



# PUERTO RICO CENTRAL CANCER REGISTRY

## Stat Fact Sheet

### Cancer of the Breast<sup>1</sup>

#### Key Points

- ◆ Breast cancer is the most commonly diagnosed cancer among women in Puerto Rico.
- ◆ It accounts for 33.0% of all female cancers between 1999-2003 and 17.8% of all female cancer deaths between 2000-2004.
- ◆ Each year, approximately 1,540 women were diagnosed with invasive breast cancer.
- ◆ Approximately 363 women die from breast cancer each year.

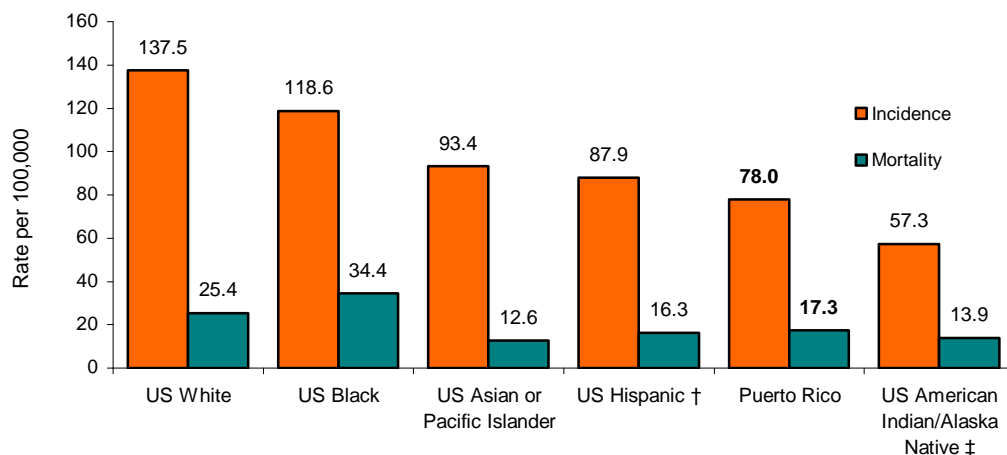
### Incidence and Mortality

#### Puerto Rico Incidence

From 1999-2003, the median age at diagnosis for cancer of the breast was 59 years of age. Approximately 0.0% were diagnosed under age 20; 2.7% between 20 and 34; 11.4% between 35 and 44; 23.6% between 45 and 54; 25.3% between 55 and 64; 21.1% between 65 and 74; 12.7% between 75 and 84; and 3.3% 85+ years of age.

The [age-adjusted incidence rate](#) was 78.0 per 100,000 women per year. These rates are based on cases diagnosed in 1999-2003 from Puerto Rico and adjusted to the 2000 US standard population.

**Female Breast Cancer Incidence and Death Rates\* by Race and Ethnicity, PR and US<sup>2</sup>, 1999-2003**



\*Rates are per 100,000 and age-adjusted to the 2000 US standard population.

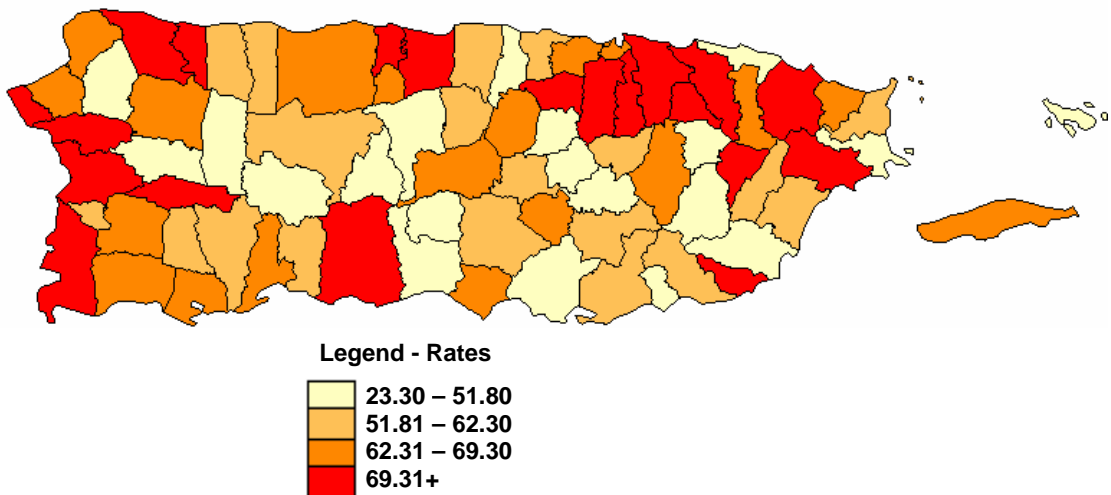
## Puerto Rico Mortality

From 2000-2004, the median age at death for cancer of the breast was 63 years of age. Approximately 0.1 % died under age 20; 1.5% between 20 and 34; 7.6% between 35 and 44; 18.4% between 45 and 54; 25.1% between 55 and 64; 21.2% between 65 and 74; 17.6% between 75 and 84; and 8.5% 85+ years of age.

The age-adjusted death rate was 17.3 per 100,000 women per year. These rates are based on patients who died in 1999-2003 in Puerto Rico and adjusted to the 2000 US standard population.

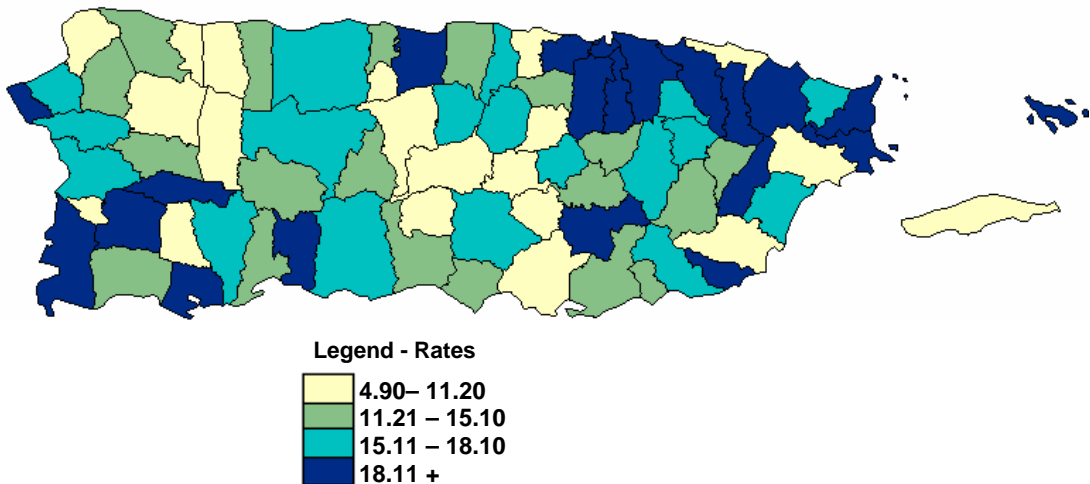
## Incidence and Mortality by Municipality

**Age-Adjusted Cancer Incidence Rates by Municipality in Puerto Rico  
Female Breast, 1999-2003\***



\*Rates are per 100,000 and age-adjusted to the 2000 P.R. population.

**Age-Adjusted Cancer Mortality Rates by Municipality in Puerto Rico  
Female Breast, 2000-2004\***



\*Rates are per 100,000 and age-adjusted to the 2000 P.R. population.

## Trends in Rates

Trends in rates can be described in many ways. Information for trends over a fixed period of time, for example 1987-2003, can be evaluated by the [annual percentage change \(APC\)](#). If there is a negative sign before the number, the trend is a decrease; otherwise it is an increase. If there is an asterisk after the APC then the trend was significant, that is, one believes that it is beyond chance, i.e. 95% sure, that the increase or decrease is real over the period 1987-2003. If the trend is not significant, the trend is usually reported as stable or level.

<b>Breast Cancer Incidence and Mortality Trends in Puerto Rico with associated APC (%)</b>				
<b>Sex</b>	<b>Incidence Trend (APC)</b>	<b>Period</b>	<b>Mortality Trend (APC)</b>	<b>Period</b>
Female	1.8**	1987-2003	-0.3	1987-2004

Between 1987-2003, the breast cancer incidence rate among females in Puerto Rico increased by an average of 1.8% each year while the mortality rates decreased by an average of 0.3% each year during 1987-2004. The incidence trend was statistically significant ( $p < 0.05$ ).

## Lifetime Risk

Based on rates from 1999-2003, 7.54% of women born today will be diagnosed with cancer of the breast at some time during their lifetime. This number can also be expressed as 1 in 13 women will be diagnosed with cancer of the breast during their lifetime. These statistics are called the [lifetime risk](#) of developing cancer. Sometimes it is more useful to look at the [probability of developing](#) cancer of the breast between two age groups. For example, 3.61% of women will develop cancer of the breast between their 50th and 70th birthdays.

## References

All statistics in this report are based on Puerto Rico cancer incidence and mortality and SEER (13 Registries) incidence and NCHS mortality statistics.

### Puerto Rico References

Puerto Rico Data Source:

**Incidence** - Puerto Rico Central Cancer Registry, Puerto Rico Cancer Incidence File (May 2007).

**Mortality** - Puerto Rico Central Cancer Registry, Puerto Rico Mortality File (released August 2006), provided by the Division of Statistical Analysis, Auxiliary Secretariat for Planning and Development, Puerto Rico Department of Health.

### US References

US Data Sources:

**Incidence** - SEER 13 Regs Limited-Use, Nov 2006 Sub (1992-2004) - Linked To County Attributes - Total U.S., 1969-2004 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2007, based on the November 2006 submission.

**Mortality** - (SEER) Program SEER\*Stat Database: Mortality - All COD, Public-Use With State, Total U.S. (1990-2004), NCI, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2007. Underlying mortality data provided by NCHS ([www.cdc.gov/nchs](http://www.cdc.gov/nchs)).

## Footnotes

<sup>1</sup>Statistics were generated from malignant cases only.

<sup>2</sup>US incidence data are collected by cancer registries participating in the National Cancer Institute's SEER Program (SEER 13 Registries).

<sup>†</sup>Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Persons of Hispanic origin may be any race. Incidence data for Hispanics is based on NHIA and excludes cases from Alaska Native Registry and Kentucky. Hispanic death rates exclude deaths from Minnesota, New Hampshire and North Dakota.

<sup>‡</sup>Incidence and mortality data for American Indians/Alaska Natives is based on the CHSDA (Contract Health Service Delivery Area) counties.

**\*\***The APC is significantly different from zero ( $p < .05$ ).

## Definitions

### Age-Adjusted Rate

A statistical method allowing comparisons of populations that takes into account age-distribution differences between populations. Most incidence and death data in Puerto Rico are age-adjusted. Age-adjusting takes the 2000 PR population distribution and applies it to other time periods under consideration. This assures that such rates do not reflect any changes in the population age distribution.

Most data in Puerto Rico have been age-adjusted to the **2000 PR population**. This allows

comparison across time and places in Puerto Rico taking into account differences in age structure of the populations. Also some data in PR have been age-adjusted to the **2000 US standard population**. This allows comparison across racial groups taking into account differences in age structure of the populations. Rates adjusted to *different* populations should **NOT** be compared. The comparisons between adjusted-rates should always be among rates that have been adjusted using the *same* population.

### Annual percent change (APC)

The average annual percent change over several years. The APC is used to measure trends or the change in rates over time. The calculation involves fitting a straight line to the natural logarithm of the data when it is displayed by calendar year.

### Lifetime risk

The probability of developing cancer in the course of one's lifespan. Lifetime risk may also be discussed in terms of the probability of developing or of dying from cancer.

### Probability of developing cancer

The chance that a person will develop cancer in his/her lifetime.

### Suggested Citation

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