

FOREWORD

This report assembles under one cover the most detailed information available on the demographic and clinical features of prostate cancer. These population-based data will be extremely important in furthering our understanding of this cancer, which has the distinction of being the most frequently diagnosed cancer in men and their second leading cause of cancer death. Prostate cancer has been the source of enormous public and professional interest over the last few years. The recent introduction of PSA screening and changes in disease management have led to changes in incidence trends and treatment, and these are extensively chronicled in this publication. Where there has been great controversy about the role of screening for prostate cancer, this report provides much of the data that were lacking previously.

Cancer of the prostate exhibits large variations by race and ethnicity. It is well known that African American men have the highest incidence and mortality rates of all men not only in the United States, but indeed in the entire world. For the first time in one volume, this report offers extensive racial and ethnic comparisons related to demographic details and clinical features. These are the kind of data that will help scientists and clinicians gain insights needed to unravel the differences behind the variation in rates.

Finally, I would like to thank the staff members of the National Cancer Institute and their colleagues across the United States and at Information Management Services, Inc., who have been involved with the Surveillance, Epidemiology and End Results (SEER) Program. It is through their diligence that these data have been collected, analyzed, and interpreted. This report highlights how important the SEER Program has become as a national resource. We look forward to the extensive use of this information and the contributions we are confident it will engender in the understanding of prostate cancer.

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Highlights of Prostate Cancer Trends, 1973-1995

The SEER Program of the National Cancer Institute is pleased to release this monograph on prostate cancer in the United States from 1973 through 1995. This monograph resulted from the work of the 11 SEER registries, the SEER staff, and the editors. Since prostate cancer is the number one incident cancer and the number two cause of cancer deaths among U.S. men, the data in this monograph are important for researchers, clinicians, policy makers and citizens in understanding this disease. A few of the highlights from the monograph are listed below:

Monograph Data (Page 1)

- Data are from the SEER program which has registries covering 14% of the U.S. population.
- 272,689 cases with histologically confirmed adenocarcinoma of the prostate newly diagnosed between 1973 and 1995 are included.
- Mortality data are both from the SEER areas and the entire U.S. population.
- Data for the 23-year period are presented for whites and blacks. Data for Asians, Native Americans, and Hispanics are only available for 1990-1995 and are presented in a separate section.

Incidence (Page 7)

- Black men have about a 60% higher incidence rate than white men.
- Incidence rates modestly increased from 1973-1986, rapidly increased from 1987-1992, and declined from 1993-1995.
- Incidence rates increased 108% for white men from 1986-1992 and 102% for black men from 1986-1993; these increases in rates are believed to be related to use of the prostate-specific antigen (PSA) blood test as a new screening tool.
- The increase from 1986-1992 occurred in all age groups; the median age at diagnosis decreased by one year for whites and for blacks between 1980-1985 and 1990-1995.
- The increase from 1986-1992 occurred for both localized and regional stages of disease and mostly in moderately differentiated tumors.
- Incidence of distant stage prostate cancer peaked in 1985 and by 1995 declined by 56%.

Mortality (Page 7)

- Black men have about a 2-fold higher mortality rate than white men.
- Death rates from prostate cancer have gradually increased over the last 20 years, but peaked in 1991 and 1993 for white and black men, respectively.
- The median age of death increased between 1980-1985 and 1990-1995 by one year in both whites and blacks.

- Though death rates have slightly decreased in recent years, a decline in the absolute number of deaths was first noted in 1995. In white men under age 75, the age-adjusted mortality rate declined by 15% between 1990 and 1995.

Grade and Stage (Page 17)

- Between 1973-1995, about 60% of prostate cancers were diagnosed at a localized stage and about 40% were graded as moderately differentiated. The percent of moderately differentiated cancers differed little by race, but decreased slightly with advancing age.
- Stage and grade are correlated; as the grade becomes less differentiated the stage is likely to be more advanced.
- The rapid increase in prostate cancer incidence from 1986-1992 was confined to moderately differentiated cancers for all ages and for whites and blacks.

Treatment (Page 29)

- Only treatment data for 1983-1995 are included, as these are the only years with consistent coding. The monograph focuses on treatment patterns in localized and regional stage cancers.
- The increased incidence (1986-1992) was accompanied by increases in more aggressive therapy (radical prostatectomy or radiation therapy) for localized and regional cancers.
- Recent treatment patterns for local/regional cancers vary by age: radical prostatectomy is more frequent among men under age 70, radiation therapy in those age 70-79, and conservative therapy (no treatment or hormonal therapy) in those over age 79.
- Treatment for distant stage cancers has not changed over time with about 65% of patients receiving hormonal therapy.

Survival (Page 41)

- Based on cases diagnosed in 1990 and followed through 1995, 93% of all men diagnosed with prostate cancer will survive five years or longer.
- Relative survival rates have increased since 1973 for both black and white men, but the difference between blacks and whites has increased over time (survival has not improved as rapidly in black men).
- Consistent improvements in relative survival have occurred over time (1973 to 1993) for localized and regional stage cancers, with relative five-year survival now exceeding 99%.
- Relative survival has increased over time for all grades of cancer.
- Relative survival for younger men (age <50) is lower than for older men.
- Five-year relative survival for distant stage disease is 34% and has not improved over time.

Race/Ethnicity (Page 47)

- The lowest incidence rates are found in Native Americans and all other groups have lower rates than whites and blacks. The incidence rates peaked in 1992 for all groups except blacks, where it peaked in 1993.
- National mortality rates are not available for Asians and Native Americans; mortality rates are available for white-Hispanics, and their rates have not decreased as they have for blacks and white non-Hispanics.
- Stage distribution is similar across races, except the proportion with distant stage disease is higher for Hawaiians, Filipinos, and Native Americans.
- Filipino men have slightly more poorly differentiated cancers than the other groups. The proportion of tumors that are well or moderately differentiated is similar across all groups.
- Of patients with localized or regional stage prostate cancer, Native Americans have the poorest relative survival of all racial/ethnic groups. Blacks and white-Hispanics have the lowest five-year relative survival rates among patients with distant stage disease.