

I. HEALTH ASSESSMENT

C. HEALTH STATUS

3. CANCER

1. WHAT IS THE HEALTH STATUS OF DELAWARE RESIDENTS WITH RESPECT TO CANCER?

In general, cancer mortality rates in Delaware are higher than in comparison states and the U.S., and cancer incidence rates are higher than in the U.S.

- Consistent with stakeholder concerns, Delaware residents die from cancer at a slightly higher rate than in the nation and comparison states.

- In 1997, Delaware residents exhibited a **cancer death rate** (186.3 deaths per 100,000 persons) six percent to 20 percent higher than comparison states and 13 percent higher than in the U.S., after adjusting for differences in age¹.

- The Area's cancer death rate was six percent higher than the Healthy People 2000 objective of 175.0 cancer deaths per 100,000 persons.

- **The new case rate of cancer in Delaware is greater than in the U.S.**

- Using pooled data from 1993 to 1997, Delaware's **cancer incidence** rate was 14 percent higher than that of the U.S. (441.2 new cases per 100,000 persons and 388.6 new cases per 100,000 persons, respectively).

- **Both the death rate and the incidence of trachea, lung, and bronchus cancer in the Delaware are higher than benchmark rates.**

- Similar to state and national trends, **trachea, lung, and bronchus cancer** are some of the most common types of cancer in Delaware.

TECHNICAL NOTE

Due to the small number of incidents of several cancer mortality indicators (i.e., breast and prostate cancer), slight year-to-year changes can lead to substantial fluctuations in annual rates. Delaware adjusts for these fluctuations by calculating five-year average rates. The Lewin Group chose to use single year statistics instead of five-year averages in order to benchmark Delaware against other states.

Most of the data presented in the Health Assessment are 1997 data from the National Center for Health Statistics. Although Delaware has published 1998 vital statistics data, The Lewin Group used 1997 data in order to compare Delaware to other states and the nation.

¹ All cancer mortality and incidence statistics are adjusted to 1970 U.S. national population, the standard recommended by the National Cancer Institute. The five-year average mortality rate for cancer in Delaware was 144.9.

- In 1997, Delaware's **trachea, lung, and bronchus cancer mortality** rate of 57.3 deaths per 100,000 persons was eight percent to 21 percent higher than those of comparison states and 15 percent higher than that of the U.S.²
 - Delaware fell short of the Healthy People 2000 objective for trachea, lung, and bronchus cancer mortality (53.0 deaths per 100,000 persons) by eight percent.
- Using pooled data from 1993 to 1997, Delaware residents experienced a trachea, lung, and bronchus cancer incidence rate (77.3 new cases per 100,000 persons) 43 percent higher than in the U.S.
- **Delaware females die from breast cancer at a slightly higher rate than those in benchmarks.**
 - In 1997, the Delaware **breast cancer mortality rate** for women (27.5 deaths per 100,000 females) was slightly higher than most benchmarks, which ranged from 22.5 deaths per 100,000 females to 27.7 deaths per 100,000 females³.
 - Delaware's breast cancer mortality rates were nine percent higher than the Healthy People 2000 objective for reducing breast cancer mortality to no more than 25.2 deaths per 100,000 females.
 - From 1993 to 1997, **breast cancer incidence** (118.9 new cases per 100,000 females) was seven percent higher than in the U.S.
- **Delaware women experience a much higher new case rate for cervical cancer compared to the U.S.**
 - From 1993 to 1997, **cervical cancer incidence** (9.4 new cases per 100,000 females) was 22 percent higher than in the U.S.
- **In general, Delaware males die from prostate cancer more frequently and appear to experience a higher incidence of prostate cancer.**
 - In 1997, Delaware exhibited a **prostate cancer** mortality rate of 26.9 deaths per 100,000 males. This rate was 18 percent higher than in the U.S. and between six percent to 37 percent greater than in comparison states.
 - From 1993 to 1997, Delaware experienced a **prostate cancer incidence rate** (159.8 new cases per 100,000 males) 18 percent higher than the U.S.
- **Delaware's colon cancer mortality and incidence rates are higher than those of the U.S. and comparison states.**
 - In 1997, Delaware residents **died** from **colon cancer** at a rate (17.0 deaths per 100,000 persons) eight percent to 48 percent higher than in comparison states.

² The five-year average mortality rate for trachea, lung, and bronchus cancer in Delaware was 48.5.

³ The five-year average mortality rate for breast cancer in Delaware was 10.0.

- From 1993 to 1997, the Delaware's **colorectal cancer incidence** rate (48.5 new cases per 100,000 persons) was 14 percent higher than that of the U.S.
- According to a survey conducted by The Lewin Group in 2000, only 54 percent of Delaware residents age 50 years and older who were interviewed received a **colonoscopy**.

2. HOW DOES THE HEALTH STATUS FOR CANCER DIFFER BY COUNTY?

Of the three counties, Sussex County exhibits the highest overall incidence of cancer, and tends to show slightly higher incidence rates for invasive cancer, with the exception of breast and prostate cancer, than New Castle and Kent Counties.

- **Kent County has the lowest overall cancer incidence, but the highest incidence of prostate cancer.**
 - From 1993 to 1997, **Kent County** residents exhibited the **lowest rate of overall cancer incidence** (406.4 new cases per 100,000 persons) compared to Sussex and New Castle Counties (455.6 new cases per 100,000 persons and 445.6 new cases per 100,000 persons, respectively).
 - **Sussex County** exhibited **slightly higher incidence rates** than New Castle and Kent Counties for trachea, bronchus, and lung cancer; cervical cancer; and colorectal cancer from 1993 to 1997.
 - In terms of **trachea, bronchus, and lung cancer incidence**, Sussex County experienced 81.9 new cases per 100,000 persons, compared to 76.3 new cases per 100,000 persons and 75.4 new cases per 100,000 persons in New Castle and Kent Counties, respectively.
 - Sussex County experienced a higher **incidence rate for cervical cancer** (14.5 new cases per 100,000 persons) relative to New Castle and Kent Counties (7.7 new cases per 100,000 persons and 9.3 new cases per 100,000 persons, respectively).
 - The **incidence rate for colorectal cancer** in Sussex County (52.8 new cases per 100,000 persons) was slightly higher than those of New Castle and Kent Counties (49.1 new cases per 100,000 persons and 42.3 new cases per 100,000 persons, respectively).
 - From 1993 to 1997, **New Castle County** exhibited the **highest incidence of breast cancer** (124.0 new cases per 100,000 persons) compared to Kent and Sussex Counties (110.4 new cases per 100,000 persons and 114.5 new cases per 100,000 persons, respectively).
 - **Kent County** experienced the **highest incidence of prostate cancer** (161.9 new cases per 100,000 persons) relative to New Castle and Sussex Counties (159.3 new cases per 100,000 persons and 157.1 new cases per 100,000 persons, respectively).

Exhibit I-C-24:

In general, Delaware’s cancer incidence and mortality rates are higher than state and national benchmarks.

Health Status Indicators

Cancer	
All Malignant Neoplasms – Mortality	—
Invasive Cancer – Incidence	—
Trachea, Bronchus, and Lung Cancer – Mortality	—
Trachea, Bronchus, and Lung Cancer – Incidence	—
Breast Cancer – Mortality	—
Breast Cancer – Incidence	—
Cervical Cancer – Incidence	—
Prostate Cancer – Mortality	—
Prostate Cancer – Incidence	—
Colon Cancer – Mortality	—
Colorectal Cancer - Incidence	—

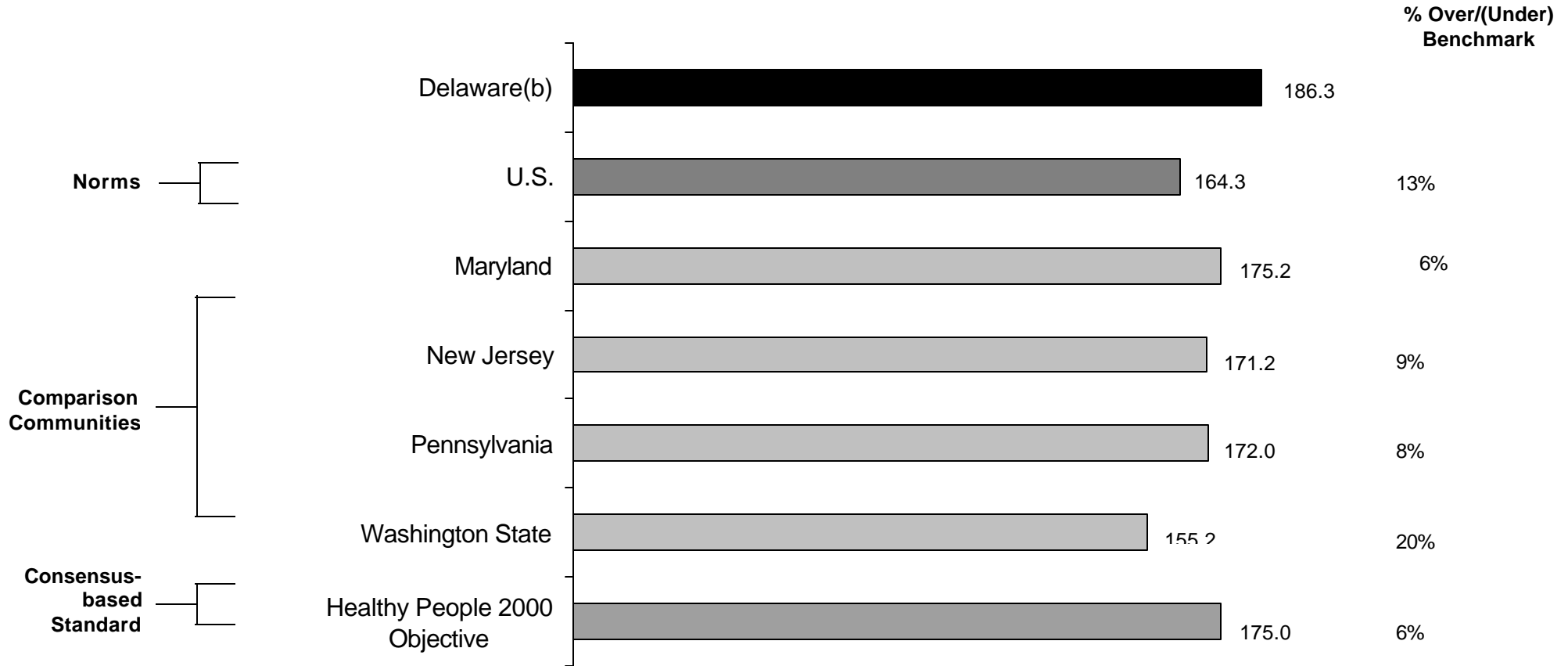
Performance Relative to Benchmarks: **+** More Favorable \Leftrightarrow Comparable **—** Less Favorable

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-25:

In 1997, Delaware residents died from cancer at slightly higher rates than state, national and Healthy People 2000 benchmarks.

Cancer Death Rates per 100,000 Persons^(a) 1997



Sources: 1-6) 1997 data, U.S. National Center for Health Statistics; CDC, CDC Wonder Data Extraction Software; 7) Healthy People 2000 Objectives.

Notes: (a) Death rates are age-adjusted to the 1970 U.S. national population.

(b) Although Delaware uses five-year averages to compensate for small sample size, one-year rates are used here so that Delaware can be compared to benchmarks. The five-year average mortality rate for cancer in Delaware was 144.9.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-26:

The rate of new cancer cases experienced by Delaware residents was higher than the national rate.

**Cancer Incidence Rate per 100,000 Persons
1993 - 1997 Pooled Data**



Sources: 1) 1993 - 1997 data, Delaware Division of Public Health, Epidemiology Branch; 2) 1995 data, National Cancer Institute, SEER Cancer Statistics Review 1973 - 1995.

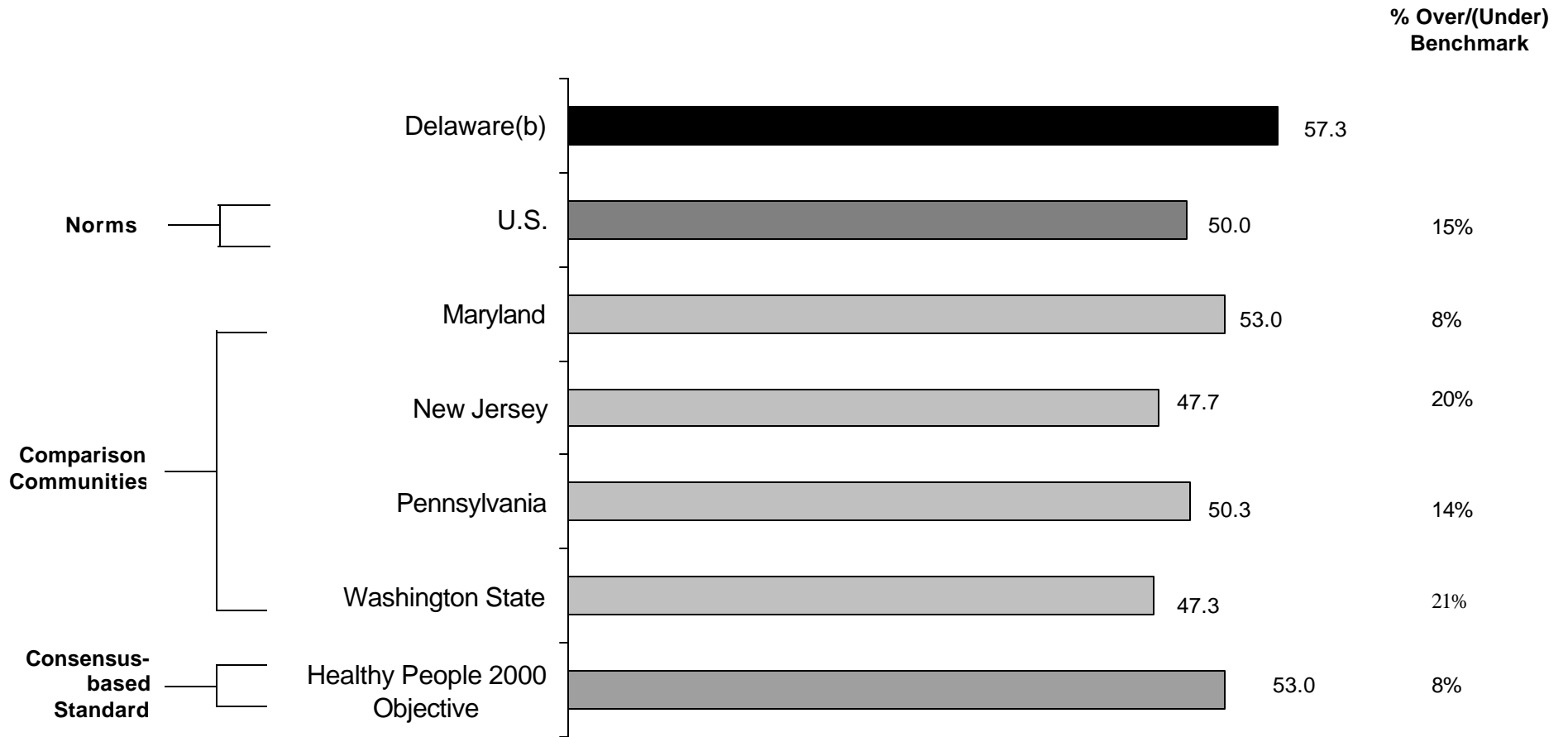
Notes: (a) Incidence rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-27:

Delaware experienced a higher trachea, bronchus, and lung cancer death rate compared to benchmarks.

Trachea, Bronchus, and Lung Cancer Deaths per 100,000 Persons^(a) 1997



Sources: 1-6) 1997 data, U.S. National Center for Health Statistics; CDC, CDC Wonder Data Extraction Software; 7) Healthy People 2000 Objectives.

Notes: (a) Death rates are age-adjusted to the 1970 U.S. national population.

(b) Although Delaware uses five-year averages to compensate for small sample size, one-year rates are used here so that Delaware can be compared to benchmarks. The five-year average mortality rate for trachea, bronchus, and lung cancer in Delaware was 48.5.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-28:

The new case rate for lung and bronchus cancer experienced by Delaware residents was 43 percent higher than the national rate.

**Trachea, Bronchus, and Lung Cancer Incidence Rates per 100,000 Persons
1993 - 1997 Pooled Data**



Sources: 1) 1993 - 1997 data, Delaware Division of Public Health, Epidemiology Branch; 2) 1995 data, National Cancer Institute, SEER Cancer Statistics Review 1973 - 1995.

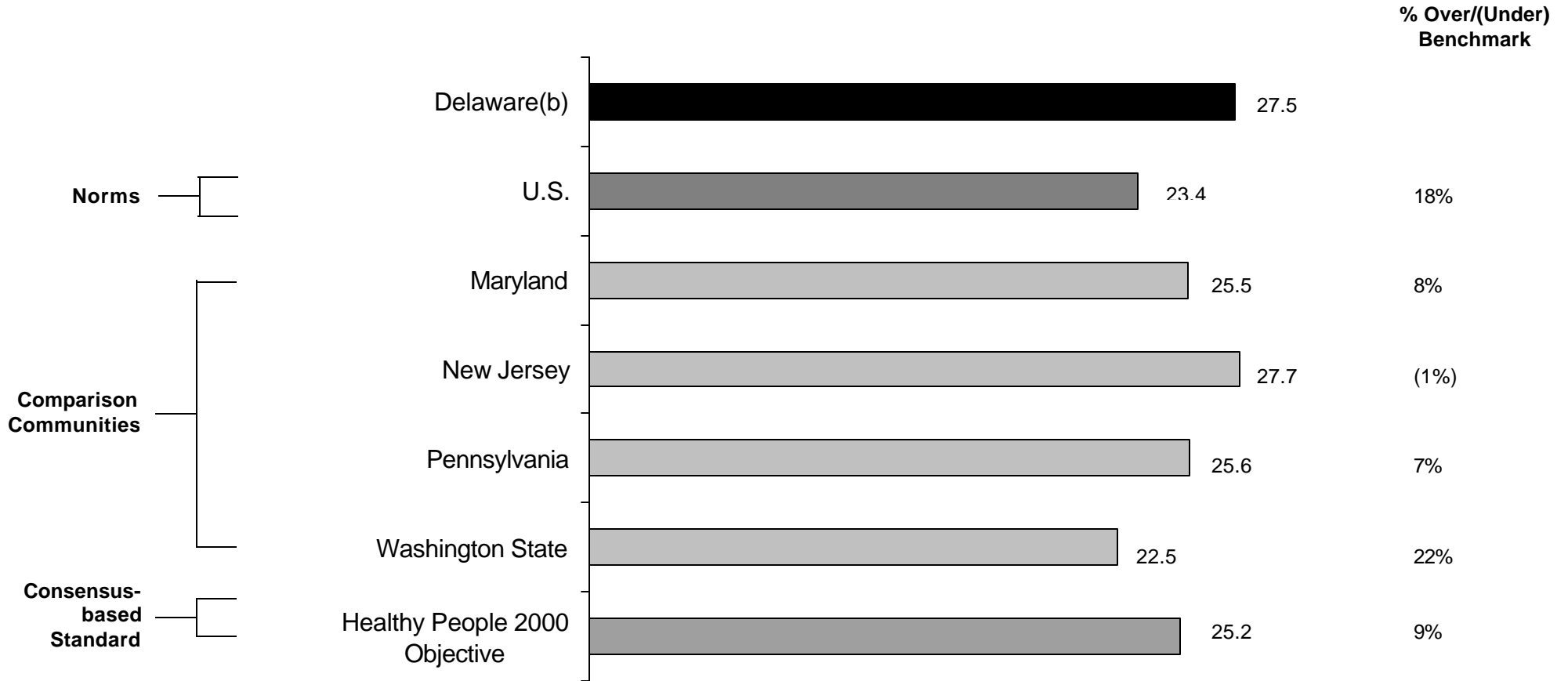
Notes: (a) Incidence rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-29:

The breast cancer death rate for females in Delaware was slightly higher than benchmarks.

Breast Cancer Death Rates per 100,000 Females^(a) 1997



Sources: 1-6) 1997 data, U.S. National Center for Health Statistics; CDC, CDC Wonder Data Extraction Software; 7) Healthy People 2000 Objectives.

Notes: (a) Death rates are age-adjusted to the 1970 U.S. national population.

(b) Although Delaware uses five-year averages to compensate for small sample size, one-year rates are used here so that Delaware can be compared to benchmarks. The five-year average mortality rate for breast cancer in Delaware was 10.0.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-30:

Females in Delaware experienced a breast cancer case rate slightly higher than their national counterparts.

**Breast Cancer Incidence Rates per 100,000 Females
1993 - 1997 Pooled Data**



Sources: 1) 1993 - 1997 data, Delaware Division of Public Health, Epidemiology Branch; 2) 1995 data, National Cancer Institute, SEER Cancer Statistics Review 1973 - 1995.

Notes: (a) Incidence rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-31:

Females in Delaware experienced a higher new case rate for cervical cancer compared to the national rate.

**Cervical Cancer Incidence Rates per 100,000 Females
1993 - 1997 Pooled Data**



Sources: 1) 1993 - 1997 data, Delaware Division of Public Health, Epidemiology Branch; 2) 1995 data, National Cancer Institute, SEER Cancer Statistics Review 1973 - 1995.

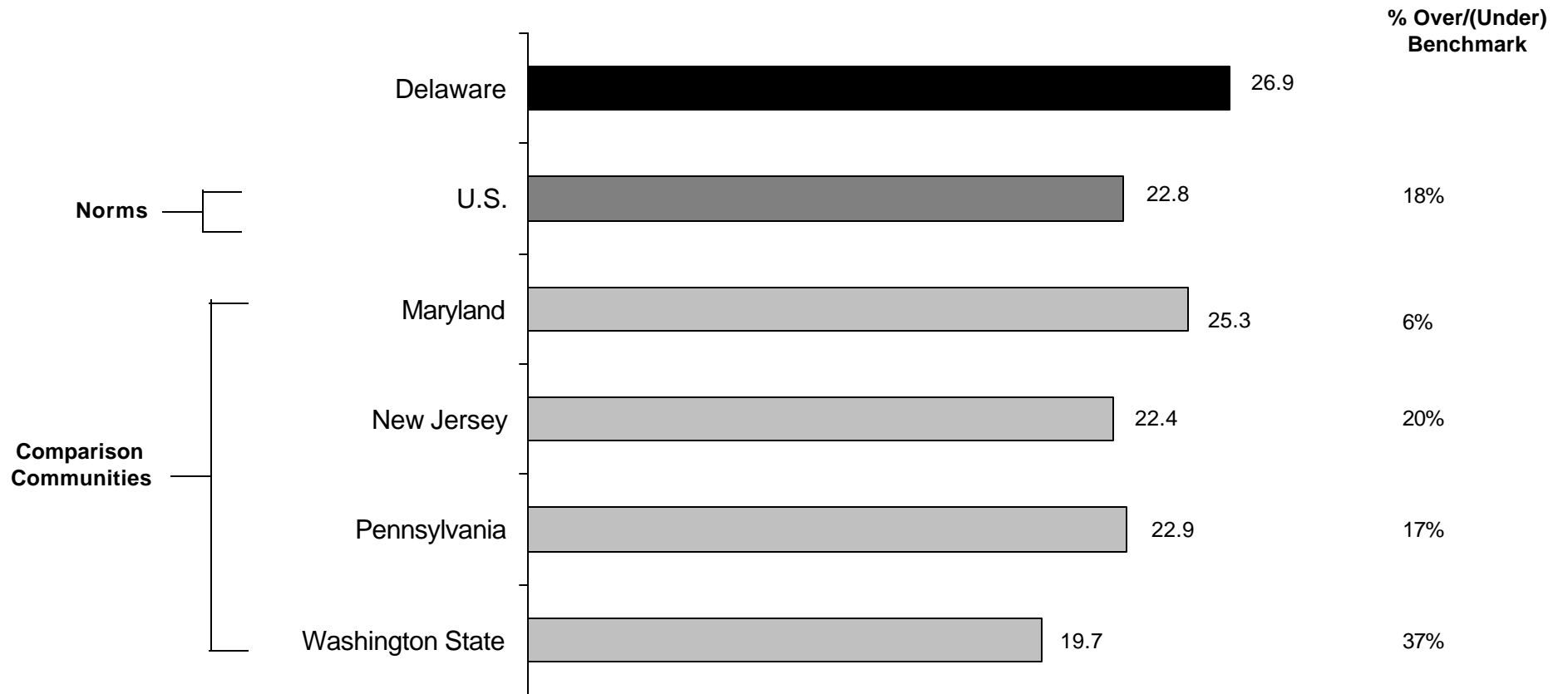
Notes: (a) Incidence rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-32:

Males in Delaware experienced a higher prostate cancer death rate than males in benchmarks.

Prostate Cancer Death Rates per 100,000 Males^(a) 1997



Sources: 1-6) 1997 data, U.S. National Center for Health Statistics; CDC, CDC Wonder Data Extraction Software.

Notes: (a) Death rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-33:

Males in Delaware experienced a higher incidence rate of prostate cancer compared to those in the U.S. as a whole.

**Prostate Cancer Incidence Rates per 100,000 Males
1993 - 1997 Pooled Data**



Sources: 1) 1993 - 1997 data, Delaware Division of Public Health, Epidemiology Branch; 2) 1995 data, National Cancer Institute, SEER Cancer Statistics Review 1973 - 1995.

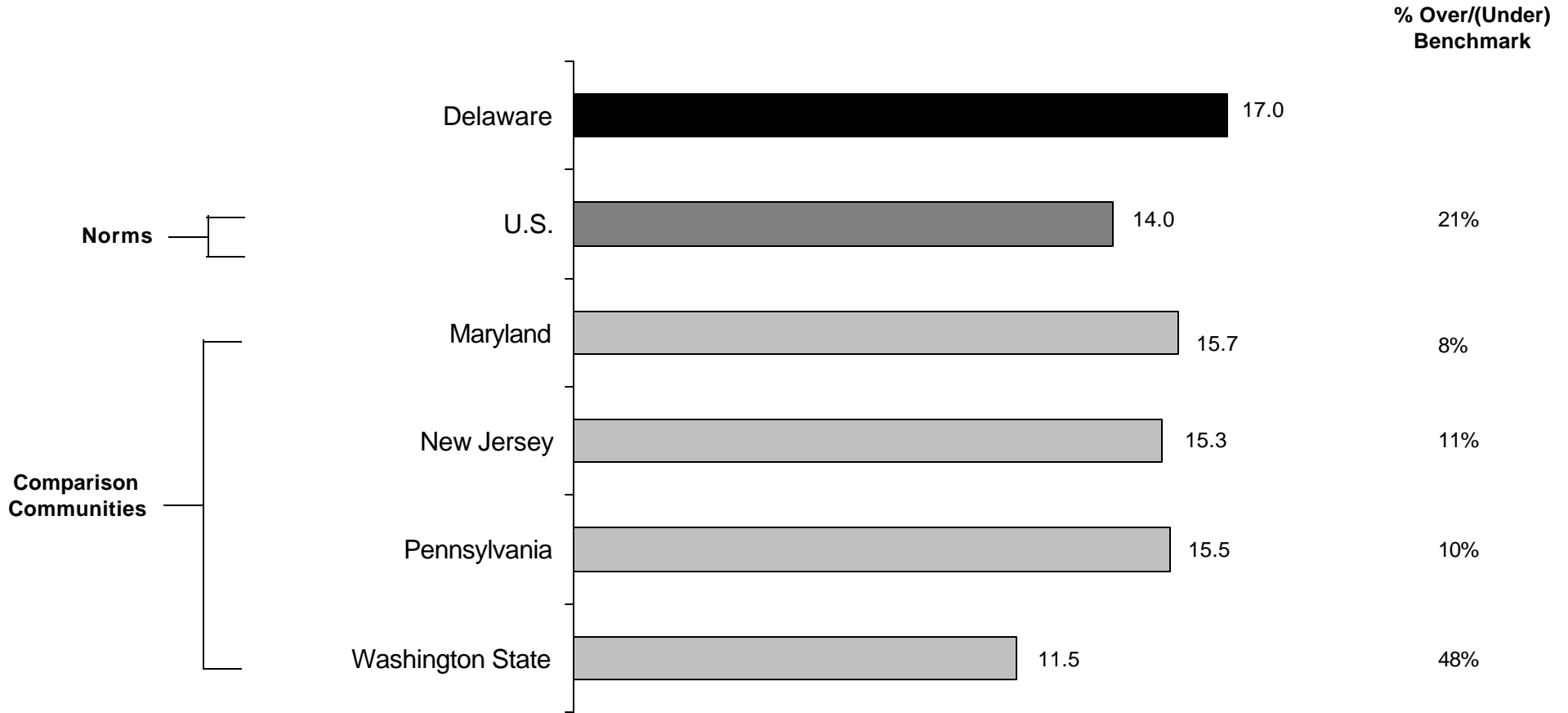
Notes: (a) Incidence rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-34:

Delaware residents experienced a colon cancer death rate higher than those of the U.S. and slightly higher than those of state benchmarks.

Colon Cancer Deaths per 100,000 Persons^(a) 1997



Sources: 1-6) 1997 data, U.S. National Center for Health Statistics; CDC, CDC Wonder Data Extraction Software.

Notes: (a) Death rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-35:

Delaware residents experienced a new case rate of colorectal cancer that was higher than the national norm.

**Colorectal Cancer Incidence Rates per 100,000 Persons
1993 - 1997 Pooled Data**



Sources: 1) 1993 - 1997 data, Delaware Division of Public Health, Epidemiology Branch; 2) 1995 data, National Cancer Institute, SEER Cancer Statistics Review 1973 - 1995.

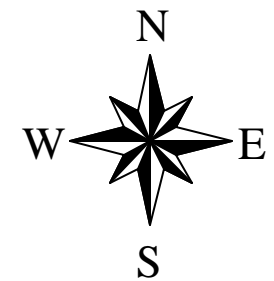
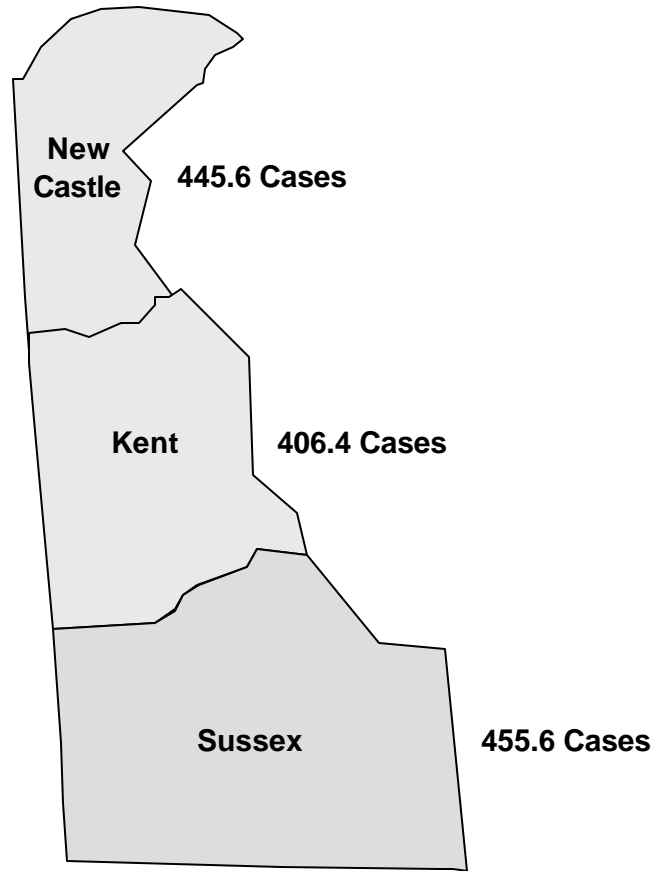
Notes: (a) Incidence rates are age-adjusted to the 1970 U.S. national population.

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-36:

Kent County residents experienced the lowest cancer incidence rate compared to New Castle and Sussex Counties.

**Cancer Incidence Rates per 100,000 Persons by County
1993 - 1997 Pooled Data**



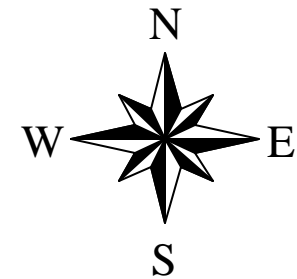
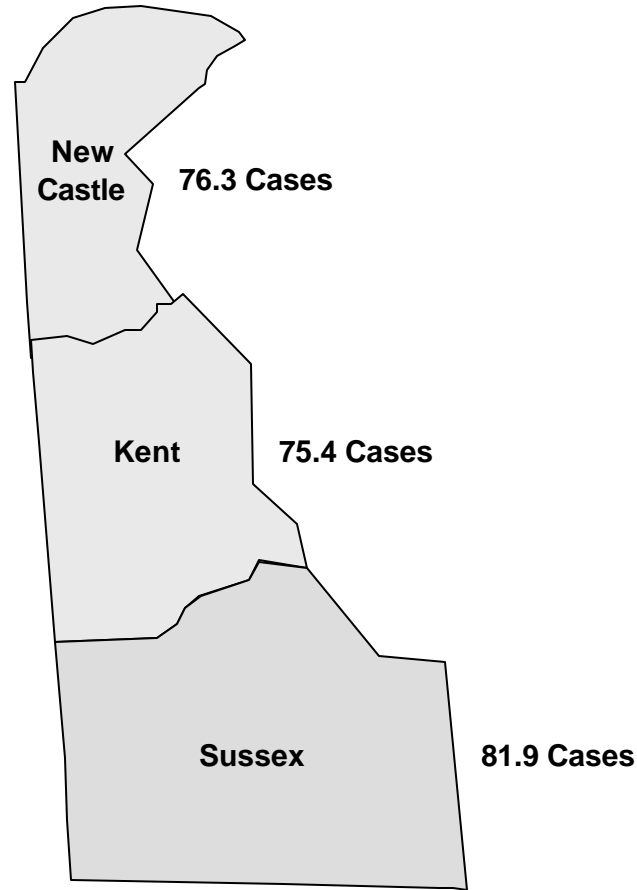
Sources: 1993 - 1997 data, Delaware Division of Public Health, Epidemiology

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-37:

Residents in Sussex County experienced the highest incidence rate for lung cancer of the three Delaware counties.

**Trachea, Bronchus, and Lung Cancer Incidence Rates per 100,000 Persons by County
1993 - 1997**



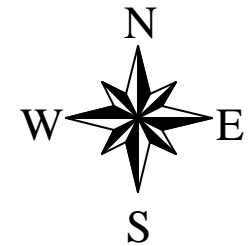
Sources: 1993 - 1997 data, Delaware Division of Public Health, Epidemiology

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-38:

New Castle County residents experienced the highest incidence rate of breast cancer of the three Delaware counties.

**Breast Cancer Incidence Rates per 100,000 Females by County
1993 - 1997 Pooled Data**

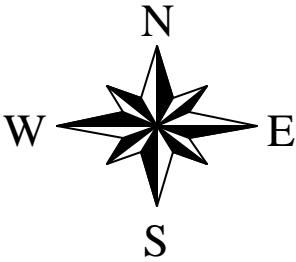
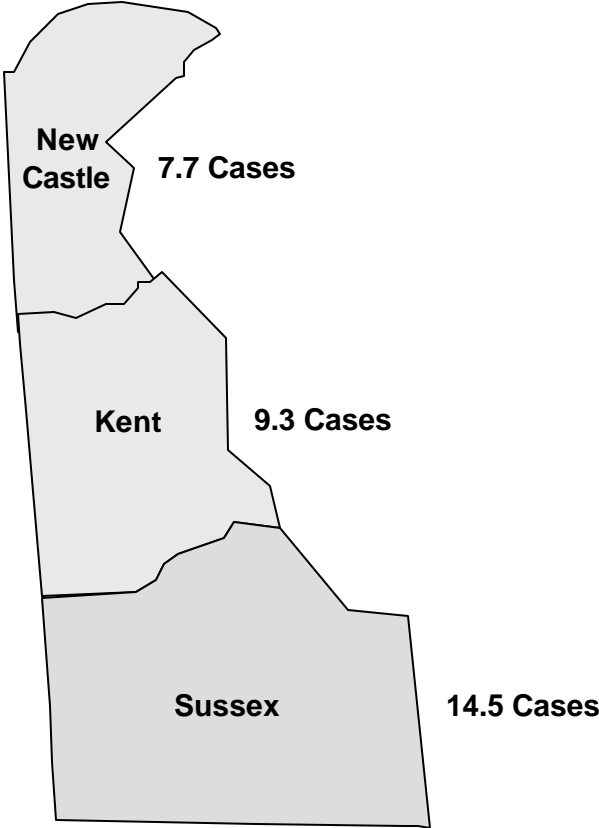


Sources: 1993 - 1997 data, Delaware Division of Public Health, Epidemiology

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-39: The cervical cancer incidence rate among females in Sussex County was nearly twice that of New Castle County females.

**Cervical Cancer Incidence Rates per 100,000 Females by County
1993 - 1997 Pooled Data**



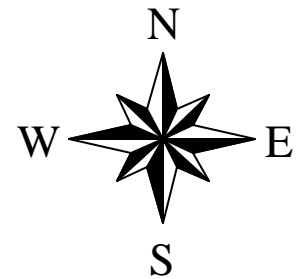
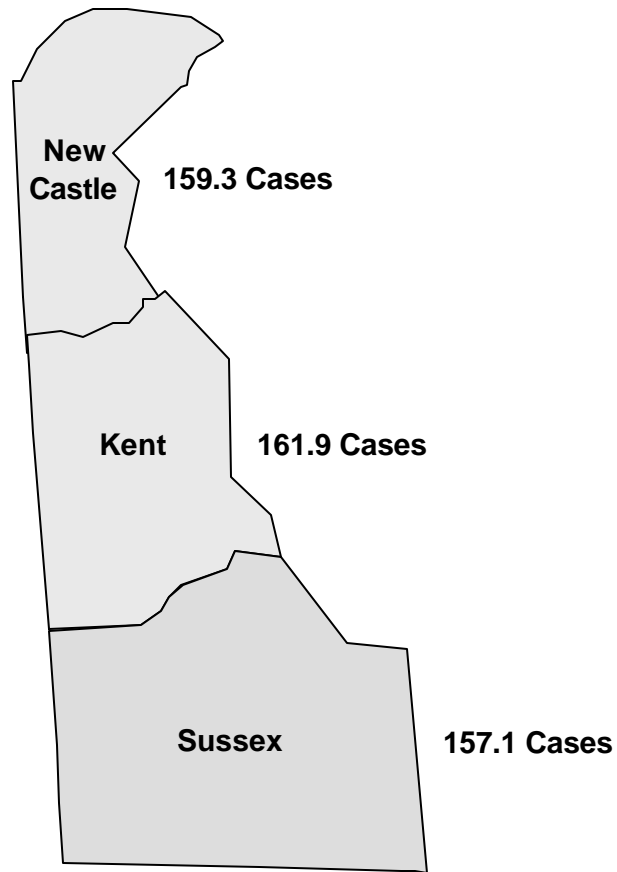
Sources: 1993 - 1997 data, Delaware Division of Public Health, Epidemiology

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-40:

The prostate cancer incidence rate among males was similar across the three Delaware counties.

**Prostate Cancer Incidence Rates per 100,000 Males by County
1993 - 1997 Pooled Data**

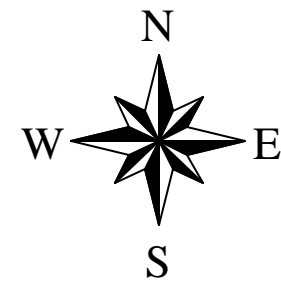
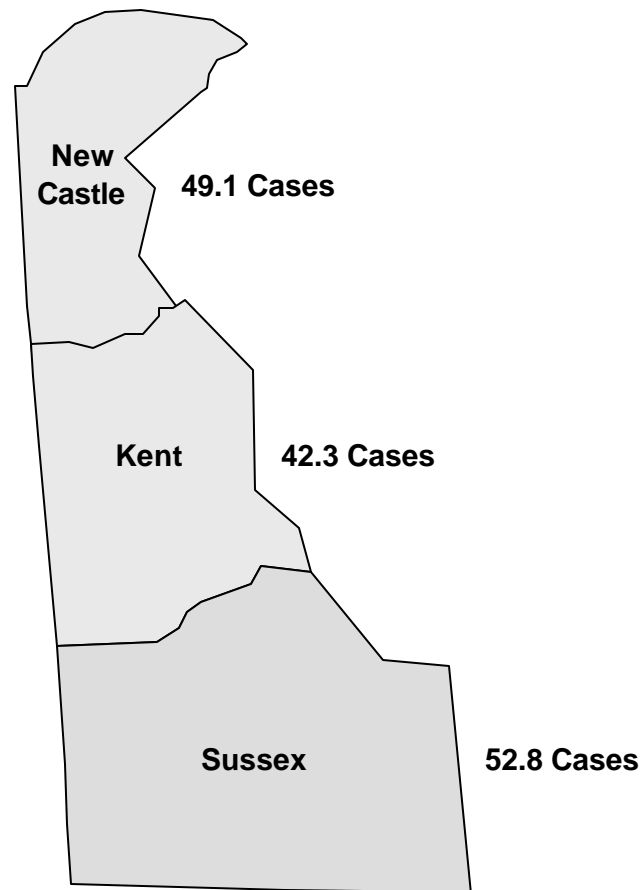


Sources: 1993 - 1997 data, Delaware Division of Public Health, Epidemiology

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status

Exhibit I-C-41: Kent County residents experienced the lowest colorectal cancer incidence rate of the three Delaware counties.

**Colorectal Cancer Incidence Rates per 100,000 Persons by County
1993 - 1997 Pooled Data**



Sources: 1993 - 1997 data, Delaware Division of Public Health, Epidemiology

HEALTH	RESOURCE	VALUE
Demographic	Socioeconomic	Health Status