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A CRITICAL REVIEW OF CANCER IN TEXAS

**With Emphasis on Environmental
and Occupational Exposures**

**The University of Texas-Houston
School of Public Health**

**Southwest Center for Occupational
and Environmental Health**

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A CRITICAL REVIEW OF CANCER IN TEXAS:
WITH EMPHASIS ON ENVIRONMENTAL AND OCCUPATIONAL EXPOSURES

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EXECUTIVE SUMMARY

Background and Study Questions

In response to concerns regarding the possible contribution of environmental and occupational exposures to the burden of cancer in Texas, the Texas Institute for Advancement of Chemical Technology, a non-profit organization composed of industry and other private and public sector members, solicited proposals to review critically what is known about cancer in Texas, the second leading cause of death. The University of Texas-Houston School of Public Health was selected to conduct this project. Although no new data were collected, this report constitutes the first attempt to assemble systematically and evaluate critically existing epidemiologic studies pertaining to cancer in Texas. The emphasis of the report on cancer mortality, rather than incidence, reflects the available data from the Texas Department of Health and specific studies. This review describes the magnitude, recent time trends, and geographic variation of cancer mortality in Texas as a framework in which to review the scientific literature about what is known regarding factors contributing to the occurrence of cancer in Texas. A further objective of this review is to identify important gaps in the evidence presently available and identify areas of study to improve cancer control and prevention in Texas.

Mortality Analyses

Available cancer mortality data from the Cancer Registry Division, Texas Department of Health, and published U.S. cancer mortality data were examined to describe the magnitude of cancer mortality and its variation over time and across geographic areas. California cancer mortality data (1988-1990) were used for Hispanic comparisons.

(1) *Cancer Mortality in Texas (1986-1990)*

For 17 selected cancers comprising nearly 80% of all cancer deaths in Texas, average annual age-adjusted mortality rates for Texas were compared to the U.S. for 1986-1990. In general, for most cancers, the rates in Texas were less than or nearly equal to the U.S. rates for non-Hispanic whites and blacks, and to California rates for Hispanics. The most notable statistically significant deficits were for colon and rectum cancer among white males and females, breast cancer among white females, and prostate cancer among black males. The most notable significant excesses were for liver cancer in all race/sex groups except black females and lung cancer in white males, white females, and Hispanic males. Further, total cancer mortality rates were higher for Texas Hispanic males and Hispanic females when compared to California rates.

(2) *Time Trends in Cancer Mortality Rates in Texas (1980-1990)*

Age-adjusted total cancer mortality rates over the years 1980-1990 were found to be significantly increasing for white males and females, Hispanic males, and black males in Texas, similar to the U.S. mortality experience. Most of this increase was accounted for by lung cancer.