



CANCER EPIDEMIOLOGY PROGRAM AT NCCC/STANFORD

May 16 , 2008

Volume II Number 2

In this issue

Cancer Epidemiology Program (CEP) Research on Individuals with Cancer	1-4
Awards and Honors	4
Future Event	4
Important Web Links	5

Contact us

Editors

Esther M. John, PhD, ejohn@nccc.org

Alice S. Whittemore, PhD, alicesw@stanford.edu

Editorial Assistant

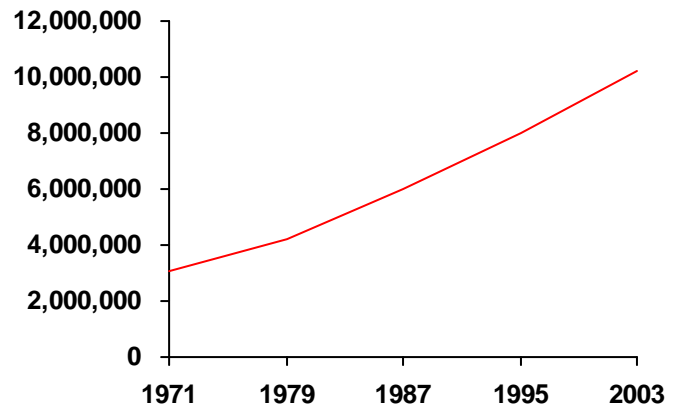
Jackie Koechlin, jackkoechlin@gmail.com

CEP Research on Individuals with Cancer

In this issue, we feature current research by *Cancer Epidemiology Program (CEP)* members on issues and on concerns among patients with cancer. The number of such patients has been increasing steadily during the last 30 years. In January 2004, there were an estimated 10.8 million cancer survivors living in the United States. Most of these are over age 60 years. Breast and prostate cancers have the most survivors in the population, followed by colorectal and gynecologic cancers. While the cancers of most were diagnosed within the previous five years, 14% of patients have lived more than 20 years after diagnosis.

Figure 1. Number of US cancer survivors since 1971

Citation: Estimated Number of Cancer Survivors in the United States from 1971 to 2004, National Cancer Institute, <http://dccps.nci.nih.gov/ocs/prevalence/prevalence.html#survivor>



The reasons for the trend shown in Figure 1 are threefold. First, the US population is increasing. Second, cancer is largely a disease of older adults, and older adults now comprise a larger fraction of the population because of the aging baby-boomer generation and increases in life expectancy. Third, patients with cancer are living longer. Figure 2 shows increases in five-year survival rates for each of the seven most common cancers.

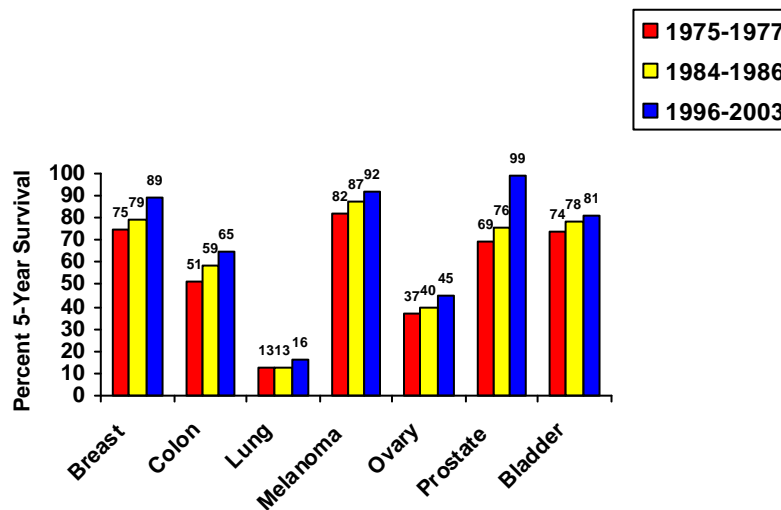


Figure 2. Trends in 5-year relative survival rates (all races) and year of diagnosis, United States, 1975-2003

Factors influencing choice of cancer treatment

Patients newly diagnosed with cancer often face a bewildering choice of treatment options, and the factors influencing their decisions have been little studied. **Theresa Keegan** and colleagues are evaluating how treatment for a variety of cancer sites varies by community and treatment facility, age, race/ethnicity, time period, insurance status, and number and types of co-morbid conditions. In addition, **Scarlett Gomez** is conducting a pilot study to develop linguistically- and culturally-appropriate survey instruments to evaluate the roles of various factors in decisions regarding treatment of early-stage breast cancers. She will assess the influences of the perspectives of providers and family, and of various cultural factors. This study uses focus groups and epidemiologic interviews. *Cancer Prevention and Control Program* member **Ingrid Oakley-Girvan** is leading the data coordinating center for a multi-center study of factors that influence choice of treatment for early stage prostate cancer.



Todd Wagner and *Cancer Prevention and Control Program* member **Michael Gould** are conducting a study within the Veterans Administration of the timing of lung cancer treatment. In collaboration with investigators from the VA Colon Cancer Quality Enhancement Research Initiative (QUERI) and the NCI-funded Cancer Care Outcomes Research and Surveillance (CanCORS) Consortium, they are performing a comprehensive evaluation of diagnosis and staging in veterans with lung cancer.

T. Wagner

Health and quality of life for cancer patients

The growing number of cancer survivors shown in Figure 1 has created a need for research on how they are faring and what policy changes might improve their status. In particular, the question of how the choice of cancer treatment impacts quality of life is a topic of interest to several CEP investigators. These include **Scarlett Gomez** for breast cancer survivors, and **Ingrid Oakley-Girvan** for men with localized prostate cancer. **Oakley-Girvan** also is conducting a ten-year study of quality of life among women diagnosed with breast cancer at ages < 50 years. Emphasis is focused on physical, psychological and spiritual well-being.

A related project by **Oakley-Girvan** and colleagues concerns bone health in young women with breast cancer. They are conducting a randomized intervention trial of 400 women diagnosed with breast cancer at ages <50 years and with recently completed chemotherapy. The trial will assess the effect of a one-year exercise intervention on the frequency and duration of resistance and aerobic exercise, bone mineral loss as measured by spine DXA and biochemical markers of bone turnover, body composition (body mass index, lean body mass, fat mass), and mental and physical health.

Factors influencing length of survival with cancer

Figure 3 shows five-year relative survival rates for patients with cancer at various sites, by stage of disease at diagnosis and race. The figure shows that, compared with whites, African-Americans have poorer survival within each stratum of stage at diagnosis for nearly every cancer site. These disparities may reflect inequalities in access to good health care and/or differences in co-morbidities that affect treatment choice and efficacy. **Ingrid Oakley-Girvan** and colleagues are addressing this issue by using data from an equal-access HMO-based cohort (Kaiser members) to examine the effects of racial differences in health care usage and co-morbidity on racial differences in prostate cancer recurrence and survival.

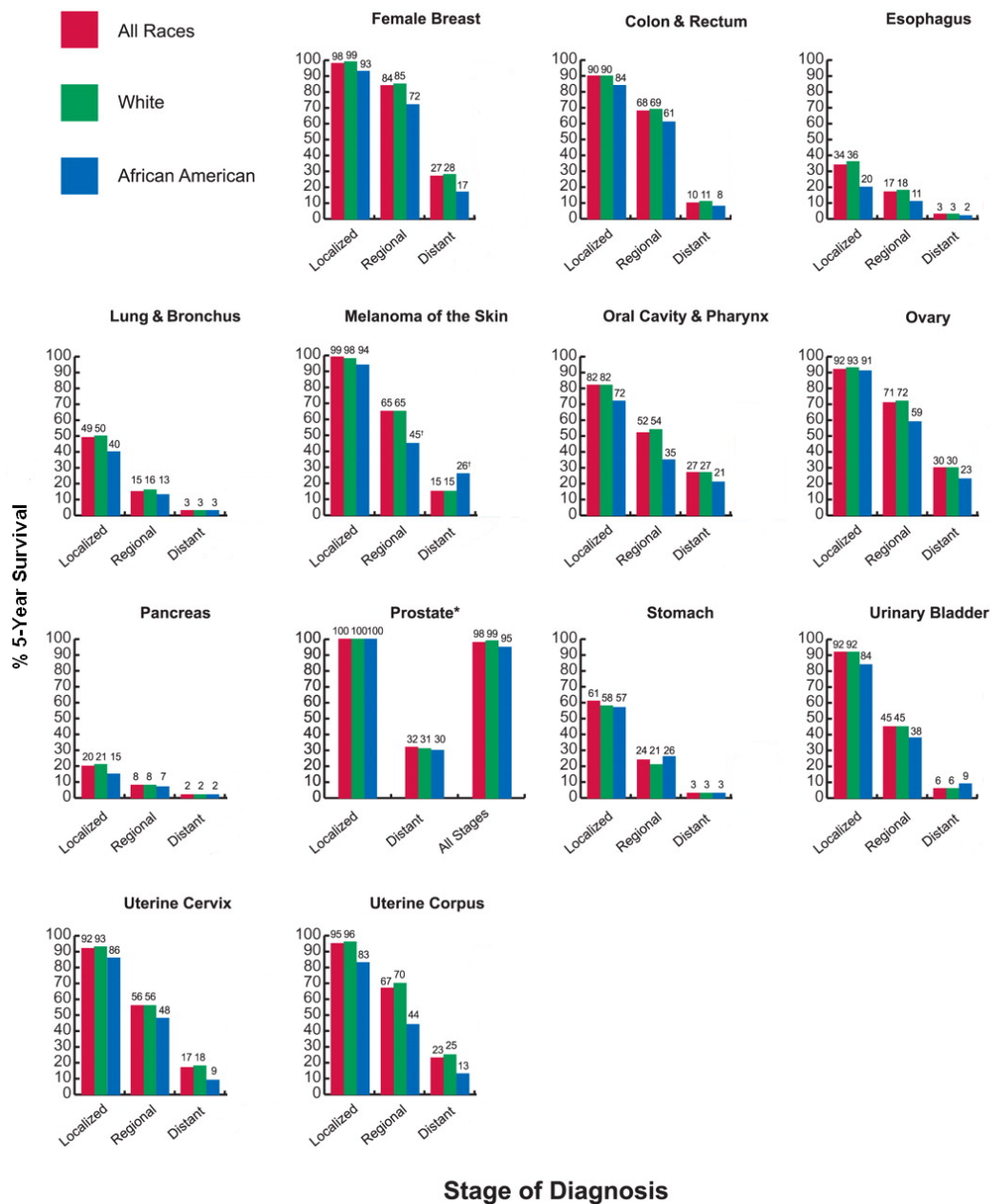


Figure 3. Five-year relative survival rates (%) for patients with cancer at various sites, by stage of disease and race, 1996 to 2003 (Jemal, et al., CA Cancer J Clin, 2008)

The NCI-funded Cancer Care Outcomes Research and Surveillance (CanCORS) Consortium has launched a multi-center cohort study of 10,000 newly diagnosed lung and colorectal cancer patients. As part of this consortium, **Dee West** and colleagues will evaluate characteristics and beliefs of cancer patients, caregivers, and providers, and characteristics and systems of organizations delivering cancer care. A major focus is the impact of these characteristics on treatment and survival. The group will assess the entire continuum of care (diagnosis to recovery or death), particularly with respect to disparities in age, gender, race/ethnicity, insurance, and residence.

Scarlett Gomez and colleagues are studying survival following diagnoses of screen-detectable cancers in Asian Americans. These investigators linked data from the SEER-Medicare files and California cancer registry to determine associations of survival with socio-demographic factors, clinical factors (e.g., treatment) and co-morbidity. In a separate project, **Gomez** will examine the impact on racial/ethnic disparities in cancer recurrence and survival of various environmental factors. These include patients' social environments and their built environments, defined as the totality of roads, public buildings, residences and shopping malls in their immediate neighborhoods. In particular, she will evaluate individual- and institutional-level discrimination in cancer medical care and quality of life, and the impact of the built environment on physical activity and breast cancer survival.

Much research is currently devoted to breast cancer survival. **Allison Kurian** and **Sylvia Plevritis** are working with the Cancer Intervention and Surveillance Modeling Network (CISNET) Consortium on mathematical models to predict the effects of treatment on breast cancer recurrence and mortality. **Kurian** also is analyzing breast cancer survival according to cancer subtype and treatment in the SEER Medicare database. **Dee West** and **Esther John** are examining breast cancer survival in women enrolled in the Breast Cancer Family Registry. The chief topics of interest are how survival is influenced by genetic factors (family history of cancer, BRCA1 and BRCA2 mutations, genetic variants associated with low risks). **Ellen Chang, Theresa Keegan** and **Esther John** are involved in collaborative analyses of predictors of survival of breast cancer patients enrolled in the Breast Cancer Family Registry, including family history, physical activity, and body size.

Awards and Honors



A. Kurian

CEP member **Allison Kurian** has been selected to receive a Robert Wood Johnson Foundation Physician Faculty Scholars Award, effective July 1, 2008. The award will fund the development of a web-based decision tool to help women at high breast cancer risk choose among risk reduction strategies. CEP member **Sylvia Plevritis** will serve as Kurian's mentor on this project.

Alice Whittemore received the 2008 NIH Robert S. Gordon III Epidemiology Award for her contribution to the design and analysis of epidemiological studies in cancer. Her award lecture to NIH on April 16, 2008 was entitled "Personalizing Cancer Prevention." (You will find a link to the video cast of Whittemore's talk at <http://cancer.stanford.edu/research/populationsci/epidemiology.html>.)

Future Event

2008

May 19

External Advisory Board Review

Important Web Links

Northern California Cancer Center

<http://www.nccc.org>

Stanford Cancer Center

<http://cancer.stanford.edu/>

Population Sciences - *Cancer Epidemiology Program*

<http://cancer.stanford.edu/research/populationsci/epidemiology.html>

Cancer Epidemiology Program members' profiles

http://cancer.stanford.edu/research/populationsci/epiprogram_members.html