

# 1996-1997 FLORIDA ANNUAL CANCER REPORT: Incidence and Mortality



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Jeb Bush  
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## **1996-1997 FLORIDA ANNUAL CANCER REPORT: INCIDENCE AND MORTALITY**

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# 1996-1997 Florida Annual Cancer Report: Incidence and Mortality

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## INTRODUCTION

### **Background and Data**

This is the second Florida Annual Cancer Report and is produced by the Bureau of Epidemiology in the Florida Department of Health. The report presents data on cancer incidence and mortality in Florida by sex, state region and race for various cancer sites. The cancer incidence data in this report are collected and maintained by Florida's cancer registry, the Florida Cancer Data System (FCDS). The FCDS is administered by the Florida Department of Health and is operated by the Sylvester Comprehensive Cancer Center at the University of Miami School of Medicine. The FCDS collects cancer incidence data from all hospitals in Florida. Freestanding ambulatory surgical centers, radiation therapy centers and pathology laboratories are also required to report new cancer cases to the FCDS as of July of 1997. These cases will be included in cancer incidence figures starting in 1998.

The FCDS incidence data are based on cancers diagnosed among Florida residents but do not include cancers diagnosed before a person moves to Florida. Most of the cancers diagnosed in Florida residents at facilities in other states are included because of interstate agreements to share cancer incidence data. Cases are tallied according to the year of initial diagnosis and persons with multiple primary cancers (i.e., not metastases) contribute multiple records to the data.

The first year in which the FCDS collected complete cancer data was in 1981 so the cancer statistics presented in this report span a period of 17 years (1981-1997). Observing changes in the number and rates of cancer incidence and deaths over the past 17 years provides information about how the burden of cancer cases and deaths has changed in response to factors that influence cancer. For example, shifting demographics in the state, changes in health behaviors and the number and use of tools for diagnosing cancer affect long-term trends in cancer incidence and deaths.

The mortality data are obtained from death certificates for residents of Florida, which are maintained by the Florida Department of Health's Office of Vital Statistics. Deaths from cancer are those for which cancer is determined to be the underlying cause of death based on information supplied on the death certificate. Population estimates that were presented for 1996 and 1997 were provided by the Florida Consensus Estimating Conference (spring, 1997 and spring 1998). The data in this annual report include 1996 and 1997 data separately as well as cumulative and time-trend data from 1981 through 1997. Numbers of new cancers and deaths are actual, not estimates, for every year included in the monograph.

More detailed data on cancer incidence and mortality in the state of Florida can be obtained by contacting the FCDS website at: <http://fcds.med.miami.edu/welcome.htm> and can also be found in the following publications: *The 1998-1999 Florida Cancer Plan* (Florida Cancer Control and Research Advisory Council, 1997), *The Florida Cancer Data System Monograph of Cancer in Florida, 1995* (Florida Department of Health and FCDS 1997), the *Florida Vital Statistics Annual Report* series (Florida Department of Health, Office of Vital Statistics) and the *1995 Florida Annual Cancer Report*. In addition, data on cancer and cancer risk factors are distributed periodically by the Bureau of Epidemiology in its publication series. Readers can also view the *1995 Florida Annual Cancer Report* and other reports published in the Bureau of Epidemiology via the Department of Health website under the Bureau of Epidemiology at: <http://dohiws.doh.state.fl.us>.

The data in this publication will be useful for planning and conducting prevention programs and to enhance the provision of care for people with cancer. This report also makes available to individuals and groups interested in cancer in Florida, a summary of current cancer statistics in the state. The 1996-1997 Annual Cancer report expands upon last year's report (*The 1995 Florida Annual Cancer Report*) with a new section on race patterns in cancer incidence and deaths. The Department of Health welcomes suggestions for further improvement or changes in the report that would make it more useful to its readers (see Reader Response form, page 71).

### **Definitions and Coding of Sites**

Cancer *incidence and mortality rates* are the number of new cases of and deaths from cancer, respectively, that occur each year per 100,000 women or men. The cancer incidence and mortality rates presented in this report are *age-adjusted* and standardized to a uniform age distribution of the population (1970 U.S.). Using age-adjusted data allows one to compare cancer rates across years even if the age distribution changes over time. A high age-adjusted incidence or death rate may reflect the occupational, environmental, dietary, tobacco, genetic and other cancer risk factors that are more common in that population.

The *deaths to cases ratios* in Table 1.1 and 1.2 are calculated by dividing the number of deaths in a given year by the number of new cases of cancer diagnosed in the same year. As with all ratios, the numerator and denominators are not derived from the same pool of cases. The deaths:cases ratio provides a broad indication of the prognosis or curability for different types of cancer. A ratio approaching 1.0 for a particular type of cancer indicates a poor prognosis. Deaths:cases ratios higher than 1.0 (indicating there were more deaths than cases) may be due to a lag between incidence and death; one or more years of high incidence for a particular cancer may result in high numbers of deaths from that cancer in subsequent years when incidence might have declined. In that instance, the numerator (deaths resulting from cancers diagnosed a year or more earlier) would be greater than the denominator (new cases for that year). In addition, ratios higher than 1 might result because all cancer deaths in Florida residents that occur out of state are counted, whereas some new cases of cancer in Florida residents that are diagnosed out of state are not reported (i.e., incomplete case registration). Similarly, the number of deaths includes those among people that were diagnosed with cancer while residing in a state other than Florida but who died of cancer in Florida.

Classification of *in situ* cancers is not uniform across pathologists (Schottenfeld and Fraumeni 1996, p. 159), yielding less reliable reporting of *in situ* cancers than of later-stage cancers. Therefore, cancer incidence figures exclude *in situ* cancers *except for bladder cancer*, for which *in situ* cancers are included in incidence counts. For all other cancer sites, only local, regional and distant cancers are included. The cancer sites for which incidence data are presented are classified according to the 10th *International Classification of Diseases for Oncology, Second Edition* (ICD-O-2). The *Ninth Revision of the International Classification of Diseases, 1975 Revision* (ICD-9) is used to classify cancer deaths. At the level of analysis used by FCDS and in this report, these two classification systems are consistent with one another and yield equivalent data for incidence and death categorization. Incidence data on non-melanoma skin cancer are not collected by FCDS and, hence, are not included in this report. The "All Other Cancers" site category includes forms of cancer that occur relatively infrequently such as small intestine, gallbladder, liver, Hodgkin's disease and testis.

Rules for coding multiple tumors in one individual as a single cancer or as multiple primary cancers are specified in the *Surveillance, Epidemiology and End Results (SEER) Program Code Manual* (National Institutes of Health 1998). The site of origin, the diagnosis dates, histology, whether the neoplasm is *in situ*, malignancy and laterality are the major factors employed to determine how a group of tumors should be coded (single or multiple). For example, for cancers originating in some sites, a single lesion containing multiple histological types is coded as a single primary cancer. In contrast, multiple lesions of different histologies within a single site are coded as separate primary cancers even if they are identified simultaneously.

The seven regions of the state used for analysis in this report include the Panhandle, Northeast, North Central, Tampa Bay, South Central, Palm Beach-Broward and Dade-Monroe. A map of Florida regions is on page 11. Tables 2.1 and 2.2 and Appendix II present population figures for each of these regions. Some portions of this report summarize changes since last year's *1995 Florida Annual Cancer Report* even though the 1995 data are not presented here.

### **Acknowledgments**

The design of the 1996-1997 Florida Annual Cancer Report was based on the 1995 Florida Annual Cancer Report, which, in turn, was modeled after the *Canadian Cancer Statistics* reports published by the National Cancer Institute of Canada, Statistics Canada. We wish to acknowledge two other publications that also influenced the design of the 1995 Annual Cancer Report: the Florida Vital Statistics Annual Report series and the Florida Morbidity Statistics publication. Several persons at the Florida Department of Health, Bureau of Epidemiology were instrumental in producing this publication. Dr. Richard Hopkins and Dan Thompson edited drafts of the report and provided guidance on the content of the report including the added section on race. In addition, we acknowledge the careful review of the final draft of the report by Jill MacKinnon, and Steven Peace.

## **SUMMARY OF FINDINGS: ALL RACE GROUPS**

### **Cancer Incidence and Mortality, 1996 and 1997**

(See Tables 1.1 – 1.2 and Figures 1.1 – 1.2)

- In 1996, 75,972 new cases of cancer and 37,289 deaths from cancer were reported in Florida, an increase of 3,312 new cases and 620 deaths from 1995.
- In 1997, there were 74,887 new cases of cancer and 37,424 cancer deaths reported in Florida residents. The number of new cases declined from 1996 to 1997 by 1,085 cases but the number of deaths was higher by 135 cases in 1997 than in 1996.
- In 1995 – 1997, 48% of all new cancers were in women and 52% were in men.
- Cancers of the lung and bronchus, prostate, breast, colon/rectum and bladder were the top 5 most common sites of cancer incidence in 1996 and in 1997 for women and men combined, the same as in 1995. However, in 1997, breast cancer replaced prostate cancer as the second most common type of cancer diagnosed in Florida.



- The top five sites of new cancer in women in 1996 and 1997 were breast, lung and bronchus, colorectum, uterus and ovary. These five cancers accounted for nearly 70% of all new cancers diagnosed in women in Florida.
- The top five sites of new cancer in men in 1996 and 1997 were unchanged from 1995: prostate, lung and bronchus, colorectum, bladder and non-Hodgkin's lymphoma. As a proportion of all new cancers in men, prostate, lung/bronchus and colorectal cancers comprised 58% of all new cancers in 1996 and 1997, similar to the proportion of new cancers accounted for by the same three sites in 1995.
- As in 1995, cancers of the lung and bronchus, colon/rectum, breast, prostate and pancreas were the top five leading causes of death from cancer for women and men combined in 1996.
- Cancers of the lung/bronchus, breast, colon/rectum, pancreas and ovary accounted for just over 63% of all cancer deaths in women in 1996 and 1997.
- Deaths from cancers of the lung/bronchus, prostate, colon/rectum, pancreas, and non-Hodgkin's lymphoma constituted 65% of all cancer deaths in men in 1996 and 1997.
- In 1996 and 1997, cancer sites with deaths:cases ratios greater than 0.80 for women and men combined were pancreas, multiple myeloma, esophagus, lung/bronchus, leukemia and the brain/nervous system.

**Table 1.1**  
**Number of New Cases and Deaths for Selected Cancer Sites by Sex, Florida, 1996**

Site	New Cases <sup>1</sup>			Deaths <sup>1</sup>			Deaths:Cases Ratio		
	Total	Women	Men	Total	Women	Men	Total	Women	Men
<b>All Cancers<sup>2</sup></b>	75,972	36,215	39,757	37,289	17,113	20,176	0.49	0.43	0.51
Lung and Bronchus	12,720	5,339	7,381	11,214	4,457	6,757	0.88	0.83	0.92
Prostate	10,644	-	10,644	2,511	-	2,511	0.24	-	0.24
Breast	10,506	10,349	157	2,739	2,717	22	0.26	0.26	0.14
Colorectal	9,926	4,966	4,960	3,796	1,855	1,941	0.38	0.37	0.39
Bladder	4,089	1,099	2,990	907	274	633	0.22	0.25	0.21
Body of Uterus	2,027	2,027	-	196	196	-	0.10	0.10	-
Oral	2,022	660	1,362	655	211	444	0.32	0.32	0.33
Melanoma	1,938	805	1,133	538	194	344	0.28	0.24	0.30
Kidney	1,812	702	1,110	735	275	460	0.41	0.39	0.41
Pancreas	1,659	830	829	1,903	938	965	<b>1.15</b>	<b>1.13</b>	<b>1.16</b>
Non-Hodgkin's <sup>3</sup>	2,770	1,232	1,538	1,597	704	893	0.58	0.57	0.58
Leukemia	1,557	662	895	1,372	601	771	0.88	0.91	0.86
Ovary	1,461	1,461	-	871	871	-	0.60	0.60	-
Stomach	1,305	452	853	934	360	574	0.72	0.80	0.67
Brain & Nervous	982	444	538	817	379	438	0.83	0.85	0.81
Cervix	967	967	-	297	297	-	0.31	0.31	-
Larynx	967	178	789	312	69	243	0.32	0.39	0.31
Esophagus	840	202	638	791	205	586	0.94	<b>1.01</b>	0.92
Thyroid	725	533	192	68	39	29	0.09	0.07	0.15
Myeloma	639	299	340	646	293	353	<b>1.01</b>	0.98	<b>1.04</b>
All Other <sup>1</sup>	6,416	3,008	3,408	4,390	2,178	2,212	0.68	0.72	0.65

<sup>1</sup> Florida Cancer Data System and the Office of Vital Statistics, Florida Department of Health

<sup>2</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>3</sup> Non-Hodgkin's refers throughout the report to Non-Hodgkin's Lymphoma.

**Figures in Bold Face:** These ratios exceed 1.0 for cancers of the pancreas and myeloma because of incomplete incidence registration of cancer in these sites prior to death. See "definitions and coding system" in the report for elaboration.

**Table 1.2**  
**Number of New Cases and Deaths for Selected Cancer Sites by Sex, Florida, 1997**

Site	New Cases <sup>1</sup>			Deaths <sup>1</sup>			Deaths:Cases Ratio		
	Total	Women	Men	Total	Women	Men	Total	Women	Men
<b>All Cancers<sup>2</sup></b>	74,887	36,252	38,635	37,424	17,148	20,276	0.50	0.47	0.52
Lung & Bronchus	12,613	5,426	7,187	11,414	4,623	6,791	0.90	0.85	0.94
Breast	10,879	10,712	167	2,628	2,609	19	0.24	0.24	0.11
Prostate	9,859	-	9,859	2,521	-	2,521	0.26	-	0.26
Colorectal	9,823	4,763	5,060	3,845	1,906	1,939	0.39	0.40	0.38
Bladder	4,012	1,027	2,985	899	266	633	0.22	0.26	0.21
Melanoma	2,029	791	1,238	530	175	355	0.26	0.22	0.29
Body of Uterus	1,953	1,953	-	207	207	-	0.11	0.11	-
Oral	1,866	610	1,256	642	210	432	0.34	0.34	0.34
Kidney	1,792	728	1,064	719	283	436	0.40	0.39	0.41
Non-Hodgkin's <sup>3</sup>	2,736	1,252	1,484	1,691	784	907	0.62	0.63	0.61
Pancreas	1,691	861	830	1,902	947	955	<b>1.12</b>	<b>1.10</b>	<b>1.15</b>
Leukemia	1,444	614	830	1,412	600	812	0.98	0.98	0.98
Ovary	1,407	1,407	-	838	838	-	0.60	0.60	-
Stomach	1,392	526	866	944	380	564	0.68	0.72	0.65
Brain & Nervous	996	428	568	867	370	497	0.87	0.86	0.88
Larynx	928	178	750	294	54	240	0.32	0.30	0.32
Cervix	851	851	-	291	291	-	0.34	0.34	-
Esophagus	843	234	609	773	188	585	0.92	0.80	0.96
Thyroid	781	580	201	73	38	35	0.09	0.07	0.17
Myeloma	605	278	327	716	331	385	<b>1.18</b>	<b>1.19</b>	<b>1.18</b>
Other <sup>1</sup>	6,387	3,033	3,354	4,218	2,046	2,172	0.66	0.67	0.65

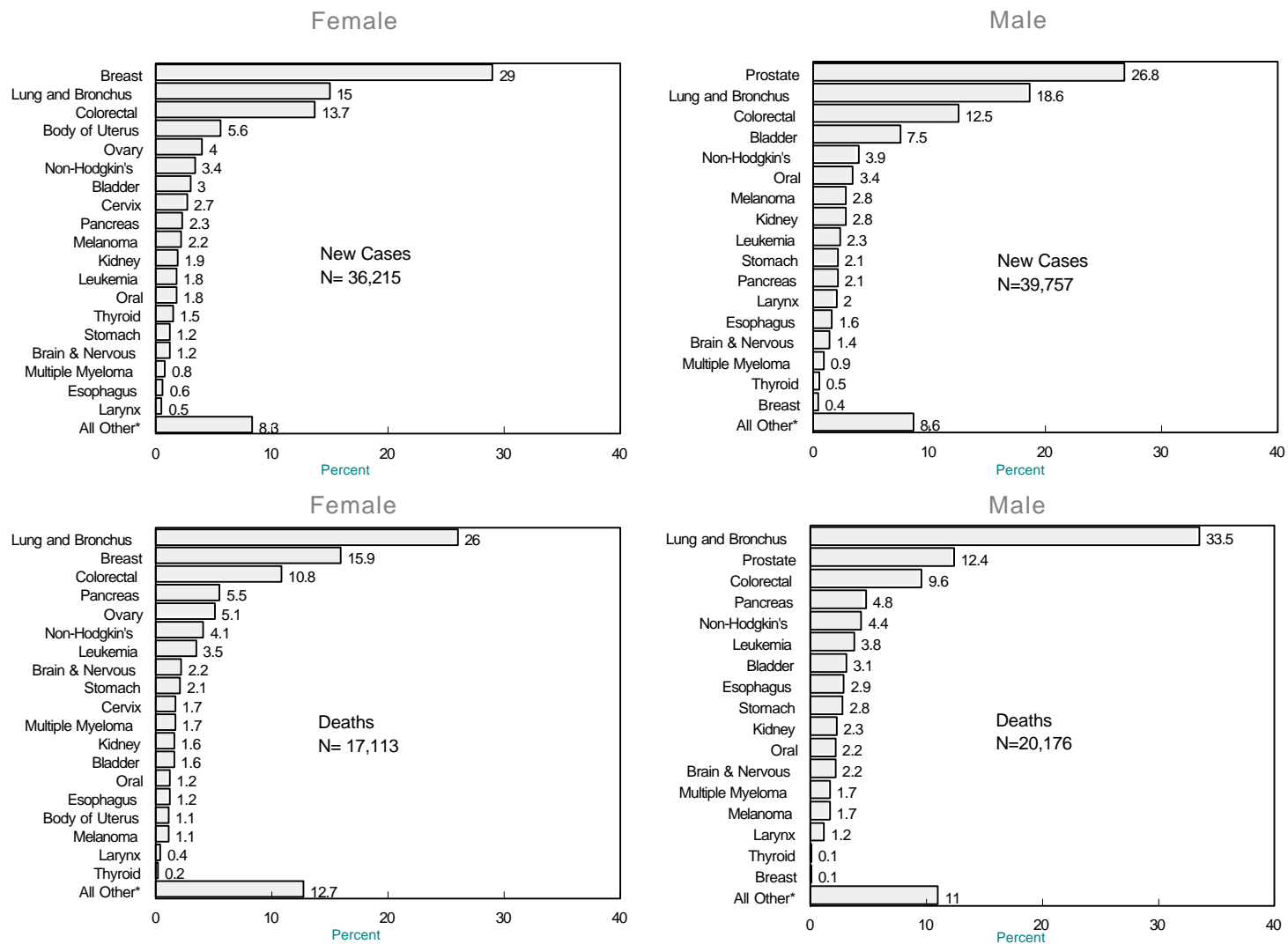
<sup>1</sup> Florida Cancer Data System and the Office of Vital Statistics, Florida Department of Health

<sup>2</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>3</sup> Non-Hodgkin's refers throughout the report to Non-Hodgkin's Lymphoma.

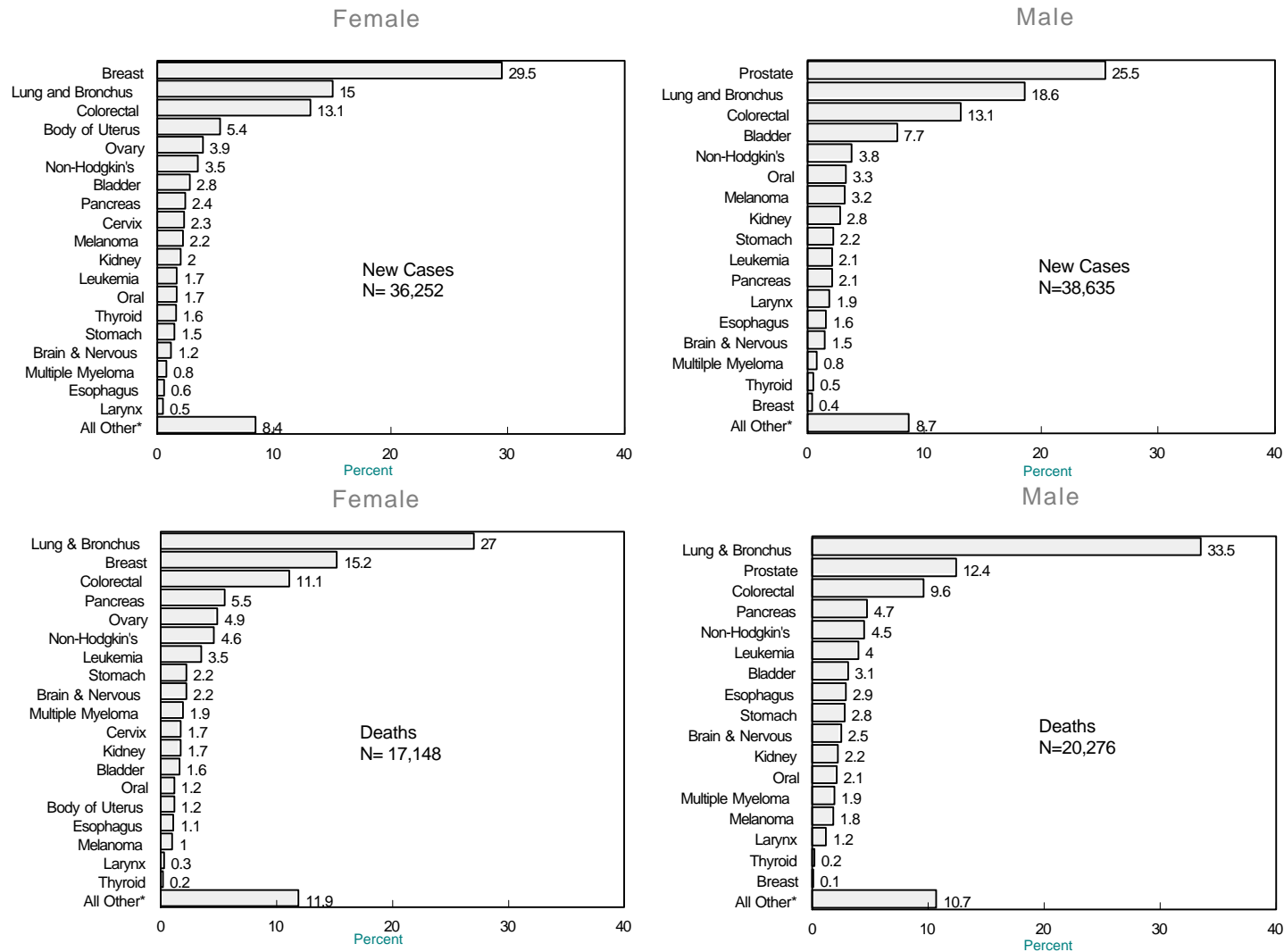
**Figures in Bold Face:** These ratios exceed 1.0 for cancers of the pancreas and myeloma because of incomplete incidence registration of cancer in these sites prior to death. See "definitions and coding system" in the report for elaboration.

**Figure 1.1**  
**Percent Distribution of New Cases and Deaths for Selected Cancer Sites by Sex,**  
**Florida, 1996**



\* Excludes non-melanoma skin cancer (ICD-9 173)

**Figure 1.2**  
**Percent Distribution of New Cases and Deaths for Selected Cancer Sites by Sex,**  
**Florida, 1997**



\* Excludes non-melanoma skin cancer (ICD-9 173)

## **Regional Patterns of Cancer Incidence and Mortality, 1996 and 1997**

(See Tables 2.1-6.2 and regional map)

Regional populations and numbers of new cancer cases and deaths are presented in Tables 2.1 and 2.2. Number of new cancer cases and deaths by region, sex and for several selected cancer sites can be found in Tables 3.1 and 3.2.

- Between 1995 and 1997 trends in population change were generally consistent with changes in cancer incidence in six of seven regions of the state. In Dade-Monroe, however, the population increased by 2% but cancer incidence *decreased* by 16%.
- Cancer deaths increased in the Panhandle, Northeast, North Central, South Central and Palm Beach-Broward regions. There was no change in the number of deaths in the Tampa Bay area. The number of deaths declined in Dade-Monroe from 1995 to 1997 by 5%, overall.

The age-standardized cancer rates in Tables 4.1 and 4.2 indicate whether a region's inhabitants have a relatively high or low risk of cancer. Differences in trends in age-adjusted cancer incidence rates across regions of the state can be traced from 1995-1997 based on data for all types of cancer combined over this period. The main trends are as follow:

- Women in the Northeast and Palm Beach-Broward had the highest age-adjusted cancer rates overall between 1995 and 1997.
- Women in the Panhandle and in Dade-Monroe had the lowest age-adjusted cancer rates for all cancers combined in 1995-1997. Age-adjusted rates of breast and lung and bronchial cancer were much lower in Dade-Monroe than in the rest of the state in 1996 and 1997 among women, likely accounting for the low cancer rates in this region overall.
- Consistent with 1995 data, men's age-adjusted incidence rates of all cancers combined were highest in the North Central and Northeast regions in 1996 and 1997.
- Over the three-year period the Panhandle and Dade-Monroe were consistently the lowest ranked regions for age-adjusted incidence rates among men. There was no particular common cancer site that accounted for the lower rates in Dade-Monroe and the Panhandle.

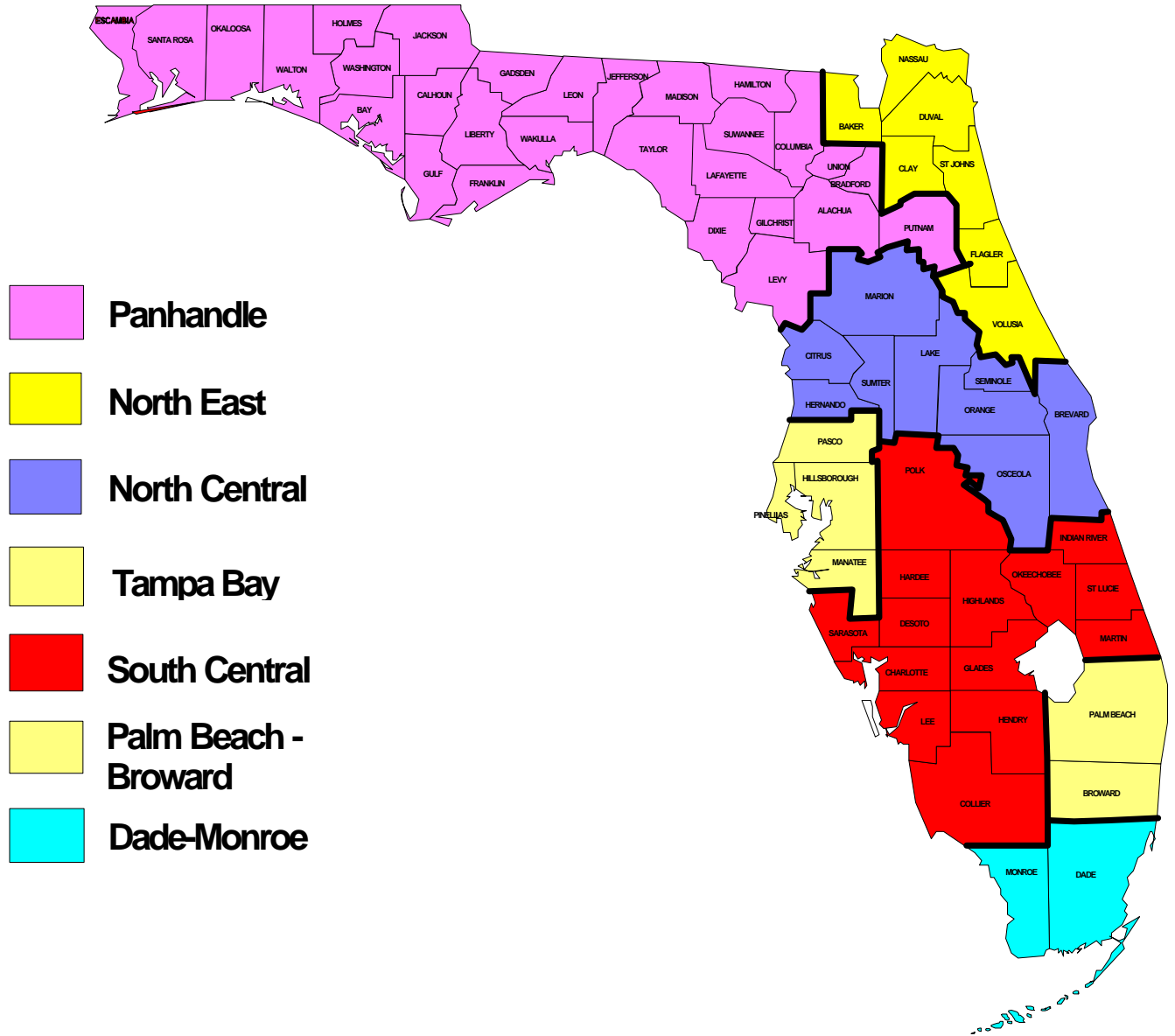
Number of cancer deaths for several cancer sites are presented by region and sex in Table 5.1 for 1996 and in Table 5.2 for 1997.

- In contrast to the other 6 regions of the state, the number of cancer deaths among women in Dade-Monroe declined by 5% from 1995 to 1997 (2,007 in 1995 to 1,916 in 1997).
- From 1995 to 1997, the number of cancer deaths increased among men in the Panhandle, North Central and Palm Beach-Broward areas.
- Cancer death rates in men declined by about 8% in Dade-Monroe, paralleling the trend for women in this region.

Differences in trends in age-adjusted death rates from all types of cancer can be compared across regions of the state and by sex from 1995-1997 based on data in Tables 6.1 and 6.2. These trends are summarized below:

- Among women, age-adjusted death rates from all types of cancer were highest in the Northeast region and lowest in Dade-Monroe.
- In every region except Dade-Monroe, women's death rates for lung and bronchial cancer were substantially higher than those for breast cancer, which had the second highest age-adjusted death rate among women in the state. In Dade-Monroe, death rates for lung/bronchial and breast cancer were the same.
- Among men, age-adjusted rates of death from all cancers were highest in the Panhandle and lowest in Palm Beach-Broward.
- In all regions, death rates for lung and bronchial cancer were substantially higher than those for prostate cancer, which had the second highest age-adjusted death rate among men in Florida.

# MAP OF FLORIDA REGIONS, 1998



Note: Regional populations are listed in Appendix II





**Table 2.1****Estimated Population, New Cases and Deaths for All Cancers<sup>1</sup> by Region and Sex, Florida, 1996**

Region	Population <sup>2</sup>			New Cases <sup>3</sup>			Deaths <sup>3</sup>		
	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men
<b>Florida</b>	<b>14,477,890</b>	<b>7,440,707</b>	<b>7,037,183</b>	<b>75,972</b>	<b>36,215</b>	<b>39,757</b>	<b>37,289</b>	<b>17,113</b>	<b>20,176</b>
Panhandle	1,667,965	835,091	832,874	6,376	3,023	3,353	3,420	1,473	1,947
Northeast	1,479,535	757,235	722,300	7,390	3,608	3,782	3,658	1,660	1,998
North Central	2,411,225	1,230,961	1,180,264	13,125	5,883	7,242	6,048	2,698	3,350
Tampa Bay	2,335,701	1,215,158	1,120,543	13,779	6,728	7,051	6,730	3,140	3,590
South Central	2,080,052	1,071,675	1,008,377	13,122	6,149	6,973	6,566	2,924	3,642
Palm Beach-Broward	2,382,825	1,236,406	1,146,419	14,251	6,932	7,319	6,698	3,239	3,459
Dade-Monroe	2,120,587	1,094,181	1,026,406	7,929	3,892	4,037	4,169	1,979	2,190

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<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> 1996 population projections were provided by the Florida Consensus Estimating Conference, Spring 1997.

<sup>3</sup> Florida Cancer Data System and Office of Vital Statistics, Florida Department of Health.

**Table 2.2****Estimated Population, New Cases and Deaths for All Cancers <sup>1</sup> by Region and Sex, Florida, 1997**

Region	Population <sup>2</sup>			New Cases <sup>3</sup>			Deaths <sup>3</sup>		
	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men
<b>Florida</b>	<b>14,726,155</b>	<b>7,589,511</b>	<b>7,136,644</b>	<b>74,887</b>	<b>36,252</b>	<b>38,635</b>	<b>37,424</b>	<b>17,148</b>	<b>20,276</b>
Panhandle	1,683,036	842,405	840,631	6,248	3,042	3,206	3,594	1,556	2,038
Northeast	1,506,368	770,066	736,302	7,345	3,572	3,773	3,513	1,659	1,854
North Central	2,460,419	1,255,819	1,204,600	12,777	5,870	6,907	6,108	2,716	3,392
Tampa Bay	2,378,370	1,244,942	1,133,428	13,694	6,856	6,838	6,754	3,137	3,617
South Central	2,125,590	1,098,342	1,027,248	13,297	6,129	7,168	6,470	2,815	3,655
Palm Beach-Broward	2,418,118	1,260,067	1,158,051	13,917	6,923	6,994	6,917	3,349	3,568
Dade-Monroe	2,154,254	1,117,870	1,036,384	7,609	3,860	3,749	4,068	1,916	2,152

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<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> 1997 population projections were provided by the Florida Consensus Estimating Conference, Spring 1998.

<sup>3</sup> Florida Cancer Data System and Office of Vital Statistics, Florida Department of Health.

**Table 3.1**  
**Number of New Cases For Major Cancer Sites by Sex, Florida and Regions, 1996**

	New Cases							
	Florida	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>36,215</b>	<b>3,023</b>	<b>3,608</b>	<b>5,883</b>	<b>6,728</b>	<b>6,149</b>	<b>6,932</b>	<b>3,892</b>
Breast	10,349	911	1,072	1,709	1,846	1,708	1,950	1,153
Lung & Bronchus	5,339	419	524	941	1,003	1,039	1,040	373
Colorectal	4,966	359	499	771	1,005	866	922	544
Body of Uterus	2,027	150	196	347	360	336	411	227
Ovary	1,461	126	153	227	276	249	282	148
Non-Hodgkin's	1,232	94	129	194	231	199	264	121
Bladder	1,099	77	81	164	245	210	220	102
Cervix	967	95	107	160	162	134	159	150
Pancreas	830	72	79	113	145	162	180	79
Melanoma	805	86	64	152	147	117	169	70
Kidney	702	60	51	124	123	114	140	90
Leukemia	662	56	76	89	141	102	123	75
Oral	660	69	59	99	129	126	112	66
Thyroid	533	58	54	74	83	66	127	71
Stomach	452	40	40	75	80	74	80	63
Brain & Nervous	444	34	39	70	80	84	72	65
Myeloma	299	25	48	42	47	38	59	40
Esophagus	202	16	21	35	43	35	36	16
Larynx	178	18	20	24	37	28	30	21
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>39,757</b>	<b>3,353</b>	<b>3,782</b>	<b>7,242</b>	<b>7,051</b>	<b>6,973</b>	<b>7,319</b>	<b>4,037</b>
Prostate	10,644	848	963	2,232	1,887	1,652	1,931	1,131
Lung & Bronchus	7,381	761	759	1,324	1,349	1,380	1,165	643
Colorectal	4,960	371	483	811	913	888	943	551
Bladder	2,990	211	215	532	557	609	617	249
Non-Hodgkin's	1,538	122	158	250	248	262	313	185
Oral	1,362	132	130	230	246	236	220	168
Melanoma	1,133	82	93	201	209	224	263	61
Kidney	1,110	95	100	205	177	192	228	113
Leukemia	895	64	94	141	150	177	186	83
Stomach	853	55	80	116	148	163	172	119
Pancreas	829	77	84	125	141	139	176	87
Larynx	789	64	88	124	141	140	127	105
Esophagus	638	57	84	121	114	114	97	51
Brain & Nervous	538	51	53	94	91	98	96	55
Myeloma	340	30	42	61	51	75	47	34
Thyroid	192	15	20	27	31	29	39	31
Breast	157	13	16	23	22	31	33	19

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

**Table 3.2**  
**Number of New Cases For Major Cancer Sites by Sex, Florida and Regions, 1997**

	<b>New Cases</b>							
	<i>Florida</i>	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>36,252</b>	<b>3,042</b>	<b>3,572</b>	<b>5,870</b>	<b>6,856</b>	<b>6,129</b>	<b>6,923</b>	<b>3,860</b>
Breast	10,712	950	1,105	1,842	1,957	1,737	1,991	1,130
Lung & Bronchus	5,426	456	569	923	1,050	1,040	1,009	379
Colorectal	4,763	359	415	768	991	792	875	563
Body of Uterus	1,953	130	191	314	326	335	409	248
Ovary	1,407	117	148	243	262	249	246	142
Non-Hodgkin's	1,252	88	116	200	229	203	263	153
Bladder	1,027	77	91	144	216	200	228	71
Pancreas	861	68	68	114	173	149	186	103
Cervix	851	90	67	126	134	130	144	160
Melanoma	791	76	67	132	150	115	191	60
Kidney	728	61	74	116	136	127	136	78
Leukemia	614	58	64	94	119	99	113	67
Oral	610	56	73	72	120	114	111	64
Thyroid	580	57	54	74	97	84	143	71
Stomach	526	38	67	66	98	82	114	61
Brain & Nervous	428	35	40	76	89	77	57	54
Myeloma	278	29	26	35	61	58	41	28
Esophagus	234	21	22	39	51	35	48	18
Larynx	178	15	21	28	31	26	39	18
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>38,635</b>	<b>3,206</b>	<b>3,773</b>	<b>6,907</b>	<b>6,838</b>	<b>7,168</b>	<b>6,994</b>	<b>3,749</b>
Prostate	9,859	791	978	1,982	1,698	1,723	1,690	997
Lung & Bronchus	7,187	729	778	1,377	1,260	1,383	1,113	547
Colorectal	5,060	394	502	917	932	870	950	495
Bladder	2,985	200	224	478	578	674	586	245
Non-Hodgkin's	1,484	101	138	226	278	246	308	187
Oral	1,256	133	123	212	212	208	204	164
Melanoma	1,238	80	109	199	226	248	296	80
Kidney	1,064	88	72	172	192	230	211	99
Stomach	866	55	77	128	143	160	198	105
Leukemia	830	70	84	138	131	181	155	71
Pancreas	830	59	77	120	145	169	178	82
Larynx	750	61	60	125	133	133	130	108
Esophagus	609	57	84	101	101	123	101	42
Brain & Nervous	568	37	54	94	97	114	103	69
Myeloma	327	37	36	46	64	52	55	37
Thyroid	201	23	18	30	42	34	38	16
Breast	167	14	19	21	22	31	37	23

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

**Table 4.1**  
**Age-Adjusted Incidence Rates for Major Cancer Sites by Sex, Florida and Regions, 1996**

	Rates per 100,000							
	<i>Florida</i>	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade- Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>310</b>	<b>296</b>	<b>343</b>	<b>317</b>	<b>320</b>	<b>302</b>	<b>328</b>	<b>265</b>
Breast	93	91	105	96	93	90	98	81
Lung & Bronchus	44	41	49	49	47	47	48	25
Colorectal	36	33	43	36	38	34	36	33
Body of Uterus	18	15	19	19	17	17	20	16
Ovary	14	13	15	13	14	13	16	11
Cervix	10	10	12	10	11	9	10	11
Non-Hodgkin's	10	9	12	10	10	10	12	8
Melanoma <sup>2</sup>	9	11	8	10	9	8	10	6
Bladder	8	7	7	8	10	9	8	6
Kidney	6	6	5	7	6	6	7	6
Leukemia	6	5	8	6	7	5	6	5
Pancreas	6	7	6	5	6	7	7	4
Oral	6	7	5	5	7	6	5	5
Thyroid	6	6	6	5	5	5	8	6
Brain & Nervous	5	4	4	5	5	6	4	5
Stomach	3	4	4	3	3	3	3	4
Myeloma	2	2	5	2	2	2	3	3
Esophagus	2	2	2	2	2	2	2	1
Larynx	2	2	2	1	2	2	2	1
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>401</b>	<b>390</b>	<b>437</b>	<b>445</b>	<b>400</b>	<b>374</b>	<b>419</b>	<b>343</b>
Prostate	106	100	111	135	105	84	112	98
Lung & Bronchus	74	89	87	80	75	72	66	55
Colorectal	48	43	54	48	48	45	50	46
Bladder	28	24	24	31	28	29	31	20
Non-Hodgkin's	16	14	18	16	15	14	18	15
Oral	15	16	16	16	16	14	14	14
Melanoma <sup>2</sup>	13	11	12	14	13	15	16	6
Kidney	11	11	12	13	10	10	13	10
Leukemia	10	8	11	9	9	11	12	7
Larynx	9	8	11	8	9	8	8	9
Stomach	8	7	9	7	8	8	9	10
Pancreas	8	9	10	7	8	8	9	7
Esophagus	7	7	10	7	7	6	6	4
Brain & Nervous	6	6	6	6	6	7	6	5
Myeloma	3	4	5	4	3	4	3	3
Thyroid	2	2	2	2	2	2	2	3
Breast	2	2	2	1	1	2	2	1

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> Age adjusted rate for melanoma includes whites only.

**Table 4.2**  
**Age-Adjusted Incidence Rates for Major Cancer Sites by Sex, Florida and Regions, 1997**

	Rates per 100,000							
	<i>Florida</i>	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>306</b>	<b>290</b>	<b>328</b>	<b>317</b>	<b>318</b>	<b>298</b>	<b>326</b>	<b>255</b>
Breast	95	93	105	103	96	91	101	78
Lung & Bronchus	44	44	51	49	48	47	46	24
Colorectal	34	31	34	36	37	31	32	33
Body of Uterus	17	13	18	18	15	17	21	17
Ovary	13	12	15	14	13	13	13	10
Non-Hodgkin's	10	8	10	10	9	9	11	10
Cervix	9	9	7	8	8	9	9	12
Melanoma <sup>2</sup>	9	9	8	9	10	8	12	5
Bladder	7	7	7	7	8	8	8	4
Thyroid	6	6	6	5	6	6	9	6
Pancreas	6	6	5	6	7	6	7	6
Kidney	6	6	7	6	6	6	6	5
Leukemia	6	6	6	5	7	5	6	5
Oral	5	5	6	4	6	6	6	4
Brain & Nervous	4	4	4	5	5	5	3	4
Stomach	4	3	5	3	4	3	4	3
Myeloma	2	3	2	2	2	2	2	2
Esophagus	2	2	2	2	2	1	2	1
Larynx	2	1	2	2	2	1	2	1
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>392</b>	<b>372</b>	<b>426</b>	<b>436</b>	<b>387</b>	<b>393</b>	<b>397</b>	<b>318</b>
Prostate	100	93	111	126	93	91	99	86
Lung & Bronchus	73	85	88	86	72	74	62	46
Colorectal	49	46	55	56	49	45	50	41
Bladder	28	23	24	28	30	32	28	20
Non-Hodgkin's	15	11	16	15	17	14	18	16
Melanoma <sup>2</sup>	14	10	14	14	15	16	19	8
Oral	14	16	15	15	13	13	14	14
Kidney	11	10	8	11	11	13	12	9
Leukemia	9	8	10	9	8	12	9	6
Stomach	8	6	9	7	7	9	11	8
Pancreas	8	7	9	7	8	9	9	7
Larynx	8	7	7	8	8	8	8	10
Brain & Nervous	7	4	6	6	7	8	7	6
Esophagus	6	7	9	6	6	7	6	4
Myeloma	3	4	4	3	3	3	3	3
Thyroid	2	3	2	2	3	2	2	1
Breast	2	2	2	1	1	2	2	2

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> Age adjusted rate for melanoma includes whites only.

**Table 5.1**  
**Number of Deaths for Major Cancer Sites by Sex, Florida and Regions, 1996**

	Deaths							
	<i>Florida</i>	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>17,113</b>	<b>1,473</b>	<b>1,660</b>	<b>2,698</b>	<b>3,140</b>	<b>2,924</b>	<b>3,239</b>	<b>1,979</b>
Lung & Bronchus	4,457	378	452	730	837	837	837	386
Breast	2,717	211	274	428	518	437	491	358
Colorectal	1,855	139	174	273	358	319	346	246
Pancreas	938	79	80	141	168	158	197	115
Ovary	871	77	77	124	160	145	178	110
Non-Hodgkin's	704	45	66	103	134	120	164	72
Leukemia	601	57	51	106	105	95	94	93
Brain & Nervous	379	32	42	47	69	73	67	49
Stomach	360	27	31	60	63	49	71	59
Cervix	297	36	32	50	49	39	47	44
Myeloma	293	23	33	49	49	42	64	33
Kidney	275	27	20	49	55	46	54	24
Bladder	274	26	35	47	50	45	40	31
Oral	211	21	21	27	33	38	47	24
Esophagus	205	13	17	40	39	35	38	23
Body of Uterus	196	24	27	20	32	27	36	30
Melanoma	194	22	21	34	35	34	32	16
Larynx	69	7	10	10	13	11	10	8
Thyroid	39	1	2	6	8	9	12	1
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>20,176</b>	<b>1,947</b>	<b>1,998</b>	<b>3,350</b>	<b>3,590</b>	<b>3,642</b>	<b>3,459</b>	<b>2,190</b>
Lung & Bronchus	6,757	721	650	1,182	1,249	1,265	1,012	678
Prostate	2,511	226	250	390	455	437	449	304
Colorectal	1,941	158	207	341	331	340	360	204
Pancreas	965	95	98	143	155	160	221	93
Non-Hodgkin's	893	66	85	150	127	165	195	105
Leukemia	771	71	67	122	130	162	137	82
Bladder	633	50	65	94	137	107	109	71
Esophagus	586	52	59	104	121	101	86	63
Stomach	574	39	47	90	98	104	109	87
Kidney	460	42	38	79	72	91	84	54
Oral	444	49	56	61	84	83	59	52
Brain & Nervous	438	47	49	65	78	84	76	39
Myeloma	353	40	40	61	65	65	50	32
Melanoma	344	34	37	69	50	62	56	36
Larynx	243	30	29	40	40	37	30	37
Thyroid	29	1	0	2	6	4	10	6
Breast	22	3	3	4	3	3	4	2

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).



**Table 5.2**  
**Number of Deaths for Major Cancer Sites by Sex, Florida and Regions, 1997**

	Deaths							
	<i>Florida</i>	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>17,148</b>	<b>1,556</b>	<b>1,659</b>	<b>2,716</b>	<b>3,137</b>	<b>2,815</b>	<b>3,349</b>	<b>1,916</b>
Lung & Bronchus	4,623	450	471	772	846	852	857	375
Breast	2,609	225	269	433	459	407	483	333
Colorectal	1,906	163	194	293	342	285	387	242
Pancreas	947	87	85	139	175	152	206	103
Ovary	838	70	69	128	162	132	180	97
Non-Hodgkin's	784	65	60	114	157	137	162	89
Leukemia	600	52	54	86	125	89	121	73
Stomach	380	41	31	65	63	58	63	59
Brain & Nervous	370	35	37	58	61	68	69	42
Myeloma	331	25	36	49	62	51	53	55
Cervix	291	32	34	39	50	46	42	48
Kidney	283	26	28	52	54	47	56	20
Bladder	266	20	21	48	47	48	54	28
Oral	210	20	19	23	45	39	42	22
Body of Uterus	207	18	27	38	35	31	38	20
Esophagus	188	14	18	43	25	26	47	15
Melanoma	175	15	13	20	42	26	39	20
Larynx	54	4	7	5	6	11	12	9
Thyroid	38	6	2	4	4	7	10	5
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>20,276</b>	<b>2,038</b>	<b>1,854</b>	<b>3,392</b>	<b>3,617</b>	<b>3,655</b>	<b>3,568</b>	<b>2,152</b>
Lung & Bronchus	6,791	778	639	1,220	1,210	1,238	1,098	608
Prostate	2,519	247	240	383	459	440	468	282
Colorectal	1,939	169	164	309	364	347	331	255
Pancreas	955	86	69	146	154	186	220	94
Non-Hodgkin's	907	69	68	144	181	156	187	102
Leukemia	812	71	71	148	140	141	150	91
Bladder	633	45	49	94	132	123	133	57
Esophagus	585	66	65	117	103	116	75	43
Stomach	564	49	61	105	91	76	106	76
Brain & Nervous	497	57	42	85	73	88	88	64
Kidney	436	40	39	85	83	70	75	44
Oral	432	50	35	63	83	90	59	52
Myeloma	385	33	54	54	61	69	72	42
Melanoma	355	38	34	49	69	68	67	30
Larynx	240	19	29	34	41	52	33	32
Thyroid	35	5	2	3	7	5	10	3
Breast	19	0	2	3	4	3	2	5

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

**Table 6.1**  
**Age-Adjusted Mortality Rates for Major Cancer Sites by Sex, Florida and Regions, 1996**

	Rates per 100,000							
	<i>Florida</i>	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>129</b>	<b>135</b>	<b>145</b>	<b>133</b>	<b>129</b>	<b>123</b>	<b>130</b>	<b>120</b>
Lung & Bronchus	34	36	41	36	35	35	35	23
Breast	22	20	25	22	24	20	22	23
Colorectal	12	12	13	12	13	12	12	14
Pancreas	6	7	7	7	6	6	7	6
Ovary	7	7	7	6	7	6	8	7
Non-Hodgkin's	5	4	6	5	5	5	6	4
Leukemia	5	5	4	5	4	4	4	6
Brain & Nervous	3	3	4	3	3	4	3	3
Stomach	2	2	2	3	2	2	3	3
Cervix	3	3	3	3	3	2	3	3
Myeloma	2	2	3	2	2	2	2	2
Kidney	2	3	2	3	2	2	2	2
Bladder	2	2	2	2	2	1	1	1
Oral	2	2	2	1	2	2	2	1
Esophagus	2	1	1	2	2	1	2	1
Body of Uterus	1	2	2	1	1	1	1	2
Melanoma <sup>2</sup>	2	2	2	2	2	2	2	1
Larynx	1	1	1	1	1	1	0	1
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>192</b>	<b>225</b>	<b>224</b>	<b>199</b>	<b>191</b>	<b>182</b>	<b>177</b>	<b>179</b>
Lung & Bronchus	66	84	75	71	68	64	55	57
Prostate	21	25	26	21	20	18	19	23
Colorectal	18	18	23	20	17	16	18	16
Pancreas	9	11	11	8	9	8	11	8
Non-Hodgkin's	9	7	9	9	7	8	10	9
Leukemia	7	8	7	7	7	8	7	7
Esophagus	6	6	7	6	7	5	5	5
Bladder	6	6	7	5	6	5	5	5
Stomach	5	4	5	5	5	5	6	7
Oral	5	6	6	4	6	5	4	4
Brain & Nervous	5	6	6	4	5	5	5	3
Kidney	5	5	4	5	4	5	5	4
Melanoma <sup>2</sup>	4	4	5	5	3	4	3	3
Myeloma	3	5	4	4	3	3	3	3
Larynx	3	4	4	2	2	2	2	3
Thyroid	0	0	0	0	0	0	1	1

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> Age adjusted rate for melanoma includes whites only.

**Table 6.2**  
**Age-Adjusted Mortality Rates for Major Cancer Sites by Sex, Florida and Regions, 1997**

	Rates per 100,000							
	Florida	Panhandle	Northeast	North Central	Tampa Bay	South Central	Palm Beach -Broward	Dade-Monroe
<b>Females</b>								
<b>All Cancers<sup>1</sup></b>	<b>127</b>	<b>137</b>	<b>139</b>	<b>131</b>	<b>128</b>	<b>118</b>	<b>131</b>	<b>113</b>
Lung & Bronchus	35	42	40	39	35	37	35	22
Breast	21	21	24	23	20	20	21	22
Colorectal	12	13	14	12	12	10	12	13
Ovary	6	6	6	6	7	5	7	6
Pancreas	6	8	7	6	7	5	7	6
Non-Hodgkin's	5	5	5	5	6	5	6	6
Leukemia	4	4	4	4	5	4	5	4
Brain & Nervous	3	3	4	3	3	4	3	3
Cervix	3	3	4	2	3	3	3	3
Stomach	2	3	2	3	2	2	2	3
Myeloma	2	2	3	2	2	2	2	3
Kidney	2	2	2	2	2	2	2	1
Oral	2	2	2	1	2	2	2	1
Bladder	2	1	2	2	1	2	2	1
Body of Uterus	1	2	2	2	1	1	1	1
Melanoma <sup>2</sup>	1	2	1	1	2	1	2	1
Esophagus	1	1	2	2	1	1	2	1
Larynx	0	0	1	0	0	0	1	1
<b>Males</b>								
<b>All Cancers<sup>1</sup></b>	<b>192</b>	<b>232</b>	<b>203</b>	<b>202</b>	<b>189</b>	<b>187</b>	<b>183</b>	<b>174</b>
Lung & Bronchus	67	90	72	74	66	65	59	51
Prostate	20	27	24	20	19	18	19	20
Colorectal	18	19	18	18	18	18	17	21
Pancreas	9	10	8	9	8	10	11	8
Non-Hodgkin's	9	8	7	9	10	8	10	8
Leukemia	8	8	8	9	8	7	7	7
Esophagus	6	8	7	7	6	6	4	4
Bladder	5	5	5	5	6	6	6	4
Brain & Nervous	5	7	5	6	5	5	5	5
Stomach	5	6	6	6	5	4	5	6
Oral	5	6	4	4	5	5	4	4
Kidney	4	5	4	6	4	4	4	4
Melanoma <sup>2</sup>	4	5	5	3	4	4	4	3
Myeloma	4	4	6	4	3	3	4	3
Larynx	2	2	3	2	2	3	2	3
Thyroid	0	1	0	0	0	0	1	0

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> Age adjusted rate for melanoma includes whites only.

## **Trends in Cancer Incidence and Mortality, 1981-1997**

(See Figures 2.1 – 4.2 and Tables 7.1 – 7.2)

Trends in cancer incidence for all cancers combined are presented graphically in Figures 2.1 and for selected cancer sites in Figures 3.1 - 3.2. Tables 7.1 and 7.2 contain cancer incidence data that are plotted in Figures 3.1-3.2.

- The number of new cancers has increased over the past seventeen years for both women and men, which is not surprising given population growth in Florida during this period, especially among the older age groups. However, the seventeen-year trend for *age-adjusted rates* of all cancers combined, shows little change for both sexes. Since the reported age-adjusted rates have not changed notably we can attribute the overall increase in cancer incidence to aging of the population.
- From 1981-1997, age-adjusted rates of cancers of the lung and bronchus increased in women and diminished in men (up 12/100,000 for women and down 14/100,000 in men between 1981 and 1997).
- Age-adjusted incidence rates of colorectal and bladder cancers have declined from 1981 to the present for both sexes. Bladder cancer declined by a greater margin during this period for women than for men.
- The temporary increase in the number and age-adjusted rates of prostate cancer among men during the early-mid 1990s reflects a temporary rise during that period in the number of men screened for prostate cancer. Similarly, some of the increase in breast cancer incidence may be due to improved diagnostic sensitivity of mammography or to higher screening rates.
- Age-adjusted rates of Non-Hodgkin's lymphoma in both women and men have increased steadily and fairly dramatically (25% to 50% cumulative increase) over the last 17 years.
- Incidence rates of oral cancer in men declined by 20% between 1981 to 1997. This downward trend parallels that for lung and bronchial cancers, which declined by about 16% during this period. Declining tobacco use in men likely accounts for these dramatic declines.

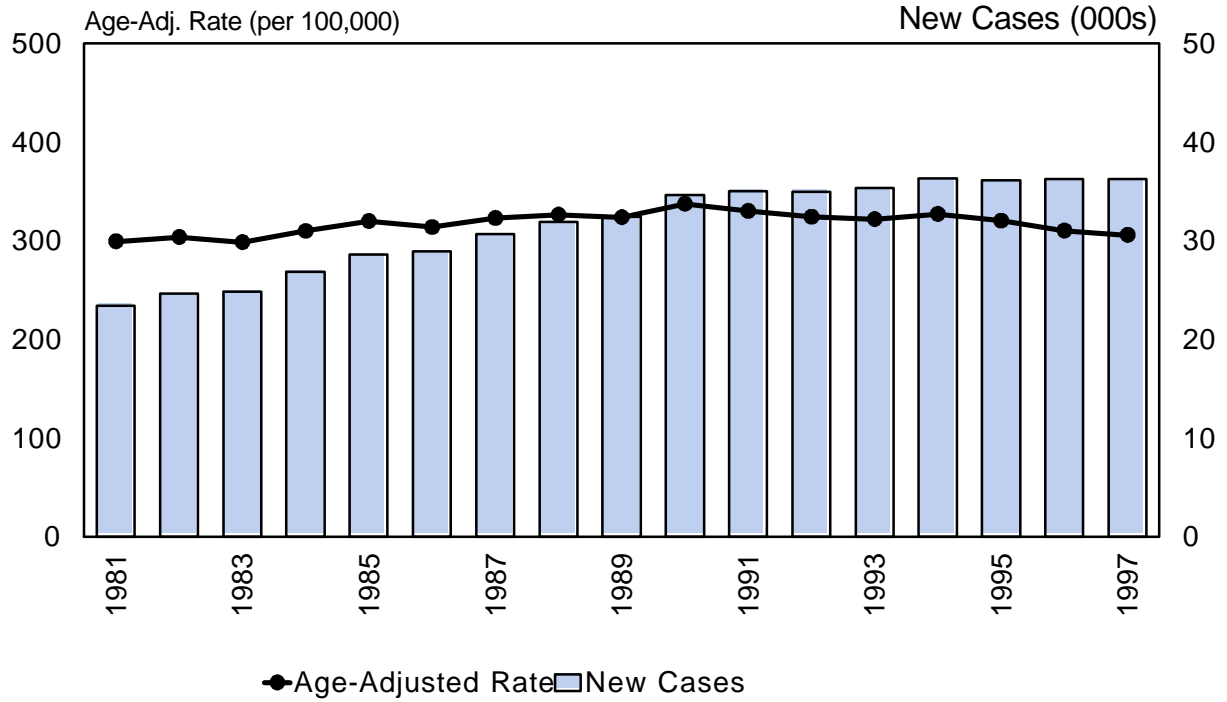
Trends in cancer mortality are presented graphically in Figure 3 for all cancer deaths combined and in Figures 5.1 and 5.2 for seven of the most commonly occurring cancers. Tables 7.1 and 7.2 contain cancer death data found in preceding figures (5.1 and 5.2).

- As with cancer incidence, the total number of cancer deaths increased steadily over the past 17 years for women and men. However, age-adjusted death rates from all cancers combined remained virtually unchanged for women but decreased for men (by about 10/100,000) over the past 17 years.

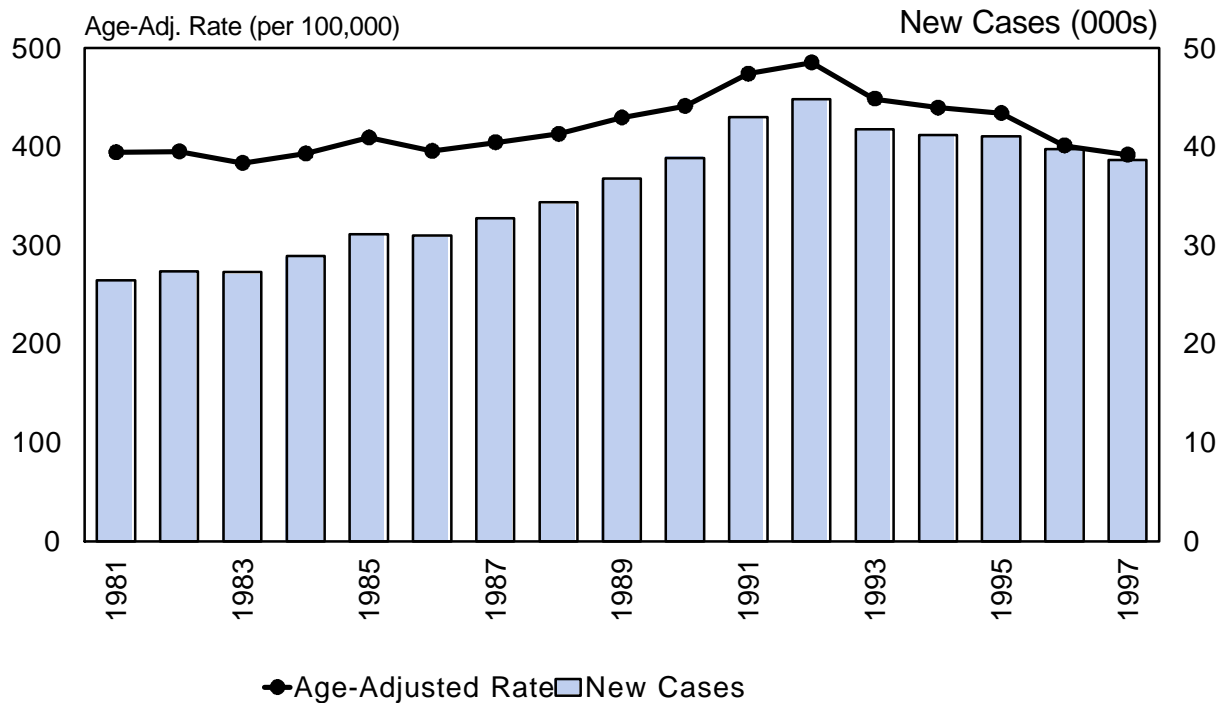
- Women's death rates from cancer of the lung and bronchus have increased dramatically since 1981 and are still increasing. This follows a rise in the number of women who smoke cigarettes that began in the 1940s and continued over the past few decades. These trends suggest a need for more intensive targeting of anti-smoking education efforts toward women, especially young women, in order to prevent them from initiating tobacco use and to help them quit smoking.
- The 1996 data suggest a decrease in breast cancer mortality to the lowest levels seen in the period. This decrease may result from more widespread and earlier breast cancer screening- where cancers are identified at more treatable stages- as well as more effective treatments once the cancer is identified.
- The declining death rates from all types of cancer among men between 1981 and 1997 paralleled fairly large declines in deaths from lung and bronchial cancer and colorectal cancer during this time. There were also slight decreases in death rates from bladder and oral cancers in men through 1997. The declines in lung, bladder and oral cancer death rates are likely attributable to men's declining rates of smoking cigarettes.

**Figure 2**  
**Number of New Cases and Age-Adjusted Incidence Rates for All Cancers,**  
**Florida 1981-1997**

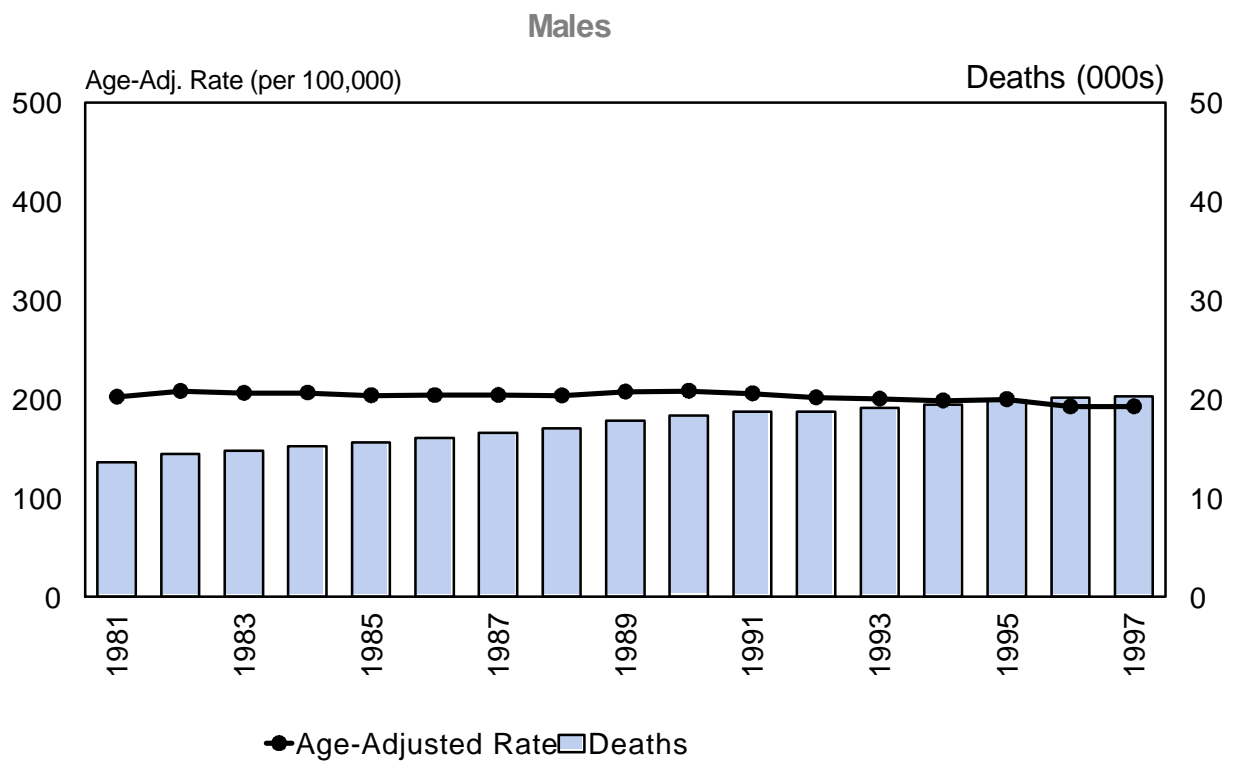
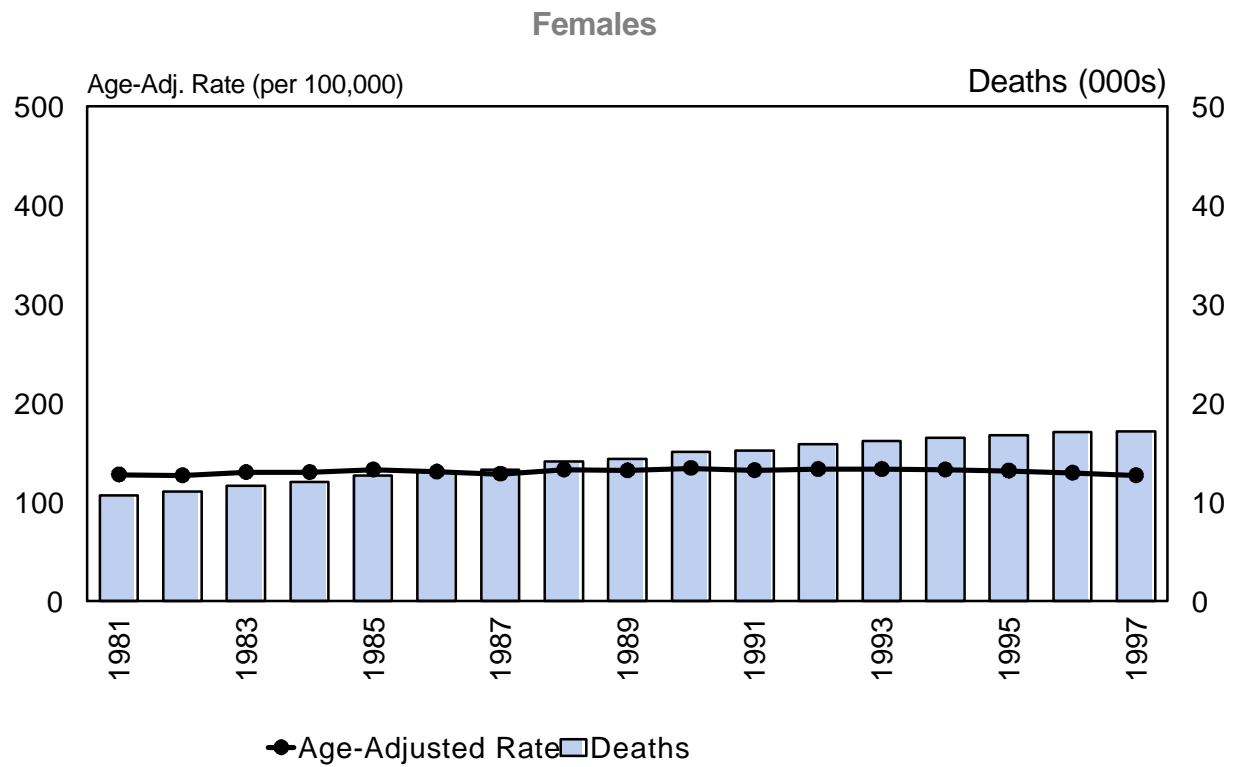
**Females**



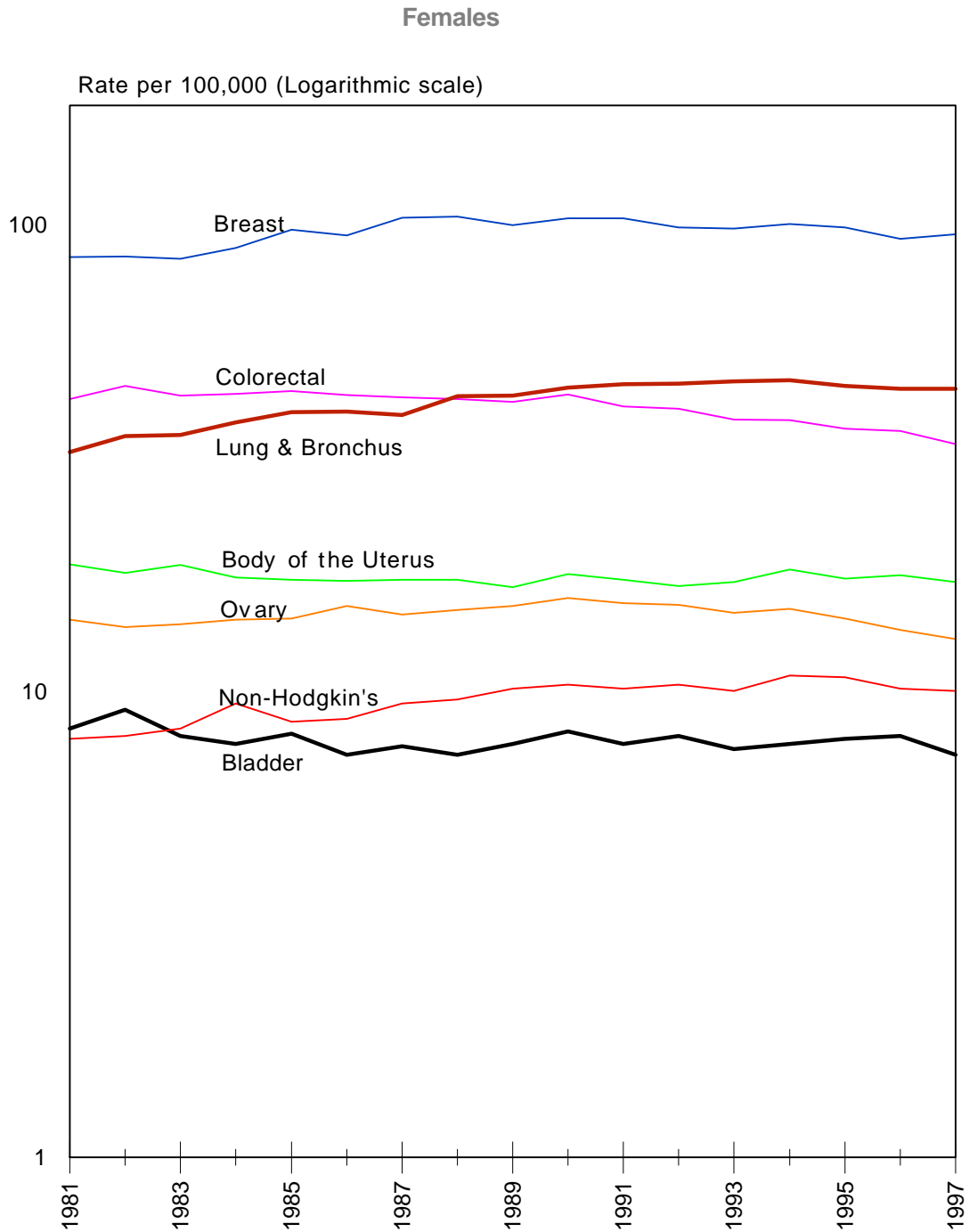
**Males**



**Figure 3**  
**Number of Deaths and Age-Adjusted Mortality Rates for All Cancers, Florida**  
**1981-1997**

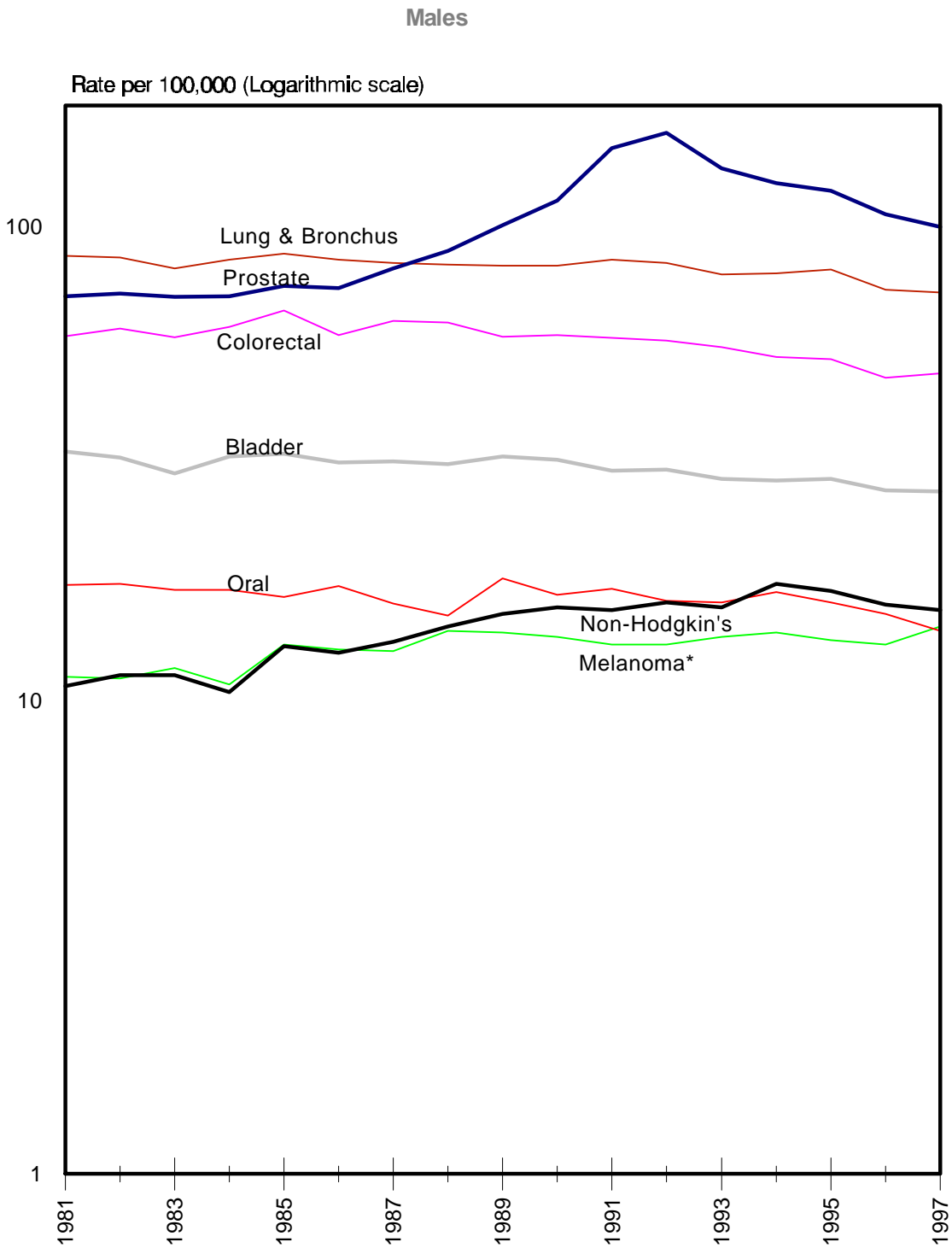


**Figure 4.1**  
**Age-Adjusted Incidence Rates for Selected Cancer Sites, Florida 1981-1997**



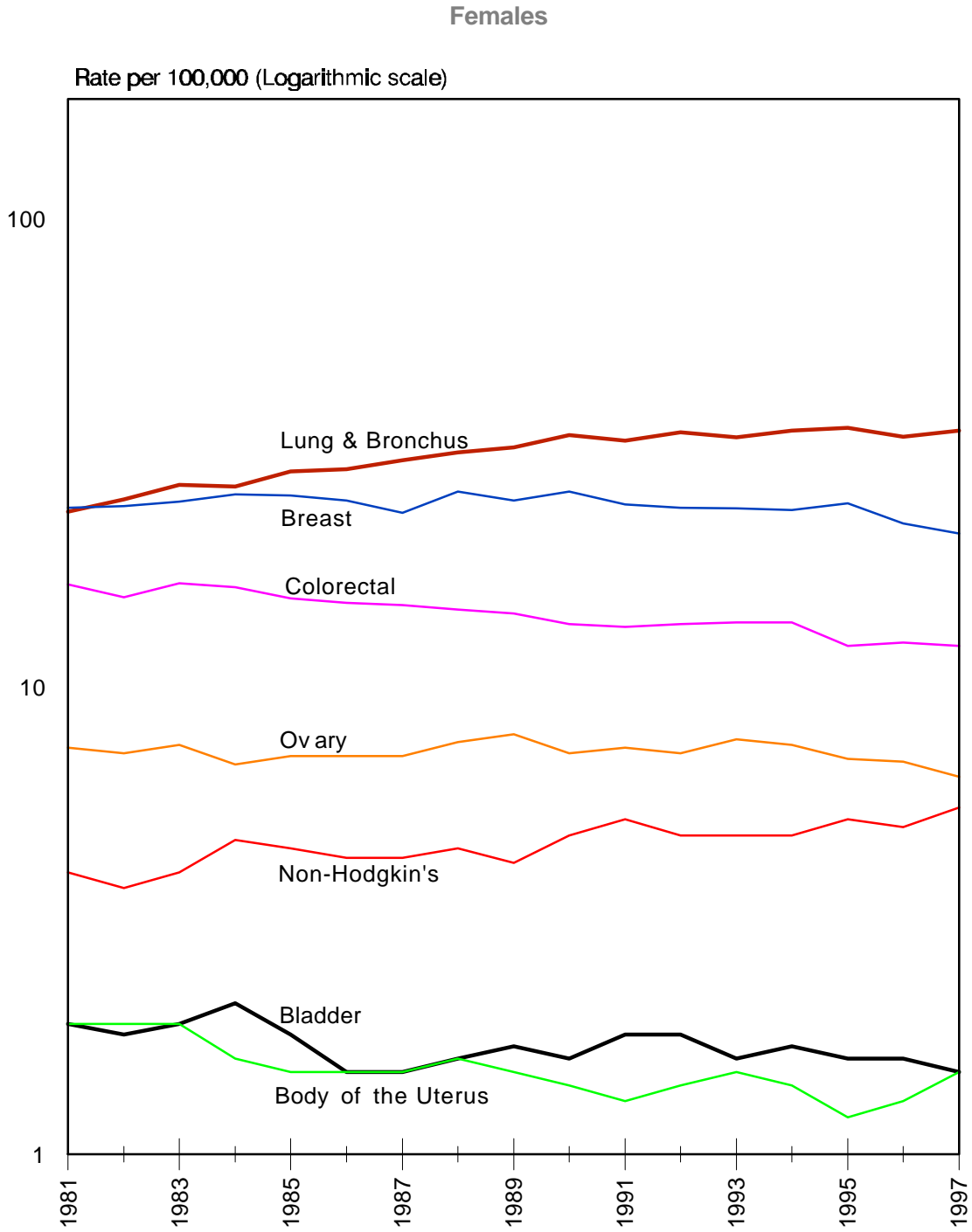


**Figure 4.2**  
**Age-Adjusted Incidence Rates for Selected Cancer Sites, Florida 1981-1997**

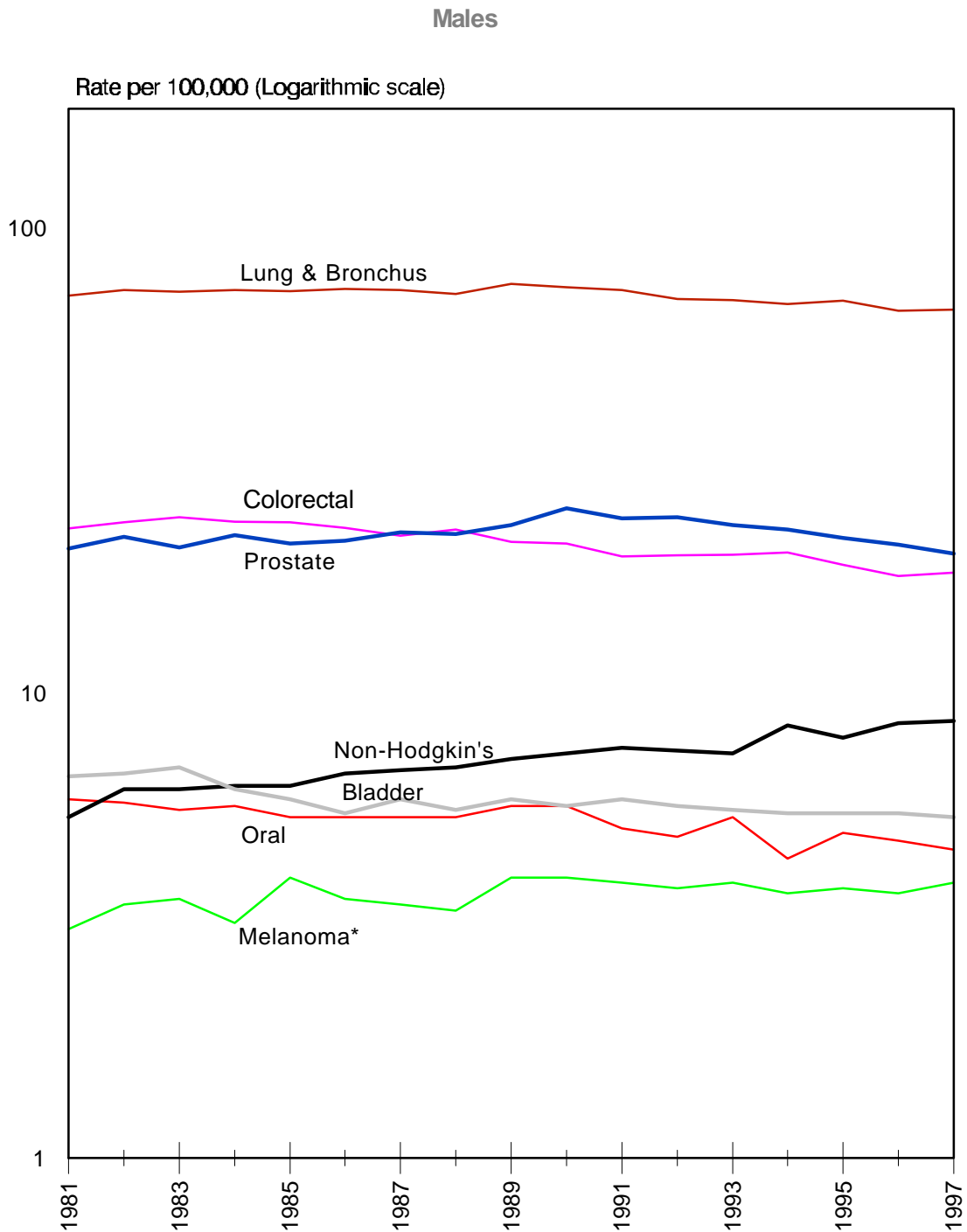


\* Age adjusted rate for melanoma includes whites only.

**Figure 5.1**  
**Age-Adjusted Mortality Rates for Selected Cancer Sites, Florida 1981-1997**



**Figure 5.2**  
**Age-Adjusted Mortality Rates for Selected Cancer Sites, Florida 1981-1997**



\* Age adjusted rate for melanoma includes whites only .

**Table 7.1**  
**Age-Adjusted Incidence and Mortality Rates for Selected Cancer Sites in Females,**  
**Florida, 1981-1997**

Year	Rates per 100,000							
	All Cancers <sup>1</sup>	Breast	Lung & Bronchus	Colorectal	Body of Uterus	Ovary	Non- Hodgkin's	Bladder
<b>Incidence</b>								
1981	299.2	85.2	32.5	42.2	18.7	14.2	7.9	8.3
1982	303.5	85.3	35.2	45.1	17.9	13.7	8.0	9.1
1983	298.4	84.3	35.4	43.0	18.6	13.9	8.3	8.0
1984	309.8	89.1	37.6	43.3	17.5	14.2	9.4	7.7
1985	319.8	97.4	39.6	44.0	17.3	14.3	8.6	8.1
1986	313.6	94.8	39.7	43.1	17.2	15.2	8.7	7.3
1987	322.8	103.4	39.0	42.6	17.3	14.6	9.4	7.6
1988	326.2	103.9	42.8	42.2	17.3	14.9	9.6	7.3
1989	323.7	99.7	42.9	41.7	16.7	15.2	10.1	7.7
1990	337.2	103.1	44.7	43.2	17.8	15.8	10.3	8.2
1991	330.0	103.0	45.5	40.7	17.3	15.4	10.1	7.7
1992	324.1	98.6	45.6	40.3	16.8	15.3	10.3	8.0
1993	321.7	98.1	46.1	38.2	17.1	14.7	10.0	7.5
1994	327.0	100.3	46.3	38.1	18.2	15.0	10.8	7.7
1995	320.1	98.5	45.0	36.5	17.4	14.3	10.7	7.9
1996	310.2	93.1	44.4	36.1	17.7	13.5	10.1	8.0
1997	305.7	95.4	44.4	33.8	17.1	12.9	10.0	7.3
<b>Mortality</b>								
1981	127.7	24.1	23.6	16.5	1.9	7.4	4.0	1.9
1982	126.9	24.3	25.1	15.5	1.9	7.2	3.7	1.8
1983	130.0	24.8	27.0	16.6	1.9	7.5	4.0	1.9
1984	130.1	25.7	26.7	16.3	1.6	6.8	4.7	2.1
1985	132.6	25.6	28.8	15.4	1.5	7.1	4.5	1.8
1986	130.6	25.0	29.1	15.1	1.5	7.1	4.3	1.5
1987	128.5	23.5	30.4	14.9	1.5	7.1	4.3	1.5
1988	132.8	26.1	31.6	14.6	1.6	7.6	4.5	1.6
1989	131.8	25.0	32.4	14.3	1.5	7.9	4.2	1.7
1990	134.3	26.1	34.4	13.6	1.4	7.2	4.8	1.6
1991	132.0	24.5	33.5	13.4	1.3	7.4	5.2	1.8
1992	133.1	24.1	34.9	13.6	1.4	7.2	4.8	1.8
1993	133.1	24.0	34.1	13.7	1.5	7.7	4.8	1.6
1994	132.8	23.8	35.2	13.7	1.4	7.5	4.8	1.7
1995	131.6	24.6	35.7	12.2	1.2	7.0	5.2	1.6
1996	129.4	22.3	34.2	12.4	1.3	6.9	5.0	1.6
1997	126.8	21.2	35.2	12.2	1.5	6.4	5.5	1.5

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173) and are age-adjusted to U.S. 1970 Standard Million.

**Table 7.2**  
**Age-Adjusted Incidence and Mortality Rates for Selected Cancer Sites in Males,**  
**Florida, 1981-1997**

Year	Rates per 100,000							
	All Cancers <sup>1</sup>	Prostate	Lung & Bronchus	Colorectal	Bladder	Non-Hodgkin's	Oral	Melanoma <sup>2</sup>
<b>Incidence</b>								
1981	394.2	71.3	86.8	58.7	33.5	10.7	17.5	11.2
1982	395.0	72.2	86.1	60.9	32.5	11.3	17.6	11.1
1983	383.3	71.1	81.6	58.4	30.1	11.3	17.1	11.7
1984	392.9	71.2	85.0	61.3	32.7	10.4	17.1	10.8
1985	409.1	74.9	87.5	66.5	33.1	13.0	16.5	13.1
1986	395.4	74.1	85.2	58.9	31.8	12.6	17.4	12.8
1987	404.2	81.5	83.7	63.2	31.9	13.3	16.0	12.7
1988	412.7	88.7	83.0	62.7	31.5	14.3	15.1	14.0
1989	429.3	100.5	82.6	58.5	32.7	15.2	18.1	13.9
1990	441.0	113.4	82.6	58.9	32.2	15.7	16.7	13.6
1991	473.7	146.3	85.2	58.2	30.5	15.5	17.2	13.1
1992	485.1	157.8	83.8	57.5	30.7	16.1	16.2	13.1
1993	448.4	132.5	79.2	55.7	29.3	15.7	16.1	13.6
1994	439.3	123.5	79.7	53.1	29.1	17.6	16.9	13.9
1995	433.9	118.9	81.2	52.5	29.3	17.0	16.1	13.4
1996	401.0	106.2	73.6	47.9	27.7	15.9	15.2	13.1
1997	391.6	99.9	72.6	48.9	27.6	15.5	14.0	14.3
<b>Mortality</b>								
1981	202.1	20.4	71.3	22.5	6.6	5.4	5.9	3.1
1982	207.9	21.6	73.3	23.2	6.7	6.2	5.8	3.5
1983	205.9	20.5	72.6	23.8	6.9	6.2	5.6	3.6
1984	206.3	21.8	73.3	23.3	6.2	6.3	5.7	3.2
1985	203.6	20.9	72.9	23.2	5.9	6.3	5.4	4.0
1986	203.8	21.2	73.7	22.6	5.5	6.7	5.4	3.6
1987	203.9	22.1	73.2	21.7	5.9	6.8	5.4	3.5
1988	203.5	21.9	71.9	22.4	5.6	6.9	5.4	3.4
1989	207.2	22.9	75.6	21.1	5.9	7.2	5.7	4.0
1990	208.1	24.9	74.3	20.9	5.7	7.4	5.7	4.0
1991	205.6	23.7	73.3	19.6	5.9	7.6	5.1	3.9
1992	201.5	23.8	70.0	19.7	5.7	7.5	4.9	3.8
1993	200.2	22.9	69.8	19.8	5.6	7.4	5.4	3.9
1994	198.4	22.4	68.3	20.0	5.5	8.5	4.4	3.7
1995	199.6	21.5	69.6	18.8	5.5	8.0	5.0	3.8
1996	192.3	20.8	66.2	17.8	5.5	8.6	4.8	3.7
1997	192.4	19.9	66.5	18.1	5.4	8.7	4.6	3.9

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173) and are age-adjusted to U.S. 1970 Standard Million.

### **Annual Percent Change in Cancer Incidence and Mortality Rates**

Table 8 contains data on the average annual percent change in age-adjusted incidence and mortality rates for women (19 cancer sites) and for men (16 cancer sites) between 1988 and 1997. Figures 6.1 – 6.2 depict the data presented in Table 8. Overall, cancer incidence and mortality rates have decreased annually since 1988 with a few notable exceptions. Following is a summary of general trends in the average annual percent changes by cancer site and sex (w = in women, m = in men, b = in both sexes).

- **Cancers for which incidence rates increased significantly:** breast (m), kidney (w) and thyroid (w).
- **Cancers for which mortality rates increased significantly:** esophagus (m), lung/bronchus (w), non-Hodgkin's (b), and thyroid (m).
- **Cancers for which incidence decreased significantly:** all cancers (w), bladder (m), breast (w), cervix (w), colorectal (b), larynx (b), leukemia (m), lung/bronchus (m), multiple myeloma (b), oral (w), ovarian (w), stomach (b).
- **Cancers for which mortality decreased significantly:** all cancers (b), bladder (m), breast (w), colon/rectum (b), lung/bronchus (m), oral (b), ovary (w), prostate (m), stomach (b).
- **The average annual percent change was not significant for both incidence and mortality (in both sexes) for the following sites:** Brain/nervous, melanoma and pancreas.
- **Both incidence and mortality rates of the following cancers decreased significantly in women and men since 1981:** colorectal ( $p \leq 0.01$  for incidence and mortality in both sexes) and stomach ( $p \leq 0.05$  for women and  $p \leq 0.01$  for men).
- **The greatest annual percent change in cancer rates** was among men for breast cancer, which increased by 7.8% per year, on average (significant at  $p \leq 0.01$ ). The largest average annual decrease in rates was for multiple myeloma in both sexes (-3.5% and -3.4% respectively; both significant at  $p \leq 0.05$ ).







**Table 8.**  
**Annual Percent Change in Age Adjusted Incidence and Mortality rates**  
**for Selected Cancer Sites, Florida 1988-1997**

	Incidence		Mortality	
	Female	Male	Female	Male
<b>All Cancers<sup>1</sup></b>	-0.7 *	-0.8	-0.4 *	-0.8 **
Bladder	0.0	-1.8 **	-0.6	-0.7 *
Body of Uterus	0.3	-	-1.2	-
Brain & Nervous	-0.7	0.0	0.8	0.3
Breast	-0.9 **	7.8 **	-1.8 **	-1.2
Cervix	-1.5 *	-	-1.3	-
Colorectal	-2.4 **	-2.7 **	-1.8 **	-2.1 **
Esophagus	-0.1	0.5	0.1	1.0 *
Kidney	1.1 *	-0.9	0.0	-0.1
Larynx	-2.2 *	-2.0 **	0.1	-0.3
Leukemia	-1.6	-2.4 **	0.0	0.0
Lung and Bronchus	0.4	-1.4 **	1.0 **	-1.3 **
Melanoma	0.3	-0.1	-1.1	0.2
Multiple Myeloma	-3.5 *	-3.4 *	0.3	1.4
Non-Hodgkin's	0.4	1.1	2.0 **	2.5 **
Oral	-2.1 *	-1.3	-2.0 *	-2.1 *
Ovary	-1.6 **	-	-1.5 *	-
Pancreas	0.0	-0.5	0.4	-0.3
Prostate	-	0.6	-	-1.5 *
Stomach	-1.5 *	-1.1 *	-2.8 **	-2.1 **
Thyroid	4.4 **	3.3	-2.2	3.0 *

\* :the value is significant at p=0.05

\*\* :the value is significant at p=0.01

**Note:** For details on significance of Average Annual Percent Change refer to Appendix II. 'All cancers' exclude non-melanoma skin cancer (ICD-9 173)

## **Trends in the Distribution of Cancer by Age and Sex**

(See Tables 9.1- 10.2 and Figure 7)

Estimated population, new cases of cancer and number of cancer deaths are presented in Tables 9.1 (1996) and in 9.2 (1997) for eight different age groups and for all ages combined by sex.

- The number of new cancer cases dropped in 1997 from 1996 among women aged 20-29 but the number of deaths remained about the same. Cancer incidence and cancer deaths increased for men in this age group.
- For 30-49 year-old women and men between 1996 and 1997 the number of new cancer cases decreased for both sexes. The number of cancer deaths decreased in women but increased in men in this age group.
- The population, number of new cases of cancer and cancer deaths declined from 1996 to 1997 among the 60-69 year-old age group for both sexes.

Figure 7 contains data depicting trends in rates of cancer incidence and mortality for all cancers by age group and sex from 1981-1997.

- Between the ages of 20 and 50 years, women's cancer incidence and death rates exceed those of men. After age 50, men's cancer rates outpace those for women. These age-specific trends have been fairly stable since 1981.
- Cancer incidence rates began to converge for the 70-79 and the 80 years and older groups in about 1993 for both sexes. However, rates of cancer remain higher for men than for women despite a big decline in cancer incidence in men 70 years of age and older.

Tables 10.1 (for 1996) and 10.2 (for 1997) enumerate new cases of cancer and cancer deaths for lung, colorectal, breast and prostate cancer.

- At all ages the largest cancer burdens were for breast cancer in women and prostate cancer among men, followed by lung and colorectal cancers for both sexes.
- Approximately 50% of all new cases of breast cancer occurred between 60 and 79 years of age in women.
- Among men aged 40 years and older the number of new cases of prostate cancer is about 30% higher than for lung cancer and is roughly double the number of new cases of colorectal cancers.
- Men aged 70 - 79 years accounted for over 40% of all new prostate cancer cases; more prostate cancers than any other age group.
- Nearly 70% of new cases of lung cancers occurred between the ages of 60-79 years for both women and men.

- Men develop colorectal cancer at younger ages than do women. The majority of all new cases of colorectal cancer occurred among women aged 70 years and older, whereas most new colorectal cancers were diagnosed in men aged 60-79 years.
- The number of deaths from lung cancer is several times higher than the number of deaths from breast cancer among women and from prostate cancer in men.
- The highest absolute numbers of deaths from lung cancer were among those aged 70-79; 37% of all lung cancer deaths occurred in this age group for both sexes.
- There were no deaths from colorectal cancer among those aged 0-19 years of age and there were only a small number (8 deaths total in 1996) among 20-29 year olds.
- Breast cancer accounted for the largest number of cancer deaths among females under 40 years of age. Deaths from lung cancer were about double the number of deaths from lung and colorectal cancers combined in females aged 40 years and under. However, overall, the number of deaths from breast cancer in women declined from 1995 to 1997, especially among women aged 60 and older.
- The number of deaths from prostate cancer in men of all ages declined from 1995-1997. Decreases occurred in all age groups except 50-59 years old.

In summary, breast, prostate, lung and bronchial, colorectal, uterine, ovarian, bladder and oral cancers, non-Hodgkin's lymphoma and melanoma continue to be the most common types of cancer diagnosed in Floridians. Changes in rates for some of these forms of cancer are apparently linked to changes in exposure to risk factors and health behaviors (e.g., the decline in the number of men who smoke cigarettes followed by a recent decline in men's rates of lung/bronchial and oral cancers). As for all disease, when interpreting incidence data for cancer, it is important to consider that increases in incidence might be the result of a positive public health effort (e.g., increased screening) or of increased exposure to risk factors

**Table 9.1**  
**Estimated Population, New Cases of Cancer and Cancer Deaths by Age Group and Sex,**  
**Florida, 1996**

Age Group	Population <sup>1</sup>			New Cases <sup>2</sup>			Deaths <sup>2</sup>		
	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men
0-19	3,642,423	1,780,582	1,861,841	569	275	294	95	49	46
20-29	1,790,489	870,314	920,175	693	398	295	132	71	61
30-39	2,125,795	1,061,382	1,064,413	2,330	1,453	877	519	276	243
40-49	2,027,267	1,032,079	995,188	5,334	3,346	1,988	1,669	833	836
50-59	1,518,391	798,156	720,235	9,566	4,806	4,760	3,658	1,696	1,962
60-69	1,401,604	756,153	645,451	19,978	8,438	11,540	8,314	3,610	4,704
70-79	1,296,648	723,142	573,506	24,696	10,773	13,923	12,601	5,534	7,067
80+	675,270	418,896	256,374	12,806	6,726	6,080	10,296	5,041	5,255
<b>All Ages<sup>3</sup></b>	<b>14,477,888</b>	<b>7,440,704</b>	<b>7,037,183</b>	<b>75,972</b>	<b>36,215</b>	<b>39,757</b>	<b>37,289</b>	<b>17,113</b>	<b>20,176</b>

<sup>1</sup> 1996 population projections were provided by the Florida Consensus Estimating Conference, Spring 1997.

<sup>2</sup> Excludes non-melanoma skin cancer (ICD-9 173) and are age-specific.

<sup>3</sup> **Rounding for the age-specific population estimates leads to slight differences in the total.**

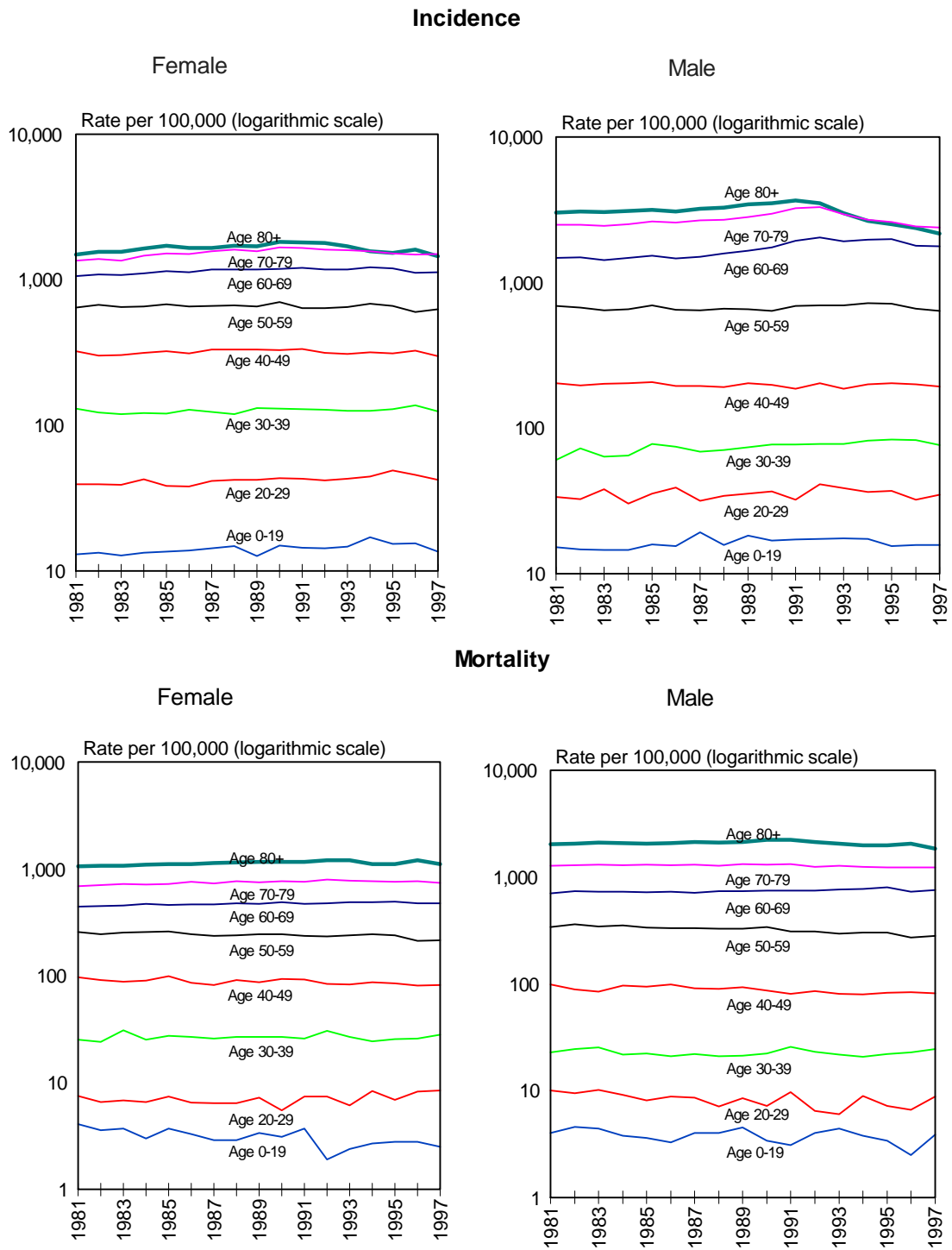
**Table 9.2**  
**Estimated Population, Number of New Cases of Cancer and Cancer Deaths by Age Group and Sex,**  
**Florida, 1997**

Age Group	Population <sup>1</sup>			New Cases <sup>2</sup>			Deaths <sup>2</sup>		
	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men	<i>Total</i>	Women	Men
0-19	3,755,253	1,833,375	1,921,878	552	248	304	120	46	74
20-29	1,774,043	862,101	911,942	678	362	316	152	72	80
30-39	2,166,398	1,083,711	1,082,687	2,183	1,352	831	570	305	265
40-49	2,098,588	1,071,577	1,027,011	5,177	3,191	1,986	1,712	875	837
50-59	1,537,995	805,480	732,515	9,732	5,040	4,692	3,804	1,736	2,068
60-69	1,323,183	718,552	604,631	18,802	8,080	10,722	8,001	3,401	4,600
70-79	1,308,835	737,781	571,054	24,697	11,092	13,605	12,535	5,462	7,073
80+	761,867	476,934	284,933	13,066	6,887	6,179	10,526	5,249	5,277
<b>All Ages<sup>3</sup></b>	<b>14,726,155</b>	<b>7,589,511</b>	<b>7,136,644</b>	<b>74,887</b>	<b>36,252</b>	<b>38,635</b>	<b>37,424</b>	<b>17,148</b>	<b>20,276</b>

<sup>1</sup> 1997 population projections were provided by the Florida Consensus Estimating Conference, Spring 1998.

<sup>2</sup> Excludes non-melanoma skin cancer (ICD-9 173) and are age-specific.

**Figure 7**  
**Age-Specific Incidence and Mortality Rates for All Cancers, Florida 1981-1997**



**Table 10.1**  
**Number of New Cases and Deaths for Selected Cancer Sites by Age Group**  
**and Sex, Florida, 1996**

Age Group	Lung			Colorectal			Breast	Prostate
	Total	Female	Male	Total	Female	Male	Female	Male
<b>New Cases</b>								
0-19	1	1	0	2	1	1	2	0
20-29	8	4	4	18	12	6	48	0
30-39	105	50	55	112	49	63	453	3
40-49	575	242	333	439	210	229	1,466	149
50-59	1,631	702	929	956	425	531	1,760	1,156
60-69	3,864	1,623	2,241	2,250	986	1,264	2,406	3,935
70-79	4,625	1,918	2,707	3,545	1,749	1,796	2,726	4,230
80+	1,911	799	1,112	2,604	1,534	1,070	1,488	1,171
<b>All Ages</b>	<b>12,720</b>	<b>5,339</b>	<b>7,381</b>	<b>9,926</b>	<b>4,966</b>	<b>4,960</b>	<b>10,349</b>	<b>10,644</b>
<b>Deaths</b>								
0-19	0	0	0	0	0	0	0	0
20-29	3	2	1	8	3	5	10	1
30-39	57	24	33	26	12	14	81	0
40-49	386	129	257	117	56	61	255	8
50-59	1,261	460	801	275	126	149	395	60
60-69	3,039	1,164	1,875	722	304	418	564	322
70-79	4,101	1,640	2,461	1,273	586	687	733	906
80+	2,366	1,037	1,329	1,375	768	607	679	1,214
<b>All Ages</b>	<b>11,214</b>	<b>4,457</b>	<b>6,757</b>	<b>3,796</b>	<b>1,855</b>	<b>1,941</b>	<b>2,717</b>	<b>2,511</b>

Totals may not add due to rounding. Refer to Appendix I for methodology.

**Table 10.2**  
**Number of New Cases and Deaths for Selected Cancer Sites by Age Group**  
**and Sex, Florida, 1997**

Age Group	Lung			Colorectal			Breast	Prostate
	Total	Female	Male	Total	Female	Male	Female	Male
<b>New Cases</b>								
0-19	2	1	1	1	1	0	0	0
20-29	12	5	7	25	13	12	37	0
30-39	87	42	45	134	63	71	472	1
40-49	560	244	316	418	203	215	1,401	133
50-59	1,670	720	950	974	406	568	1,897	1,049
60-69	3,649	1,513	2,136	2,181	927	1,254	2,428	3,528
70-79	4,665	2,011	2,654	3,436	1,616	1,820	2,977	4,019
80+	1,968	890	1,078	2,654	1,534	1,120	1,500	1,129
<b>All Ages</b>	<b>12,613</b>	<b>5,426</b>	<b>7,187</b>	<b>9,823</b>	<b>4,763</b>	<b>5,060</b>	<b>10,712</b>	<b>9,859</b>
<b>Deaths</b>								
0-19	0	0	0	0	0	0	0	0
20-29	8	5	3	5	3	2	6	0
30-39	63	35	28	34	11	23	80	0
40-49	401	164	237	130	66	64	267	5
50-59	1,265	472	793	329	128	201	396	76
60-69	3,024	1,153	1,871	740	306	434	518	292
70-79	4,227	1,707	2,520	1,252	556	696	693	897
80+	2,426	1,087	1,339	1,354	835	519	649	1,249
<b>All Ages</b>	<b>11,414</b>	<b>4,623</b>	<b>6,791</b>	<b>3,845</b>	<b>1,906</b>	<b>1,939</b>	<b>2,609</b>	<b>2,519</b>

Totals may not add due to rounding. Refer to Appendix I for methodology.



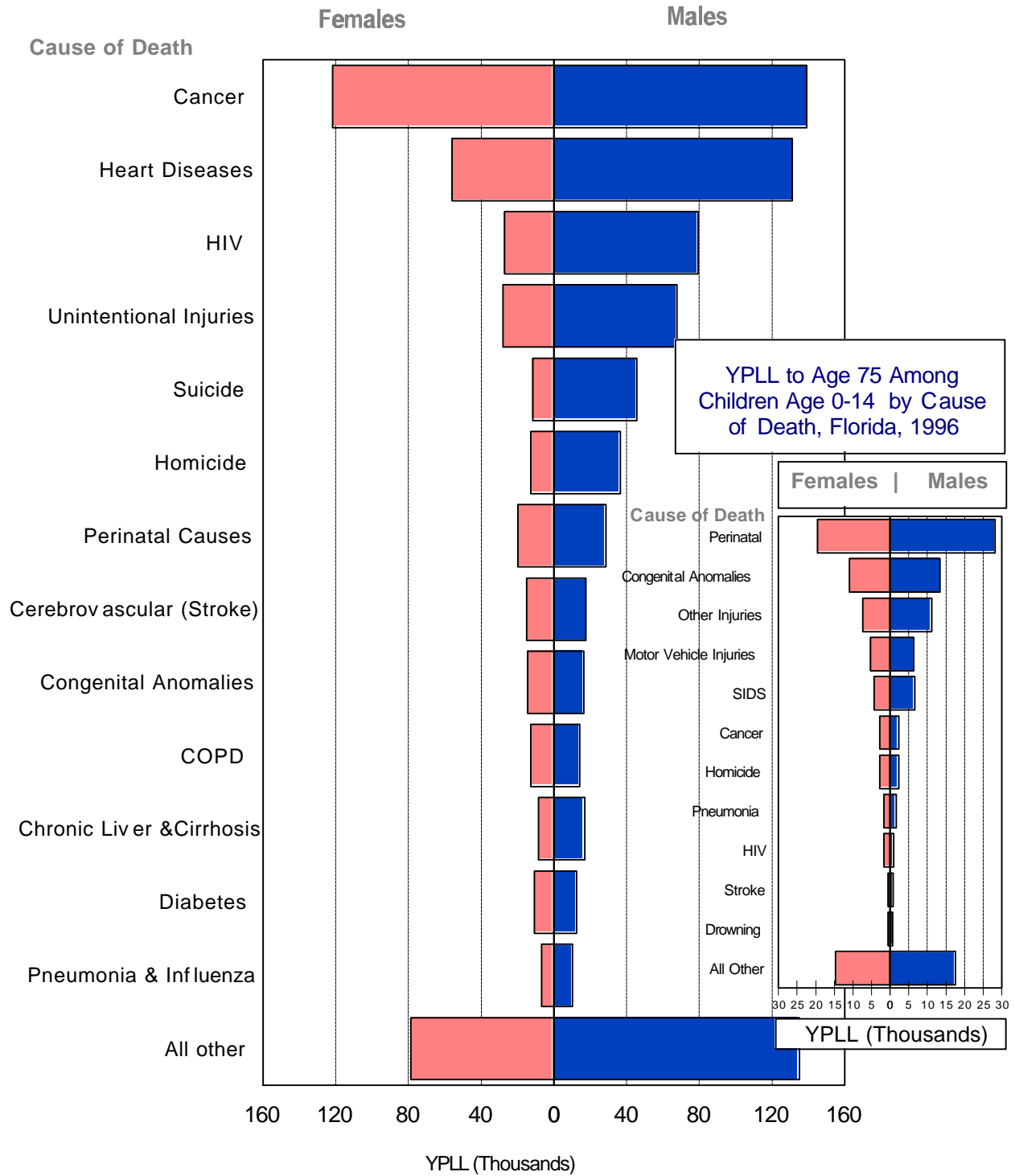


**Years of Potential Life Lost (YPLL) Before Age 75 Resulting from Cancer and Other Causes in 1996 and 1997** (Figures 8.1 and 8.2 and Tables 11.1 and 11.2)

Years of Potential Life Lost (YPLL) are calculated by deducting from 75 years of age (approximate average life expectancy) the age at which each death from a given cause occurred and summing all of these years of life “lost” prior to age 75 into a composite figure. YPLL figures indicate which causes of death result more years of life lost to premature death.

- All causes of death yielded about 1.2 million years of potential life lost in each of the years for which data are presented here (1996 and 1997). Cancer alone was responsible for just over 260,000 YPLL in 1996 and in 1997 -- 23% of YPLL from all causes in 1996 and 1997 combined.
- For people of all ages, cancer was the leading cause of years of potential life lost in 1996 and 1997 followed by heart disease, HIV/AIDS and unintentional injuries.
- Consistent with higher death rates among men at most ages deaths among men contribute more to total YPLL than those among women (in total and for each cause listed).
- The seven cancers that contributed most to YPLL in 1996 also predominated in 1997: lung/bronchus, breast, colorectal, non-Hodgkin’s lymphoma, leukemia, pancreas and brain/nervous system. About 64% of YPLLs from cancer in Florida resulted from cancer deaths from these seven types in both 1996 and 1997.
- Of all cancer deaths, lung and bronchial cancer contributed most to YPLL in Florida in 1996 and 1997. Over 75,000 YPLL due to cancer were from lung and bronchial cancer deaths in each of these years. Almost 30% of YPLL from cancer resulted from cancers of the lung and bronchus.
- The YPLL for breast cancer is much higher than for prostate cancer (by about 23,000 YPLL or 20%) because women die at younger ages from breast cancer than men die of prostate cancer. Breast cancer contributes 21% of cancer YPLL in women, while prostate cancer contributes 4% of cancer YPLL in men.
- Among 0-14 year-old children, perinatal deaths were responsible for the majority of YPLL, followed by congenital anomalies and other injuries in 1996 and 1997.
- Childhood cancer deaths (ages 0-14) constituted 2% of childhood YPLL from all types of cancers combined in 1996 and in 1997.

**Figure 8.1**  
**Years of Potential Life Lost (YPLL) to Age 75 by Cause of Death, Florida, 1996**



**Table 11.1**  
**Years of Potential Life Lost<sup>1</sup> Due to Cancer, Florida, 1996.**

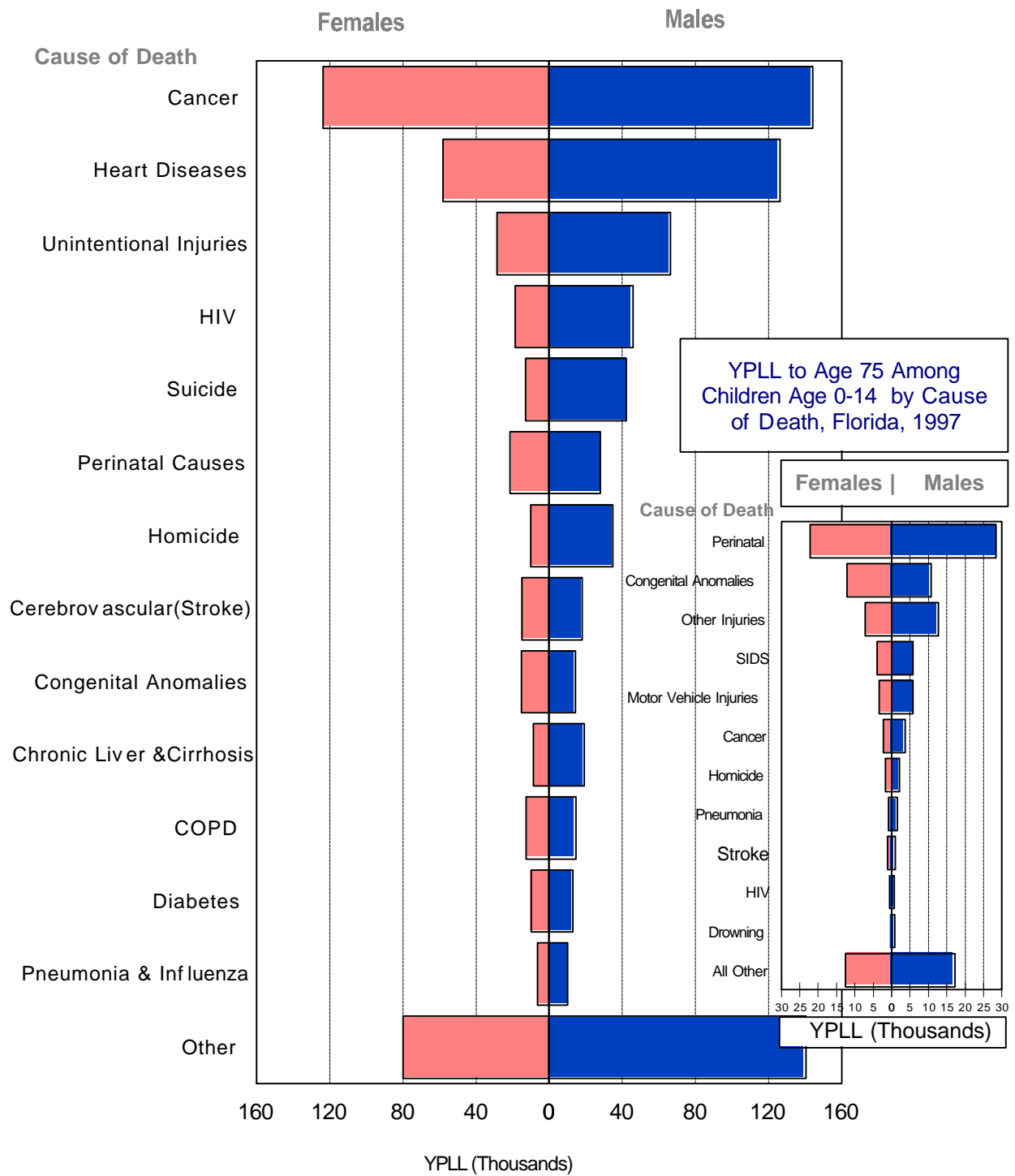
	Total		Female		Male	
	Years	%	Years	%	Years	%
<b>All Causes</b>	<b>1,174,441</b>		<b>423,427</b>		<b>751,014</b>	
<b>All Cancers<sup>2</sup></b>	<b>260,788</b>	<b>100</b>	<b>121,780</b>	<b>100</b>	<b>139,008</b>	<b>100</b>
<b>Childhood Cancer<sup>3</sup> (Age 0-14)</b>	<b>5,096</b>	<b>2.0</b>	<b>2,730</b>	<b>2.2</b>	<b>2,366</b>	<b>1.7</b>
<b>Cancer Site</b>						
Lung & Bronchus	75,019	28.8	27,915	22.9	47,104	33.9
Breast	25,903	9.9	25,732	21.1	171	0.1
Colorectal	19,052	7.3	8,455	6.9	10,597	7.6
Non-Hodgkin's Lymphoma	12,314	4.7	4,300	3.5	8,014	5.8
Leukemia	11,101	4.3	5,345	4.4	5,756	4.1
Pancreas	10,587	4.1	4,333	3.6	6,254	4.5
Brain	10,379	4.0	4,786	3.9	5,593	4.0
Ovary	6,611	2.5	6,611	5.4	-	-
Oral	6,570	2.5	1,642	1.3	4,928	3.5
Stomach	5,967	2.3	2,000	1.6	3,967	2.9
Melanoma	5,871	2.3	2,289	1.9	3,582	2.6
Esophagus	5,825	2.2	1,157	1.0	4,668	3.4
Kidney	5,807	2.2	2,215	1.8	3,592	2.6
Prostate	5,662	2.2	-	-	5,662	4.1
Cervix	5,072	1.9	5,072	4.2	-	-
Liver	4,847	1.9	1,194	1.0	3,653	2.6
Multiple Myeloma	3,639	1.4	1,428	1.2	2,211	1.6
Bladder	2,926	1.1	722	0.6	2,204	1.6
Larynx	2,786	1.1	553	0.5	2,233	1.6
Hodgkin's Lymphoma	1,930	0.7	915	0.8	1,015	0.7
All Other Cancers <sup>3</sup>	31,540	12.1	14,847	12.2	16,693	12.0

<sup>1</sup>Figures are ranked in order of YPLL for both sexes combined and are calculated up to 75 years of age.

<sup>2</sup>Excludes non-melanoma skin cancers, ICD-9 173.

<sup>3</sup>Childhood cancers are included within the relevant sites.

**Figure 8.2.**  
**Years of Potential Life Lost (YPLL) to Age 75 by Cause of Death, Florida, 1997**



**Table 11.2**  
**Years of Potential Life Lost<sup>1</sup> Due to Cancer, Florida, 1997.**

	Total		Female		Male	
	Years	%	Years	%	Years	%
<b>All Causes</b>	<b>1,221,070</b>		<b>428,381</b>		<b>792,037</b>	
<b>All Cancers<sup>2</sup></b>	<b>259,136</b>	<b>100</b>	<b>120,631</b>	<b>100</b>	<b>138,505</b>	<b>100</b>
<b>Childhood Cancer<sup>3</sup> (Age 0-14)</b>	<b>5,453</b>	<b>2.1</b>	<b>2,491</b>	<b>2.1</b>	<b>2,962</b>	<b>2.1</b>
<b>Cancer Site</b>						
Lung & Bronchus	75,978	29.3	29,865	24.8	46,113	33.3
Breast	25,936	10.0	25,883	21.5	53	0.0
Colorectal	21,093	8.1	8,915	7.4	12,178	8.8
Non-Hodgkin's Lymphoma	13,787	5.3	4,736	3.9	9,051	6.5
Brain & Nervous	12,701	4.9	4,806	4.0	7,895	5.7
Leukemia	12,634	4.9	5,322	4.4	7,312	5.3
Pancreas	10,736	4.1	4,399	3.6	6,337	4.6
Oral	6,289	2.4	1,634	1.4	4,655	3.4
Ovary	6,183	2.4	6,183	5.1	-	-
Cervix	5,887	2.3	5,887	4.9	-	-
Esophagus	5,874	2.3	1,147	1.0	4,727	3.4
Stomach	5,833	2.3	1,920	1.6	3,913	2.8
Kidney	5,678	2.2	1,973	1.6	3,705	2.7
Melanoma	5,606	2.2	1,707	1.4	3,899	2.8
Liver	5,491	2.1	1,269	1.1	4,222	3.0
Prostate	5,456	2.1	-	-	5,456	3.9
Myeloma	4,026	1.6	1,648	1.4	2,378	1.7
Bladder	3,182	1.2	793	0.7	2,389	1.7
Larynx	2,242	0.9	397	0.3	1,845	1.3
Hodgkin's	1,829	0.7	746	0.6	1,083	0.8
<b>All Other Cancers<sup>3</sup></b>	<b>29,684</b>	<b>11.5</b>	<b>14,005</b>	<b>11.6</b>	<b>15,679</b>	<b>11.3</b>

<sup>1</sup>Figures are ranked in order of YPLL for both sexes combined and are calculated up to 75 years of age.

<sup>2</sup> Excludes non-melanoma skin cancers, ICD-9 173.

<sup>3</sup>Childhood cancers are included within the relevant sites.



### **Childhood Cancer Incidence and Mortality: 0-14 Years of Age, 1993-1997**

(See Table 12)

Table 12 provides detailed data on cancer incidence and death for children living in Florida for 12 cancer sites. The number of new cancers and cancer deaths are cumulative from 1993-1997 and there is one age-specific incidence rate and one age-specific mortality rate summarizing the 1993-1997 period.

- Between 1993 and 1997, 2,069 -- an average of 414 new cases per year -- were diagnosed each year in children in Florida. There were 384 deaths or an average of 77 each year for all cancers combined.
- Leukemia was the most commonly diagnosed cancer among children between 1993 and 1997 followed by brain/other nervous system cancers and lymphomas.
- New cases of leukemia accounted for 31% of all new cancers diagnosed in children in Florida for the 5-year period. The majority of these were acute lymphocytic malignancies and 25.5% were lymphocytic leukemias. All other childhood leukemias, combined, comprised 6.4% of all childhood cancers between 1993 and 1997.
- There were 129 deaths from leukemia among children between 1993 and 1997, 33.6% of all deaths from childhood cancer in Florida during this period. The deaths:cases ratio for childhood leukemia was 0.2 compared to a deaths:cases ratio of 0.86 for leukemia among adults in Florida in 1997 indicating that leukemia is much more curable in children than in adults.
- Nearly 21% of childhood cancers were brain/other nervous system cancers (N=428 over the 5-year period). The next most common childhood cancer, lymphoma, (N=207) accounted for about 10% of all childhood cancers.
- Cancer of the brain/nervous system was responsible for 124 deaths among 0 - 14 year-olds during the 5-year period (32.3% of all deaths from cancer among children). The deaths:cases ratio for brain/nervous system cancer was 0.3, one of the highest among children, indicating a relatively poor prognosis for this cancer in children.



**Table 12**  
**New Cases, Deaths and Age-Specific Incidence (ASIR) and Mortality Rates (ASMR)**  
**by Site for Children Aged 0-14, Florida (1993-1997)<sup>1</sup>**

	New Cases		ASIR <sup>3</sup>	Deaths		ASMR <sup>3</sup>
	Number	%	(per million)	Number	%	(per million)
<b>All Cancers<sup>2</sup></b>	<b>2,069</b>		<b>149.5</b>	<b>384</b>		<b>27.7</b>
<b>Leukemia</b>	<b>660</b>	<b>31.9</b>	<b>47.6</b>	<b>129</b>	<b>33.6</b>	<b>9.3</b>
Acute Lymphocytic	528	25.5	38.1	56	14.6	4.0
Other Leukemias	132	6.4	9.5	73	19.0	5.3
<b>Brain and other Nervous System</b>	<b>428</b>	<b>20.7</b>	<b>30.9</b>	<b>124</b>	<b>32.3</b>	<b>9.0</b>
<b>Lymphomas</b>	<b>207</b>	<b>10.0</b>	<b>14.9</b>	<b>25</b>	<b>6.5</b>	<b>1.8</b>
Non-Hodgkin's	139	6.7	10.0	24	6.3	1.7
Hodgkin's Disease	68	3.3	4.9	1	0.3	0.1
<b>Kidney</b>	<b>144</b>	<b>7.0</b>	<b>10.4</b>	<b>12</b>	<b>3.1</b>	<b>0.9</b>
<b>Soft tissue</b>	<b>127</b>	<b>6.1</b>	<b>9.2</b>	<b>16</b>	<b>4.2</b>	<b>1.2</b>
<b>Bones and Joints</b>	<b>107</b>	<b>5.2</b>	<b>7.7</b>	<b>15</b>	<b>3.9</b>	<b>1.1</b>
<b>Endocrine</b>	<b>103</b>	<b>5.0</b>	<b>7.4</b>	<b>37</b>	<b>9.6</b>	<b>2.7</b>
<b>Eyes</b>	<b>81</b>	<b>3.9</b>	<b>5.9</b>	<b>2</b>	<b>0.5</b>	<b>0.1</b>
<b>All Other<sup>2</sup></b>	<b>212</b>	<b>10.2</b>	<b>15.3</b>	<b>24</b>	<b>6.3</b>	<b>1.7</b>
<b>Average per Year</b>	<b>414</b>			<b>77</b>		

<sup>1</sup> Data are shown for the most recent five-year period available.

<sup>2</sup> Excludes non-melanoma skin cancer (ICD-9 173).

<sup>3</sup> Rates are age-specific and are expressed *per million*.

## RACE DIFFERENCES IN CANCER INCIDENCE AND MORTALITY

Although there are some gender differences in cancer by race, men have a higher burden of cancer and higher rates of cancer than do women, regardless of race. Race differences are evident for the most commonly occurring cancers as well as for most tobacco-related cancers. The top five cancers are the same in women of both race groups and the top 3 cancers are the same for all men. However, the frequency and severity of these cancers varies by race. Both the number of new cases of cancer and incidence rates are higher for Whites than for non-Whites but the age-adjusted death rates are higher among non-Whites than among Whites. That is, there are proportionately more new cancers that end in death for non-Whites than for Whites.

### **Cancer Incidence and Mortality, 1997**

Table 13 presents 1997 data on the number of new cases of cancer, cancer deaths and the deaths:cases ratio for non-Whites and Whites. Race groups include people of all ethnicities. The cancer sites listed in Table 13 are identical to those in Tables 1.1 and 1.2, the twenty most common cancers diagnosed in Florida in 1997. Table 14 provides a breakdown of the number of new cases and deaths for selected cancer sites by sex within the race categories presented in Table 13. Table 15 provides data on age-adjusted cancer incidence and mortality rates per 100,000 population for women and men by race in Florida in 1997.

- Sixteen percent of the Florida population was estimated to be non-White and 84% was White in 1997. Eight percent of the new cancers diagnosed in Florida in 1997 were in non-Whites and 92% were in Whites. The discrepancy between the proportion of new cancers in each race group and the population distribution is mostly accounted for by the difference in the age composition of the two groups. The White population is older than the non-White population and cancer risk increases with age. Hence, a larger proportion of Whites than non-Whites has cancer but age-adjusted rates are not substantially different for Whites and non-Whites. Overall, age-adjusted cancer incidence rates were 344.8/100,000 for Whites and 323.3/100,000 for non-Whites in Florida in 1997. The rate ratio for Whites:non-Whites was 1.06, a marginal difference.
- The five most commonly diagnosed types of cancer among non-Whites in 1997 were prostate, lung/bronchus, breast, colorectal, and stomach. These five cancers also had the highest age-adjusted rates and, together, accounted for 60% of all cancers in non-Whites in 1997.
- In 1997 the five types of cancer most often diagnosed and with the highest age-adjusted rates among Whites were lung/bronchial, breast, colorectal, prostate and bladder. Together, these five cancers constituted 63% of all cancers in this race group in 1997 among Whites.
- In contrast to the prominence of stomach cancer in non-Whites, this form of cancer was ranked 14<sup>th</sup> most common among Whites in 1997. Conversely, bladder cancer, fifth most common among Whites in 1997, was ranked 10<sup>th</sup> in non-Whites.

- A comparison of age-adjusted cancer rates (Table 15) highlights race differences within gender. The rate of all cancers combined was higher for White women than for non-White women (311.8/100,000 versus 259.7/100,000, respectively). The White:Non-White rate ratio was 1.2:1.
- Consistent with the cancer burden data in Table 14, the five cancers with the highest age-adjusted incidence rates were the same for women of both race groups: breast, lung/bronchial, colorectal, uterine and ovarian. However, age-adjusted rates of these five cancers were higher for White women than for non-White women except for colorectal cancer, which was comparable.
- In contrast to the cancer data for women, non-White men had a somewhat higher age-adjusted rate for all cancers combined than did White men (417.0/100,000 versus 389.2, respectively). The non-White:White cancer incidence rate ratio for men was only 1.07.
- Prostate cancer rates were higher than for any other site for both non-White and White men followed by cancer of the lung and bronchus and colorectal cancer. However, prostate cancer incidence was much higher in non-White men than in White men (140.2/100,000 versus 96.4/100,000 respectively).
- The incidence of stomach cancer in non-White men was more than double the rate for White men. In contrast, bladder cancer was nearly three times higher among White men than non-White men. Differences in dietary patterns likely underlie differences in rates of stomach cancer and differences in occupational risks and smoking might explain different rates of bladder cancer by race among men.
- In general, age-adjusted cancer mortality rates for all cancers combined were higher among non-Whites than Whites even though Whites have higher overall incidence rates. This is true for both sexes as well as for the majority of the top 14 sites listed in Table 15. The death rate is 23% higher in non-Whites than in Whites. Factors that likely contribute to these race differences in cancer mortality include later diagnosis and delayed or less efficacious cancer treatment for non-Whites.
- The deaths:cases ratio from all cancers combined was 0.57 in non-Whites and was 0.49 in Whites.
- The deaths:cases ratio show fairly large differences between non-Whites and Whites for a few cancer sites. Cancer sites for which the deaths:cases ratios are higher for one race group than another are noted only where the gap is 0.05 or greater.
- The cancers for which the deaths:cases ratio in Whites exceeds that of non-Whites are brain/nervous system cancer (an excess of 0.23 for Whites; the largest gap in deaths:cases ratios by race), non-Hodgkin's lymphoma and thyroid cancer.

- Cancer sites for which the deaths:cases ratio is higher among non-Whites than Whites include lung/bronchus, breast, prostate, colorectal, bladder, melanoma, uterus, larynx and cervix. Several of these cancers can be diagnosed and treated early in the course of the disease if one knows the warning signs of the cancer and has adequate access to screening and appropriate treatment. Hence, improved health education, screening and early and adequate treatment for non-Whites would likely reduce the race gap in deaths from these types of cancer.
- There is a larger race gap in age-adjusted cancer death rates for men than for women. The cancer death rate ratio for non-White:White women was 1.15 and among men was 1.36. Non-White men had the highest risk of death from all types of cancer among men and women in both race groups (see Table 15).
- Males of both races had higher age-adjusted cancer death rates than their female counterparts. However the sex gap is greater among non-Whites; the male:female rate ratio for all cancer mortality for non-Whites is 1.77 and for Whites is 1.50.
- The five cancer sites with the highest mortality rates among women were the same for non-Whites and Whites: lung/bronchus, breast, colorectal, ovary and pancreas.
- Men of both race groups had high mortality rates from lung/bronchial, prostate and colorectal cancer. Death rates from stomach and pancreatic cancer were fourth and fifth highest, respectively, in non-White men. Rates of death from pancreatic cancer and non-Hodgkin's lymphoma were fourth and fifth highest of all cancers in White men.
- Comparing age-adjusted mortality rates across race and sex groups reveals that non-White men are more likely than non-White women and Whites of both sexes to die of cancer.

**Table 13.**  
**Number of New Cases and Deaths for Selected Cancer Sites by Race, Florida, 1997**

Site	New Cases			Deaths			Deaths:Cases Ratio		
	Total	Non-White	White	Total	Non-White	White	Total	Non-White	White
<b>All Cancers<sup>1</sup></b>	<b>74,887</b>	<b>6,269</b>	<b>68,618</b>	<b>37,424</b>	<b>3,575</b>	<b>33,849</b>	<b>0.50</b>	<b>0.57</b>	<b>0.49</b>
Lung & Bronchus	12,613	908	11,705	11,414	904	10,510	0.90	1.00	0.90
Breast <sup>2</sup>	10,879	855	10,024	2,628	289	2,339	0.24	0.34	0.23
Prostate	9,859	1,006	8,853	2,521	320	2,199	0.26	0.32	0.25
Colorectal	9,823	744	9,079	3,845	375	3,470	0.39	0.50	0.38
Bladder	4,012	130	3,882	899	51	848	0.22	0.39	0.22
Non-Hodgkins	2,736	208	2,528	1,691	114	1,577	0.62	0.55	0.62
Melanoma	2,029	23	2,006	530	8	522	0.26	0.35	0.26
Body of Uterus	1,953	169	1,784	207	30	177	0.11	0.18	0.10
Oral	1,866	189	1,677	642	66	576	0.34	0.35	0.34
Kidney	1,792	150	1,642	719	54	665	0.40	0.36	0.40
Pancreas	1,691	153	1,538	1,902	177	1,725	<b>1.12</b>	<b>1.16</b>	<b>1.12</b>
Leukemia	1,444	122	1,322	1,412	133	1,279	0.98	<b>1.09</b>	0.97
Ovary	1,407	118	1,289	838	69	769	0.60	0.58	0.60
Stomach	1,392	231	1,161	944	160	784	0.68	0.69	0.68
Brain & Nervous	996	83	913	867	55	812	0.87	0.66	0.89
Larynx	928	98	830	294	39	255	0.32	0.40	0.31
Cervix	851	169	682	291	69	222	0.34	0.41	0.33
Esophagus	843	96	747	773	89	684	0.92	0.93	0.92
Thyroid	781	92	689	73	2	71	0.09	0.02	0.10
Multiple Mjyeloma	605	108	497	716	122	594	<b>1.18</b>	<b>1.13</b>	<b>1.20</b>
Other <sup>1</sup>	6,387	617	5,770	4,218	449	3,769	0.07	0.73	0.65

<sup>1</sup>Excludes non-melanoma skin cancer (ICD-9 173).

<sup>2</sup> Breast cancer numbers include breast cancer in males (167 new cases, 19 deaths in total)

**Sources:** Florida Cancer Data System and the Office of Vital Statistics, Florida Department of Health

**Table 14.****Age adjusted rates for Incidence and Mortality for Major Cancer Sites by Race, Florida, 1997**

Site	Incidence			Mortality		
	<i>Total</i>	Non-White	White	<i>Total</i>	Non-White	White
<b>All Cancers</b> <sup>1</sup>	342.5	323.3	344.8	155.2	186.9	151.7
Prostate <sup>2</sup>	99.9	140.2	96.4	19.9	45.9	18.3
Breast <sup>2</sup>	95.4	70.4	98.2	21.2	24.5	20.7
Lung & Bronchus	57.0	49.4	57.6	49.1	49.0	48.9
Colorectal	40.6	39.7	40.6	14.9	19.8	14.3
Body of Uterus <sup>2</sup>	17.1	15.6	17.4	1.5	2.7	1.4
Bladder	16.2	6.9	17.1	3.2	2.7	3.2
Ovary <sup>2</sup>	12.9	10.3	13.2	6.4	6.2	6.5
Non-Hodgkins	12.6	9.1	12.8	7.0	5.5	7.0
Melanoma	9.9	1.1	11.1	2.3	.4	2.6
Oral	9.3	9.6	9.2	3.0	3.5	2.9
Cervix <sup>2</sup>	8.7	13.5	8.2	2.9	5.5	2.5
Kidney	8.4	7.4	8.4	3.1	2.8	3.1
Leukemia	7.2	5.5	7.4	5.8	6.4	5.7
Pancreas	7.1	8.3	7.0	7.6	9.4	7.5
Stomach	5.8	11.9	5.2	3.7	8.4	3.3
Brain & Nervous	5.4	3.6	5.7	4.3	2.8	4.5
Larynx	4.6	5.3	4.5	1.3	2.1	1.2
Thyroid	4.4	4.1	4.5	.3	.1	.3
Esophagus	3.8	5.2	3.6	3.5	4.9	3.3
Multiple Myeloma	29.9	29.9	30.2	17.5	22.7	16.8
Other <sup>1</sup>	32.5	35.6	32.5	20.4	29.4	19.4

<sup>1</sup>Excludes non-melanoma skin cancer (ICD-9 173).<sup>2</sup> Sex specific rates. Women's breast cancer rates

Sources: Florida Cancer Data System and the Office of Vital Statistics, Florida Department of Health

**Table 15**  
**Age-Adjusted rates for Incidence and Mortality for Selected Cancer Sites**  
**by Race and Sex, Florida 1997**

Site	Non-white			White		
	Total	Female	Male	Total	Female	Male
<b>Incidence</b>						
<b>All Cancers<sup>1</sup></b>	323.3	259.7	417.0	344.8	311.8	389.2
Lung & Bronchus	49.4	30.2	77.0	57.7	45.9	72.1
Breast	40.5	70.4	1.0	53.4	98.2	1.7
Prostate	57.4	-	140.2	43.5	-	96.4
Colorectal	39.7	34.5	46.3	40.6	33.7	48.9
Bladder	6.9	4.8	10.2	17.1	7.6	29.1
Non-Hodgkins	9.1	6.1	12.9	12.8	10.4	15.5
Melanoma	1.1	0.8	1.6	11.1	8.6	14.3
Body of Uterus	9.1	15.6	-	9.4	17.4	-
Oral	9.6	5.5	15.0	9.2	5.2	13.9
Kidney	7.4	5.8	9.7	8.4	6.1	11.1
Pancreas	8.3	7.1	9.8	7.0	6.0	8.1
Leukemia	5.5	4.2	7.4	7.4	5.8	9.3
Ovary	5.9	10.3	-	7.0	13.2	-
Stomach	11.9	8.1	17.2	5.2	3.3	7.5
<b>Mortality</b>						
<b>All Cancers'</b>	186.9	143.3	254.1	151.7	124.7	186.8
Lung & Bronchus	49.0	29.8	77.1	48.9	35.7	65.4
Breast	14.3	24.5	0.5	11.3	20.7	0.2
Prostate	17.1	-	45.9	7.6	-	18.3
Colorectal	19.9	16.5	24.6	14.3	11.7	17.4
Bladder	2.7	1.4	4.5	3.2	1.6	5.5
Non-Hodgkins	5.5	4.8	6.3	7.0	5.4	8.8
Melanoma	0.4	0.4	0.4	2.6	1.5	3.9
Body of Uterus	1.6	2.7	-	0.8	1.4	-
Oral	3.5	1.7	6.0	2.9	1.5	4.5
Kidney	2.8	2.0	4.0	3.1	2.1	4.3
Pancreas	9.4	8.5	10.7	7.5	6.1	9.0
Leukemia	6.4	4.9	8.4	5.7	4.3	7.5
Ovary	3.6	6.2	-	3.6	6.5	-
Stomach	8.4	4.8	13.6	3.3	2.2	4.7

<sup>1</sup> Excludes non-melanoma skin cancer (ICD-9 173).

### **Trends in Cancer Incidence and Mortality, 1981-1997**

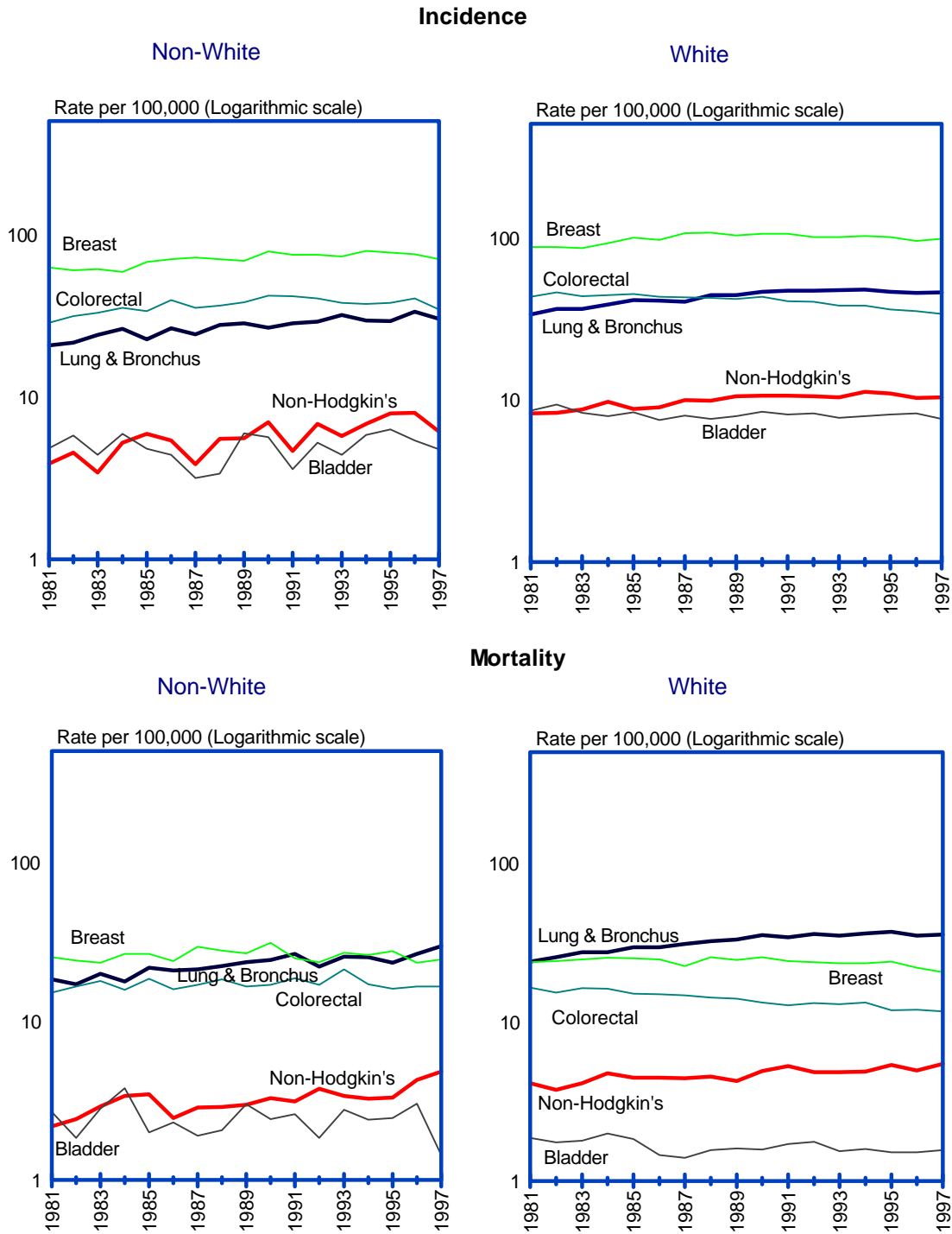
Figures 9.1 and 9.2 portray cancer rates for the same groups for five cancers from 1981 when the FCDS registry began until 1997. These five cancers were those that had the highest age-adjusted rates for non-Whites and Whites combined but are shown for women and men, separately.

- The most striking trend in Figure 9.1 is that non-White women have lower cancer incidence rates for the five most frequently-occurring types of cancer than do White women. However, mortality rates from these same cancers are generally higher and show greater increases or smaller decreases over time among non-White women than among White women.
- Breast cancer incidence rates have been higher among White women than non-White women since 1981. The larger increase in non-White women's breast cancer might be a result of more frequent breast cancer screenings for non-White women in recent years.
- The death rate from breast cancer has also been declining more for White women than for their non-White counterparts over the past 17 years. Further, breast cancers are diagnosed at earlier stages in White women than in non-White women in Florida.
- Lung and bronchial cancer rates have been rising for both White and non-White women. However, incidence rates have been consistently higher for White women, reflecting higher rates of cigarette smoking in this group.
- Mortality rates for lung/bronchial cancer in all women are on the rise also, but appear to be increasing somewhat faster for non-White women than for White women; the reasons for this finding are not clear.
- Colorectal cancer has been declining steadily among White women over the past decade and a half but rose for non-White women until 1996 and then decreased slightly.
- Over the past 17 years, mortality rates for colorectal cancer have been higher among non-White women than among White women. Further, although there has been a steady decline in mortality rates from colorectal cancer for White but not for non-White women.
- Non-Hodgkin's and bladder cancer incidence rates have remained higher among White women relative to non-White women. Bladder cancer has been decreasing steadily among White women but not for non-White women.
- Death rates for non-Hodgkin's lymphoma have been rising for women of both race groups over the past decade and a half. Death rates from bladder cancer have declined somewhat for non-White and White women with greater decreases among the non-White women over time.
- Although there was a peak in prostate cancer incidence in the early 1990s for both non-White and White men (likely due to more frequent use of the PSA), incidence remained higher among non-White men than among White men.

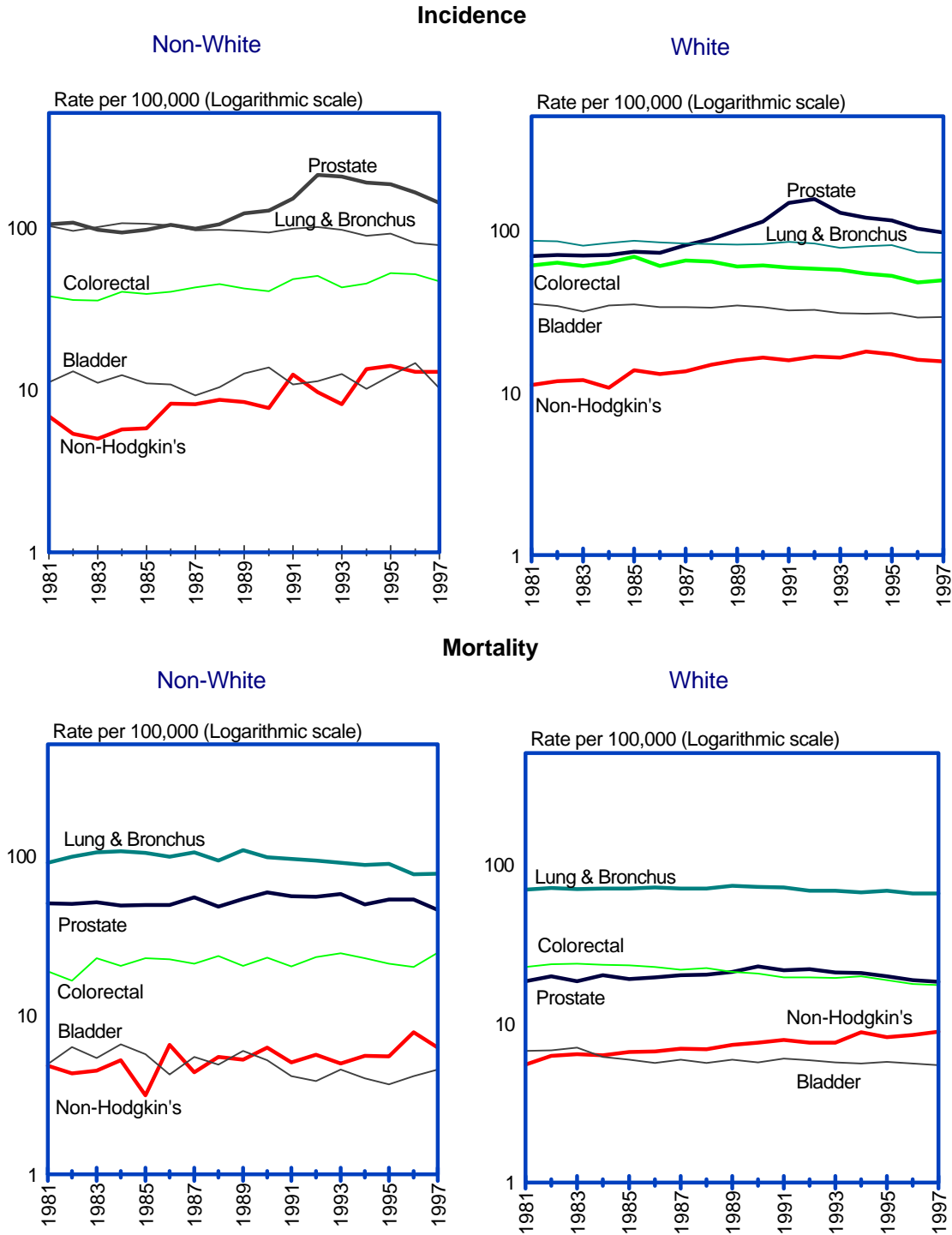


- The deaths:cases ratio for prostate cancer (see Table 14) is 0.34 for non-White men and is 0.23 for White men. These findings indicate that non-White men are either being diagnosed at later stages of the disease, have more virulent forms of prostate cancer or are not receiving timely or optimal intervention for this form of cancer compared to White men.
- Lung and bronchial cancer incidence and mortality rates have been declining in men of both races over the past 17 years. Declines have been greater for non-White than for White men, suggesting a decrease in tobacco use and earlier diagnosis and intervention for both groups, especially for non-White men.
- Colorectal cancer incidence and mortality rates have been rising among non-White men at the same time that they have declined steadily in White men.
- Bladder cancer incidence rates have been and remain much higher among White men than in non-White men. However, rates of this cancer are declining gradually in White men while they have remained stable among non-White men.
- Non-White men have experienced distinctly worse outcomes from bladder cancer than have White men -- the deaths:cases ratio for bladder cancer is 0.39 for non-White men and is 0.22 for White men.
- Incidence and mortality rates of non-Hodgkin's lymphoma have been rising over the past decade and a half in both non-White and White men. Though White men had slightly higher incidence rates of non-Hodgkin's in the early 1980s the gap has nearly closed in recent years.

**Figure 9.1**  
**Age-Adjusted Incidence and Mortality Rates for Selected Cancer Sites in Females by Race, Florida, 1981-1997**



**Figure 9.2**  
**Age-Adjusted Incidence and Mortality Rates for Selected Cancer Sites in Males by Race, Florida, 1981-1997**



### **Trends in Tobacco-Related Cancer Incidence and Mortality**

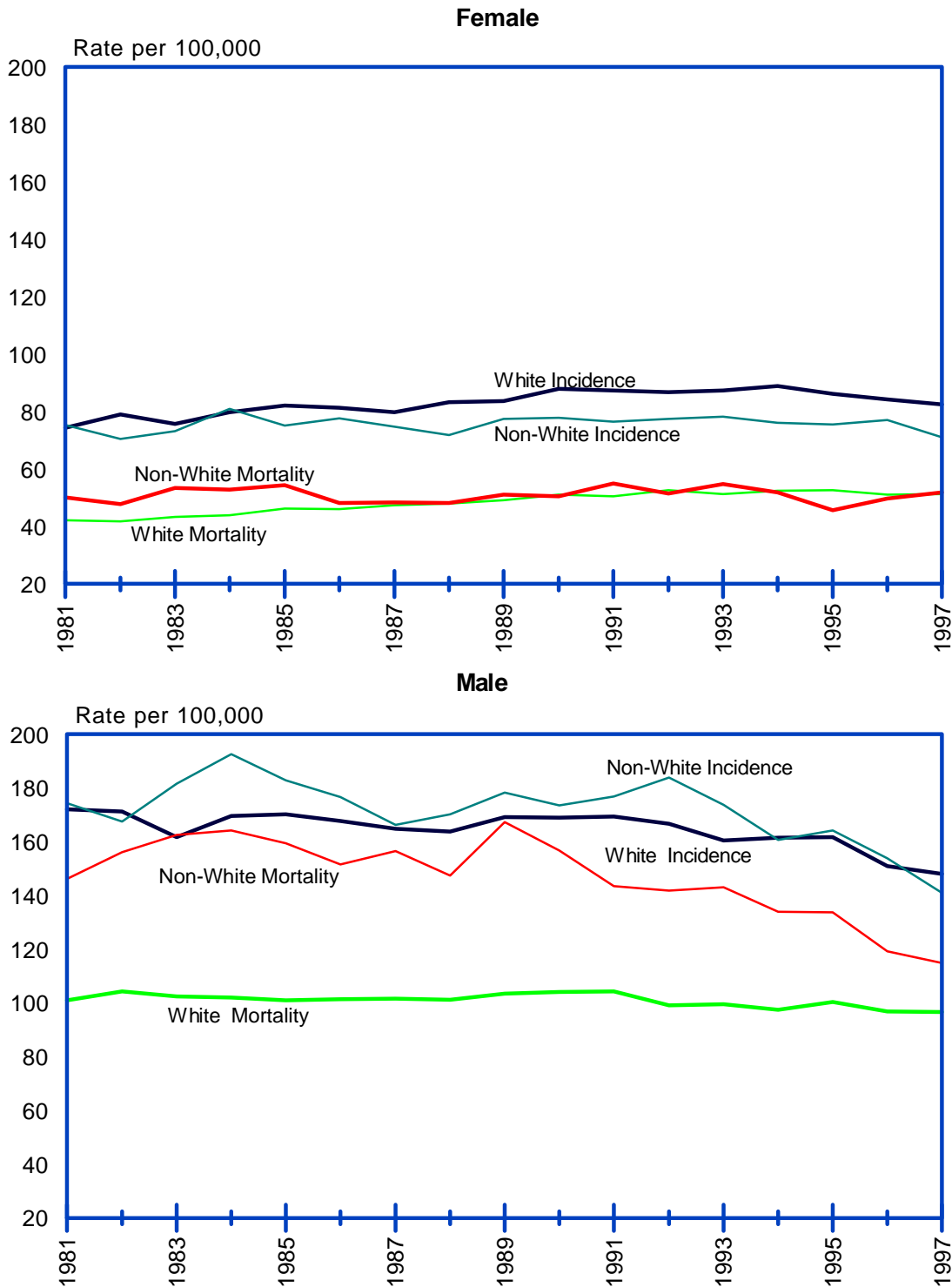
Figure 10 illustrates trends in race differences in incidence and mortality rates since 1981 for tobacco-related cancers. Trends are reported for women and men separately. Tobacco-related cancer sites include cancers of the lung and bronchus, esophagus, pancreas, larynx, cervix, bladder, kidney and oral cavity. In 1996, nearly 70% of all cancer deaths in Florida were attributable to tobacco use and approximately 80% of the cancers listed above were due to tobacco use (*1996 Smoking Attributable Mortality Report*).

- For both sexes, mortality rates from tobacco-related cancers are higher in non-Whites than Whites, especially among non-White men.
- Incidence rates of tobacco-related cancers have historically been and still are much higher in men than in women of both race groups. Rates have been declining since the early 1990s in non-White and White men but have been increasing gradually in White women while remaining about the same in non-White women.
- Non-White women had higher mortality rates than White women from tobacco-related cancers in the early 1980s but the race gap in mortality rates closed by 1986 because non-White women's rates have declined.
- Race differences in tobacco-related cancer incidence rates in men are minimal but there is a large race gap in mortality rates favoring White men. Also, mortality from tobacco-related cancers has historically been much higher for non-White men than for White men. However, death rates from these cancers have been declining notably over the past 17 years for non-White men so we can also be optimistic that race differences in diagnostic stage and in intervention have been improving for non-White men.

Race differences in incidence rates clearly reflect differences in tobacco use patterns and access to and use of screening services. The data in Figure 9 are consistent with data indicating that White women use tobacco more than non-White women and that tobacco use has declined in men (Florida Behavioral Risk Factor Surveillance System). Also, mortality rates for tobacco-related cancers are influenced by incidence rates (and therefore, indirectly via health behaviors), stage at diagnosis and the timing and quality of intervention. Over the past decade and a half, Whites have had lower mortality than would be expected given their higher incidence rates of tobacco-related cancers while non-Whites have generally had higher mortality rates than Whites despite lower incidence rates. Thus, there appears to be at least some disadvantage in the stage at diagnosis or in intervention for non-Whites for tobacco-related cancers compared to Whites. Further, a comprehensive evaluation of race differences in cancer prevention (e.g., health behaviors, job conditions), access to and use of screening services, and efficacy of specific cancer treatments would likely enhance state efforts to control and reduce cancer incidence and mortality.

There is an extensive knowledge base about the risk factors for several types of cancer. However, public health programs need to continue to improve translating that knowledge into public health programs in the form of screening and health promotion efforts that reach communities and individuals residing in Florida. Additionally, accumulating more cancer data specific to various demographic groups (sex, race-ethnicity, class) over time will better guide public health strategies for preventing and controlling cancer in Florida.

**Figure 10**  
**Age-Adjusted Incidence and Mortality Rates for Tobacco related Cancers by Race and Sex,**  
**Florida, 1981-1997**



## GLOSSARY

**ICD-9:** *The Ninth Revision of the International Classification of Diseases.* World Health Organization. 1975.

**ICD-O:** *The 10th Revision of the International Classification of Diseases for Oncology, Second Edition (ICD-O-2),* which has been adopted worldwide to make uniform cancer diagnoses, but does not include diseases other than cancer.

**Incidence:** The number of new cases of a particular type of cancer that are diagnosed each year. All new cancers are reported regardless of whether or not those cancers occur in an individual who has been diagnosed previously with other forms of cancer. Cases that were entered twice in FCDS were unduplicated to assure that incidence figures are not inflated by two or more entries for the same single cancer in one individual.

**Mortality:** The number of deaths resulting from cancer in a given site of the body each year. Individuals who were diagnosed after death are included in the mortality figures but are not included in the incidence figures.

### **Incidence and Mortality Rates:**

#### *Age-Adjusted Rate*

The number of new cases of cancer or deaths from cancer per 100,000 population that would have occurred in the 1970 United States population if the age composition of the population were the same in the year for which data were presented as in the standard 1970 population. These rates are calculated using the direct method.

#### *Age-Specific Rate*

The number of new cases of cancer or deaths from cancer during a particular time period, per 100,000 persons in a given age group.

### **Race**

*White:* all white residents of Florida

*Non-white:* Residents of Florida of all other races. About 90% of non-White in Florida are Black.

**Both race classifications include Hispanics.**

## APPENDIX I: METHODOLOGY

### Age-Specific Rates for Incidence and Mortality

For each age group (0 to 4, 5 to 9, 10 to 14,... 80 to 84, 85 and older) the *age specific incidence rate* is the number of new cases occurred in persons in the age range per 100,000 persons in that same age range in the population for that year. Similarly, the *age specific mortality rate* for each age group (0 to 4, 5 to 9, 10 to 14,... 80 to 84, 85 and older) is the number of deaths among people in the age range per 100,000 persons in that same age range in the population for that year.

### Age-Adjusted Rates for Incidence and Mortality

Age-Adjusted rates for cancer incidence and mortality have been standardized to the US 1970 standard million population. *Age adjusted rates* for incidence and mortality are calculated by adding up the products of age specific rates and the fraction of the 1970 US population in that age range.

### Average Annual Percent Change (AAPC) in Cancer Incidence and Mortality

The AAPC values were calculated for each site by using regression to fit a log linear model to age adjusted rates for the period. The estimated AAPC is  $100 \cdot (\exp b - 1)$  where  $b$  is the slope of the model  $\ln(\text{rate}) = a + b \cdot (\text{year}) + e$ , with  $a$  as a constant and  $e$  as the error term. The most recent 10 year data period, namely 1988-1997 was analyzed to give both a reliable and most current estimate for the AAPC. Confidence intervals at the 95% and 99% levels were calculated for the estimate and used to test for statistical significance.

### Years of Potential Life Lost (YPLL)

For each death of Florida residents recorded in 1996 and 1997, the age at death was subtracted from 75 for those who died at age 74 or less. These numbers were added up to give the total YPLL. Due to the increase in life expectancy, the Department of Health publications such as Vital Statistics and Data Analysis have changed the standard for YPLL calculations from 65 to 75 in the recent years. For consistency, the same standard was used in this publication.

### Childhood Cancers

Cancer mortality data are classified using ICD-9 codes. Incidence, however is classified using a more refined code, the ICD-O version, with subdivisions based on morphology. Wilms' tumors, for example, which are most of the kidney cancers that occur in children could be identified as far as incidence but not as for mortality. This report includes only the broader categories permitted by the ICD-9 classification.

### Cancer Sites Included in the "All Other" category

The "All Other" cancer site category includes the following types of cancer: small intestine, anus, liver, intrahepatic bile duct, gallbladder, other biliary, retroperitoneum, peritoneum, omentum mesentery, other digestive organs, nasal cavity, middle ear, accessory sinuses, pleura, trachea, mediastinum and other respiratory organs, other non-epithelial skin, uterus NOS, vagina, vulva, other female genital organs, testis, eye/orbit, other endocrine (including thymus) and ill-defined and unspecified sites.

**Tobacco related Cancers:** includes cancers of the lung and bronchus, esophagus, pancreas, larynx, pharynx, cervix, bladder, kidney and oral cancers. Although not all cancers at these sites are attributable to Tobacco use, about 78% of them are according to SAMMEC.



## APPENDIX II: REGIONAL POPULATION DATA AND 1970 U.S. STANDARD MILLION POPULATION

**Table A.1**  
**Florida Population by Region and Sex, 1996**

<u>Region</u> <u>District*</u>	<u>Total Population</u>	<u>Female Population</u>	<u>Male Population</u>	<u>Former HRS Districts</u>
<b>Florida</b>	<b>14,477,890</b>	<b>7,440,707</b>	<b>7,037,183</b>	
Panhandle	1,667,965	835,091	832,874	Districts 1-3
Northeast	1,479,535	757,235	722,300	Districts 4 & 12
North Central	2,411,225	1,230,961	1,180,264	Districts 7 & 13
Tampa Bay	2,335,701	1,215,158	1,120,543	Districts 5 & 6
South Central	2,080,052	1,071,675	1,008,377	Districts 8, 14 & 15
Palm Beach-Broward	2,382,825	1,236,406	1,146,419	Districts 9 & 10
Dade-Monroe	2,120,587	1,094,181	1,026,406	District 11

**Table A.2**  
**Florida Population by Region and Sex, 1997**

<u>Region</u> <u>District*</u>	<u>Total Population</u>	<u>Female Population</u>	<u>Male Population</u>	<u>Former HRS Districts*</u>
<b>Florida</b>	<b>14,726,155</b>	<b>7,589,511</b>	<b>7,136,644</b>	
Panhandle	1,683,036	842,405	840,631	Districts 1-3
Northeast	1,506,368	770,066	736,302	Districts 4 & 12
North Central	2,460,419	1,255,819	1,204,600	Districts 7 & 13
Tampa Bay	2,378,370	1,244,942	1,133,428	Districts 5 & 6
South Central	2,125,590	1,098,342	1,027,248	Districts 8, 14 & 15
Palm Beach-Broward	2,418,118	1,260,067	1,158,051	Districts 9 & 10
Dade-Monroe	2,154,254	1,117,870	1,036,384	District 11

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\*The former HRS (Health and Rehabilitative Services) districts have been used in previous reports and are listed to enable comparison with statistics for the respective regions.

### U.S. Standard Million Population by Age, 1970<sup>1</sup>

Age Group	Population	Age Group	Population
<5	84,416	5-9	98,204
10-14	102,304	15-19	93,845
20-24	80,561	25-29	66,320
30-34	56,249	35-39	54,656
40-44	58,958	45-49	59,622
50-54	54,643	55-59	49,077
60-64	42,403	65-69	34,406
70-74	26,789	75-79	18,871
80-84	11,241	80+	7,435
<b>All Ages</b>	<b>1,000,000</b>		

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<sup>1</sup> See Kosary et al, 1995

### Florida Population by Race and Sex, 1997

Non-White Female	1,306,247	White Female	6,283,279
Non-White Male	1,202,968	White Male	5,933,668
<b>Total Non-White</b>	<b>2,509,215</b>	<b>Total White</b>	<b>12,216,947</b>

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### Reader Survey

	Strongly Agree	Agree	Disagree	Strongly Disagree	NA
1. Data are accurate					
2. Data are useful					
3. Data are detailed					
4. Writing is clear					
5. Report is appropriate length					
6. Format is organized for easy reference between text & tables					
7. Format & fonts are easy to read					
8. Graphics are clear					
9. What information was most useful and why?					
10. What information was not useful and why?					
11. What additional information or special topics would you like to see in subsequent editions?					
12. Any other comments or suggestions?					

