

**NAACCR Webinar Series:
Using CINA data**

July 8, 2010

Questions

- Please use the Q&A panel to submit your questions
- Send questions to “All Panelists”

2

Fabulous Prizes



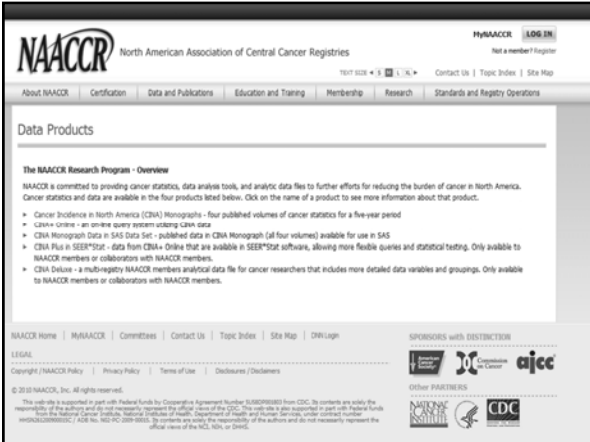
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CINA

- Participation in CINA Voluntary
- Five different CINA Products – they differ in
 - Data items available
 - Years of data
 - Procedures for access
 - Registry consent

Five CINA Products

1. Cancer in North America (CINA) Monograph
2. CINA in SAS
3. CINA+ Online
4. CINA+ in SEER*Stat
5. CINA Deluxe



The screenshot shows the NAACCR website with a navigation menu and a 'Data Products' section. The 'Data Products' section lists several offerings:

- The NAACCR Research Program - Overview**
- NAACCR is committed to providing cancer statistics, data analysis tools, and analytic data files to further efforts for reducing the burden of cancer in North America. Cancer statistics and data are available in the four products listed below. Click on the name of a product to see more information about that product.
- Cancer Incidence in North America (CINA) Monographs - four published volumes of cancer statistics for a five-year period
- CINA+ Online - an on-line query system using CINA data
- CINA Monograph Data in SAS Data Set - published data in CINA Monograph (all four volumes) available for use in SAS
- CINA Plus in SEER*Stat - data from CINA+ Online that are available in SEER*Stat software, allowing more flexible queries and statistical testing. Only available to NAACCR members or collaborators with NAACCR members.
- CINA Deluxe - a multi-registry NAACCR members analytical data file for cancer researchers that includes more detailed data variables and groupings. Only available to NAACCR members or collaborators with NAACCR members.

At the bottom, there are logos for sponsors with distinction (American Cancer Society, American Society of Clinical Oncology, ajcc) and other partners (National Cancer Institute, CDC).

1. CINA Monograph

- Current edition covers 2003-2007
- Four volumes
 - Combined incidence
 - Registry-specific incidence
 - Mortality
 - Appendices

1. CINA Monograph

- Available as pdf only
- US data includes 49 states + DC (99% of population, excluding territories)
- 100% of Canadian data
- Volume I includes combined data for 46 states (93% of population), no Canadian data

CINA Publication (2003-2007)

Contents of the CINA volumes are available by complete volume (click on the "Full Text" link following the volume name) or by section (click on section name under the heading of each volume).

Volume One, Combined Incidence, 2003-2007 Full Text

- Contents
- Section I: Introduction and Technical Notes
- Section II: Top Five Most Commonly Diagnosed Cancers in North America
- 2003-2007 Comparative Charts
- Average Annual NAACCR Combined Cancer Incidence Rates for the United States and Canada (Age-adjusted to the 2000 U.S. and World Population Standard)
- Combined Hispanic/Latino Rate Rates
- Section III: Average Annual Age-adjusted NAACCR Combined Cancer Incidence Rates for the United States

Volume Two, Incidence, 2003-2007 Full Text


- Contents
- Section I: Introduction and Technical Notes
- Section II: Average Annual Registry-specific Cancer Incidence by Race, Ethnicity, and Sex (Age-adjusted to the 2000 U.S. and 1996 Canadian Population Standards)
- Average Annual Registry-specific Cancer Incidence by Race, Ethnicity, and Sex (Age-adjusted to the 2000 U.S. and World Population Standard)

Volume Three, Mortality, 2003-2007

Will be released shortly

Previous Volumes of CINA

PLEASE NOTE: As of 2009, no CINA volumes will be available in printed form. All CINA documents are now available for download as PDFs only. To save a document, right-click on the link and choose "Save Target As..." or "Save Link As..."



Adobe® Reader® is free, and freely distributable software that lets you view and print Adobe® Portable Document Format (PDF) files.

Top Five Most Commonly Diagnosed Cancers¹ in North America by Sex, All Races 2003-2007

Cancer Sites	United States		Canada		North America	
	Count	Percent	Count	Percent	Count	Percent
All Sites	3,461,521	100.0	-	-	-	-
Prostate	971,893	28.1	-	-	-	-
Lung & Bronchus	521,955	15.1	-	-	-	-
Colon & Rectum	353,051	10.2	-	-	-	-
Bladder	226,002	6.5	-	-	-	-
Melanomas of the Skin	146,820	4.2	-	-	-	-

Top 5 by Sex/Race for Each State

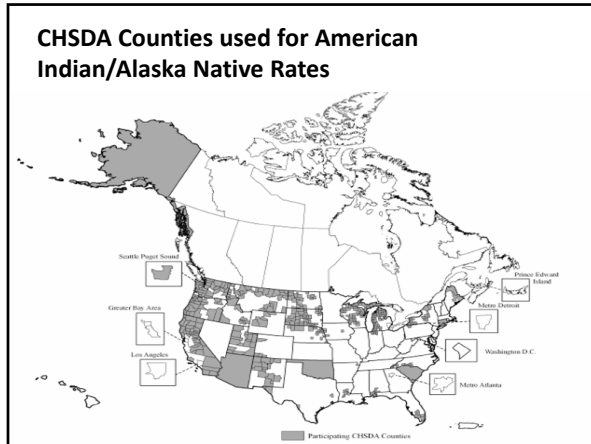
Total Cancer Cases and Average Annual Age-adjusted (2000 U.S. Standard) Cancer Incidence Rates¹ for the Five Most Commonly Diagnosed Cancers Selected Areas in the NAACCR (U.S.) Combined, 2003-2007, Asian/Pacific Islander, Male

All Sites	Prostate			Lung & Bronchus			Colon & Rectum			Liver			Stomach					
	Count	Rate	S.E.	Count	Rate	S.E.	Count	Rate	S.E.	Count	Rate	S.E.	Count	Rate	S.E.			
NAACCR U.S. Combined	5023	322.3	12.7	15366	81.9	843	16391	49.9	636	756	42.8	8.45	1327	28.9	636	370.2	17.2	838
Alabama	109	264.1	23.31	18	84.1	18.08	24	62.3	8.62	28	60.4	10.34	9	17.5	6.01	-	-	-
Alaska	108	381.4	30.02	42	91.3	13.02	25	54.6	12.26	28	38.4	11.70	21	31.2	7.27	6	16.1	6.84
Arizona	186	240.7	11.69	128	420.0	5.83	78	31.8	4.28	74	84.4	4.84	32	14.2	2.36	14	6.2	1.85
Arkansas	118	381.2	32.27	29	97.8	20.23	12	38.1	12.43	17	47.1	14.08	9	11.4	3.32	-	-	-
California	8,263	361.4	1.99	1,503	84.8	8.98	4,214	51.9	6.79	4,234	45.3	4.72	2,239	23.9	2.80	1,528	17.5	0.46
CA, Greater Bay Area	31,796	323.5	1.46	2,887	85.3	5.78	1,021	51.4	4.40	1,218	44.0	3.22	789	24.3	0.88	480	15.7	0.35
CA, Los Angeles	16,448	364.3	1.43	2,588	85.9	1.80	1,400	52.4	1.40	1,503	52.1	1.27	485	21.4	0.87	440	23.3	0.43
Colorado	127	383.1	34.31	86	484.6	4.88	79	48.6	1.89	43	38.1	5.21	40	21.2	3.61	29	17.4	3.92
Connecticut	460	274.9	14.74	96	434.6	11.21	53	35.7	5.40	51	29.8	4.40	31	22.2	4.23	21	13.9	2.85
Delaware	99	317.9	31.03	28	87.6	16.34	11	58.3	17.30	14	48.5	14.40	-	-	-	-	-	-
Florida	1,018	229.5	4.92	343	36.4	2.88	176	27.8	2.25	212	30.4	2.26	112	14.9	1.41	67	6.9	1.09
Georgia	887	282.4	16.24	189	437.7	13.97	101	33.8	3.86	110	31.2	3.46	40	18.7	2.21	33	16.2	2.34
IA, Metropolitan Atlanta	173	244.8	12.27	123	38.1	6.13	48	33.9	4.79	38	30.7	4.29	39	17.2	2.83	40	18.7	3.32
Hawaii	9,192	493.2	4.37	2,224	117.8	2.28	1,243	87.2	12.72	1,379	60.8	1.63	327	16.5	0.80	395	17.2	0.87
Idaho	42	244.2	38.12	16	42.7	11.87	9	38.7	11.40	-	-	-	-	-	-	4	28.1	11.83
Illinois	2,614	284.4	4.46	380	48.6	3.98	359	47.2	2.70	366	42.4	2.45	128	14.1	1.34	114	13.7	1.43
Indiana	204	233.4	11.91	40	48.5	6.46	29	33.1	7.67	34	34.4	7.56	-	-	-	12	12.5	4.22
Iowa	149	349.2	30.40	36	87.8	19.89	14	38.8	11.12	15	29.0	8.84	20	13.3	3.14	12	20.4	5.24
Kansas	208	322.4	23.79	40	37.6	10.71	34	51.6	10.94	32	40.2	8.31	24	12.9	3.17	14	18.8	5.76
Kentucky	122	264.8	20.17	22	32.2	12.19	14	26.0	7.78	18	31.4	8.36	4	13.2	4.41	9	24.4	9.87
Louisiana	261	289.4	20.13	33	45.9	9.87	42	42.9	7.46	29	30.4	6.32	23	24.7	5.84	12	16.3	5.32
Maine	33	192.3	36.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Massachusetts	1,443	334.5	9.17	281	483.3	4.28	194	88.7	3.87	188	42.0	3.38	102	20.1	2.04	84	14.7	2.15
Michigan	831	293.3	10.38	266	70.9	5.89	90	31.7	3.80	118	43.1	4.21	50	12.9	1.99	48	18.2	3.38
MI, Metropolitan Detroit	132	281.6	14.36	134	75.8	7.22	46	31.4	5.03	40	33.2	4.71	24	18.7	3.29	34	23.3	4.97
Minnesota	194	288.7	14.29	36	33.9	6.38	43	33.5	4.40	41	21.4	4.81	42	21.4	3.34	40	17.7	3.89
Missouri	344	321.9	10.13	32	44.3	4.42	54	47.9	7.14	48	43.4	4.94	32	21.6	4.32	16	11.2	3.80
Montana	25	322.8	47.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	166	279.2	20.41	16	32.0	10.11	14	46.6	13.37	12	40.3	13.70	-	-	-	11.6	4.93	-

National Rates for All Sites by Sex/Race

Total Cancer Cases and Average Annual Age-adjusted Cancer Incidence Rates¹ NAACCR (U.S.) Combined, 2003-2007, All Races

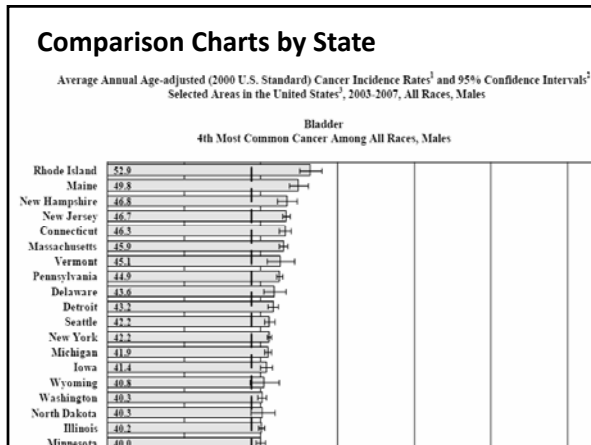
SITES	MALES (ALL RACES)				FEMALES (ALL RACES)			
	Count	Adj. Rate 2000 U.S.	S.E.	1996 Cdn	Count	Adj. Rate 2000 U.S.	S.E.	1996 Cdn
All Sites	3,461,521	522.5	0.30	528.9	629	323.875	414.7	0.23
Oral Cavity & Pharynx	105,737	16.0	0.05	15.5	0.05	47,345	6.1	0.03
Lip	7,114	1.2	0.01	1.1	0.01	2,466	0.3	0.01
Tongue	29,279	4.4	0.03	4.2	0.03	12,670	1.6	0.01
Major salivary gland	9,965	1.6	0.02	1.5	0.02	7,138	0.9	0.01
Floor of mouth	6,540	1.0	0.01	1.0	0.01	2,951	0.4	0.01
Gum & other mouth	12,843	1.9	0.02	1.8	0.02	9,955	1.3	0.01
Nasopharynx	2,940	0.8	0.01	0.8	0.01	2,402	0.3	0.01
Oropharynx	4,932	0.7	0.01	0.7	0.01	1,740	0.2	0.01
Hypopharynx	8,425	1.3	0.01	1.2	0.01	2,164	0.3	0.01
Digestive System	656,828	105.5	0.13	99.8	0.12	565,550	70.6	0.09
Esophagus	55,076	8.7	0.04	8.3	0.04	15,936	2.0	0.02
Stomach	59,119	9.7	0.04	9.1	0.04	38,241	4.8	0.02
Small intestine	14,718	2.3	0.02	2.2	0.02	13,160	1.7	0.01
Colon excl. rectum	245,157	40.1	0.08	37.7	0.08	238,891	32.0	0.06
Rectum & rectosigmoid	107,894	17.0	0.05	16.2	0.05	81,777	10.4	0.04
Anus, anal canal & rectum	8,567	1.3	0.01	1.3	0.01	13,794	1.8	0.02
Liver	56,871	8.7	0.04	8.3	0.04	21,158	2.7	0.02
Gallbladder	4,990	0.8	0.01	0.8	0.01	11,165	1.4	0.01
Pancreas	81,764	13.2	0.05	12.5	0.04	82,959	10.2	0.04
Respiratory System	274,871	93.1	0.12	88.7	0.12	452,209	57.8	0.09
Larynx	45,139	7.0	0.03	6.7	0.03	11,880	1.5	0.01
Lung & bronchus	521,955	84.9	0.12	80.8	0.11	435,717	55.6	0.08
Bones & Joints	7,213	1.1	0.01	1.1	0.01	5,930	0.8	0.01
Soft Tissue (incl. heart)	23,827	3.7	0.02	3.6	0.02	20,243	2.7	0.02
Skin (excl. basal & sq.)	159,099	25.1	0.06	24.1	0.06	120,822	16.2	0.05
Melanomas of the skin	146,820	23.1	0.06	22.2	0.06	111,711	15.0	0.05
Blind (excl. in situ)	9,563	1.4	0.01	1.3	0.01	922,409	120.7	0.13



National Pediatric Cancer Data by Sex/Race

Total Cancer Cases and Average Annual Age-specific Incidence Rates¹ for Pediatric Cancers
United States (NA, NE, CR, Combined)², 2003-2007, All Races, Females

Cancer Types	Ages 0-4		Ages 5-9		Ages 10-14		Ages 15-19		
	Count	Rate S.E. ¹	Count	Rate S.E.	Count	Rate S.E.	Count	Rate S.E.	
All Sites	6,562	266.7	2,132	4.7%	10,710	1.55	6,024	127.8	1.65
I. Leukemias	1,378	75.5	1,236	1.63	363	0.90	1,284	26.9	0.36
M1: Lymphoid leukemias	2,618	97.6	1,111	1.32	294	0.81	812	17.2	0.60
M2: Acute myeloid leukemias	487	18.8	6.48	186	4.4	0.31	114	6.7	0.38
M3: Myelomonocytic leukemia	135	7.3	0.60	133	8.4	0.63	464	19.2	0.61
M4: Histiocytic lymphomas	34	0.3	0.11	36	3.0	0.21	407	30.5	0.47
M5: CLL, c/o	281	4.4	0.38	264	5.9	0.54	399	6.5	0.47
M6: CLL, c/o	1,760	38.8	0.82	1,375	36.8	0.83	1,330	28.9	0.78
M7: CLL, c/o	198	4.3	0.31	87	1.9	0.21	86	1.8	0.20
M8: Acute myeloid leukemia	386	18.4	0.83	889	15.0	0.58	702	14.9	0.56
M9: Myelomonocytic leukemia	438	9.3	0.66	233	2.7	0.36	181	1.4	0.27
M10: Other myeloid leukemia	244	5.3	0.34	312	7.0	0.40	228	4.9	0.32
M11: Other myeloid leukemia	1,264	27.5	0.77	153	3.4	0.29	82	1.3	0.19
M12: Myeloid leukemia	1,227	27.4	0.77	130	3.4	0.27	82	1.2	0.17
M13: Myeloid leukemia	589	12.4	0.22	17	0.4	0.09	-	-	-
M14: Myeloid leukemia	960	19.6	0.65	264	5.9	0.56	71	1.5	0.18
M15: Myeloid leukemia	896	19.5	0.65	232	5.6	0.53	42	0.9	0.14
M16: Myeloid leukemia	237	5.2	0.33	26	0.6	0.11	26	0.6	0.11
M17: Myeloid leukemia	234	4.9	0.33	17	0.4	0.08	-	-	-
M18: Myeloid leukemia	71	1.5	0.18	269	5.8	0.54	419	13.1	0.53
M19: Myeloid leukemia	17	0.4	0.09	146	3.1	0.27	399	6.5	0.47
M20: Myeloid leukemia	48	1.6	0.16	48	2.0	0.21	170	1.4	0.28
M21: Myeloid leukemia	499	10.9	0.49	335	7.3	0.60	331	11.3	0.49
M22: Myeloid leukemia	292	6.4	0.37	170	3.8	0.29	131	3.2	0.26
M23: Myeloid leukemia	296	6.4	0.37	183	3.2	0.27	402	8.9	0.48
M24: Myeloid leukemia	28	0.6	0.12	41	0.9	0.14	87	1.4	0.17
M25: Myeloid leukemia	29	0.3	0.03	96	2.0	0.25	206	6.2	0.36
M26: Myeloid leukemia	118	2.4	0.24	297	4.8	0.32	335	18.1	0.62
M27: Myeloid leukemia	16	0.3	0.09	87	1.5	0.18	433	8.8	0.40
M28: Myeloid leukemia	19	1.3	0.17	33	1.6	0.19	197	4.2	0.30
M29: Myeloid leukemia	49	1.1	0.11	33	0.4	0.09	33	0.6	0.11
M30: Myeloid leukemia	-	-	-	-	-	-	33	0.6	0.11



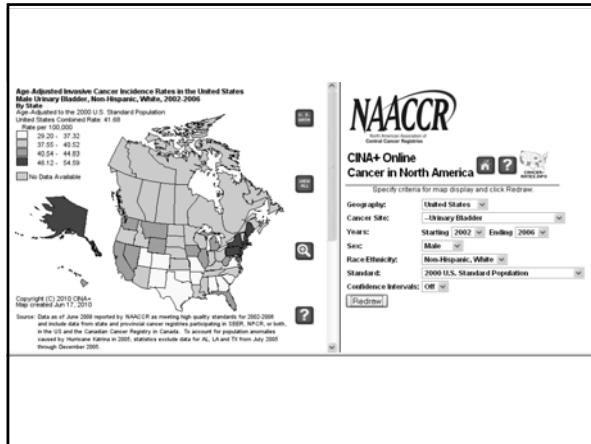
Registry-specific Data: Counts and Rates by Site/Sex/Race (for US)

Total Cancer Cases and Average Annual Age-adjusted Cancer Incidence Rates¹
Yukon, 2003-2007, All Races

SITES	MALES (ALL RACES)				FEMALES (ALL RACES)					
	Count	2000 U.S. Adj. Rate	S.E.	1998 Cdn. Adj. Rate	S.E.	Count	2000 U.S. Adj. Rate	S.E.	1998 Cdn. Adj. Rate	S.E.
ALL Sites	239	401.5	29.84	388.2	27.69	242	362.9	25.93	347.4	24.16
Oral Cavity & Pharynx	7	8.0	3.24	7.9	3.28	6	6.8	2.81	6.9	2.87
Lip	-	-	-	-	-	-	-	-	-	-
Tongue	-	-	-	-	-	-	-	-	-	-
Major salivary gland	-	-	-	-	-	-	-	-	-	-
Floor of mouth	-	-	-	-	-	-	-	-	-	-
Gum & other mouth	-	-	-	-	-	-	-	-	-	-
Nasopharynx	-	-	-	-	-	-	-	-	-	-
Oropharynx	-	-	-	-	-	-	-	-	-	-
Hypopharynx	-	-	-	-	-	-	-	-	-	-
Digestive System	70	104.7	13.78	103.8	13.51	46	76.6	12.49	72.2	11.53
Esophagus	-	-	-	-	-	-	-	-	-	-
Stomach	8	12.7	4.93	12.3	4.77	-	-	-	-	-
Small intestine	-	-	-	-	-	-	-	-	-	-
Colon, cecum, rectum	30	44.3	8.76	45.0	8.78	21	37.1	8.80	35.5	8.27
Rectum & rectosigmoid	16	22.0	5.89	22.4	6.05	9	12.7	4.93	11.1	4.18
Anus, anal canal & anorectum	-	-	-	-	-	-	-	-	-	-
Liver	-	-	-	-	-	-	-	-	-	-
Gallbladder	-	-	-	-	-	-	-	-	-	-
Pancreas	-	-	-	-	-	-	-	-	-	-
Respiratory System	30	59.9	12.15	57.4	11.16	28	49.6	10.33	46.5	9.48
Larynx	-	-	-	-	-	-	-	-	-	-
Lung & bronchus	27	51.3	10.61	50.1	10.11	28	49.6	10.33	46.5	9.48
Bones & joints	-	-	-	-	-	-	-	-	-	-

- ## 2. CINA in SAS
- SAS dataset containing virtually all of the data contained in the Monograph:
 - Age-adjusted rates by site, sex, race, state/province; separate rates for pediatric cancers
 - Latest years are 2002-06
 - Race limited to white/black/Hispanic

- ## 3. CINA+ online
- The same data, minus the pediatric data, with a mapping feature added
 - High-quality registries only
 - 2002-06 is the latest available



Click a column header to sort. Click the region name for more detailed information. Sorting by State/Province will sort the bar graph by State/Province, otherwise the bar graph will be sorted by age-adjusted rate.

Invasive Cancer Incidence Rates by State/Province in North America

Liver, 2002-2006

State/Province	Population at Risk	Cases	Crude Rate	Age-adjusted Rate	95% Confidence Interval Lower Limit	Upper Limit
Hawaii	6269476	589	9.39	8.57	7.89	9.30
Texas	101100752	6616	6.54	7.46	7.28	7.64
California	178302964	11679	6.55	7.11	6.98	7.24
New Mexico	9471490	634	6.69	6.57	6.07	7.11
Alaska	3302186	154	4.97	5.51	5.45	5.77
New York	96145036	6441	6.70	6.53	6.18	6.49
Louisiana	19918246	1197	6.01	6.05	5.71	6.40
Rhode Island	5340798	343	6.42	5.80	5.20	6.46
Nevada	11637316	649	5.58	5.76	5.32	6.23
New Jersey	43128072	2504	5.81	5.43	5.22	5.64
Massachusetts	32167500	1835	5.70	5.29	5.05	5.54
Washington	31016477	1626	5.24	5.16	4.91	5.42
Connecticut	17388964	978	5.62	5.13	4.81	5.46
Florida	86763915	5399	6.18	5.08	4.94	5.22
Pennsylvania	61751712	3643	5.90	5.02	4.86	5.19
Illinois	63380208	3130	4.94	4.98	4.80	5.16
Oklahoma	17615466	927	5.26	4.97	4.66	5.31
Michigan	50431936	2557	5.07	4.85	4.66	5.04

- ### 4. CINA+ in SEER*Stat
- The same data, in a SEER*Stat database
 - Includes 5-year age groups
 - High-quality registries only; 2002-06 latest
 - Requires signing a user agreement

Rate Matrix 3
 Bladder cancer rates, 2002-2006, age 55-59, by registry and sex

	Male and female			Male		Female			
	Rate	Count	Pop.	Rate	Count	Rate	Count		
New York	34.9	1,340	5,02,404	54.4	1,431	2,429,755	17.4	909	2,352,649
North Carolina	26.3	664	2,521,394	41.1	498	1,210,878	12.7	166	1,310,416
North Dakota	27.1	47	173,752	41.7	37	88,712	11.8	10	85,020
Minnesota	26.0	263	1,808,891	42.8	209	487,763	10.3	54	522,879
Oregon	32.8	370	1,128,479	51.4	296	565,801	14.7	84	570,578
Pennsylvania	37.6	1,281	3,887,026	58.6	1,054	1,793,158	17.7	337	1,903,860
Rhode Island	54.3	188	309,232	88.7	129	150,803	24.6	39	158,620
South Carolina	25.5	328	1,288,429	41.7	297	616,196	10.6	71	672,233
South Dakota	26.5	54	211,086	36.4	39	107,089	14.4	15	104,496
Texas	23.1	1,170	5,087,196	37.3	919	2,482,126	9.7	261	2,595,070
Utah	21.0	108	514,571	34.7	88	253,889	7.7	20	260,683
Virginia	27.4	107	2,246,774	41.8	469	1,073,642	13.8	158	1,143,132
Washington	30.9	573	1,885,262	47.7	437	917,014	14.5	136	938,268
Seattle	30.9	400	1,283,495	47.6	303	636,442	14.8	87	607,053
West Virginia	37.5	224	607,514	58.9	134	296,475	18.6	50	302,039
Wyoming	36.6	57	155,566	49.9	40	80,211	22.6	17	75,355
Alberta	29.2	247	846,180	44.7	191	427,057	13.4	58	419,123
Manitoba	31.2	164	523,143	42.8	71	166,805	19.7	33	167,338
New Brunswick	32.1	80	249,443	43.4	54	124,422	20.8	26	125,021
New Scotia	34.9	109	312,173	53.0	82	154,863	17.2	27	157,310
Prince Edward Island	13.0	6	46,061	-	-	22,958	-	-	23,082
Saskatchewan	26.7	71	265,617	40.6	54	133,136	12.8	17	132,481

— Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P051130) standard
 — Statistics not displayed due to fewer than 6 cases.

- ### 5. CINA Deluxe
- Expanded list of data items
 - Expanded number of years
 - 1995 to most recent year
 - Not all registries that are included contribute data for entire time period
 - Requires a minimum of 3 consecutive years of high quality data
 - Quality standards must be met for each year
 - Used for research

- ### Access to CINA Deluxe
- Access for research
 - NAACCR member or collaborating with a NAACCR member
 - Submit proposal (may request funding up to \$5,000 or no funding)
 - Research Proposal Review Subcommittee

Access to CINA Deluxe

- Access for research (cont)
 - IRB review
 - Registry consent (either active or passive)
 - Researcher Data Use Agreement
 - Prior to publication – review by NAACCR Scientific Editorial Board

Member Researcher Application Packet
The packet includes the following:
 ▶ NAACCR CINA Deluxe Application Instructions
 ▶ Instructions for CINA Deluxe Investigators
 ▶ CINA Deluxe File - Researcher Request for Access Form
 ▶ Data Confidentiality Agreement for NAACCR Researchers with Access to CINA Deluxe

It is critical that an investigator thoroughly review the instructions for CINA Deluxe Investigators to understand the format, content, and nuances of the CINA Deluxe analytic file before requesting access.

NAACCR Committee/Subcommittee Application Packet
The packet includes the following:
 ▶ CINA Deluxe Application Instructions for NAACCR Committees
 ▶ CINA Deluxe File - NAACCR Committee Request for Access Form
 ▶ Data Confidentiality Agreement for NAACCR Researchers with Access to CINA Deluxe

Table 2. Data Variables and Codes Available in the CINA Deluxe Standard File

Data Item Number	Item Name	Grouped? Item Precision
20	Patient ID Number	No, as reported
80	Addr at DX—State	FIPS code for province, state, or territory
220	Sex	Male and Female
230 (19 age groups)	Age at Diagnosis	0, 1-4, 5-9, ...85+
380	Sequence Number-Central	No, as reported
390	Date of Diagnosis	MM/YYYY, MM limited uses & excluded for West Virginia
400	Primary Site	SEER Site Groups and Topography Codes
410	Laterality	No, as reported
440	Grade	No, as reported
490	Diagnostic Confirmation	No, as reported
500	Type of Reporting Source	No, as reported
522	Histologic Type (ICD-O-3)	SEER modified ICCC Groups and by histologic code
523	Behavior Code (ICD-O-3)	No, as reported
1990-2074	EDITS overrides	No, as reported
160	Race 1 (U.S. Only)	No, as reported
161	Race 2 (U.S. Only)	No, as reported
162	Race 3 (U.S. Only)	No, as reported
163	Race 4 (U.S. Only)	No, as reported
164	Race 5 (U.S. Only)	No, as reported

190	Spanish/Hispanic Origin (U.S. only)	No, as reported
191	NHIA v2 Derived Hisp Origin (U.S. Only)	No, as derived
192	IHS Link	No, as reported
	Race (IHS Link Enhanced)	No, as derived
759	SEER Summary Stage 2000 (U.S. Only, 2001-03)	No, as reported
760	SEER Summary Stage 1977 (U.S. Only, 1995-2000)	No, as reported
2810	CS Extension	As Reported
2830	CS Lymph Nodes	As Reported
2850	CS Mets at DX	As Reported
2880	CS Site-specific Factor 1 for C384	As Reported
2900	CS Site-specific Factor 3 for C619	As Reported
2935	CS Version 1 st	As Reported
2936	CS Version Latest	As Reported
3020	Derived SS2000 (2004+)	No, as derived
3050	Derived SS2000 Flag	As Reported
3300	Rural Urban Continuum 1993	00-99,98,99, calculated); blank
3310	Rural Urban Continuum 2000	00-99,98,99, calculated); blank

Data Elements Included when Collected/submitted by Registry

880	TNM Path T	As Reported
890	TNM Path N	As Reported
900	TNM Path M	As Reported
910	TNM Path Stage Group	As Reported
920	TNM Path Descriptor	0-6, 9
930	TNM Path Staged By	0-9
940	TNM Clin T	As Reported
950	TNM Clin N	As Reported
960	TNM Clin M	As Reported
970	TNM Clin Stage Group	As Reported
980	TNM Clin Descriptor	0-6,9
990	TNM Clin Staged By	0-9
1000	TNM Other T	As Reported
1010	TNM Other N	As Reported
1020	TNM Other M	As Reported
1030	TNM Other Stage Group	As Reported
1040	TNM Other Staged By	0-9
1050	TNM Other Descriptor	0-6,9
1060	TNM Edition Number	00-66,88,99
1260	Date of Initial Rx-SEER	MM/YYYY
1270	Date of 1 st CRs RX -COC	MM/YYYY
1290	Rx Summ-Surg Prim Site	No as reported
1360	Rx Summ-Radiation	No as reported

Commonly requested data elements in a customized file:

- Single year of age
- County
- Proposed: Poverty indicator based on census tract (not census tract itself)

“The release of additional variables is contingent upon the availability of the data item in the registry’s submissions and the registry’s consent”

NAACCR - CINA Deluxe File 1995-2006 Available Registries and Years June 25, 2009	
U.S. Registries	Years Available
Alabama	1998-2006
Alaska	1996-2006
Arizona	1995-2005
Arkansas	2001-2006
California	1995-2006
Greater Bay	1995-2006
Los Angeles	1995-2006
Colorado	1995-2006
Connecticut	1995-2006
Delaware	1995-2006
District of Columbia	1997-2001, 2003-2006
Florida	1995-2006
Georgia	1999-2006
Atlanta	1995-2006
Hawaii	1995-2006
Idaho	1995-2006
Illinois	1995-2006
Indiana	1998-2006
Iowa	1995-2006
Kentucky	1995-2006
Louisiana	1995-2006
Maine	1995-2006
Massachusetts	1997-2006

Review: Current Tools Available

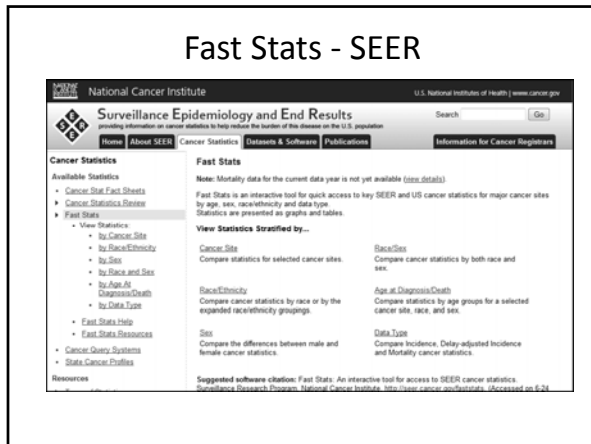
- CINA Publication
- CINA in SAS
- CINA+ online
- CINA+ in SEER*Stat
- CINA Deluxe

Numbers are great, but what if there was a better way to display those numbers visually so that a broader audience could understand the data?

- Something that is easily accessible
- Something is straightforward to use
- Something that will get results quickly

Coming to the NAACCR Website later this summer....

NAACCR Fast Stats!



Fast Stats - SEER

Fast Stats is an interactive tool for quick access to SEER and US cancer statistics for major cancer sites by age, sex, race/ethnicity and data type. Statistics are presented as graphs and tables.

Fast Stats - SEER

Stratify results by :

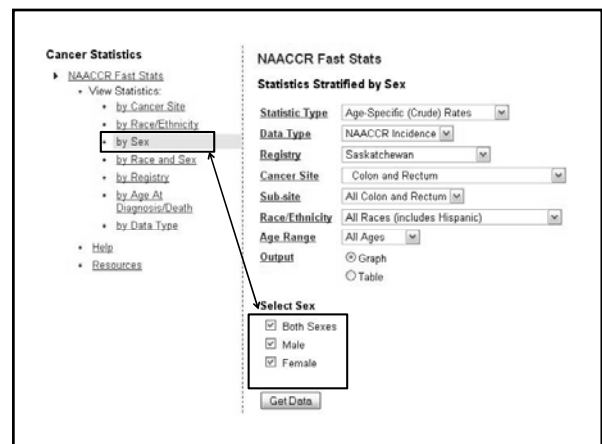
- Cancer Site
- Race/Ethnicity
- Sex
- Race/sex
- Age at Diagnosis/Death
- Data Type

NAACCR Fast Stats Work in progress...

- Use current 5 year data
- Focus on incidence statistics
 - Age adjusted rates
 - Age-specific (crude) rates
- To be added later?
 - Long term trend data
 - Delay Adjusted data
 - More years

Fast Stats - CINA

- Stratify results by Cancer Site
- Race/Ethnicity
- Sex
- Race/sex
- Age at Diagnosis
- Data Type



Cancer Statistics

- NAACCR Fast Stats
 - View Statistics:
 - by Cancer Site
 - by Race/Ethnicity
 - by Sex
 - by Race and Sex
 - by Registry
 - by Age At Diagnosis/Death
 - by Data Type
 - Help
 - Resources

NAACCR Fast Stats

Statistics Stratified by Sex

Statistic Type: Age-Specific (Crude) Rates

Data Type: NAACCR Incidence

Registry: Saskatchewan

Cancer Site: Colon and Rectum

Sub-site: All Colon and Rectum

Race/Ethnicity: All Races (includes Hispanic)

Age Range: All Ages

Output: Graph Table

Select Sex

Both Sexes

Male

Female

Filter Data

Cancer Statistics

- NAACCR Fast Stats
 - View Statistics:
 - by Cancer Site
 - by Race/Ethnicity
 - by Sex
 - by Race and Sex
 - by Registry
 - by Age At Diagnosis/Death
 - by Data Type
 - Help
 - Resources

NAACCR Fast Stats

Statistics Stratified by Race/Ethnicity

Statistic Type: Age-Adjusted Rates

Data Type: NAACCR Incidence (World std million)

Registry: California

Cancer Site: Prostate

Sub-site: Prostate

Sex: Male

Age Range: Ages 50+

Output: Graph Table

Select Race/Ethnicity

All Races

White (includes Hispanic)

Black (includes Hispanic)

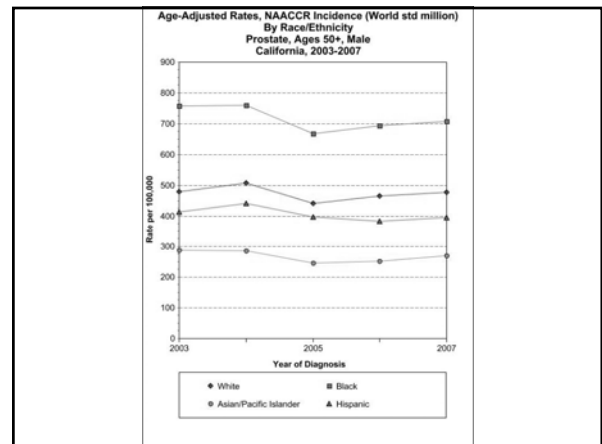
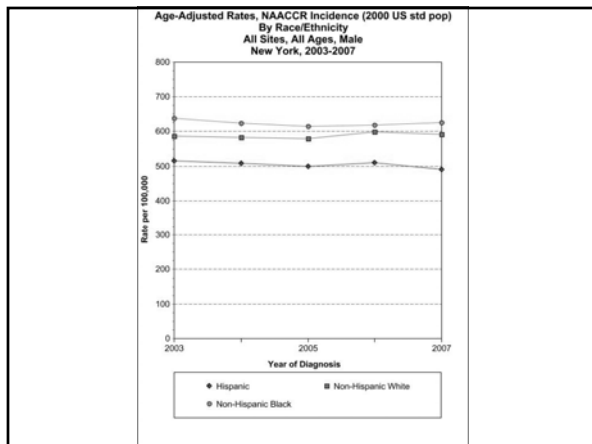
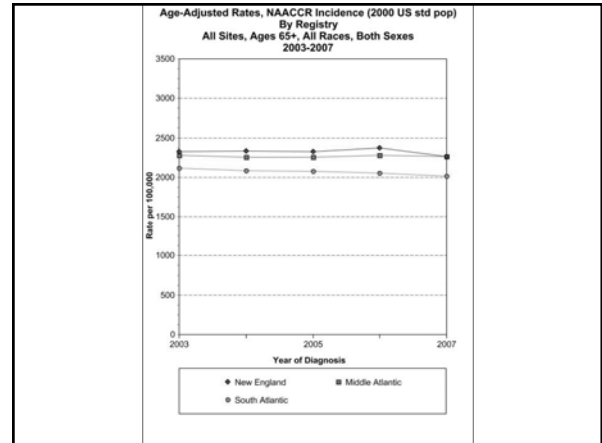
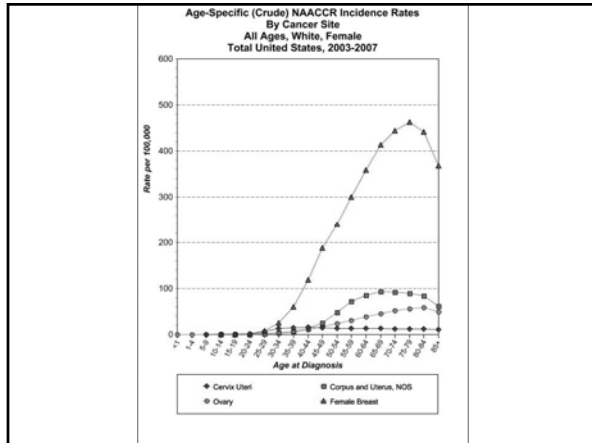
American Indian / Alaska Native (includes Hispanic)

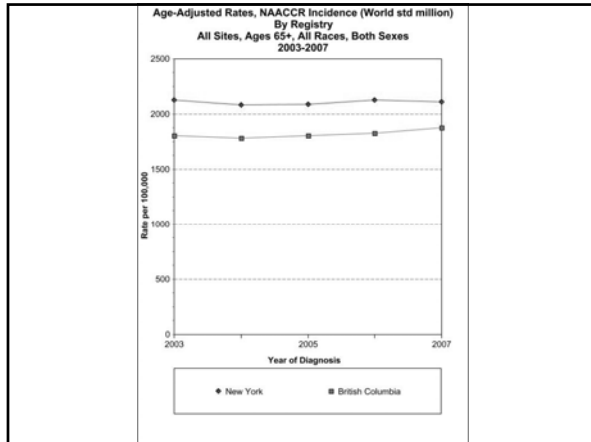
Asian / Pacific Islander (includes Hispanic)

Hispanic (any race)

Non-Hispanic White

Non-Hispanic Black





NAACCR Fast Stats

- Make NAACCR data more accessible
- Create a tool that is
 - Flexible
 - Easy to navigate
 - Easy to use
 - Produce results quickly

Questions?

Examples of Usage of CINA Products

Cancer Control P.L.A.N.E.T.
 Plan, Link, Act, Network,
 with Evidence-based Tools

NAACR Webinar
 July 8, 2010

Michael Sanchez, MPH, CHES
 Public Health Advisor
 National Cancer Institute

Overview

- What is Cancer Control P.L.A.N.E.T.?
- Tools and resources available on P.L.A.N.E.T.
- How can P.L.A.N.E.T. assist with comprehensive cancer control planning?

Assess Program Priorities

- Comprehensive cancer control planning
- Assessment
 - Primary data
 - Secondary data
- Integrate surveillance into cancer control planning
- Step 1 – State Cancer Profiles

State Cancer Profiles

NAACR Webinar
July 8, 2010

Antoinette Percy-Laurry, MSPH
Public Health Analyst
National Cancer Institute
SEER Program

State Cancer Profiles – Overview

- Statistics for prioritizing cancer control activities
 - Step 1 of Cancer Control P.L.A.N.E.T.
 - National, state, and local levels
- Collaboration
 - National Program of Cancer Registries (NPCR)
 - Surveillance, Epidemiology and End Results Registries (SEER)

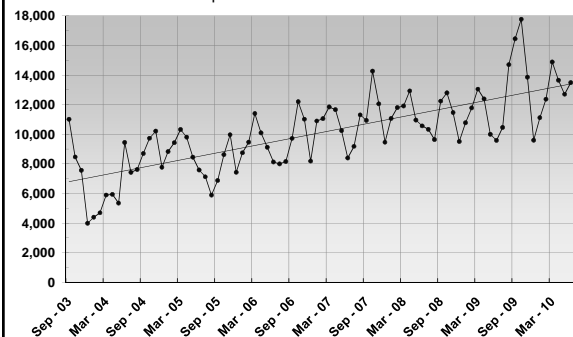
Available Data

- Cancer incidence, mortality data and prevalence data
- Latest data years currently available
 - 2007 NCI/SEER incidence
 - 2006 CDC/NPCR incidence, NCHS mortality
- About 20 different cancer sites
- Screening and risk factor data from BRFSS

State Cancer Profiles Usage

- Primary audience
 - State and local cancer control planners
- Resource for
 - Presentations, reports, proposals
 - Training or lectures
 - Priority setting; planning
 - Implementing cancer control projects
 - Assessing the impact of cancer control projects
 - Comparing state cancer data with other states
 - Reviewing trends in cancer
- International
 - Canada

State Cancer Profiles
Number of Visitors
September 2003 - June 2010



State Cancer Profiles Web Site Demonstration

NAACR Webinar
July 8, 2010

James Cucinelli
Senior Systems Analyst
Information Management Services
(IMS)

Home Page statecancerprofiles.cancer.gov

Contact Us Link

Quick Profiles

Comparison Tables

- Rate/Trend Comparisons**
set higher priority for cancer control when rates are high or rising
[learn more...](#)
 - [Prioritize cancer sites](#) for a specific state or county
 - [Prioritize states or counties](#) for a specific cancer site
- Death Rates**
for states or for counties in a state
[learn more...](#)
- Incidence Rates**
for states with high quality cancer registries
[learn more...](#)
- Prevalence Projections (Breast Cancer only)**
for counts, percents and age-adjusted percents
[learn more...](#)

Graphs and Maps

- 5-Year Rate Changes**
in cancer mortality or incidence for all major cancer sites by user selectable criteria
[learn more...](#)
- Historical Trends**
compare trends in cancer mortality and incidence by user selectable criteria
[learn more...](#)
- Comparative Data Display (Micromaps)**
explore relationships across geography of mortality, incidence, demographics, or risk factors
[learn more...](#)
- Interactive Maps**
for states or for counties in a state - mortality and incidence maps
[learn more...](#)

Support Data

- Screening and Risk Factors**
prevalence percents by state from behavioral surveys
[learn more...](#)
- Demographic Data**
showing census data for counties and states - expanded data now available
[learn more...](#)
- Peer Counties**
identify counties that are comparable based on a user specified criteria
[learn more...](#)

State Cancer Profiles

Cancer Control P.L.A.N.E.T. Home

New Releases

- 2007 SEER Incidence Data (also released in the [Cancer Statistics Review](#))
- 2008 Screening and Risk Factors
- 2006 USCS Incidence Data
- 2006 Mortality Data
- [Breast Cancer Prevalence Projections](#)
- [Download State Cancer Profiles brochure \(PDF\)](#)
- [Revision History \(Updated: 3/10/2010\)](#)
- [Release Schedule](#)

Help & About

[About this Site](#)

[Quick Reference Guides](#)

[Tutorials](#)

[Interpret Rankings](#)

[Data Use Restrictions](#)

[Low Vision/Accessibility](#)

Note: This Web site is best viewed in [Internet Explorer](#) (version 6.0 or higher), [Mozilla/Firefox](#), or [Safari](#) (MAC Users) at a [screen resolution](#) of 1024 by 768 or more.

Links

Links

- State Registry Contacts
- US Cancer Statistics: 2006 Incidence
- Resources for Cancer Control: [Cancercontrol.cancer.gov](#)
- Cancer Progress Report - 2007 Update
- Annual Report to the Nation
- CDC's National Program of Cancer Registries
- NCI's SEER - Surveillance, Epidemiology, and End Results
- Cancer Facts and Figures (American Cancer Society)
- Finding Cancer Statistics
- National Cancer Data Base (NCDB)
- [more...](#)

Links to non-Federal organizations found at this site are provided solely as a service to our users. These links do not constitute an endorsement of these organizations or their programs by the Federal Government, and none should be inferred. The Federal Government is not responsible for the content of the individual organization Web pages found at these links.

Quick Profiles

Area: Maryland

Cancer: Lung & Bronchus

--- Choose a Cancer Site ---

- All Cancer Sites
- Bladder
- Brain & ONS
- Breast (Female)
- Breast (Female in situ)
- Cervix
- Childhood (Ages <15, All Sites)
- Childhood (Ages <20, All Sites)
- Color & Rectum
- Esophagus
- Kidney & Renal Pelvis
- Leukemia
- Liver & Bile Duct
- Lung & Bronchus**
- Melanoma of the Skin
- Non-Hodgkin Lymphoma
- Oral Cavity & Pharynx
- Ovary
- Pancreas
- Prostate
- Stomach
- Thyroid
- Uterus

Quick Profile of Maryland Lung Cancer

<http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?24&047>

State Cancer Profiles
Dynamic views of cancer statistics for prioritizing cancer control efforts in the nation, states, and counties

Area: Maryland
Cancer: Lung & Bronchus

Generate Profile

Quick Profile Report

Purpose: Provides a quick look for assessing the burden and risk for a standard set of tables and graphs that both summarize mortality and incidence data.

Cancer statistics require careful interpretation. See the information page for more details.

The Modify link provides access to the interactive table or graph where you can:

- Mortality data are provided by the [National Vital Statistics System](#)
- Incidence data are provided by the [National Program of Cancer Registries](#)
- Population counts for denominators in the calculation of rates for health statistics are needed to bridge from the Census 2000
- Rates are calculated using SEER*STAT
- Trends are determined by using [joinpoint](#) analysis of available data

Help Information

State Cancer Profiles
Dynamic views of cancer statistics for prioritizing cancer control efforts in the nation, states, and counties

Area: United States
Cancer: All Cancer Sites

Generate Profile

Quick Profiles Description

Quick Profile Report

Purpose: Provides a quick look for assessing the burden and risk for a standard set of tables and graphs that both summarize mortality and incidence data.

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Table of Contents

Generate Profile [Data Use Restrictions](#)

This quick report contains:

- Rate/Trend Comparison by Cancer, Lung & Bronchus
- Rate/Trend Comparison by State/County
- Historical Trends (5 Year)
- 5 Year Rate Changes
- Mortality
- Population
- Death Rates Table
- Death Rates & Mortality Rates
- Incidence Rates Table
- Incidence Rates & Mortality Rates

Rate/Trend Comparison by Cancer, Lung & Bronchus

Death Rate/Trend Comparison by Cancer, death years through 2006 Maryland Counties versus United States

Lung & Bronchus
All Races, Both Sexes

	Above US Rate	Similar to US Rate	Below US Rate
Rising Trend	Priority 1: rising ↑ and above ↑ Allegany County Caroline County Washington County	Priority 2: rising ↑ and similar = Carroll County	Priority 3: rising ↑ and below ↓ [none]
Stable Trend	Priority 4: stable → and above ↑	Priority 5: stable → and similar = Cecil County Cecil County Queen Anne's County Talbot County	Priority 6: stable → and below ↓ [none]
Falling Trend	Priority 7: stable → and above ↑	Priority 8: stable → and similar =	Priority 9: stable → and below ↓ Frederick County Howard County Montgomery County

Death Rate/Trend Comparison by Cancer

Rate/Trend Comparison by Cancer, Lung & Bronchus

Death Rate/Trend Comparison by Cancer, death years through 2006 Maryland Counties versus United States

Lung & Bronchus
All Races, Both Sexes

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Falling Trend	Priority 7: stable → and above ↑ Anne Arundel County Baltimore City Baltimore County	Priority 8: falling ↓ and similar = Maryland Kent County Prince Georges County Worcester County	Priority 9: falling ↓ and below ↓ Frederick County Howard County Montgomery County

Created by: statelinksprofiles.cancer.gov on 06/04/2010 3:05 pm

Rate/Trend Comparison by Cancer

Rate/Trend Comparison by Cancer, Lung & Bronchus

Death Rate/Trend Comparison by Cancer, death years through 2006 Maryland Counties versus United States

Lung & Bronchus
All Races, Both Sexes

	Above US Rate	Similar to US Rate	Below US Rate
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Links on the right of the tables and graphs

Rate/Trend Comparison by Cancer, Lung & Bronchus

Death Rate/Trend Comparison by Cancer, death years through 2006 Maryland Counties versus United States

Lung & Bronchus
All Races, Both Sexes

	Above US Rate	Similar to US Rate	Below US Rate
Rising Trend	Priority 1: rising ↑ and above ↑ Allegany County Caroline County Washington County	Priority 2: rising ↑ and similar = Carroll County	Priority 3: rising ↑ and below ↓ [none]
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Created by: statelinksprofiles.cancer.gov on 06/04/2010 3:05 pm

- Modify
- Data Table
- Export Data
- Interpret
- Printable View

Rate/Trend Comparison by Area

Rate/Trend Comparison by State/County

Death Rate/Trend Comparison by State/County, death years through 2006 Maryland versus United States

All Races, Both Sexes

	Above US Rate	Similar to US Rate	Below US Rate
Rising Trend	Priority 1: rising ↑ and above ↑ Pancreas (Females)	Priority 2: rising ↑ and similar = Liver & Bile Duct (Males) Melanoma of the Skin (Males)	Priority 3: rising ↑ and below ↓ [none]
Stable Trend	Priority 4: stable → and above ↑ [none]	Priority 5: stable → and similar = Brain & ONS (Males) Lung & Bronchus (Females) Melanoma of the Skin (Females) Thyroid (Females)	Priority 6: stable → and below ↓ Liver & Bile Duct (Females)
	Priority 7: falling ↓ and above ↑ Prostate (Males) Stomach (Females)	Priority 8: falling ↓ and similar = Bladder (Females) Bladder (Females) Brain & ONS (Females) Ovary (Females) Cervix (Females)	Priority 9: falling ↓ and below ↓ Non-Hodgkin Lymphoma (Females)

Historical Trends Graph

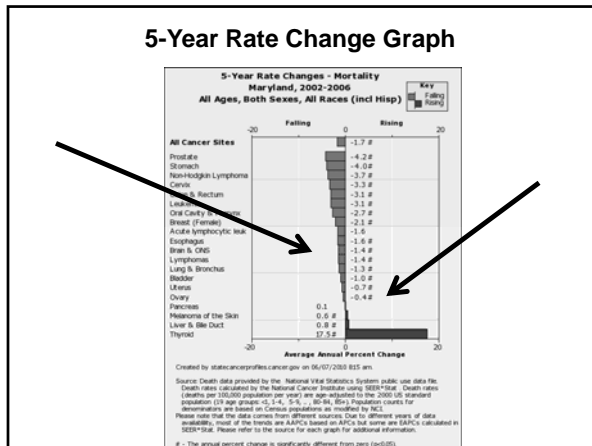
Historical Trends (1975-2006)

Mortality, Lung & Bronchus Both Sexes, All Ages

Deaths per 100,000 resident population

Created by: statelinksprofiles.cancer.gov on 06/04/2009 3:27 pm

Source: Death data provided by the National Vital Statistics System (NVSS) use data the Death rates calculated by the National Cancer Institute using SEER*USA. Death rates per 100,000 population per year are age-adjusted to the 2000 US standard population (US and group 1, 2, 3, 4, 5, 6, 7, 8, 9, 10). Population data for all states and the US are from the US population as modified by NCI. The US population included with the data release have been adjusted for the population with due to hurricanes Katrina and Rita for US counties and parishes in Louisiana, Mississippi, and Texas. The 1980-2006 US Population Data File is used with mortality data.



5-Year Incidence Rate Change Graph

Data not available for this combination of geography, cancer site, age, and race/ethnicity.

Death Rates Table

Death Rate Report for Maryland by County, death years through 2006

Lung & Bronchus
Healthy People 2010 Objective Number: 03-02
Reduce the lung cancer death rate.
All Races (includes Hispanic), Both Sexes, All Ages

County	Met Healthy People Objective of 44.97 ¹	Annual Death Rate (per 100,000) (95% Confidence Interval)	Average Deaths per Year over period	Rate Period	Recent Trend ²	Recent Average Annual Percent Change ² in Death Rates (95% Confidence Interval)	Recent Trend ²
Maryland (State)	No	55.3 (54.4, 56.2)	2344	2002-2006	falling ↓	5.3 (4.6, 6.0)	2002-2006
United States	No	53.4 (53.3, 53.5)	158,288	2002-2006	falling ↓	4.6 (4.4, 4.9)	2002-2006
Southern District	No	67.6 (72.6, 94.8)	24	2002-2006	stable →	6.5 (4.4, 8.5)	2002-2006
Caroline County	No	78.2 (65.3, 92.8)	26	2002-2006	rising ↑	1.4 (0.4, 2.3)	2002-2006
Baltimore City	No	76.6 (73.6, 79.7)	495	2002-2006	falling ↓	2.1 (2.5, 1.3)	2002-2006
Wicomico County	No	73.3 (67.7, 81.5)	68	2002-2006	stable →	0.5 (0.4, 0.5)	2002-2006
Dorchester County	No	78.6 (57.7, 82.3)	30	2002-2006	stable →	0.2 (0.5, 0.8)	2002-2006
Charles County	No	68.4 (61.5, 77.6)	66	2002-2006	stable →	0.1 (0.5, 0.8)	2002-2006

Death Rates Table

Death Rate Report for Maryland by County, death years through 2006

Lung & Bronchus
Healthy People 2010 Objective Number: 03-02
Reduce the lung cancer death rate.
All Races (includes Hispanic), Both Sexes, All Ages

County	Met Healthy People Objective of 44.97 ¹	Annual Death Rate (per 100,000) (95% Confidence Interval)	Average Deaths per Year over period	Rate Period	Recent Trend ²	Recent Average Annual Percent Change ² in Death Rates (95% Confidence Interval)	Recent Trend ²
Maryland (State)	No	55.3 (54.4, 56.2)	2344	2002-2006	falling ↓	5.3 (4.6, 6.0)	2002-2006
United States	No	53.4 (53.3, 53.5)	158,288	2002-2006	falling ↓	4.6 (4.4, 4.9)	2002-2006
Southern District	No	67.6 (72.6, 94.8)	24	2002-2006	stable →	6.5 (4.4, 8.5)	2002-2006
Caroline County	No	78.2 (65.3, 92.8)	26	2002-2006	rising ↑	1.4 (0.4, 2.3)	2002-2006
Baltimore City	No	76.6 (73.6, 79.7)	495	2002-2006	falling ↓	2.1 (2.5, 1.3)	2002-2006
Wicomico County	No	73.3 (67.7, 81.5)	68	2002-2006	stable →	0.5 (0.4, 0.5)	2002-2006
Dorchester County	No	78.6 (57.7, 82.3)	30	2002-2006	stable →	0.2 (0.5, 0.8)	2002-2006
Charles County	No	68.4 (61.5, 77.6)	66	2002-2006	stable →	0.1 (0.5, 0.8)	2002-2006

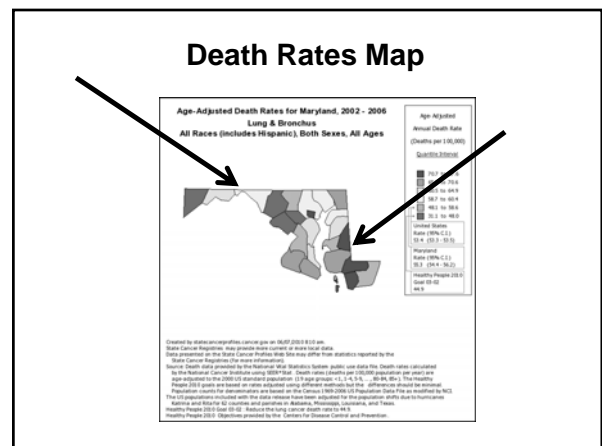
Death Rates Table

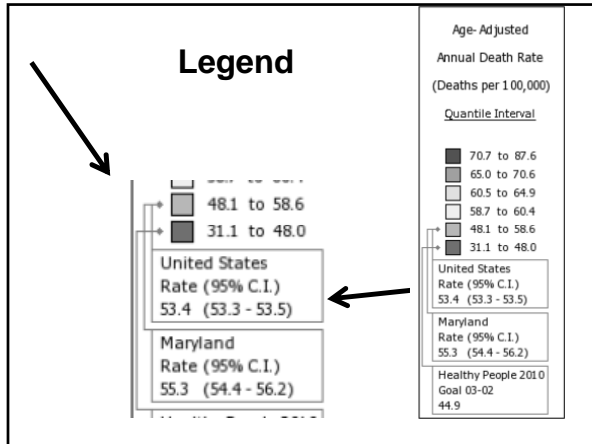
Modify

Export Data

Make Map

Interpret





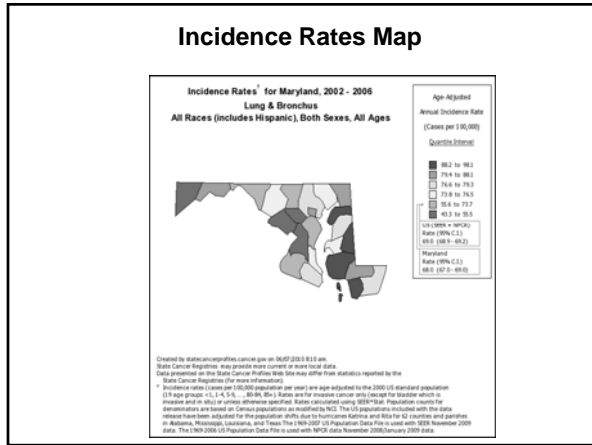
Incidence Rates Table

Incidence Rates Table

Incidence Rate Report for Maryland by County

All Races (includes Hispanic), Both Sexes, Lung & Bronchus, All Ages Sorted by Rate

County	Annual Incidence Rate ¹ over rate period (95% Confidence Interval)	Average Annual Count	Rate Period
Maryland	68.0 (67.0, 69.0)	3,650	2002-2006
US (SEER-NPCR)	69.0 (68.5, 69.2)	5	2002-2006
Somerset County	98.1 (82.2, 116.3)	27	2002-2006
Dorchester County	90.4 (77.8, 104.5)	37	2002-2006
Caroline County	89.9 (76.0, 105.7)	30	2002-2006
Kent County	88.6 (73.3, 106.6)	24	2002-2006
Wicomico County	88.1 (79.7, 97.1)	82	2002-2006
Cecil County	87.6 (78.9, 96.9)	76	2002-2006
Allegany County	84.5 (76.4, 93.2)	82	2002-2006
Baltimore City	83.2 (80.1, 86.5)	537	2002-2006



Profiles Home

Quick Profiles

Area: Choose a State

Cancer: Choose a Cancer Site

Generate Profile

Graphs and Maps

5-Year Rate Changes
In cancer mortality or incidence for all major cancer sites by user-selectable criteria
learn more...

Historical Trends
compare trends in cancer mortality and incidence by user-selectable criteria
learn more...

Comparative Data Display (Micro maps)
explore relationships across geographic locations of mortality, incidence, demographics, or risk factors
learn more...

Interactive Maps
for states or for counties in a state - mortality and incidence maps
learn more...

Cancer Control P.I.A.N.E.T. Home

New Features

- 2009 Annual Incidence Data table released in the Cancer Statistics Report
- 2008 Screenings and Risk Factors
- 2008 USCS Incidence Data
- 2008 Mortality Data
- Recent Cancer Prevention Projections
- Download State Cancer Profiles brochures (PDF)
- Function History Updates: 3/10/2010
- Release Schedule

Help & About

- About This Site
- Quick Reference Guides
- Tutorials
- Advanced Functions
- Data Use Restrictions
- Low Vision Accessibility

Note: This Web site is best viewed in Internet Explorer (version 8.0 or higher), Mozilla Firefox, or Safari (Mac Users) at a screen resolution of 1024 by 768 or more.

Comparison Tables

Rate Trend Comparisons
set higher priority for cancer control when rates are high or rising
learn more...

Download Cancer Atlas
for a specific state or county
+ Download states or counties for a specific cancer site

Death Rates
for states or for counties in a state
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Incidence Rates
for states with high quality cancer registries
learn more...

Prevalence Projections (Breast Cancer only)
for counts, percent and age-adjusted percent
learn more...

- ### Sections in Quick Profile
- Rate/Trend Comparisons by Cancer and Area (7%)
 - Death Rates (14%)
 - Incidence Rates (35%)
 - 5-Year Rate Change (3%)
 - Historical Trends (8%)
 - Interactive Maps (26%)

- ### Screening and Risk Factors
- Clinical Breast Exam in Past 2 Years, Age 40+
 - Fruit and Vegetable Servings of 5 or More per Day
 - Home Blood Stool Test Used in Past Year, Age 50+
 - Home Blood Stool Test Used in Past 2 Years, Age 50+
 - Home BST Past Yr or Sig or Colon Past 5 Years, Age 50+
 - Home BST Past Yr or Sig or Colon Past 10 Years, Age 50+
 - Mammogram in Past 2 Years, Age 40+
 - Mammogram in Past 2 Years, Age 50+
 - Overweight or Obese (BMI greater than or equal to 25.0 kg/m2)
 - Pap Smear at Least Once, No Hysterectomy, Age 18+
 - Pap Smear in Past 3 Years, No Hysterectomy, Age 18+
 - Physical Activity: No Leisure-Time Activity in Past Month, Age 18+
 - Sigmoidoscopy or Colonoscopy at Least Once, Age 50+
 - Sigmoidoscopy or Colonoscopy in Past 5 Years, Age 50+
 - Sigmoidoscopy or Colonoscopy in Past 10 Years, Age 50+
 - Smokers (Current), Age 18+
 - Smokers (Ever), Age 18+

Demographic Data

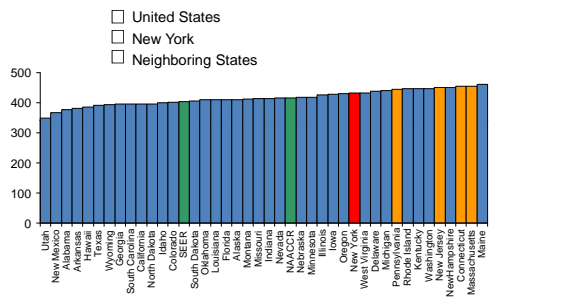
- Population: Age Groups
- Population: Race Groups
- Education
- Income
- Poverty
- Housing
- Urban/Rural
- Workforce: Unemployed

Questions ?

Please visit:
statecancerprofiles.cancer.gov
ccplanet.cancer.gov

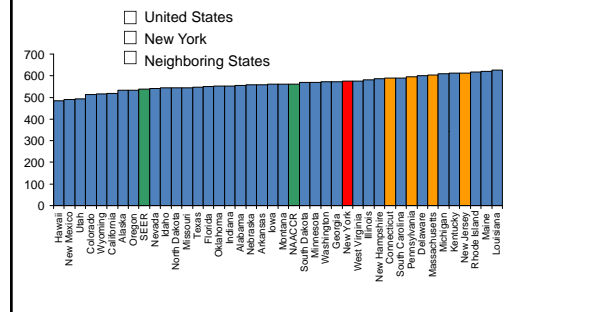
Rate comparisons - New York vs. other states – using CINA+

Cancer Among Women, 2001-2005



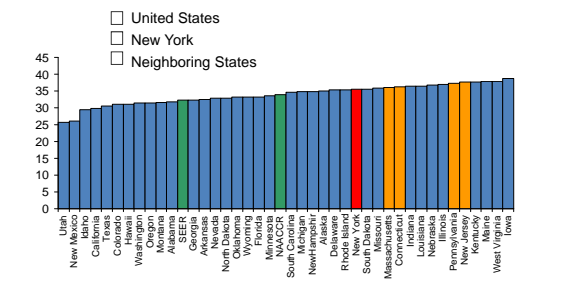
Age adjusted cancer incidence rates per 100,000 residents by state of residence

Cancer Among Men, 2001-2005



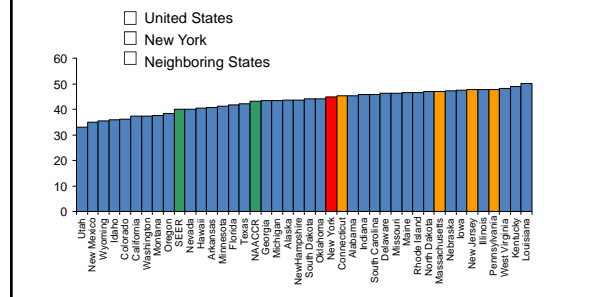
Age adjusted cancer incidence rates per 100,000 residents by state of residence

Colon Cancer Among Women, 2001-2005

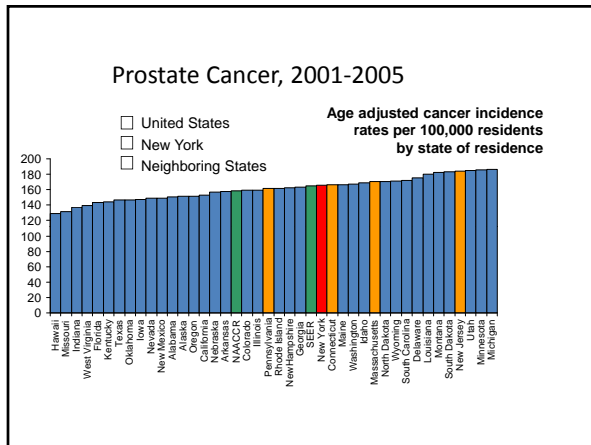
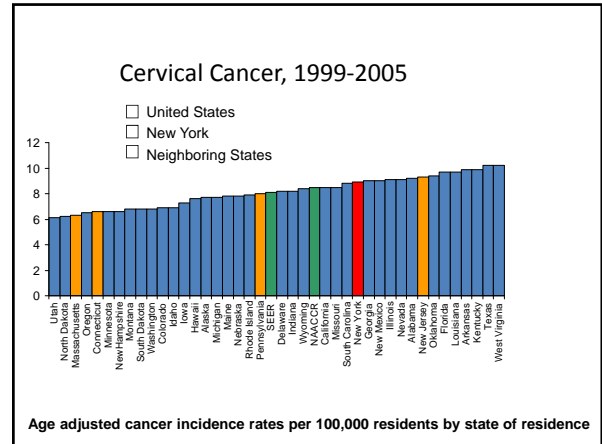
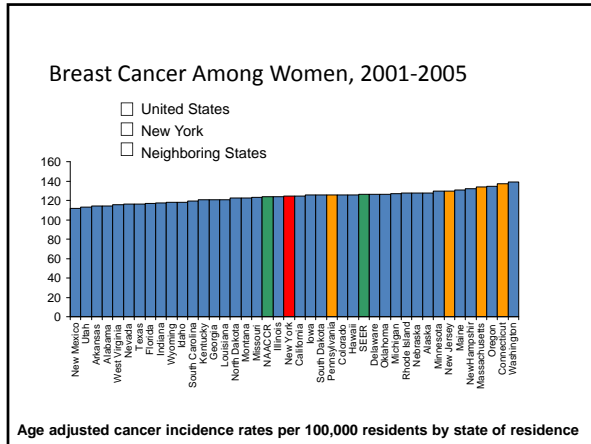


Age adjusted cancer incidence rates per 100,000 residents by state of residence

Colon Cancer Among Men, 2001-2005



Age adjusted cancer incidence rates per 100,000 residents by state of residence



Recent Publications Using CINA Deluxe Data

- Hausauer AK, Keegan TM, Chang ET, Glaser SL, Howe HH, Clarke CA. Recent breast cancer incidence changes by rural/urban and poverty status, United States, 1997-2004. *BMC Medicine* 2009; 7: 31.
- Hao, Y et al. Trends in colorectal cancer incidence rates by age, race/ethnicity, and indices of access to medical care, 1995-2004 (United States). *Cancer Causes Control* 2009; 20(10): 1855-1863.

Recent Publications Using CINA Deluxe Data

- Barnholtz-Sloan J. Incidence trends of invasive cervical cancer in the United States by combined race and ethnicity, *Cancer Causes Control* 2009; 20(7): 1129-38 .
- Greenlee RT. The occurrence of rare cancers in U.S. adults, 1995-2004. *Public Health Reports* 2010; 125(1): 28-43.
- Boscoe FP, Schymura MJ. Solar ultraviolet-B exposure and cancer incidence and mortality in the United States, 1993-2002. *BMC Cancer* 2006, 6: 264.

BMC Medicine BioMed Central

Research article **Open Access**

Recent trends in breast cancer incidence in US white women by county-level urban/rural and poverty status
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There was a substantial drop in breast cancer incidence rates between 2001-2004 in the US

Hypotheses to explain this include:

1. Widespread discontinuation of hormone therapy after the early termination of the Women’s Health Initiative trial in 2002.
2. Saturation of mammogram screening programs by 2000.
3. Drop in number of women receiving mammograms after 2001.
4. Combinations of the above.

- The incidence drop was concentrated among HR+ tumors among non-Hispanic white women over 50 years of age.
- The drop was nearly absent among African-American women and women under 50
- This supports hypothesis #1.
- This study focused on rural/urban and poverty status
 - If rate changes were less among poorer, more rural women that would further support hypothesis #1

- CINA Deluxe was used because SEER data are “disproportionately urban”.
- 29 registries were used (including nearly all of SEER)
- 69% of total US population

- Limited to white non-Hispanic women (n=475,523 invasive and 111,885 in situ cases)
- HR and HER2/neu status not available
- Counties were classified as urban, suburban, rural using USDA rural/urban continuum codes
- County-level poverty classified as low, medium, high using standard cut points
- Quarterly rate trends were assessed

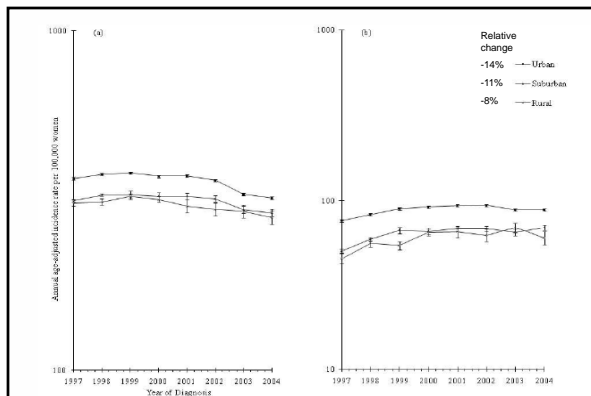


Figure 2 Breast cancer incidence among non-Hispanic white women aged 50 to 74 years by county rural/urban status and year. (a) Trends for invasive breast cancer. (b) Trends for in situ breast cancer. All rates are age-adjusted to the 2000 US standard (NAACCR, CINA, Delosco).

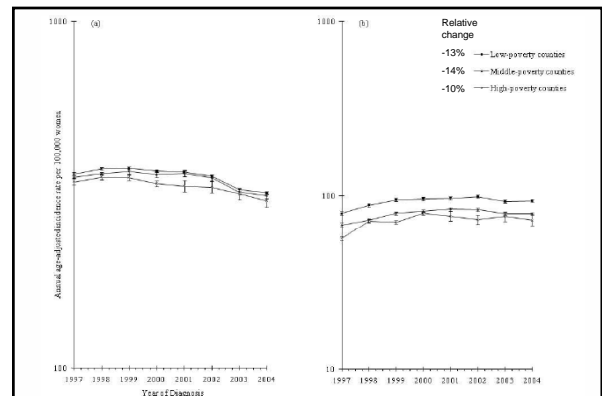
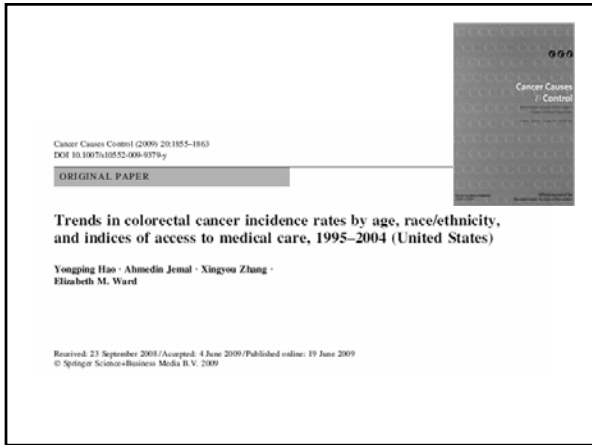


Figure 3 Breast cancer incidence among non-Hispanic white women aged 50 to 74 years by county poverty level and year. (a) Trends for invasive breast cancer. (b) Trends for in situ breast cancer. All rates are age-adjusted to the 2000 US standard (NAACCR, CINA, Delosco).

- Joinpoint analysis showed trend most pronounced following announcement of early termination of the Women’s Health Initiative trial
- California Health Interview Survey respondents aged 50 to 74 – current estrogen use dropped twice as much in urban versus rural counties between 2001 and 2003 (9.1% versus 4.4%)

Conclusion

- Evidence supports hypothesis #1. (It could have been much stronger with census tract level poverty since urban variations in poverty are not captured at the county scale)



- Colorectal cancer incidence in the US has decreased sharply since 1998
- Has the decrease been seen equally by age, race/ethnicity, and in all areas? (i.e. have disparities widened?)
- Used CINA data from 19 registries covering 53% of US population

Table 1 Trends in CRC incidence rates by age and race/ethnicity, 1995–2004

Age	Race/ethnicity	Trend 1		Trend 2		Cases
		Years	APC ^a	Years	APC	
50–64	White	1995–1998	1.9	1998–2004	-1.7*	145,441
	Black	1995–2004	0.6			22,561
	Hispanic	1995–2004	0.9			17,389
65+	White	1995–1998	1.8	1998–2004	-3.5*	482,588
	Black	1995–1998	1.0	1998–2004	-1.8*	41,958
	Hispanic	1995–1998	3.4*	1998–2004	-2.6*	33,301

* $P < 0.05$
^a Annual percent change

Table 2 Trends in CRC incidence rates by age, race/ethnicity, and county-level indicators of access to medical care, 1995–2004

Age	Race/ethnicity	Medicine															
		Low			Moderate			High									
		Trend 1	Trend 2	Cases	Trend 1	Trend 2	Cases	Trend 1	Trend 2	Cases	Trend 1	Trend 2	Cases				
FCP ^b	50–64	White	1995–2004	0.4	10,605	1995–2002	0.2	2002–2004	-3.2	45,330	1995–1998	2.2	1998–2004	-2.3*	85,481		
		Black	1995–2004	0.4	1,260	1995–1998	3.3	1998–2004	-1.6	5,952	1995–2004	0.3*	15,348				
	Hispanic	1995–2004	0.9	2,291	1995–2004	1.4			5,000	1995–2004	0.8			8,796			
		White	1995–1998	1.4	1998–2004	-2.2*	31,751	1995–1998	2.3*	150,248	1995–1999	0.5	1999–2004	-1.4*	300,553		
	65+	Black	1995–2004	-0.3	2,209	1995–2004	-1.3*			11,818	1995–2004	-1.0*			27,834		
		Hispanic	1995–2004	-1.0*	6,689	1995–1999	4.1	1999–2004	-2.9	9,060	1995–1998	3.1	1998–2004	-2.8*	17,552		
Poverty	50–64	White	1995–2000	0.2	2000–2004	-3.2*	9,280	1995–1998	2.1	1998–2004	-1.6*	42,369	1995–2004	0.6	11,712		
		Black	1995–2004	-0.4	3,613	1995–2004	0.6*			15,092	1995–2004	1.2		3,556			
	Hispanic	1995–2004	-0.6	2,830	1995–2004	0.6			11,230	1995–2004	3.0*		3,136				
65+	White	1995–1998	1.8	1998–2004	-3.6*	17,820	1995–1998	1.7	1998–2004	-3.9*	276,004	1995–1998	2.7	1998–2004	-2.0*	38,878	
	Black	1995–2004	-1.1*	6,078	1995–2004	-1.0*			26,109	1995–2004	-1.1			7,245			
	Hispanic	1995–1998	3.7	1998–2004	-3.7*	4,751	1995–2004	0.6	2000–2004	-4.1*	22,268	1995–1999	4.8	1999–2004	-2.1	6,273	
Uninsured	50–64	White	1995–1998	2.6	1998–2004	-2.1*	4,330	1995–2004	-1.2*					47,312	1995–2004	-0.2	48,559
		Black	1995–2004	1.0	4,236	1995–2004	0.1			6,622	1995–2004	0.6			11,698		
	Hispanic	1995–2004	0.2	1,260	1995–2004	-0.6			3,443	1995–2004	1.3*			12,010			

* $P < 0.05$
^a Annual percent change
^b Primary care physician

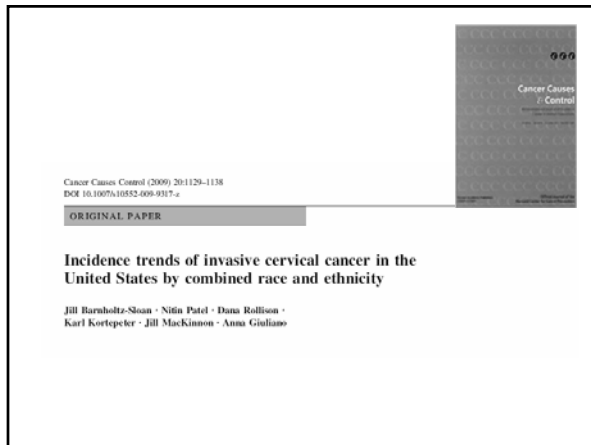
Table 3 Trends in CRC incidence rates by age, race/ethnicity, and metro status, 1995-2004

Age	Race/ethnicity	Metro			Nonmetro						
		Trend 1		Trend 2	Trend 1		Trend 2				
		Years	APC ^a	Years	APC	Years	APC	Years	APC	Cases	
50-64	White	1995-2000	0.6	2000-2004	-2.9 ^a	124,125	1995-2004	0.4		21,287	
	Black	1995-2004	0.5			21,383	1995-2004	1.2		1,178	
	Hispanic	1995-2004	0.7			16,466	1995-2004	4.0 ^a		920	
65+	White	1995-1998	1.7	1998-2004	-3.6 ^a	410,133	1995-1997	4.7 ^a	1997-2004	-2.1 ^a	72,381
	Black	1995-1998	1.0	1998-2004	-1.9 ^a	39,315	1995-2004	-0.3		2,635	
	Hispanic	1995-2000	1.3	2000-2004	-3.9 ^a	31,536	1995-2004	-1.6 ^a		1,756	

^a P < 0.05
^a Annual percent change

Conclusions

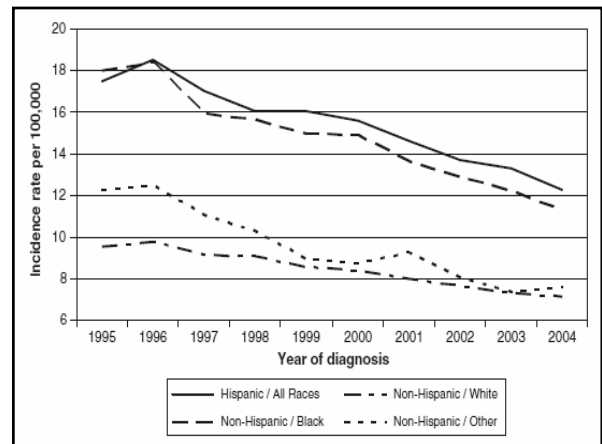
- Younger, minorities, those in poorer communities with less medical access have not seen the same reductions as the nation as a whole, in some cases no reductions at all.
- May be related to barriers to endoscopic screening. The results coincide with absolute changes in screening rates from BRFSS using the same indicators.



- Reviewed cervical cancer incidence trends by race/ethnicity and region from 1995-2004
- One of the first applications of the NHIA variable
- 22 states with high quality data for the full 10 year period

Table 1 Age-adjusted incidence (95% CI) and (rate ratios (RR) (95% CI) by 5-year periods of diagnosis year and variables of interest 1995-2004

Variable of interest	1995-1999			2000-2004			2000-2004 versus 1995-1999	
	Count	Incidence rate (95% CI)	APC	Count	Incidence rate (95% CI)	APC	Rate ratio (95% CI)	
Overall	43,107	10.86 (10.76, 10.96)	-3.10 ^b	38,295	9.04 (8.95, 9.13)	-4.55 ^b	0.83 (0.82, 0.84) ^a	
Race/Ethnicity								
Hispanic/all races	8,062	16.96 (16.58, 17.36)	-3.15	8,288	13.86 (13.55, 14.17)	-5.55 ^b	0.82 (0.79, 0.84) ^a	
Non-Hispanic/White	26,208	9.22 (9.11, 9.34)	-2.76 ^b	22,126	7.70 (7.60, 7.81)	-4.17 ^b	0.84 (0.82, 0.85) ^a	
Non-Hispanic/Black	6,161	16.54 (16.12, 16.96)	-5.23 ^b	5,333	12.95 (12.61, 13.31)	-6.43 ^b	0.78 (0.75, 0.81) ^a	
Non-Hispanic/other	2,219	10.93 (10.47, 11.41)	-7.86 ^b	2,121	8.15 (7.80, 8.51)	-5.09 ^b	0.75 (0.70, 0.79) ^a	
Region of the country—NCHS								
West	11,779	9.89 (9.72, 10.07)	-2.14	10,807	8.29 (8.13, 8.45)	-4.71 ^b	0.84 (0.82, 0.86) ^a	
Midwest	4,714	10.93 (10.62, 11.25)	-1.11	4,087	9.14 (8.86, 9.42)	-6.42 ^b	0.84 (0.80, 0.87) ^a	
South	13,562	12.00 (11.80, 12.20)	-3.18 ^b	12,452	10.16 (9.98, 10.34)	-4.87 ^b	0.85 (0.83, 0.87) ^a	
Northeast	13,052	10.71 (10.52, 10.89)	-4.65 ^b	10,949	8.66 (8.50, 8.82)	-3.27 ^b	0.81 (0.79, 0.83) ^a	
Histological type of tumor								
Adenocarcinoma	7,363	1.85 (1.81, 1.90)	-1.64	7,205	1.70 (1.66, 1.74)	-2.50 ^b	0.92 (0.89, 0.95) ^a	
Squamous cell carcinoma	30,163	7.62 (7.53, 7.71)	-3.02	26,255	6.21 (6.13, 6.29)	-4.91 ^b	0.81 (0.80, 0.83) ^a	
SEER summary stage								
Early (localized)	21,707	5.50 (5.42, 5.57)	-2.7	18,413	4.41 (4.35, 4.48)	-6.65 ^b	0.80 (0.79, 0.82) ^a	
Late (regional/distant)	16,487	4.15 (4.09, 4.22)	-2.25	16,270	3.79 (3.74, 3.85)	-1.18	0.91 (0.89, 0.93) ^a	
Untaged	4,913	1.21 (1.17, 1.24)	-7.69 ^b	3,608	0.83 (0.8, 0.85)	-8.37 ^b	0.68 (0.66, 0.72) ^a	



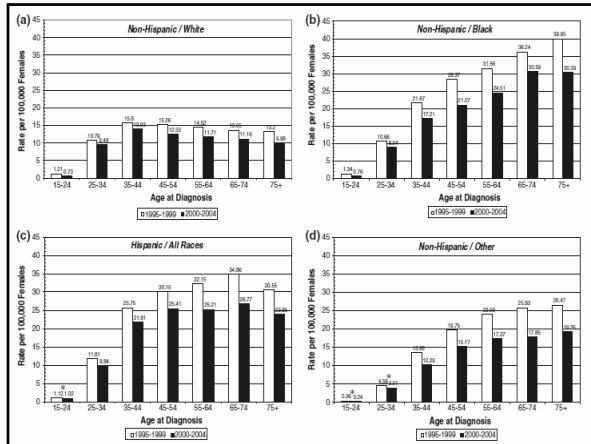


Table 3 Race/ethnicity specific rate ratios (RR) (95% CI) for variables of interest 1995-2004

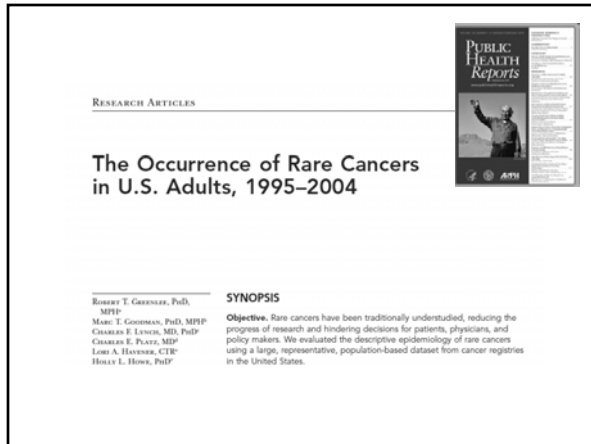
Variable of interest	Hispanic/all races to non-Hispanic/White RR (95% CI)	Non-Hispanic/Black to non-Hispanic/White RR (95% CI)	Non-Hispanic/Other to non-Hispanic/White RR (95% CI)
Five-year time period			
1995-1999	1.84 ^a (1.79-1.89)	1.79 ^a (1.74-1.84)	1.19 ^a (1.13-1.24)
2000-2004	1.80 ^a (1.75-1.85)	1.68 ^a (1.63-1.73)	1.06 ^a (1.01-1.11)
Region of the country			
West	2.05 ^a (1.98-2.11)	1.34 ^a (1.26-1.42)	1.29 ^a (1.23-1.34)
Midwest	2.01 ^a (1.85-2.17)	1.92 ^a (1.82-2.03)	1.18 ^a (1.03-1.35)
South	1.55 ^a (1.50-1.60)	1.58 ^a (1.53-1.63)	0.92 (0.83-1.02)
Northeast	1.89 ^a (1.82-1.97)	1.86 ^a (1.80-1.92)	1.14 ^a (1.06-1.23)
Histological type of tumor			
Adenocarcinoma	1.33 ^a (1.27-1.39)	0.89 ^a (0.84-0.95)	0.97 (0.90-1.04)
Squamous cell carcinoma	1.98 ^a (1.93-2.02)	1.97 ^a (1.93-2.02)	1.16 ^a (1.12-1.21)
SEER summary stage			
Early (localized)	1.57 ^a (1.53-1.61)	1.34 ^a (1.29-1.38)	0.97 (0.93-1.02)
Late (regional/distant)	2.06 ^a (2.00-2.12)	2.13 ^a (2.06-2.19)	1.35 ^a (1.29-1.42)
Unstaged	2.06 ^a (1.94-2.18)	2.39 ^a (2.25-2.54)	0.90 (0.80-1.02)

Conclusions

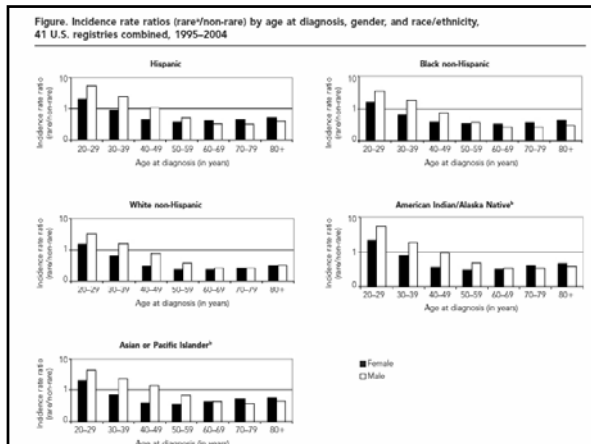
- All groups are declining rapidly; disparities between race/ethnicity groups are being maintained
- Stage distribution of racial/ethnic minorities is also considerably worse

Conclusions (cont)

- Much higher age at diagnosis for racial/ethnic minorities – consistent with stage distribution and possibly reflective of social and cultural barriers to screening.
- Continued Pap smear screening should be considered for women 65+ among groups at higher risk.



- Used CINA to maximize case counts
- 1995-2004, 39 states (80% of population), over 9 million cancers
- Rare = any cancer with a rate below 15 per 100,000
- 60 of 71 types are rare, accounting for 25% of tumors
- Rare cancers more common among younger, nonwhite and Hispanic



Conclusion

- Tumors uncommon in the population are often poorly documented in the medical and public health literature
- Even rates fewer than 1 per million result in hundreds of cases in the CINA file potentially available for further research

Conclusion (cont.)

- CINA provides opportunities to explore disease etiology and possibly lead to advances in treatment and prognosis
- Concluding sentence: “We hope that our descriptive analysis encourages such uses of this robust national cancer data resource”



- Previous researchers in US, Japan, Norway, Europe generally have noted a north-south gradient in cancer mortality for many cancers
- Anticarcinogenic effect of vitamin D, particularly for digestive and reproductive cancers, is a well-established hypothesis with biological plausibility
- Our paper looked at incidence, expanded the number of sites analyzed, and adjusted for more confounders

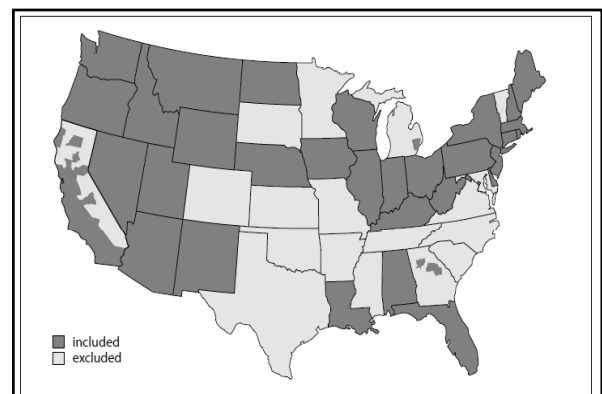


Figure 1 States and counties with available incidence data.

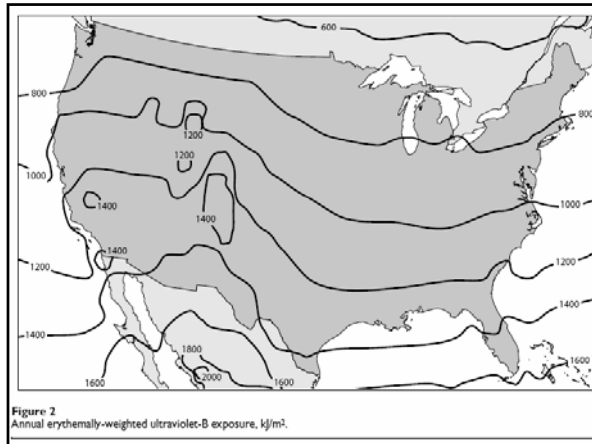


Table 1: Confounding variables adjusted for in the model.

Variable	Definition	Source	Geographic Level	Sex-specific	Race-specific
Age	10-year age groups from 35-44 to 75-84, and 85+	SEER	County	X	X
Poverty	% of households below poverty rate	2000 US Census	County	X	X
Income	Median household income in dollars	2000 US Census	County	X	X
Smoking	Age-adjusted lung and bronchus cancer mortality rate	SEER	County	X	X
Exercise	% with no exercise in last 30 days	BRFSS 1994-2002 (even years) & 2001	State	X	X
Alcohol	Average number of drinks in past 30 days	BRFSS 1997, 1999, 2001, 2002	State	X	X
Outdoor occupation	% of workers in agriculture, forestry, fishing, hunting, or construction	2000 US Census	County	X	
Urban/rural	% rural population	Average annual PM2.5 concentration*	2000 US Census	County	
Air quality	(values for ~ 600 counties known, remainder were interpolated)	US EPA AirNow database 2000	County		

* Particulate matter results in an overestimation of surface-level ultraviolet exposure indicated by the TOMS data, since particulate matter absorbs ultraviolet radiation [46]

Table 2: Relative risk of incidence and mortality^a related to solar UV-B exposure, northern versus southern United States boundary, non-Hispanic whites (95% CI in parentheses): Cancer sites with strongest evidence of an inverse association with solar UV-B exposure.

Cancer site	Incidence		Mortality	
	Males	Females	Males	Females
Esophagus (males)	1.27 (1.21-1.34)		1.36 (1.31-1.41)	
Stomach	1.42 (1.35-1.49)	1.27 (1.19-1.36)	1.31 (1.26-1.36)	1.26 (1.21-1.32)
Colon	1.11 (1.08-1.13)	1.14 (1.11-1.16)	1.27 (1.24-1.30)	1.24 (1.22-1.27)
Rectum	1.27 (1.23-1.32)	1.14 (1.09-1.18)	1.53 (1.45-1.60)	1.37 (1.30-1.44)
Gallbladder (females)		1.86 (1.66-2.09)		1.98 (1.82-2.16)
Other biliary	1.20 (1.07-1.35)	1.21 (1.07-1.36)	1.56 (1.40-1.75)	1.58 (1.43-1.76)
Uterus		1.49 (1.45-1.53)		1.52 (1.46-1.58)
Vulva		1.18 (1.09-1.29)		1.93 (1.72-2.17)
Prostate	1.20 (1.19-1.22)		1.17 (1.15-1.19)	
Bladder	1.13 (1.10-1.16)	1.15 (1.11-1.20)	1.24 (1.20-1.28)	1.21 (1.15-1.27)
Hodgkin lymphoma	1.16 (1.04-1.29)	1.19 (1.05-1.34)	1.14 (1.00-1.30)	1.25 (1.09-1.43)
Myeloma	1.19 (1.12-1.27)	1.22 (1.14-1.31)	1.16 (1.11-1.22)	1.16 (1.11-1.21)

^aAdjusted for the variables listed in Table 1 and excluding high-migration counties. Incidence includes states and counties shown in Figure 1 for the period 1998-2002; mortality includes entire United States except Alaska and Hawaii for the period 1993-2002.
^bRelative risk of receiving annual average of 650 kJ/m² of erythemally-weighted ultraviolet exposure (a value typical of northern Maine, Minnesota or Washington) versus annual average of 1540 kJ/m² (a value typical of southern Florida, Texas, or Arizona).

Table 3: Relative risk of incidence and mortality related to solar UV-B exposure, northern versus southern United States boundary, non-Hispanic whites (95% CI in parentheses): Cancer sites with weaker evidence of an inverse association with UV-B exposure (see notes for Table 2).

Cancer site	Incidence		Mortality	
	Males	Females	Males	Females
Esophagus (females)		1.08 (0.99-1.19)		1.21 (1.14-1.28)
Small intestine	1.15 (1.03-1.28)		1.20 (1.07-1.35)	1.24 (1.08-1.42)
Gallbladder (males)	1.13 (0.94-1.35)		1.58 (1.38-1.82)	
Pancreas	1.09 (1.05-1.14)	1.17 (1.13-1.22)	1.06 (1.03-1.09)	1.11 (1.08-1.14)
Breast		1.06 (1.05-1.07)		1.15 (1.13-1.17)
Kidney	1.09 (1.05-1.13)	1.17 (1.11-1.22)	1.12 (1.08-1.17)	1.20 (1.14-1.25)
Thyroid (females)		1.10 (1.05-1.16)		1.30 (1.16-1.47)
Non-Hodgkin lymphoma	1.08 (1.05-1.12)	1.09 (1.05-1.12)	1.12 (1.08-1.15)	1.15 (1.12-1.18)
Leukemia	1.09 (1.04-1.13)	1.15 (1.10-1.20)	1.07 (1.03-1.10)	1.09 (1.06-1.13)

Table 4: Relative risk of incidence and mortality related to solar UV-B exposure, northern versus southern United States boundary, non-Hispanic whites (95% CI in parentheses): Cancer sites with no evidence of an inverse association with solar UV-B exposure (see notes for Table 2).

Cancer site	Incidence		Mortality	
	Males	Females	Males	Females
Liver and intrahepatic bile duct	1.01 (0.95-1.08)	1.05 (0.96-1.14)	0.88 (0.85-0.92)	0.85 (0.81-0.89)
Nose, nasal cavity, and inner ear	0.80 (0.68-0.95)	0.85 (0.71-1.03)	0.93 (0.76-1.13)	0.99 (0.80-1.23)
Larynx	0.87 (0.82-0.92)	0.80 (0.72-0.89)	1.04 (0.98-1.11)	0.96 (0.86-1.07)
Bone and joint	0.83 (0.69-1.01)	0.95 (0.78-1.17)	0.62 (0.54-0.72)	0.57 (0.49-0.66)
Soft tissue, including heart	0.84 (0.77-0.92)	0.94 (0.85-1.03)	1.10 (1.02-1.19)	1.23 (1.14-1.33)
Ovary		1.03 (0.99-1.06)		1.09 (1.06-1.11)
Brain and other nervous system	1.08 (1.02-1.14)	1.07 (1.01-1.14)	0.91 (0.87-0.94)	0.86 (0.83-0.90)
Thyroid (males)	1.05 (0.96-1.13)		1.00 (0.87-1.16)	
Miscellaneous sites	0.83 (0.79-0.86)	0.93 (0.89-0.97)	1.16 (1.13-1.18)	1.23 (1.20-1.26)

Questions?

Next Month...

- Lip and Oral Cavity
 - August 5, 2010

...September Webinar

- Coding Pitfalls
 - September 2, 2010

- **October starts the 2010/2011 webinar series!**

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