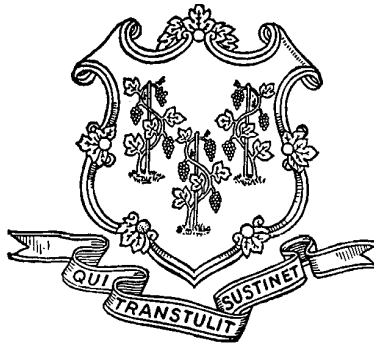


Cancer Incidence in Connecticut Counties, 1997



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CANCER INCIDENCE IN CONNECTICUT COUNTIES, 1997

CONNECTICUT TUMOR REGISTRY

OFFICE OF POLICY, PLANNING AND EVALUATION

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

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Executive Summary

For all invasive cancers combined the Connecticut age-adjusted incidence rate for males in 1997, all races combined, was 484 per 100,000. The highest rates for males were 539 in Tolland County and 518 in New London County. Middlesex had the lowest rate (450). New London and Tolland also had the highest incidence rates among females (442 and 402, respectively) for all races relative to the statewide rate (375 per 100,000).

For specific types of cancer, using one standard error of the county age-adjusted rate compared to the Connecticut rate as the criterion, in Fairfield County males had rates below the state for lung, stomach, and melanoma but higher than the state for prostate; for females, the rates for melanoma and all sites were each one or more standard errors less than those for Connecticut.

Hartford County, males had higher than statewide rates for all sites, stomach and prostate cancers. For prostate, black males were diagnosed at a rate 16% greater than blacks statewide. Leukemia rates were higher than statewide and tumors of the kidney below those statewide for each sex.

In New Haven County males were one or more standard errors lower than the Connecticut rates for all sites combined, prostate, leukemia and melanoma tumors, and higher than Connecticut for stomach and kidney. Rates for females exceeded the statewide rates for melanoma and leukemia.

In New London County, incidence rates were elevated above the Connecticut rates for all invasive sites, lung and melanoma both for men and women. Rates for colon-rectum and breast cancers for women and prostate tumors for men were above the Connecticut rates.

In other counties, the rates of melanoma were elevated for males in Litchfield County and females in Middlesex County. Among women Middlesex had the highest rate for uterine corpus cancers, while lung cancer was the lowest in Litchfield. For males, the prostate cancer rate was highest in Tolland and lowest in Windham.

Some or all of these findings may be transient, based on only one year. Other findings are consistent with those in previous monographs from the Connecticut Tumor Registry, including the rankings of male lung cancer rates by county and in relation to socioeconomic status indicators by county.

Introduction

Utilizing reports for cancers diagnosed in 1997, this monograph presents data on malignant tumors newly diagnosed for Connecticut residents and reported to the Connecticut Tumor Registry. Incidence rates and standard errors, per 100,000 population, are shown by anatomic site or morphology according to county, sex and race.

The entire state in 1997 had an estimated population of 3,269,858. The incidence rates by county are based on population estimates that range from 105,129 in Windham to 833,315 in Fairfield as estimated for 1997 by the U.S. Census Bureau, which also provides estimates by race, sex (see appendix table) and age.

The data presented are, with one exception (i.e., in-situ bladder tumors) confined to invasive tumors newly diagnosed. Also, the data do not include non-reportable skin tumors diagnosed in anatomic sites other than genital organs. Non-epithelial skin tumors, including melanomas, are included.

Incidence rates show year-to-year changes that are random: the larger the number of residents, the smaller the expected random change in the rate. The standard error of a rate is calculated to estimate its random component. With the wide range in size of the county populations for Connecticut, it is useful to include the standard error with each age-adjusted rate (see Methodology section).

The incidence data, including crude and age-adjusted rates with standard errors, and the number of tumors diagnosed, are presented in 22 tables, 17 for all races combined and 5 for white, black and other races. To maintain a ratio no higher than 0.25 of the standard error to the age-adjusted incidence rate, the latter is shown only if based on 20 or more tumors. Codes for primary site are from the International Classification of Disease for Oncology Second Edition (ICD-0-2) with the leading "C" deleted.

With the exception of the 3 or 4 highest frequency sites, 20 or more tumors were usually not available for computing incidence rates by site and sex in New London, Middlesex, Tolland and Windham Counties in eastern Connecticut and Litchfield County in the northwest area of the state. However, the incidence data for the five counties is shown on a combined basis in several of the tables.

For 1997 (year of diagnosis) there were 17,358 invasive tumors reported to the Connecticut Tumor Registry, or about 1 for every 188 persons resident in the state. Of this total 14,801 or 85% were diagnosed for persons not previously reported to have had an invasive malignancy, a ratio of 1 to 221 residents. The actual ratio is somewhat higher since no adjustment is made for those in the population previously diagnosed and alive. While this monograph is limited to incidence data, total deaths in 1997 attributable to malignant tumors were 7098 or about one-fourth of all deaths. Among the tumor deaths, over 26% were due to those of the lung, bronchus and trachea as the primary cause. Second in frequency were deaths from colon and rectal tumors, 10%, with those of the breast among women, 8%, prostate, 6% and pancreas, 6%.

Methodology

The crude incidence rate per person is defined as the number of tumors diagnosed, usually according to cancer site and sex, in one or more calendar years, divided by the at-risk population. For a rate per 100,000 either tumors are multiplied by 100,000 or the population is divided by this amount.

While useful as a measure of an area's average tumor rate for all ages, the crude rate is usually not an appropriate measure of the cancer rate in one area relative to other areas. This is due to the association (for many cancer sites) between increasing age and rising tumor rates, combined with the lack of uniformity between areas in the distribution of population by age. The association of tumor rates with the age of patients is readily shown. In 1997, the Connecticut incidence rates by ages, all sites combined, for each sex, were more than 40 times higher at 55-59 than at ages 15-19. The risk continued to increase to ages 80-84 at a slower rate for both men and women.

An area's crude incidence rates are composites of the corresponding age-specific rates. In effect, the crude rate is an average of each of the latter, weighted by the proportion of the population in each age group. The age distributions by county can differ substantially; for example, Tolland had an estimated 9.8% of its population at ages 65 and older in 1997 compared to 14.4% statewide.

The age-adjusted rate, as computed directly, is formulated to address the issue of unequal distribution of each area's population by age. An area's population is divided into several age groups (for this study 5 years of age from 0-4 to 80-84 and then 85+), and the incidence rates for each are computed. The rates by age are multiplied by the corresponding population groups in a standard population (the U.S. standard million for 1970 was used in this report). The sum of these products divided by the total standard population (1,000,000) gives the age-adjusted rate. As a weighted average of a cancer's age-specific incidence rates in an area, the age-adjusted rate is independent of the area's population distribution by age and can be compared with other rates adjusted to the same standard.

If there are major differences in the age-adjusted rates between areas, then disparities in risk factors other than age could be present. Further, incidence rates are subject to random and unknown influences as well as the combined effects of risk factors. To provide a measure that estimates the random variation, the standard errors of the age-adjusted rates were calculated.

The levels of the incidence rates depend on the corresponding population estimates. The U.S. Census Bureau, with access to several national databases, is well qualified to make estimates at the state and county level. However, in making complex calculations of population by age, race, sex, year and area, the methods used may not produce estimates of equal accuracy in all instances.

Table 1
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
All Sites (00.0-80.9)¹

County	Sex	Tumors	Rate/100,000		
			Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>All Races</u>					
Fairfield	M	2207	547.57	479.31	10.31
	F	2165	503.18	366.00	8.30
Hartford	M	2338	587.36	505.66	10.63
	F	2193	513.47	362.42	8.27
New Haven	M	2071	542.60	465.95	10.50
	F	2207	537.61	381.58	8.72
New London	M	670	527.34	518.48	20.27
	F	706	560.74	441.70	17.47
Litchfield	M	496	556.21	468.00	21.71
	F	487	529.88	380.73	18.66
Middlesex	M	356	486.89	450.02	24.39
	F	379	499.39	365.54	20.26
Tolland	M	314	476.88	538.68	30.97
	F	285	437.26	402.46	24.83
Windham	M	240	464.60	457.42	30.17
	F	243	454.44	369.49	25.38
Conn.	M	8693	546.86	483.87	5.28
	F	8665	515.70	375.33	4.29

¹ Includes in situ bladder tumors; excludes non-melanoma skin tumors of specified histologies for sites other than genital (see text).

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

Note: Totals for 1997 will increase slightly, due to late reports (not available at the time these analyses were done).

Table 2
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Oral Cavity and Pharynx, Esophagus, All Races

County	Sex	Tumors	Rate/100,000		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Oral Cavity, Pharynx (00.0-14.8)</u>					
Fairfield	M	61	15.13	12.86	1.67
	F	33	7.67	5.15	.95
Hartford	M	69	17.33	15.45	1.88
	F	26	6.09	5.01	1.02
New Haven	M	60	15.72	15.15	1.99
	F	38	9.26	6.52	1.14
Other Five Counties	M	56	13.76	13.62	1.85
	F	25	6.06	5.02	1.06
Conn.	M	246	15.48	14.09	.91
	F	122	7.26	5.39	.52
<u>Esophagus (15.0-15.9)</u>					
Fairfield	M	36	8.93	8.16	1.37
	F	11	*	*	*
Hartford	M	34	8.54	7.78	1.35
	F	12	*	*	*
New Haven	M	41	10.74	8.91	1.42
	F	8	*	*	*
Other Five Counties	M	39	9.59	9.66	1.57
	F	7	*	*	*
Conn.	M	150	9.44	8.66	.72
	F	38	2.26	1.62	.26

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 3
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Stomach, Pancreas, All Races

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Stomach (16.0-16.9)</u>					
Fairfield	M	37	9.18	7.64	1.27
	F	28	6.51	4.03	.81
Hartford	M	65	16.33	13.49	1.69
	F	37	8.66	5.06	.91
New Haven	M	67	17.56	14.34	1.80
	F	37	9.01	4.81	.86
Other Five Counties	M	33	8.11	7.42	1.31
	F	20	4.85	3.81	.89
Conn.	M	202	12.71	10.73	.76
	F	122	7.26	4.47	.44
<u>Pancreas (25.0-25.9)</u>					
Fairfield	M	52	12.90	11.01	1.54
	F	53	12.32	8.12	1.19
Hartford	M	57	14.32	12.05	1.62
	F	57	13.35	8.57	1.21
New Haven	M	40	10.48	9.17	1.49
	F	52	12.67	7.67	1.15
Other Five Counties	M	46	11.31	10.57	1.58
	F	58	14.07	9.24	1.32
Conn.	M	195	12.27	10.64	.77
	F	220	13.09	8.36	.61

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

Table 4
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Colon (18.0-18.9)

County	Sex	Tumors	Rate/100,000		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>All Races</u>					
Fairfield	M	190	47.14	39.76	2.91
	F	221	51.36	32.54	2.32
Hartford	M	180	45.22	37.52	2.84
	F	208	48.70	29.68	2.24
New Haven	M	189	49.52	39.97	2.98
	F	202	49.21	30.24	2.34
New London	M	49	38.57	36.33	5.26
	F	67	53.21	36.83	4.81
Litchfield	M	30	33.64	27.01	5.08
	F	48	52.23	31.84	5.16
Middlesex	M	30	41.03	38.33	7.14
	F	27	35.58	20.48	4.38
Tolland	M	26	39.49	45.45	9.04
	F	21	32.22	27.57	6.29
Windham	M	17	*	*	*
	F	23	43.01	30.67	6.94
Conn.	M	711	44.73	38.14	1.45
	F	817	48.62	30.66	1.16

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 5
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Colon, Rectum, All Races

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Colon (18.0-18.9)</u>					
Fairfield	M	190	47.14	39.76	2.91
	F	221	51.36	32.54	2.32
Hartford	M	180	45.22	37.52	2.84
	F	208	48.70	29.68	2.24
New Haven	M	189	49.52	39.97	2.98
	F	202	49.21	30.24	2.34
Other Five Counties	M	152	37.36	35.55	2.94
	F	186	45.11	30.41	2.42
Conn.	M	711	44.73	38.14	1.45
	F	817	48.62	30.66	1.16
<u>Rectum (19.9-21.8)</u>					
Fairfield	M	81	20.10	17.54	1.96
	F	75	17.43	12.07	1.49
Hartford	M	94	23.62	19.89	2.08
	F	71	16.62	10.60	1.37
New Haven	M	74	19.39	16.64	1.98
	F	85	20.71	13.91	1.61
Other Five Counties	M	75	18.43	17.45	2.06
	F	67	16.25	11.81	1.57
Conn.	M	324	20.38	17.86	1.01
	F	298	17.74	12.09	.75

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

Table 6
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Colon and Rectum (18.0-21.8)

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>All Races</u>					
Fairfield	M	271	67.24	57.30	3.51
	F	296	68.80	44.61	2.76
Hartford	M	274	68.84	57.41	3.52
	F	279	65.33	40.28	2.62
New Haven	M	263	68.91	56.61	3.58
	F	287	69.91	44.14	2.84
New London	M	69	54.31	52.84	6.45
	F	98	77.84	53.05	5.76
Litchfield	M	48	53.83	44.14	6.56
	F	64	69.64	45.49	6.30
Middlesex	M	48	65.65	58.60	8.64
	F	31	40.85	22.99	4.59
Tolland	M	36	54.67	61.12	10.44
	F	27	41.42	36.06	7.26
Windham	M	26	50.33	48.75	9.78
	F	33	61.71	46.09	8.75
Conn.	M	1035	65.11	56.00	1.77
	F	1115	66.36	42.75	1.38

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

Table 7
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Lung and Bronchus and Trachea (33.9-34.9)

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age- Adjust. ¹	SE Age- Adjust. ²
<u>All Races</u>					
Fairfield	M	282	69.97	61.79	3.71
	F	273	63.45	45.13	2.86
Hartford	M	333	83.66	72.24	4.02
	F	274	64.15	45.84	2.90
New Haven	M	308	80.70	68.87	4.01
	F	299	72.83	50.46	3.13
New London	M	119	93.66	93.52	8.67
	F	97	77.04	60.04	6.42
Litchfield	M	74	82.98	67.16	8.01
	F	54	58.76	41.40	6.03
Middlesex	M	59	80.69	74.12	9.84
	F	44	57.98	43.41	6.91
Tolland	M	41	62.27	66.10	10.94
	F	40	61.37	58.89	9.58
Windham	M	45	87.11	85.08	12.96
	F	29	54.23	48.55	9.42
Conn.	M	1261	79.33	70.40	2.01
	F	1110	66.06	47.70	1.51

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

Table 8
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Melanoma of Skin (44.0-44.9) ¹

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>All Races</u>					
Fairfield	M	86	21.34	18.34	2.00
	F	72	16.73	11.74	1.45
Hartford	M	106	26.63	22.77	2.25
	F	79	18.50	13.44	1.61
New Haven	M	73	19.13	16.94	2.03
	F	62	15.10	11.25	1.51
Other Five Counties	M	118	29.00	26.86	2.52
	F	104	25.22	19.85	2.07
New London	M	40	31.48	29.39	4.72
	F	40	31.77	24.41	4.04
Litchfield	M	29	32.52	28.06	5.39
	F	16	*	*	*
Middlesex	M	20	27.35	24.85	5.71
	F	22	28.99	25.33	5.75
Conn.	M	383	24.09	21.14	1.10
	F	317	18.87	13.91	.83

¹ Morphology 8720-8790.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 9
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Female Breast (50.0-50.9)

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>All Races</u>					
Fairfield	F	645	149.91	114.23	4.66
Hartford	F	703	164.60	121.00	4.79
New Haven	F	646	157.36	115.50	4.81
New London	F	212	168.38	136.74	9.76
Litchfield	F	149	162.12	124.85	10.86
Middlesex	F	103	135.72	101.32	10.69
Tolland	F	79	121.20	112.40	13.12
Windham	F	74	138.39	114.78	14.16
Conn.	F	2611	155.40	117.73	2.41

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

Table 10
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Cervix, Corpus and Uterus NOS, Ovary, All Races

County	Sex	Tumors	Rate/100,000		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Cervix (53.0-53.9)</u>					
Fairfield	F	40	9.30	7.08	1.15
Hartford	F	38	8.90	7.02	1.21
New Haven	F	40	9.74	8.24	1.36
Other Five Counties	F	28	6.79	5.52	1.09
Conn.	F	146	8.69	6.96	.60
<u>Corpus, Uterus NOS (54.0-54.9, 55.9)</u>					
Fairfield	F	149	34.63	25.79	2.19
Hartford	F	107	25.05	17.93	1.84
New Haven	F	155	37.76	31.43	2.65
Other Five Counties	F	133	32.25	27.52	2.51
Conn.	F	544	32.38	25.36	1.14
<u>Ovary (56.9)</u>					
Fairfield	F	78	18.13	14.45	1.69
Hartford	F	74	17.33	13.12	1.61
New Haven	F	68	16.56	13.29	1.70
Other Five Counties	F	77	18.67	15.60	1.85
Conn.	F	297	17.68	14.09	.85

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

Table 11
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Corpus and Uterus NOS (54.0-55.9)

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age- Adjust. ¹	SE Age- Adjust. ²
<u>All Races</u>					
Fairfield	F	149	34.63	25.79	2.19
Hartford	F	107	25.05	17.93	1.84
New Haven	F	155	37.76	31.43	2.65
New London	F	42	33.36	29.50	4.71
Litchfield	F	28	30.46	24.02	4.77
Middlesex	F	33	43.48	35.81	6.64
Tolland	F	18	*	*	*
Windham	F	12	*	*	*
Conn.	F	544	32.38	25.36	1.14

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 12
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Prostate (61.9)

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>All Races</u>					
Fairfield	M	695	172.43	153.23	5.85
Hartford	M	682	171.34	150.68	5.85
New Haven	M	505	132.31	114.59	5.22
New London	M	194	152.69	152.19	11.02
Litchfield	M	129	144.66	124.97	11.28
Middlesex	M	97	132.66	126.96	13.12
Tolland	M	96	145.80	170.48	17.58
Windham	M	54	104.54	101.37	14.02
Conn.	M	2453 ³	154.31	139.08	2.85

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

³ Includes 1 tumor diagnosed for a Conn. resident, county unknown.

Table 13
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Bladder, Kidney, All Races

County	Sex	Tumors	Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Bladder (67.0-67.9)³</u>					
Fairfield	M	180	44.66	38.36	2.88
	F	68	15.80	10.78	1.39
Hartford	M	164	41.20	34.50	2.73
	F	63	14.75	9.51	1.29
New Haven	M	174	45.59	39.39	3.06
	F	64	15.59	10.49	1.40
Other Five Counties	M	152	37.36	35.38	2.92
	F	69	16.73	11.87	1.52
Conn.	M	670	42.15	36.73	1.44
	F	264	15.71	10.63	.70
<u>Kidney (64.9-66.9)</u>					
Fairfield	M	64	15.88	13.49	1.71
	F	40	9.30	7.26	1.19
Hartford	M	54	13.57	11.78	1.63
	F	30	7.02	4.89	.95
New Haven	M	72	18.86	16.55	2.00
	F	41	9.99	8.22	1.37
Other Five Counties	M	63	15.48	14.97	1.93
	F	44	10.67	8.23	1.32
Conn.	M	253	15.92	14.11	.90
	F	155	9.22	7.13	.61

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

³ Includes in situ tumors.

Table 14
 Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
 Brain and Cranial Nerves and Cerebral Meninges, Brain¹
 All Races

County	Sex	Tumors	-----Rate/100,000-----		
			Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>Brain, Cranial Nerves, Cerebral Meninges</u>					
Fairfield	M	32	7.94	7.61	1.38
	F	19	*	*	.97
Hartford	M	31	7.79	6.69	1.24
	F	26	6.09	5.29	1.12
New Haven	M	36	9.43	8.20	1.41
	F	18	*	*	.93
Other Five Counties	M	30	7.37	6.97	1.30
	F	21	5.09	3.85	.91
Conn.	M	129	8.12	7.37	.67
	F	84	5.00	4.18	.49
<u>Brain</u>					
Fairfield	M	32	7.94	7.61	1.38
	F	19	*	*	*
Hartford	M	30	7.54	6.51	1.23
	F	24	5.62	4.88	1.08
New Haven	M	36	9.43	8.20	1.41
	F	18	*	*	*
Other Five Counties	M	30	7.37	6.97	1.30
	F	19	*	*	*
Conn.	M	128	8.05	7.32	.67
	F	80	4.76	3.98	.48

¹ Sites include brain, 71.0-71.9, cranial nerves, 72.2-72.5, cerebral meninges, 70.0, 70.9.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 15
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
All Malignant Lymphomas¹

County	Sex	Tumors	Rate/100,000		
			Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>All Races</u>					
Fairfield	M	120	29.77	26.17	2.47
	F	97	22.54	17.91	1.99
Hartford	M	118	29.64	25.88	2.44
	F	96	22.48	16.26	1.81
New Haven	M	112	29.34	25.46	2.49
	F	99	24.12	16.37	1.79
New London	M	20	15.74	15.32	3.48
	F	28	22.24	18.84	3.77
Litchfield	M	25	28.03	23.03	4.89
	F	22	23.93	16.94	3.92
Middlesex	M	17	*	*	*
	F	20	26.35	17.93	4.40
Tolland	M	23	34.93	36.55	7.79
	F	12	*	*	*
Windham	M	10	*	*	*
	F	8	*	*	*
Conn.	M	445	27.99	24.68	1.20
	F	382	22.74	16.94	.94

¹ Includes malignant tumors at any site diagnosed with a morphology of 9590-9715.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 16
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Non-Hodgkin's, Total Malignant Lymphomas, All Races

County	Sex	Tumors	Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Non-Hodgkin's Lymphomas</u> ³					
Fairfield	M	104	25.80	22.37	2.26
	F	82	19.06	13.77	1.62
Hartford	M	103	25.88	22.39	2.26
	F	80	18.73	12.95	1.58
New Haven	M	97	25.41	21.26	2.22
	F	91	22.17	14.26	1.60
Other Five Counties	M	82	20.16	18.43	2.08
	F	78	18.92	15.06	1.81
Conn.	M	386	24.28	21.06	1.10
	F	331	19.70	13.93	.82
<u>Total Lymphomas</u> ³					
Fairfield	M	120	29.77	26.17	2.47
	F	97	22.54	17.91	1.99
Hartford	M	118	29.64	25.88	2.44
	F	96	22.48	16.26	1.81
New Haven	M	112	29.34	25.46	2.49
	F	99	24.12	16.37	1.79
Other Five Counties	M	95	23.35	21.44	2.25
	F	90	21.83	17.63	1.98
Conn.	M	445	27.99	24.68	1.20
	F	382	22.74	16.94	.94

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

³ Includes malignant tumors at any site diagnosed with a morphology of 9590-9715, total lymphoma; and 9590-9595,9670-9715, non-Hodgkin's lymphoma.

Table 17
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
Leukemia, Multiple Myeloma, All Races

County	Sex	Tumors	Rate/100,000-----		
			Crude	Age-Adjust. ¹	SE Age-Adjust. ²
<u>Leukemia (Morphology 9800-9941)³</u>					
Fairfield	M	49	12.16	10.94	1.59
	F	43	9.99	7.98	1.34
Hartford	M	66	16.68	14.66	1.86
	F	55	12.88	9.72	1.47
New Haven	M	43	11.27	9.49	1.48
	F	32	7.80	5.19	1.02
Other Five Counties	M	49	12.04	11.45	1.69
	F	52	12.61	10.23	1.52
Conn.	M	207	13.02	11.64	.83
	F	182	10.83	8.23	.67
<u>Multiple Myeloma (Morphology 9731-9732)³</u>					
Fairfield	M	30	7.44	6.42	1.18
	F	26	6.04	4.34	.90
Hartford	M	24	6.03	4.99	1.03
	F	26	6.09	3.34	.71
New Haven	M	17	*	*	*
	F	24	5.85	3.53	.79
Other Five Counties	M	31	7.62	7.26	1.33
	F	25	6.06	4.92	1.04
Conn.	M	102	6.42	5.52	.55
	F	101	6.01	3.99	.43

¹ Age-adjusted directly to the U.S. 1970 standard million.

² Standard error of the age-adjusted rate.

³ Tumors primarily of bone marrow (42.1); includes myelomas other than multiple.

* Not shown (fewer than 20 tumors).

Table 18
Incidence Rates of Malignant Tumors, Invasive, By County, Site, Sex, 1997
All Sites (00.0-80.9), by Race¹

County	Race	Sex	Tumors	-----Rate/100,000-----		
				Crude	Age- Adjust. ²	SE Age- Adjust. ³
<u>Male</u>						
Fairfield	White	M	2016	580.14	473.93	10.70
	Black	M	155	370.41	567.97	46.60
Hartford	White	M	2056	599.66	481.20	10.84
	Black	M	183	409.02	607.63	45.92
New Haven	White	M	1896	571.55	461.15	10.93
	Black	M	149	359.40	541.67	45.40
Other Five Counties	White	M	1974	513.85	479.54	11.00
	Black	M	47	332.06	593.99	91.18
Conn.	White	M	7943	564.90	472.75	5.41
	Black	M	534	375.53	575.78	25.53
	Other	M	92	222.52	417.25	46.02
<u>Female</u>						
Fairfield	White	F	1997	542.07	372.30	8.88
	Black	F	144	300.96	327.62	27.76
Hartford	White	F	1981	541.12	359.27	8.72
	Black	F	129	258.38	299.53	26.89
New Haven	White	F	2029	572.55	383.85	9.26
	Black	F	153	322.89	370.13	30.34
Other Five Counties	White	F	2025	518.03	396.12	9.38
	Black	F	41	330.57	410.15	66.42
Conn.	White	F	8032	542.78	376.89	4.51
	Black	F	467	296.39	336.47	15.84
	Other	F	91	212.17	306.94	34.20

¹ Includes in situ bladder tumors. Excludes non-melanoma skin tumors of specified types for sites other than genital (see text); and 200 tumors for patients without a reported racial classification.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

Table 19
Incidence Rates of Malignant Tumors, Invasive, by County, Site, Sex, 1997
Colon and Rectum (18.0-21.8), by Race¹

County	Race	Sex	Tumors	-----Rate/100,000-----		
				Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>Male</u>						
Fairfield	White	M	244	70.22	55.29	3.57
	Black	M	24	57.35	86.54	18.19
Hartford	White	M	242	70.62	54.53	3.57
	Black	M	22	49.17	75.42	16.24
New Haven	White	M	249	75.06	57.28	3.75
	Black	M	13	*	*	*
Conn.	White	M	957	68.00	54.97	1.81
	Black	M	63	44.30	67.22	8.66
	Other	M	5	*	*	*
<u>Female</u>						
Fairfield	White	F	277	75.19	45.29	2.93
	Black	F	19	*	*	*
Hartford	White	F	255	69.66	39.00	2.69
	Black	F	16	*	*	*
New Haven	White	F	267	75.34	43.99	2.97
	Black	F	18	*	*	*
Conn.	White	F	1045	70.62	42.63	1.44
	Black	F	59	37.45	43.55	5.74
	Other	F	5	*	*	*

¹ Excludes 16 tumors for patients reported without a racial classification.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 20
Incidence Rates of Malignant Tumors, Invasive, by County, Site, Sex, 1997
Lung, Bronchus, Trachea (33.9-34.9), by Race¹

County	Race	Sex	Tumors	-----Rate/100,000-----		
				Crude	Age-Adjust. ²	SE Age-Adjust. ³
				<u>Male</u>		
Fairfield	White	M	258	74.24	60.69	3.82
	Black	M	23	54.96	89.04	18.76
Hartford	White	M	305	89.00	71.28	4.16
	Black	M	24	53.64	85.71	17.71
New Haven	White	M	282	85.01	67.85	4.15
	Black	M	23	55.48	85.44	18.31
Conn.	White	M	1167	83.00	69.37	2.07
	Black	M	80	56.26	89.78	10.24
	Other	M	11	*	*	*
				<u>Female</u>		
Fairfield	White	F	252	68.40	45.44	3.02
	Black	F	20	41.80	47.88	10.78
Hartford	White	F	254	69.38	46.50	3.08
	Black	F	17	*	*	*
New Haven	White	F	280	79.01	50.92	3.30
	Black	F	19	*	*	*
Conn.	White	F	1044	70.55	48.22	1.59
	Black	F	59	37.45	46.01	6.01
	Other	F	5	*	*	*

¹ Excludes 5 tumors for patients reported without a racial classification

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 21
Incidence Rates of Malignant Tumors, Invasive, by County, Site, Sex, 1997
Total Respiratory System, by Race¹

County	Race	Sex	Tumors	-----Rate/100,000-----		
				Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>Male</u>						
Fairfield	White	M	289	83.17	68.48	4.07
	Black	M	25	59.74	95.79	19.37
Hartford	White	M	349	101.84	81.58	4.45
	Black	M	25	55.88	89.04	18.02
New Haven	White	M	325	97.97	78.60	4.48
	Black	M	28	67.54	104.72	20.25
Conn.	White	M	1327	94.38	79.23	2.21
	Black	M	89	62.59	99.51	10.76
	Other	M	12	*	*	*
<u>Female</u>						
Fairfield	White	F	263	71.39	47.44	3.09
	Black	F	21	43.89	50.22	11.03
Hartford	White	F	263	71.84	48.44	3.16
	Black	F	18	*	*	*
New Haven	White	F	298	84.09	54.24	3.41
	Black	F	25	52.76	64.14	12.89
Conn.	White	F	1100	74.34	51.00	1.63
	Black	F	67	42.52	52.13	6.39
	Other	F	5	*	*	*

¹ Sites include nasal cavity, accessory sinuses (30.0-31.9), larynx (32.0-32.9), lung, bronchus, trachea (33.9-34.9), mediastinum (38.1-38.3), pleura (38.4), upper respiratory tract, NOS (39.9). Excluded are 7 tumors for patients reported without a racial class.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

* Not shown (fewer than 20 tumors).

Table 22
Incidence Rates of Malignant Tumors, Invasive, by County, Site, Sex, 1997
Prostate, Female Breast, by Race¹

County	Race	Sex	Tumors	-----Rate/100,000-----		
				Crude	Age-Adjust. ²	SE Age-Adjust. ³
<u>Prostate (61.9)</u>						
Fairfield	White	M	634	182.45	150.61	6.03
	Black	M	49	117.10	181.23	26.22
Hartford	White	M	565	164.87	134.54	5.76
	Black	M	72	160.93	249.00	29.59
New Haven	White	M	444	133.84	108.41	5.29
	Black	M	52	125.43	202.81	28.60
Conn.	White	M	2172	154.47	131.25	2.86
	Black	M	189	132.91	213.96	15.76
	Other	M	34	82.23	171.74	30.21
<u>Female Breast (50.0-50.9)</u>						
Fairfield	White	F	592	160.69	116.77	5.01
	Black	F	49	102.41	108.68	15.81
Hartford	White	F	637	174.00	120.62	5.06
	Black	F	39	78.12	86.80	14.19
New Haven	White	F	602	169.88	118.44	5.16
	Black	F	36	75.97	86.49	14.61
Conn.	White	F	2437	164.69	119.57	2.55
	Black	F	129	81.87	91.26	8.18
	Other	F	33	76.94	113.07	20.71

¹ Excludes 58 tumors of the prostate and 12 of the breast for those reported without a racial classification.

² Age-adjusted directly to the U.S. 1970 standard million.

³ Standard error of the age-adjusted rate.

APPENDIX

Table A-1. Connecticut Population, All Ages,
by County, Race and Sex, 1997¹

County	All Races	White	Black	Other
		<u>Male</u>		
Fairfield	403052	347500	41846	13706
Hartford	398050	342693	44741	10616
New Haven	381682	331730	41458	8494
New London	127053	116574	7238	3241
Litchfield	89175	86850	1024	1301
Middlesex	73117	68548	3303	1266
Tolland	65844	62079	1873	1892
Windham	51657	50112	716	829
Conn.	1589630	1406086	142199	41345
		<u>Female</u>		
Fairfield	430263	368403	47847	14013
Hartford	427091	366090	49926	11075
New Haven	410518	354377	47385	8756
New London	125905	115958	6332	3615
Litchfield	91907	89679	885	1343
Middlesex	75893	71077	3474	1342
Tolland	65179	62234	1026	1919
Windham	53472	51959	686	827
Conn.	1680228	1479777	157561	42890

¹ Estimates are from the U.S. Census Bureau.

APPENDIX

Table A-2. Connecticut Counties by Town

	<u>Fairfield</u>	<u>Hartford</u>	<u>New Haven</u>
1.	Bethel	Avon	Ansonia
2.	Bridgeport	Berlin	Beacon Falls
3.	Brookfield	Bloomfield	Bethany
4.	Danbury	Bristol	Branford
5.	Darien	Burlington	Cheshire
6.	Easton	Canton	Derby
7.	Fairfield	East Granby	East Haven
8.	Greenwich	East Hartford	Guilford
9.	Monroe	East Windsor	Hamden
10.	New Canaan	Enfield	Madison
11.	New Fairfield	Farmington	Meriden
12.	Newtown	Glastonbury	Middlebury
13.	Norwalk	Granby	Milford
14.	Redding	Hartford	Naugatuck
15.	Ridgefield	Hartland	New Haven
16.	Shelton	Manchester	North Branford
17.	Sherman	Marlborough	North Haven
18.	Stamford	New Britain	Orange
19.	Stratford	Newington	Oxford
20.	Trumbull	Plainville	Prospect
21.	Westport	Rocky Hill	Seymour
22.	Weston	Simsbury	Southbury
23.	Wilton	Southington	Wallingford
24.		South Windsor	Waterbury
25.		Suffield	West Haven
26.		West Hartford	Wolcott
27.		Wethersfield	Woodbridge
28.		Windsor	
29.		Windsor Locks	

APPENDIX

Table A-2. Connecticut Counties by Town (Cont.d)

	<u>New London</u>	<u>Litchfield</u>	<u>Middlesex</u>
1.	Bozrah	Barkhamsted	Chester
2.	Colchester	Bethlehem	Clinton
3.	East Lyme	Bridgewater	Cromwell
4.	Franklin	Canaan	Deep River
5.	Griswold	Colebrook	Durham
6.	Groton	Cornwall	East Haddam
7.	Lebanon	Goshen	East Hampton
8.	Ledyard	Harwinton	Essex
9.	Lisbon	Kent	Haddam
10.	Lyme	Litchfield	Killingworth
11.	Montville	Morris	Middlefield
12.	New London	New Hartford	Middletown
13.	North Stonington	New Milford	Old Saybrook
14.	Norwich	Norfolk	Portland
15.	Old Lyme	North Canaan	Westbrook
16.	Preston	Litchfield	
17.	Salem	Roxbury	
18.	Sprague	Salisbury	
19.	Stonington	Sharon	
20.	Voluntown	Thomaston	
21.	Waterford	Torrington	
22.		Warren	
23.		Washington	
24.		Watertown	
25.		Winchester	
26.		Woodbury	
	<u>Tolland</u>	<u>Windham</u>	
1.	Andover	Ashford	
2.	Bolton	Brooklyn	
3.	Columbia	Canterbury	
4.	Coventry	Chaplin	
5.	Ellington	Eastford	
6.	Hebron	Hampton	
7.	Mansfield	Killingly	
8.	Somers	Plainfield	
9.	Stafford	Pomfret	
10.	Tolland	Putnam	
11.	Union	Scotland	
12.	Vernon	Sterling	
13.	Willington	Thompson	
14.		Windham	
15.		Woodstock	