



# STATE OF CONNECTICUT

## DEPARTMENT OF HEALTH SERVICES

May 26, 1993

### SUMMARY OF PRELIMINARY STUDY OF CANCER OCCURRENCE IN STRATFORD CONNECTICUT 1971-1990

#### BACKGROUND

Since exposed asbestos containing waste has been identified in Stratford, the Stratford Department of Health requested that the Connecticut Department of Health Services (DHS) review cancer occurrence in Stratford. The DHS investigated whether cancer incidence rates in Stratford are similar to cancer rates in the entire state of Connecticut.

The DHS used the Tumor Registry to gather data on the occurrence of lung, testicular, and breast cancer; and non Hodgkin's Lymphoma, mesothelioma, leukemia, and soft tissue sarcoma.

#### METHODS

Information on the total number of cancer cases in Connecticut and in Stratford was obtained from the DHS Tumor Registry. Since 1935 it has been required by law that all tumors diagnosed to Connecticut residents be reported to the Tumor Registry. Age specific cancer incidence rates were generated for Connecticut and Stratford for the twenty year period 1971 to 1990 by dividing the number of cases identified during the period in an age group by the population in that age group according to the 1980 census.

The standard incidence ratio (SIR) is an overall summary measure of the cancer risk. The SIR is calculated by multiplying the Connecticut cancer incidence rates by the population of the town to estimate an "expected" number of cancers in each age group. The actual (or observed) number of cases identified by the Tumor Registry are divided by the expected number to obtain the SIR. When the SIR is less than one (1.00) the risk of cancer is less than expected, when the SIR is greater than one the risk is more than expected. This method allows for the inclusion of age as a risk factor in the analysis. Age is important to consider because generally speaking the risk of cancer varies with age.

#### RESULTS

The results of this preliminary study indicate that there was no overall increase of cancer occurring in Stratford. The following table presents the standard incidence ratios for selected

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tumor sites. For each tumor site studied and for all sites combined the SIR is very close to one indicating no overall difference from state rates. However, for all sites combined the younger age group had a greater than expected number of cancers. For this 20 year period, 49 cancers were observed while 33 were expected to occur.

## DISCUSSION

These are preliminary results. Further analysis will look more closely at the cancers which occurred to individuals in the younger age groups and will also examine the trends of cancer incidence for the past 30 years. Other tumor sites also may be studied as well as looking to see if there are geographic clusters or other similarities among cancer cases in Stratford.

The DHS in conjunction with the Stratford Health Department would like to get input from citizens in Stratford regarding the further study of cancer incidence in Stratford.

### PRELIMINARY ANALYSIS OF CANCER INCIDENCE IN STRATFORD IN COMPARISON TO CONNECTICUT 1971 TO 1990

	<u>OBSERVED</u> <u>EXPECTED</u>	STANDARD INCIDENCE RATIO	95% CONFIDENCE INTERVAL
ALL SITES	<u>4912</u> 4901	1.00	0.97,1.03
NON HODGKIN'S LYMPHOMA	<u>167</u> 161	1.04	0.87,1.19
LUNG - MALES	<u>504</u> 529	0.95	0.87,1.04
LUNG - FEMALES	<u>269</u> 262	1.03	0.91,1.15
MESOTHELIOMA	<u>11</u> 9	1.20	0.49,1.91
LEUKEMIA	<u>138</u> 140	0.98	0.82,1.15
BREAST	<u>739</u> 791	0.93	0.87,1.01
SOFT TISSUE SARCOMA	<u>55</u> 54	1.02	0.75,1.29
TESTICULAR	<u>15</u> 21	0.72	0.36,1.09

## CANCER PATTERNS IN STRATFORD, CONNECTICUT, 1958 - 1982

### PRELIMINARY ANALYSIS

#### SUMMARY OF FINDINGS

During the 1960's and 1970's, cancer rates in Stratford were similar, in general, to those of the whole state. For younger age groups, especially those under 15 years, total cancer incidence in the town exceeded that in the state during the 1970's. Lung cancer, leukemia, and non-Hodgkin lymphoma, all of special concern in Stratford, were at or below the state level for ages 45 and older. The trend analysis should be up-dated and incidence patterns for younger ages should be explored in greater detail.

#### DATA PRESENTATION

- Figure 1: Total cancer incidence by age and sex
- Figure 2: Incidence of lung and larynx cancer
- Figure 3: Cancer of the buccal cavity, breast and pancreas
- Figure 4: Leukemia, non-Hodgkin lymphoma, melanoma, bladder

#### TECHNICAL NOTES

Cancer rates for Connecticut were taken from the Connecticut Cancer Atlas (Public Health Research Center, 1985). Rates for Stratford were derived from the Atlas by subtracting Bridgeport cases from those of Region A, which is composed of Bridgeport and Stratford. Denominators for the Stratford rates were obtained from Adjusted Estimates of the Population by Age and Sex for Towns in Connecticut, 1940-1980 (Steahr and Heston, 1983) for the five year periods surrounding census years, and by linear interpolation for the mid-decade periods. Site specific rates for age 45 and older are means of the rates for ages 45-54, 55-64, and 65 and older.

Dr. Marie Caruolo of the Section of Occupational and Environmental Medicine in the Department of Medicine assisted with this analysis.

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May 24, 1993

FIGURE 1

Average annual age-specific total cancer incidence rates per 100,000 persons by sex (male on left, female on right), Stratford (heavy line) and Connecticut (thin line), 1958-82

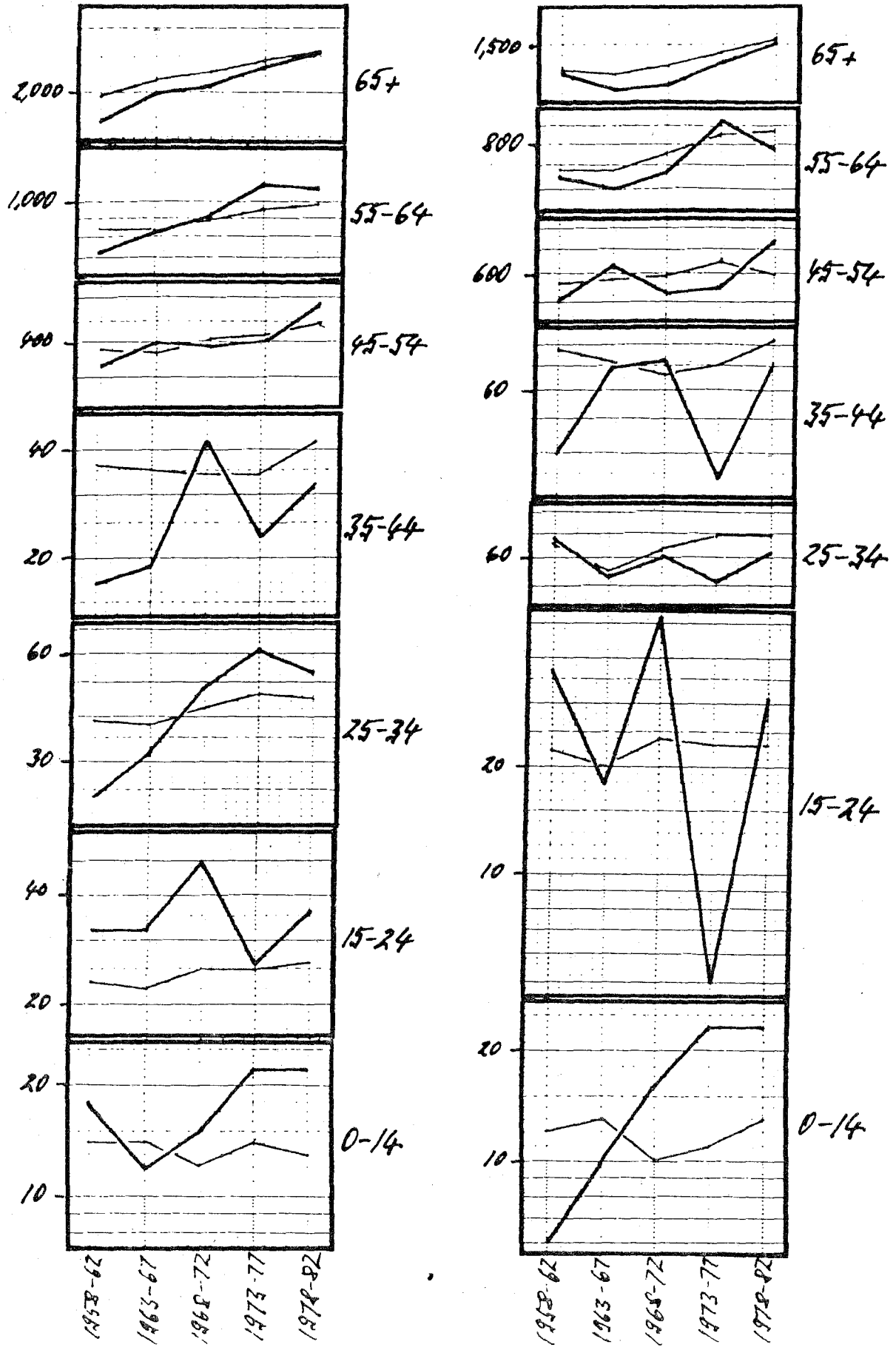
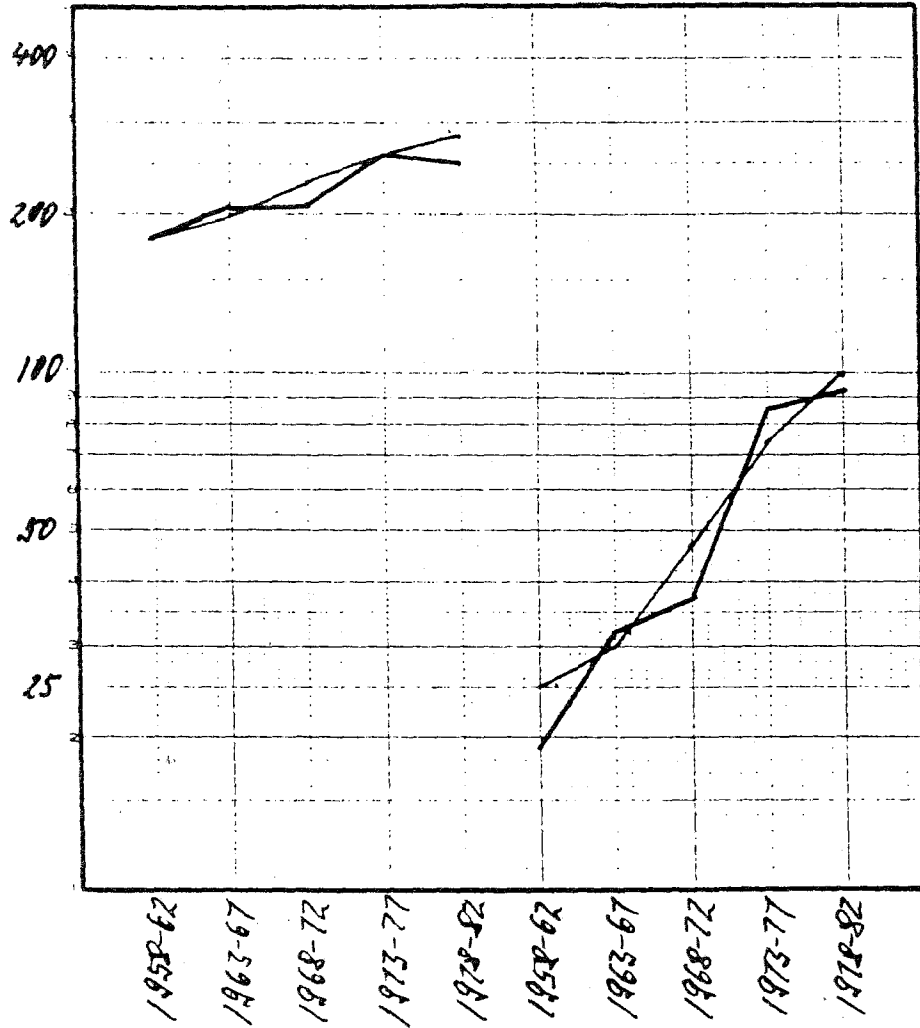


FIGURE 2  
 Average annual cancer incidence rates per 100,000 persons  
 aged 45 and older by sex (male on left, female on right),  
 Stratford (heavy line) and Connecticut (thin line), 1958-82

LUNG



LARYNX

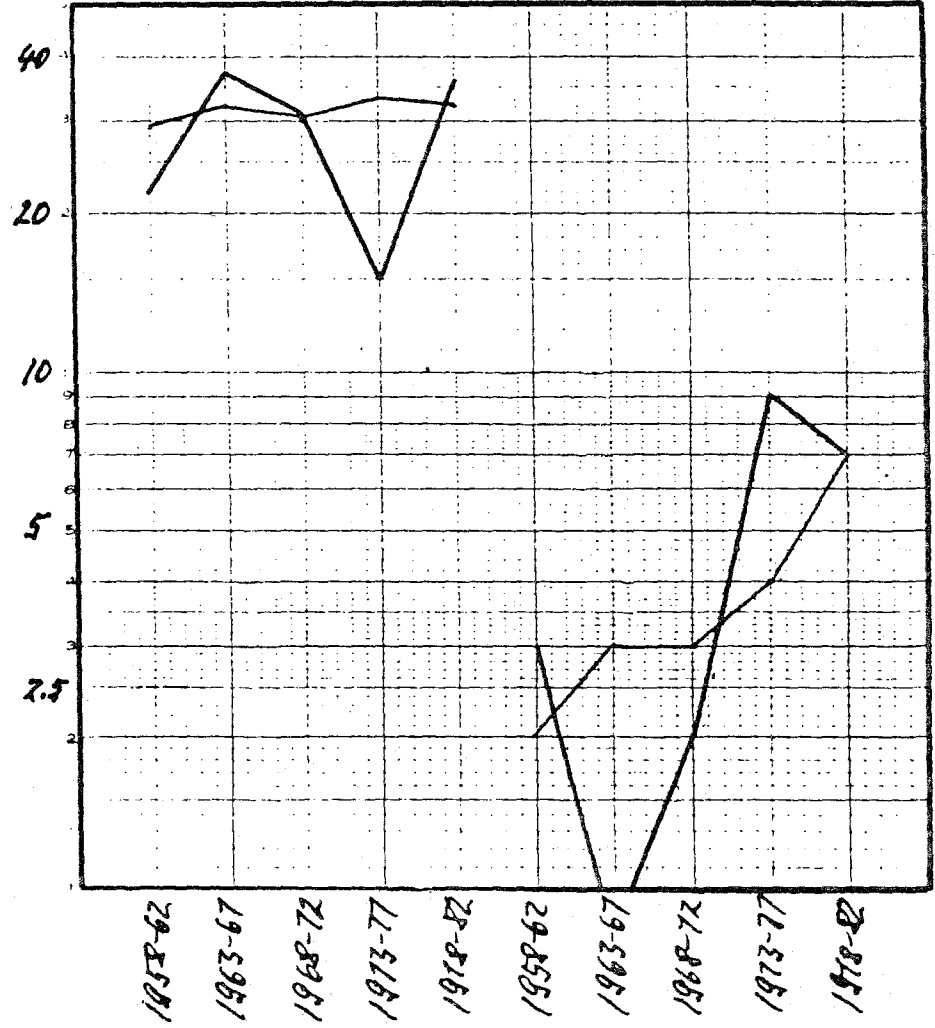
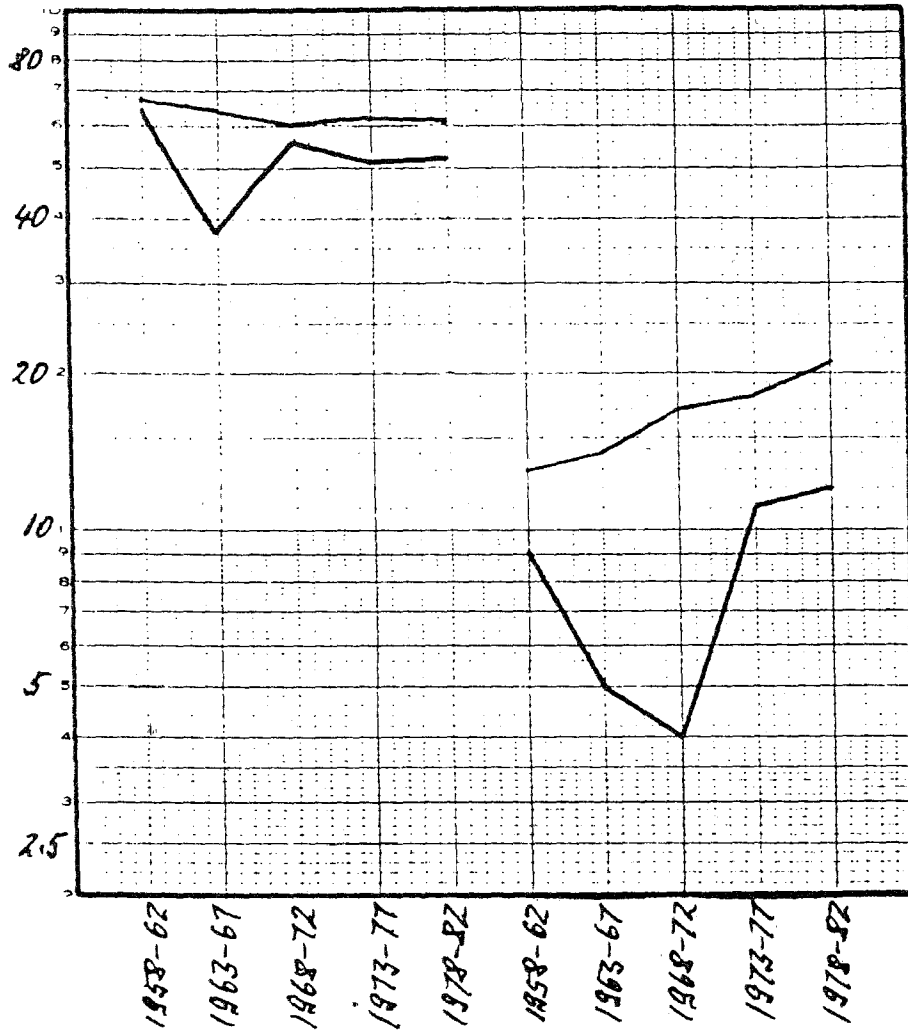
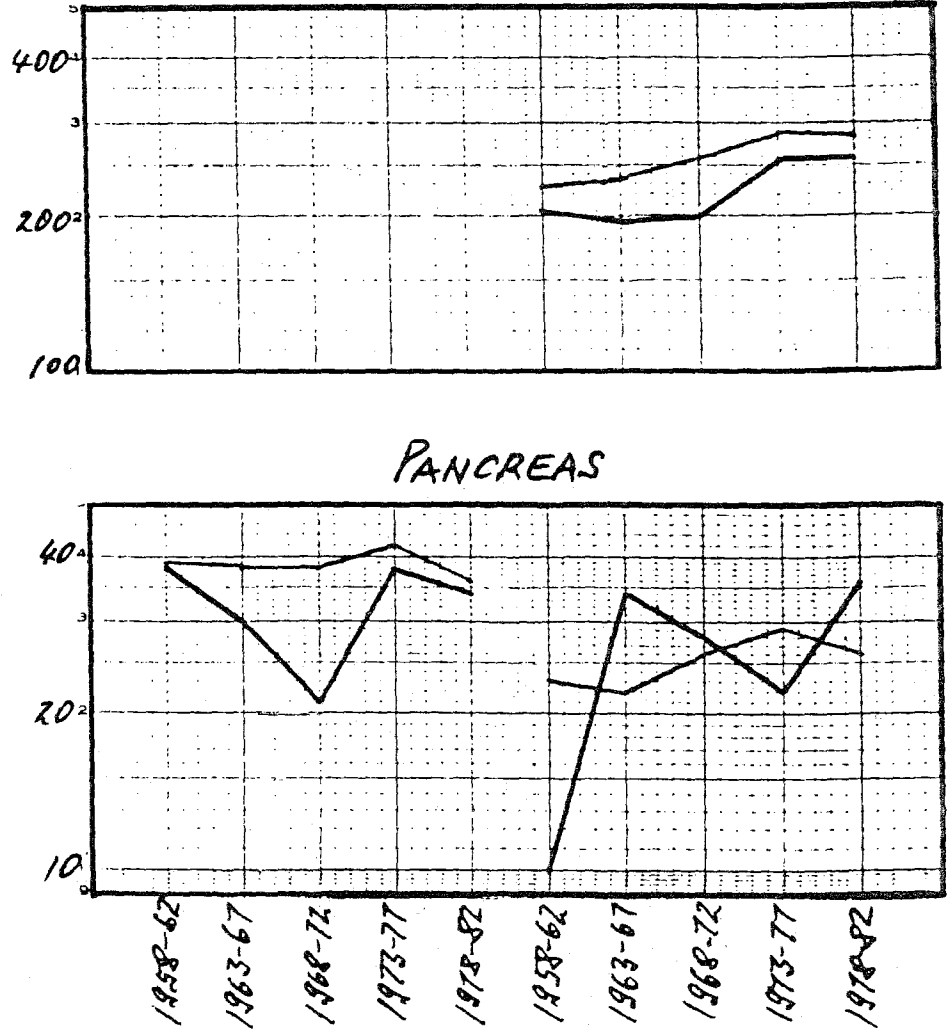


FIGURE 3  
 Average annual cancer incidence rates per 100,000 persons  
 aged 45 and older by sex (male on left, female on right),  
 Stratford (heavy line) and Connecticut (thin line), 1958-82

Buccal Cavity



BREAST



PANCREAS

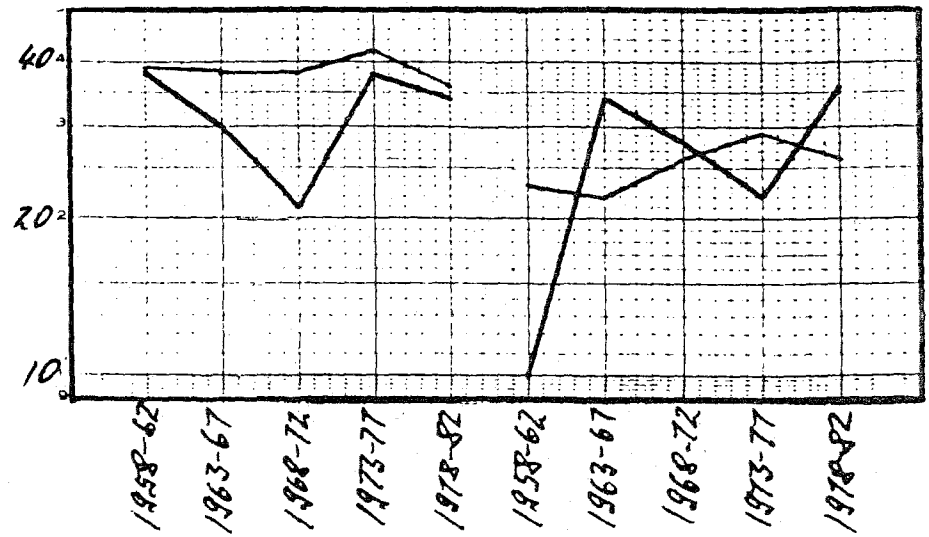
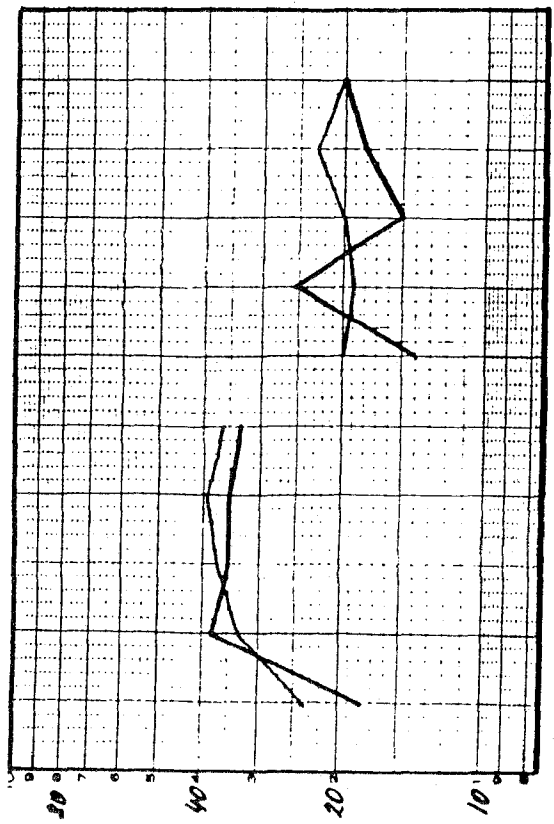
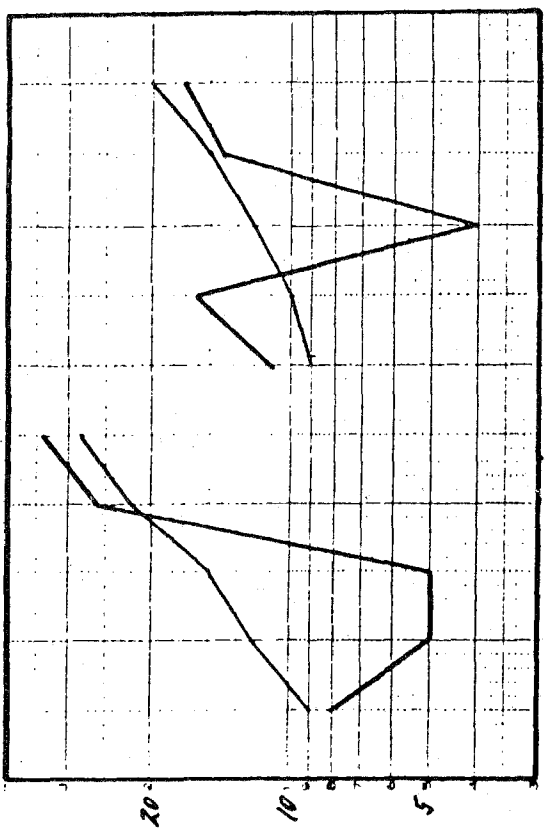


FIGURE 4  
 Average annual cancer incidence rates per 100,000 persons aged 45 and older by sex (male on left, female on right), Stratford (heavy line) and Connecticut (thin line), 1958-82

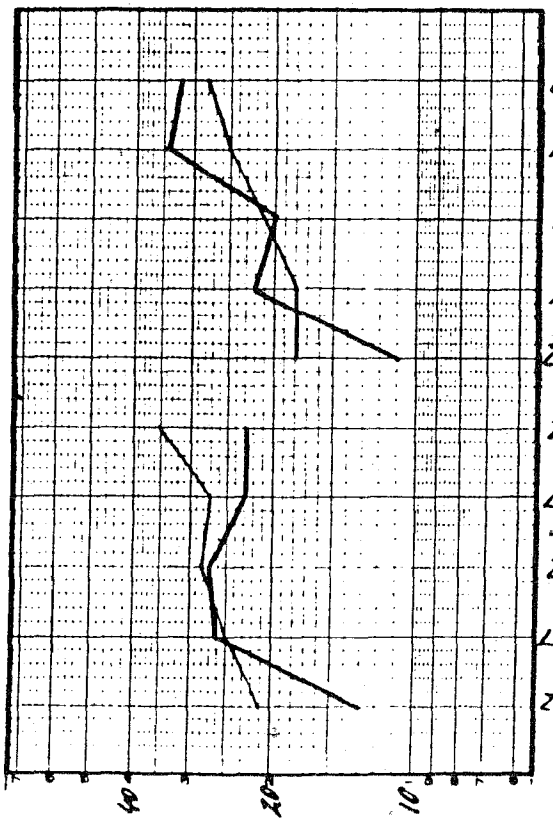
LEUKEMIA



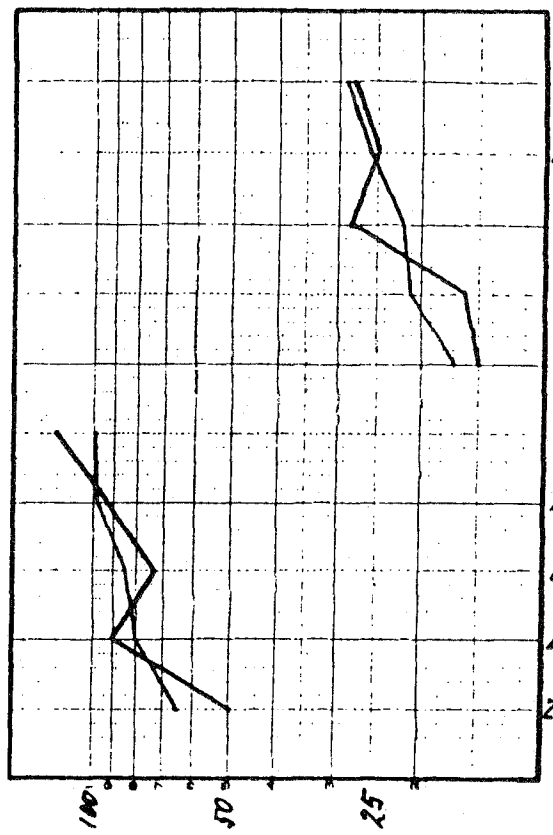
MELANOMA



LYMPHOMA



BLADDER



1978-82  
 1973-77  
 1968-72  
 1963-67  
 1958-62  
 1978-82  
 1973-77  
 1968-72  
 1963-67  
 1958-62

1978-82  
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