

Vital Statistics since 1940), data on age-specific death rates according to community size, on occupational mortality differentials, and on the average age at marriage. Moreover, considerable delay has occurred in tabulating the data concerning the "family size" as recorded for the first time in the 1941 census and births according to marriage duration, etc. The most conspicuous lacuna is possibly the absence of comprehensive migration statistics, "migration" being taken in a broad sense to include temporary immigrants, refugees, interned prisoners, etc.

Such statistical deficiencies as may be spotted here and there by an over-punctilious reader do not affect the general impression conveyed by this intellectually honest and stimulating book.

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CANCER ILLNESS AMONG RESIDENTS OF TEN METROPOLITAN AREAS¹

EFFECTIVE control of a disease necessitates accurate, current, and representative information on the amount and nature of the particular disease in the population. The National Cancer Institute, with the cooperation of state and county

¹ Cutler, Sidney J.: *Cancer Illness Among Residents in Atlanta, Georgia 1947*. United States National Cancer Institute. Cancer Morbidity Series No. 1, 1950;

Cutler, Sidney J.: *Cancer Illness Among Residents of Chicago, Illinois 1947*. United States National Cancer Institute. Cancer Morbidity Series No. 6, 1952;

Cutler, Sidney J.: *Cancer Illness Among Residents of Pittsburgh, Pennsylvania 1947*. United States National Cancer Institute. Cancer Morbidity Series No. 5, 1951;

Cutler, Sidney J. and Marcus, Samuel C.: *Cancer Illness Among Residents of Philadelphia, Pennsylvania 1948*. United States National Cancer Institute. Cancer Morbidity Series No. 10, 1952;

Cutler, Sidney J. and Rowan, John C.: *Cancer Illness Among Residents of Detroit, Michigan 1948*. United States National Cancer Institute. Cancer Morbidity Series No. 9, 1952;

Grodowitz, William: *Cancer Illness Among Residents of San Francisco and Alameda Counties, California 1947*. United States National Cancer Institute. Cancer Morbidity Series No. 2, 1951;

Marcus, Samuel C.: *Cancer Illness Among Residents of Birmingham, Alabama 1948*. United States National Cancer Institute. Cancer Morbidity Series No. 8, 1952;

Marcus, Samuel C.: *Cancer Illness Among Residents of Dallas, Texas 1948*. United States National Cancer Institute. Cancer Morbidity Series No. 7, 1952;

Marcus, Samuel C.: *Cancer Illness Among Residents of Denver, Colorado 1947*. United States National Cancer Institute. Cancer Morbidity Series No. 4, 1951;

Warran, Irving I.: *Cancer Illness Among Residents of New Orleans, Louisiana 1947*. United States National Cancer Institute. Cancer Morbidity Series No. 3, 1951.

medical societies, undertook to provide such information on cancer by surveying the extent of illness from this disease in ten metropolitan areas for 1947 and 1948. Urban areas were chosen for the morbidity surveys because of the greater availability of good medical records for large numbers of cancer patients in these regions. The cities included in the study are Atlanta, New Orleans, Birmingham, Dallas, San Francisco, Denver, Chicago, Detroit, Pittsburgh, and Philadelphia.

Cancer morbidity surveys of the same ten areas were originally made during the period 1937–1939. With the publication of the current series, comparative morbidity statistics are now available for representative regions of the United States.

In each of the ten cities, reports were obtained on all cancer patients seen, diagnosed, treated, or under observation by physicians, hospitals and clinics during a twelve-month period. The surveys sought to answer such pertinent questions as: "How many people have cancer?"; "What parts of the body are most frequently attacked?"; "To what extent are age and race associated with cancer of specific sites?"; and "What are the chances of survival?"

Incidence, Prevalence and Mortality Rates. The prevalence and incidence rates for the ten cities in the first and second survey periods are shown in the table. Adjustment for the changing age composition of the population reveals that there has been an increase in both prevalence and incidence in all these areas with the exception of Chicago, where the rates remained at the same levels as in 1937. As the authors point out, it is difficult to assess the significance of these increases. How much of the increase in cancer illness rates was real and how much was due to improvements in case finding, diagnosis, therapy, and reporting cannot be ascertained. It is interesting to note that whereas incidence and prevalence rates increased from the first to the second survey periods in nine of the ten areas surveyed, the mortality rates remained at approximately the same level in five of the ten cities.

Age and Sex Differences in Cancer Incidence. Cancer is primarily a disease which occurs most frequently in late middle life and old age. Generally, cancer occurs at an earlier age among females than among males. Cancer incidence rates

are higher for females up to approximately ages 55-60, while in the later years of life the male rates are higher. This may be explained by the fact that cancers of the female genital organs and breast develop at younger ages than do the predominant forms of cancer found among males.

Despite the fact that cancer is closely associated with late adult life and old age, a large proportion of certain forms of malignancies occur in young persons. Leukemias, lymphomas,

Cancer prevalence and incidence rates per 100,000 population, among persons in ten metropolitan areas of the United States, 1937-1939 and 1947-1948.

| METROPOLITAN AREA | FIRST SURVEY PERIOD 1937-1939 | SECOND SURVEY PERIOD 1947-1948 | RATIO OF SECOND SURVEY PERIOD FIRST SURVEY PERIOD |
|---------------------------------------|-----------------------------------|-----------------------------------|---|
| | PREVALENCE PER 100,000 POPULATION | | |
| Birmingham | 293 | 469 | 1.60 |
| Atlanta ¹ | 313 | 340 | 1.09 |
| Dallas | 410 | 533 | 1.30 |
| New Orleans ² | 432 | 480 | 1.11 |
| San Francisco and Alameda Counties | 365 | 470 | 1.29 |
| Denver ¹ | 437 | 500 | 1.15 |
| Chicago | 346 | 341 | 0.99 |
| Detroit | 294 | 378 | 1.29 |
| Philadelphia | 399 | 434 | 1.09 |
| Pittsburgh | 331 | 384 | 1.16 |
| INCIDENCE PER 100,000 POPULATION | | | |
| Birmingham | 202 | 345 | 1.71 |
| Atlanta ¹ | 214 | 237 | 1.11 |
| Dallas | 314 | 372 | 1.18 |
| New Orleans ² | 330 | 366 | 1.11 |
| San Francisco and Alameda Counties | 256 | 364 | 1.42 |
| Denver ¹ | 295 | 371 | 1.26 |
| Chicago | 271 | 269 | 0.99 |
| Detroit | 195 | 267 | 1.37 |
| Philadelphia | 272 | 308 | 1.13 |
| Pittsburgh | 250 | 291 | 1.16 |

¹ The Atlanta and Denver rates were not adjusted for age.

² The New Orleans rates were adjusted for population growth.

cancers of the bone, brain and nervous system, endocrine glands (except the pancreas), and soft tissues were found to have a proportionately high occurrence among persons under 35 years of age.

Most of the newly diagnosed cases of cancer among males during 1947-1948, occurred in the following sites: skin, digestive system, genital organs, respiratory system, buccal cavity, and urinary organs. The primary sites among females with newly diagnosed cancer were: genital organs, digestive system, breast and skin.

Color Differences. Cancer illness rates are considerably lower for the nonwhite population than for the white. This was especially true among males. The most striking difference between the whites and nonwhites was the very low proportion of skin cancers among nonwhite persons. In Atlanta, skin cancer accounted for 1 per cent of all newly diagnosed cancers in nonwhite males during 1947, compared to 36 per cent in white males. For nonwhite and white females the percentages were 4 and 25, respectively. The lower rates, especially for nonwhite males, may be, in part, a reflection of less adequate medical care. It is probable that a large proportion of nonwhite males who have cancer, do not receive any medical care for that condition.

White males and females had higher cancer incidence rates for most sites of the body than did nonwhite males and females. The rate for cancer of the uterus, however, was higher among the nonwhite than the white females. Two factors which may account in part for this observed difference are number of pregnancies and inadequate medical care at termination of pregnancy.

Stage at Diagnosis, Site of Malignancy, and Survival. In each of the ten cities certain interrelationships are clearly illustrated. Early diagnosis of cancer is closely associated with accessibility of the tumor and also with length of survival. The earlier a case of cancer is discovered and the sooner that adequate treatment is initiated, the better are the chances for remission, survival, and cure. The stage at diagnosis varied with the primary site of the neoplasm. As may be expected, cancers of inaccessible organs generally went undiscovered until a late

stage. The most accessible sites, such as the buccal cavity and skin, had a greater percentage of early diagnoses than did such relatively inaccessible sites as the digestive and respiratory systems. However, the record for cancers of the accessible organs was far from satisfactory. Although the breast is considered an accessible site, in both Birmingham and Dallas only one-half of all newly diagnosed cases of this site were discovered in a localized state. In the other eight cities, the per cent of cases discovered while localized was even lower.

The variation in survival rates by stage of diagnosis is striking. In all of the ten cities those cancer cases which were diagnosed while the disease was localized had a better chance for longer survival than those discovered subsequent to regional or remote metastasis. This strongly suggests that improved diagnostic procedures which would make possible the discovery of more cases at an early stage of development, could result in a considerable saving in lives.

The lowest survival rates are found among patients with leukemia and cancers of the respiratory system (especially lung and bronchus), and digestive system. Best chances for survival were found among persons with cancer of the skin, breast and buccal cavity. It is apparent that both early diagnosis and survival are dependent upon the accessibility of the site of the malignancy.

The authors, by conducting careful investigations of cancer in representative groups of the population, have contributed much valuable data to cancer research and have provided the field of public health with more comprehensive cancer morbidity data than has been possible in the past.

KATHERINE SIMON



ECONOMIC ANTHROPOLOGY¹

THIS book is "a thorough revision" of the author's **THE ECONOMIC LIFE OF PRIMITIVE PEOPLES** which first appeared in 1940. The change made in the title represents a re-

¹ Herskovits, Melville J.: **ECONOMIC ANTHROPOLOGY**, New York, Alfred A. Knopf, 1952, 547, ix, xxiii pp., text edition, \$5.75, trade edition, \$7.50.