



Georgia Department of Public Health

Breast and Cervical Cancer Data Overview

Presentation to: Chronic Disease University

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We Protect Lives.

Learning Objectives

Participants will be able to:

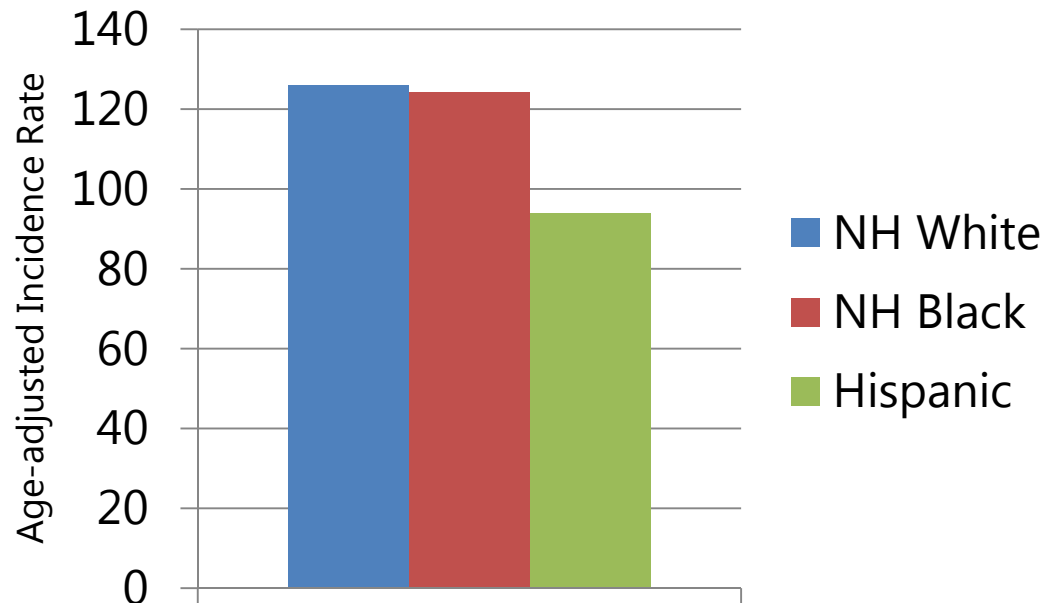
- Describe the current incidence and mortality of breast and cervical cancer in Georgia
- Understand cancer screening guidelines and current screening numbers in Georgia
- Differentiate between data sources used in the analysis of breast and cervical cancer data
- Understand which data sources are appropriate for various types of data analysis

Outline

- Current breast and cervical cancer data
 - Incidence
 - Mortality
 - Screening
 - Survival
 - Eligible population for BCCP
- Breast and cervical cancer data sources and uses
 - GA Comprehensive Cancer Registry and North American Association of Central Cancer Registries (NAACCR)
 - GA Breast and Cervical Cancer Program (BCCP) data
 - Behavioral Risk Factor Surveillance System (BRFSS)
 - Surveillance, Epidemiology, and End Results Program (SEER)
 - Small Area Health Insurance Estimates

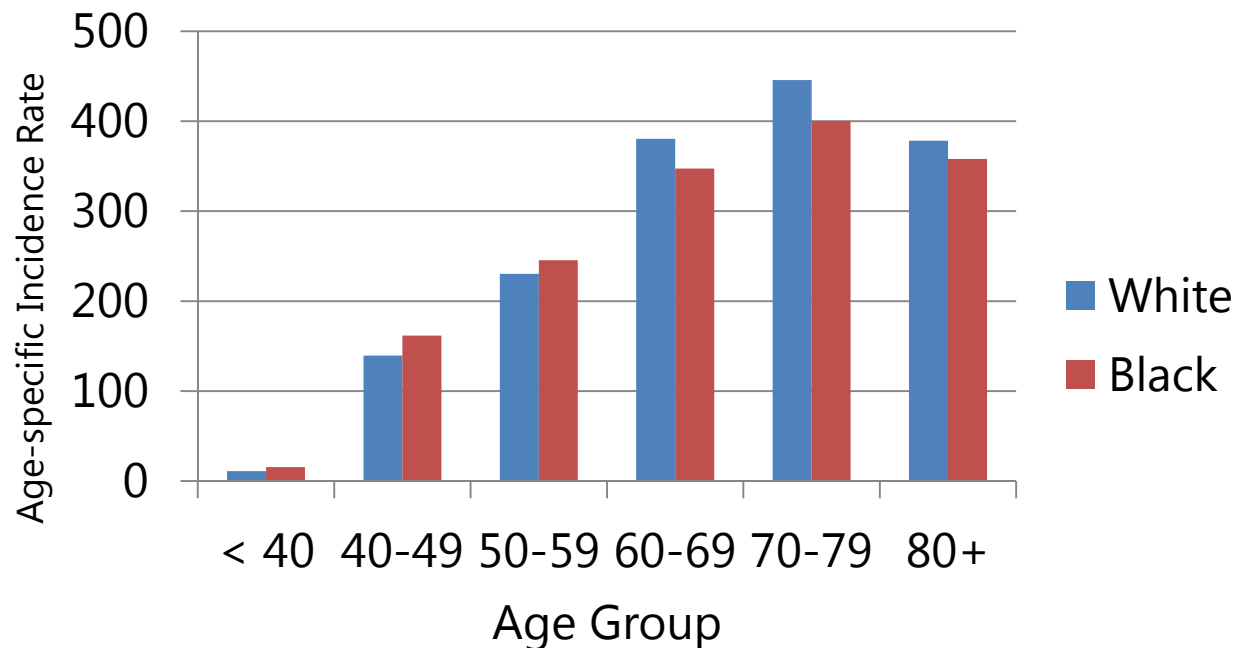
Breast Cancer Incidence (2008-2012)

- #1 most frequently diagnosed cancer in Georgia females
- 124 cases per 100,000 females in Georgia
- White women have traditionally had higher incidence rates than black or Hispanic women



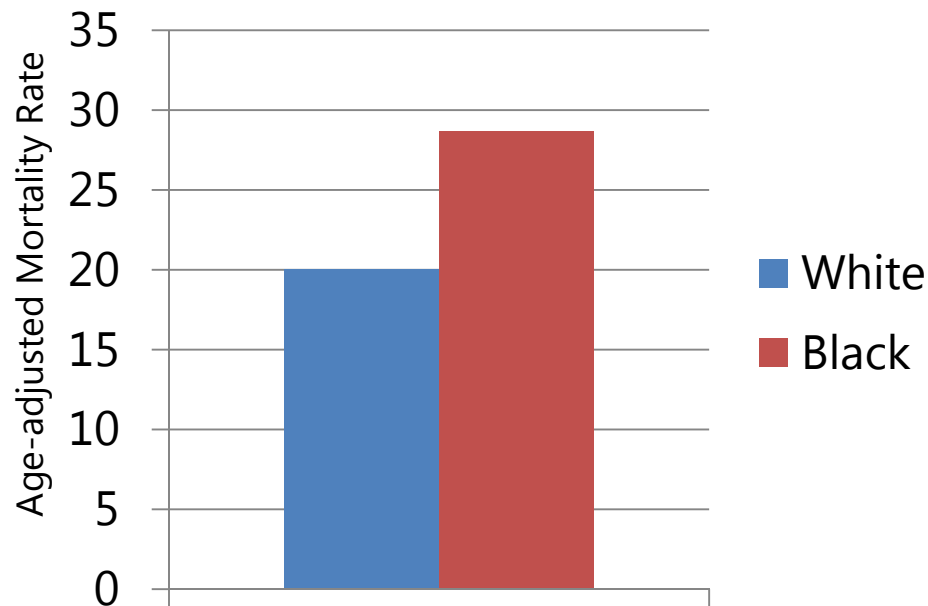
Breast Cancer Incidence (2008-2012)

- Breast cancer incidence rates lowest in women <40 years
- After age 40, incidence rises sharply, with highest rates in women age 60+



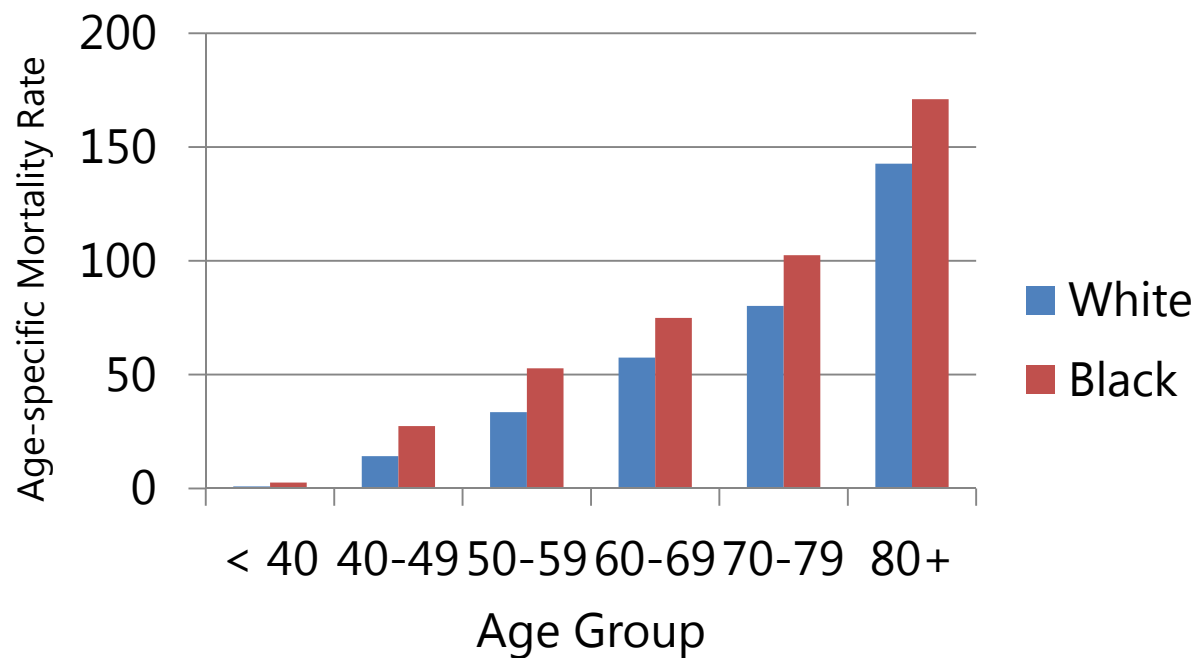
Breast Cancer Mortality (2007-2012)

- #2 most common cause of cancer death in Georgia females
- 22 deaths per 100,000 females in Georgia
- Black women have a higher mortality rate than white women, although their incidence rate is lower



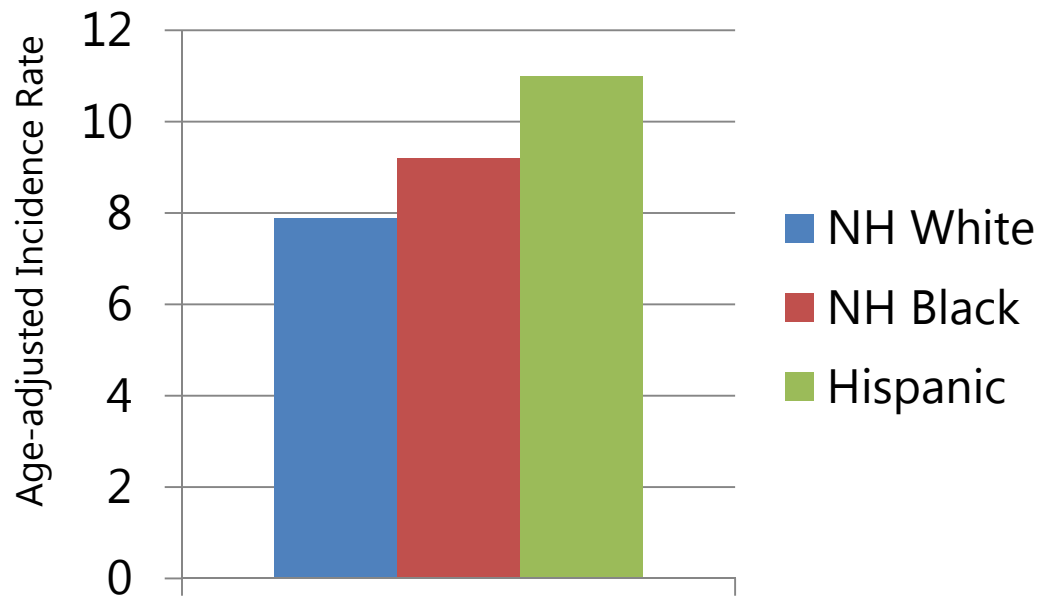
Breast Cancer Mortality (2007-2012)

- Breast cancer mortality rates lowest in women <40 years
- After age 40, mortality rises steadily – but black women have higher mortality rates than white women at all age ranges



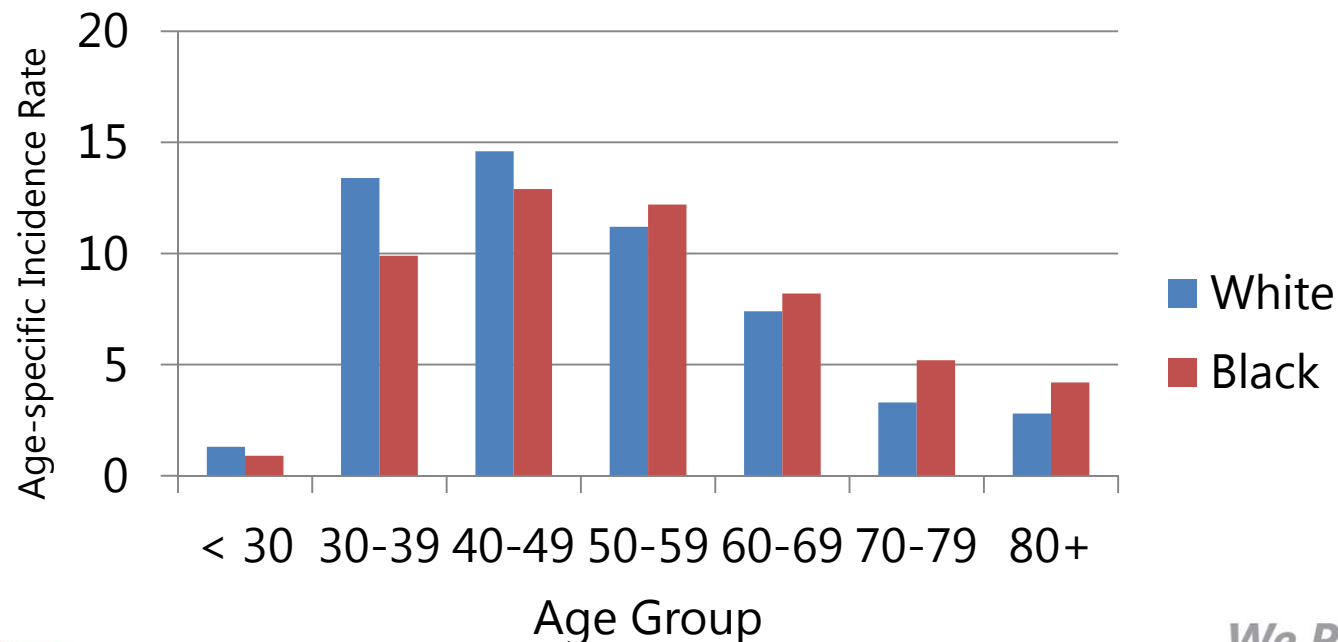
Cervical Cancer Incidence (2008-2012)

- #13 most frequently diagnosed cancer in GA females
- 8 cases per 100,000 females in Georgia
- Hispanic women have highest rates of cervical cancer; non-Hispanic white women have the lowest



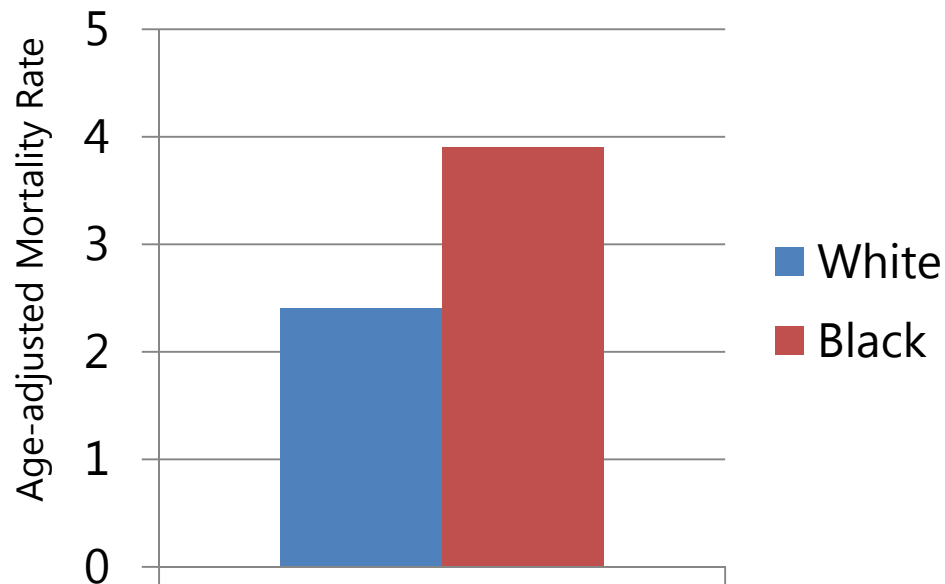
Cervical Cancer Incidence (2008-2012)

- Cervical cancer incidence rates lowest in women <30 years
- Incidence rates highest in 30-39 and 40-49 age groups and then declines with age



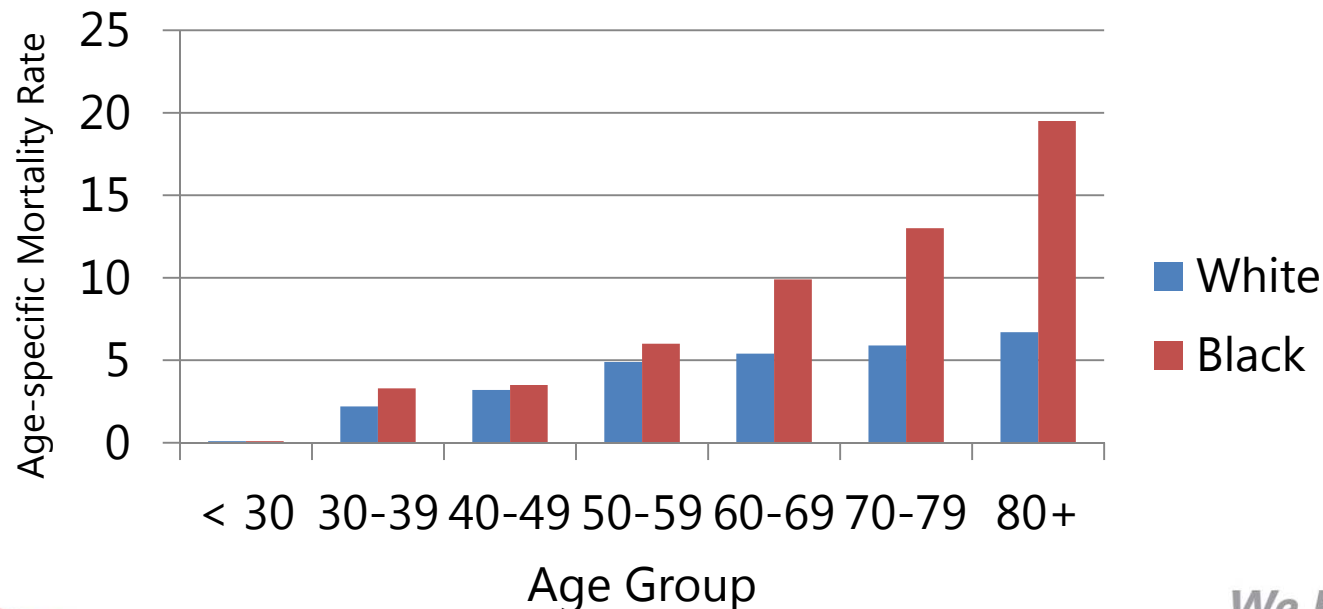
Cervical Cancer Mortality (2007-2012)

- #11 most common cause of cancer death in Georgia females
- 3 deaths per 100,000 females in Georgia
- Black women have higher mortality rate than white women



Cervical Cancer Mortality (2007-2012)

- Cervical cancer mortality rates lowest in women <30 years
- After age 30, mortality rises steadily with age – but black women's rates rise more sharply and maintain higher mortality rates than white women at all age ranges



Breast Cancer Screening

- *Old ACS guidelines:* Annual mammogram beginning at age 40 (for as long as in good health)
- *New ACS guidelines:* Annual mammograms between ages 45-55, every other year beginning at age 55
- *USPSTF guidelines:* Mammogram every other year for women ages 50-74

Breast Cancer Screening*

	All Women 40+	White Women 40+	Black Women 40+
Mammogram within 1 year	61.3 %	59.6 %	65.0 %
Mammogram within 2 years	76.0 %	75.2 %	78.2 %

*Using older ACS screening guidelines
Source: GA BRFSS 2011-2014

Cervical Cancer Screening

- *ACS/USPSTF guidelines:*
 - Pap test every three years between ages 21-29
 - Between ages 30-65 should have Pap test and HPV test every five years (co-testing), or can have Pap test every three years
 - Over age 65 – can stop screening if have had history of normal screening results
 - Women diagnosed with cervical pre-cancer should continue screening

	Women 21-65	White Women 21-65	Black Women 21-65
Pap Test within 3 years	85.8 %	80.8 %	91.1 %

Source: GA BRFSS 2011-2014

Breast Cancer Survival*, Georgia, 2005-2011

Stage	All Women	NH White Women	NH Black Women
All Stages	86.4 %	88.7 %	80.3 %
Localized	96.7 %	97.5 %	94.4 %
Regional	81.2 %	83.5 %	75.7 %
Distant	22.4 %	24.0 %	18.9 %
Unstaged/unknown	51.8 %	48.7 %	55.7 %

*Invasive cancer only
Five-year relative survival
Based on follow-up through Dec 2012

Cervical Cancer Survival*, Georgia, 2005-2011

Stage	All Women	NH White Women	NH Black Women
All Stages	64.2 %	66.3 %	57.7 %
Localized	87.6 %	88.5 %	83.9 %
Regional	54.3 %	52.7 %	54.8 %
Distant	14.3 %	16.6 %	9.8 %
Unstaged/unknown	54.4 %	59.0 %	42.2 %

*Invasive cancer only
Five-year relative survival
Based on follow-up through Dec 2012

Eligible Population for BCCCP

- Georgia Breast and Cervical Cancer Program
 - Provides breast and cervical cancer screening to low income, uninsured women, diagnostic testing if needed, referrals for treatment (Women's Health Medicaid)
 - Began screening women in 1995
- Eligibility requirements
 - Breast: Age 40-64, uninsured, income \leq 200% FPL
 - Cervical: Age 21-64, uninsured, income \leq 200% FPL
- GA Population eligible for breast (2013): 218,282
- GA Population eligible for cervical (2013): ~500,000

Data Sources

Data Source: GCCR

- Georgia Comprehensive Cancer Registry (GCCR)
- Statewide, population-based cancer registry
 - Collects data on all cancers diagnosed in Georgia residents
 - Contains data back to 1995
- Mandatory reporting of cancer cases to GCCR
- GCCR participates in the National Program for Cancer Registries (NPCR), estab. 1992 - supports registries in 45 states and D.C. (covers 96% of US population)
- Also a member of the North American Association of Central Cancer Registries (NAACCR), estab. 1987
- Has been a SEER member since 2000

Data Source: GCCR

- Contains demographic data for cases
 - Name
 - SSN
 - Address
 - Race
 - Birthdate
 - Occupation
 - County of residence
 - Hispanic ethnicity
- Contains incidence data for newly diagnosed cases
 - Site
 - Age at Diagnosis
 - Histology
 - Morphology
 - Tumor Size
 - Vital Status
 - Staging
 - Node Involvement
 - Metastasis
 - First course of treatment

Data Source: GCCR

- De-identified registry file can be used to calculate:
 - Crude incidence rates
 - Age-adjusted incidence rates
 - Age-specific incidence rates
 - Site-specific incidence rates
 - Frequency tables
 - Rates by geography
 - Survival rates
- Full, identifiable registry file can be linked to other files for analysis
 - Annual linkage between BCCP diagnosed cases and cancer registry

Data Source: BCCP

- Data for clients served by BCCP for screening and/or diagnosis
- Demographic/enrollment data:
 - Name
 - Address
 - Birthdate
 - SSN
 - Race/ethnicity
 - Income/insurance status
 - Visit date
 - Clinic ID
 - Screening test results (CBE, mam, Pap)
 - Funding source for service
- Diagnosis/Treatment data:
 - Procedure(s) done
 - Dates of procedure(s)
 - Test results
 - Final diagnosis
 - Date of diagnosis
 - Treatment status
 - Treatment start date
 - Funding source

Data Source: BCCP

- BCCP data – valid for program use only
- Not population-based, not generalizable
- Year-to-year funding dictates how many women can be served across the state
- Current funding = less than 15% of eligible population can be served by BCCP
- Data is used to track program progress
- Data used to conduct CDC-required internal evaluation of provision of services (proper screening protocols, timeliness of diagnosis/treatment)

Data Source: BRFSS

- Behavioral Risk Factor Surveillance System
- Annual telephone survey of noninstitutionalized adults aged 18+
- Breast and cervical cancer screening questions asked every year in Georgia
 - Even years: Core questions
 - Odd years: Module questions
- Can compare national and state trends

Data Source: BRFSS

- Breast cancer screening questions
 - Ever had clinical breast exam
 - If yes, how long since most recent exam
 - Ever had mammogram
 - If yes, how long since most recent exam
- Cervical cancer screening questions
 - Ever had Pap test
 - If yes, how long since most recent exam
 - Ever had hysterectomy

Data Source: SEER

- Surveillance, Epidemiology, and End Results
- Population-based cancer registry representing almost 30% of US population
 - Comprised of 18 registries covering different geographic areas (sometimes cities, sometimes states)
 - Data for nine original registries dating back to 1973
 - Data for all 18 registries combined dating to 2000
- Contains data on demographics, incidence, survival, some treatment
- Atlanta: member since 1975
- All of Georgia: member since 2000

Data Source: SAHIE

- Small Area Health Insurance Estimates
- Provided by US Census
- Annual population counts for various demographic groups used to determine eligible population for NBCCEDP programs (GA BCCP)
- Can calculate by:
 - State or county
 - Sex
 - Race
 - Age group
 - Insurance status
 - Income level

Other Data Sources: Non-Cancer

- Death data: to calculate cancer mortality rates
 - Via death certificates
 - Provided by Office of Vital Records
- Rural Urban Continuum Codes: to study rural/urban differences in cancer incidence
 - Provided by Economic Research Service (USDA)
 - Nine classifications based on county
 - Metro (based on population) and nonmetro (based on population and metro adjacency)
- US Census: to produce age-adjusted cancer incidence rates
 - Age distributions to be used as weights for age standardization

Contact Information

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