

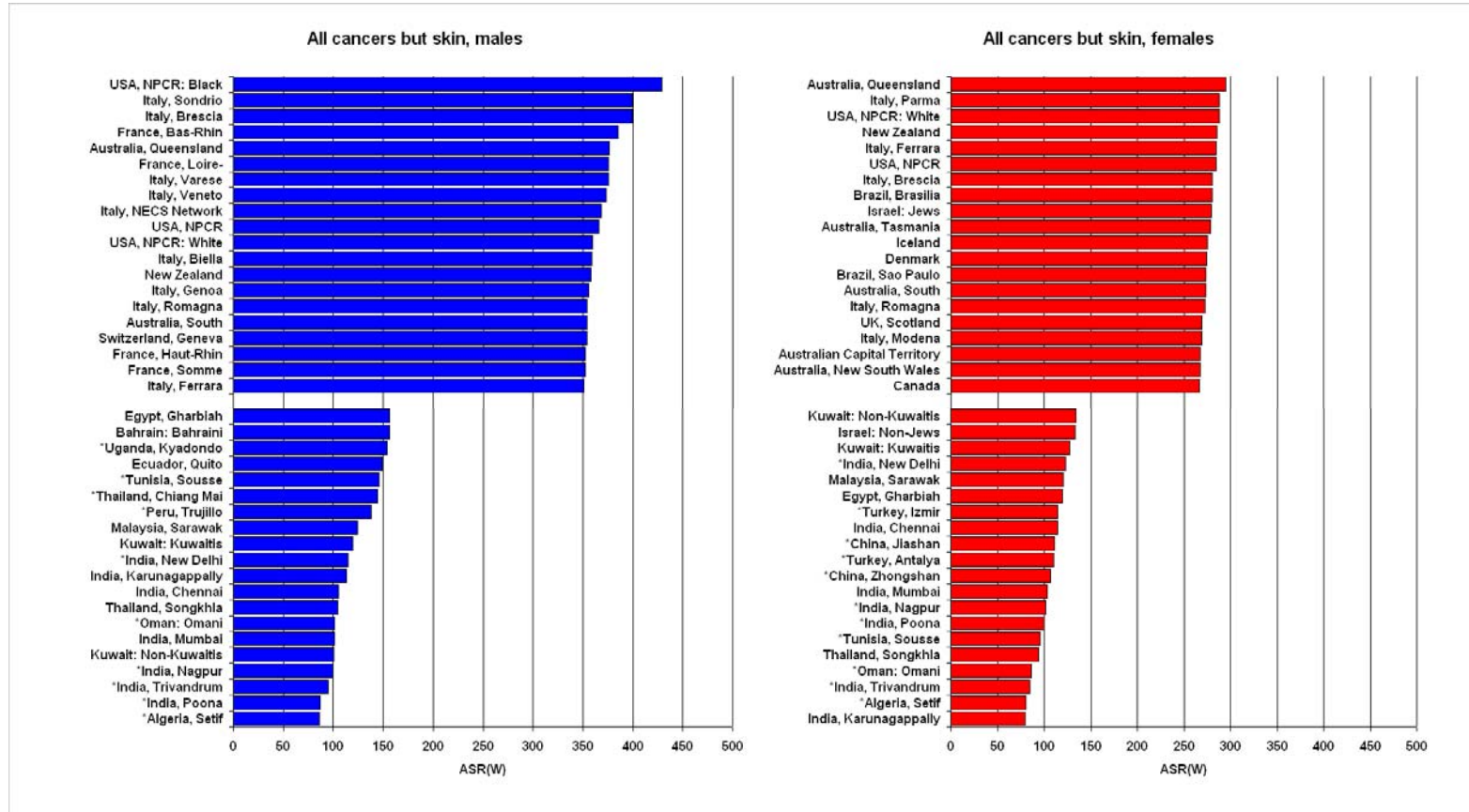


Cancer Incidence in Latin America: An Overview

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Cancer Incidence in 11% world population



Introduction

Central and South America



- Total population in 2006 (including Caribbean): 526 millions.
- 11 population-based cancer registries covering approximately 4.3% of population.
- Demographic transition, ageing of populations.
- Rapid industrialization and adoption of westernized lifestyles.
- A region marked by socio-economic inequalities.

Geographical Coverage CI5 IX

Country	Registries	Total country population 2000* (thousands)	% of urban population**	Population coverage CI5 IX(%)
Low-middle-income countries				
Colombia	Cali	41,683	74.9	4.4
Ecuador	Quito	12,306	61.4	11.5
Peru	Trujillo	25,663	72.8	2.3
Upper-middle-income countries				
Argentina	Bahia Blanca	36,896	90.5	0.8
Brazil	Goiania, Sao Paulo, Brasilia, Cuiaba	174,161	81.2	7.6
Chile	Valdivia	15,412	86.6	2.4
Costa Rica	National	3,929	59.0	100.0
High-income countries				
France	Martinique	386	95***	100.0
Total Latin America				4.3

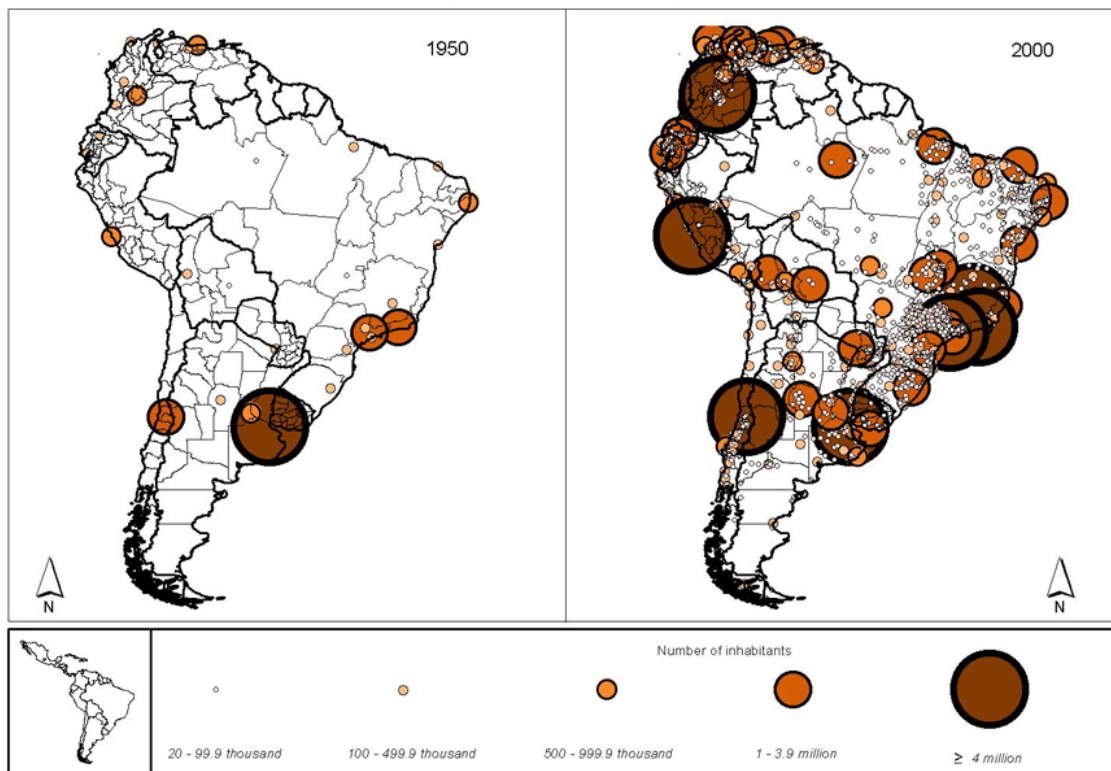
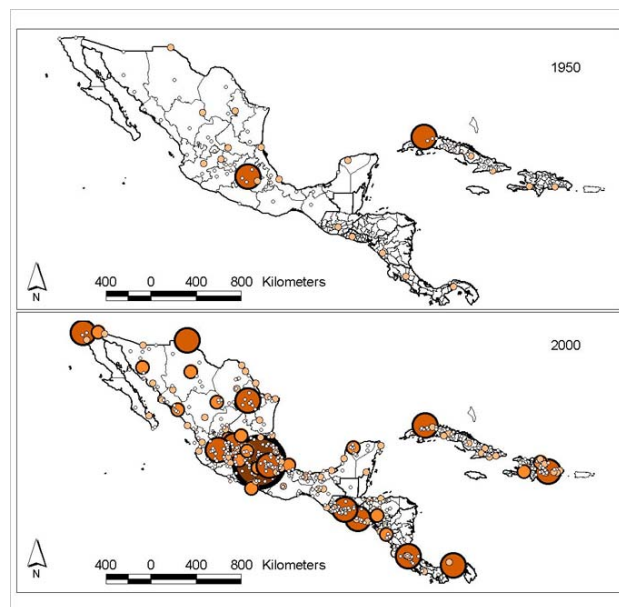
*Source: World population prospects: The 2006 Revision Population Database. United Nations, Population Division.

**Source: DEPUALC 2004 data base, CELADE/ECLAC. Demographic Bulletin No 56 y 63. UN World Urbanization Prospects: The 2003 Revision.

***Population in 2002. Source: estimations de population Insee.

Introduction

Latin America: cities with 20,000 or more inhabitants, 1950 and 2000 census rounds.



Source: DEPUALC 2004 data base, CELADE/ECLAC.

Note: The limits shown on this map do not imply any expression of support or official acceptance by the United Nations.

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Introduction

Cancer incidence reflects:

- Changes in life expectancy and age distribution of population structure.
- Inequalities in economic development.
- Socio-economic factors.

Cancer Incidence

Cancer incidence reflects:

- Demographic and epidemiological transition
- Increase the incidence of chronic and non-communicable diseases.
- Changes in lifestyle and dietary patterns
- Infectious risk factors.

Results

Table 1. Incidence of all cancer (but skin) and data quality indexes.

	Males					Females			
	Person- years (million)	Cases (n)	ASR(W)	MV%	DCO%	Person- years (million)	Cases (n)	ASR(W)	MV%
Argentina, Bahia Blanca	0.7	2,201	256.20	76.8	17.5	0.7	2352	227.90	80.5
Brazil, Brasilia	4.3	6,732	330.60	89.8	4.2	1.0	8004	280.20	86.9
Brazil, Cuiaba	1.1	1,605	259.20	75.3	16.9	1.1	1645	211.70	77.0
Brazil, Goiania	2.1	3,592	260.30	89.4	7.9	2.3	4105	212.10	91.6
Brazil, Sao Paulo	24.8	70,229	346.60	79.0	7.6	27.2	77358	273.80	78.5
Chile, Valdivia	0.9	2,040	226.80	77.8	9.5	0.9	1903	187.90	75.9
Colombia, Cali	4.3	7,766	224.00	79.2	6.3	4.9	9606	211.20	82.9
Costa Rica	10.0	13,656	179.80	73.3	11.5	9.6	13452	161.60	78.1
Ecuador, Quito	3.4	4,194	148.90	81.8	10.2	3.7	5135	155.40	82.2
France, La Martinique*	0.9	3,610	297.50	97.8	-	1.0	2438	171.50	95.0
Peru, Trujillo	1.4	1,256	137.80	94.7	1.3	1.6	1947	171.00	95.5
	53.5	116,881	279.20			57.2	127945	234.3	

* French registries do not have access to death certificates.

Introduction

Is necessary to enhance cancer registration in Latin America :

- Little information available over the past 10 years on the burden of malignant neoplasias
- Diversity of populations and risk factors between and within countries.
- To identify risk factors in carcinogenesis.
- To better target populations at risk with cancer control programs.
- To evaluate public policies and cancer control activities.

Introduction

60 years or older subjects, for selected Latin American countries

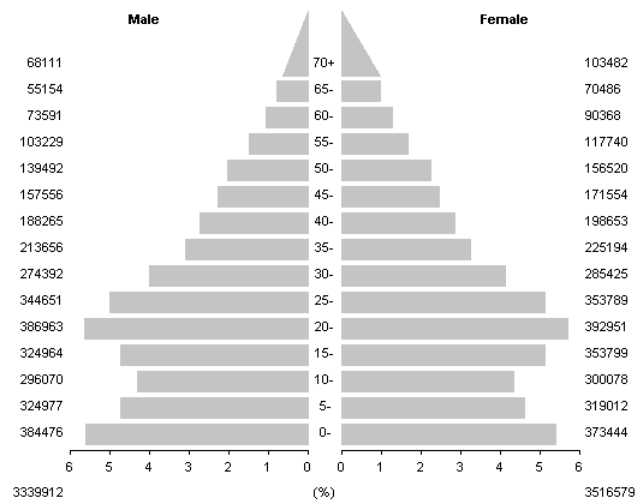
Country	n(%)	
	1975	2000
Argentina	2,971,006 (11.4)	4,936,397 (13.3)
Brazil	6,541,030 (6)	1,3405,489 (7.9)
Chile	814,176 (7.9)	1,550,283 (10.2)
Colombia	1,420,270 (5.6)	2,900,766 (6.9)
Costa Rica	102,771 (5.2)	299,939 (7.5)
Ecuador	422,401 (6.1)	876,109 (6.9)
Peru	843,213 (5.6)	1,856,469 (7.2)
Martinique	30,698 (9.3)	57,472 (15.0)
Latin America and Caribbean	20,959,116 (6.5)	41,299,673 (8.0)

Fuente: Elaboración previa basada en estimaciones y proyecciones de los países, CELADE. Boletín Demográfico No. 62

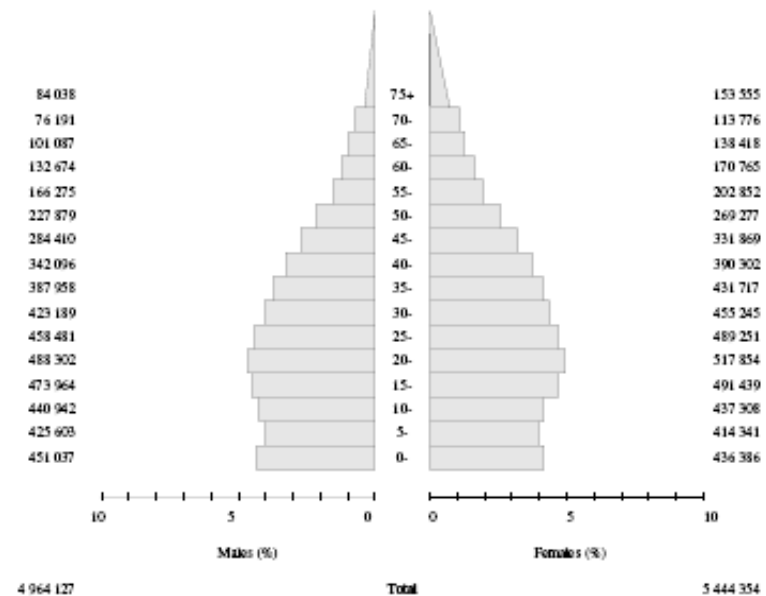
United Nations, World Population Prospects the 2000 Revisión

Brazil, Sao Paulo

1978

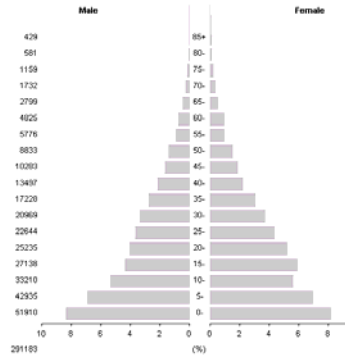


1998-2002



Colombia, Cali

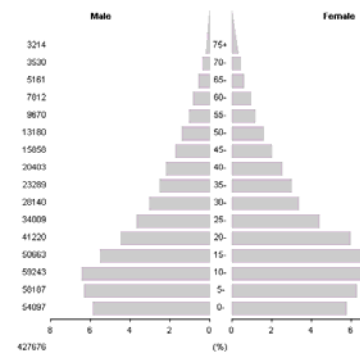
1962-1966



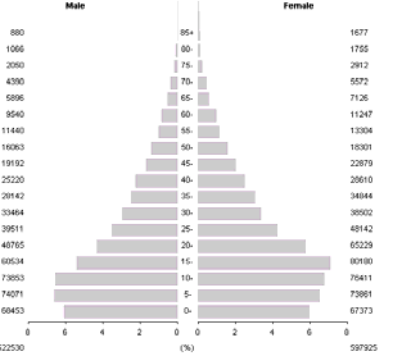
1967-1971



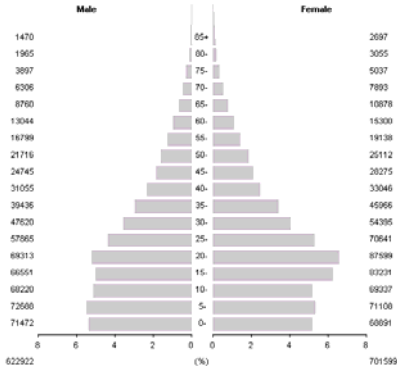
1972-1976



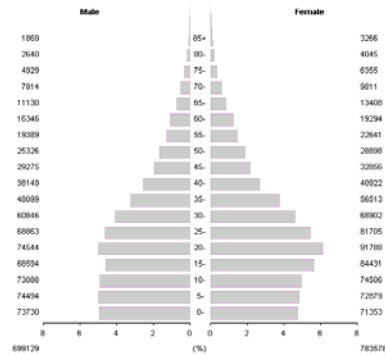
1977-1981



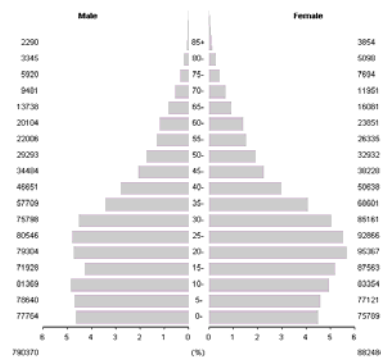
1982-1986



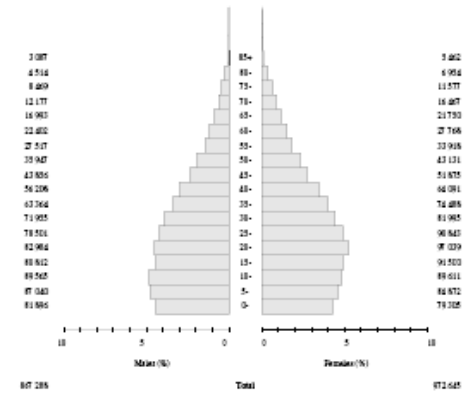
1987-1991



1992-1996

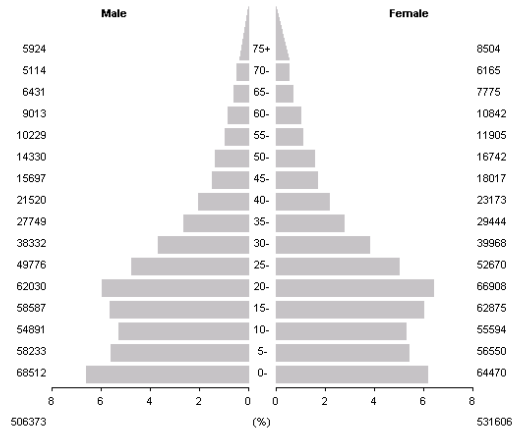


1998-2002

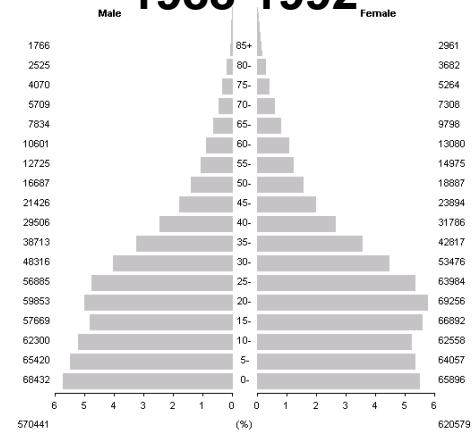


Ecuador, Quito

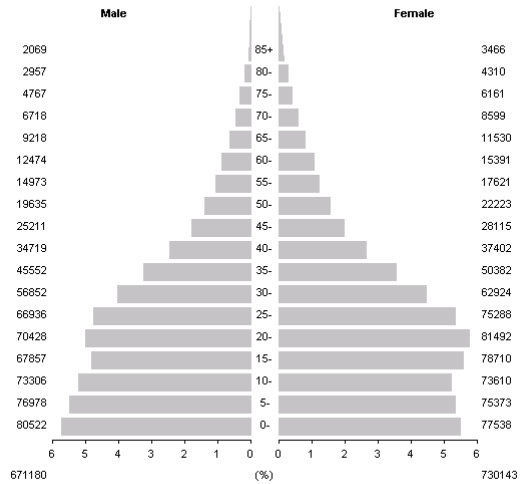
1985-1987



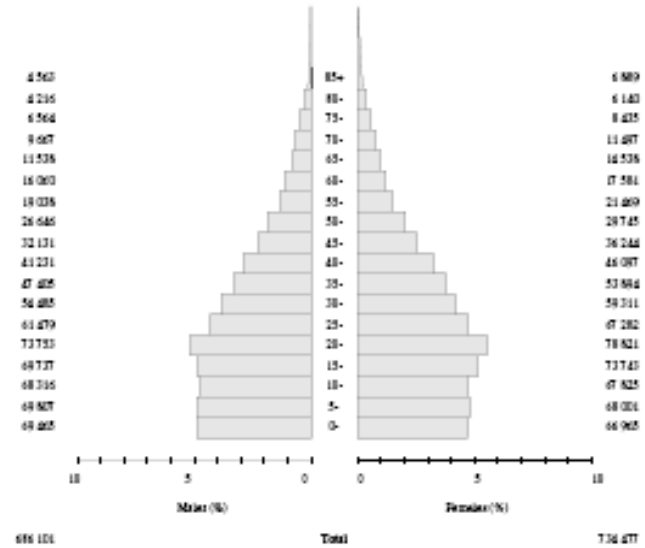
1988-1992



1993-1997

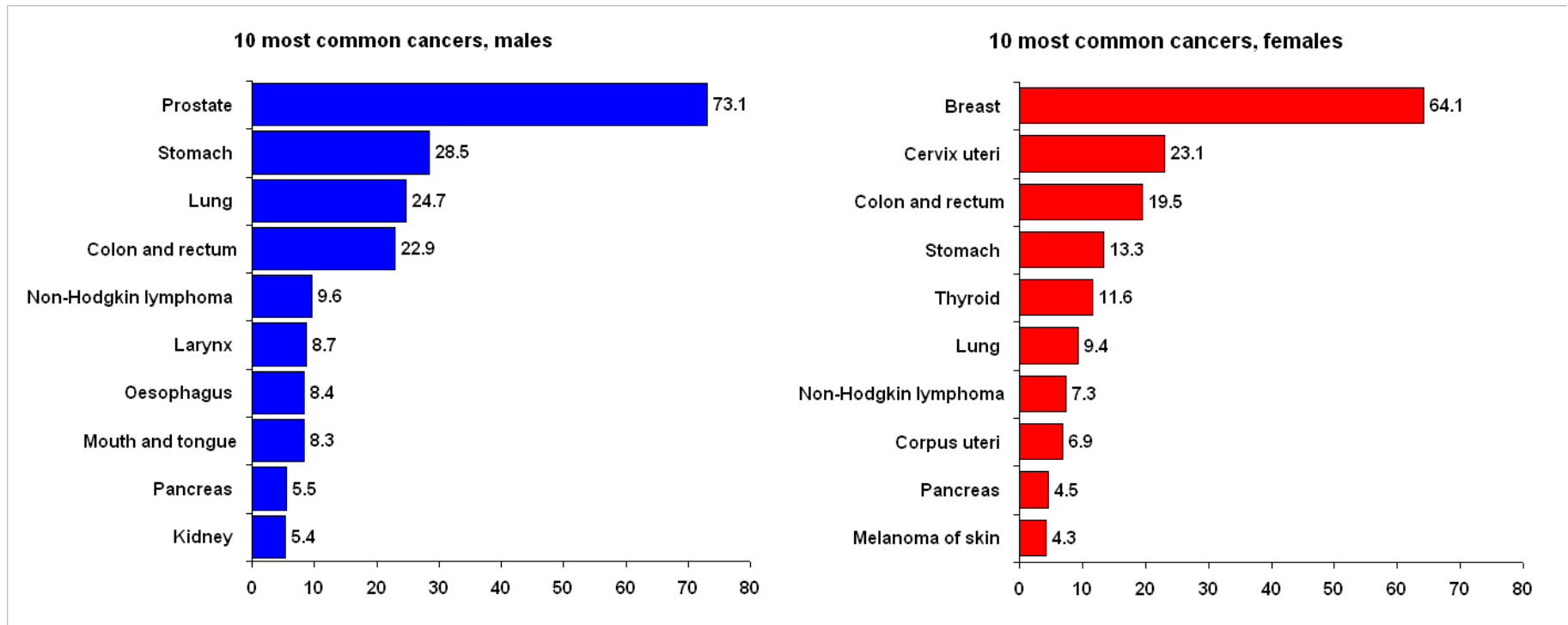


1998-2002



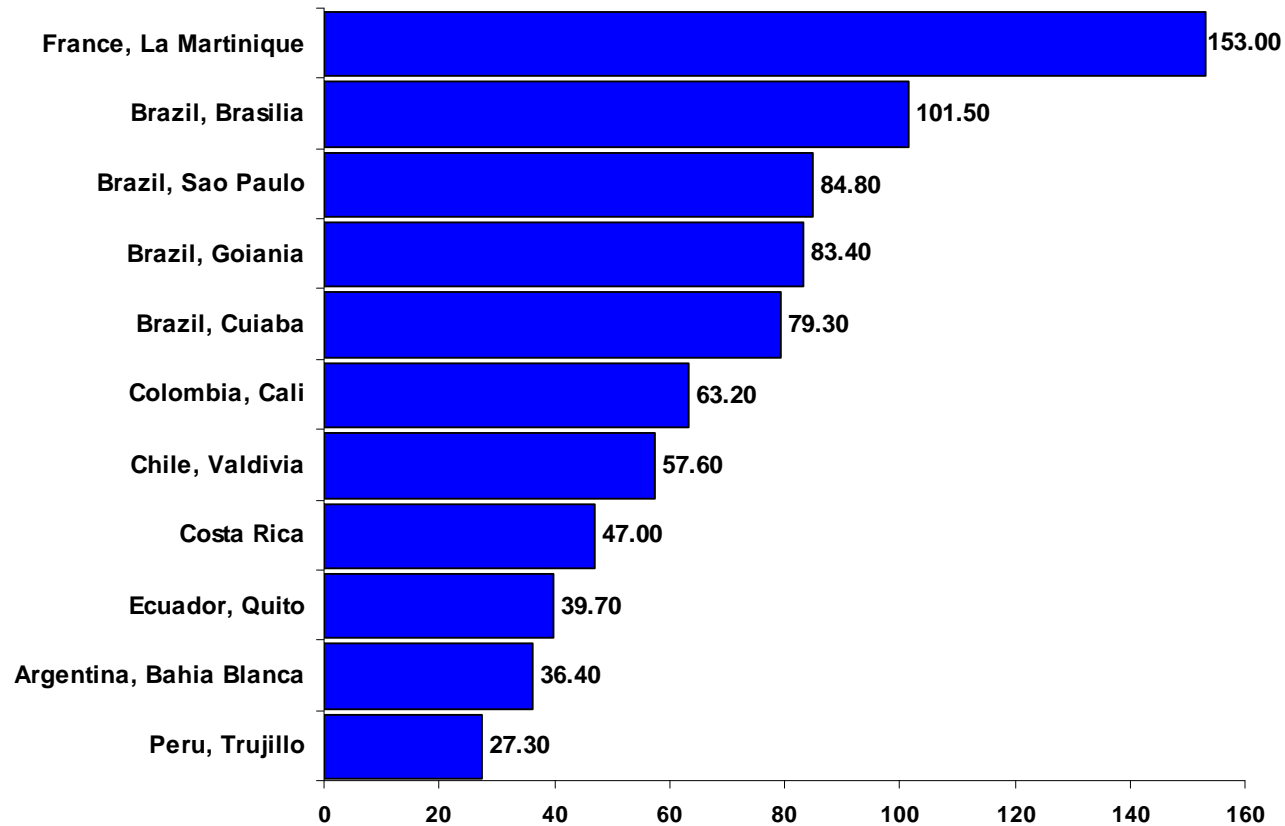
Results

Most common cancers in Latin America, all registries pooled.

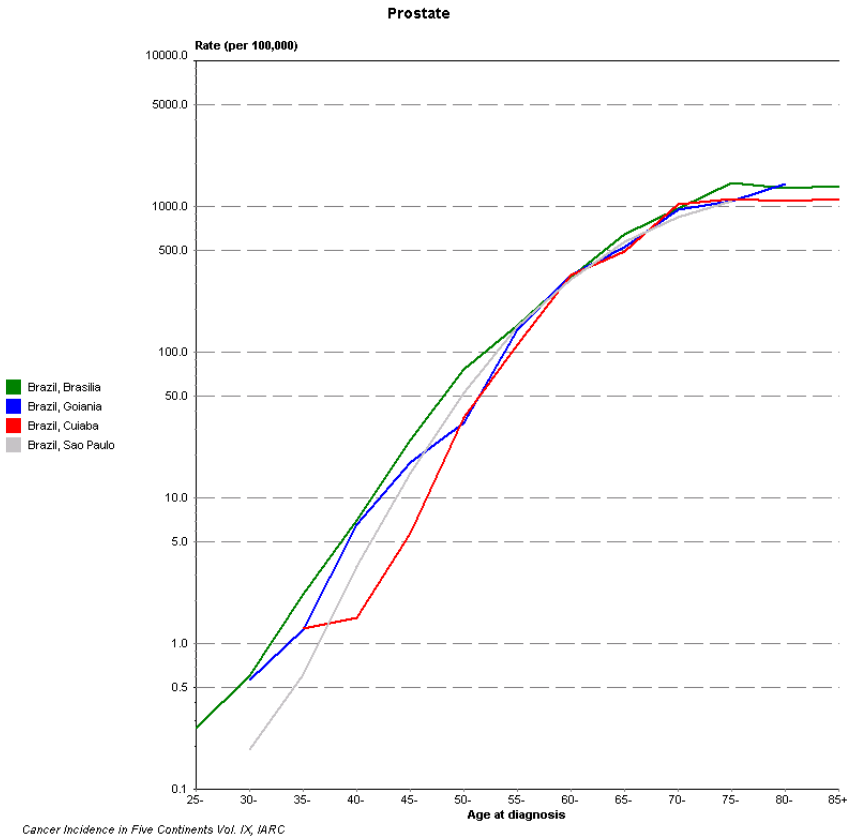
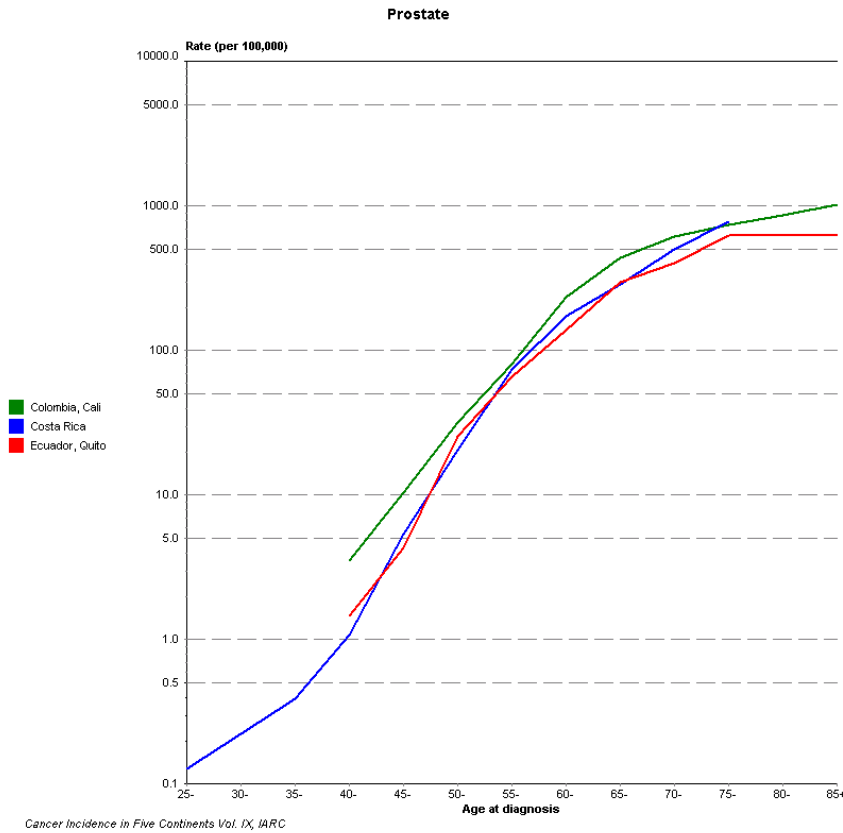


Results

Prostate cancer

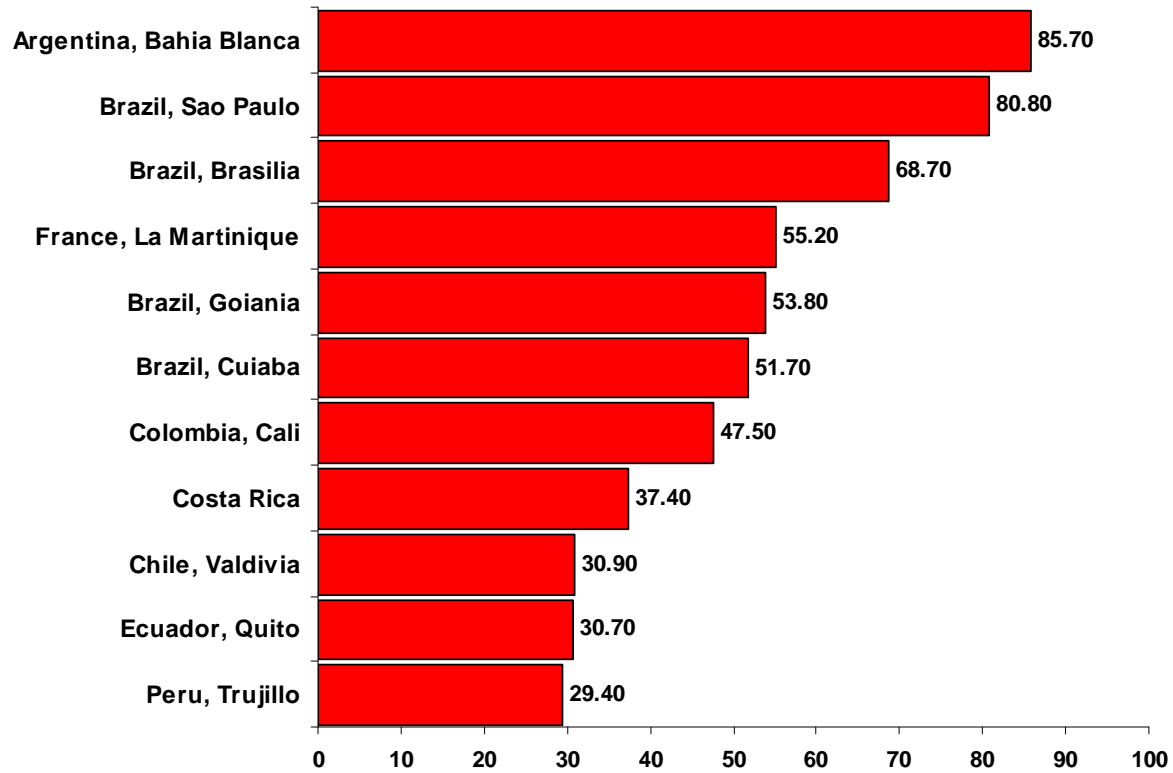


Age-specific rates Prostate Cancer



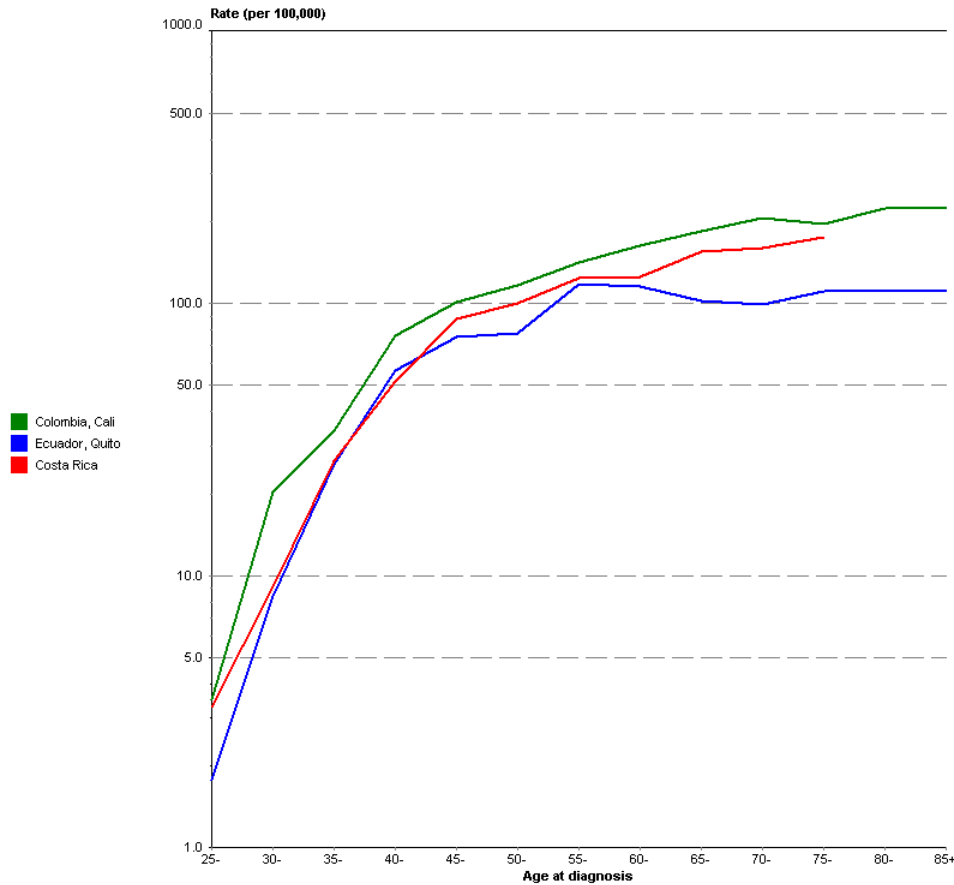
Results

Breast Cancer

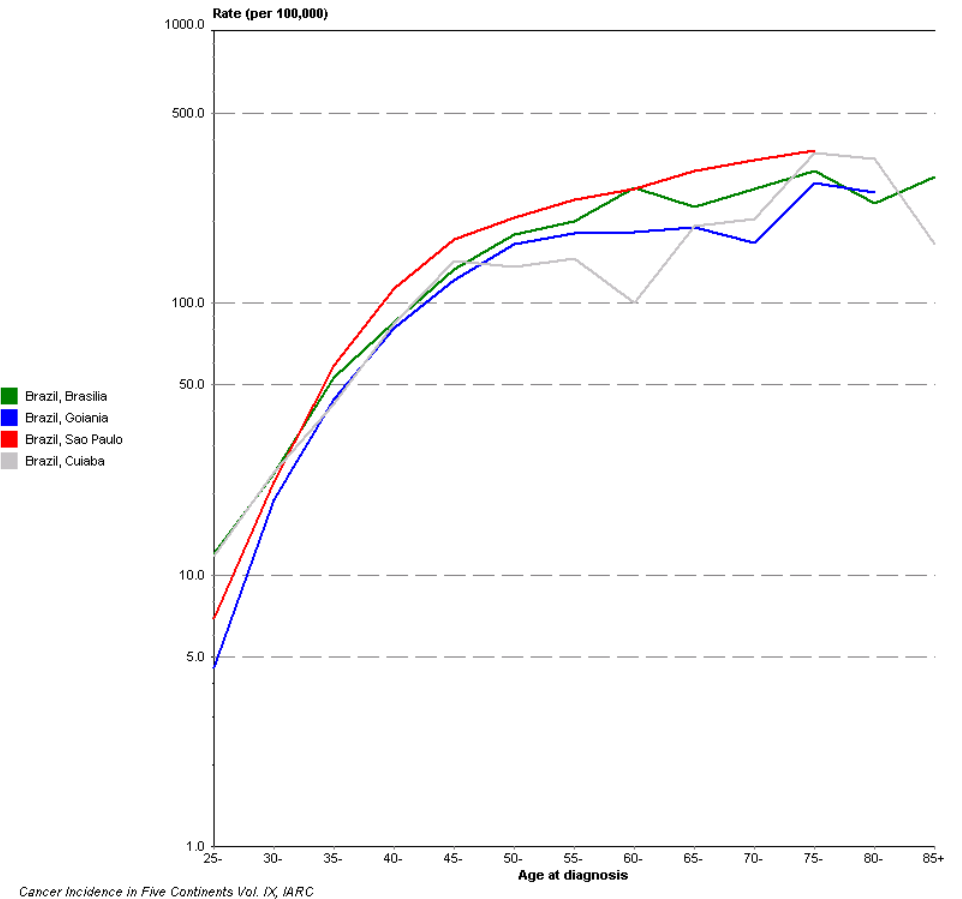


Age-specific rates Breast Cancer

Breast, Female

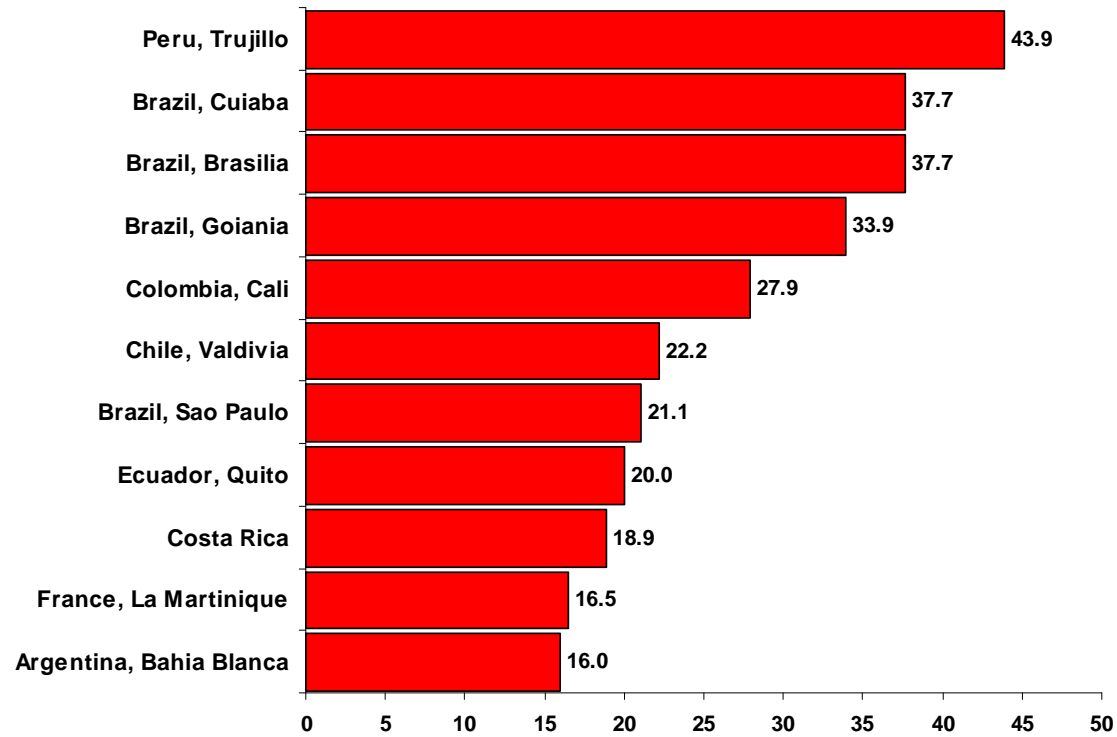


Breast, Female



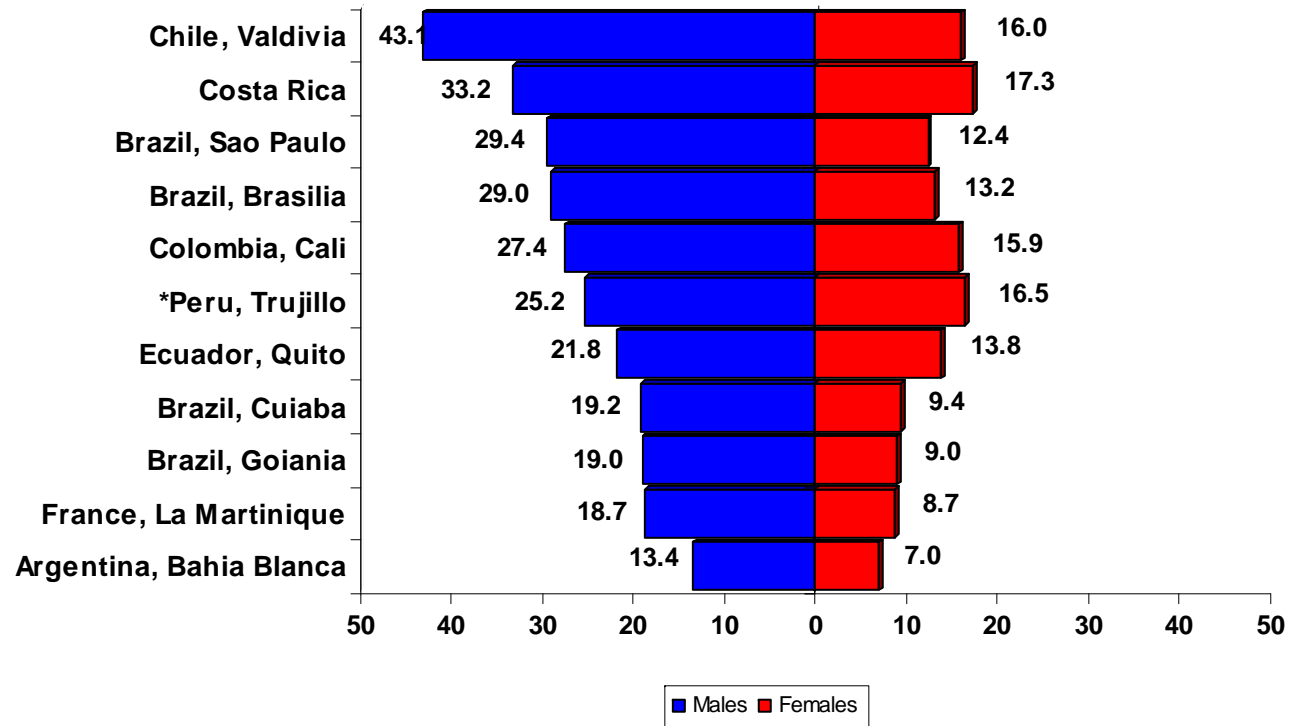
Results

Cervix Uteri



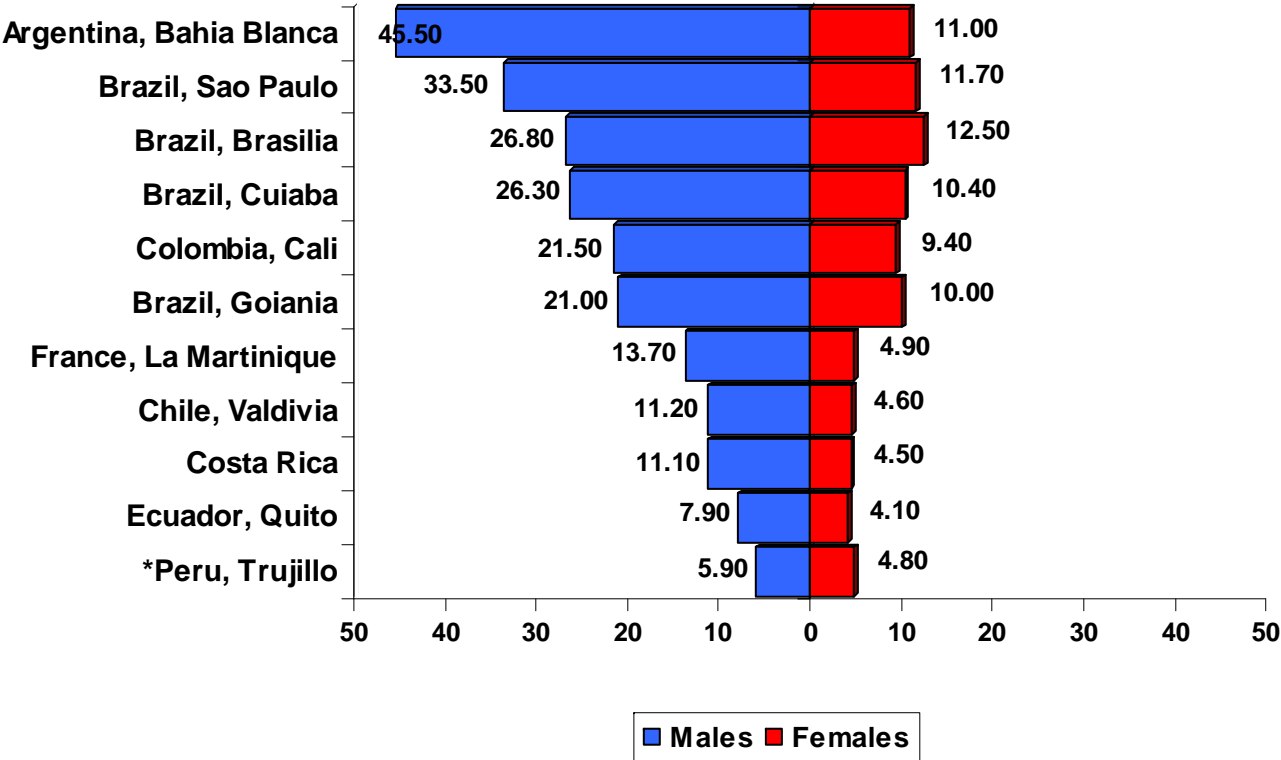
Results

Gastric Cancer



Results

Lung Cancer



Results

Most common cancers by registry (males):

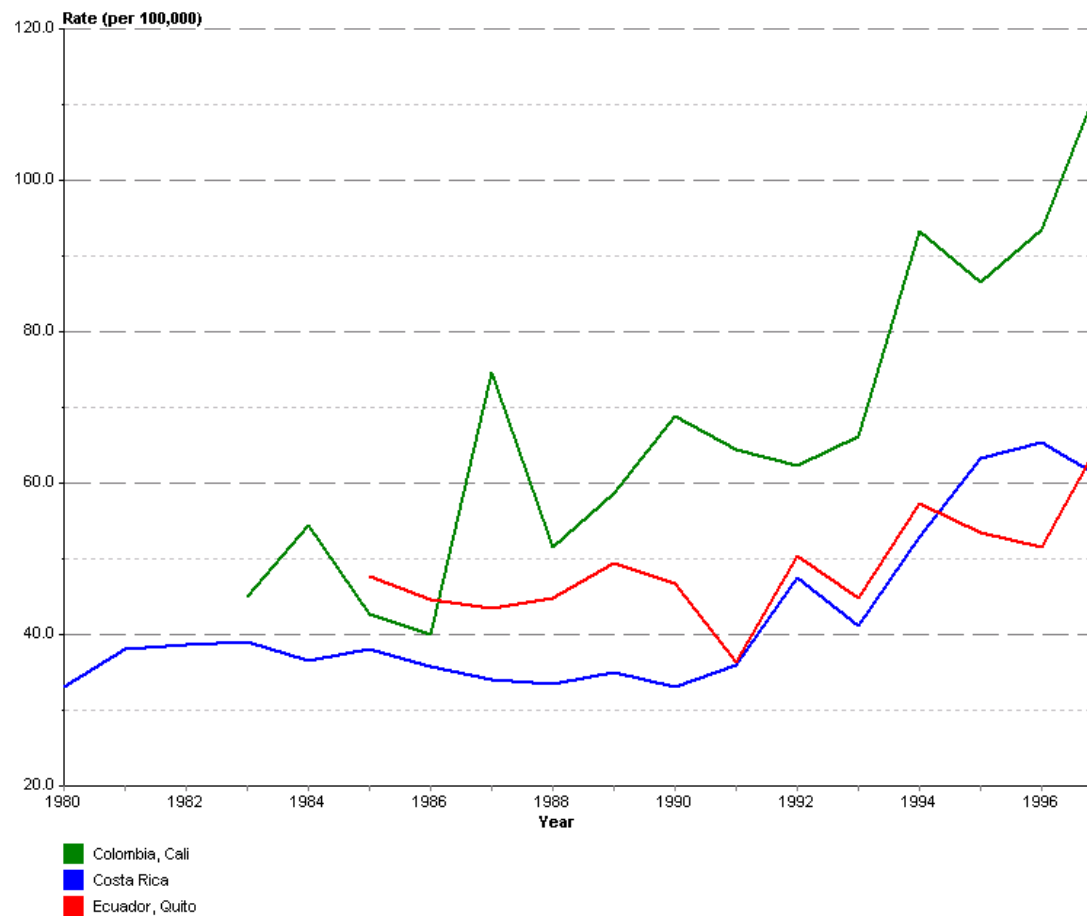
- Brazil and Argentina (Bahia Blanca): prostate, lung and colorectal cancers.
- Chile (Valdivia), Costa Rica and Martinique: prostate, gastric and colorectal cancers.
- Ecuador (Quito) and Peru (Trujillo): prostate and gastric cancers, non-Hodgkin lymphoma.
- Colombia (Cali): prostate, stomach and lung.

Results

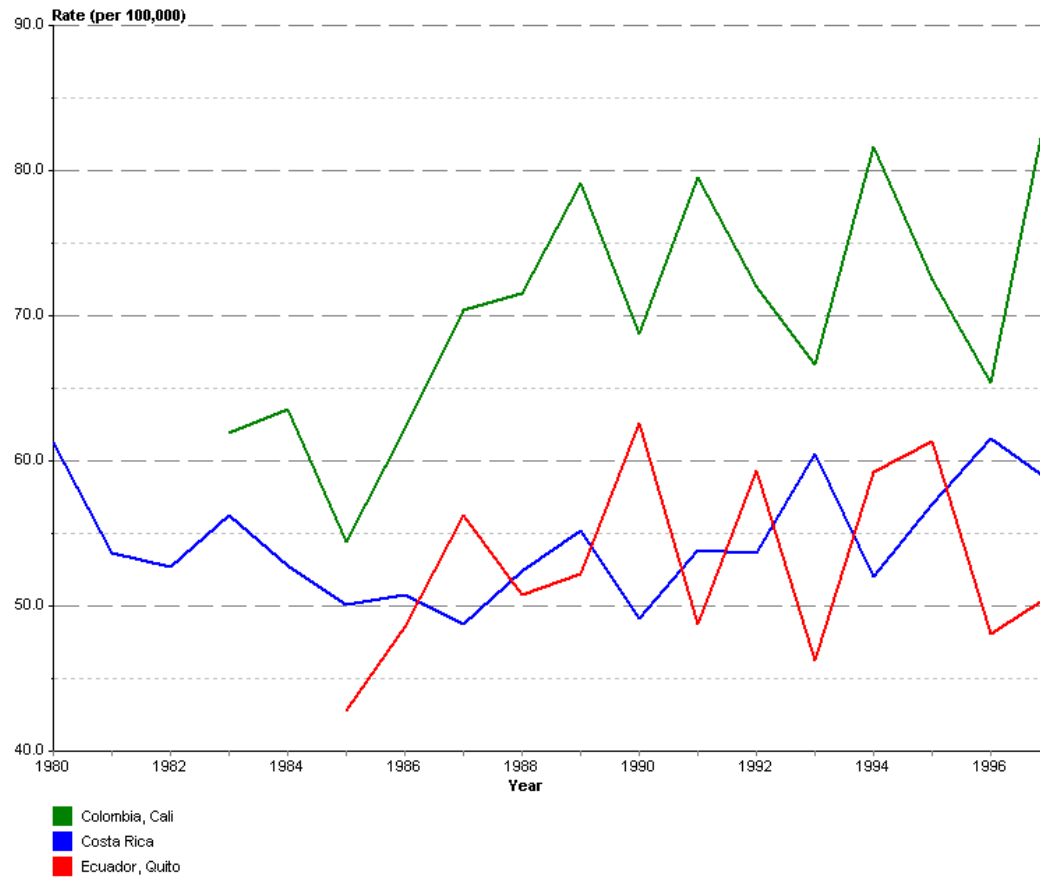
Most common cancer by registry (females):

- Argentina (Bahia Blanca): breast, cervical and colorectal cancers.
- Brazil: breast, colorectal and cervical cancers.
- Chile (Valdivia): breast, gallbladder and cervical cancers.
- Colombia (Cali), Costa Rica and Ecuador (Quito): breast, cervical and gastric cancers.
- Martinique: breast, colorectal and cervical cancers.
- Peru (Trujillo): cervical, breast and gastric cancers.

Trends: Prostate Cancer (25-85+)



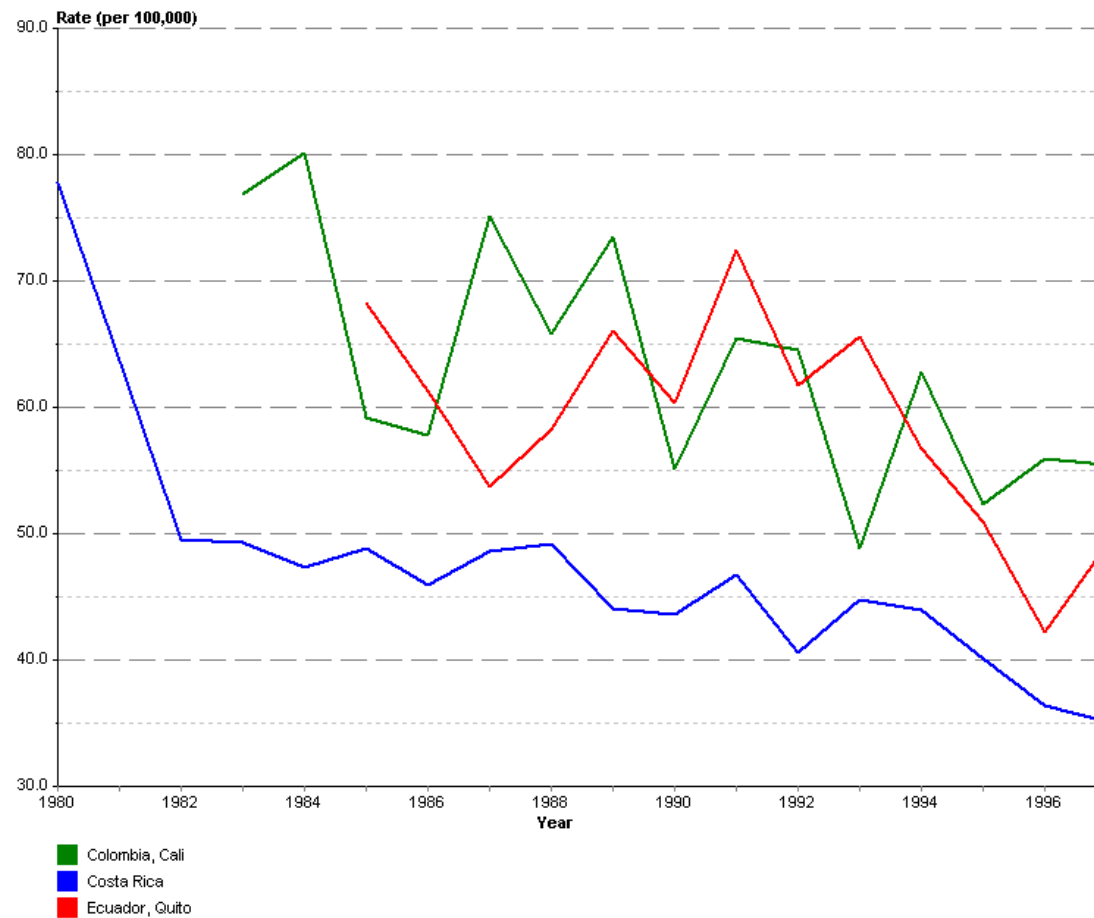
Trends: Breast Cancer (25-85+)



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Trends: Cervical Cancer (25-85+)

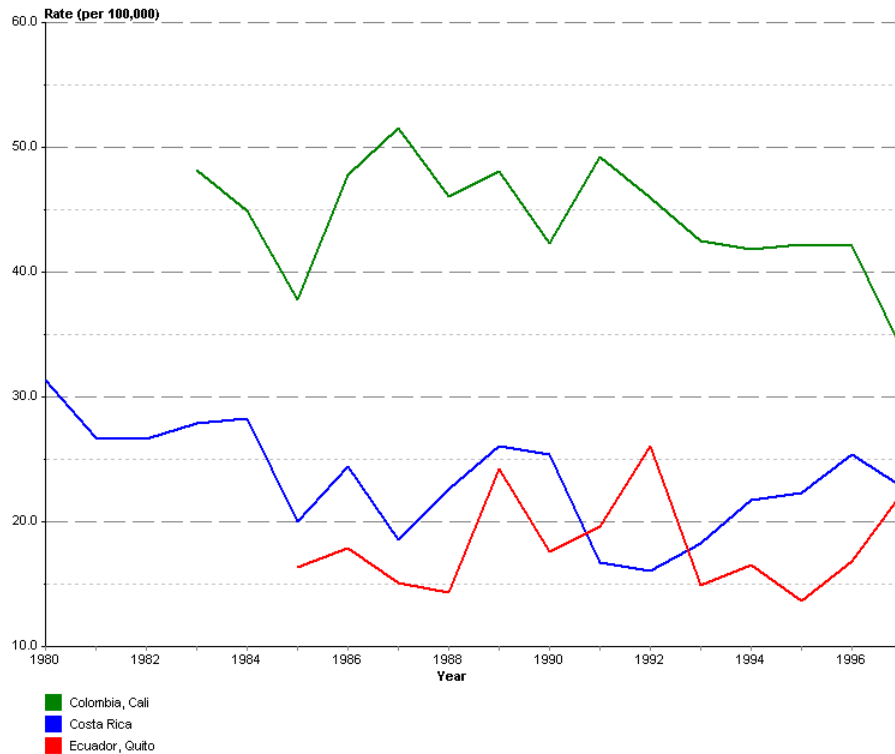


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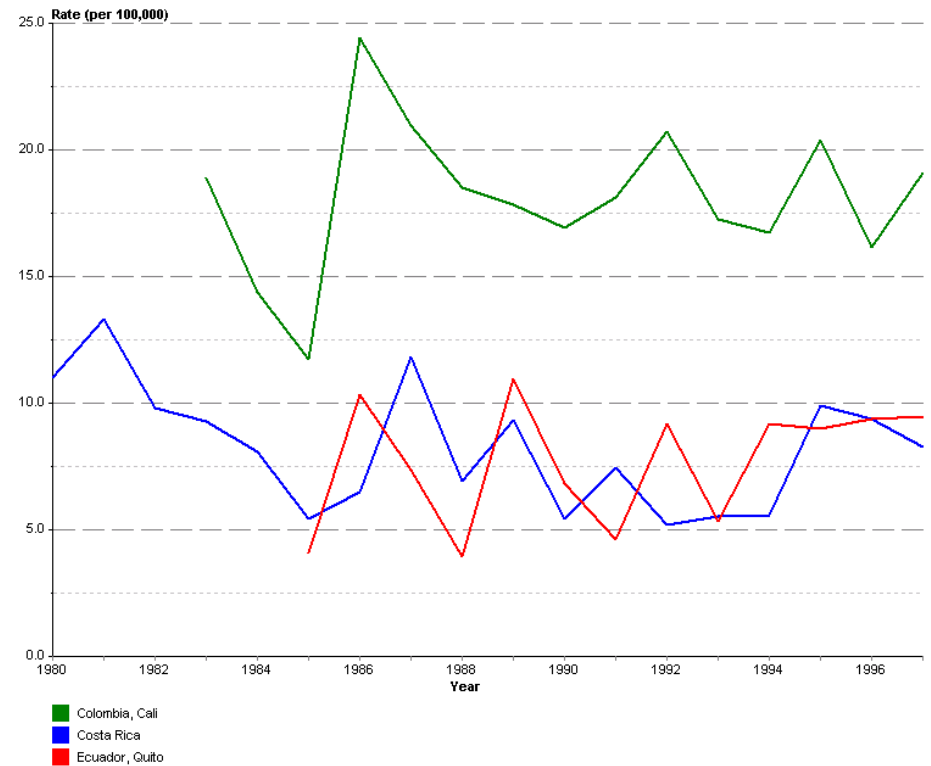


Trends: Lung Cancer (25-85+)

Males



Females



Conclusions

- Cervical cancer incidence rates observed in Latin America are among the highest in the World.
- Gastric cancer incidence is high compared to other World regions (except Asia).
- Lifestyle related cancers are present as well infection-related cancers.

Conclusions

- Geographic coverage by population-based cancer registries in Latin America remains low.
- There is not a clear pattern of cancer incidence in Latin America due to diversity of population and socio-economic conditions, between and within countries.



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