

Acreage SIR Recalculation Population Estimate Methods and Results

Problem Statement

Population counts for the Acreage area stratified by age group and gender are needed to recalculate Standardized Incidence Ratios (SIRs) for all cancers, brain cancer, and brain/other central nervous system (CNS) cancers for those 0-19 years of age. U.S. Census data for 2000 are the only area-specific population data available. Prior SIR calculations used 2000 U.S. Census data as the population estimates from 1995 to 2007. Anecdotal reports state that the area's population has increased to about 50,000, whereas the 2000 U.S. Census count is about 29,000.

The original analysis methods are described in the initial report. Three additional methods of population estimation were used to generate population counts for the Acreage area for the years 2001 to 2007 and are described in this report. The methods and assumptions for each method are described in this document. Subsequently, these population estimates were used to recalculate three-year SIRs for the 0-19 year age group for all cancers, brain cancer, and brain/other CNS cancers. Population estimates gleaned from each method and the recalculated SIRs are presented and discussed.

Method 1: The Florida Legislature, Office of Economic and Demographic Research Data

Population estimates for Palm Beach County were obtained from Florida CHARTS (Community Health Assessment Resource Tool Set), which reports estimates produced by the Florida Legislature, Office of Economic and Demographic Research (OEDR). Population estimates for sub-county areas are not available from this data source. Palm Beach County age-specific percent changes (using the 18 age groups used in the original SIR analysis) from 2000 to 2007 were calculated. The percent changes were applied to the age-specific population counts for the Acreage area from the 2000 U.S. Census to estimate the age-specific population after 2000. Using this method assumes that population growth in the Acreage area is consistent with population growth for the county overall. This process was repeated for males and females to estimate overall and sex-specific population estimates for the area. Table 1 contains the population estimates calculated using this method.

Using this method, the population of the Acreage area increased from 29,036 residents in 2000 to 31,908 residents in 2007.

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Table 1. Estimated Acreege population using OEDR and U.S. Census data.

Total	2000	2001	2002	2003	2004	2005	2006	2007
Under 5	2312	2394	2385	2463	2556	2540	2566	2596
5 to 9	2860	2859	2857	2931	2963	3139	3157	3175
10 to 14	2970	2988	3028	3097	3192	3326	3314	3307
15 to 19	2190	2274	2336	2389	2540	2583	2607	2629
20 to 24	891	943	976	998	1104	1088	1105	1120
25 to 29	1365	1380	1383	1419	1392	1454	1502	1540
30 to 34	2574	2523	2482	2551	2467	2534	2551	2566
35 to 39	3801	3710	3674	3765	3520	3613	3579	3539
40 to 44	3326	3379	3455	3529	3537	3574	3506	3438
45 to 49	2321	2428	2557	2596	2710	2754	2761	2758
50 to 54	1548	1614	1693	1720	1808	1824	1868	1890
55 to 59	1031	1099	1165	1183	1261	1290	1313	1322
60 to 64	629	671	708	720	761	751	781	795
65 to 69	485	494	509	518	505	486	512	520
70 to 74	343	337	335	343	310	301	304	296
75 to 79	210	210	213	218	204	216	211	202
80 to 84	103	106	111	113	115	119	119	117
85 +	77	78	83	84	94	94	97	98
Total	29,036	29,487	29,950	30,637	31,039	31,686	31,853	31,908
MALES								
Under 5	1213	1256	1251	1293	1341	1333	1346	1362
5 to 9	1471	1470	1469	1507	1524	1614	1623	1633
10 to 14	1541	1551	1571	1607	1657	1726	1720	1716
15 to 19	1191	1237	1271	1299	1381	1405	1418	1430
20 to 24	452	479	495	506	560	552	560	568
25 to 29	581	587	588	604	592	619	639	655
30 to 34	1180	1157	1138	1169	1131	1161	1169	1176
35 to 39	1872	1827	1809	1854	1734	1780	1762	1743
40 to 44	1736	1764	1803	1842	1846	1865	1830	1794
45 to 49	1263	1321	1392	1413	1475	1499	1503	1501
50 to 54	816	851	892	907	953	962	985	996
55 to 59	538	573	608	617	658	673	685	690
60 to 64	322	344	362	368	390	385	400	407
65 to 69	237	241	249	253	247	238	250	254
70 to 74	149	146	145	149	135	131	132	129
75 to 79	102	102	104	106	99	105	103	98
80 to 84	29	30	31	32	32	33	33	33
85 +	19	19	21	21	23	23	24	24
FEMALES								
Under 5	1099	1138	1133	1171	1215	1207	1220	1234
5 to 9	1389	1389	1388	1423	1439	1525	1533	1542
10 to 14	1429	1438	1457	1490	1536	1600	1594	1591
15 to 19	999	1037	1066	1090	1159	1178	1189	1199
20 to 24	439	465	481	492	544	536	544	552
25 to 29	784	793	794	815	799	835	863	884
30 to 34	1394	1367	1344	1381	1336	1372	1381	1390
35 to 39	1929	1883	1865	1911	1786	1834	1816	1796
40 to 44	1590	1616	1652	1687	1691	1709	1676	1644
45 to 49	1058	1107	1166	1183	1235	1255	1259	1257
50 to 54	732	763	801	813	855	863	883	894
55 to 59	493	525	557	566	603	617	628	632
60 to 64	307	328	346	351	372	367	381	388
65 to 69	248	253	260	265	258	249	262	266
70 to 74	194	191	189	194	175	170	172	167
75 to 79	108	108	110	112	105	111	109	104
80 to 84	74	76	80	81	83	85	85	84
85 +	58	59	63	63	71	71	73	74

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Method 2: Palm Beach County Planning and Zoning Board Data

Population estimates for the Acreage area for 1995, 2000, 2005, and 2008 were provided by Betty Yiu from the Palm Beach County Planning and Zoning Board (PZB) [*file name: acreage population for health dept..xls*]. She used PZB models to estimate the population for 1995, 2005, and 2008. PZB models incorporate school board data to estimate youth populations in the Acreage area. Table 2 shows the PZB estimates generated by Ms. Yiu. The estimate for 2000 is very close to the 2000 U.S. Census population for the area (29,036); therefore, the U.S. Census population counts were used in place of PZB estimates for the SIR rate recalculations.

Table 2. Population estimates generated by Palm Beach County Planning and Zoning Board models, 1995, 2000, 2005, 2008.

Geographic Area	1995	2000	2005	2008
Acreage	12,795	28,963	37,343	39,619

Ms. Yiu also provided the population distribution by age groups for the 2000 estimate. Only two of the age groups (<5 yrs. and 85+ yrs.) corresponded to the age groups used for the original SIR calculations. The population counts for the two analogous age groups for the 2000 population estimate were essentially the same as U.S. Census data; therefore, the age group distribution from the 2000 U.S. Census was used to estimate age-specific populations based on PZB total population estimates for 2001 to 2004. The population estimates for 2001 to 2004 were extrapolated based on the estimated population in each age group, assuming the age-group distribution did not vary significantly. Male and female population estimates were calculated using the distribution from the 2000 U.S. Census, assuming that the distribution remained stable. Ms. Yiu noted a change in the age distribution for the 2008 estimate; therefore, for 2005 to 2007, the 2008 age-group distribution was used. From 2000 to 2005, a continuous increase of about 5.2% per age group per year was assumed. From 2005 to 2008, a continuous increase of about 2% increase per age group per year was assumed. Table 3 summarizes the population estimates. The percent increase assumptions were based on the estimated change in total population for the estimated years (2000, 2005, 2008).

Using this method, the population of the Acreage area increased from 29,036 residents in 2000 to 38,851 residents in 2007.

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Table 3. Estimated Acreege population using PZB and U.S. Census data.

Total	2000	2001	2002	2003	2004	2005	2006	2007
Under 5	2312	2431	2558	2691	2831	3198	3262	3327
5 to 9	2860	2998	3154	3318	3491	3637	3710	3784
10 to 14	2970	3114	3275	3446	3625	3779	3854	3931
15 to 19	2190	2295	2414	2540	2672	2813	2869	2926
20 to 24	891	935	984	1035	1089	1146	1169	1192
25 to 29	1365	1432	1507	1585	1668	1756	1791	1826
30 to 34	2574	2701	2841	2989	3145	3273	3339	3405
35 to 39	3801	3989	4196	4414	4644	4851	4948	5047
40 to 44	3326	3490	3672	3863	4063	4277	4363	4450
45 to 49	2321	2436	2562	2695	2836	2910	2969	3028
50 to 54	1548	1624	1709	1798	1891	1991	2031	2071
55 to 59	1031	1082	1138	1197	1260	1326	1352	1380
60 to 64	629	660	694	730	768	809	825	842
65 to 69	485	509	535	563	593	624	636	649
70 to 74	343	360	379	398	419	441	450	459
75 to 79	210	223	235	247	260	273	279	285
80 to 84	103	108	114	120	126	132	135	138
85 +	77	81	85	90	94	107	109	111
Total	29,036	30,468	32,052	33,719	35,475	37,343	38,091	38,851
MALES								
Under 5	1213	1276	1342	1412	1485	1678	1712	1746
5 to 9	1471	1542	1622	1706	1795	1871	1908	1946
10 to 14	1541	1616	1700	1788	1881	1961	2000	2040
15 to 19	1191	1248	1313	1381	1453	1530	1560	1591
20 to 24	452	474	499	525	552	581	593	605
25 to 29	581	610	641	675	710	747	762	777
30 to 34	1180	1238	1303	1370	1442	1500	1530	1561
35 to 39	1872	1964	2066	2174	2287	2389	2437	2486
40 to 44	1736	1822	1916	2016	2121	2232	2277	2323
45 to 49	1263	1325	1394	1467	1543	1584	1615	1648
50 to 54	816	856	901	948	997	1049	1070	1092
55 to 59	538	565	594	625	657	692	706	720
60 to 64	322	338	355	374	393	414	422	431
65 to 69	237	249	262	275	290	305	311	317
70 to 74	149	156	164	173	182	192	195	199
75 to 79	102	108	114	120	126	133	135	138
80 to 84	29	30	32	34	35	37	38	39
85 +	19	20	21	22	23	26	27	27
FEMALES								
Under 5	1099	1156	1216	1279	1345	1520	1550	1581
5 to 9	1389	1456	1532	1612	1695	1767	1802	1838
10 to 14	1429	1498	1576	1658	1744	1818	1854	1891
15 to 19	999	1047	1101	1159	1219	1283	1309	1335
20 to 24	439	461	485	510	536	565	576	587
25 to 29	784	823	866	911	958	1008	1029	1049
30 to 34	1394	1463	1539	1619	1703	1773	1808	1844
35 to 39	1929	2024	2129	2240	2357	2462	2511	2561
40 to 44	1590	1669	1755	1847	1943	2045	2086	2128
45 to 49	1058	1110	1168	1229	1292	1327	1353	1380
50 to 54	732	768	808	850	894	941	960	980
55 to 59	493	517	544	573	602	634	647	660
60 to 64	307	322	339	357	375	395	403	411
65 to 69	248	260	274	288	303	319	325	332
70 to 74	194	204	214	225	237	250	254	260
75 to 79	108	115	121	127	134	141	143	146
80 to 84	74	78	82	86	90	95	97	99
85 +	58	61	64	67	71	80	82	83

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Method 3: Florida Power and Light Utility Data

Florida Power and Light (FP&L) is the only provider of electricity in the Acreage area. The average number of connected and disconnected meters for the area for 2000, 2001, 2003, 2005, and 2007 were used to estimate the population for the area. Data from the 2000 U.S. Census served as the standard. These data were used to calculate a meter correction factor and the average number of people per household. Data from FP&L indicate that there were about 8,042 active and inactive meters in 2000. The U.S. Census counted 8,912 households in the Acreage area that same year. A correction factor of 1.10818204 was used to adjust the number of FP&L meters to the 2000 U.S. Census household count. Using this information, the average household size in the Acreage area in 2000 was 3.25807899. Assuming that the correction factor and the average number of persons per household remained constant from 2000 to 2007, the number of households for the area was calculated by multiplying the number of meters by the correction factor. The estimated population was calculated by multiplying the number of households by the average household size. Population estimates for years 2002, 2004, and 2006 were assumed to be the average of the populations for adjacent years. Age-specific population counts were calculated using the age group distribution from the 2000 U.S. Census data for the Acreage area. Table 4 contains the population estimates calculated using this method.

Using this method, the population of the Acreage area increased from 29,036 residents in 2000 to 39,809 residents in 2007.

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Table 4. Estimated Acreege population using FP&L and U.S. Census data.

Total	2000	2001	2002	2003	2004	2005	2006	2007
Under 5	2,312	2,465	2,631	2,797	2,916	3,036	3,103	3,170
5 to 9	2,860	3,050	3,255	3,460	3,607	3,755	3,838	3,921
10 to 14	2,970	3,167	3,380	3,593	3,746	3,900	3,986	4,072
15 to 19	2,190	2,335	2,492	2,649	2,762	2,875	2,939	3,003
20 to 24	891	950	1,014	1,078	1,124	1,170	1,196	1,222
25 to 29	1,365	1,455	1,553	1,651	1,722	1,792	1,832	1,871
30 to 34	2,574	2,745	2,929	3,114	3,247	3,380	3,454	3,529
35 to 39	3,801	4,053	4,325	4,598	4,794	4,991	5,101	5,211
40 to 44	3,326	3,546	3,785	4,023	4,195	4,367	4,464	4,560
45 to 49	2,321	2,475	2,641	2,808	2,928	3,047	3,115	3,182
50 to 54	1,548	1,651	1,762	1,873	1,953	2,033	2,077	2,122
55 to 59	1,031	1,099	1,173	1,247	1,300	1,354	1,384	1,414
60 to 64	629	671	716	761	793	826	844	862
65 to 69	485	517	552	587	612	637	651	665
70 to 74	343	366	390	415	433	450	460	470
75 to 79	210	224	239	254	265	276	282	288
80 to 84	103	110	117	125	130	135	138	141
85 +	77	82	88	93	97	101	103	106
Total	29,036	30,96	33,042	35,126	36,624	38,125	38,967	39,809
MALES								
Under 5	1213	1,293	1,380	1,467	1,530	1,593	1,628	1,663
5 to 9	1471	1,568	1,674	1,779	1,855	1,931	1,974	2,017
10 to 14	1541	1,643	1,754	1,864	1,944	2,023	2,068	2,113
15 to 19	1191	1,270	1,355	1,441	1,502	1,564	1,598	1,633
20 to 24	452	482	514	547	570	593	607	620
25 to 29	581	619	661	703	733	763	780	797
30 to 34	1180	1,258	1,343	1,427	1,488	1,549	1,583	1,618
35 to 39	1872	1,996	2,130	2,264	2,361	2,458	2,512	2,567
40 to 44	1736	1,851	1,975	2,100	2,189	2,279	2,330	2,380
45 to 49	1263	1,347	1,437	1,528	1,593	1,658	1,695	1,732
50 to 54	816	870	929	987	1,029	1,071	1,095	1,119
55 to 59	538	574	612	651	679	706	722	738
60 to 64	322	343	366	389	406	423	432	441
65 to 69	237	253	270	287	299	311	318	325
70 to 74	149	159	170	180	188	196	200	204
75 to 79	102	109	116	123	129	134	137	140
80 to 84	29	31	33	35	37	38	39	40
85 +	19	20	22	23	24	25	26	26
FEMALES								
Under 5	1,099	1,172	1,250	1,329	1,386	1,443	1,475	1,507
5 to 9	1,389	1,481	1,581	1,680	1,752	1,824	1,864	1,905
10 to 14	1,429	1,524	1,626	1,728	1,802	1,876	1,918	1,959
15 to 19	999	1,065	1,137	1,209	1,260	1,312	1,341	1,370
20 to 24	439	468	500	531	554	576	589	602
25 to 29	784	836	892	948	989	1,029	1,052	1,075
30 to 34	1,394	1,486	1,586	1,686	1,758	1,830	1,871	1,911
35 to 39	1,929	2,057	2,195	2,333	2,433	2,533	2,589	2,645
40 to 44	1,590	1,696	1,810	1,924	2,006	2,088	2,134	2,180
45 to 49	1,058	1,128	1,204	1,280	1,334	1,389	1,420	1,450
50 to 54	732	781	833	886	923	961	982	1,004
55 to 59	493	526	561	596	622	647	662	676
60 to 64	307	328	350	372	387	403	412	421
65 to 69	248	264	282	300	313	326	333	340
70 to 74	194	207	221	235	245	255	260	266
75 to 79	108	115	123	131	136	142	145	148
80 to 84	74	79	84	90	93	97	99	101
85 +	58	62	66	70	73	76	78	80

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Comparison of Results

Table 5. Three year SIRs for pediatric (0-19 years of age) residents in the Acreege Community (2002-2007), compared to Florida.

Cancer Type	Years	Obs.	Original Method			U.S. Census/Office of Economic and Demographic Research			Palm Beach Planning and Zoning Board			U.S. Census/Florida Power and Light		
			Exp.	SIR	95% CI	Exp.	SIR	95% CI	Exp.	SIR	95% CI	Exp.	SIR	95% CI
All Cancer	2002-04	5	5.5	0.9	(0.4,2.1)	5.9	0.9	(0.4,2.0)	6.4	0.8	(0.3,1.8)	6.7	0.8	(0.3,1.8)
	2005-07	8	5.7	1.4	(0.7,2.8)	6.5	1.2	(0.6,2.4)	7.6	1.1	(0.5,2.1)	7.7	1.0	(0.5,2.1)
Brain Cancer	2002-04	1	1.0	1.0	(0.2,5.6)	1.1	1.0	(0.2,5.3)	1.2	0.9	(0.2,4.8)	1.2	0.8	(0.2,4.7)
	2005-07	4	0.9	4.2	(1.7,11.0)	1.1	3.8	(1.5,9.8)	1.3	3.2	(1.3,8.2)	1.3	3.2	(1.3,8.2)
Brain & Other CNS	2002-04	1	1.1	0.9	(0.5,5.1)	1.2	0.9	(0.2,4.9)	1.3	0.8	(0.2,4.4)	1.3	0.8	(0.2,4.2)
	2005-07	4	1.0	3.9	(1.6,10.0)	1.2	3.5	(1.4,8.9)	1.4	2.9	(1.2,7.4)	1.4	2.9	(1.2,7.4)

Obs. = Observed Cases

Exp. = Expected Cases

CI = Confidence Interval

SIR = Standardized Incidence Ratio

Table 6. Three year SIRs for **female** pediatric (0-19 years of age) residents in the Acreege Community (2002-2007), compared to Florida.

Cancer Type	Years	Obs.	Original Method			U.S. Census/Office of Economic and Demographic Research			Palm Beach Planning and Zoning Board			U.S. Census/Florida Power and Light		
			Exp.	SIR	95% CI	Exp.	SIR	95% CI	Exp.	SIR	95% CI	Exp.	SIR	95% CI
All Cancer	2002-04	5	2.5	2.0	(0.9,4.6)	2.7	1.9	(0.8,4.4)	2.9	1.7	(0.8,4.0)	3.0	1.7	(0.7,3.8)
	2005-07	4	2.5	1.6	(0.6,4.1)	2.9	1.4	(0.6,3.6)	3.4	1.2	(0.5,3.0)	3.4	1.2	(0.5,3.0)
Brain Cancer	2002-04	1	0.5	2.2	(0.5,12.3)	0.5	2.1	(0.5,11.6)	0.5	1.9	(0.4,10.5)	0.6	1.8	(0.4,10.2)
	2005-07	3	0.4	6.8	(2.5,20.0)	0.5	6.1	(2.2,17.8)	0.6	5.1	(1.8,14.8)	0.6	5.1	(1.8,14.9)
Brain & Other CNS	2002-04	1	0.5	2.0	(0.4,11.0)	0.5	1.9	(0.4,10.4)	0.6	1.7	(0.4,9.5)	0.6	1.6	(0.4,9.1)
	2005-07	3	0.5	6.4	(2.3,18.6)	0.5	5.7	(2.0,16.5)	0.6	4.7	(1.7,13.8)	0.6	4.7	(1.7,13.8)

Obs. = Observed Cases

Exp. = Expected Cases

CI = Confidence Interval

SIR = Standardized Incidence Ratio

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Table 7. Three year SIRs for pediatric (0-19 years of age) residents in the Acreege Community (2002-2007), compared to Florida.

Years	Estimation Method	All Cancer				Brain Cancer				Brain & Other CNS Cancer			
		Obs.	Exp.	SIR	95% CI	Obs.	Exp.	SIR	95% CI	Obs.	Exp.	SIR	95% CI
2002-2004													
	Original Method	5	5.5	0.9	(0.4,2.1)	1	1.0	1.0	(0.2,5.6)	1	1.1	0.9	(0.5,5.1)
	U.S. Census/OEDR	5	5.9	0.9	(0.4,2.0)	1	1.1	1.0	(0.2,5.3)	1	1.2	0.9	(0.2,4.9)
	Palm Beach PZB	5	6.4	0.8	(0.3,1.8)	1	1.2	0.9	(0.2,4.8)	1	1.3	0.8	(0.2,4.4)
	U.S. Census/FP&L	5	6.7	0.8	(0.3,1.8)	1	1.2	0.8	(0.2,4.7)	1	1.3	0.8	(0.2,4.2)
2005-2007													
	Original Method	8	5.7	1.4	(0.7,2.8)	4	0.9	4.2	(1.7,11.0)	4	1.0	3.9	(1.6,10.0)
	U.S. Census/OEDR	8	6.5	1.2	(0.6,2.4)	4	1.1	3.8	(1.5,9.8)	4	1.2	3.5	(1.4,8.9)
	Palm Beach PZB	8	7.6	1.1	(0.5,2.1)	4	1.3	3.2	(1.3,8.2)	4	1.4	2.9	(1.2,7.4)
	U.S. Census/FP&L	8	7.7	1.0	(0.5,2.1)	4	1.3	3.2	(1.3,8.2)	4	1.4	2.9	(1.2,7.4)

Obs. = Observed Cases

Exp. = Expected Cases

CI = Confidence Interval

SIR = Standardized Incidence Ratio

Table 8. Three year SIRs for **female** pediatric (0-19 years of age) residents in the Acreege Community (2002-2007), compared to Florida.

Years	Estimation Method	All Cancer				Brain Cancer				Brain & Other CNS Cancer			
		Obs.	Exp.	SIR	95% CI	Obs.	Exp.	SIR	95% CI	Obs.	Exp.	SIR	95% CI
2002-2004													
	Original Method	5	2.5	2.0	(0.9,4.6)	1	0.5	2.2	(0.5,12.3)	1	0.5	2.0	(0.4,11.0)
	U.S. Census/OEDR	5	2.7	1.9	(0.8,4.4)	1	0.5	2.1	(0.5,11.6)	1	0.5	1.9	(0.4,10.4)
	Palm Beach PZB	5	2.9	1.7	(0.8,4.0)	1	0.6	1.9	(0.4,10.5)	1	0.6	1.7	(0.4,9.5)
	U.S. Census/FP&L	5	3.0	1.7	(0.7,3.8)	1	0.6	1.8	(0.4,10.2)	1	0.6	1.6	(0.4,9.1)
2005-2007													
	Original Method	4	2.5	1.6	(0.6,4.1)	3	0.4	6.8	(2.5,20.0)	3	0.5	6.4	(2.3,18.6)
	U.S. Census/OEDR	4	2.9	1.4	(0.6,3.6)	3	0.5	6.1	(2.2,17.8)	3	0.5	5.7	(2.0,16.5)
	Palm Beach PZB	4	3.4	1.2	(0.5,3.0)	3	0.6	5.1	(1.8,14.8)	3	0.6	4.7	(1.7,13.8)
	U.S. Census/FP&L	4	3.4	1.2	(0.5,3.0)	3	0.6	5.1	(1.8,14.9)	3	0.6	4.7	(1.7,13.8)

Obs. = Observed Cases

Exp. = Expected Cases

CI = Confidence Interval

SIR = Standardized Incidence Ratio

Acreage SIR Recalculation Population Estimate Methods and Results

Tables 5-8 display the 2002-2004 and 2005-2007 three-year SIRs and 95% confidence limits obtained using four population estimate methods for the overall pediatric (0-19 years of age) population and for pediatric females (original analysis method plus the three additional estimating methods described in this document). Tables 7 and 8 display the same data as Tables 5 and 6 configured differently. Tables 7 and 8 are configured similar to the tables in the original report. Tables 7 and 8 are configured to facilitate evaluation of the changes in SIRs based on estimating method.

Each of the methods had a total of 29,036 people living in the Acreage area in 2000. This is based on data from the 2000 U.S. Census. The original analysis method assumed a constant population through 2007; therefore, the population estimate for each of the years was 29,036. Method 1, which utilized U.S. Census and OEDR data, resulted in an overall population increase of 9.9% from 29,036 in 2000 to 31,908 in 2007. Method 2, which utilized data from the Palm Beach Planning and Zoning Board (PZB), resulted in an overall population increase of 33.8% from 29,036 in 2000 to 38,851 in 2007. Method 3, which utilized data from the U.S. Census and Florida Power and Light, resulted in an overall population increase of 37.1% from 29,036 in 2000 to 39,809 in 2007. Each method relies on assumptions about the population structure and growth patterns that cannot be tested with existing data, but are based on information from the 2000 U.S. Census, which is the only direct measure of the population in the Acreage area available.

As expected, the SIRs using the three additional estimating methods decrease incrementally as the estimated population size increases. For example, the 2005-2007 SIR for brain cancer using the original method (smallest estimated population) is 4.2 and the SIR using FP&L data (largest estimated population) is 3.2. The calculated SIRs using the three additional estimating methods remain statistically significantly higher among the pediatric population overall and among pediatric females specifically. However, the SIRs calculated using the three additional estimating methods are not statistically significantly different from the SIRs calculated using the original estimating method.