The magnitude of the cancer problem in Latin America

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I have not relevant disclosures related with this presentation
Agenda

• General overview, LA picture
• All cancer in both genders
• Epidemiology of main cancers in the region
• The Argentina example
• Take home messages
Overview

• The world is facing a critical health care problem: in the next few years cancer will become a leading global public health problem disproportionately increasing in low and middle income countries (LMCs).

• Good epidemiological data are key to develop adequate national cancer plans.

Source. E. Cazap et al. / The Breast 20 (2011) S1–S2
Although the overall incidence of cancer is lower in Latin America (age-standardised rate of 163 per 100 000) than in Europe (264 per 100 000) or the USA (300 per 100 000), the mortality burden is greater.

This is mainly due to presentation at more advanced stages, and also partly related to poorer access to proper cancer care.
In USA, 60% of breast-cancer cases are diagnosed in the earliest stages, whereas in Brazil only 20% and in Mexico only 10% are diagnosed at an early stage.

The all-cancer mortality-to-incidence ratio for Latin America is 0.59, compared with 0.43 for the European Union and 0.35 in the USA.
The cancer burden

- About 1.1 million people are diagnosed with cancer annually in Latin America with 600,000 cancer deaths.
- Lung cancer is the leading cause of cancer death for both sexes combined in this region.
- Notably, lung cancer mortality rates among females continue to increase in most countries of the Americas.
- While cervical cancer rates are decreasing, breast cancer rates are increasing in the region.

Ref. The Cancer Atlas, ACS-UICC
Estimated numbers of new cancer cases and deaths, both sexes, 2012

Ref. The Cancer Atlas, ACS-UICC
Human Developing Index (HDI) Transitions

• As countries develop, their cancer burden changes in scale and type
• Changes in fertility and life expectancy are leading to a rapidly growing and aging world population—and an unsurpassed scale of the cancer problem—as countries undergo major transitions in development
• As such, the traditional grouping of regions of the world into “more-developed” and “less-developed” is less relevant today.

Ref. The Cancer Atlas, ACS-UICC
Recent (2012) and future (2025) cancer burden by HDI

Ref. The Cancer Atlas, ACS-UICC
Planning cancer control in Latin America and the Caribbean

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All cancers, both sexes
All cancers, incidence

Incidence ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
All cancers, mortality

Mortality ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
Breast Cancer

Mean population age correlates with breast cancer incidence.
Chile seems to be an outlier, however there seems to be an adjustment trend since in recent years, the incidence growth has been accelerating to reach ~11% per annum.
In Argentina and Uruguay mortality rates seem to have stabilized at a high level.

As ageing and other risk factors increasingly impact incidence rates in the remaining countries, mortality figures are expected to rise as well.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of deaths</th>
<th>DALYs lost</th>
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<tbody>
<tr>
<td>2004/2008</td>
<td>36,952</td>
<td>612,816</td>
</tr>
<tr>
<td>2015</td>
<td>57,782</td>
<td>726,480</td>
</tr>
<tr>
<td>2030</td>
<td>73,542</td>
<td>848,665</td>
</tr>
</tbody>
</table>
Genito-urinary cancers
Prostate - incidence

Incidence ASR
Male
South America
Prostate - mortality

Mortality ASR
Male
South America

Source: GLOBOCAN 2012 (IARC)
Bladder cancer - incidence

Source: GLOBOCAN 2012 (IARC)
Bladder cancer mortality
Kidney cancer - incidence

Incidence ASR
Male
South America

Source: GLOBOCAN 2012 (IARC)
Kidney cancer - mortality

Mortality ASR
Male
South America

Source: GLOBOCAN 2012 (IARC)
Gastro-intestinal tumours
Stomach cancer incidence

Incidence ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
Stomach cancer - mortality

Mortality ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
Gallbladder - mortality

Mortality ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
Colorectal cancer incidence

Incidence ASR
Both sexes
South America

Colorectal cancers

- 20.4+
- 14.4-20.4
- 10.7-14.4
- 8.5-10.7
- <8.5
- No Data

Source: GLOBOCAN 2012 (IARC)
Colorectal cancer - mortality

Mortality ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
Pancreatic cancer incidence

Incidence ASR
Both sexes
South America

Source: GLOBOCAN 2012 (IARC)
Pancreatic cancer - mortality

Mortality ASR
Both sexes
South America

Pancreatic cancer
- 5.2+
- 4.4-5.2
- 3.6-4.4
- 3.2-3.6
- <3.2
- No Data

Source: GLOBOCAN 2012 (IARC)
The Argentina example
All cancers, men and women, mortality, country


PECA: -0.53 (-0.64; -0.42)

PECA: -0.40 (-0.49; -0.31)

Fuente: Abriata; Loria a partir de los registros de mortalidad de la DEIS – Ministerio de Salud de la Nación.
All cancers, men and women, mortality, Cuyo region


Fuente: Abriata; Loria a partir de los registros de mortalidad de la DEIS – Ministerio de Salud de la Nación.
All cancers, men and women, mortality, NE region


PECA: -3.29 (-6.26; -0.22)  PECA: 0.55 (0.24; -0.22)

PECA: -4.77 (-7.77; -1.67)  PECA: 0.01 (-0.33; 0.34)

Fuente: Abriata; Loria a partir de los registros de mortalidad de la DEIS – Ministerio de Salud de la Nación.
Comment

• Even within the same country there are regional epidemiological variations. This situation is similar to other LA countries
Breast, colon and lung mortality, women


PECA: 0.86 (-1.3; -0.5)
PECA: 0.44 (0.2; 0.6)
PECA: -1.08 (-1.26; -0.90)
PECA: 1.65 (1.46; 1.84)

Fuente: Abriata; Loria a partir de los registros de mortalidad de la DEIS – Ministerio de Salud de la Nación.
Prostate, colon and lung mortality, men


Fuente: Abriata; Loria a partir de los registros de mortalidad de la DEIS – Ministerio de Salud de la Nación.
Comment

• Breast and colon cancer are decreasing in women in Argentina, but lung is increasing

• Lung is decreasing in men in Argentina, colorectal is stable and prostate is stable/increasing
Take home messages

• The overall incidence of cancer is lower but the mortality burden is greater in most countries.
• This is mainly due to presentation at more advanced stages, poorer access to cancer care and economic and educational reasons.
• Urbanization is very high in most countries of the region.
• The epidemiological picture is variable, even within the same country.
• As countries develop, their cancer burden changes in scale and type.
Thank you very much for your attention!