

**CANCER SURVEILLANCE**

**IN VIRGINIA**

# Cancer

The Virginia Tumor Registry (VTR) has been operating since 1970, when five hospitals began reporting. It has grown steadily since then (Table 11), so that in 1988 forty-seven hospitals were reporting to the Central Registry.

In this report, data will be presented in two formats, one section will be on all cancer cases ever reported to the VTR (1970-1988), and another section on cases diagnosed in 1988. The most current year for which to report cancer data is 1988, given the acceptable lag time in reporting information on persons with cancer to the VTR.

These data represent an underestimate of the prevalence of cancer in Virginia, given that the VTR was a voluntary, hospital-based registry until July, 1989. Since these statistics are not population based, population rates will not be calculated.

## **Cancer Cases Reported 1970-1988**

Slightly more females than males have been reported with cancer (100,362 females (50.6%, 98,089 males (49.4%)). Eighty percent of the cases have been white (159,510 cases), 19.0% black (37,757 cases) and 0.6% (1,184 cases) another race. Only 1.4% of the reported cases have been less than twenty years old, 3.4% were in their twenties, 5.7% in their thirties, 9.6% in their forties, 19.2% in their fifties, 28.7% in their sixties, and 32.0% have been age 70 or older.

The distribution of body sites affected by cancer in males and females is presented in Table 12. The three most common sites of cancer in males have been lung and bronchus (25.5%), prostate

(17.8%), and colon and rectum (11.4%). Women have most commonly experienced cancer of the breast (27.0%), cervix uteri (12.2%), colon and rectum (11.9%), and lung and bronchus (10.1%).

## **Cancer Cases Diagnosed in 1988**

In 1988, forty-seven of Virginia's hospitals reported a total of 18,095 cases of cancer to the Virginia Tumor Registry. The most frequently reported body sites for cancer cases diagnosed in 1988 are listed in Table 13.

Females were slightly more likely (9,230 cases, 51.0%) than males (8,858 cases, 48.9%) to be reported with cancer. In 1988, cancer of the lung and bronchus was responsible for the most cases in the total population and in males, but was the third most common site in females, following cancer of the breast and colorectal cancer. Whites (14,779 cases) were reported to have cancer more than four times more often than nonwhites (3,309 cases).

Two hundred children were diagnosed with cancer in 1988. Of these, 98 were age 1-9 and 102 were age 10-19. The age distribution of reported cases is shown graphically, depicting a clear increase in cancer risk with advancing age.

The Eastern Region reported the most cases (4,410, 24.4%) followed by the Central (3,304, 18.3%), Northern (3,151, 17.4%), Southwest (3,120, 17.2%), and the Northwest (2,561, 14.1%). Persons residing out of state but diagnosed and/or treated in a Virginia hospital accounted for 1,112 cases.

Data on the five most common cancer sites diagnosed in 1988 are presented in graphic form on the following pages.

**Table 11. Number of Hospitals Reporting  
to the Virginia Tumor Registry  
and Number of Cases Reported  
by Year, 1970-1988**

| <b>Year</b> | <b>Number of<br/>Hospitals<br/>Reporting</b> | <b>Number of<br/>Cases<br/>Reported</b> |
|-------------|--|---|
| 1970        | 5  | 2,917                                   |
| 1971        | 7  | 3,304                                   |
| 1972        | 8  | 3,960                                   |
| 1973        | 12   | 4,804                                   |
| 1974        | 12   | 5,407                                   |
| 1975        | 12   | 5,724                                   |
| 1976        | 14   | 6,169                                   |
| 1977        | 16   | 6,814                                   |
| 1978        | 17   | 7,745                                   |
| 1979        | 21   | 10,143                                  |
| 1980        | 27   | 11,546                                  |
| 1981        | 32   | 13,371                                  |
| 1982        | 37   | 14,606                                  |
| 1983        | 41   | 15,434                                  |
| 1984        | 42   | 16,240                                  |
| 1985        | 42   | 16,909                                  |
| 1986        | 43   | 17,382                                  |
| 1987        | 44   | 17,967                                  |
| 1988        | 47   | 18,095                                  |

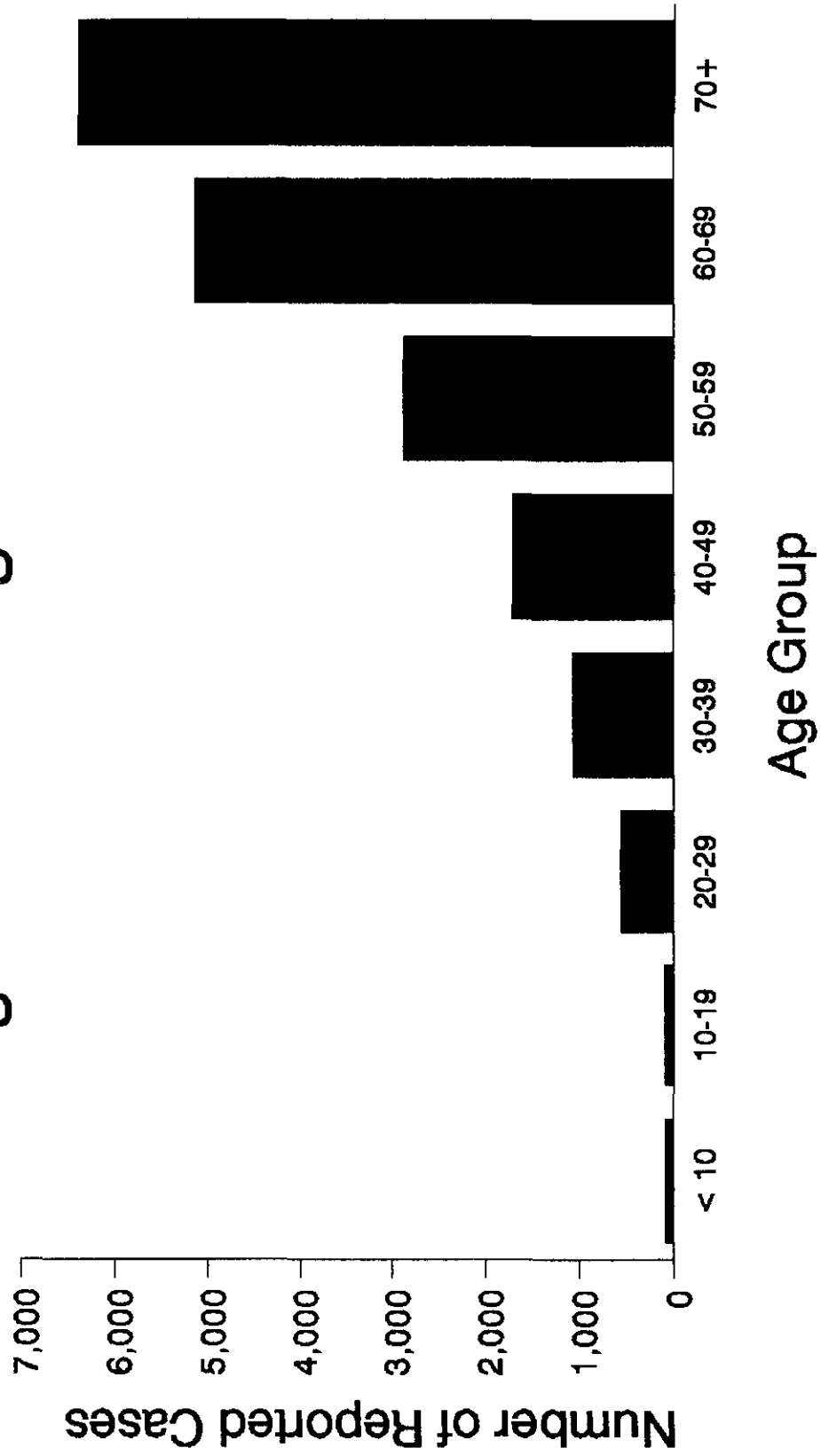
**Table 12. Number and Percent of Cancer  
Cases Reported to the Virginia  
Tumor Registry by Sex, 1970-1988**

| Cancer Site       | Total  | Male   |         | Female |         | Unk |
|-------------------|--------|--------|---------|--------|---------|-----|
|                   |        | number | percent | number | percent |     |
| TOTAL             | 198537 | 98089  | 49.41   | 100362 | 50.55   | 86  |
| Lung and Bronchus | 35112  | 24994  | 71.18   | 10105  | 28.78   | 13  |
| Breast            | 27300  | 211    | 0.77    | 27088  | 99.22   | 1   |
| Colon and Rectum  | 23222  | 11228  | 48.35   | 11988  | 51.62   | 6   |
| Prostate          | 17508  | 17497  | 99.94   | 0      | 0.00    | 11  |
| Cervix Uteri      | 12261  | 0      | 0.00    | 12259  | 99.98   | 2   |
| Bladder           | 7793   | 5621   | 72.13   | 2172   | 27.87   | 0   |
| Corpus Uteri      | 6124   | 0      | 0.00    | 6123   | 99.98   | 1   |
| Lymphoma          | 5113   | 2778   | 54.33   | 2330   | 45.57   | 5   |
| Leukemia          | 4174   | 2332   | 55.87   | 1840   | 44.08   | 2   |
| Larynx            | 3970   | 3314   | 83.48   | 654    | 16.47   | 2   |
| Melanoma          | 3745   | 1899   | 50.71   | 1840   | 49.13   | 6   |
| Kidney            | 3727   | 2305   | 61.85   | 1420   | 38.10   | 2   |
| Stomach           | 3376   | 2073   | 61.40   | 1302   | 38.57   | 1   |
| All Others        | 45112  | 23837  | 52.84   | 21241  | 47.09   | 34  |

**Table 13. Number and Percent of Cancer  
Cases Reported to the Virginia  
Tumor Registry by Sex, 1988**

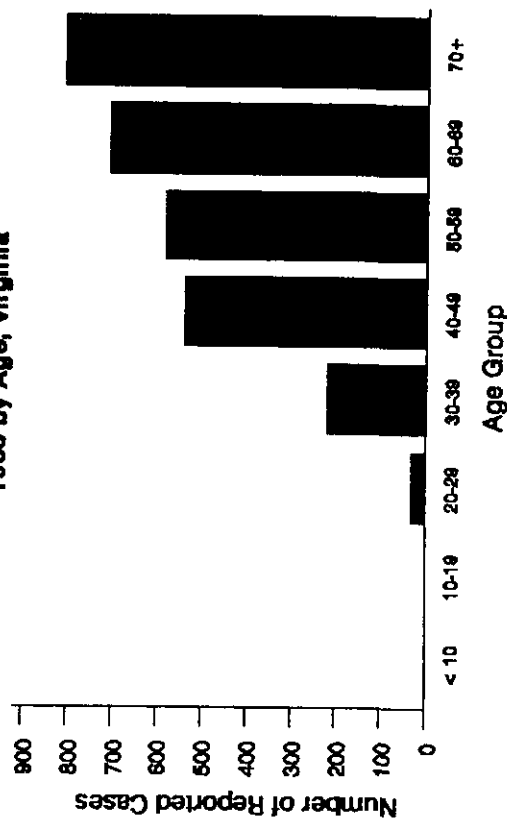
| Cancer Site       | Total | Male   |         | Female |         | Unk |
|-------------------|-------|--------|---------|--------|---------|-----|
|                   |       | number | percent | number | percent |     |
| TOTAL             | 18095 | 8858   | 48.95   | 9230   | 51.01   | 7   |
| Lung and Bronchus | 3208  | 2178   | 67.89   | 1028   | 32.04   | 2   |
| Breast            | 2892  | 12     | 0.41    | 2879   | 99.55   | 1   |
| Colon and Rectum  | 2254  | 1135   | 50.35   | 1118   | 49.60   | 1   |
| Prostate          | 1691  | 1690   | 99.94   | 0      | 0.00    | 1   |
| Cervix Uteri      | 945   | 0      | 0.00    | 945    | 100.00  | 0   |
| Bladder           | 689   | 499    | 72.42   | 190    | 27.58   | 0   |
| Lymphoma          | 532   | 289    | 54.32   | 241    | 45.30   | 2   |
| Corpus Uteri      | 479   | 0      | 0.00    | 479    | 100.00  | 0   |
| Kidney            | 355   | 215    | 60.56   | 140    | 39.44   | 0   |
| Leukemia          | 331   | 193    | 58.31   | 138    | 41.69   | 0   |
| Melanoma          | 316   | 170    | 53.80   | 146    | 46.20   | 0   |
| Larynx            | 305   | 254    | 83.28   | 51     | 16.72   | 0   |
| Stomach           | 275   | 170    | 61.82   | 105    | 38.18   | 0   |
| All Others        | 3823  | 2053   | 53.70   | 1770   | 46.30   | 0   |

# Age Distribution of Cancer Cases Diagnosed in Virginia in 1988

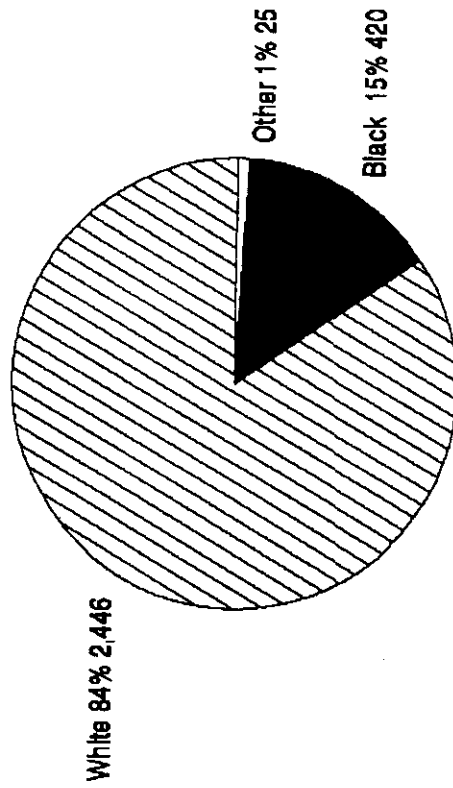


# Breast Cancer, Virginia, 1988

Breast Cancer Cases Diagnosed in 1988 by Age, Virginia

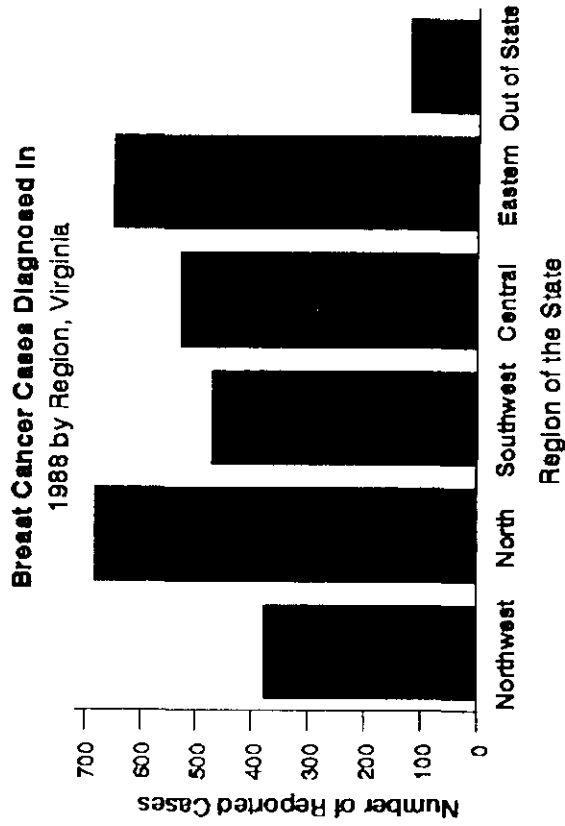
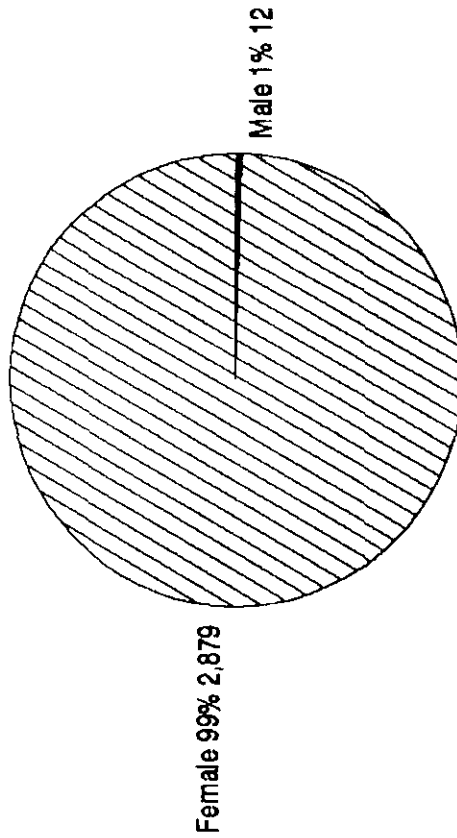


Breast Cancer Cases Diagnosed in 1988 by Race, Virginia



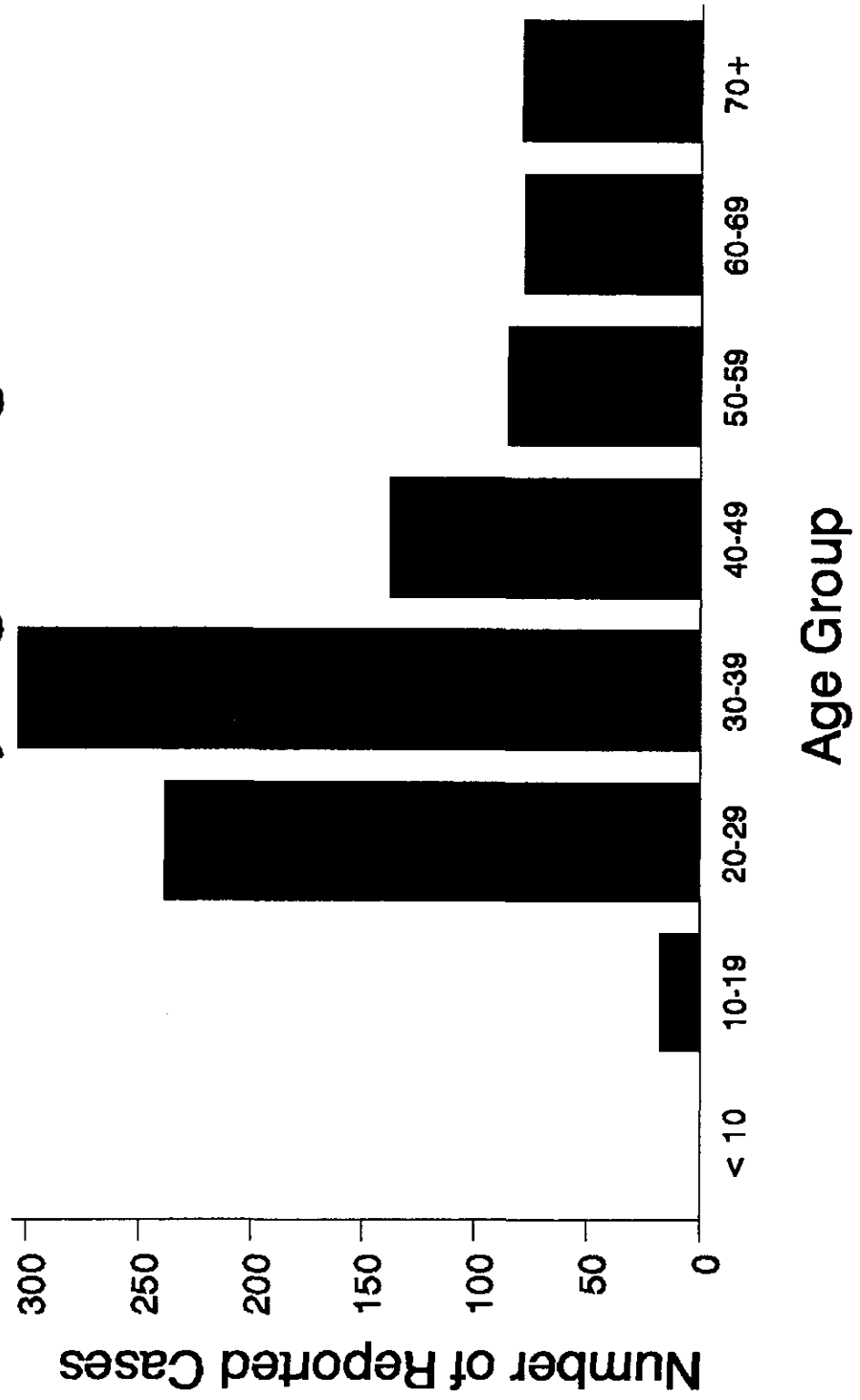
# Breast Cancer, Virginia, 1988

Breast Cancer Cases Diagnosed in 1988  
by Sex, Virginia



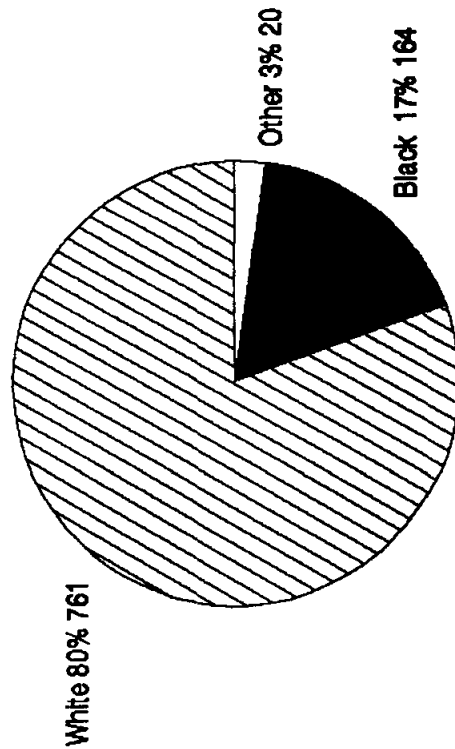


# Cervical Cancer Cases Diagnosed in 1988 by Age, Virginia

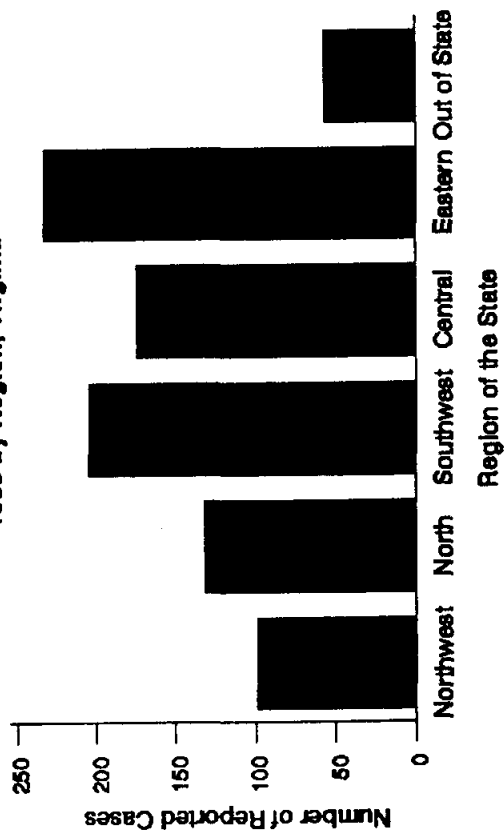


# Cervical Cancer, Virginia, 1988

Cervical Cancer Cases Diagnosed in 1988 by Race, Virginia

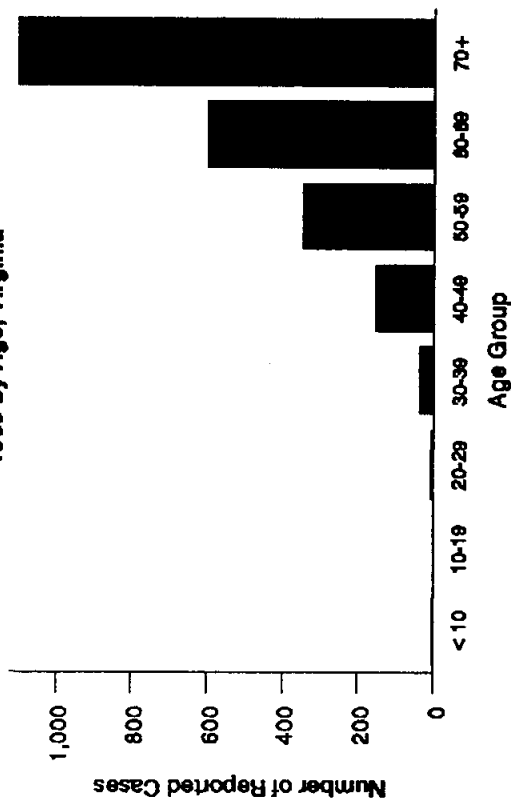


Cervical Cancer Cases Diagnosed in 1988 by Region, Virginia

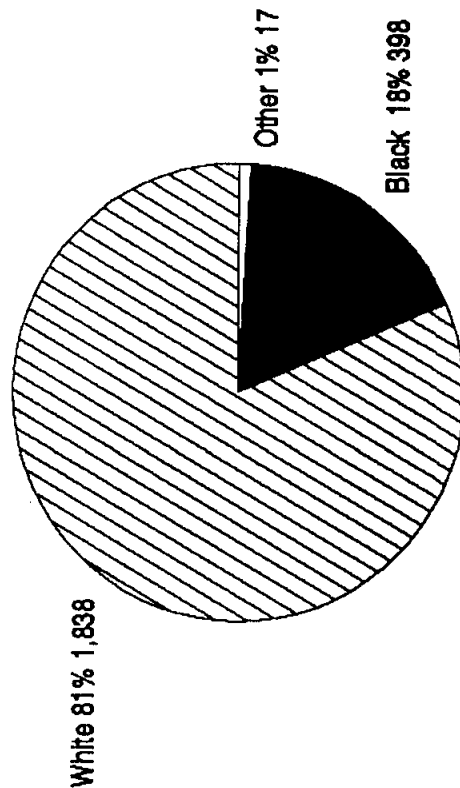


# Colorectal Cancer, Virginia, 1988

Colorectal Cancer Cases Diagnosed in 1988 by Age, Virginia

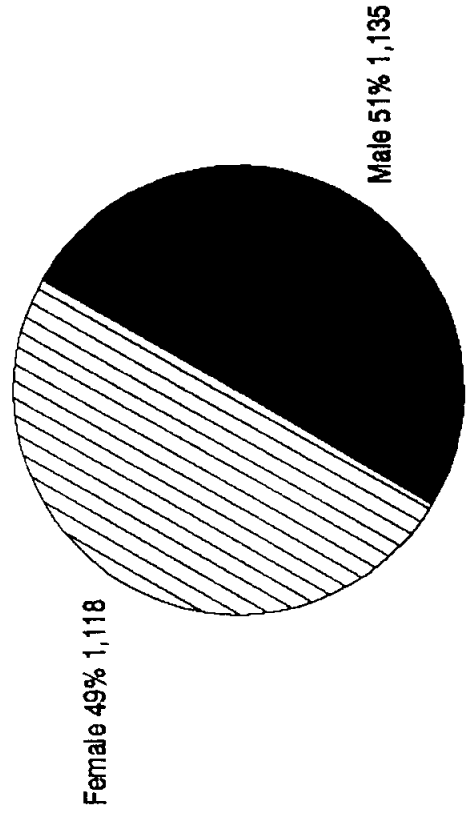


Colorectal Cancer Cases Diagnosed in 1988 by Race, Virginia

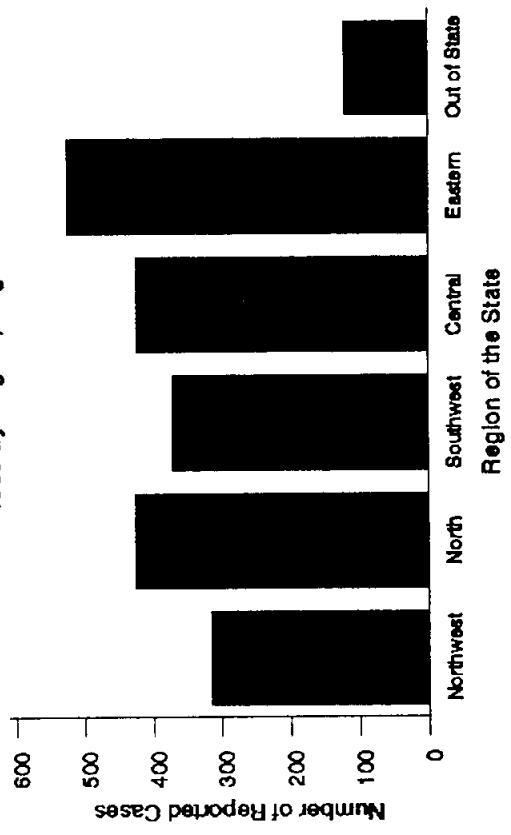


# Colorectal Cancer, Virginia, 1988

Colorectal Cancer Cases Diagnosed In 1988 by Sex, Virginia

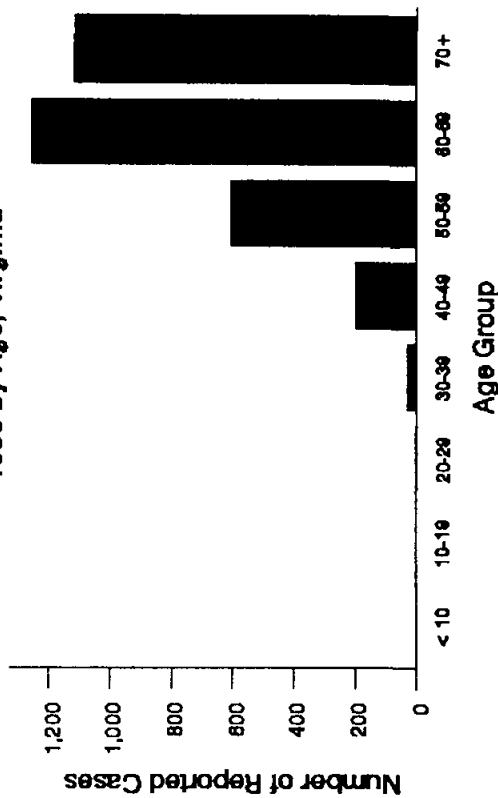


Colorectal Cancer Cases Diagnosed In 1988 by Region, Virginia

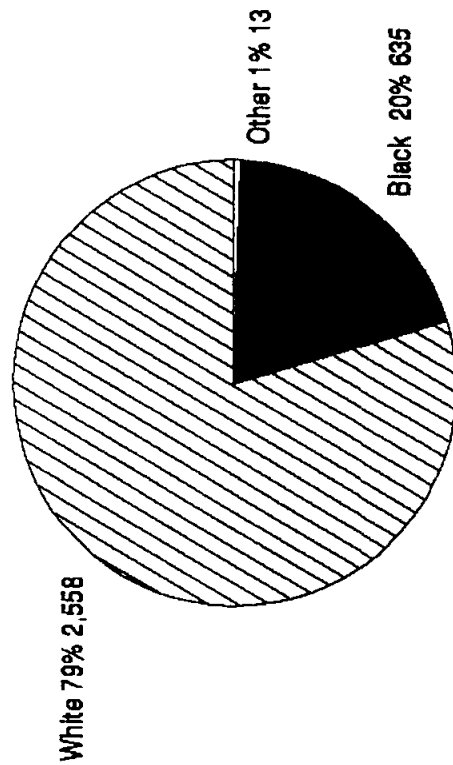


# Lung Cancer, Virginia, 1988

Lung Cancer Cases Diagnosed In 1988 by Age, Virginia

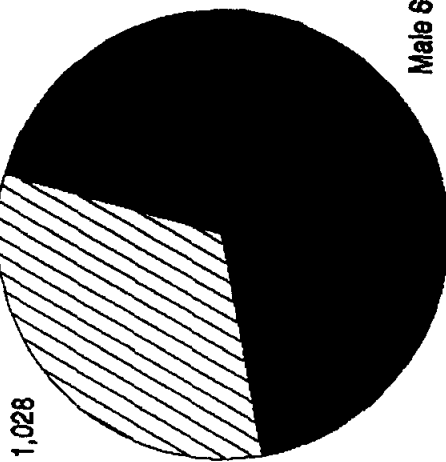


Lung Cancer Cases Diagnosed In 1988 by Race, Virginia

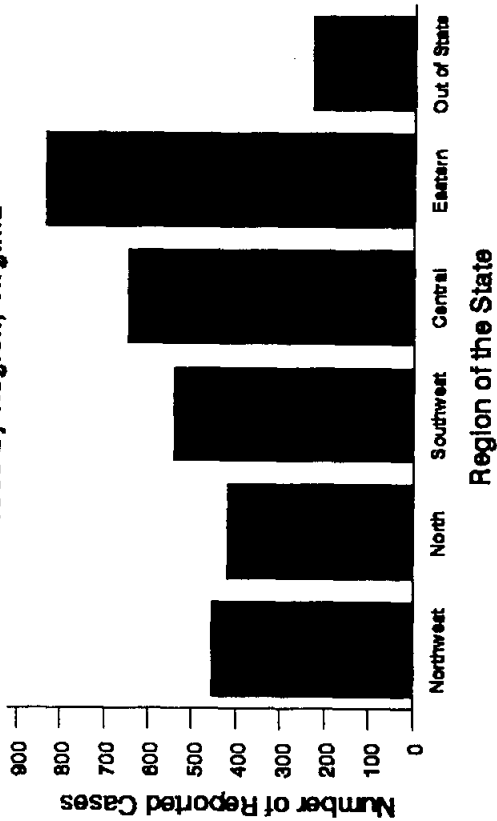


# Lung Cancer, Virginia, 1988

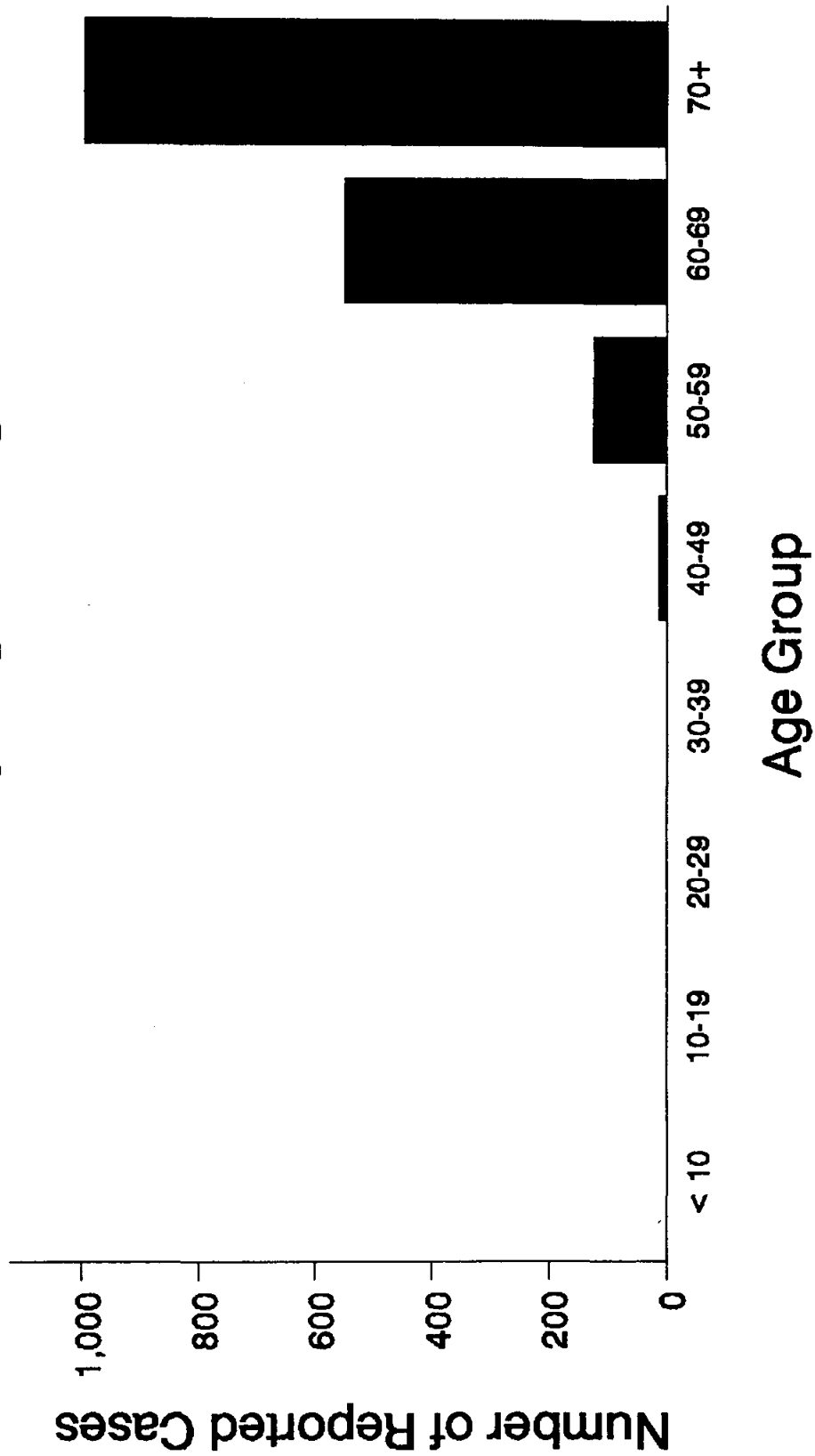
Lung Cancer Cases Diagnosed in 1988  
by Sex, Virginia



Lung Cancer Cases Diagnosed in  
1988 by Region, Virginia

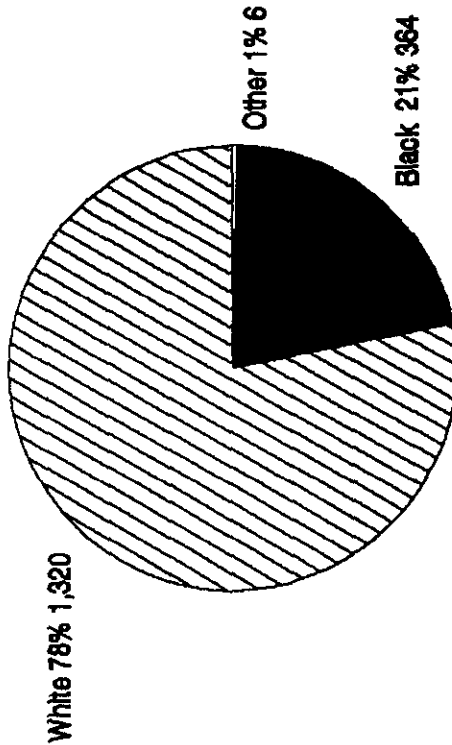


# Prostate Cancer Cases Diagnosed in 1988 by Age, Virginia



# Prostate Cancer, Virginia, 1988

Prostate Cancer Cases Diagnosed in 1988 by Race, Virginia



Prostate Cancer Cases Diagnosed in 1988 by Region, Virginia

