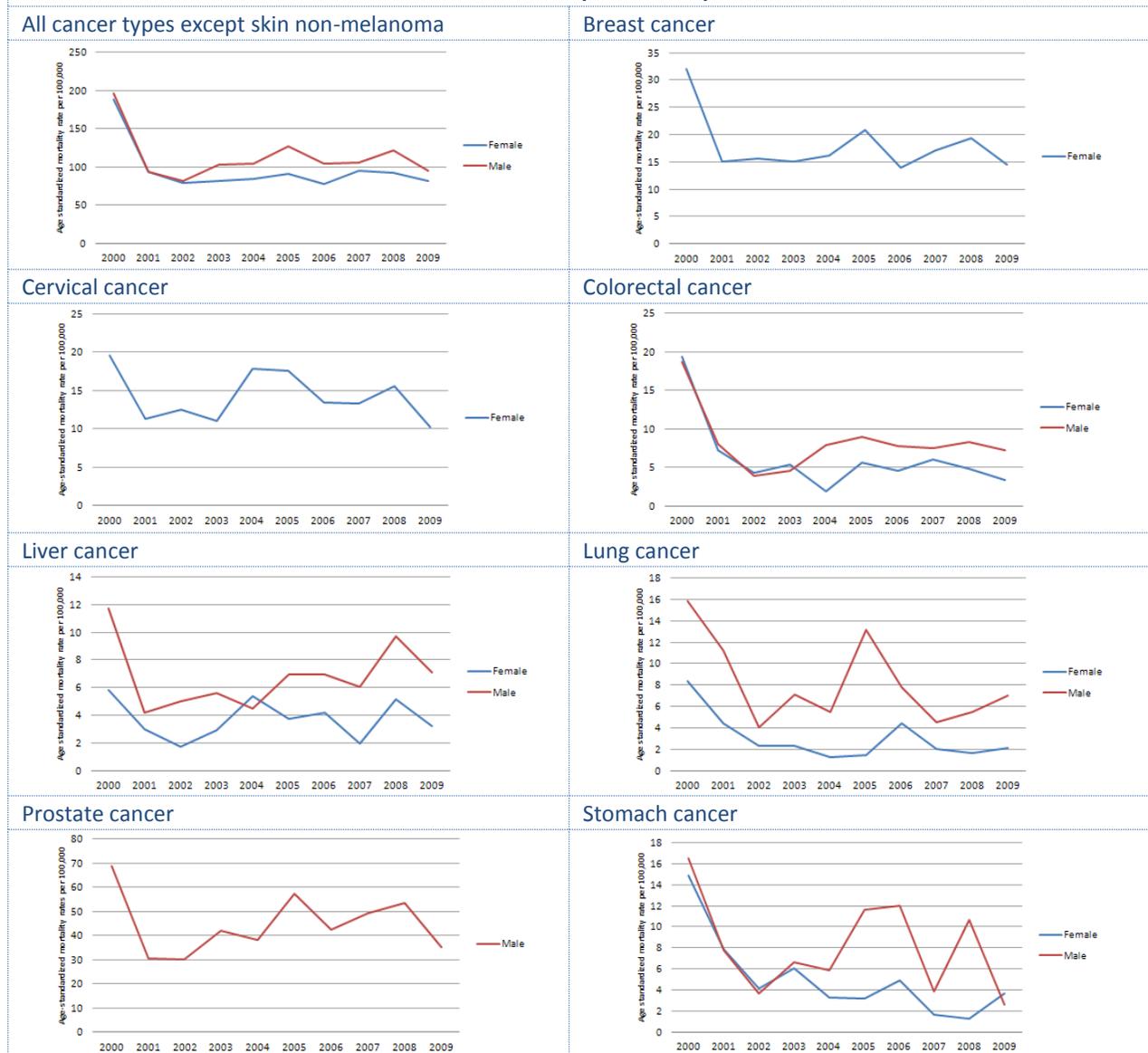
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁴



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁴

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	175	95.39	-1.88
	Female	220	81.92	-6.8*
Breast cancer		39	14.57	-
Cervical cancer		29	10.22	-
Colorectal cancer	Male	13	7.63	-
	Female	9	3.71	-
Liver cancer	Male	16	7.47	-
	Female	9	3.61	-
Lung cancer	Male	13	7.46	-
	Female	7	2.49	-
Prostate cancer		53	35.18	-
Stomach cancer	Male	5	2.96	-
	Female	10	4.05	-

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁵

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry⁶	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Population-based
Last year with available data	...

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Three to five types of public places completely smoke-free
Raised taxes on tobacco?	30% of retail price is tax
Health warning labels about the dangers of tobacco?	No warnings or small warnings
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁵	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	...
Harmful use of alcohol prevention and control⁵	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	...
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	2012/10-13/Schools and health clinics
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2001/2m-4m-6m; risk groups
Estimated 3-dose coverage (2012)	97%

CANCER SCREENING

Cervical cancer	
Guidelines⁷	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	VIA/women aged 25-49 years/every 5 years
Availability and coverage of screening services	
Cervical cytology⁵	Generally available in the public sector
Visual inspection with acetic acid⁵	Generally available in the public sector
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁵	Generally available in the public sector
Mammography⁵	Generally not available in the public sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁵	Generally not available in the public sector
Exam or colonoscopy⁵	Generally not available in the public sector
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁹		Oral morphine⁵	
Availability of services in the public health sector? ⁵	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.3	Covered by health insurance or publically funded?	...
Total radiotherapy centers	1.3	Appears in the national list of essential medicines?	...
Radiation oncologists	...	Opioid consumption¹⁰	
Medical physicists	...	Total morphine equivalence, per capita	1.58
Chemotherapy⁵		Community/home care⁵	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally not available

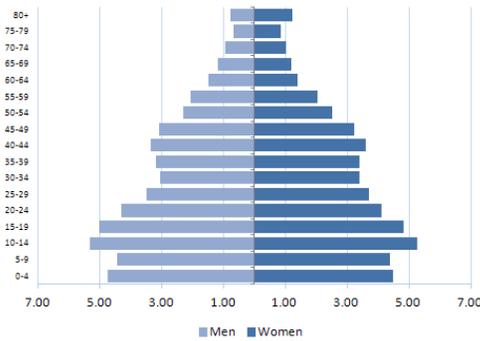
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) PAHO/WHO Mortality Database, 2012.
- (5) Pan American Health Organization. Country Profiles on NonCommunicable Diseases. Washington, D.C.: 2012, retrieved August 28, 2013, from <http://bit.ly/15RoQrB>.
- (6) Plummer W., Persaud P., Layne P. Ethnicity and cancer in Guyana, South America. *Infectious Agents and Cancer* 2009, 4(Suppl 1):S7.
- (7) PAHO/WHO Survey of Caribbean Cervical Cancer Program Managers, 2013. unpublished
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (9) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (10) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

JAMAICA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 2,751,300
- **Average annual deaths:** 19,900
- **Life expectancy at birth (years):**
Total: 73 Male: 71 Female: 76
- **Adult literacy rate:** 86.4%
- **Gross national income US\$ per capita:** 4,590

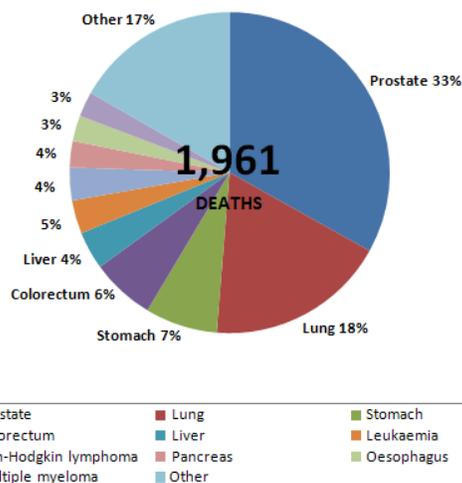
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	14.5	22.1	7.2
Current use of any tobacco product among youth ²	28.7	31.3	24.6
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	43.0	56.2	30.6
Low physical activity in adults ^{1,c}	15.7	12.2	19.2
Obesity among adults (BMI ≥ 30) ¹	25.3	12.4	37.7
HPV prevalence (women with normal cytology) ⁴	...	...	54.0

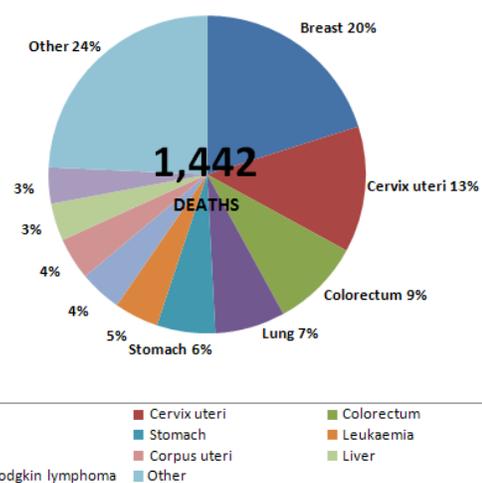
Notes: a: adults aged 15-74 years; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2012)⁵

MEN



WOMEN



*Note: Mortality data for Jamaica are not available to PAHO, thus a mortality trend analysis was not possible.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Under development
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	Subnational
Type of registry (population vs. hospital based)?	Population based
Last year with available data	2007

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	All public places are completely smoke-free
Raised taxes on tobacco?	Taxes are 46% of the final price
Health warning labels about the dangers of tobacco?	Large warnings with all appropriate features
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Under development
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2003/6weeks, 3m, 5-6m
Estimated 3-dose coverage (calendar year)	96%

CANCER SCREENING

Cervical cancer	
Guidelines⁸	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/25-54 years of age/every 3 years after 2 consecutive normal annual Pap tests
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally not available in the public and the private sectors
Screening coverage⁸	42.3% of women aged 25-64 years with a Pap in the last 2 years (2008)

CANCER SCREENING

Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally not available in the public sector and generally available in the private sector
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE

Radiotherapy ⁹		Oral morphine ⁶	
Availability of services in the public health sector? ⁶	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	1.1	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	3	Appears in the national list of essential medicines?	No
Radiation oncologists	4	Opioid consumption ¹⁰	
Medical physicists	5	Total morphine equivalence, per capita	3.79
Chemotherapy ⁶		Community/home care ⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

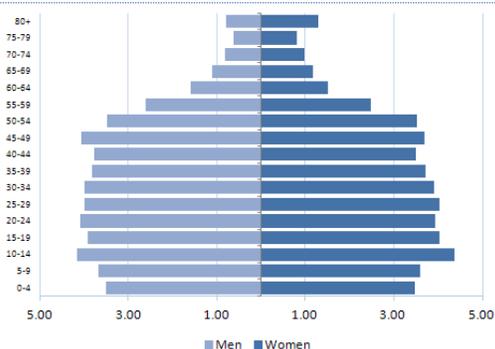
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28,2013, from <http://bit.ly/17zhuqZ>.
- (4) Lewis-Bell K et al. Genital human papillomaviruses among women of reproductive age in Jamaica. Rev Panam Salud Publica. 2013 Mar;33(3):159-65.
- (5) Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray, F. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013, retrieved February 20,2014 from <http://globocan.iarc.fr>.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) PAHO/WHO. Survey of English Caribbean Cervical Cancer Programs, 2013. unpublished.
- (9) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (10) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

SAINT KITTS AND NEVIS

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 50,300
- **Average annual deaths:** 400
- **Life expectancy at birth (years):**
Total: 75 Male: 72 Female: 77
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 10,150

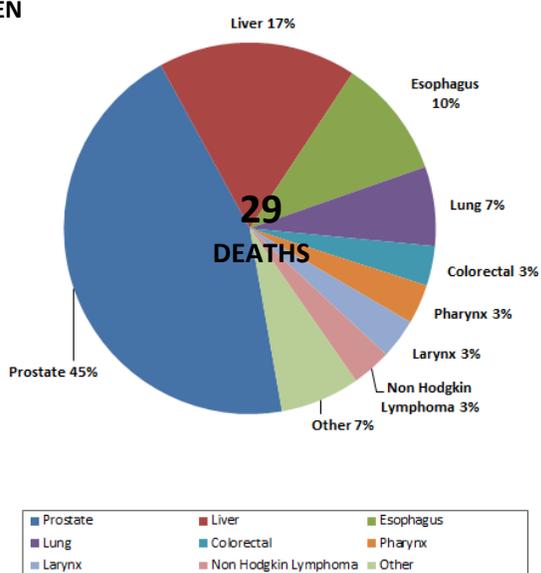
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	7.0	12.0	3.0
Current use of any tobacco product among youth ²	9.2	10.4	7.8
Fruit and vegetable intake in adults ^{1,b}	2.7	2.4	3.0
Alcohol consumers, past 12 months ³	47.1	27.8	35.0
Low physical activity in adults ^{1,c}	38.3	28.3	48.5
Obesity among adults (BMI ≥30) ¹	45.0	37.9	52.5
HPV prevalence (women with normal cytology) ⁴	...	...	...

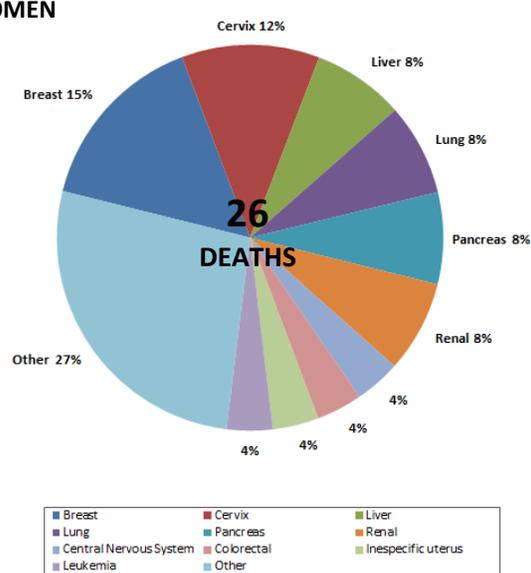
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+), 2011, Subnational data from WHO Steps; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2010)⁵

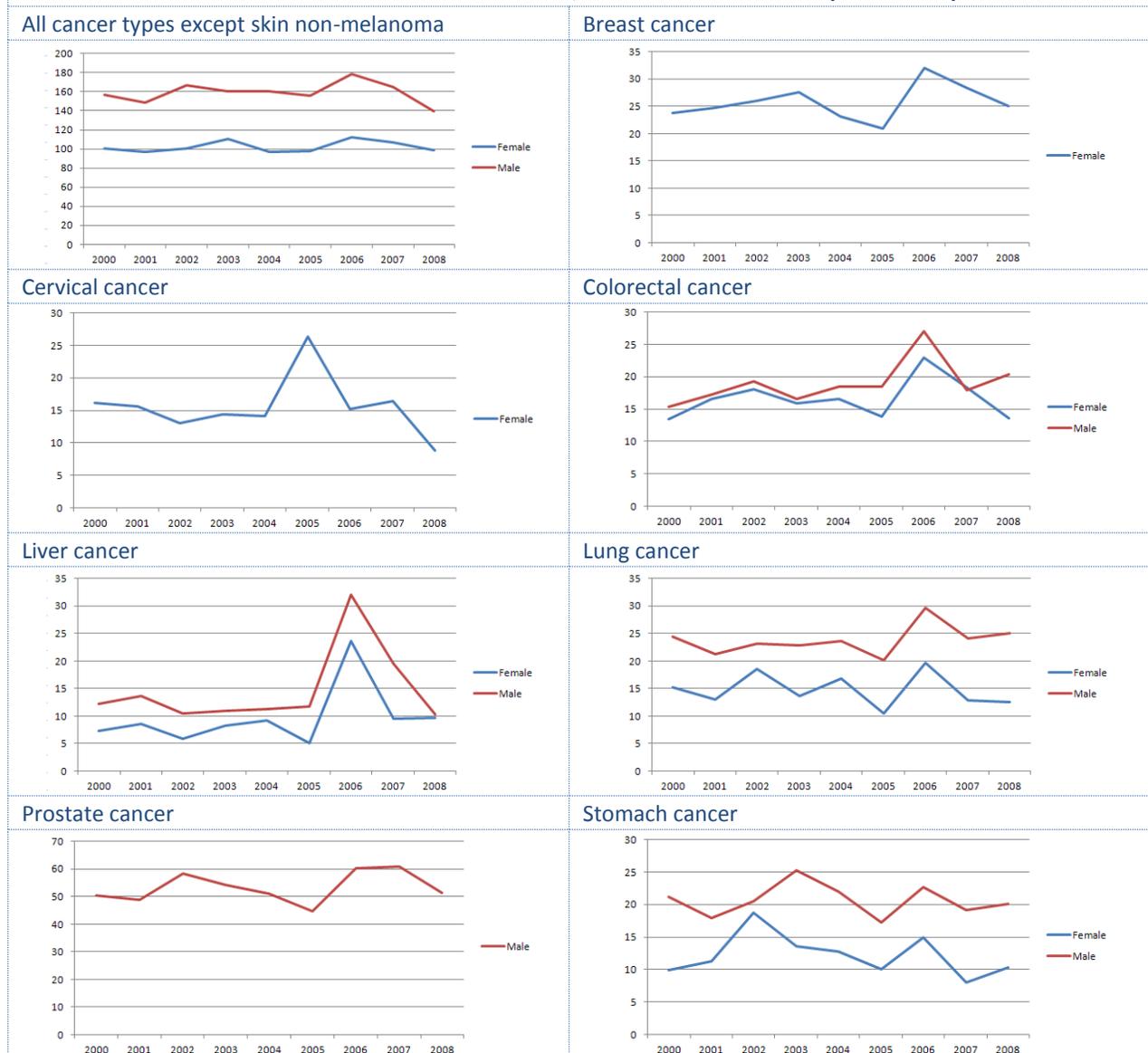
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁵ English Caribbean Islands[‡]

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percentage change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	No
Is cancer included in the overall NCD plan?	N/A
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	No
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 20% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	1997/2m-4m-6m; risk groups
Estimated 3-dose coverage (2011)	98%

CANCER SCREENING

Cervical cancer	
Guidelines⁸	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap/All sexually active women/Every 3 years after 2 consecutive negative annual Pap tests
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage⁸	80% of women ever sexually active

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁹		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption¹⁰	
Medical physicists	...	Total morphine equivalence, per capita	...
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally not available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

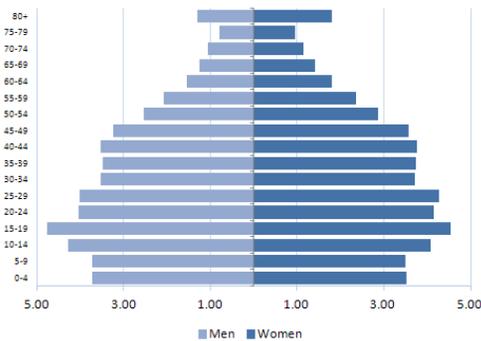
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Centre on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>
- (8) PAHO/WHO Survey of Caribbean Cervical Cancer Program Managers, 2013. unpublished
- (9) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (10) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

SAINT LUCIA

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 161,600
- **Average annual deaths:** 1,100
- **Life expectancy at birth (years):**
Total: 77 Male: 74 Female: 80
- **Adult literacy rate:** ...
- **Gross national income US\$ per capita:** 5,190

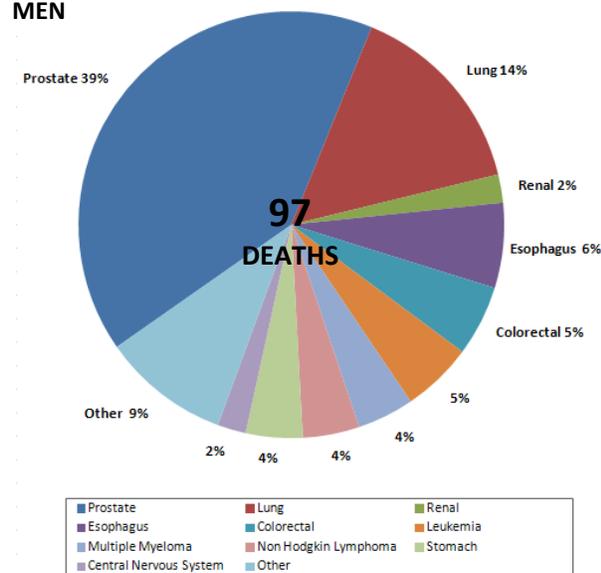
RISK FACTORS

Prevalence (%) of:	Total (%)	Males (%)	Females (%)
Current tobacco smokers among adults ^{2,a}	...	...	...
Current use of any tobacco product among youth ²	20.7	24.5	17.3
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ³	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	22.3	11.9	31.9
HPV prevalence (women with normal cytology) ⁴	...	...	...

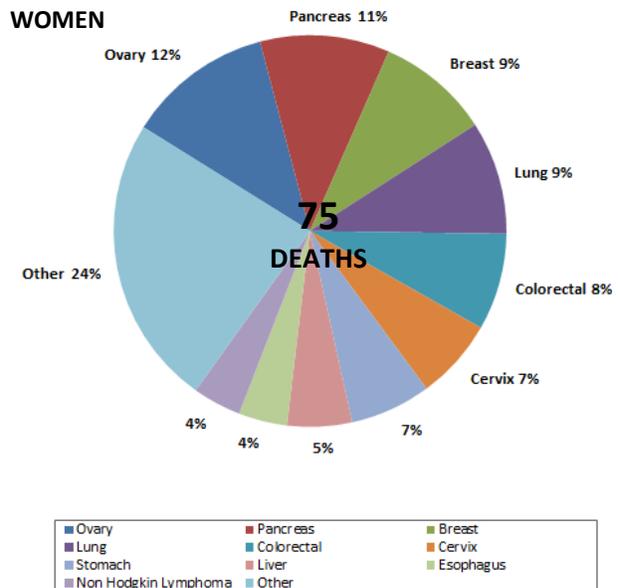
Notes: a: age-standardized prevalence of tobacco smoking in adults (15 years+); b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2008)⁵

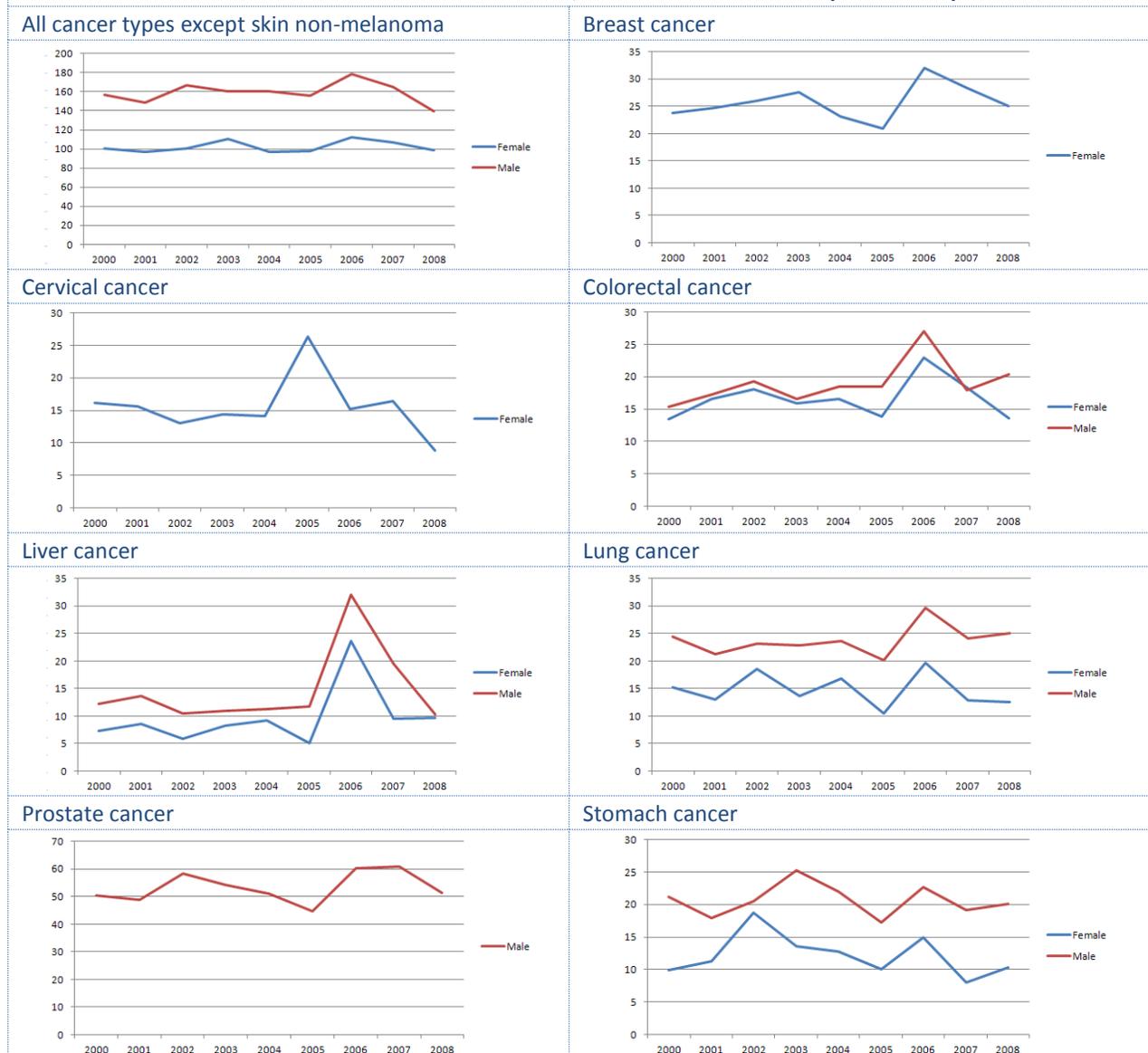
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS, CARIBBEAN ISLANDS[‡] (2000-2008)⁵



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁵ Caribbean Islands[‡]

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	1,756	139.49	-0.07
	Female	1,452	98.93	0.57
Breast cancer		286	25.05	1.27
Cervical cancer		78	8.81	-2.26
Colorectal cancer	Male	160	20.33	3.40
	Female	137	13.64	1.19
Liver cancer	Male	51	10.23	4.59
	Female	39	9.69	6.32
Lung cancer	Male	178	25.11	1.44
	Female	90	12.51	-1.58
Prostate cancer		556	51.35	1.00
Stomach cancer	Male	107	20.05	-0.33
	Female	81	10.37	-2.63

Notes: ‡: For this analysis, Caribbean Islands include those countries with very small numbers of annual cancer deaths and which required grouping together to enable trend analysis: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Dominica, French Guyana, Grenada, Guadalupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Turks and Caicos Islands, Virgin Islands (UK) and Virgin Islands (USA); ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁶

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Under development
Is cancer included in the overall NCD plan?	Yes
First year of implementation	N/A
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Under development
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	No
Scope (national vs. subnational)?	N/A
Type of registry (population vs. hospital based)?	N/A
Last year with available data	N/A

CANCER PRIMARY PREVENTION POLICIES

Tobacco control²	
Smoke free environments?	Up to two types of public places completely smoke-free
Raised taxes on tobacco?	Taxes are 20% of the final price
Health warning labels about the dangers of tobacco?	No warning or small warning
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁶	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Under development
Harmful use of alcohol prevention and control⁶	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	Under development
HPV vaccination in national immunization program?⁷	
Year of introduction/target age group/delivery strategy	N/A
Estimated 3-dose coverage (calendar year)	N/A
HBV vaccination in national immunization program?⁷	
Year of introduction/target age group	2002/3m-5m-7m
Estimated 3-dose coverage (2011)	100%

CANCER SCREENING

Cervical cancer	
Guidelines	
Are there cervical cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Cervical cytology⁶	Generally available in the public and the private sectors
Visual inspection with acetic acid⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁶	Generally available in the public and the private sectors
Mammography⁶	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁶	Generally available in the public and the private sectors
Exam or colonoscopy⁶	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy⁸		Oral morphine⁶	
Availability of services in the public health sector? ⁶	Generally not available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	...	Covered by health insurance or publically funded?	No
Total radiotherapy centers	...	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption⁹	
Medical physicists	...	Total morphine equivalence, per capita	3.88
Chemotherapy⁶		Community/home care⁶	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

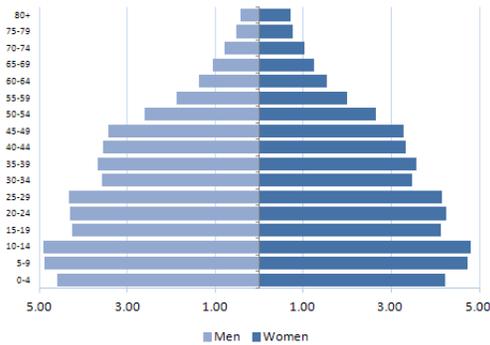
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (3) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (4) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (5) PAHO/WHO Mortality Database, 2012.
- (6) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (7) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>.
- (8) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www-naweb.iaea.org/nahu/dirac/>.
- (9) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

SURINAME

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 529,400
- **Average annual deaths:** 3,800
- **Life expectancy at birth (years):**
Total: 71 Male: 68 Female: 74
- **Adult literacy rate:** 94.6%
- **Gross national income US\$ per capita:** 4,760

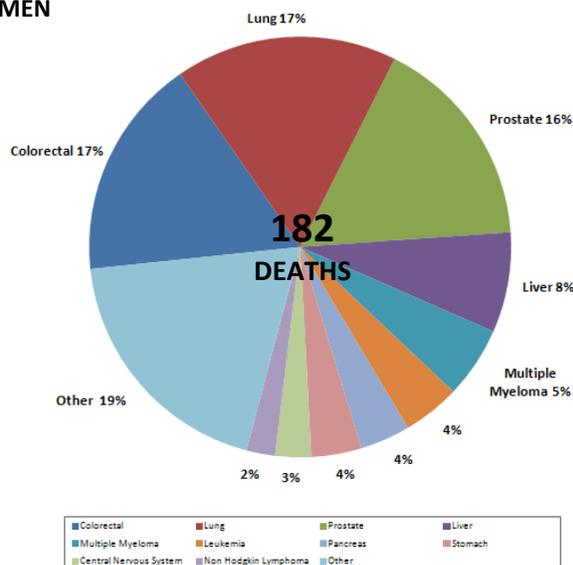
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	...	38.4	9.9
Current use of any tobacco product among youth ³	19.2	20.7	16.6
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ⁴	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥ 30) ¹	25.8	16.5	34.6
HPV prevalence (women with normal cytology) ⁵	...	...	...

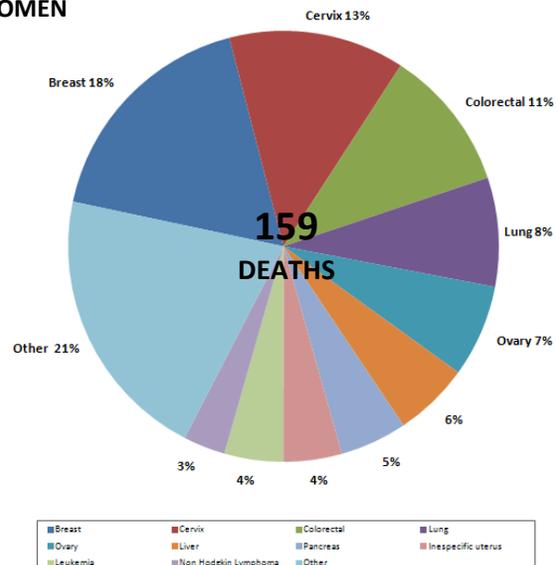
Notes: a: adults aged 12-65 years; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2009)⁶

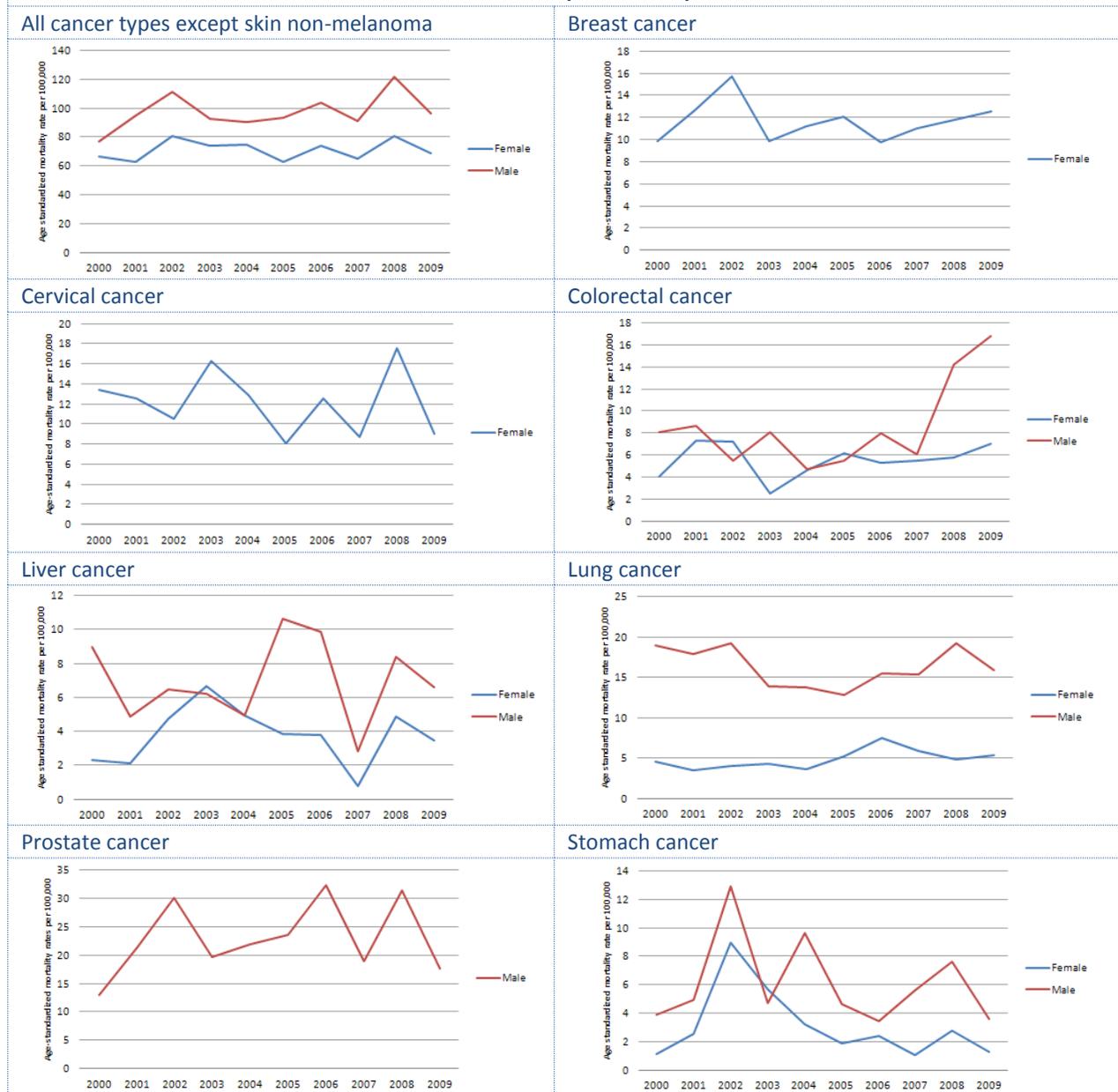
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2009)⁶



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2009)⁶

Cancer type	Sex	Number of deaths (2009)	ASMR (2009)	AAPC
All cancer types	Male	182	96.69	1.89
	Female	159	68.99	0.48
Breast cancer		28	12.53	-
Cervical cancer		21	8.99	-
Colorectal cancer	Male	31	17.16	-
	Female	17	7.40	-
Liver cancer	Male	14	7.03	-
	Female	9	3.89	-
Lung cancer	Male	31	16.26	-
	Female	13	5.77	-
Prostate cancer		30	17.56	-
Stomach cancer	Male	7	3.97	-
	Female	4	1.69	-

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁷

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2012
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Not in effect
First year of implementation	N/A
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Other
Last year with available data	2012

CANCER PRIMARY PREVENTION POLICIES

Tobacco control³	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 61% of the final price
Health warning labels about the dangers of tobacco?	Large warnings with all appropriate features (pending regulation and/or implementation)
Bans on tobacco advertising, promotion and sponsorship?	Ban on all forms of direct and indirect advertising
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	No
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	2013/.../...
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁸	
Year of introduction/target age group	2003/newborn-2m-4m-6m; risk groups
Estimated 3-dose coverage (2012)	84%

CANCER SCREENING

Cervical cancer	
Guidelines⁹	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/postmenopausal women/every 2 years VIA/23-55 years of age/every 2 years
Availability and coverage of screening services	
Cervical cytology⁷	Generally available in the public and the private sectors
Visual inspection with acetic acid⁷	Generally available in the public and the private sectors
Screening coverage⁹	<15% of target population

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁷	Generally available in the public and the private sectors
Mammography⁷	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁷	Generally available in the public and the private sectors
Exam or colonoscopy⁷	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹⁰		Oral morphine⁷	
Availability of services in the public health sector? ⁷	Generally available	Availability in the public health sector?	Generally available
Total energy teletherapy units/million inhabitants	1.9	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	1	Appears in the national list of essential medicines?	Yes
Radiation oncologists	...	Opioid consumption¹¹	
Medical physicists	...	Total morphine equivalence, per capita	...
Chemotherapy⁷		Community/home care⁷	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

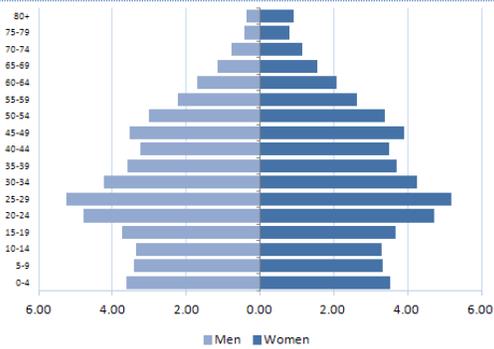
Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
- (4) WHO. Global Information System on Alcohol and Health, retrieved August 28, 2013, from <http://bit.ly/17zhugZ>.
- (5) ICO. Information Center on HPV and Cancer, retrieved August 28, 2013, from <http://www.hpvcentre.net/>.
- (6) PAHO/WHO Mortality Database, 2012.
- (7) PAHO/WHO Survey on National Capacity for the Prevention and Control of Non-communicable Diseases, 2013.
- (8) PAHO/WHO Comprehensive Family Immunization Unit. Immunization Country Profiles, retrieved August 28, 2013, from <http://bit.ly/1dn4Td3>; Immunization Reported Coverage in the Americas, by vaccine, retrieved August 28, 2013 from <http://bit.ly/1dn59ZK>
- (9) PAHO/WHO Survey of Caribbean Cervical Cancer Program Managers, 2013. unpublished
- (10) WHO/IAEA Directory of Radiotherapy Centers (DIRAC) Database, retrieved August 28, 2013 from <http://www.naweb.iaea.org/nahu/dirac/>.
- (11) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

TRINIDAD AND TOBAGO

SOCIODEMOGRAPHIC INDICATORS¹



- **Total population:** 1,346,100
- **Average annual deaths:** 11,000
- **Life expectancy at birth (years):**
Total: 70 Male: 68 Female: 74
- **Adult literacy rate:** 98.7%
- **Gross national income US\$ per capita:** 16,700

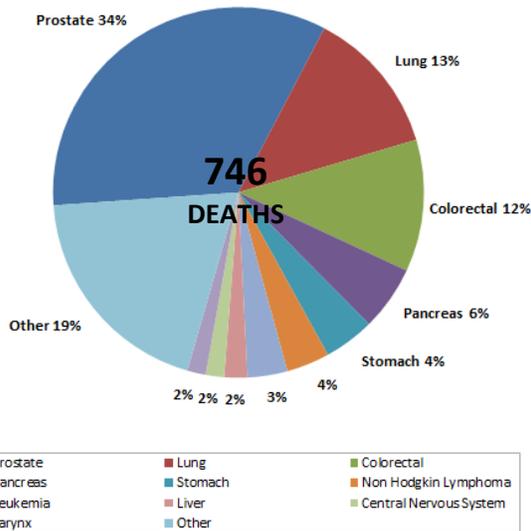
RISK FACTORS

Prevalence of:	Total (%)	Male (%)	Female (%)
Current tobacco smokers among adults ^{2,a}	21.1	33.5	9.4
Current use of any tobacco product among youth ³	18.4	20.0	16.3
Fruit and vegetable intake in adults ^{1,b}	...	...	...
Alcohol consumers, past 12 months ⁴	...	...	...
Low physical activity in adults ^{1,c}	...	...	...
Obesity among adults (BMI ≥30) ¹	30	21.6	38.0
HPV prevalence (women with normal cytology) ⁵	...	...	35.2

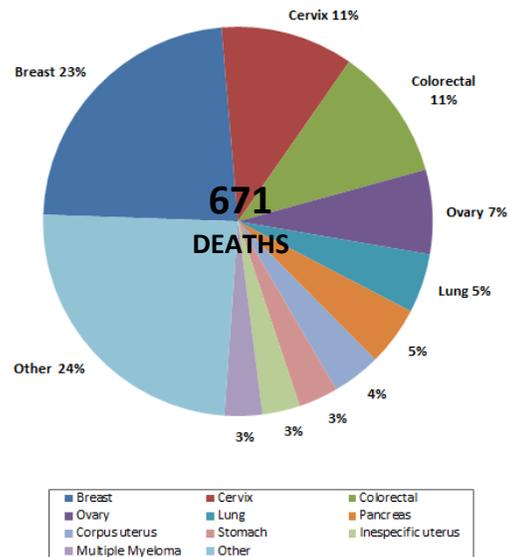
Notes: a: Adults aged 15-64 years; b: % who eat 5 or more servings of fruit and vegetables per day; c: % who are physically active for <600 met minutes; BMI: Body Mass Index; HPV: Human Papillomavirus.

CANCER MORTALITY PROFILE (2008)⁶

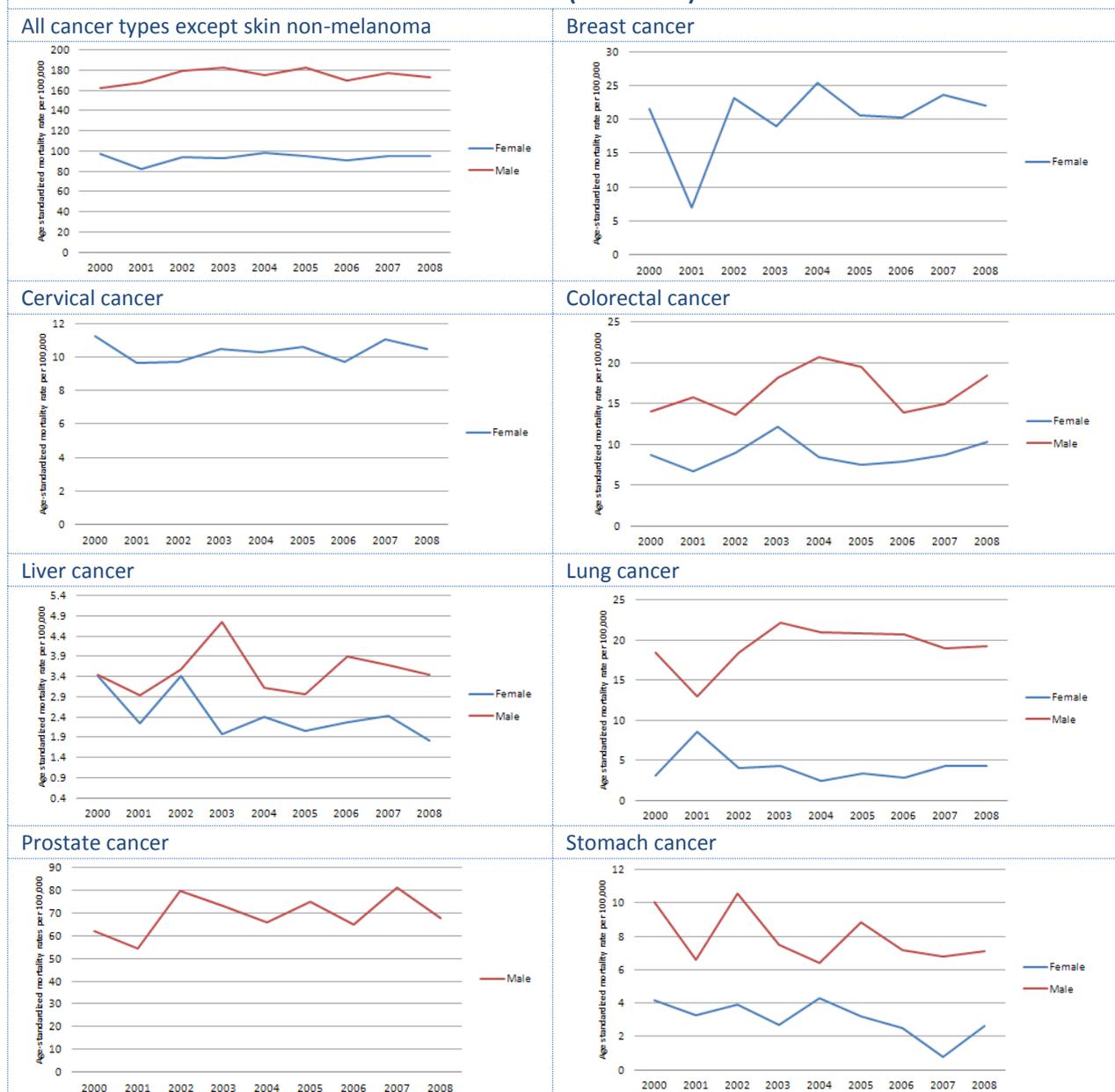
MEN



WOMEN



AGE-STANDARDIZED CANCER MORTALITY TRENDS (2000-2008)⁶



Average annual percent change (AAPC) of age-standardized mortality rates, by cancer type (2000-2008)⁶

Cancer type	Sex	Number of deaths (2008)	ASMR (2008)	AAPC
All cancer types	Male	746	173.32	0.51
	Female	671	95.49	0.54
Breast cancer		155	21.96	-
Cervical cancer		74	10.48	-
Colorectal cancer	Male	86	18.80	-
	Female	74	10.70	-
Liver cancer	Male	15	3.46	-
	Female	13	1.83	-
Lung cancer	Male	95	19.57	-
	Female	33	4.72	-
Prostate cancer		252	67.77	-
Stomach cancer	Male	33	7.48	-
	Female	22	3.05	-

Notes: ASMR: Age-standardized mortality rate; AAPC: Average annual percent change; *: The AAPC is significantly different from zero at p=0.05.

CANCER PLANS AND CANCER REGISTRATION⁷

National integrated NCD policy, strategy or action plan	
Is there a national integrated NCD policy, strategy or action plan?	Yes
Is cancer included in the overall NCD plan?	Yes
First year of implementation	2005
Cancer policy, strategy or action plan	
Is there a cancer policy, strategy or action plan?	Yes
First year of implementation	2009
Cancer registry	
Is there a cancer registry?	Yes
Scope (national vs. subnational)?	National
Type of registry (population vs. hospital based)?	Hospital based
Last year with available data	2011

CANCER PRIMARY PREVENTION POLICIES

Tobacco control³	
Smoke free environments?	All public spaces are completely smoke free
Raised taxes on tobacco?	Taxes are 33% of the final price
Health warning labels about the dangers of tobacco?	The law has not been regulated, with the information provided by the law it is impossible to classify
Bans on tobacco advertising, promotion and sponsorship?	Complete absence of ban, or ban does not cover national television, radio and print media
Overweight and obesity prevention and control⁷	
Is there a policy, strategy or action plan for reducing overweight/obesity? (First year of implementation)	Yes (2012)
Harmful use of alcohol prevention and control⁷	
Is there a policy, strategy or action plan for reducing harmful use of alcohol? (First year of implementation)	No
HPV vaccination in national immunization program?⁸	
Year of introduction/target age group/delivery strategy	2013/girls aged 11-12 years/schools
Estimated 3-dose coverage (calendar year)	...
HBV vaccination in national immunization program?⁹	
Year of introduction/target age group	2003/2m-4m-6m; risk groups
Estimated 3-dose coverage (2012)	92%

CANCER SCREENING

Cervical cancer	
Guidelines¹⁰	
Are there cervical cancer screening guidelines available?	Yes
Guideline recommendations (tests/age groups/frequency)	Pap test/all age groups/annual
Availability and coverage of screening services	
Cervical cytology⁷	Generally available in the public and the private sectors
Visual inspection with acetic acid⁷	Generally available in the public and the private sectors
Screening coverage	...

CANCER SCREENING	
Breast cancer	
Guidelines	
Are there breast cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Clinical breast examination⁷	Generally available in the public and the private sectors
Mammography⁷	Generally available in the public and the private sectors
Screening coverage	...
Colorectal cancer	
Guidelines	
Are there colorectal cancer screening guidelines available?	...
Guideline recommendations (tests/age groups/frequency)	...
Availability and coverage of screening services	
Fecal occult blood test or fecal immunological test⁷	Generally available in the public and the private sectors
Exam or colonoscopy⁷	Generally available in the public and the private sectors
Screening coverage	...

CANCER TREATMENT AND PALLIATIVE CARE			
Radiotherapy¹¹		Oral morphine⁷	
Availability of services in the public health sector? ⁷	Generally available	Availability in the public health sector?	Generally not available
Total energy teletherapy units/million inhabitants	3	Covered by health insurance or publically funded?	Yes
Total radiotherapy centers	3	Appears in the national list of essential medicines?	DK
Radiation oncologists	5	Opioid consumption¹²	
Medical physicists	8	Total morphine equivalence, per capita	3.93
Chemotherapy⁷		Community/home care⁷	
Availability of services in the public health sector?	Generally available	Are community/home care services available in the public sector for people with advanced stages of NCDs?	Generally available

Notes: ...: Information not available; N/A: Not applicable; m: months.

Sources:

- (1) PAHO/WHO. Non communicable Diseases in the Americas: Basic Health Indicators 2011. Washington D.C, USA, 2011.
- (2) WHO Report on the Global Tobacco Epidemic, 2013, retrieved August 28, 2013 from <http://www.who.int/tobacco>
- (3) PAHO/WHO. Tobacco Control Report for the Region of the Americas, 2013. Washington D.C, USA, 2013.
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- (10) PAHO/WHO Survey of Caribbean Cervical Cancer Program Managers, 2013. unpublished
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- (12) University of Wisconsin. WHO Collaborating Centre for Pain Policy and Palliative Care, Opioid Consumption Database 2010, retrieved August 28, 2013, from <http://www.painpolicy.wisc.edu/countryprofiles/amro>.

ANNEX 1. ICD- codes used in this analysis for all cancer types except skin non-melanoma and specific cancer types

ICD-10 codes	Cancer types
C00-08	Lip, oral cavity
C11	Naso-pharynx
C09-10,C12-14	Other pharynx
C15	Esophagus
C16	Stomach
C18-21	Colo-rectum
C22	Liver and intrahepatic bile ducts
C23-24	Gallbladder and extra-hepatic ducts
C25	Pancreas
C32	Larynx
C33-34	Trachea, bronchus and lung
C43	Melanoma
C46	Kaposi sarcoma
C50	Breast
C53	Cervix uteri
C54	Corpus uteri
C56	Ovary
C61	Prostate
C62	Testis
C64-66	Kidney, renal pelvis and ureter
C67	Bladder
C70-72	Brain, nervous system
C73	Thyroid
C81	Hodgkin lymphoma
C82-85,C96	Non Hodgkin lymphoma
C88+C90	Multiple myeloma
C91-95	Leukemia
C00-97, except C44	All cancers but non-melanoma skin cancer

REFERENCES

1. Pan American Health Organization. Health in the Americas: 2012 edition. Regional Outlook and Country Profiles. Washington, DC. 2012.

2. World Health Organization. NCD Global Monitoring Framework 2013, available at: http://www.who.int/nmh/global_monitoring_framework/en/index.html



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