



Breast Cancer in Georgia

Overview

Breast cancer is a malignant tumor that starts in the cells of the breast. There are several types of breast cancer, which may involve the lobules (the glands that produce milk), the ducts (which carry milk to the nipple), and/or the fatty tissue, the lymph nodes, and blood vessels. Breast cancer can be considered “in-situ”, meaning the cancer cells have not spread beyond the site of the original tumor; or “invasive”, meaning the cancer has spread to other parts of the breast or the body. While breast cancer is most commonly diagnosed in women, men can also get breast cancer. In Georgia between 2002 and 2006, over 99% of all diagnosed cases were in women and fewer than 1% were in men.

Methods

The number of cancer cases and incidence rates for the state of Georgia were obtained from the Georgia Comprehensive Cancer Registry (GCCR). The GCCR is a population-based cancer registry that includes all cancer cases diagnosed in Georgia residents since January 1, 1995. GCCR collects, analyzes, utilizes and disseminates cancer incidence data. This information is used to assist state agencies, health care providers, and Georgia citizens to monitor cancer incidence trends; plan and implement cancer control and prevention activities; develop public and professional education programs; and stimulate scientific cancer research. The number of cancer deaths and mortality rates for the state of Georgia were obtained from the Georgia Division of Public Health, Vital Records Branch.

Incidence and Mortality of Breast Cancer

Breast cancer is the leading cause of cancer diagnosed in Georgia women, and the second leading cause of cancer death in Georgia women (Table 1).

By Race

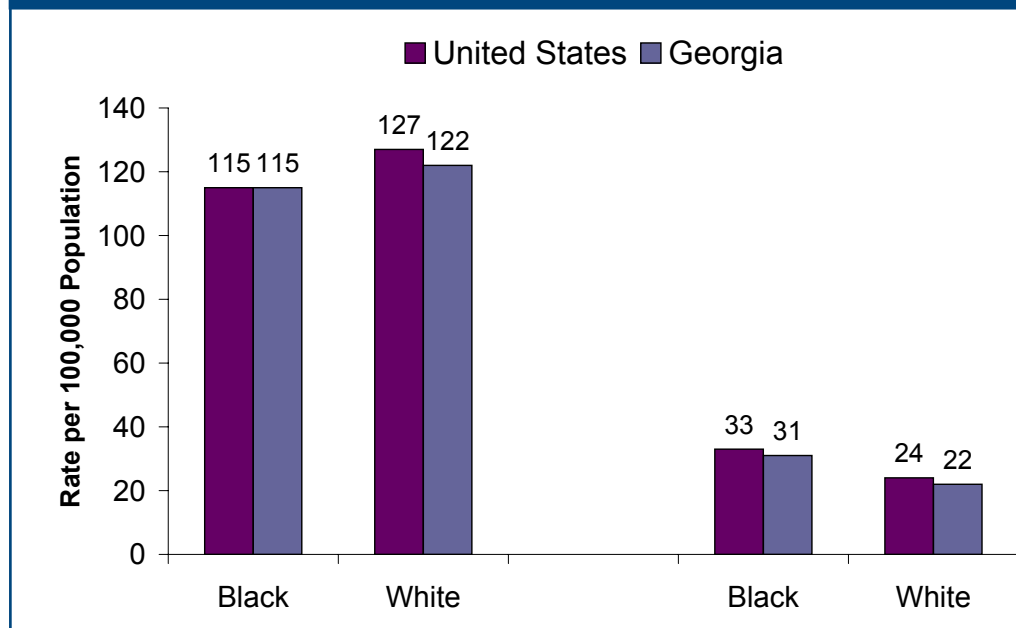
White women are more likely to be diagnosed with breast cancer than black women; however black women

are more likely to die from the disease (Figure 1). Georgia's incidence and mortality rates for breast cancer were lower than the US average for the years 2002-2006: Georgia's breast cancer incidence rate was 119 per 100,000 and the mortality rate was 24 per 100,000. For the same time period, the US breast cancer incidence rate was 122 per 100,000 and the mortality rate was 25 per 100,000.

Table 1. Top Five Cancer Types and Cancer Deaths in GA Females (2002-2006)

Cases	Deaths
Breast	Lung & Bronchus
Lung & Bronchus	Breast
Colon & Rectum	Colon & Rectum
Uterine Corpus	Pancreas
Melanoma	Ovary

Figure 1. Georgia Breast Cancer Incidence and Mortality Rates by Race



By Age

Although breast cancer can occur in women younger than 40, it is far less common. Breast cancer incidence and mortality sharply increase at age group 40-49. In Georgia, breast cancer rates are highest among women over 60 years of age, and mortality is highest among women over 80 years of age (Figure 2).

By Stage at Diagnosis

In Georgia women, the majority of breast cancer diagnoses occur in the in-situ and localized stages (68%). Only 3% of diagnoses in white women and 6% in black women occurred at a distant stage in 2002-2006, however there are still disparities between the groups, with black women generally being diagnosed at later stages than white women (Figure 3).

By Geography

Women living in urban counties in Georgia have higher rates of breast cancer than those living in rural counties. Incidence rates for white women are higher than for black women in both rural and urban counties. Mortality rates for black women are higher than for white women despite urban status (Figure 4 and Map 1).

Stage at diagnosis is very similar for women in both urban and rural counties. Women living in urban counties were more likely to be diagnosed at an in-situ stage, and were slightly less likely to be diagnosed at a regional stage, or to have their stage unknown. Easier access to screening services, as well as a higher number of services in urban counties may account for diagnosing women at an earlier stage (Figure 5).

Survival

Survival from breast cancer depends on how early the tumor is found, and how aggressive it is. For tumors found early (at the localized stage), five-year survival rates are 94% among US black women and 99% among US white women. If the cancer is diagnosed at the distant stage, the survival rates drop to 16% and 25%, respectively (Figure 6).

Risk Factors

Breast cancer has many recognized risk factors, some of which are controllable, and some are not (Table 2). However, the presence of one or more risk factors does not confirm that breast cancer will occur in a woman.

Figure 2. Georgia Breast Cancer Incidence and Mortality Rates by Age Group

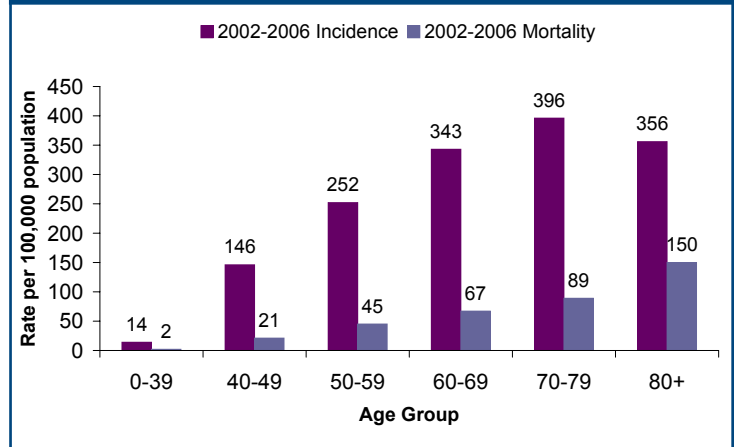


Figure 3. Stage at Diagnosis

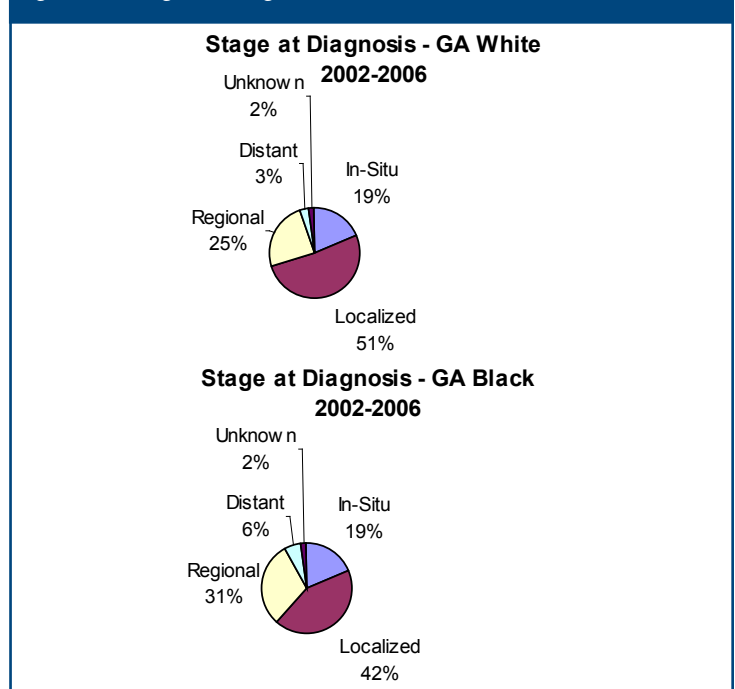
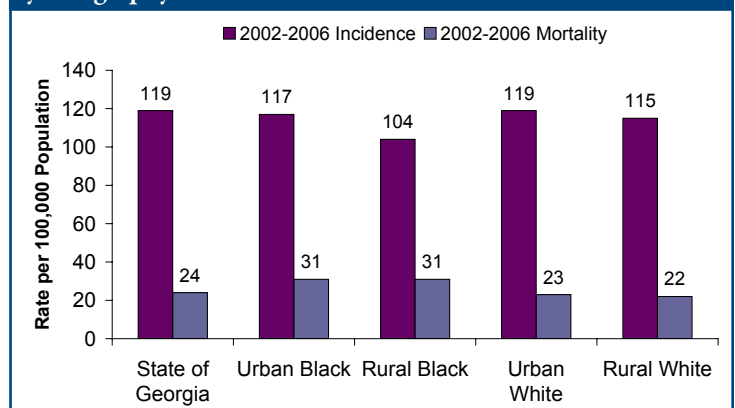


Figure 4. Georgia Breast Cancer Incidence and Mortality Rates by Geography



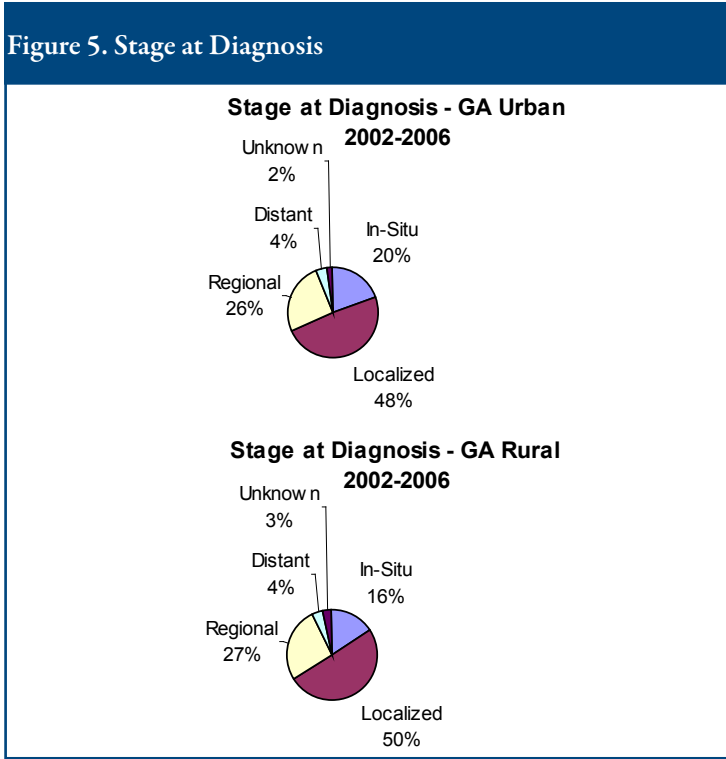
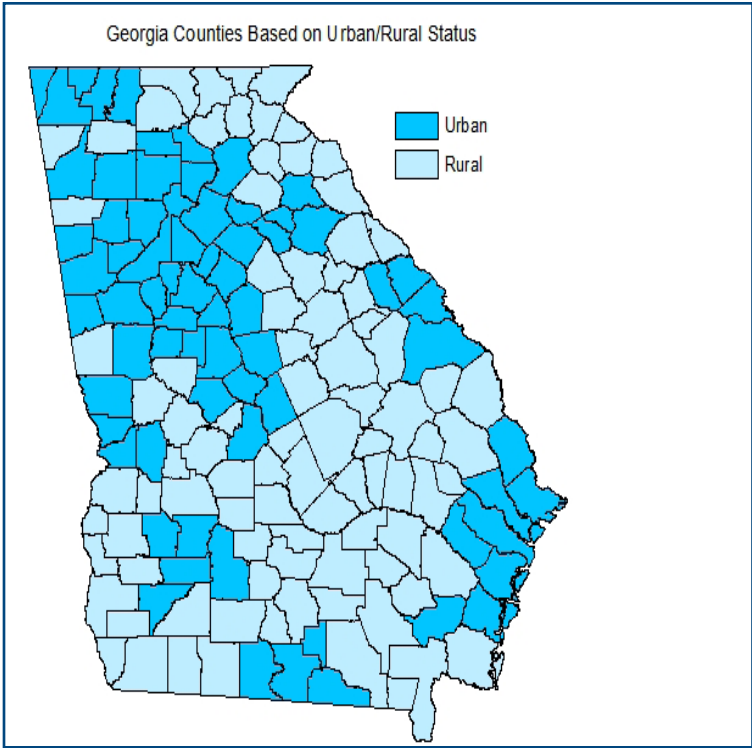
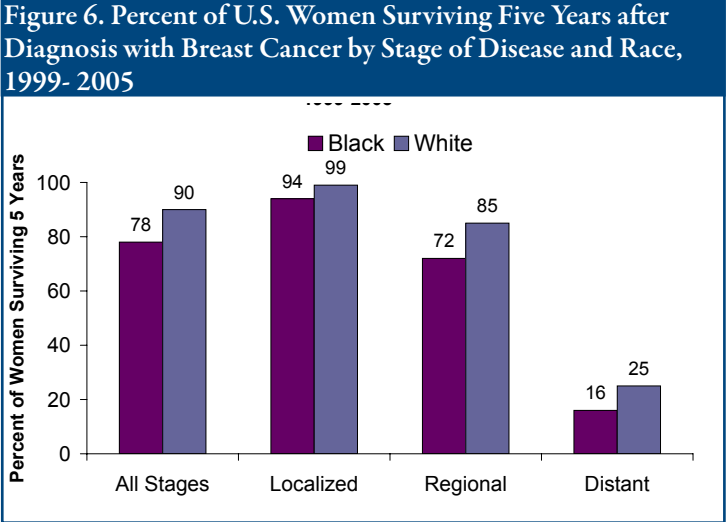


Table 2. Risk Factors for Breast Cancer

Controllable	Uncontrollable
Not having children	Sex (Female)
Taking birth control pills	Older age
Hormone replacement therapy	Genetic risk factors
Not breastfeeding	Family or personal history
Alcohol use	Race
Obesity	Exposure to chest radiation
Lack of exercise	Early menstruation/late menopause
	Treatment with diethylstilbestrol



Symptoms of Breast Cancer

The most common symptom of breast cancer is a new lump or mass; however, not all lumps are cancerous. It is important to have any new lumps inspected by a physician. Other symptoms of breast cancer include:

- Swelling in part of the breast
- Skin irritation or dimpling
- Nipple pain or nipple inversion
- Redness or scaliness on the nipple or breast skin
- Nipple discharge (not breast milk)
- A lump in the underarm area

Detection and Screening

The earlier breast cancer is found, the better the chances for treatment to be effective and thus, a better chance for survival. There are two primary methods of screening that are recommended to women: a mammogram and a clinical breast exam (CBE).

- Mammograms use X-ray technology to obtain an image of the breast to inspect for tumors or other abnormalities. Women aged 40 and older are advised to have a mammogram every year.
- A CBE is a physical breast examination by a health care professional to feel for any lumps. Women in their 20s and 30s should have a CBE every three years, and every year after age 40.

Treatment and Prognosis

There are several forms of treatment of breast cancer, and all have related benefits and side effects. Localized cancers (those that have not spread beyond the site of origin) are most easily and usually most successfully treated, hence the importance of regular screening. The most common forms of treatment are:

- **Surgery:** This option can range from a simple lumpectomy to remove a breast mass to a radical mastectomy that removes the entire breast and lymph nodes. The type of surgery required depends on the severity of the cancer.
- **Chemotherapy:** This involves the use of strong drugs to kill the cancer cells. Chemotherapy is often administered after surgery to prevent cancer from returning; however it may also be given before surgery to reduce the size of the tumor.
- **Radiation therapy:** This uses high-energy radiation to kill cancer cells.
- **Hormone therapy:** Drugs may be given to block the effects of estrogen, which may contribute to the growth of cancer in some women.
- **Immunotherapy:** For some women with tumors that have too much of a growth protein called HER2/neu, the use of Herceptin can stop the protein from causing breast cancer cell growth.

Services in Georgia

National Breast and Cervical Cancer Early Detection Program
This program was created by the Centers for Disease Control and Prevention (CDC) after Congress passed the Breast and Cervical Cancer Mortality Prevention Act in 1990. The program aims to provide access to breast and cervical cancer screening to low-income, uninsured, and underinsured women. The program is funded in all 50 states.

In Georgia the program is called the Breast and Cervical Cancer Program (also: Cancer Screening Program), and helps to provide mammograms and CBEs to women in need. It was launched in 1994 and is primarily funded by the CDC and the state; additional funding sources include Susan G. Komen for the Cure.

In order to be eligible for the program, a woman must have a household income equal to or less than 200% of the federal poverty level, be uninsured or underinsured (and not eligible for Medicaid or Medicare), and it must have been at least one year since her last mammogram or pap test, or else she must have suspicious symptoms suggestive of cancer. Women generally must be age 40 or older to receive screening services, although sometimes younger women with abnormal symptoms may be referred for diagnostic services.

This article was written by Alissa Berzen, MPH, Breast and Cervical Cancer Screening Epidemiologist and Rana Bayakly, MPH, GA Comprehensive Cancer Registry

Women's Health Medicaid Program

The Women's Health Medicaid Program is administered in Georgia through the Georgia Department of Community Health, and was established in 2001 following the passage of the National Breast and Cervical Cancer Prevention and Treatment Act of 2000.

Low-income women who have been diagnosed with breast cancer and need to access treatment can apply to the program. To be considered eligible, a woman must meet the financial requirement for the Breast and Cervical Cancer Program, be under 65 years of age, be a US citizen and Georgia resident, and must not have health coverage (and not be eligible for Medicare or Medicaid).

Definitions:

Age-adjusted rate: A rate calculated in a manner that allows for the comparison of rates derived from populations with different age structures.

Cancer incidence rate: The number of new cancer cases occurring in a population during a specified period of time. Often expressed per 100,000 population.

Cancer mortality rate: The number of cancer deaths occurring in a population during a specified period of time. Often expressed per 100,000 populations.

Risk factor: A behavior, characteristic, or finding on clinical examination that is consistently associated with increased probability of a disease or complications from the disease.

Cancer Stages:

- **Local:** an invasive malignant cancer confined entirely to the organ of origin.
- **Regional:** A malignant cancer that
 - o has extended beyond the limits of the organ of origin directly into surrounding organs or tissue; and
 - o involves regional lymph nodes by way of lymphatic system; and
 - o has both regional extension and involvement of regional lymph nodes.
- **Distant:** A malignant cancer that has spread to parts of the body remote from the primary tumor either by direct extension or by discontinuous metastasis to distant organs, tissues or via the lymphatic system to distant lymph nodes.

Rural-Urban Classification: The rural urban classification of Georgia counties was based on the 2003 Rural-Urban Continuum Codes from the United States Department of Agriculture, Economic Research Service. Information about the Rural-Urban Continuum Codes can be retrieved from <http://www.ers.usda.gov/Data/RuralUrbanContinuumCodes/>.

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We look forward to continuing to provide you with important public health information in Georgia.

Reported Cases of Selected Notifiable Diseases in Georgia, Profile* for June 2009

Selected Notifiable Diseases	Total Reported for June 2009	Previous 3 Months Total Ending in June			Previous 12 Months Total Ending in June		
	2009	2007	2008	2009	2007	2008	2009
Campylobacteriosis	94	195	204	225	626	700	739
<i>Chlamydia trachomatis</i>	3276	10867	11304	10176	41794	42967	42506
Cryptosporidiosis	41	42	53	101	264	267	331
<i>E. coli</i> O157:H7	2	4	17	5	33	58	34
Giardiasis	63	146	143	177	700	707	818
Gonorrhea	1088	4570	3988	3411	19490	16982	15489
<i>Haemophilus influenzae</i> (invasive)	14	34	30	36	128	141	150
Hepatitis A (acute)	7	25	10	12	76	49	51
Hepatitis B (acute)	8	37	43	24	176	168	165
Legionellosis	5	11	8	14	48	40	50
Lyme Disease	9	4	16	18	8	23	42
Meningococcal Disease (invasive)	3	4	7	11	19	26	26
Mumps	0	0	2	0	0	2	1
Pertussis	8	5	4	47	28	15	83
Rubella	0	0	0	0	0	0	0
Salmonellosis	254	362	549	543	1931	2147	2335
Shigellosis	74	628	401	199	1790	1487	728
Syphilis - Primary	17	26	43	46	104	128	180
Syphilis - Secondary	73	133	175	213	535	708	818
Syphilis - Early Latent	54	109	144	173	419	508	653
Syphilis - Other**	67	315	384	201	1101	1359	1089
Syphilis - Congenital	1	3	6	3	10	15	10
Tuberculosis	42	139	145	112	520	481	425

* The cumulative numbers in the above table reflect the date the disease was first diagnosed rather than the date the report was received at the state office, and therefore are subject to change over time due to late reporting. The 3 month delay in the disease profile for a given month is designed to minimize any changes that may occur. This method of summarizing data is expected to provide a better overall measure of disease trends and patterns in Georgia.

** Other syphilis includes latent (unknown duration), late latent, late with symptomatic manifestations, and neurosyphilis.

AIDS Profile Update

Report Period	Disease Classification	Total Cases Reported*			Percent Female	Risk Group Distribution %						Race Distribution %			
		<13yrs	>=13yrs	Total		MSM	IDU	MSM&IDU	HS	Unknown	Perinatal	White	Black	Hispanic	Other
Latest 12 Months	HIV, non-AIDS	10	2,896	2,906	25	32	2	1	4	61	<1	25	69	4	<1
8/08-07/09	AIDS	0	1,692	1,692	21	34	2	1	6	56	<1	25	67	6	<1
Five Years Ago:**	HIV, non-AIDS	25	2,116	2,141	32	30	9	4	12	44	<1	20	75	3	<1
08/04-07/05	AIDS	5	1,524	1,529	26	33	7	3	13	45	<1	19	75	4	<1
Cumulative:	HIV, non-AIDS	226	13,796	13,908	31	30	5	2	10	53	<1	22	73	4	1
08/81-07/09	AIDS	240	34,304	34,544	20	43	14	5	14	24	<1	30	66	3	<1

Yrs - Age at diagnosis in years MSM - Men having sex with men IDU - Injection drug users HS - Heterosexual

* Case totals are accumulated by date of report to the Epidemiology Section ** Due to a change in the surveillance system, case counts may be artificially low during this time period
 ***HIV, non-AIDS was not collected until 12/31/2003