2008 LOUISIANA HEALTH REPORT CARD

As mandated by R.S. 40:1300.71

Bobby Jindal, Governor

Alan Levine
Secretary, Department of Health and Hospitals

Submitted to the Governor and the Louisiana Legislature
April, 2009

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Executive Summary

Monitoring the health status of a population is an essential step in evaluating the effectiveness of various health programs and in developing programmatic policy for the future. Monitoring the status of a population relative to certain health indicators over a number of years is an especially effective tool for health planning. Act 985 of the 1995 Louisiana Regular Legislative Session, enacting R.S. 40:1300.71, requires that the Louisiana Department of Health and Hospitals annually prepare a report card relative to health and health-related issues.

The following pages comprise the tenth annual Health Report Card. This document reports on the overall state of health in Louisiana, addressing the following issues:

- Health findings of major diseases
- Teenage pregnancy and birth rates
- Rates of low birthweight babies
- Suicide rates
- Sexually transmitted diseases
- Incidence of drug addictions
- Violent deaths
- Morbidity rates
- Health assessment programs and results
- Results of preventive health outreach programs

The report card is divided into five major sections. The first three sections are “Population and Vital Statistics,” “Morbidity,” and “Health Assessment Programs.” These contain data relative to the health status indicators listed above for the state as a whole and for the parishes within the state. There are comparisons with prior years and with other states. In some cases, variations among different segments of the state’s population are reported.

The last two sections address current health care initiatives, the state’s health care delivery system, and future measures for health status improvement. These sections are: “Preventive Health Outreach and Service Programs” and “Louisiana State Health Care System”.

This report is the result of efforts by individuals throughout the Department of Health and Hospitals. To contact the individual programs that contributed to this document, please refer to the listing of Program Office telephone numbers and web addresses in the “Contact Information” table in the back of the book. Many of the programs have reports available through their individual program websites.

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LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS

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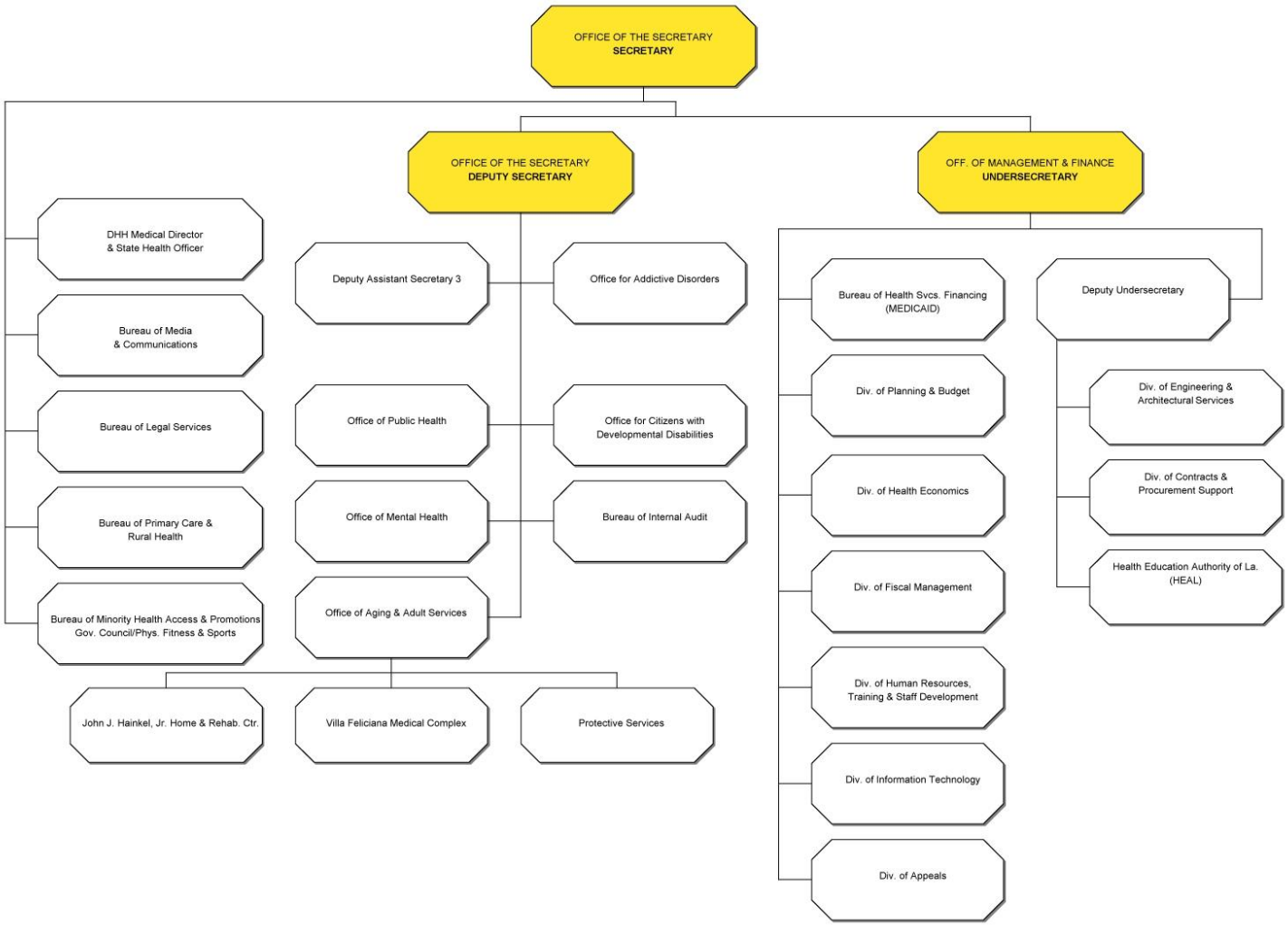


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I. POPULATION AND VITAL STATISTICS

A. POPULATION

This chapter on Louisiana's population presents information from Bridged-Race Population Estimate 2006 by the U.S. Census Bureau and National Center for Health Statistics (NCHS). According to these estimates, Louisiana's resident population was 4,287,768 as of August, 2007. The state's subgroup estimate counts for 2006 are given in the following table:

Louisiana Population, 2006 *

Gender	Race	Age Group (Years)						
		<5	5-19	20-44	45-64	65-84	85 & +	All*
Male	White	89,002	276,309	482,380	373,176	152,229	15,994	1,389,090
	Black	61,550	180,371	226,645	135,984	39,860	4,565	648,975
	Other	3,609	10,721	19,645	10,557	2,916	248	47,696
Female	White	84,780	264,267	470,164	382,622	195,773	36,062	1,433,668
	Black	59,048	177,160	249,717	163,721	61,674	10,346	721,666
	Other	3,386	10,104	18,220	11,284	3,295	384	46,673
All*	Total	301,375	918,932	1,466,771	1,077,344	455,747	67,599	4,287,768

Source: * Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS (Released in August, 2007)

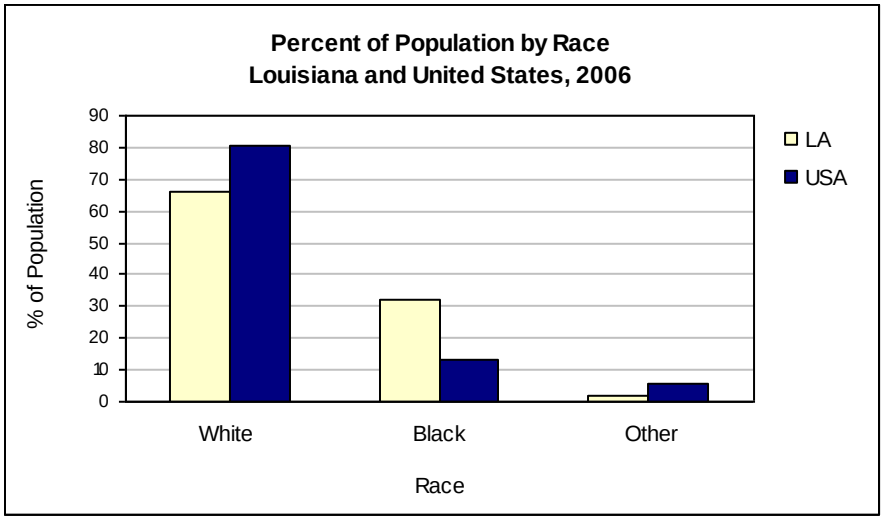
A comparison of the year 2006 population estimates shows that Louisiana and the United States have very similar age distributions.

Percent of Total Population by Age Group
Louisiana and United States, 2006

	Age Group (Years)						
	<5	5-19	20-44	45-64	65-84	85 & +	All Ages
Louisiana	7.0	21.4	34.2	25.1	10.6	1.6	100.0
United States	6.8	20.6	35.1	25.0	10.7	1.8	100.0

Source: Calculation based on Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS

Estimates of the population distribution by race, however, show the percentage of blacks in Louisiana is more than twice the national average. Blacks comprise 32.0% of the state's population, versus 13.2% nationally.

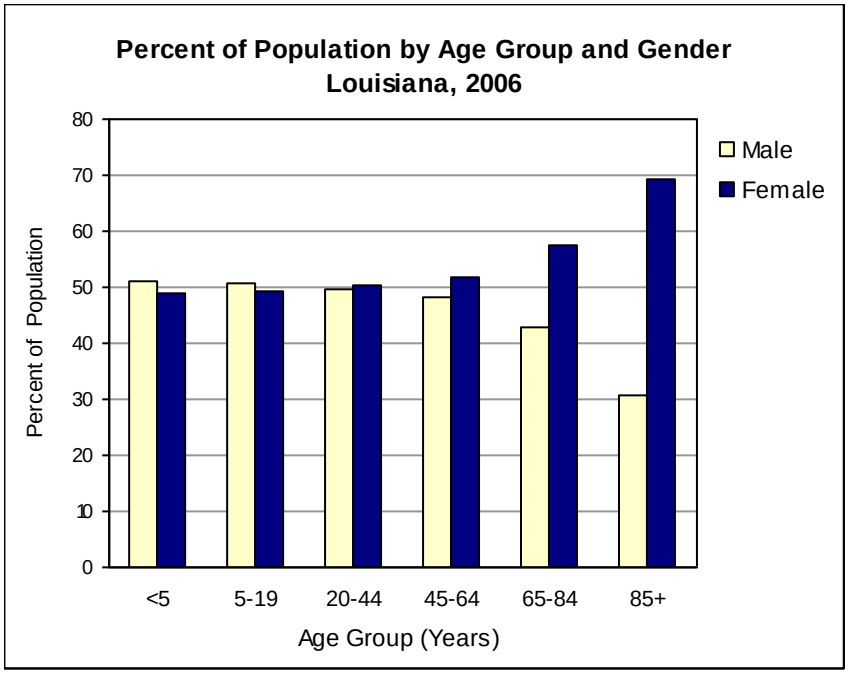


Source: Calculation based on Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS

Percent of Total Population by Race Louisiana and United States, 2006				
	Race			
Location	White	Black	Other	Total
Louisiana	65.8	32.0	2.2	100.0
United States	80.9	13.2	5.9	100.0

Source: Calculation based on Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS (Released on August 2007)

As in the rest of the nation, an increase in the proportion of women to men is seen in older age categories.



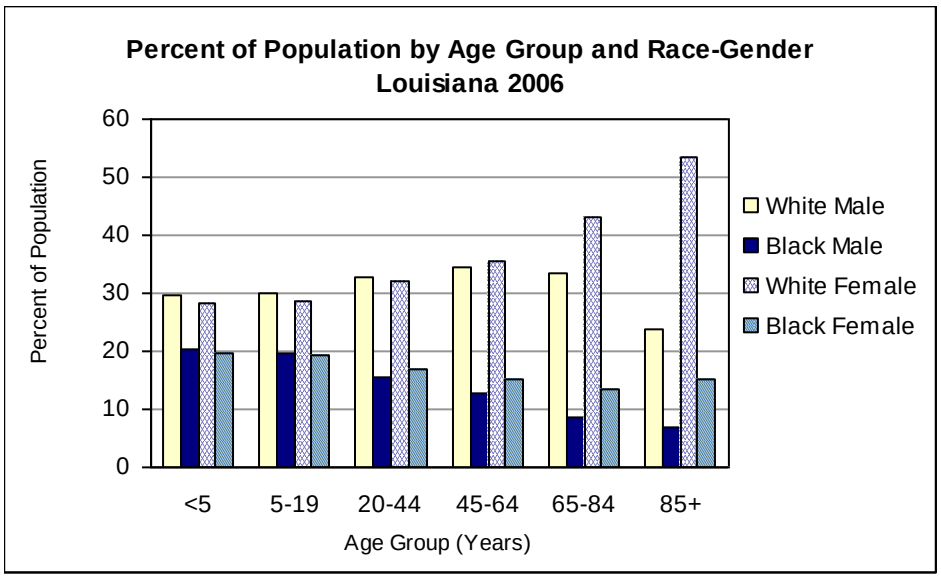
Source: Calculation based on Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS

Percent of Population by Gender, Race and Age Group Louisiana, 2006							
		Age Group (Years)					
Gender	Race	<5	5-19	20-44	45-64	65-84	85 & +
Male	White	29.5	30.1	32.9	34.6	33.4	23.7
	Black	20.4	19.6	15.5	12.6	8.7	6.8
	Other	1.2	1.2	1.3	1.0	0.6	0.4
	Total	51.2	50.9	49.7	48.2	42.8	30.8
Female	White	28.1	28.8	32.1	35.5	43.0	53.3
	Black	19.6	19.3	17.0	15.2	13.5	15.3
	Other	1.1	1.1	1.2	1.0	0.7	0.6
	Total	48.8	49.1	50.3	51.8	57.3	69.2

Source: Calculation based on Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS

Note: Percentages may not add up to 100% due to rounding.

Within individual age groups, the race/sex proportions in Louisiana change with advancing age.



Source: Calculation based on Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS

The U.S. Census Bureau has also provided the estimated parish-level population data for 2006. The changes in Louisiana's mid-year parish populations by 2000 census and the 2006 estimates are presented in the table below:

Louisiana 2006 Population by Parish				
	7/1/2000	*7/1/2006*	*% Change*	*7/1/2006*
Parish	*Census*	*Estimates*	*2000-2006*	*% as Total of State Pop.*
State Total	4468976	4287768	-4.1	94.7
Acadia	58861	59867	1.7	1.3
Allen	25440	25650	0.8	0.6
Ascension	76627	97478	27.2	2.2
Assumption	23388	23671	1.2	0.5
Avoyelles	41481	42835	3.3	0.9
Beauregard	32986	34066	3.3	0.8
Bienville	15752	15066	-4.4	0.3
Bossier	98310	107194	9.0	2.4
Caddo	252161	255091	1.2	5.6
Calcasieu	183577	183428	-0.1	4.1
Caldwell	10560	10593	0.3	0.2
Cameron	9991	8086	-19.1	0.2
Catahoula	10920	10848	-0.7	0.2
Claiborne	16851	16000	-5.1	0.4
Concordia	20247	20266	0.1	0.4
DeSoto	25494	26285	3.1	0.6
E. Baton Rouge	412852	437167	5.9	9.7
E. Carroll	9421	8651	-8.2	0.2
E. Feliciana	21360	21334	-0.1	0.5
Evangeline	35434	35871	1.2	0.8
Franklin	21263	19962	-6.1	0.4
Grant	18698	19032	1.8	0.4
Iberia	73266	74988	2.4	1.7
Iberville	33320	33567	0.7	0.7

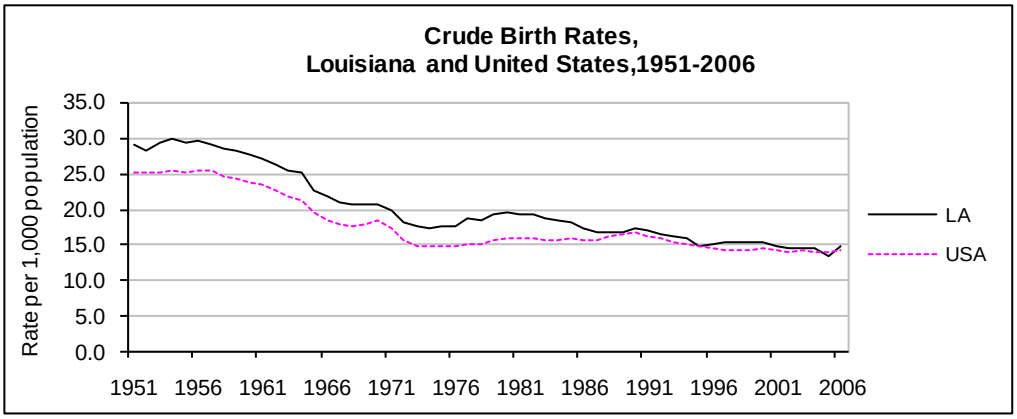
Louisiana 2006 Population by Parish				
	7/1/2000	7/1/2006	% Change	7/1/2006
Parish	Census	Estimates	2000-2006	% as Total of State Pop.
Jackson	15397	15036	-2.3	0.3
Jefferson	455466	441741	-3.0	9.8
Jefferson Davis	31435	31057	-1.2	0.7
Lafayette	190503	202798	6.5	4.5
Lafourche	89974	93438	3.9	2.1
LaSalle	14282	14242	-0.3	0.3
Lincoln	42509	42647	0.3	0.9
Livingston	91814	115268	25.5	2.5
Madison	13728	12914	-5.9	0.3
Morehouse	31021	29715	-4.2	0.7
Natchitoches	39080	39381	0.8	0.9
Orleans	484674	201474	-58.4	4.5
Ouachita	147250	149788	1.7	3.3
Plaquemines	26757	20348	-24.0	0.4
Pointe Coupee	22763	22789	0.1	0.5
Rapides	126337	130726	3.5	2.9
Red River	9622	9609	-0.1	0.2
Richland	20981	20371	-2.9	0.5
Sabine	23459	23800	1.5	0.5
St. Bernard	67229	25592	-61.9	0.6
St. Charles	48072	50969	6.0	1.1
St. Helena	10525	10870	3.3	0.2
St. James	21216	21904	3.2	0.5
St. John	43044	48742	13.2	1.1
St. Landry	87700	91110	3.9	2.0
St. Martin	48583	51114	5.2	1.1
St. Mary	53500	52065	-2.7	1.2
St. Tammany	191268	223432	16.8	4.9
Tangipahoa	100588	112464	11.8	2.5
Tensas	6618	6018	-9.1	0.1
Terrebonne	104503	108938	4.2	2.4
Union	22803	22199	-2.6	0.5
Vermilion	53807	55074	2.4	1.2
Vernon	52531	51223	-2.5	1.1
Washington	43926	44997	2.4	1.0
Webster	41831	41467	-0.9	0.9
W. Baton Rouge	21601	22554	4.4	0.5
W. Carroll	12314	11528	-6.4	0.3
W. Feliciana	15111	15318	1.4	0.3
Winn	16894	16052	-5.0	0.4

Source: United States Census Bureau, 2000 Census and Bridged-Race Population Estimate 2006, U.S. Census Bureau & NCHS

B. BIRTHS

Number of Live Births and Birth Rates

In the year 2006, there were 63,186 births to Louisiana residents, an increase from the 60,530 births in 2005 (Final Data for Birth, Louisiana 2005). Louisiana's 2006 crude birth rate was 14.7 live births per 1,000 populations. Because the crude birth rate represents the number of live births to the total population in an area, without regard to the age or sex distribution of the population, it is useful as a measure of the contribution of births to the growth of the population of the area.[1]



In the table below, Louisiana's crude birth rates are furnished to compare to the rates of its four neighboring states. Louisiana continues to rank relatively high in terms of birth rate as its 2006 ranking is the 16th highest in the nation. Among neighboring states, Louisiana's birth rate is the third highest.

Crude Birth Rates
Louisiana, Neighboring States, and United States, 2006

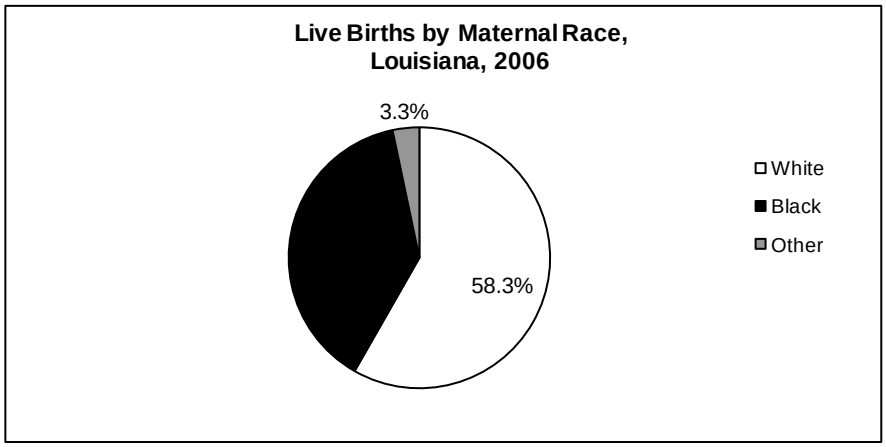
State	*Birth Rate**	*National Ranking*
Alabama	13.7	31
Arkansas	14.6	19
Louisiana	14.8	16
Mississippi	15.8	8
Texas	17.0	2
United States	14.2	N/A

Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008 Health Care Across America. CQ Press, Washington, DC.

[1] Clarke SC and Ventura SJ. *Birth and Fertility for States: United States*, 1990.National Center for Health Statistics. Vital Health Statistics 21(52), 1994.

Black women aged 15-44 years represent 27.3% of the female population of Louisiana belonging to that same age group and 38.4% of the state's live births in the year 2006 were to black mothers. The birth rate is 13.0 for whites and 17.7 for blacks. In 2006, the race-specific birth rate was 81.0 for black mothers age 20-24 and at 56.7 for white mothers at age 25-29.

In 2006, Vernon Parish had the highest birth rate at 18.3 births per 1,000 populations and West Feliciana Parish had the lowest birth rate at 7.3 births per 1,000 populations.



Source: Louisiana State Center for Health Statistics

Live Births By Race, Age of Mother, Parish of Occurrence, and Parish of Residence
Louisiana - 2006

Parish	Total by Occurrence	Total by Residence	Rate+	Race	Maternal age group in years								
					< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 &+	Unk.
STATE	63472	63186	14.7	ALL	186	8583	20946	17580	10261	4590	964	64	12
	37259	36809		WHITE	39	3703	10951	11117	7083	3230	633	46	7
	24114	24293		BLACK	142	4709	9483	5860	2670	1121	287	16	5
	2099	2084		OTHER	5	171	512	603	508	239	44	****	0
ACADIA	556	907	15.2	ALL	****	155	320	250	128	38	14	0	0
	401	683		WHITE	****	98	233	197	109	33	12	0	0
	154	220		BLACK	****	57	86	52	18	****	****	0	0
	****	****		OTHER	0	0	****	****	****	****	0	0	0
ALLEN	0	382	14.9	ALL	0	58	141	98	63	20	****	0	0
	0	283		WHITE	0	40	105	72	49	16	****	0	0
	0	80		BLACK	0	17	28	21	10	****	****	0	0
	0	19		OTHER	0	****	8	5	****	****	0	0	0
ASCENSION	****	1715	17.6	ALL	****	161	429	546	395	155	24	****	****
	0	1254		WHITE	****	84	280	419	325	125	16	****	****
	****	437		BLACK	0	75	144	118	63	29	8	0	0
	0	24		OTHER	0	****	5	9	7	****	0	0	0
ASSUMPTION	0	282	11.9	ALL	****	37	111	72	36	20	****	0	****
	0	160		WHITE	0	10	57	48	26	14	****	0	****
	0	120		BLACK	****	27	53	23	10	6	0	0	0
	0	****		OTHER	0	0	****	****	0	0	0	0	0
AVOYELLES	****	629	14.7	ALL	****	115	243	151	78	35	5	****	0
	****	388		WHITE	0	63	139	112	46	25	****	****	0
	****	231		BLACK	****	51	100	37	31	9	****	0	0
	0	10		OTHER	0	****	****	****	****	****	****	0	0
BEAUREGARD	380	524	15.4	ALL	****	69	191	145	75	38	5	0	0
	320	450		WHITE	0	58	166	130	63	29	****	0	0
	49	61		BLACK	****	9	24	12	7	8	0	0	0
	11	13		OTHER	0	****	****	****	5	****	****	0	0
BIENVILLE	0	194	12.9	ALL	0	38	70	51	26	7	****	0	0
	0	108		WHITE	0	15	42	35	14	****	0	0	0
	0	86		BLACK	0	23	28	16	12	5	****	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
BOSSIER	957	1766	16.5	ALL	5	222	546	535	295	137	23	****	****
	675	1255		WHITE	****	145	360	394	234	103	16	****	0
	262	457		BLACK	****	75	173	124	51	23	6	0	****
	20	54		OTHER	0	****	13	17	10	11	****	0	0
CADDO	6007	3823	15	ALL	25	622	1342	970	579	231	49	****	****
	2961	1503		WHITE	****	129	459	429	324	136	22	****	****
	2912	2255		BLACK	24	491	871	517	234	90	27	****	0
	134	65		OTHER	0	****	12	24	21	5	0	****	0
CALCASIEU	3365	2874	15.7	ALL	****	386	1003	836	445	167	29	****	0
	2376	1938		WHITE	****	228	619	595	348	124	20	****	0
	924	882		BLACK	****	152	370	229	84	37	6	****	0
	65	54		OTHER	0	6	14	12	13	6	****	0	0
CALDWELL	0	137	12.9	ALL	0	22	51	42	13	9	0	0	0
	0	110		WHITE	0	14	43	35	10	8	0	0	0
	0	27		BLACK	0	8	8	7	****	****	0	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0

Live Births By Race, Age of Mother, Parish of Occurrence, and Parish of Residence
Louisiana - 2006

Parish	Total by Occurrence	Total by Residence	Rate+	Race	Maternal age group in years								
					< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 &+	Unk.
CAMERON	0	74	9.2	ALL	****	5	31	27	8	****	0	0	0
	0	73		WHITE	****	****	31	27	8	****	0	0	0
	0	****		BLACK	0	****	0	0	0	0	0	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
CATAHOULA	0	141	13	ALL	****	24	49	44	19	****	****	0	0
	0	100		WHITE	0	12	37	31	18	****	0	0	0
	0	41		BLACK	****	12	12	13	****	****	****	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
CLAIBORNE	52	209	13.1	ALL	0	36	82	52	25	10	****	****	0
	23	92		WHITE	0	11	35	28	12	****	****	****	0
	29	116		BLACK	0	25	47	24	12	7	****	0	0
	0	****		OTHER	0	0	0	0	****	0	0	0	0
CONCORDIA	120	270	13.3	ALL	****	54	105	59	36	14	0	0	0
	28	128		WHITE	0	25	47	35	15	6	0	0	0
	91	140		BLACK	****	29	57	24	20	8	0	0	0
	****	****		OTHER	0	0	****	0	****	0	0	0	0
DESOTO	****	400	15.2	ALL	****	66	146	99	54	30	****	0	0
	****	205		WHITE	0	26	71	52	36	19	****	0	0
	0	192		BLACK	****	39	73	47	18	11	****	0	0
	0	****		OTHER	0	****	****	0	0	0	0	0	0
E BATON ROUGE	11139	6306	14.4	ALL	19	805	1987	1724	1140	515	107	8	****
	6069	2397		WHITE	****	158	520	744	600	308	60	6	0
	4777	3670		BLACK	18	637	1420	915	453	180	44	****	****
	293	239		OTHER	0	10	47	65	87	27	****	0	0
EAST CARROLL	5	135	15.6	ALL	****	20	60	27	15	9	****	0	0
	0	20		WHITE	0	****	6	6	****	****	0	0	0
	5	115		BLACK	****	18	54	21	13	5	****	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
E FELICIANA	****	284	13.3	ALL	0	30	120	81	32	10	10	0	****
	****	144		WHITE	0	10	56	47	14	7	9	0	****
	0	138		BLACK	0	20	63	34	17	****	****	0	0
	0	****		OTHER	0	0	****	0	****	0	0	0	0
EVANGELINE	380	552	15.4	ALL	****	95	209	158	59	25	5	0	0
	181	368		WHITE	0	44	135	119	48	19	****	0	0
	189	182		BLACK	****	51	74	38	11	5	****	0	0
	10	****		OTHER	0	0	0	****	0	****	0	0	0
FRANKLIN	5	307	15.4	ALL	****	61	131	72	24	16	****	0	0
	****	174		WHITE	****	28	72	47	17	8	****	0	0
	****	131		BLACK	****	33	58	25	6	8	0	0	0
	0	****		OTHER	0	0	****	0	****	0	0	0	0
GRANT	****	283	14.9	ALL	0	41	113	77	36	15	****	0	0
	****	239		WHITE	0	32	94	69	31	12	****	0	0
	0	40		BLACK	0	7	19	7	****	****	0	0	0
	0	****		OTHER	0	****	0	****	****	0	0	0	0
IBERIA	1104	1208	16.1	ALL	****	202	433	307	170	83	9	0	0
	579	688		WHITE	****	88	227	187	119	59	6	0	0
	506	493		BLACK	****	111	201	112	43	21	****	0	0
	19	27		OTHER	0	****	5	8	8	****	0	0	0

Live Births By Race, Age of Mother, Parish of Occurrence, and Parish of Residence
Louisiana - 2006

Parish	Total by Occurrence	Total by Residence	Rate+	Race	Maternal age group in years								
					< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 &+	Unk.
IBERVILLE	330	463	13.8	ALL	****	90	179	111	53	24	5	0	0
	50	186		WHITE	0	26	61	50	32	14	****	0	0
	280	276		BLACK	****	64	118	61	21	9	****	0	0
	0	****		OTHER	0	0	0	0	0	****	0	0	0
JACKSON	0	193	12.8	ALL	****	25	79	54	19	12	****	****	0
	0	128		WHITE	****	16	52	36	15	8	0	0	0
	0	64		BLACK	****	9	26	18	****	****	****	****	0
	0	****		OTHER	0	0	****	0	0	0	0	0	0
JEFFERSON	8850	5666	12.8	ALL	10	619	1661	1579	1127	519	138	11	****
	4855	3129		WHITE	****	253	780	916	739	337	92	9	0
	3191	1913		BLACK	6	318	747	474	231	110	23	****	****
	804	624		OTHER	****	48	134	189	157	72	23	0	0
JEFF DAVIS	445	482	15.5	ALL	****	81	180	139	50	22	8	0	0
	356	386		WHITE	****	58	140	119	43	19	6	0	0
	82	87		BLACK	****	23	38	19	****	0	****	0	0
	7	9		OTHER	0	0	****	****	****	****	0	0	0
LAFAYETTE	5381	3155	15.6	ALL	8	346	937	942	583	275	62	****	0
	3514	1938		WHITE	****	126	475	635	457	195	45	****	0
	1740	1133		BLACK	****	218	437	286	100	72	15	****	0
	127	84		OTHER	0	****	25	21	26	8	****	0	0
LAFOURCHE	851	1316	14.1	ALL	****	189	420	397	202	85	19	****	0
	753	994		WHITE	0	115	297	328	163	72	18	****	0
	86	265		BLACK	****	61	106	55	28	11	****	****	0
	12	57		OTHER	0	13	17	14	11	****	0	0	0
LASALLE	****	179	12.6	ALL	0	33	73	47	22	****	****	0	0
	****	149		WHITE	0	24	63	43	17	****	****	0	0
	0	26		BLACK	0	6	10	****	****	****	0	0	0
	0	****		OTHER	0	****	0	0	****	0	0	0	0
LINCOLN	836	593	13.9	ALL	****	81	224	166	80	31	8	0	0
	413	301		WHITE	0	27	93	98	55	22	6	0	0
	415	277		BLACK	****	50	126	65	22	9	****	0	0
	8	15		OTHER	0	****	5	****	****	0	0	0	0
LIVINGSTON	****	1871	16.2	ALL	****	223	592	591	303	140	18	****	****
	****	1763		WHITE	****	209	548	560	287	138	17	****	****
	0	92		BLACK	0	12	40	25	13	****	0	0	0
	****	16		OTHER	0	****	****	6	****	0	****	0	0
MADISON	****	178	13.8	ALL	****	32	74	43	17	8	****	0	0
	0	44		WHITE	****	7	15	13	8	0	0	0	0
	****	133		BLACK	****	25	59	30	9	8	****	0	0
	0	****		OTHER	****	0	0	0	0	0	0	0	0
MOREHOUSE	282	401	13.5	ALL	****	66	150	109	45	22	5	0	0
	150	191		WHITE	0	19	69	63	22	17	****	0	0
	132	208		BLACK	****	47	81	46	21	5	****	0	0
	0	****		OTHER	0	0	0	0	****	0	0	0	0
NATCHITOCHES	659	620	15.7	ALL	0	92	251	157	91	23	6	0	0
	264	280		WHITE	0	26	105	80	50	14	5	0	0
	382	330		BLACK	0	66	142	74	39	8	****	0	0
	13	10		OTHER	0	0	****	****	****	****	0	0	0

Live Births By Race, Age of Mother, Parish of Occurrence, and Parish of Residence
Louisiana - 2006

Parish	Total by Occurrence	Total by Residence	Rate+	Race	Maternal age group in years								
					< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 &+	Unk.
ORLEANS	1601	2626	13	ALL	8	351	725	635	504	322	74	6	****
	480	810		WHITE	0	25	98	173	259	206	43	5	****
	1069	1644		BLACK	7	315	596	405	207	84	29	****	0
	52	172		OTHER	****	11	31	57	38	32	****	0	0
OUACHITA	3814	2401	16	ALL	10	368	770	688	372	163	29	****	0
	2138	1256		WHITE	****	127	364	394	237	110	20	****	0
	1624	1112		BLACK	7	240	402	280	124	50	9	0	0
	52	33		OTHER	0	****	****	14	11	****	0	0	0
PLAQUEMINES	0	294	14.4	ALL	0	31	104	81	48	27	****	0	0
	0	210		WHITE	0	17	72	61	37	20	****	0	0
	0	67		BLACK	0	11	25	19	8	****	0	0	0
	0	17		OTHER	0	****	7	****	****	****	0	0	0
POINTE COUPEE	****	311	13.6	ALL	0	40	111	98	44	12	6	0	0
	0	155		WHITE	0	12	47	56	29	10	****	0	0
	****	155		BLACK	0	28	64	41	15	****	5	0	0
	0	****		OTHER	0	0	0	****	0	0	0	0	0
RAPIDES	3279	2022	15.5	ALL	12	297	705	561	285	134	27	****	0
	2124	1192		WHITE	****	130	397	371	189	87	17	0	0
	1092	787		BLACK	11	164	296	176	88	42	9	****	0
	63	43		OTHER	0	****	12	14	8	5	****	0	0
RED RIVER	****	160	16.7	ALL	****	32	62	40	16	7	****	0	0
	0	74		WHITE	0	7	31	22	7	6	****	0	0
	****	86		BLACK	****	25	31	18	9	****	0	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
RICHLAND	****	308	15.1	ALL	0	47	100	91	52	14	****	0	0
	0	158		WHITE	0	19	46	51	30	11	****	0	0
	****	147		BLACK	0	28	53	40	22	****	****	0	0
	0	****		OTHER	0	0	****	0	0	****	0	0	0
SABINE	0	346	14.5	ALL	****	54	147	89	39	10	5	0	0
	0	241		WHITE	****	36	99	62	31	9	****	0	0
	0	80		BLACK	****	14	39	20	5	0	****	0	0
	0	25		OTHER	0	****	9	7	****	****	****	0	0
ST BERNARD	****	200	7.8	ALL	0	32	68	54	26	14	6	0	0
	****	173		WHITE	0	26	56	51	22	12	6	0	0
	0	22		BLACK	0	6	12	****	****	0	0	0	0
	0	5		OTHER	0	0	0	****	****	****	0	0	0
ST CHARLES	****	719	14.1	ALL	0	70	207	205	148	72	15	****	0
	****	449		WHITE	0	35	110	133	107	49	14	****	0
	****	242		BLACK	0	34	91	65	33	17	****	****	0
	0	28		OTHER	0	****	6	7	8	6	0	0	0
ST HELENA	0	114	10.5	ALL	0	19	40	28	19	5	****	0	0
	0	41		WHITE	0	5	14	12	9	0	****	0	0
	0	73		BLACK	0	14	26	16	10	5	****	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
ST JAMES	0	307	14	ALL	****	36	96	116	28	25	5	0	0
	0	126		WHITE	0	6	31	56	20	11	****	0	0
	0	181		BLACK	****	30	65	60	8	14	****	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0

Live Births By Race, Age of Mother, Parish of Occurrence, and Parish of Residence
Louisiana - 2006

Parish	Total by Occurrence	Total by Residence	Rate+	Race	Maternal age group in years								
					< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 &+	Unk.
ST JOHN	455	770	15.8	ALL	****	97	239	249	132	42	9	0	0
	166	282		WHITE	0	20	75	107	56	19	5	0	0
	282	469		BLACK	****	74	162	137	70	21	****	0	0
	7	19		OTHER	0	****	****	5	6	****	****	0	0
ST LANDRY	1766	1488	16.3	ALL	****	260	543	380	200	76	24	****	0
	1008	732		WHITE	0	89	243	220	121	48	11	0	0
	746	741		BLACK	****	170	297	151	78	27	13	****	0
	12	15		OTHER	0	****	****	9	****	****	0	0	0
ST MARTIN	****	764	14.9	ALL	****	96	275	207	114	55	12	****	0
	****	435		WHITE	0	40	146	125	77	39	6	****	0
	****	325		BLACK	****	55	129	80	36	16	6	****	0
	0	****		OTHER	0	****	0	****	****	0	0	0	0
ST MARY	492	804	15.4	ALL	****	133	321	209	99	28	11	0	0
	259	463		WHITE	****	66	185	125	63	16	7	0	0
	220	317		BLACK	****	65	123	79	33	11	****	0	0
	13	24		OTHER	0	****	13	5	****	****	0	0	0
ST TAMMANY	4129	3102	13.9	ALL	****	257	755	925	716	371	70	6	0
	3305	2610		WHITE	****	186	583	804	639	329	62	5	0
	723	397		BLACK	0	67	146	106	49	23	6	0	0
	101	95		OTHER	0	****	26	15	28	19	****	****	0
TANGIPAHOA	1786	1937	17.2	ALL	8	290	705	539	256	111	28	0	0
	957	1101		WHITE	****	123	376	336	170	77	17	0	0
	814	815		BLACK	6	165	325	196	80	32	11	0	0
	15	21		OTHER	0	****	****	7	6	****	0	0	0
TENSAS	0	71	11.8	ALL	0	18	26	19	6	****	****	0	0
	0	17		WHITE	0	****	5	****	****	0	****	0	0
	0	54		BLACK	0	15	21	15	****	****	0	0	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
TERREBONNE	2664	1752	16.1	ALL	6	240	639	500	240	108	18	****	0
	1739	1203		WHITE	****	142	419	354	187	85	13	****	0
	716	404		BLACK	****	74	160	109	40	15	****	0	0
	209	145		OTHER	****	24	60	37	13	8	****	0	0
UNION	****	341	15.4	ALL	****	71	134	78	38	15	****	0	0
	****	207		WHITE	0	33	79	58	24	10	****	0	0
	0	132		BLACK	****	37	55	19	14	5	0	0	0
	0	****		OTHER	0	****	0	****	0	0	0	0	0
VERMILION	181	851	15.5	ALL	****	129	278	245	129	57	9	****	0
	78	628		WHITE	****	82	184	193	111	49	6	****	0
	98	199		BLACK	0	45	85	43	15	7	****	****	0
	5	24		OTHER	0	****	9	9	****	****	0	0	0
VERNON	886	938	18.3	ALL	0	117	392	265	112	45	7	0	0
	656	725		WHITE	0	90	309	196	91	34	5	0	0
	187	165		BLACK	0	23	70	48	17	5	****	0	0
	43	48		OTHER	0	****	13	21	****	6	0	0	0
WASHINGTON	6	723	16.1	ALL	5	96	294	182	99	39	7	****	0
	0	446		WHITE	****	47	184	119	63	28	****	****	0
	6	273		BLACK	****	49	108	62	36	11	****	0	0
	0	****		OTHER	0	0	****	****	0	0	****	0	0

Live Births By Race, Age of Mother, Parish of Occurrence, and Parish of Residence Louisiana - 2006													
Parish	Total by Occurrence	Total by Residence	Rate+	Race	Maternal age group in years								
					< 15	15-19	20-24	25-29	30-34	35-39	40-44	45 &+	Unk.
WEBSTER	681	511	12.3	ALL	0	87	192	127	71	28	6	0	0
	364	316		WHITE	0	43	110	86	53	21	****	0	0
	316	193		BLACK	0	44	82	39	18	7	****	0	0
	****	****		OTHER	0	0	0	****	0	0	0	0	0
W BATON ROUGE	0	348	15.4	ALL	****	47	115	91	53	31	8	****	0
	0	202		WHITE	0	25	60	59	33	21	****	0	0
	0	146		BLACK	****	22	55	32	20	10	****	****	0
	0	0		OTHER	0	0	0	0	0	0	0	0	0
WEST CARROLL	0	154	13.4	ALL	0	20	61	42	26	5	0	0	0
	0	120		WHITE	0	15	43	37	21	****	0	0	0
	0	33		BLACK	0	5	18	****	5	****	0	0	0
	0	****		OTHER	0	0	0	****	0	0	0	0	0
W FELICIANA	0	112	7.3	ALL	****	14	37	30	19	9	****	0	0
	0	65		WHITE	0	****	13	21	17	9	****	0	0
	0	46		BLACK	****	10	23	9	****	0	****	0	0
	0	****		OTHER	0	0	****	0	0	0	0	0	0
WINN	****	193	12	ALL	****	33	72	48	27	11	0	****	0
	0	123		WHITE	****	20	40	32	20	9	0	****	0
	****	69		BLACK	0	13	31	16	7	****	0	0	0
	0	****		OTHER	0	0	****	0	0	0	0	0	0
OUT OF STATE**	819	1105		ALL	****	99	321	324	213	110	27	7	****
	399	849		WHITE	0	70	231	252	169	92	26	6	****
	408	229		BLACK	****	27	84	65	37	14	****	0	0
	12	27		OTHER	0	****	6	7	7	****	0	****	0

+Rate per 1,000 population. ** Not included in state totals.
**** Suppressed to protect confidentiality.
Source: Louisiana State Center for Health Statistics. Denominators for population based rates are derived from the Research Division, College of Administration and Business of Louisiana Technological University.

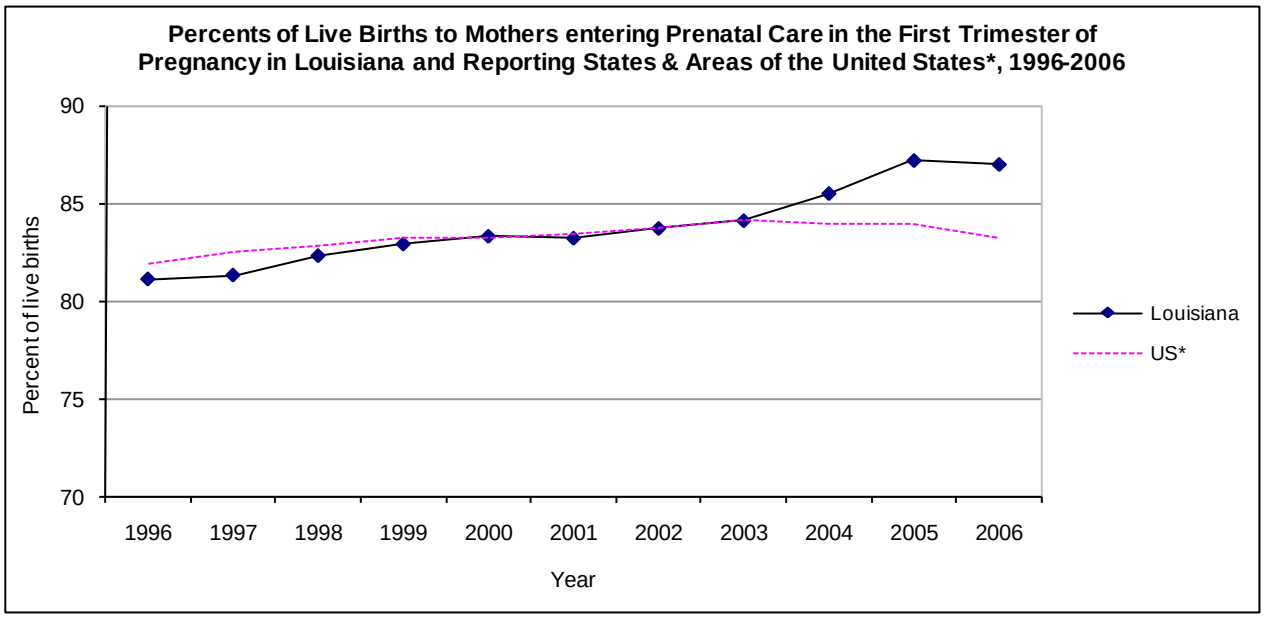
Prenatal Care

Prenatal care is recognized as an important means of providing medical, nutritional, and educational interventions to reduce the risk of adverse pregnancy outcomes and to identify women at high risk for these outcomes. Women in prenatal care routinely receive tests for complete blood count and blood type, diabetes, syphilis, and other conditions. Newborn children are routinely tested for errors of inborn metabolism and other problems. Although these outcomes are rare, a positive test result triggers interventions that benefit both mother and child. Screening and testing undertaken as part of prenatal care has been responsible for substantial improvements in health and wellbeing.[2] Beyond the positive effect on birth outcomes, prenatal care is a vital part of women's health care, as many women (particularly adolescents, minorities, and women of low socio-economic status) start wellbeing checkups only as a consequence of pregnancy.[3]

Prenatal care is most effective when it begins during the early stages of pregnancy. At the national level, the percentage of live births to mothers entering prenatal care in the first trimester of pregnancy has been

[2] Stoto et al. (1999)" Public Health Screening Programs" in: Reducing the Odds: Preventing Perinatal Transmission of HIV in the United States (pp.21-35) Washington, DC: National Academy Press.

steadily increasing. While consistently below the national percentage, Louisiana has shown similar improvement.



* Total Reporting States and Areas that Include 32 states, New York City, District of Columbia, and territories, 2006.

Excludes data for Florida, Idaho, Kansas, Kentucky, Nebraska, New Hampshire, New York (excluding New York City), Pennsylvania, South Carolina, Tennessee, Texas, Vermont, and Washington, which implemented the 2003 Revision of the U.S. Certificate of Live Birth; Prenatal care based on the 2003 Revision of the U.S. Certificate of Live Birth are not compatible with those based on the 1989 Revision of the U.S. Certificate of Live Birth.

"Technical Notes" on "Prenatal care" at the National Vital Statistics Report, Vol. 57, No.7, page 93, January 7, 2009 states that "Substantive changes in both question wording and the sources for this information have resulted in the data that are not comparable among revisions. The wording of the prenatal care item was modified to "Date of first prenatal visit" from "Month prenatal care began". In addition, the 2003 revision process resulted in recommendations that the prenatal care information be gathered from the prenatal care or medical records, whereas the 1989 revision did not recommend a source for these data". See National Vital Statistics Report, Vol. 57, No.7, January 7, 2009, pages 86 and 93 for more information.

In the following table, percentages of live births to mothers utilizing prenatal care are furnished to allow a comparison of Louisiana to its neighboring states. According to the most recent data (February 2009), in the year 2006, 87.2% of Louisiana mothers who gave birth entered prenatal care in the first trimester, compared to 83.9% of mothers in the reporting states and areas. Among neighboring states, Louisiana ranked first for the highest percentage of mothers receiving prenatal care in the first trimester.

Percentage of Live Births to Mothers Receiving Prenatal Care in the First Trimester of Pregnancy, Louisiana, Neighboring States and Reporting States and Areas*, 2005+

State	Percentage of Mothers	National Ranking
Alabama	83.1	22
Arkansas	80.6	27
Louisiana	87.2	6
Mississippi	84.2	18
*Texas**	N/A	N/A
*Total Reporting States and Areas**	83.9	N/A

Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008 Health Care Across America. CQ Press, Washington, DC.

** See footnote on previous page* + *Available as of February 2009*

[3] Fiscella, K. (1995). "Does Prenatal Care Improve Birth Outcomes? A Critical Review." Obstetrics & Gynecology 85, 468-79.

Only 73.3% of black mothers had their first prenatal visit in the first trimester, compared to 87.7% of white mothers.

In Louisiana, adequacy of prenatal care is measured by a modified Kessner index, which defines prenatal care as adequate if the first prenatal visit occurred in the first trimester of pregnancy and if the total number of visits was appropriate to the gestational age of the baby at birth. It should be noted, however, that these measures assess neither the quality nor the content of prenatal care and, therefore, are most likely overestimates of the adequacy of care. Of the 63,186 Louisiana residents who gave birth in 2006, 81.8% received adequate care according to the Kessner index.

Percent of Mothers Receiving Adequate+ Prenatal Care by Parish Louisiana, 2002-2006

Parish	2002	2003	2004	2005	2006
State Total	78.91	80.06	80.98	81.64	81.84
Acadia	61.20	65.67	65.52	64.99	64.62
Allen	85.50	82.43	85.88	90.13	85.90
Ascension	83.53	83.99	84.65	87.74	86.58
Assumption	70.11	66.92	74.43	68.86	72.04
Avoyelles	76.70	83.13	82.50	84.83	88.49
Beauregard	75.91	74.58	70.04	73.80	76.64
Bienville	80.00	77.89	83.87	81.62	83.33
Bossier	80.09	81.59	80.71	81.79	83.51
Caddo	72.61	73.90	76.16	76.29	75.97
Calcasieu	88.26	85.96	90.89	89.82	89.34
Caldwell	88.31	83.50	86.96	80.00	83.09
Cameron	95.70	89.25	91.40	97.26	90.54
Catahoula	72.66	74.80	72.48	78.57	83.94
Claiborne	84.15	71.95	78.92	75.15	76.21
Concordia	58.45	55.19	63.28	64.79	72.93
DeSoto	69.60	72.89	75.41	70.49	76.21
East Baton Rouge	79.68	80.86	80.05	84.23	83.05
East Carroll	71.01	67.44	61.70	71.88	60.90
East Feliciana	76.32	75.77	86.85	87.60	79.78
Evangeline	80.66	75.64	83.99	83.17	81.14
Franklin	66.67	64.52	68.73	67.97	78.62
Grant	84.85	86.45	88.70	87.55	86.88
Iberia	69.90	67.03	66.42	69.24	73.56
Iberville	71.88	75.00	72.31	75.85	79.39
Jackson	75.76	79.33	81.62	84.43	78.53
Jefferson	78.04	82.56	84.78	83.71	83.11
Jefferson Davis	72.35	70.13	73.39	77.78	71.55
Lafayette	91.36	88.93	85.76	88.74	89.49
Lafourche	84.29	73.72	80.62	78.15	72.57
LaSalle	79.49	89.14	90.68	89.95	93.22
Lincoln	68.98	75.84	78.37	81.47	79.25
Livingston	86.17	85.73	87.40	91.90	89.71
Madison	72.86	70.54	70.27	74.39	65.71
Morehouse	75.06	78.50	78.54	79.40	78.03
Natchitoches	79.41	77.02	74.91	72.29	70.98
Orleans	74.69	76.89	78.19	76.42	76.11
Ouachita	82.28	82.52	80.38	82.00	85.10
Plaquemines	81.27	80.82	83.52	84.41	81.34

Percent of Mothers Receiving Adequate+ Prenatal Care by Parish Louisiana, 2002-2006					
Parish	2002	2003	2004	2005	2006
Pointe Coupee	70.00	81.05	77.13	85.28	83.82
Rapides	82.78	87.71	88.48	87.23	90.04
Red River	71.01	72.50	73.72	72.99	75.32
Richland	80.94	78.91	81.47	84.69	84.21
Sabine	77.22	76.88	76.52	74.83	79.30
St. Bernard	79.88	88.28	88.77	86.19	88.08
St. Charles	76.72	83.44	82.53	84.54	83.03
St. Helena	73.08	82.65	72.45	73.08	77.68
St. James	68.65	62.81	73.93	78.10	80.07
St. John	69.90	74.23	78.92	81.26	81.64
St. Landry	69.91	75.34	71.63	75.76	73.49
St. Martin	85.59	86.23	78.58	85.25	85.66
St. Mary	69.09	73.52	78.43	77.01	77.34
St. Tammany	85.37	87.14	87.29	87.65	87.05
Tangipahoa	77.97	80.49	79.97	80.71	83.00
Tensas	55.68	47.50	60.00	50.00	69.01
Terrebonne	81.82	76.71	84.54	77.09	73.95
Union	76.61	82.12	78.78	81.11	80.30
Vermilion	88.85	88.23	86.58	88.33	87.04
Vernon	82.05	76.52	69.21	66.17	73.35
Washington	78.02	81.82	83.33	79.70	84.86
Webster	84.02	81.42	81.51	84.26	82.63
West Baton Rouge	79.87	79.17	81.85	83.44	82.70
West Carroll	77.70	83.33	89.06	82.27	84.31
West Feliciana	79.65	87.20	87.27	91.00	87.39
Winn	80.21	82.35	80.20	80.86	77.49

+According to modified Kessner index.
Source: Louisiana State Center for Health Statistics.

Low Birthweight

A low birthweight infant is defined as an infant weighing less than 2,500 grams (5 pounds, 8 ounces) at birth. Preterm infants who have a lower than normal birth weight are at higher risk of experiencing neurological problems, respiratory and gastrointestinal disorders, developmental problems, and slowed growth[4]. Low birthweight infants who survive are more likely than normal weight infants to have brain damage, lung and liver disease, subnormal growth, developmental problems, and other adverse health conditions. The effects of low birthweight follow these infants throughout life, with a greater likelihood of physical, intellectual, and behavioral difficulties[5]. In the long run, higher proportions of low birthweight infants are enrolled in special education classes relative to their normal birthweight counterparts.[6]

In the year 2006, 7,223 of the 63,186 infants born to Louisiana residents were low birthweight babies. This represents 11.4% of Louisiana's live births for the year, compared to 8.3% born at low birthweight in

[4] High- Risk Infants. Journal of the American Medical Association. 284 (16) 2142 October 25th 2000.
[5] Waldman HB. Perlman SP., Low Birthweight babies grow older, but there could be many problems. Journal of Dentistry for Children. 68 (5-6): 302, 2001 Sep-Dec.
[6] Hack M, Klein NK & Taylor HG. *Long-term developmental outcomes of low birthweight infants*. The Future of Children, Low Birthweight '95; 5:19-34.

the United States as a whole. Both Louisiana and the United States have seen an increase in the percentage of infants with low birthweight in recent years.

According to the National Center for Health Statistics, Louisiana had the second highest percentage of low birthweight babies in the nation in the year 2006, outranked only by Mississippi.

Percent of Live Births Less Than 2500 Grams
Louisiana, Neighboring States, and United States, 2006

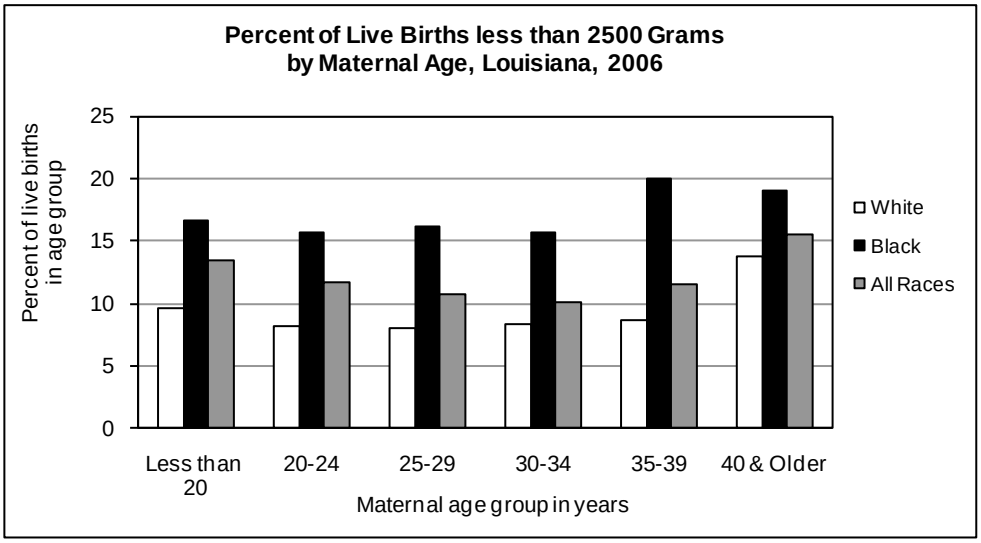
State	Percent of Live Births	National Ranking
Alabama	10.5	3
Arkansas	9.2	10
Louisiana	11.3	2
Mississippi	12.4	1
Texas	8.4	20
United States	8.3	N/A

Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008 Health Care Across America. CQ Press, Washington, DC.

Black women in the state gave birth to infants of low birthweight about twice as frequently as white women did, at 16.3% compared to 8.4% of live births, respectively. Black teenagers under 15 were more likely to have low birthweight babies than white women under 15. Births by age group in 2006 shows that mothers between 20-24 years of age had the highest percentage of low birthweight babies (4.6% of live births), followed by mothers 25-29 years (3.6%).

Infants weighing less than 1,500 grams (3 pounds, 5 ounces) at birth are considered to be very low birthweight and are at much greater risk of mortality and long-term disability. The risk of early death for very low birthweight infants is about 65 times that of infants who weigh at least 1,500 grams.[7] In the year 2005, 2.2% of infants born to Louisiana residents weighed less than 1,500 grams, as compared to 1.5% of infants born to United States residents as a whole. As with infants weighing less than 2,500 grams, there were demographic differences in the mothers giving birth to very low birthweight infants. Black mothers in 2005 gave birth to very low birthweight infants nearly twice as frequently as white mothers did, at 1.4% compared to 0.7% of live births, respectively. Infants born to the youngest and the oldest mothers were more likely to be very low birthweight.

[7] Ventura SJ, Martin JA, Curtin SC, Mathews TJ. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report*; vol. 45 no 11, suppl. Hyattsville, Maryland: National Center for Health Statistics. 1997.



Source: Louisiana State Center for Health Statistics

In the year 2006, Red River Parish had the highest percentage of low birthweight babies in Louisiana at 17.5% of live births, while W. Feliciana Parish had the lowest at 4.5% of live births.

Teen (15 to 19 years) Birth

Teen (15 to 19 years) birth rate for Louisiana in 2006 is shown in the table below:

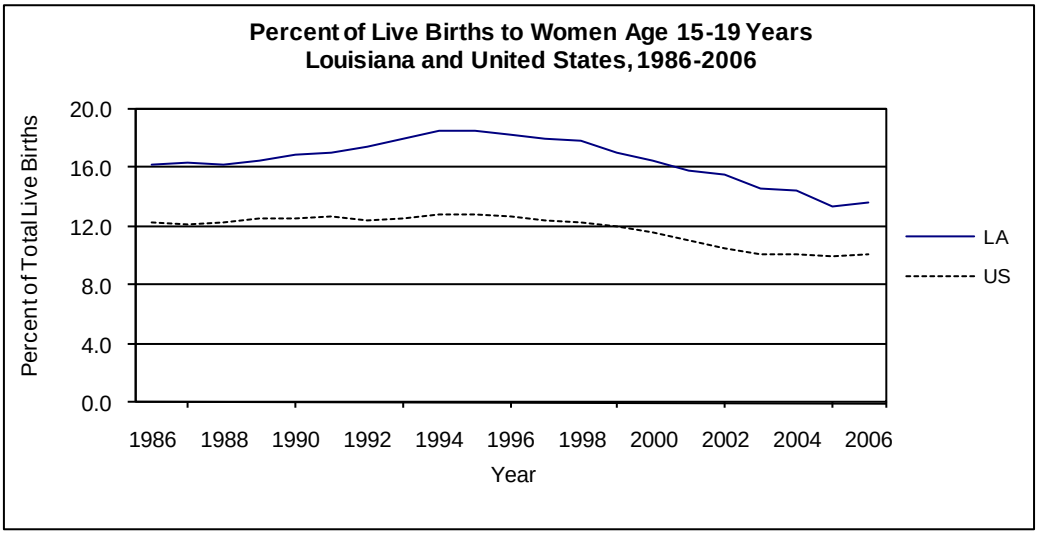
Teen Birth Rate per 1,000 Women (15-19 years) by Parish, Louisiana 2006		
	15-19 years	
Parish	*Birth*	*Rate*
State Total	8583	53.7
Acadia	155	68.1
Allen	58	73.0
Ascension	161	47.3
Assumption	37	43.1
Avoyelles	115	78.9
Beauregard	69	59.5
Bienville	38	72.4
Bossier	222	57.4
Caddo	622	65.2
Calcasieu	386	60.5
Caldwell	22	70.5
Cameron	5	15.8
Catahoula	24	66.1
Claiborne	36	66.7
Concordia	54	82.2
DeSoto	66	67.7
E. Baton Rouge	805	42.5
E. Carroll	20	63.9

Teen Birth Rate per 1,000 Women (15-19 years) by Parish, Louisiana 2006		
	15-19 years	
Parish	Birth	Rate
E. Feliciana	30	44.9
Evangeline	95	70.3
Franklin	61	86.2
Grant	41	60.3
Iberia	202	73.2
Iberville	90	80.0
Jackson	25	46.4
Jefferson	619	43.1
Jefferson Davis	81	73.4
Lafayette	346	44.7
Lafourche	189	51.4
LaSalle	33	76.2
Lincoln	81	30.5
Livingston	223	57.7
Madison	32	65.7
Morehouse	66	63.8
Natchitoches	92	46.0
Orleans	351	39.6
Ouachita	368	59.3
Plaquemines	31	34.4
Pointe Coupee	40	51.3
Rapides	297	66.1
Red River	32	93.0
Richland	47	69.7
Sabine	54	62.1
St. Bernard	32	44.0
St. Charles	70	34.7
St. Helena	19	46.1
St. James	36	41.0
St. John	97	49.2
St. Landry	260	75.1
St. Martin	96	53.8
St. Mary	133	70.9
St. Tammany	257	33.0
Tangipahoa	290	63.0
Tensas	18	87.0
Terrebonne	240	60.5
Union	71	91.8
Vermilion	129	65.5
Vernon	117	74.1
Washington	96	64.0
Webster	87	62.1
W. Baton Rouge	47	58.4
W. Carroll	20	56.7
W. Feliciana	14	37.6
Winn	33	63.1

Source: Louisiana State Center for Health Statistics
Bridged-Race Population Estimates (2006)

Despite an overall decrease in teen birth rates over the last two decades, teenage pregnancy continues to be a problem for the nation. Teen mothers are less likely to receive adequate prenatal care and are more likely to give birth to low birthweight infants.[8] Their infants are more likely to be hospitalized and go on to have childhood health problems. National statistics report that most births to teens (78.9%) occur outside marriage[9] and 25% of teenage mothers go on to have additional children within the next two years.[10] These factors, combined with the fact that teenage mothers are less likely to finish high school, contribute to the high proportion of women living in poverty who first gave birth during adolescence.

As illustrated in the graph below, the percentage of live births to teen mothers age 15-19 years has decreased over the last 20 years nationwide; this percentage, however, is higher in Louisiana than in United States overall. While, both nationwide and in Louisiana, an increase in teenage births was observed in the mid-1990's, the proportion of teenage births as a total of all births has been on a downward trend for the last six years.



Source: Louisiana State Center for Health Statistics and National Center for Health Statistics, NVSR Reports

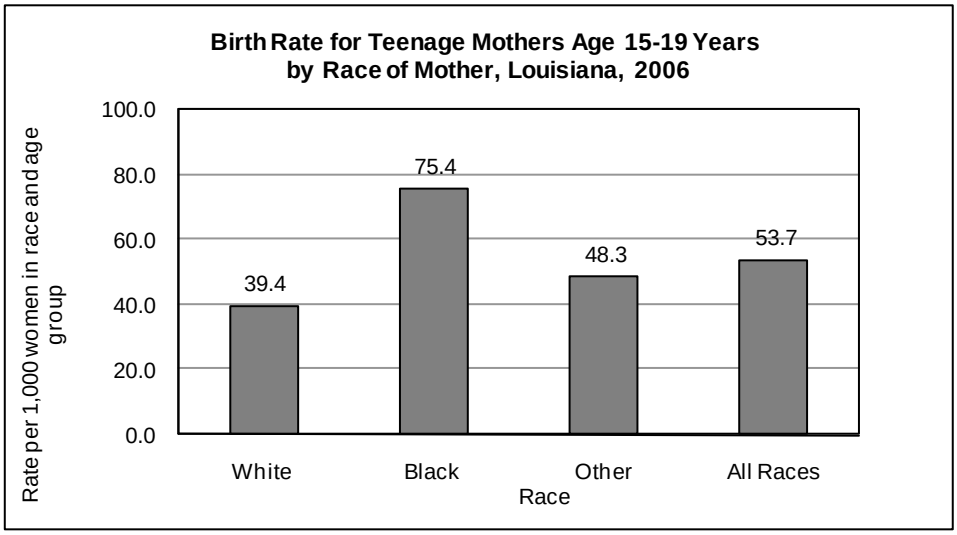
The following table shows teen birth rates for women aged 15-19 years in Louisiana and neighboring states. Louisiana has consistently ranked among the top ten states in terms of rate of live births to teens. In the year 2006, Louisiana had the 13th highest rate of live births to teens aged 15-19 in the nation, ranking lower than Mississippi, Texas, Alabama, and Arkansas which were all in the top five.

[8] Lewis CT, Mathews TJ, Heuser RL. *Prenatal Care in the United States, 1980-94*. National Center for Health Statistics. Vital Health Statistics 21(54). 1996.
[9] Ventura SJ, Curtin SC, Martin JA, Mathews TJ. "Variations in Teenage Birth Rates, 1991-98." *National Vital Statistics Reports,* vol. 48 no 6. Hyattsville, Maryland: National Center for Health Statistics. 2000.
[10] The Alan Guttmacher Institute. *Sex and America's Teenagers*. 1994.

Teenage Birth Rate in 2006 Louisiana, Neighboring States, and United States, 2006		
State	**Live Births per 1,000 Women 15-19 Years Old***	**National Ranking**
Alabama	55.9	9
Arkansas	63.0	5
Louisiana	52.7	13
Mississippi	71.3	1
Texas	64.9	2
United States	43.3	N/A

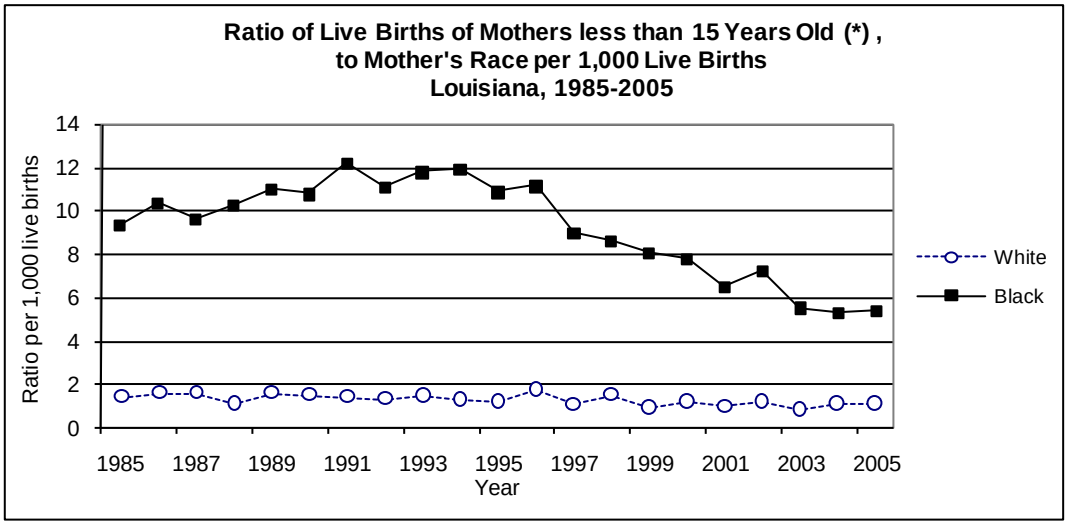
Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008 Health Care Across America. CQ Press, Washington, DC.
* Preliminary data by state of residence.

To make meaningful comparisons of births among teens in different race groups, teen birth rates have been calculated by relating the number of teen births in each race group to the total number of teen women in the same age-race group. In Louisiana, the birth rate for black teenagers aged 15-19 in 2006 (75.4) was nearly twice than that of white teenagers (39.4) and teenagers of other races (48.3), of that same age group, as illustrated in the following graph.



Source: Louisiana State Center for Health Statistics

There is a great racial disparity in the proportion of women giving birth to live infants when younger than 15 years of age. Black women are historically more likely than white women to conceive and deliver a child before turning 15 years old as illustrated in the following graph.



Source: Louisiana State Center for Health Statistics (*) Mothers aged less than 8 years are not included in the count

Births by Parish of Residence, Race of Mother, and Selected Characteristics Louisiana, 2006				
Parish	Total Births	Total Live Births to Unmarried Mothers	% Births to Mothers 15-19 Years Old	Percent with Adequate Prenatal Care+
Louisiana	63186	31289	13.58	81.84
White	36809	11764	10.06	87.65
Black	24293	18730	19.38	73.36
Other	2084	795	8.21	77.76
Acadia	907	455	17.09	64.62
White	683	266	14.35	70.35
Black	220	187	25.91	46.98
Other	****	****	0.00	33.33
Allen	382	172	15.18	85.90
White	283	103	14.13	88.85
Black	80	58	21.25	78.75
Other	19	11	5.26	72.22
Ascension	1715	638	9.39	86.58
White	1254	326	6.70	92.10
Black	437	304	17.16	71.76
Other	24	8	8.33	70.83
Assumption	282	146	13.12	72.04
White	160	44	6.25	82.91
Black	120	101	22.50	57.14
Other	****	****	0.00	100.00
Avoyelles	629	352	18.28	88.49
White	388	153	16.24	91.60
Black	231	193	22.08	82.74
Other	10	6	10.00	100.00
Beauregard	524	164	13.17	76.64
White	450	116	12.89	78.70
Black	61	41	14.75	62.71
Other	13	7	15.38	69.23

Births by Parish of Residence, Race of Mother, and Selected Characteristics Louisiana, 2006				
Parish	Total Births	Total Live Births to Unmarried Mothers	% Births to Mothers 15-19 Years Old	Percent with Adequate Prenatal Care+
Bienville	194	108	19.59	83.33
White	108	44	13.89	86.11
Black	86	64	26.74	79.76
Other	0	0	0.00	0.00
Bossier	1766	703	12.57	83.51
White	1255	371	11.55	88.16
Black	457	318	16.41	71.59
Other	54	14	3.70	75.93
Caddo	3823	2266	16.27	75.97
White	1503	434	8.58	88.84
Black	2255	1819	21.77	67.09
Other	65	13	3.08	86.15
Calcasieu	2874	1330	13.43	89.34
White	1938	646	11.76	91.93
Black	882	667	17.23	84.20
Other	54	17	11.11	79.63
Caldwell	137	63	16.06	83.09
White	110	37	12.73	81.82
Black	27	26	29.63	88.46
Other	0	0	0.00	0.00
Cameron	74	32	6.76	90.54
White	73	31	5.48	90.41
Black	****	****	100.00	100.00
Other	0	0	0.00	0.00
Catahoula	141	75	17.02	83.94
White	100	39	12.00	93.75
Black	41	36	29.27	60.98
Other	0	0	0.00	0.00
Claiborne	209	122	17.22	76.21
White	92	29	11.96	83.33
Black	116	93	21.55	71.30
Other	****	0	0.00	0.00
Concordia	270	170	20.00	72.93
White	128	48	19.53	85.83
Black	140	122	20.71	61.31
Other	****	0	0.00	50.00
DeSoto	400	229	16.50	76.21
White	205	65	12.68	88.00
Black	192	162	20.31	63.30
Other	****	****	33.33	100.00
E. Baton Rouge	6306	3384	12.77	83.05
White	2397	596	6.59	91.39
Black	3670	2726	17.36	77.75
Other	239	62	4.18	81.09
East Carroll	135	108	14.81	60.90
White	20	****	10.00	75.00
Black	115	105	15.65	58.41
Other	0	0	0.00	0.00

Births by Parish of Residence, Race of Mother, and Selected Characteristics Louisiana, 2006				
Parish	Total Births	Total Live Births to Unmarried Mothers	% Births to Mothers 15-19 Years Old	Percent with Adequate Prenatal Care+
E. Feliciana	284	146	10.56	79.78
White	144	35	6.94	82.73
Black	138	111	14.49	76.47
Other	****	0	0.00	100.00
Evangeline	552	282	17.21	81.14
White	368	133	11.96	84.38
Black	182	147	28.02	74.30
Other	****	****	0.00	100.00
Franklin	307	159	19.87	78.62
White	174	50	16.09	87.28
Black	131	109	25.19	66.67
Other	****	0	0.00	100.00
Grant	283	119	14.49	86.88
White	239	86	13.39	87.82
Black	40	31	17.50	80.00
Other	****	****	50.00	100.00
Iberia	1208	698	16.72	73.56
White	688	289	12.79	81.96
Black	493	400	22.52	61.73
Other	27	9	11.11	74.07
Iberville	463	301	19.44	79.39
White	186	76	13.98	87.91
Black	276	225	23.19	73.63
Other	****	0	0.00	100.00
Jackson	193	90	12.95	78.53
White	128	37	12.50	85.04
Black	64	52	14.06	65.08
Other	****	****	0.00	100.00
Jefferson	5666	2775	10.92	83.11
White	3129	1136	8.09	87.34
Black	1913	1379	16.62	78.12
Other	624	260	7.69	77.27
Jefferson Davis	482	233	16.80	71.55
White	386	168	15.03	74.35
Black	87	62	26.44	59.77
Other	9	****	0.00	66.67
Lafayette	3155	1447	10.97	89.49
White	1938	607	6.50	93.51
Black	1133	820	19.24	82.35
Other	84	20	2.38	93.83
Lafourche	1316	633	14.36	72.57
White	994	377	11.57	77.09
Black	265	223	23.02	56.37
Other	57	33	22.81	68.42
LaSalle	179	74	18.44	93.22
White	149	47	16.11	95.27
Black	26	23	23.08	88.00
Other	****	****	75.00	50.00

Births by Parish of Residence, Race of Mother, and Selected Characteristics Louisiana, 2006				
Parish	Total Births	Total Live Births to Unmarried Mothers	% Births to Mothers 15-19 Years Old	Percent with Adequate Prenatal Care+
Lincoln	593	291	13.66	79.25
White	301	63	8.97	86.00
Black	277	223	18.05	72.76
Other	15	5	26.67	60.00
Livingston	1871	623	11.92	89.71
White	1763	555	11.85	90.52
Black	92	61	13.04	76.40
Other	16	7	12.50	75.00
Madison	178	122	17.98	65.71
White	44	17	15.91	86.36
Black	133	104	18.80	59.23
Other	****	****	0.00	0.00
Morehouse	401	234	16.46	78.03
White	191	64	9.95	87.83
Black	208	169	22.60	68.78
Other	****	****	0.00	100.00
Natchitoches	620	349	14.84	70.98
White	280	88	9.29	81.29
Black	330	258	20.00	62.11
Other	10	****	0.00	70.00
Orleans	2626	1563	13.37	76.11
White	810	167	3.09	88.66
Black	1644	1320	19.16	70.72
Other	172	76	6.40	68.82
Ouachita	2401	1267	15.33	85.10
White	1256	348	10.11	92.23
Black	1112	911	21.58	76.56
Other	33	8	3.03	100.00
Plaquemines	294	119	10.54	81.34
White	210	67	8.10	83.82
Black	67	45	16.42	76.19
Other	17	7	17.65	70.59
Pointe Coupee	311	171	12.86	83.82
White	155	45	7.74	90.91
Black	155	126	18.06	76.62
Other	****	0	0.00	100.00
Rapides	2022	1005	14.69	90.04
White	1192	376	10.91	93.84
Black	787	619	20.84	84.52
Other	43	10	6.98	86.05
Red River	160	89	20.00	75.32
White	74	19	9.46	90.54
Black	86	70	29.07	61.90
Other	0	0	0.00	0.00
Richland	308	170	15.26	84.21
White	158	47	12.03	93.59
Black	147	123	19.05	73.79
Other	****	0	0.00	100.00

Births by Parish of Residence, Race of Mother, and Selected Characteristics Louisiana, 2006				
Parish	Total Births	Total Live Births to Unmarried Mothers	% Births to Mothers 15-19 Years Old	Percent with Adequate Prenatal Care+
Sabine	346	186	15.61	79.30
White	241	97	14.94	86.67
Black	80	67	17.50	57.69
Other	25	22	16.00	76.00
St. Bernard	200	95	16.00	88.08
White	173	77	15.03	90.36
Black	22	17	27.27	68.18
Other	5	****	0.00	100.00
St. Charles	719	331	9.74	83.03
White	449	149	7.80	87.95
Black	242	174	14.05	74.90
Other	28	8	3.57	75.00
St. Helena	114	72	16.67	77.68
White	41	17	12.20	87.50
Black	73	55	19.18	72.22
Other	0	0	0.00	0.00
St. James	307	175	11.73	80.07
White	126	31	4.76	87.10
Black	181	144	16.57	75.14
Other	0	0	0.00	0.00
St. John	770	450	12.60	81.64
White	282	94	7.09	87.77
Black	469	348	15.78	78.04
Other	19	8	15.79	78.95
St. Landry	1488	827	17.47	73.49
White	732	248	12.16	82.60
Black	741	572	22.94	64.48
Other	15	7	6.67	73.33
St. Martin	764	425	12.57	85.66
White	435	165	9.20	90.26
Black	325	258	16.92	79.56
Other	****	****	25.00	75.00
St. Mary	804	480	16.54	77.34
White	463	207	14.25	79.78
Black	317	261	20.50	74.60
Other	24	12	8.33	66.67
St. Tammany	3102	998	8.28	87.05
White	2610	713	7.13	89.36
Black	397	261	16.88	73.83
Other	95	24	4.21	78.95
Tangipahoa	1937	1037	14.97	83.00
White	1101	381	11.17	90.16
Black	815	647	20.25	73.06
Other	21	9	9.52	90.48
Tensas	71	50	25.35	69.01
White	17	****	17.65	82.35
Black	54	46	27.78	64.81
Other	0	0	0.00	0.00

Births by Parish of Residence, Race of Mother, and Selected Characteristics Louisiana, 2006				
Parish	Total Births	Total Live Births to Unmarried Mothers	% Births to Mothers 15-19 Years Old	Percent with Adequate Prenatal Care+
Terrebonne	1752	887	13.70	73.95
White	1203	491	11.80	77.85
Black	404	307	18.32	61.68
Other	145	89	16.55	75.52
Union	341	181	20.82	80.30
White	207	74	15.94	86.76
Black	132	107	28.03	69.77
Other	****	0	50.00	100.00
Vermilion	851	407	15.16	87.04
White	628	239	13.06	89.41
Black	199	157	22.61	79.90
Other	24	11	8.33	83.33
Vernon	938	198	12.47	73.35
White	725	127	12.41	74.16
Black	165	66	13.94	72.67
Other	48	5	8.33	63.04
Washington	723	354	13.28	84.86
White	446	135	10.54	90.81
Black	273	217	17.95	74.81
Other	****	****	0.00	100.00
Webster	511	273	17.03	82.63
White	316	116	13.61	88.10
Black	193	157	22.80	73.40
Other	****	0	0.00	100.00
W. Baton Rouge	348	187	13.51	82.70
White	202	75	12.38	91.46
Black	146	112	15.07	70.42
Other	0	0	0.00	0.00
West Carroll	154	55	12.99	84.31
White	120	29	12.50	88.24
Black	33	26	15.15	69.70
Other	****	0	0.00	100.00
W. Feliciana	112	48	12.50	87.39
White	65	10	6.15	96.88
Black	46	38	21.74	73.91
Other	****	0	0.00	100.00
Winn	193	96	17.10	77.49
White	123	37	16.26	86.89
Black	69	59	18.84	60.29
Other	****	0	0.00	100.00
Out of State*	1105	339	8.96	N/A
White	849	176	8.24	
Black	229	156	11.79	
Other	27	7	7.41	

** Not included in state totals.
N/A Not Applicable

C. DEATHS

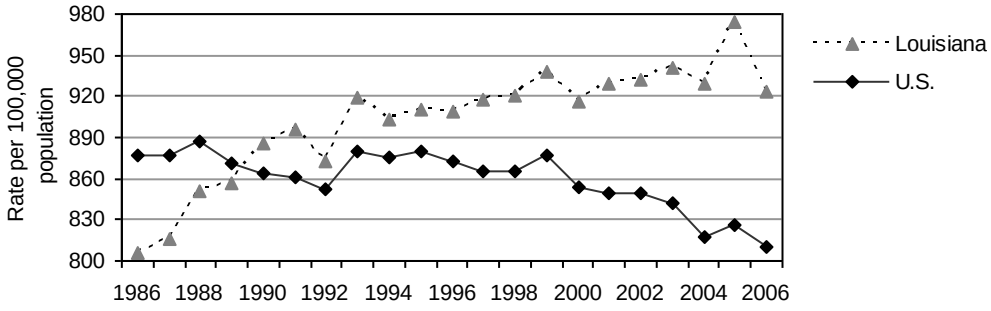
Death Counts and Crude Mortality Rates

There were 39,581 deaths among Louisiana residents in 2006, representing a decrease from 44,084 deaths in 2005. Of the deaths in 2006, 27,540 (69.6%) were among whites, 11,783 (29.8%) among blacks, and 254 (0.6%) among other races. By age group, 22.7% were in the age group 45-64 years, 43.5% in the age group 65-84 years, and 22.7% among those who were 85 years and older.

Crude (unadjusted) death rates are useful for examining the overall mortality in an area or population group, since they utilize total population and do not account for any population attributes. In Louisiana, the crude death rate decreased from 974.5 per 100,000 population in 2005 to 920 per 100,000 population in 2006.

The United States death rate in 2006 was 810.3 per 1,000 population and 825.9 in 2005.

Figure 5.2 Crude Death Rates
Louisiana and United States, 1986-2006



Source: Louisiana State Center for Health Statistics, Final Data 2006
National Center for Health Statistics Preliminary Data 2006

Crude death rates also give an estimate of the overall mortality for a population, because they measure deaths in the population as a whole. Adjusted rates (also called standardized rates) are derived from statistical procedures that adjust for differences in population composition, such as age, race, or gender, which can increase or decrease the likelihood of death in one or more of the populations being considered. Because age-adjusted death rates control for the variations in age structures of populations, they make comparisons between mortality rates of different populations meaningful. However, the age-adjusted mortality measure is not a true estimation of the death rate as the crude mortality rate is, and it should not be used in comparisons with crude mortality rates. Differences in age-adjusted rates in two different populations may reflect an actual difference in death rates in the two populations, or may be due to other factors, such as race or gender, which were not taken into account when the adjustments for age were made. In the table below, crude rates for 2006 are preliminary[i].

Mortality Rates Louisiana, Neighboring States, and United States, 2006		
State	**Crude Rate***	**Age-Adjusted Rate****
Alabama	1021.4	952.3
Arkansas	1009.5	888.5
*Louisiana****	923.1	928.5
Mississippi	981.3	961.1
Texas	669.4	784.8
United States	825.8	810.3

*Rate per 100,000 population, preliminary data 2006.
**Rate per 100,000 U.S. Standard population 2000. Source: National Center for Health Statistics, National Vital Statistics Report, Vol 56, No.16, Preliminary Death Data 2006
***Louisiana Final Death Data 2006.

Number of Deaths by Age Group and Gender. Louisiana - 2006									
Gender	**Age Group**								
	Under 5	**5-14**	**15-24**	**25-44**	**45-64**	**65-84**	**85+**	**Unknown**	**Total**
Male	415	77	634	1789	5413	8817	2984	2	20131
Female	306	48	194	949	3564	8388	6001	0	19450
Total	721	125	828	2738	8977	17205	8985	2	39581

Source: Louisiana State Center for Health Statistics

Number And Rate of Deaths by Race-Gender, Age Groups, and Parish Louisiana - 2006																
				Age group in years												
Parish	Total	Rate	Race/ Gender	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
State Total	39581	9.2	ALL	633	88	63	62	283	545	1064	1674	3674	5303	6913	10292	8985	2
	13875		WM	141	32	16	24	106	251	403	635	1336	1986	2700	3891	2352	2
	13665		WF	94	8	15	8	38	82	164	352	798	1326	2092	3970	4718	0
	6103		BM	209	26	18	19	110	160	311	411	902	1136	1123	1060	618	0
	5680		BF	179	19	13	10	25	46	169	258	608	812	953	1324	1264	0
	153		OM	7	0	0	0	**	5	15	14	22	31	22	21	14	0
	105		OF	**	**	**	**	**	**	**	**	8	12	23	26	19	0
Acadia	644	10.8	ALL	10	0	0	0	7	13	16	38	56	92	113	131	168	0
	249		WM	**	0	0	0	**	11	11	20	23	41	50	43	45	0
	285		WF	**	0	0	0	**	**	**	11	19	31	45	68	101	0
	51		BM	**	0	0	0	**	**	0	6	6	13	10	9	**	0
	58		BF	**	0	0	0	0	0	**	**	8	7	7	11	19	0
	**		OM	0	0	0	0	0	0	0	0	0	0	**	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allen	72	2.8	ALL	0	**	0	0	0	**	**	**	8	6	19	20	13	0
	28		WM	0	0	0	0	0	**	**	0	**	**	9	7	**	0
	30		WF	0	0	0	0	0	0	0	**	**	0	7	10	7	0
	**		BM	0	0	0	0	0	0	0	0	0	**	**	**	0	0
	7		BF	0	0	0	0	0	0	0	0	**	**	**	**	**	0
	**		OM	0	0	0	0	0	0	0	0	**	0	0	**	0	0
	**		OF	0	**	0	0	0	0	0	0	0	0	0	0	0	0
Ascension	589	6.0	ALL	12	**	0	0	8	16	23	27	66	81	116	121	115	0
	228		WM	**	**	0	0	**	6	14	12	30	33	52	46	25	0
	206		WF	**	0	0	0	**	**	**	6	13	26	37	53	63	0
	86		BM	5	**	0	0	**	5	**	**	15	13	19	11	7	0
	68		BF	**	0	0	0	0	**	**	5	8	9	7	11	20	0
	**		OM	0	0	0	0	0	0	0	0	0	0	**	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Number And Rate of Deaths by Race-Gender, Age Groups, and Parish
Louisiana - 2006

Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Assumption	174	7.4	ALL	**	0	0	**	**	**	8	9	16	23	32	38	40	0
	59		WM	**	0	0	0	**	0	**	**	5	7	11	18	11	0
	50		WF	0	0	0	0	**	0	**	**	**	5	8	11	19	0
	32		BM	**	0	0	0	**	0	**	5	**	**	9	**	**	0
	32		BF	**	0	0	**	0	**	**	**	5	7	**	6	5	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	0	0	**	0
Avoyelles	465	10.9	ALL	8	**	0	**	0	10	9	15	35	55	84	112	135	0
	167		WM	0	0	0	**	0	6	**	6	12	17	38	48	35	0
	177		WF	**	0	0	0	0	**	0	**	6	18	24	41	82	0
	69		BM	**	**	0	0	0	**	**	**	10	13	16	11	7	0
	51		BF	**	0	0	0	0	**	**	**	7	6	6	12	11	0
	**		OM	0	0	0	0	0	0	0	0	0	**	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beauregard	351	10.3	ALL	6	**	0	0	**	**	7	14	35	49	72	86	75	0
	160		WM	**	**	0	0	**	**	**	7	13	27	41	39	22	0
	151		WF	**	0	0	0	0	**	**	7	15	14	21	39	50	0
	26		BM	**	0	0	0	0	0	**	0	**	5	8	6	**	0
	14		BF	**	0	0	0	0	0	0	0	**	**	**	**	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bienville	214	14.2	ALL	**	**	0	0	**	**	**	**	15	21	45	57	62	0
	54		WM	0	**	0	0	**	**	0	0	**	7	13	13	12	0
	76		WF	0	0	0	0	0	0	**	**	**	6	11	23	31	0
	39		BM	**	0	0	0	0	0	**	**	5	**	10	8	7	0
	45		BF	0	0	0	0	0	0	0	0	5	**	11	13	12	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bossier	833	7.8	ALL	11	**	**	**	5	**	18	29	84	96	172	217	194	0
	303		WM	8	**	0	**	**	**	**	8	39	36	78	86	39	0
	369		WF	0	0	0	0	**	**	6	7	24	39	61	105	123	0
	78		BM	**	0	0	0	0	0	5	8	10	13	18	12	10	0
	74		BF	**	0	**	0	0	**	**	6	9	6	12	13	22	0
	5		OM	0	0	0	0	0	0	**	0	**	**	**	0	0	0
	**		OF	0	0	0	0	0	0	0	0	**	0	**	**	0	0
Caddo	2640	10.3	ALL	46	11	**	**	12	32	59	96	218	349	471	695	645	0
	740		WM	5	**	0	0	**	13	12	30	64	109	150	234	117	0
	829		WF	**	**	0	0	**	**	8	13	27	67	129	253	322	0
	534		BM	23	**	**	**	7	13	23	31	77	93	98	96	66	0
	531		BF	15	**	**	**	0	**	16	20	49	80	93	111	139	0
	**		OM	0	0	0	0	0	0	0	**	**	0	**	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	0	**	**	0
Calcasieu	1814	9.9	ALL	33	8	**	6	12	29	63	73	193	248	307	449	391	0
	713		WM	8	**	**	5	6	18	36	34	78	106	120	178	118	0
	680		WF	8	**	0	**	**	**	14	19	52	70	110	191	210	0
	232		BM	13	**	0	0	**	7	9	13	43	48	37	36	22	0
	181		BF	**	**	0	0	**	**	**	7	20	23	38	43	41	0
	5		OM	0	0	0	0	0	0	**	0	0	**	**	**	0	0
	**		OF	**	0	0	0	**	0	0	0	0	0	**	0	0	0

Number And Rate of Deaths by Race-Gender, Age Groups, and Parish
Louisiana - 2006

Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Caldwell	115	10.9	ALL	0	0	0	0	0	**	**	**	7	17	19	35	29	0
	47		WM	0	0	0	0	0	**	**	**	**	11	8	13	7	0
	43		WF	0	0	0	0	0	0	0	**	**	**	7	14	18	0
	12		BM	0	0	0	0	0	0	0	**	**	**	**	5	**	0
	12		BF	0	0	0	0	0	0	**	0	0	**	**	**	**	0
	**		OM	0	0	0	0	0	0	**	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cameron	58	7.2	ALL	**	0	0	0	**	**	**	6	8	12	9	10	8	0
	30		WM	0	0	0	0	**	**	0	**	5	8	7	**	**	0
	27		WF	**	0	0	0	0	0	**	**	**	**	**	7	5	0
	**		BM	0	0	0	0	0	0	0	**	0	0	0	0	0	0
	0		BF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Catahoula	111	10.2	ALL	0	0	0	**	0	**	**	**	8	13	21	37	23	0
	38		WM	0	0	0	**	0	**	0	**	**	6	12	10	**	0
	40		WF	0	0	0	0	0	0	**	**	**	**	6	16	10	0
	16		BM	0	0	0	0	0	0	**	**	**	**	**	**	**	0
	17		BF	0	0	0	0	0	0	0	0	0	**	**	7	8	0
	-		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claiborne	167	10.4	ALL	**	0	0	0	0	0	**	7	14	22	27	52	39	0
	46		WM	**	0	0	0	0	0	0	**	**	6	8	17	9	0
	56		WF	**	0	0	0	0	0	0	**	**	**	7	21	21	0
	33		BM	0	0	0	0	0	0	**	**	6	6	8	6	**	0
	32		BF	**	0	0	0	0	0	**	**	**	6	**	8	5	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concordia	240	11.8	ALL	**	**	0	0	**	0	5	5	23	36	45	68	50	0
	80		WM	**	0	0	0	**	0	**	**	10	9	19	26	10	0
	80		WF	**	0	0	0	0	0	0	**	7	13	15	21	21	0
	40		BM	**	**	0	0	**	0	0	**	**	6	6	13	8	0
	40		BF	**	**	0	0	0	0	**	0	**	8	5	8	11	0
	-		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Desoto	287	10.9	ALL	**	0	0	0	**	0	5	6	28	38	62	72	71	0
	85		WM	0	0	0	0	**	0	0	**	13	15	19	26	10	0
	85		WF	0	0	0	0	0	0	**	**	5	5	17	28	26	0
	58		BM	**	0	0	0	0	0	**	**	7	10	17	6	14	0
	59		BF	**	0	0	0	0	0	**	**	**	8	9	12	21	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E Baton Rouge	3627	8.3	ALL	71	**	6	6	34	50	91	181	360	471	574	927	852	0
	969		WM	6	0	**	0	8	20	19	30	92	110	170	305	208	0
	1063		WF	**	0	**	**	**	**	10	24	49	87	133	317	431	0
	810		BM	26	**	**	**	16	22	39	77	125	155	152	131	60	0
	763		BF	37	**	**	**	6	5	23	50	92	114	115	171	147	0
	12		OM	0	0	0	0	0	0	0	0	**	**	**	0	5	0
	10		OF	0	0	**	0	**	0	0	0	0	**	**	**	**	0

Number And Rate of Deaths by Race-Gender, Age Groups, and Parish
Louisiana - 2006

Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
E Carroll	94	10.9	ALL	**	0	0	0	0	0	**	6	10	13	19	22	18	0
	28		WM	0	0	0	0	0	0	0	**	**	**	9	6	**	0
	15		WF	0	0	0	0	0	0	0	**	**	**	**	**	6	0
	28		BM	**	0	0	0	0	0	**	0	**	6	6	7	**	0
	23		BF	**	0	0	0	0	0	**	**	**	**	**	6	7	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E Feliciana	226	10.6	ALL	**	0	0	0	**	**	7	9	22	28	48	57	48	0
	89		WM	0	0	0	0	0	**	**	**	5	9	21	30	18	0
	54		WF	**	0	0	0	**	**	**	0	5	8	8	13	16	0
	50		BM	**	0	0	0	0	0	**	5	9	6	11	9	6	0
	32		BF	0	0	0	0	**	0	**	**	**	5	7	5	8	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	**	0	0	0
Evangeline	352	9.8	ALL	6	**	0	**	**	5	6	11	30	45	57	99	90	0
	140		WM	**	**	0	0	0	**	**	**	11	20	22	47	29	0
	140		WF	**	0	0	**	0	**	0	**	10	14	17	41	51	0
	29		BM	**	0	0	0	0	0	0	**	6	**	7	**	6	0
	43		BF	**	0	0	0	**	0	**	**	**	9	11	7	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Franklin	243	12.2	ALL	6	0	**	**	**	**	5	7	21	12	48	72	66	0
	91		WM	**	0	0	0	**	**	**	6	9	5	18	29	18	0
	87		WF	**	0	0	0	0	0	**	**	5	**	19	24	35	0
	33		BM	**	0	**	**	**	0	**	0	5	5	**	8	**	0
	32		BF	0	0	0	0	0	0	**	0	**	**	8	11	9	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grant	195	10.2	ALL	**	0	0	**	0	**	**	11	16	22	42	56	40	0
	84		WM	0	0	0	**	0	**	**	**	9	8	22	29	9	0
	63		WF	0	0	0	0	0	0	0	**	**	7	10	18	22	0
	21		BM	**	0	0	0	0	0	0	**	**	**	5	**	**	0
	24		BF	0	0	0	0	0	0	**	**	**	**	**	**	5	0
	**		OM	0	0	0	0	0	0	0	0	0	**	**	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	0	**	0	0
Iberia	688	9.2	ALL	10	**	**	**	9	9	20	25	59	86	104	198	162	0
	235		WM	0	0	0	**	**	6	6	9	14	30	47	66	52	0
	250		WF	**	0	**	0	**	**	**	9	17	28	26	86	74	0
	103		BM	5	0	**	0	**	**	8	6	15	15	16	16	18	0
	93		BF	**	**	0	0	**	0	**	**	12	12	14	28	18	0
	**		OM	0	0	0	0	0	0	**	0	**	**	0	**	0	0
	**		OF	0	**	0	0	0	0	0	0	0	0	**	**	0	0
Iberville	299	8.9	ALL	**	0	0	0	**	7	8	15	38	56	62	58	52	0
	82		WM	0	0	0	0	0	**	0	**	14	16	17	19	10	0
	74		WF	0	0	0	0	0	**	0	0	**	14	14	16	25	0
	64		BM	**	0	0	0	0	**	**	7	11	12	14	6	7	0
	78		BF	**	0	0	0	**	**	**	**	9	14	16	17	10	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	**	0	0	0

Number And Rate of Deaths by Race-Gender, Age Groups, and Parish
Louisiana - 2006

Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Jackson	167	11.1	ALL	0	0	0	0	0	**	**	7	9	23	28	49	48	0
	52		WM	0	0	0	0	0	**	0	**	**	8	12	15	11	0
	69		WF	0	0	0	0	0	0	0	**	5	9	10	18	25	0
	21		BM	0	0	0	0	0	0	**	**	**	**	**	7	5	0
	24		BF	0	0	0	0	0	0	**	0	0	**	5	9	6	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	0	0	**	0
Jefferson	3848	8.7	ALL	43	7	6	6	28	45	109	202	356	508	631	1118	787	2
	1579		WM	13	**	**	**	5	16	43	94	151	227	269	488	265	2
	1456		WF	10	0	**	0	**	6	18	45	77	147	221	477	449	0
	429		BM	9	**	**	**	18	20	31	34	61	80	81	65	24	0
	334		BF	8	**	0	**	**	**	14	23	55	46	53	81	45	0
	37		OM	**	0	0	0	0	0	**	5	9	7	**	5	**	0
	13		OF	0	0	0	0	0	0	**	**	**	**	**	**	**	0
Jeff Davis	335	10.8	ALL	8	**	**	0	**	**	**	14	32	42	53	89	86	0
	141		WM	5	0	0	0	**	**	**	8	7	18	28	40	29	0
	136		WF	**	0	**	0	0	0	**	5	12	15	16	39	46	0
	28		BM	**	**	0	0	**	0	0	0	7	**	**	8	**	0
	30		BF	0	**	0	0	0	0	0	**	6	6	7	**	7	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lafayette	1536	7.6	ALL	43	**	**	**	13	24	42	64	166	192	255	391	340	0
	588		WM	10	**	**	0	6	12	18	29	66	80	94	161	109	0
	542		WF	8	0	**	0	5	6	7	13	40	45	83	147	187	0
	223		BM	11	0	0	**	**	**	13	19	40	41	40	41	12	0
	170		BF	14	**	0	0	**	0	**	**	18	26	37	38	29	0
	8		OM	0	0	0	0	0	**	0	**	**	0	0	**	**	0
	5		OF	0	0	0	0	0	**	0	0	0	0	**	**	**	0
Lafourche	775	8.3	ALL	10	0	**	0	**	10	23	30	64	92	150	206	184	0
	326		WM	**	0	**	0	**	7	11	16	30	44	70	80	63	0
	335		WF	0	0	**	0	**	**	5	6	23	34	50	100	111	0
	67		BM	5	0	0	0	0	0	**	5	5	10	17	18	**	0
	38		BF	**	0	0	0	0	0	**	**	**	**	10	7	6	0
	**		OM	0	0	0	0	0	0	0	0	**	0	0	0	**	0
	6		OF	**	0	0	0	0	0	**	0	0	0	**	**	0	0
Lasalle	163	11.4	ALL	0	0	0	0	**	**	**	5	8	16	31	48	49	0
	64		WM	0	0	0	0	**	**	**	**	7	9	10	15	17	0
	87		WF	0	0	0	0	0	0	**	**	**	5	16	31	29	0
	**		BM	0	0	0	0	0	0	0	0	0	0	**	**	0	0
	7		BF	0	0	0	0	0	0	0	0	0	0	**	**	**	0
	**		OM	0	0	0	0	0	0	0	0	0	**	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	**	0	0	0	0
Lincoln	297	7.0	ALL	6	**	**	**	**	**	5	10	19	34	59	74	80	0
	81		WM	**	**	**	0	**	**	**	**	**	10	18	23	17	0
	83		WF	0	0	0	0	0	**	0	**	**	**	13	20	38	0
	61		BM	**	0	0	**	**	**	**	**	5	9	11	16	10	0
	71		BF	**	0	0	0	0	0	**	**	8	11	17	15	15	0
	**		OM	0	0	0	0	0	0	0	**	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Livingston	856	7.4	ALL	14	**	0	**	8	17	32	34	100	157	160	189	139	0
	418		WM	5	**	0	**	8	12	24	16	62	88	73	88	37	0
	380		WF	**	0	0	0	0	**	5	17	33	58	77	90	93	0
	28		BM	**	**	0	0	0	**	**	0	**	**	**	7	**	0
	26		BF	**	0	0	0	0	0	0	0	**	7	6	**	5	0
	**		OM	**	0	0	0	0	0	0	0	0	0	**	0	0	0
	**		OF	0	0	0	0	0	0	0	**	0	**	0	0	0	0
Madison	147	11.4	ALL	**	0	0	0	0	**	5	**	14	14	30	35	42	0
	29		WM	0	0	0	0	0	0	**	**	**	**	7	9	6	0
	43		WF	0	0	0	0	0	**	**	0	0	**	7	13	18	0
	25		BM	0	0	0	0	0	**	**	**	8	**	**	**	**	0
	49		BF	**	0	0	0	0	0	**	0	5	**	13	9	15	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	**	0	0	0	0
Morehouse	407	13.7	ALL	**	0	**	**	**	**	7	16	33	51	82	101	109	0
	129		WM	0	0	0	**	**	**	**	5	**	19	34	27	35	0
	116		WF	0	0	**	0	0	**	0	**	5	8	20	36	42	0
	82		BM	0	0	0	0	**	**	**	**	15	12	19	20	8	0
	79		BF	**	0	0	0	0	0	**	**	9	12	9	17	24	0
	**		OM	0	0	0	0	0	0	0	0	0	0	0	**	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natchitoches	380	9.6	ALL	8	0	**	0	**	**	10	20	33	49	69	89	98	0
	115		WM	**	0	0	0	0	**	**	8	11	22	22	26	22	0
	113		WF	0	0	0	0	0	0	0	**	5	6	21	34	44	0
	76		BM	5	0	**	0	**	**	7	**	12	13	12	12	9	0
	75		BF	**	0	0	0	0	0	**	6	5	8	14	16	23	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	**	0	0	0	0	0	0	0	0	0	0	**	0	0
Orleans	2499	12.4	ALL	24	**	**	6	27	62	103	115	257	354	360	605	581	0
	471		WM	**	0	0	0	0	7	15	23	45	68	66	140	105	0
	498		WF	**	0	0	0	**	**	**	11	22	33	49	136	239	0
	794		BM	7	**	**	5	25	44	65	47	132	141	126	130	69	0
	702		BF	11	0	**	**	0	5	17	32	58	108	114	191	164	0
	20		OM	**	0	0	0	**	**	**	**	0	**	**	**	**	0
	14		OF	0	**	0	0	0	0	0	0	0	**	**	6	**	0
Ouachita	1409	9.4	ALL	31	**	**	0	8	13	32	44	103	174	246	411	343	0
	475		WM	5	**	0	0	**	5	13	12	44	54	110	138	90	0
	502		WF	6	0	0	0	0	**	5	11	19	40	77	165	177	0
	201		BM	10	0	0	0	**	**	10	10	23	41	24	51	27	0
	226		BF	10	**	**	0	**	5	**	10	17	39	34	55	48	0
	**		OM	0	0	0	0	0	0	0	**	0	0	**	**	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	0	**	**	0
Plaquemines	149	7.3	ALL	**	0	**	0	**	**	**	8	23	16	30	39	20	0
	70		WM	**	0	0	0	**	**	**	6	12	6	19	15	7	0
	44		WF	0	0	0	0	**	0	**	0	6	**	7	15	11	0
	18		BM	**	0	0	0	0	0	**	**	**	5	**	**	**	0
	16		BF	0	0	**	0	0	**	0	0	**	**	**	5	**	0
	**		OM	0	0	0	0	0	0	0	0	0	0	0	**	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Point Coupee	226	9.9	ALL	**	0	0	0	**	**	8	7	18	31	42	61	53	0
	73		WM	0	0	0	0	0	0	**	**	**	10	15	28	12	0
	68		WF	**	0	0	0	0	0	5	**	6	5	8	17	25	0
	48		BM	**	0	0	0	**	**	**	**	7	12	9	8	6	0
	37		BF	**	0	0	0	0	0	**	0	**	**	10	8	10	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rapides	1352	10.3	ALL	15	**	5	**	10	16	35	53	103	175	266	350	321	0
	456		WM	6	0	**	**	**	6	14	16	29	64	98	122	95	0
	464		WF	**	0	**	0	**	**	**	10	23	40	85	143	154	0
	218		BM	6	**	**	0	**	**	8	15	33	42	47	34	24	0
	214		BF	**	0	**	0	**	**	11	12	18	29	36	51	48	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red River	104	10.8	ALL	**	0	0	0	0	**	0	**	8	12	28	31	17	0
	34		WM	0	0	0	0	0	0	0	**	**	**	14	11	**	0
	36		WF	0	0	0	0	0	0	0	**	**	6	**	15	8	0
	20		BM	**	0	0	0	0	**	0	**	**	**	7	**	**	0
	14		BF	**	0	0	0	0	0	0	**	**	**	**	**	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richland	213	10.5	ALL	**	0	**	0	**	**	**	11	10	30	33	62	60	0
	78		WM	**	0	0	0	**	0	0	**	**	16	14	24	17	0
	61		WF	**	0	0	0	0	**	**	**	**	**	6	18	29	0
	31		BM	0	0	0	0	0	**	0	**	**	9	5	5	5	0
	43		BF	0	0	**	0	0	0	0	5	**	**	8	15	9	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sabine	234	9.8	ALL	**	0	0	0	0	**	**	8	12	28	44	65	67	0
	105		WM	**	0	0	0	0	**	**	5	5	12	26	28	23	0
	99		WF	**	0	0	0	0	**	0	**	5	10	13	32	34	0
	15		BM	0	0	0	0	0	**	**	0	**	5	**	**	**	0
	14		BF	0	0	0	0	0	0	0	0	**	**	**	**	8	0
	**		OM	0	0	0	0	0	0	0	0	0	0	0	**	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Bernard	272	10.6	ALL	**	**	**	0	**	**	8	19	32	30	38	84	53	0
	134		WM	**	0	0	0	0	0	8	14	24	16	22	33	15	0
	118		WF	0	**	**	0	**	0	0	**	7	10	12	48	34	0
	13		BM	0	0	0	0	**	**	0	**	**	**	**	**	**	0
	6		BF	**	0	0	0	0	0	0	0	0	**	**	0	**	0
	**		OM	0	0	0	0	0	0	0	0	0	0	0	**	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Charles	369	7.2	ALL	7	**	**	**	0	5	12	19	41	46	60	104	70	0
	148		WM	**	0	0	**	0	**	6	8	14	17	23	51	23	0
	133		WF	**	**	0	0	0	**	**	7	11	17	20	34	36	0
	45		BM	0	**	**	0	0	0	0	**	11	7	7	10	5	0
	41		BF	**	0	0	0	0	**	**	**	**	5	10	9	5	0
	**		OM	0	0	0	0	0	0	0	0	0	0	0	0	**	0
	**		OF	0	0	0	0	0	0	0	0	**	0	0	0	0	0

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Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
St. Helena	125	11.5	ALL	**	0	**	0	**	**	6	**	10	15	23	37	22	0
	31		WM	**	0	0	0	0	**	**	**	**	**	7	11	**	0
	34		WF	0	0	0	0	0	**	0	**	**	**	6	15	6	0
	33		BM	**	0	0	0	0	0	**	**	6	**	7	**	6	0
	27		BF	**	0	**	0	**	0	**	0	**	6	**	7	6	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. James	211	9.6	ALL	**	**	0	**	**	**	**	8	19	28	38	52	51	0
	57		WM	0	0	0	0	**	0	0	**	**	5	14	22	12	0
	42		WF	0	0	0	0	0	0	0	0	**	5	9	7	20	0
	47		BM	**	**	0	0	0	**	**	5	7	10	6	9	**	0
	65		BF	**	0	0	**	**	**	**	**	9	8	9	14	15	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. John	342	7.0	ALL	10	**	0	**	6	11	10	10	35	46	67	83	62	0
	87		WM	**	**	0	0	**	**	0	**	7	12	22	23	12	0
	98		WF	0	0	0	0	0	0	**	**	8	9	17	30	32	0
	82		BM	**	0	0	**	**	7	8	5	7	13	14	11	8	0
	71		BF	**	0	0	0	0	0	**	**	12	11	13	19	9	0
	**		OM	0	0	0	0	0	0	0	0	**	**	0	0	**	0
	**		OF	0	0	0	0	0	0	0	0	0	0	**	0	0	0
St. Landry	921	10.1	ALL	18	**	**	**	8	12	26	55	71	123	156	228	218	0
	276		WM	**	0	0	0	**	8	8	22	21	34	48	75	54	0
	298		WF	0	0	0	0	**	**	5	8	14	27	42	89	110	0
	168		BM	6	**	**	**	**	**	5	11	23	42	30	26	18	0
	178		BF	10	**	0	**	**	0	8	13	13	20	36	38	36	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	**	0	0	0	0	0	0
St. Martin	440	8.6	ALL	10	**	**	0	**	12	8	19	40	69	83	104	86	0
	153		WM	0	0	0	0	0	8	**	9	13	17	34	46	22	0
	139		WF	**	0	**	0	**	**	**	**	7	21	23	33	45	0
	83		BM	6	**	**	0	**	**	**	5	10	17	15	13	9	0
	64		BF	**	0	**	0	**	**	**	**	10	14	10	12	10	0
	**		OM	0	0	0	0	0	0	0	0	0	0	**	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Mary	561	10.8	ALL	5	0	**	**	**	**	10	23	48	107	93	146	119	0
	200		WM	**	0	**	0	**	**	**	6	25	40	34	57	26	0
	169		WF	0	0	0	**	0	0	0	**	9	21	25	50	59	0
	90		BM	**	0	0	0	**	**	**	10	7	22	20	18	6	0
	90		BF	**	0	0	0	0	0	**	**	7	21	12	19	25	0
	6		OM	0	0	0	0	0	0	**	0	0	**	**	0	0	0
	6		OF	0	0	0	0	0	0	0	0	0	**	0	**	**	0
St. Tammany	1731	7.7	ALL	25	**	**	5	14	27	46	70	168	238	302	467	361	0
	813		WM	8	**	**	**	7	15	25	39	85	126	143	237	119	0
	758		WF	9	**	**	0	**	6	12	19	60	86	135	204	223	0
	105		BM	**	0	**	**	**	5	9	7	16	20	16	16	6	0
	52		BF	**	0	0	0	**	**	0	**	7	**	8	10	13	0
	**		OM	0	0	0	0	0	0	0	**	0	**	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	**	0	0	0	0

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Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Tangipahoa	1086	9.7	ALL	15	0	**	**	7	18	36	42	118	153	193	252	248	0
	403		WM	**	0	0	**	**	12	18	14	46	64	75	108	59	0
	387		WF	**	0	0	0	**	**	6	12	29	42	60	90	142	0
	155		BM	8	0	**	0	**	**	7	10	21	32	35	23	14	0
	139		BF	**	0	**	**	0	**	5	6	22	14	23	31	32	0
	**		OM	0	0	0	0	0	0	0	0	0	**	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	0	0	0	0	**	0
Tensas	81	13.5	ALL	0	0	0	0	**	**	**	**	5	16	10	21	24	0
	18		WM	0	0	0	0	0	0	0	0	**	**	**	9	**	0
	17		WF	0	0	0	0	0	0	**	0	0	**	**	**	5	0
	20		BM	0	0	0	0	0	0	0	**	0	8	**	**	6	0
	26		BF	0	0	0	0	**	**	0	0	**	**	**	5	11	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Terrebonne	965	8.9	ALL	23	**	**	**	7	16	33	46	91	134	174	252	182	0
	408		WM	9	0	**	**	**	12	13	24	50	55	73	113	55	0
	350		WF	**	**	**	0	0	**	7	8	21	34	65	99	108	0
	87		BM	8	**	**	0	**	**	5	6	10	19	18	11	**	0
	87		BF	**	0	0	0	**	**	**	6	7	20	12	22	12	0
	18		OM	0	0	0	0	**	0	**	**	**	**	**	**	**	0
	15		OF	0	0	0	0	0	0	0	**	**	**	**	**	**	0
Union	259	11.7	ALL	**	**	0	0	**	**	7	6	23	39	51	66	61	0
	95		WM	0	0	0	0	**	0	**	**	5	20	27	27	11	0
	90		WF	**	0	0	0	0	**	**	**	6	9	13	21	32	0
	37		BM	0	0	0	0	0	0	**	0	8	9	5	6	8	0
	37		BF	0	**	0	0	0	0	**	**	**	**	6	12	10	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermilion	532	9.7	ALL	9	**	**	0	**	7	14	27	38	61	82	136	153	0
	238		WM	**	**	**	0	**	**	9	16	17	30	39	65	53	0
	228		WF	**	0	0	0	**	**	**	7	13	16	35	54	95	0
	31		BM	**	0	0	0	0	**	**	**	**	8	**	6	0	0
	30		BF	**	0	0	0	0	**	0	**	**	5	**	10	5	0
	**		OM	0	0	0	0	0	0	0	0	**	**	0	**	0	0
	**		OF	**	0	0	0	0	0	0	0	0	0	0	0	0	0
Vernon	340	6.6	ALL	11	**	0	0	**	5	8	13	34	55	60	83	66	0
	159		WM	5	**	0	0	**	**	7	10	20	28	27	37	18	0
	138		WF	**	0	0	0	0	0	0	**	8	22	24	38	41	0
	18		BM	**	0	0	0	**	0	**	0	**	**	**	**	**	0
	21		BF	**	**	0	0	0	**	0	0	**	**	5	6	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	0	0	0	0	0	**	**	**	0	**	0
Washington	549	12.2	ALL	**	**	**	**	**	**	11	16	59	73	128	149	96	0
	208		WM	0	**	**	**	**	**	5	**	19	37	60	57	18	0
	196		WF	**	**	0	**	**	**	0	7	19	16	37	62	49	0
	80		BM	**	0	0	0	0	0	**	**	15	11	19	13	13	0
	64		BF	0	0	0	**	0	0	**	**	6	9	12	17	16	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	**		OF	0	0	0	**	0	0	0	0	0	0	0	0	0	0

Number And Rate of Deaths by Race-Gender, Age Groups, and Parish
Louisiana - 2006

Parish	Total	Rate	Race/ Gender	Age group in years													
				<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Unk.
Webster	550	13.3	ALL	**	**	**	**	**	7	8	13	53	66	80	156	158	0
	182		WM	**	0	0	0	**	**	5	9	14	29	42	51	25	0
	193		WF	**	0	0	**	0	**	**	**	10	18	15	61	81	0
	70		BM	0	0	0	0	0	0	**	0	17	11	14	13	14	0
	105		BF	0	**	**	0	0	**	**	**	12	8	9	31	38	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W Baton Rouge	204	9.0	ALL	7	0	0	0	**	**	8	7	19	45	38	49	28	0
	73		WM	**	0	0	0	**	0	**	**	5	18	15	14	12	0
	52		WF	**	0	0	0	0	**	**	**	**	9	9	16	8	0
	39		BM	0	0	0	0	0	0	**	**	**	10	9	11	**	0
	40		BF	**	0	0	0	0	0	**	**	7	8	5	8	5	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West Carroll	140	12.1	ALL	**	0	0	**	0	**	**	**	6	10	28	39	48	0
	54		WM	0	0	0	0	0	**	**	**	**	6	12	16	14	0
	68		WF	**	0	0	**	0	0	0	0	**	**	11	19	30	0
	9		BM	0	0	0	0	0	**	0	0	**	0	**	**	**	0
	9		BF	0	0	0	0	0	0	0	0	**	**	**	**	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W Feliciana	129	8.4	ALL	**	0	**	0	0	**	**	7	15	36	20	25	18	0
	38		WM	**	0	**	0	0	**	0	**	5	11	6	5	**	0
	30		WF	0	0	0	0	0	**	0	**	0	7	6	9	6	0
	35		BM	**	0	0	0	0	0	0	**	5	13	5	5	**	0
	26		BF	**	0	0	0	0	0	**	0	5	5	**	6	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Winn	179	11.2	ALL	**	0	0	0	0	**	**	6	11	24	24	57	51	0
	71		WM	0	0	0	0	0	**	**	**	**	13	14	18	16	0
	65		WF	0	0	0	0	0	0	0	**	**	5	7	22	28	0
	19		BM	**	0	0	0	0	0	**	**	**	**	0	8	**	0
	24		BF	0	0	0	0	0	0	0	0	5	**	**	9	**	0
	0		OM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0		OF	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Lousiana State Center for Health Statistics
*Rate per 1,000 population
**Cells suppressed to maintain confidentiality

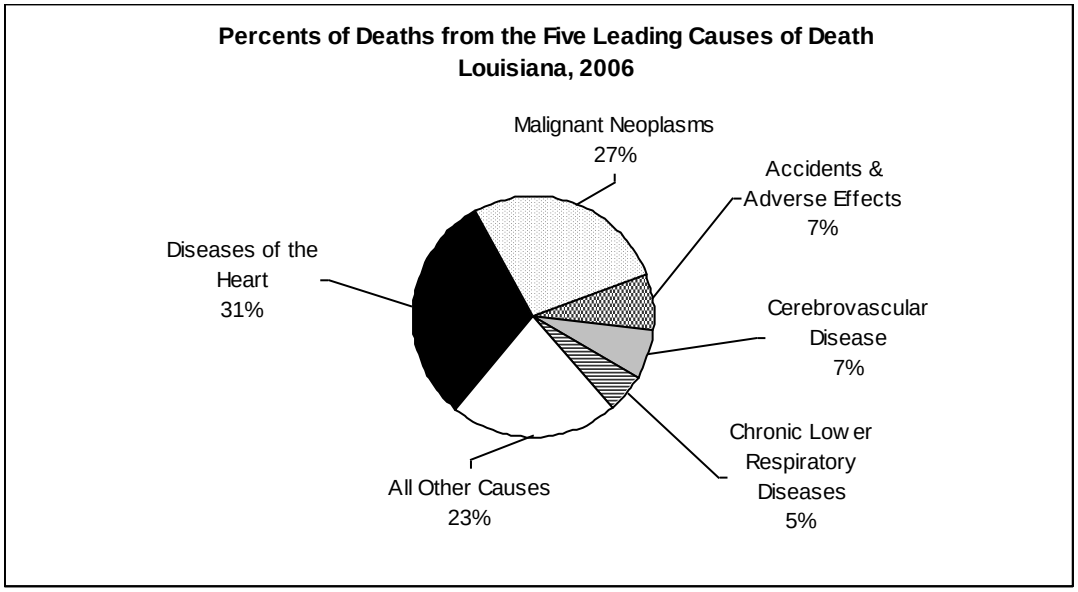
Age-Adjusted Mortality Rate for Total Deaths

The age-adjusted death rate from all causes for Louisiana in 2006 was 918.13 per 100,000 (2000 U.S. standard population).

Leading Causes of Death

Beginning with deaths occurring in 1999, the United States has adopted the World Health Organization's tenth revision of the International Classification of Diseases (ICD-10) guidelines for coding cause of death information recorded on death certificates. Because ICD-10 incorporated changes in the way causes of death are grouped to produce cause-of-death statistics, death statistics generated under ICD-9 (1979-

1998) and ICD-10 might not be comparable for some causes of death. It is important to be aware of these potential comparability issues when viewing and evaluating changes in death rates over time.



Source: Louisiana State Center for Health Statistics

There were 39,581 deaths to Louisiana residents in 2006. As shown in the figure above, of all deaths in 2006, 77% were attributable to those five causes. Moreover, the top four causes have consistently been the leading causes in Louisiana for the past 20 years, though its specific order has alternated. Although the last two decades have seen a considerable downward trend in diseases of the heart, these conditions remain Louisiana's number one cause of death.

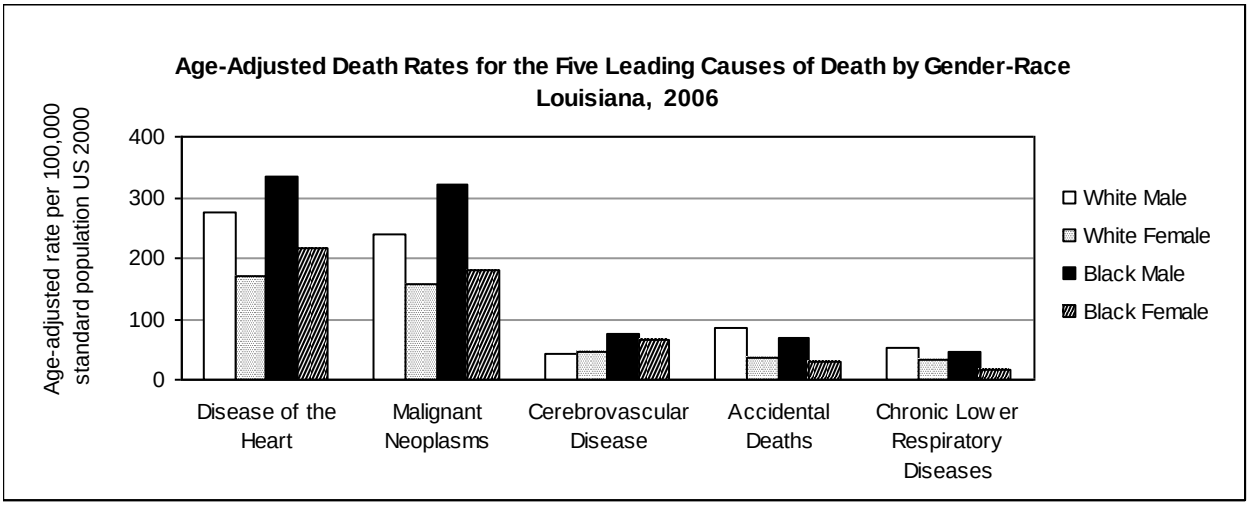
The ranking of the ten leading causes of death in Louisiana after adjusting crude death rates by age is shown in the next table:

Age-Adjusted Mortality Rates* for the Top Ten Causes of Death Louisiana and United States[3], 2006

LA Rank**	Cause of Death	Age-Adjusted Mortality Rate		U.S. Rank**
		Louisiana*	United States***	
-	*All Causes*	918.13	776.4	-
1	*Diseases of the Heart*	228.28	199.4	*1*
2	*Malignant Neoplasms*	200.92	180.8	*2*
3	*Accidents*	55.01	38.5	*5*
4	*Cerebrovascular Disease*	50.50	43.6	*3*
5	*Chronic Lower Respiratory Diseases*	39.18	40.4	*4*
6	*Diabetes Mellitus*	35.15	23.3	*7*
7	*Alzheimer's Disease*	30.23	22.7	*6*
8	*Nephritis, Nephrotic Syndrome, and Nephrosis*	24.98	14.3	*9*
9	*Influenza and Pneumonia*	19.39	17.7	*8*
10	*Septicemia*	17.82	10.9	*10*

* LA OPH/ State Center for Health Statistics calculated age-adjusted rates (per 100,000 U.S. standard population 2000)
2006, U.S. Census Bureau population estimates used in computing crude rates
** Rank based on crude death rates / Number of Deaths
***Source: National Center for Health Statistics, National Vital Statistics Report, Vol 56, No.16, Preliminary Death Data 2006

The following chart displays age-adjusted mortality rates for the five leading causes of death in Louisiana in 2006. The age-adjusted rates show that males, particularly black males, are at higher risk than females of dying of heart disease, cancer, cerebrovascular disease, accidents, and chronic lower respiratory disease. Blacks are at higher risk than whites of dying of heart disease, cancer, and cerebrovascular disease.



Source: Louisiana Center for Health Statistics

The following table lists age-adjusted mortality rates for the four major race-gender groups in 2006.

Age-Adjusted Death Rates* for Leading Causes of Mortality by Race-Gender Louisiana - 2006	
Cause of Death/Race/Gender	***Age-adjusted Rate****
Diseases of the Heart	228.28
White Male	274.96
White Female	170.57
Black Male	333.36
Black Female	217.49
Malignant Neoplasm	200.92
White Male	239.64
White Female	158.19
Black Male	321.86
Black Female	180.30
Accidents	55.01
White Male	85.10
White Female	34.74
Black Male	70.31
Black Female	28.07
Cerebrovascular Diseases	50.50
White Male	43.44
White Female	44.46
Black Male	75.66
Black Female	63.98
Chronic Lower Respiratory Disease	39.18
White Male	51.78
White Female	32.74
Black Male	45.23
Black Female	17.23

Age-Adjusted Death Rates* for Leading Causes of Mortality by Race-Gender Louisiana - 2006	
Cause of Death/Race/Gender	**Age-adjusted Rate***
Diabetes Mellitus	35.15
White Male	30.95
White Female	23.28
Black Male	59.74
Black Female	63.44
Alzheimer's Disease	30.23
White Male	27.15
White Female	34.97
Black Male	16.16
Black Female	27.91
Nephritis, Nephrotic Syndrome and Nephrosis	24.98
White Male	26.05
White Female	16.34
Black Male	45.19
Black Female	38.23
Influenza and Pneumonia	19.39
White Male	21.63
White Female	16.71
Black Male	30.61
Black Female	18.77
Septicemia	17.82
White Male	14.22
White Female	14.46
Black Male	30.13
Black Female	27.63
Homicide	12.36
White Male	5.78
White Female	3.05
Black Male	51.36
Black Female	6.60
Suicide	11.35
White Male	23.37
White Female	6.27
Black Male	9.83
Black Female	1.12

*Age-adjusted Rate per 100,000 U.S. standard population 2000
Source: Louisiana State Center for Health Statistics
United States Census Bureau, 2006 Census Estimates for Crude Rates

Infant Deaths

Overview

Infant mortality encompasses all deaths that occur within the first year of life and excludes fetal deaths (miscarriages and abortions). This measure can be a significant predictor of the health status of a particular area, population, or nation, since it is associated with many factors, such as socioeconomic status and access to health care.

There are several measures used to describe mortality in this age group. While infant mortality measures deaths during the first year, neonatal mortality describes deaths occurring through the first 27 days after birth. Other measures include post-neonatal mortality (deaths occurring from 28 days to one year after birth), hebdomadal mortality (deaths occurring during the first seven days after birth), and perinatal mortality (fetal deaths and infant deaths occurring during the first seven days after birth).

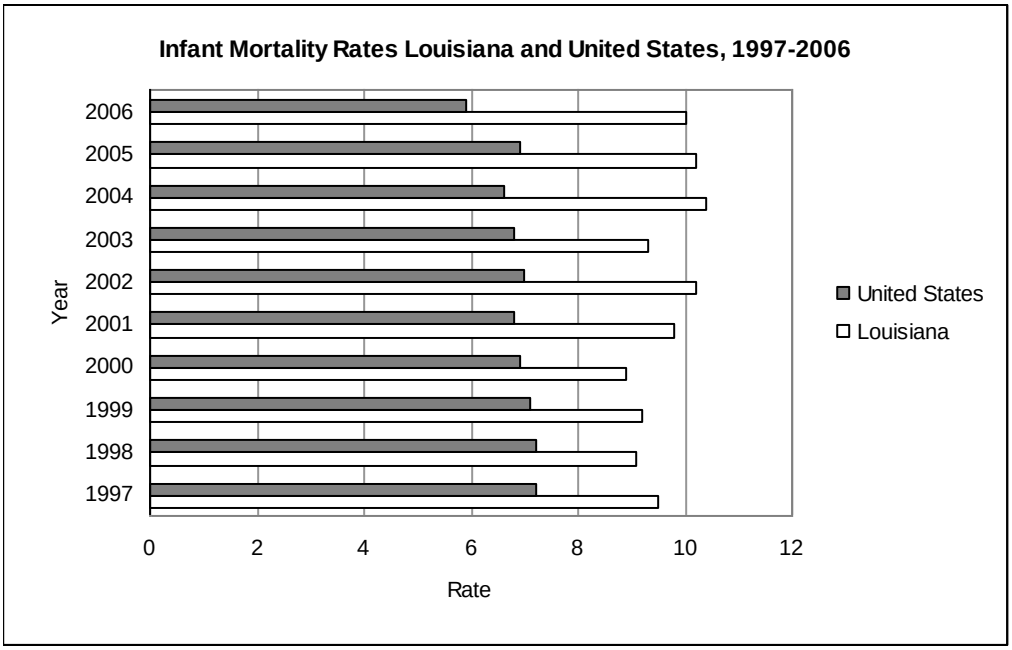
Infant Mortality Rates by Race of Child. Louisiana, 2006*

Race	Number of Deaths	Infant Mortality Rate	Neonatal Mortality Rate	Post- Neonatal Mortality Rate	Hebdomadal Mortality Rate	Perinatal Mortality Rate
Total	633	10.0	6.2	3.9	4.9	11.4
White	235	6.4	3.6	2.8	2.7	7.9
Black	388	16.0	10.2	5.7	8.6	16.9
Other	10	4.8	3.8	1	2.4	6.7

*All rates, except perinatal, are per 1,000 live births. Perinatal rates are per 1,000 stillbirths + live births
Source: Louisiana State Center for Health Statistics

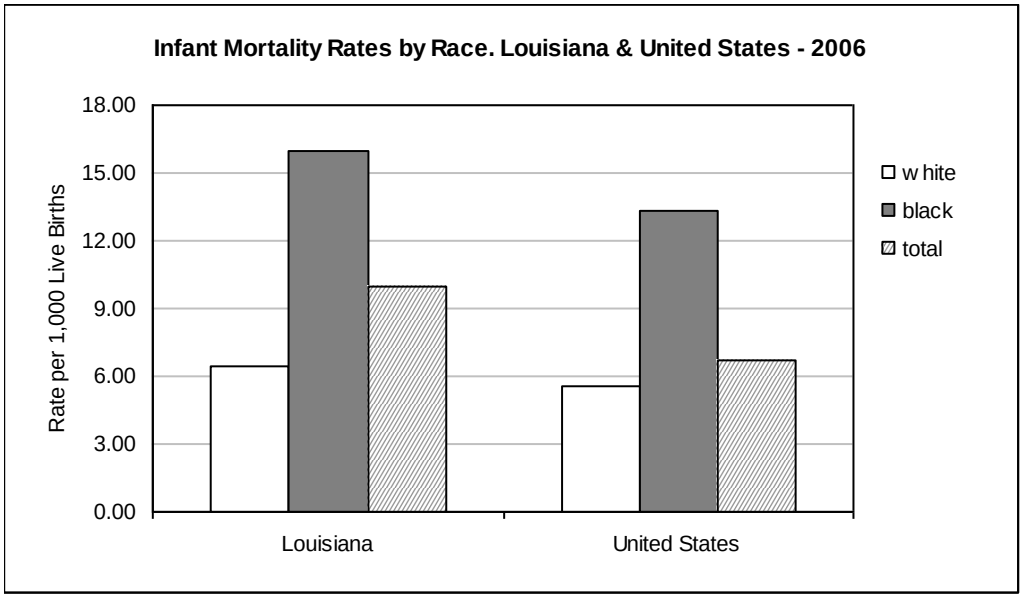
Infant Mortality

In the year 2006, there were 633 deaths in Louisiana to children under one year of age, i.e., a rate of 10.0. The infant mortality rate is defined as the number of deaths within the first year of life per 1,000 live births. The national infant mortality rate in 2006 is 5.9[4] per 1,000 live births.



Source: Louisiana State Center for Health Statistics, Data 2006
National Center for Health Statistics, Preliminary Data 2006

Infant mortality rates differ substantially by race. Though rates of infant deaths are decreasing across racial groups, children born to black mothers tend to have higher death rates than those born to white mothers. It is important to note that, beginning in the year 1989, the race of the mother is used for analysis rather than the inferred race of the child. Accordingly, race-specific infant mortality rates prior to 1989 are not comparable to the more current rates. In 2006, there were 235 white, 388 black, and 10 other-race infant deaths in Louisiana. The infant mortality rates were 6.4, 16.0, and 4.8 deaths per 1,000 race-specific live births, respectively.



Source: Louisiana State Center for Health Statistics, Data 2006
NCHS, NVSR, Preliminary Data for 2006

There are geographic variations in infant mortality as well. The table below shows parish-level figures for infant deaths in Louisiana.

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother
Louisiana - 2006

Parish	*Mother's Race*	*2006 Number of Infant Deaths*	*2006 Infant Mortality Rate*[+]
State	All	633	10
	White	235	6.4
	Black	388	16
	Other	10	4.8
Acadia	All	10	11
	White	5	7.3
	Black	5	22.7
	Other	0	0
Allen	All	0	0
	White	0	0
	Black	0	0
	Other	0	0
Ascension	All	12	7
	White	6	4.8
	Black	6	13.7
	Other	0	0

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother Louisiana - 2006			
Parish	**Mother's Race**	**2006 Number of Infant Deaths**	**2006 Infant Mortality Rate+**
Assumption	All	**	10.6
	White	**	6.3
	Black	**	16.7
	Other	0	0
Avoyelles	All	8	12.7
	White	**	2.6
	Black	7	30.3
	Other	0	0
Beauregard	All	6	11.5
	White	**	6.7
	Black	**	49.2
	Other	0	0
Bienville	All	**	10.3
	White	0	0
	Black	**	23.3
	Other	0	0
Bossier	All	11	6.2
	White	8	6.4
	Black	**	6.6
	Other	0	0
Caddo	All	46	12
	White	8	5.3
	Black	38	16.9
	Other	0	0
Calcasieu	All	33	11.5
	White	16	8.3
	Black	16	18.1
	Other	**	18.5
Caldwell	All	0	0
	White	0	0
	Black	0	0
	Other	0	0
Cameron	All	**	13.5
	White	**	13.7
	Black	0	0
	Other	0	0
Catahoula	All	0	0
	White	0	0
	Black	0	0
	Other	0	0
Claiborne	All	**	19.1
	White	**	21.7
	Black	**	17.2
	Other	0	0
Concordia	All	**	14.8
	White	**	15.6
	Black	**	14.3
	Other	0	0

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother Louisiana - 2006			
Parish	**Mother's Race**	**2006 Number of Infant Deaths**	**2006 Infant Mortality Rate+**
Desoto	All	**	10
	White	0	0
	Black	**	20.8
	Other	0	0
E Baton Rouge	All	71	11.3
	White	8	3.3
	Black	63	17.2
	Other	0	0
East Carroll	All	**	22.2
	White	0	0
	Black	**	26.1
	Other	0	0
E Feliciana	All	**	10.6
	White	**	6.9
	Black	**	14.5
	Other	0	0
Evangeline	All	6	10.9
	White	**	5.4
	Black	**	22
	Other	0	0
Franklin	All	6	19.5
	White	**	17.2
	Black	**	22.9
	Other	0	0
Grant	All	**	7.1
	White	0	0
	Black	**	50
	Other	0	0
Iberia	All	10	8.3
	White	**	2.9
	Black	8	16.2
	Other	0	0
Iberville	All	**	4.3
	White	0	0
	Black	**	7.2
	Other	0	0
Jackson	All	0	0
	White	0	0
	Black	0	0
	Other	0	0
Jefferson	All	43	7.6
	White	23	7.4
	Black	17	8.9
	Other	**	4.8

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother Louisiana - 2006			
Parish	**Mother's Race**	**2006 Number of Infant Deaths**	**2006 Infant Mortality Rate+**
Jeff Davis	All	8	16.6
	White	6	15.5
	Black	**	23
	Other	0	0
Lafayette	All	43	13.6
	White	18	9.3
	Black	25	22.1
	Other	0	0
Lafourche	All	10	7.6
	White	**	2
	Black	7	26.4
	Other	**	17.5
LaSalle	All	0	0
	White	0	0
	Black	0	0
	Other	0	0
Lincoln	All	6	10.1
	White	**	3.3
	Black	5	18.1
	Other	0	0
Livingston	All	14	7.5
	White	8	4.5
	Black	5	54.3
	Other	**	62.5
Madison	All	**	11.2
	White	0	0
	Black	**	15
	Other	0	0
Morehouse	All	**	2.5
	White	0	0
	Black	**	4.8
	Other	0	0
Natchitoches	All	8	12.9
	White	**	3.6
	Black	7	21.2
	Other	0	0
Orleans	All	24	9.1
	White	**	3.7
	Black	18	10.9
	Other	**	17.4
Ouachita	All	31	12.9
	White	11	8.8
	Black	20	18
	Other	0	0

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother Louisiana - 2006			
Parish	**Mother's Race**	**2006 Number of Infant Deaths**	**2006 Infant Mortality Rate+**
Plaquemines	All	**	10.2
	White	**	4.8
	Black	**	29.9
	Other	0	0
Pointe Coupee	All	**	12.9
	White	**	6.5
	Black	**	19.4
	Other	0	0
Rapides	All	15	7.4
	White	7	5.9
	Black	8	10.2
	Other	0	0
Red River	All	**	18.8
	White	0	0
	Black	**	34.9
	Other	0	0
Richland	All	**	6.5
	White	**	12.7
	Black	0	0
	Other	0	0
Sabine	All	**	5.8
	White	**	8.3
	Black	0	0
	Other	0	0
St Bernard	All	**	15
	White	**	11.6
	Black	**	45.5
	Other	0	0
St Charles	All	7	9.7
	White	5	11.1
	Black	**	8.3
	Other	0	0
St Helena	All	**	35.1
	White	**	24.4
	Black	**	41.1
	Other	0	0
St James	All	**	13
	White	0	0
	Black	**	22.1
	Other	0	0
St John	All	10	13
	White	**	7.1
	Black	8	17.1
	Other	0	0

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother Louisiana - 2006			
Parish	**Mother's Race**	**2006 Number of Infant Deaths**	**2006 Infant Mortality Rate+**
St Landry	All	18	12.1
	White	**	2.7
	Black	16	21.6
	Other	0	0
St Martin	All	10	13.1
	White	**	6.9
	Black	7	21.5
	Other	0	0
St Mary	All	5	6.2
	White	**	4.3
	Black	**	9.5
	Other	0	0
St Tammany	All	25	8.1
	White	17	6.5
	Black	8	20.2
	Other	0	0
Tangipahoa	All	15	7.7
	White	**	3.6
	Black	11	13.5
	Other	0	0
Tensas	All	0	0
	White	0	0
	Black	0	0
	Other	0	0
Terrebonne	All	23	13.1
	White	13	10.8
	Black	10	24.8
	Other	0	0
Union	All	**	8.8
	White	**	14.5
	Black	0	0
	Other	0	0
Vermilion	All	9	10.6
	White	6	9.6
	Black	**	10.1
	Other	**	41.7
Vernon	All	11	11.7
	White	7	9.7
	Black	**	24.2
	Other	0	0
Washington	All	**	4.1
	White	**	4.5
	Black	**	3.7
	Other	0	0

Infants Deaths and Infant Mortality Rates by Parish and Race of Mother Louisiana - 2006			
Parish	**Mother's Race**	**2006 Number of Infant Deaths**	**2006 Infant Mortality Rate[+]**
Webster	All	**	7.8
	White	**	12.7
	Black	0	0
	Other	0	0
W Baton Rouge	All	7	20.1
	White	**	19.8
	Black	**	20.5
	Other	0	0
West Carroll	All	**	13
	White	**	16.7
	Black	0	0
	Other	0	0
W Feliciana	All	**	26.8
	White	**	15.4
	Black	**	43.5
	Other	0	0
Winn	All	**	5.2
	White	0	0
	Black	**	14.5
	Other	0	0

**** Cells suppressed to protect confidentiality.
[+]Rate per 1,000 live births. Very small numbers of deaths, such as those seen for 2003 infant mortality, result in rates that are likely to fluctuate from year to year.
[++]To create rates that are more stable, 1999-2003 five-year infant mortality rates have been calculated.
Source: Louisiana State Center for Health Statistics

Injury Deaths

The term "injury" includes:

a. unintentional injuries (more commonly referred to as "accidents")
b. intentional injuries (suicides and homicides)
c. injuries in which the intent could not be determined, and
d. other - legal intervention (law enforcement), operations of war

The term excludes adverse effects of either medical care or therapeutic use of drugs.

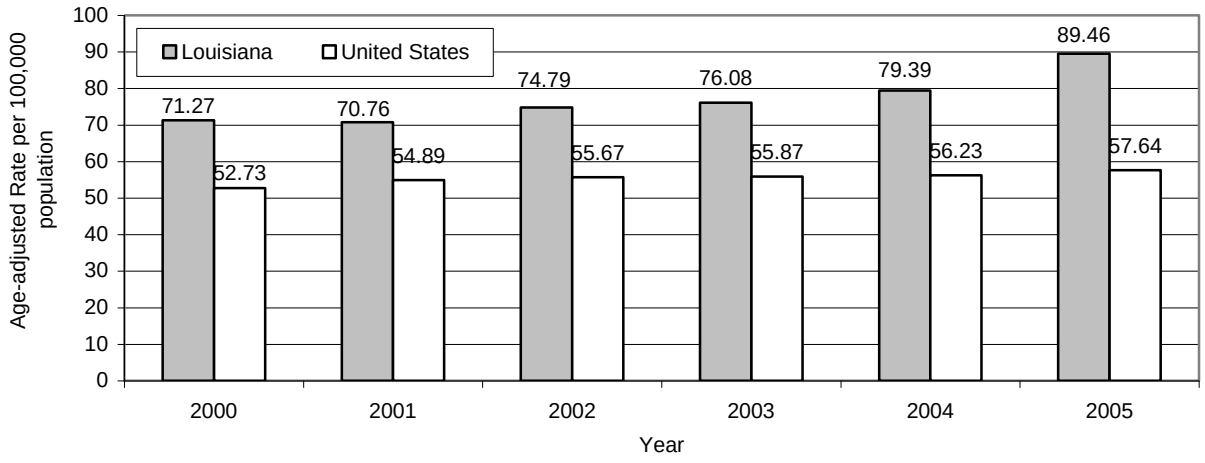
Background

Injuries are the number one killer of children and young adults ages 1 – 44 years in Louisiana, and the leading cause of potential life lost before age 65. Injuries leave tens of thousands of people suffering from chronic disabilities and dramatically affect the lives of tens of thousands of others, particularly loved ones. Almost all injuries are preventable.

Status

Louisiana exceeds the United States in overall injury death rates considerably.

Figure 1: Comparing Age-Adjusted Rate of Injury Fatalities by Year Louisiana vs. United States (2000 – 2005)



The following tables indicate core findings of the 2005 injury mortality database from the Injury Research and Prevention Program. In 2005, of the 42,897 fatalities among Louisiana residents, 4,006 were due to injuries.

	Top 6 leading causes of injury related deaths for Age Groups and Intent. Louisiana - 2005				
Rank	Age Group (0-34 Years)				
	0-4	5-9	10-14	15-24	25-34
1	Unintentional Suffocation 19	Unintentional MV Traffic 12	Unintentional MV Traffic 15	Unintentional MV Traffic 222	Unintentional MV Traffic 176
2	Unintentional Fire/Flame 15	Unintentional Drowning 5	Unintentional Fire/Flame 7	Homicide Firearm 166	Homicide Firearm 142
3	Unintentional MV Traffic 13	**	Tied1	Unintentional Poisoning 81	Unintentional Poisoning 121
4	Unintentional Drowning 12	**	**	Suicide Firearm 67	Suicide Firearm 57
5	Unintentional Other Pedestrian 6	**	**	Suicide Suffocation 15	Undetermined Poisoning 25
6	**	**	**	Undetermined Poisoning 11	Suicide Suffocation 23

	Top 6 leading causes of injury related deaths for Age Groups and Intent. Louisiana - 2005				
Rank	Age Group (35+ Years)				
	35-44	45-54	55-64	65+	All Ages
1	Unintentional Poisoning 143	Unintentional MV Traffic 134	Unintentional MV Traffic 102	Unintentional Natural/Environment 392	Unintentional MV Traffic 900
2	Unintentional MV Traffic 140	Unintentional Poisoning 107	Unintentional Natural/Environment 88	Tied2	Unintentional Natural/Environment 618
3	Homicide Firearm 60	Unintentional Natural/Environment 81	Suicide Firearm 39	Unintentional MV Traffic 86	Unintentional Poisoning 512
4	Suicide Firearm 56	Suicide Firearm 68	Unintentional Poisoning 37	Unintentional Suffocation 62	Homicide Firearm 433
5	Undetermined Poisoning 26	Homicide Firearm 37	Homicide Firearm 16	Suicide Firearm 54	Suicide Firearm 341
6	Unintentional Natural/Environment 25	Undetermined Poisoning 26	Unintentional Fall 13	Unintentional Fire/Flame 24	Unintentional Fall 161

Injury Deaths by Public Health Region. Louisiana 2005		
Demographics	**Number of Injury Deaths**	**Death Rate per 100,000 Residents**
State Total	**4,006**	**88.9**
Region 1	1,175	117.8
Region 2	354	57.8
Region 3	250	63.9
Region 4	379	67.6
Region 5	233	81.7
Region 6	174	58.5
Region 7	355	67.5
Region 8	202	58.0
Region 9	423	86.4
Missing	461	-----

Injury Deaths by Public Age Group, Gender and Race. Louisiana - 2005		
Demographics	**Number of Injury Deaths**	**Death Rate* per 100,000 Residents**
State Total	**4006**	**88.9**
Age Group (years)		
1 - 4	86	26.8
5 - 14	81	12.6
15 - 24	656	94.4
25 - 34	649	109.4
35 - 44	573	91.8
45 - 54	614	95.3
55 - 64	390	85.5
65 - 74	262	93.7
75 - 84	392	212.4
85 & +	300	444.9
Gender		
Male	2,750	118.5
Female	1,256	57.4
Race		
White	2,586	89.6
Black	1,377	92.5
Other	43	32.3

Source: LA OPH Health Statistics Program - Death Certificates, 2005
*Rate per 100,000 calculated using 2005 US Census Population Estimates

Product

The Louisiana Department of Health & Hospitals (DHH), Office of Public Health (OPH), Bureau of EMS (BEMS), Injury Research & Prevention Program (IRP) analyzes injury data from mortality records. This IRP Program produces a comprehensive mortality report and special reports for use with public health and community planning, program development and evaluation. Currently, the IRP Program is embarking upon an Injury Community Planning process to develop a statewide injury plan. This plan will identify strategies, drive public policy and resource allocations and enhance prevention efforts.

[i,3,4] http://www.cdc.gov/nchs/products/pubs/pubd/hestats/prelimdeaths06/prelimdeaths.htm

II. MORBIDITY

A. INFECTIOUS DISEASES

West Nile Encephalitis

In 2001, the first case of West Nile encephalitis in humans was diagnosed in Louisiana. West Nile infection may present as 1- a completely asymptomatic infection (about 90% of all infections), 2- a mild fever (about 10% of cases) or 3- a neuro-invasive disease (NID; less than 1% of all infections). NID presents as meningitis or encephalitis that can be life-threatening, with 10% mortality and 10% long-term sequelae impairing normal life. NID tracking is the best measure used to track the progress of West Nile infections. A large outbreak occurred in 2002 with 204 cases of NID reported. From then on, the number of NID cases decreased. Clinical presentation of neuro-invasive diseases or of West Nile fever is always confirmed serologically.

West Nile Infections in Louisiana, 2001-2006

Disease	Year					
	2001	2002	2003	2004	2005	2006
Neuro-Invasive Disease	1	204	101	84	118	91
Fever	0	124	23	24	54	89
Asymptomatic	0	0	4	7	16	22
Total	1	328	128	115	188	202

Antibiotic Resistance

Hospital laboratories routinely monitor the prevalence of antibiotic-resistant infections in their facilities. The Antibiotic Sensitivity Active Sentinel Surveillance system is Louisiana's compilation of antibiotic-resistance reports generated by individual hospitals. Currently, 45 hospitals voluntarily participate in submission of monthly laboratory aggregate reports documenting the percentage of infections in their facilities from the following antibiotic-resistant bacteria:

- Vancomycin Resistant Enterococci (VRE)
- Drug Resistant Streptococcus Pneumoniae (DRSP)
- Methicillin Resistant Staphylococcus Aureus (MRSA)
- Extended Spectrum Beta Lactamase E.coli (ESBL/Ecoli)
- Extended Spectrum Beta Lactamase Klebsiella (ESBL/Klebsiella)

The current active surveillance system includes aggregate laboratory-based data:

1-From sentinel reporting sites: The Infectious Diseases Epidemiology Program's Disease Surveillance Specialists and Surveillance Epidemiologists identify the primary laboratory contact person in each acute care facility within their assigned regions and actively recruit new hospital-laboratory reporting sites to participate in this surveillance activity.

2-From hospital antibiograms reported voluntarily to the Office of Public Health.

Because the surveillance program for antibiotic resistance is interested in tracking all degrees of resistance, bacteria with either intermediate or total resistance have been combined in the Table. The resistance rate for two of the three reported organisms (MRSA and DRSP) increased between 1999 and 2004.

A trend analysis was conducted to determine if the rates of resistance were increasing over the past years (2000 to 2005). The results can be seen in the following Table.

Antibiotic Resistance in Louisiana Hospitals in Percent Resistant, 2000-2006

Bacteriae	2000	2001	2002	2003	2004	2005	2006
S. PNEUMONIAE	42.9	47.1	44.0	41.7	43.3	40.7	47.0
S. AUREUS	38.2	44.5	53.8	56.7	60.6	64.6	62.2
ENTEROCOCCUS	5.0	4.7	6.5	6.1	7.2	9.2	9.2
ESBL E.COLI	--	--	0.6	1.2	2.4		
ESBL KLIEBSELLA	--	--	6.2	7.3	5.8		

Hepatitis A

Reporting of HAV started in 1970. Since then, the number of reported cases per year has decreased. This decrease began a long time before a vaccine became available and seems to be due to improvements in sanitation. Since most hepatitis A infections are asymptomatic, the reported cases represent only a small fraction of the real number of new infections.

The overall number of cases and rates of acute hepatitis A in the United States have declined to historic lows since the last peak in 1995. In 1995, the case report rate was twelve per 100,000 population, compared with 1.5 per 100,000 in 2006, which was the lowest annual number ever recorded.

The proportion of young adults ever infected with hepatitis A was estimated to be twenty-five percent in 2004 by a survey done by the OPH Laboratory among young adults whose blood was tested for other purposes.

The number of reported cases of hepatitis A varied from thirty-eight to 264 cases a year over the last decade. The trend line shows a slight decrease in reported cases over time. This decrease is probably due to a true decrease in new cases rather than an artifact of reporting.

Hepatitis B

Using statistics from the Centers of Disease Control and Prevention (CDC), it is estimated that there were about 1,300 new hepatitis B virus (HBV) infections per year in 2000, down from 5,000 per year in 1980. The introduction of the vaccine in 1982 and the generalization of immunizations has resulted in a steady decline in the number of reported cases of hepatitis B over the past twenty-five years. The number of

new, acute cases reported in Louisiana was 158 in 2000 and 69 in 2006. This is an incidence of 0.27 new cases of HBV per population of 100,000

Approximately 0.5% of the Louisiana population (21,000 people) is estimated to be chronically infected by the virus. These people are easily diagnosed by the presence of the hepatitis B surface antigen in the blood (HBsAg+). Some five to ten percent (1,000 - 2,000 people) of people with chronic HBV infections will develop chronic liver disease during their lifetimes.

Of the 200 to 500 infants born to female carriers of HBV annually, approximately fifteen become infected with the virus due to prevention failure. The great majority of infants infected at birth will become chronic carriers.

Hepatitis C

Acute Hepatitis C

An estimated 500 people are infected with hepatitis C each year in Louisiana. Most of these infections are asymptomatic. In the past, the number of new cases reported ranged from 100 to 400. During the 1990's there was a steady increase of reported "acute" hepatitis C cases. This increase was probably due to increased awareness of hepatitis C and screening by medical care providers.

To be classified as an acute hepatitis C case, a person must have clinical symptoms, laboratory evidence of infection with the hepatitis C virus and 'elevated' liver enzymes. In 1990, the Centers for Disease Control and Prevention (CDC) defined liver enzymes as 'elevated' if they were two and a half times the upper limit of normal. In 2001, the CDC increased the required elevation level to seven times the upper limit of normal, thus excluding a large number of cases that previously would have been considered reportable. Also, in 2003, a new reporting category was established: "Hepatitis C past or present infection" (HCV-PPI). Some cases that were reported as "acute hepatitis" in the 1990s are now reported as "HCV-PPI" due to changes in case definitions. Since 2000, reports of acute infections have declined; the number of cases reported in 2006 was 31.

Hepatitis C Past or Present Infection

The CDC estimates that 80,000 people in Louisiana (1.8% of the population) are infected with hepatitis C. Of these people, 68,000 will go on to develop chronic hepatitis and 13,000 of these people will progress to cirrhosis which has a twenty-five percent fatality rate. Annually, 120 Louisiana residents are expected to die from hepatitis C. About 4,000 (5% of those infected by hepatitis C) are candidates for a liver transplant which costs at least $300,000 for a non-eventful, uncomplicated procedure.

Prior to 2003, cases of hepatitis C that corresponded to the 2003 classification of C, past or HCV-PPI were entered into a hepatitis register. After 2003, all cases meeting the HCV-PPI case definition became reportable. Overall, the number of cases reported each year is increasing. There is also a pool of undiagnosed HCV-PPI cases in Louisiana. As these people enter into medical care they are diagnosed and reported. The hepatitis register currently contains 36,000 reported HCV cases, representing close to half of the estimated 80,000 cases in Louisiana.

Meningococcal Invasive Diseases

Meningococcal meningitis is an acute bacterial disease caused by *Neisseria meningitidis*. It is characterized by sudden fever onset, intense headache, nausea and often vomiting, stiff neck, and rash.

During the 1990s, the number of meningitis cases in Louisiana steadily increased from a low of 30 in 1990 to a high of 74 in 2001, and then decreased since then. The incidence rate ranges from 0.8 to 1.6 cases/100,000 population. This incidence is similar to US incidence which is around 1/100,000/year. Based on capsular polysaccharide, there are 5 groups of meningococci. These groups are important to consider because of their epidemiologic, clinical, and preventive importance. The 3 main groups observed in Louisiana are B, C and Y; groups A and W135 are uncommon. Knowledge of meningococcal groups in a certain area is important because the quadrivalent vaccine available in the USA is effective only against A, C, Y and W135; therefore, the vaccine is ineffective against B which represents about 1/3 of the cases. The seasonal trend in the number of cases shows a high peak during the first quarter of the year (January to March) with close to 50% of the cases. The lowest quarter is the July-to-September quarter. Infants 0-1 year old have the highest incidence of new cases (10/100,000 cases/year). The incidence decreases to reach a low plateau around 1.5 from ages 5 to 19, then decreases again to a low of 0.4 in the 40-49 age group, and rises slowly in the older age group (1.1 in the older than 70 group).

In 2006 the number of reported invasive meningococcal meningitis was 41.

Salmonellosis

Among the general population in the U.S. and Louisiana, the prevalence rate of Salmonella infection is around 0.15% to 0.2% at any time.

Incidence rates of reported cases are as follows:

- Reported case rate among infants (less than 1 year old): 160 per 100,000 (0.2% of infants), with a high of 300 per 100,000 at age three months
- Reported case rate among children one to four 40 per 100,000, children five to nine 10 per 100,000
- Reported case rate among older age groups less than ten per 100,000

The number of reported cases varied from 200 to over 1,000 per year. In 2006 there were 1,126 cases reported.

Shigellosis

Shigellosis, or bacterial dysentery, is acute infectious enteritis of humans due to *Shigella*. It has a human reservoir and is transmitted via the fecal-oral route. Ninety-nine percent of *Shigella* isolates come from stools. The number of cases reported vary from 100 to 500 per year. Most of the cases occur in young children (age 1 to 9). In 2006 there were 261 cases. Most cases are sporadic cases, but every year small outbreaks are reported in day care centers or schools. Sometimes there are community wide outbreaks involving several schools and day care centers.

Vibriosis

Vibrios are gram-negative, curved, rod-shaped bacteria that are natural inhabitants of the marine environment. In the United States, transmission of Vibrio infections is primarily through the consumption of raw or undercooked shellfish or exposure of wounds to warm seawater. The most common clinical presentation of Vibrio infection is self-limited gastroenteritis, but wound infections and primary septicemia also may occur. Patients with liver disease are at a particularly high risk for significant morbidity and mortality associated with these infections. Many cases of Vibrio-associated gastroenteritis are under-recognized because most clinical laboratories do not routinely use the selective medium, thiosulfate-citrate-bile salts-sucrose (TCBS) agar, for processing of stool specimens unless they are specifically requested to do so.

Early detection and initiation of treatment of these infections is very important, particularly for cholera and invasive Vibrio infections, because these infections may rapidly progress to death.

The numbers of cases of reported Vibrio infections have remained fairly stable over the past 20 years, ranging from 20-50 cases per year, with a slight increase from year to year. There are several species of Vibrios, some increasing in reported numbers over time and others decreasing in numbers. The most common Vibrio species observed in reported cases in Louisiana is V. para- haemolyticus (24%), followed by V. vulnificus (24%), V. cholerae non O1 (21%) and all other Vibrios (including V. algino-lyticus, V. damse-lae, V. fluvialis, V. hollisae, and V. mimicus).

Vibrio parahemolyticus

Consumption of crustacean and molluscan shellfish has been commonly implicated in the transmission of V. parahaemolyticus. Raw oysters are the primary source of ingestion-associated V. parahaemolyticus infection. A review of infections between 1996 and 2005 found that 85% of patients with V. parahaemolyticus gastroenteritis and 90% of patients with V. parahaemolyticus primary septicemia and known food history reported eating raw oysters. Studies indicate that the infectious dose of V. parahaemolyticus is about 100,000 viable cells ingested. The number of reported cases of V. parahemolyticus has remained stable over the years.

Vibrio vulnificus

V. vulnificus is the most important pathogenic Vibrio in the U. S. because of its invasiveness and the high fatality rates associated with infection. It was first identified and described by the Centers for Disease Control and Prevention (CDC) in 1976 and has become the leading cause of seafood-associated deaths in the United States.

In a review of V. vulnificus infections in the U.S., 96% of patients with primary septicemia consumed raw oysters within seven days before symptom onset. All follow-ups (trace-backs) with complete information,

implicated oysters harvested in the Gulf of Mexico; 89% were harvested in seawater warmer than 22°C (71.6°F). All clinical syndromes of V. vulnificus are more common during the warmer months.

Among the 134 culture-confirmed V. vulnificus infections on the Gulf Coast reported to the CDC through the Vibrio Surveillance System between 1996 and 2005:

- 32% were classified as wound infections
- 9% as primary septicemia
- 19% as gastroenteritis
- 40% were from other, or unknown sites of infection

There has been a steady increase in the number of V. vulnificus cases reported every year. This increase is probably due to increased awareness and an increase in the susceptible population (those with liver disease, hemo-chromatosis, diabetes, cancers - particularly those on chemo or radio-therapy, leukemia, lymphoma, Hodgkin's disease, immune suppression such as HIV, long term steroid use, alcoholism, chronic kidney disease and the elderly population).

Sixty-six percent of Vibrio vulnificus cases had underlying conditions prior to illness onset, with the most frequently reported underlying conditions including liver disease (41%), alcoholism (22%) and heart disease (37%). Twelve percent consumed oysters including 10% consuming raw oysters. 44% were wound infections. These wound infections may be a result of sustaining a wound in salty or brackish water. An infection could also occur in a pre-existing wound being exposed to salty or brackish water or seafood drippings.

Other Non-Cholerae Vibrios

The increase in reported numbers of other non-cholerae Vibrios is attributed to better awareness among medical providers and laboratory testing.

V. alginolyticus is a halophilic ("salt-loving") Vibrio, first recognized in 1973 as being pathogenic in humans. Wound infections account for 71% of V. alginolyticus infections; ear infections are also seen with this organism. Gastroenteritis is thought to be a rare presentation of V. alginolyticus infection. Other clinical syndromes reported in association with V. alginolyticus infection include chronic diarrhea in a patient with AIDS, conjunctivitis, and post-traumatic intracranial infection. Resistance to tetracycline and chloramphenicol has been reported in a few isolates of V. alginolyticus, but all strains appear to be sensitive to ciprofloxacin.

V. mimicus is a non-halophilic Vibrio named according to its similarity to V. cholerae. V. mimicus can cause sporadic episodes of acute gastroenteritis and ear infections.

V. fluvialis is a halophilic Vibrio, first identified in 1975 in a patient with diarrheain Bahrain. It is biochemically similar to Aeromonas hydrophila but can be differentiated from this organism by its ability to grow well on media containing 6%-7% sodium chloride. The largest series of V. fluvialis infections involved 500 patients in Bangladesh, half of whom were young children. In that series, patients presented with diarrhea (100%, with 75% bloody diarrhea), vomiting (97%), abdominal pain (75%), dehydration (67%), and fever (35%). V. fluvialis rarely causes wound infections or primary septicemia.

Photobacterium damsela (formerly Vibrio damsela) is a halophilic gram-negative bacillus similar to V. vulnificus. It strictly causes soft tissue infections following exposure of wounds to brackish water or injury by saltwater animals. P. damsela infections can be fulminant and frequently are fatal, even in immuno-competent hosts. Of the 16 cases of P. damsela infection reported between 1982 and 1996, 4 were fatal.

V. hollisae is a halophilic Vibrio, first described in 1982. It most commonly causes gastroenteritis. V. hollisae is difficult to isolate, since it grows poorly on selective TCBS media and it needs to be isolated from colonies on a blood agar plate. V. hollisae septicemia and wound infections have been reported but are rare.

Vibrio Cholerae Non-O1

Vibrio cholerae is classified in groups according to its somatic antigen O.

Non-O1 is found in surface waters (freshwater rivers, oceans) throughout the world. The infection is acquired by ingesting heavily contaminated water or food (e.g., raw or poorly cooked seafood, especially oysters, clams, shrimp, or crabs). Small outbreaks are sometimes reported. These infections usually occur in individuals with increased susceptibility to infections such as immunocompromised individuals with gastric disease (low gastric acidity) or liver disease.

V. cholerae non-O1 infections can be asymptomatic or produce a variety of symptoms ranging from simple diarrhea to severe diarrheal disease. Some isolates are capable of producing a toxin indistinguishable from V. cholerae O1. Diarrhea and simple enteritis is the most common clinical picture. Approximately a quarter of infected patients have bloody stools. Illness usually is self-limiting and requires no treatment.

Age, Gender, and Race Distribution

Since the distribution is similar for all Vibrio cases, the following discussion describes all Vibrio species combined. The age group distribution shows an increase in Vibrio cases in older age groups, an expected finding since adults and older people are the most common consumers of raw seafood and, therefore, comprise most of the high-risk population group.

B. TUBERCULOSIS

Background

Pulmonary tuberculosis (TB) occurs as a result of infection of the lungs with an organism named *Mycobacterium tuberculosis,* which infected persons may transmit by coughing. If untreated, a pulmonary TB case may infect others who breathe in the organisms expelled by the infected person. Infection is not limited to the lungs as it can also occur in other regions of the body.

Due to the danger of contagion, individuals who have been exposed to TB should be identified and evaluated. A simple skin test is used to determine if the exposed person has been infected. If the skin test and evaluation reveal that the person has been infected, a course of preventive therapy may be prescribed to protect against progression from TB infection to TB disease. Preventive therapy generally consists of six months of therapy with a single anti-TB drug called isoniazid, or INH.

Treatment of TB disease requires an initial course of four anti-tuberculosis drugs. Length of treatment for TB disease is usually six months, but may vary due to the severity of illness or the presence of other factors, such as the Human Immunodeficiency Virus (HIV). Due to the potentially great public health impact of this infectious disease, and because of the intricacy of the therapy (i.e., length of treatment and number of medications involved), a practice called Directly Observed Therapy (DOT) is employed to assist the patient with his or her therapy and assure completion. With DOT, trained field staff or medical personnel monitor the efficacy of treatment and the patient's compliance with the treatment regimen.

2006 Status

Louisiana reported 207 cases of TB in the year 2006, for a case rate of 5.0 per 100, 000 population. This represents a 19.4 percent decrease from the year 2005 figure of 257 cases (5.8 cases per 100,000 population). This reduction is directly related to storm evacuation from the highest incidence parish, Orleans, whose population has not returned to pre-hurricane Katrina levels. The natural decline of tuberculosis is 6% a year.

Tuberculosis Case Counts
Louisiana, 2002-2006

2002	*2003*	*2004*	*2005*	*2006*
230	260	249	257	207

Source: Louisiana Department of Health and Hospitals, Office of Public Health, Tuberculosis Program

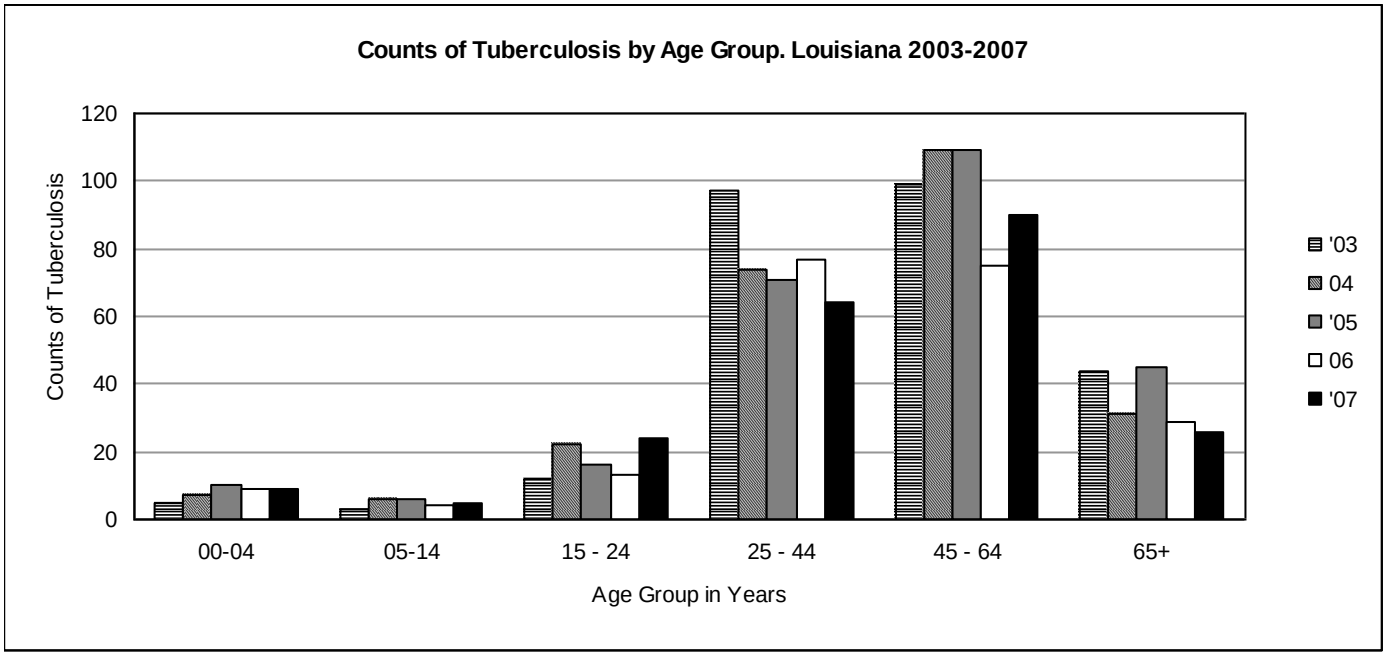
In 2006, Louisiana's state ranking for TB case rates (i.e., cases per 100,000) was the tenth highest in the nation. The state's year 2006 rate was similar to those in neighboring states but was significantly higher than the national rate of 4.6 per 100,000, which declined from 2005 to 2006 by 3.1%.

Tuberculosis Cases and Rates* Louisiana and Neighboring States, 2006		
State	Number of Cases	Case Rate
Alabama	195	4.3
Arkansas	102	3.6
Louisiana	207	5.0
Mississippi	116	4.0
Texas	1,585	6.7
United States	13,767	4.6

*Rate per 100,000 population
Source: Louisiana Department of Health and Hospitals, Office of Public Health, Tuberculosis Program
National Tuberculosis Surveillance System, Division of Tuberculosis Elimination, Centers for Disease Control and Prevention. Provisional 2002 data.

Drug-resistant TB continues to be a problem in Louisiana. In 2006, one case of multi-drug-resistant tuberculosis (MDR-TB) was reported, while the incidence of INH resistant TB declined to 2.7% (the recommended threshold for initiating a four-drug anti-TB regimen for new (suspected) cases of TB is 4%).

As shown in the following graph, a decrease in the number of reported cases of TB in Louisiana was observed in all age groups except 25 to 44. The increase in this age group is an indication of continued recent transmission.



Louisiana Tuberculosis Cases and Rates By Region and Parish, 2006 State Total = 207 State Case Rate = 5.0 per 100,000		
Region/Parish	**Cases**	**Rate/100,000**
Region 1	**62**	**9.6**
Jefferson	24	5.8
Orleans	30	15.7
Plaquemines	1	5
St Bernard	7	27.7
Region 2	**11**	**1.8**
Ascension	2	2.1
East Baton Rouge	8	1.9
East Feliciana	0	0
Iberville	1	3.4
Pointe Coupee	0	0
West Baton Rouge	0	0
West Feliciana	0	0
Region 3	**16**	**4**
Assumption	0	0
Lafourche	3	3.3
St Charles	2	3.8
St James	0	0
St John	3	6.2
St Mary	5	9.9
Terrebonne	3	2.8
Region 4	**21**	**3.8**
Acadia	3	5.1
Evangeline	3	8.9
Iberia	1	1.4
Lafayette	7	3.6
St Landry	3	3.3
St Martin	2	4
Vermilion	2	3.7
Region 5	**16**	**5.7**
Allen	1	4.7
Beauregard	0	0
Calcasieu	11	5.8
Cameron	3	39.9
Jefferson Davis	1	3.3
Region 6	**7**	**2.4**
Avoyelles	1	2.4
Catahoula	0	0
Concordia	3	14.8
Grant	0	0
LaSalle	0	0
Rapides	3	2.3
Vernon	0	0

Louisiana Tuberculosis Cases and Rates By Region and Parish, 2006 State Total = 207 State Case Rate = 5.0 per 100,000		
Region/Parish	**Cases**	**Rate/100,000**
Winn	0	0
Region 7	**35**	**12.7**
Bienville	0	0
Bossier	3	2.9
Caddo	24	9.4
Claiborne	4	24
DeSoto	0	0
Natchitoches	0	0
Red River	0	0
Sabine	1	4.2
Webster	3	7.1
Region 8	**15**	**4.5**
Caldwell	0	0
East Carroll	0	0
Franklin	1	4.7
Jackson	1	6.4
Lincoln	1	2.3
Madison	0	0
Morehouse	1	3.2
Ouachita	7	4.7
Richland	2	9.6
Tensas	0	0
Union	2	8.7
West Carroll	0	0
Region 9	**25**	**9.1**
Livingston	6	5.4
St Helena	1	8.9
St Tammany	13	5.9
Tangipahoa	5	4.5
Washington	0	0

Source: Louisiana, Department of Health and Hospitals, Office of Public Health, Tuberculosis Program

C. SEXUALLY TRANSMITTED DISEASES

Overview

Sexually transmitted diseases (STDs) are the most commonly reported infectious diseases in the United States each year. Louisiana experiences some of the highest rates in the nation. Syphilis, chlamydia, gonorrhea, herpes simplex virus and human papillomavirus can have serious health consequences. Chlamydia and gonorrhea, in particular, can make it much more difficult for women to get pregnant. In addition, people with a sexually transmitted disease can more easily contract HIV, the virus that causes AIDS. HIV-infected people with a sexually transmitted disease are more likely to transmit HIV to someone else.

Syphilis

Syphilis is a sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum*. It has often been called "the great imitator" because so many of the signs and symptoms are indistinguishable from those of other diseases. Syphilis also can facilitate the transmission of HIV and may be important in contributing to HIV transmission in those parts of the country where rates of both infections are high.

Louisiana was ranked the 1st highest rate of primary and secondary (P&S) syphilis nationwide in the year 2006. In 2007, there were 533 reported cases of P&S syphilis cases. In comparison with the number of reported cases of P&S syphilis cases in the year 2006 (342 cases), the number of reported cases increased by 55.8% in 2007.

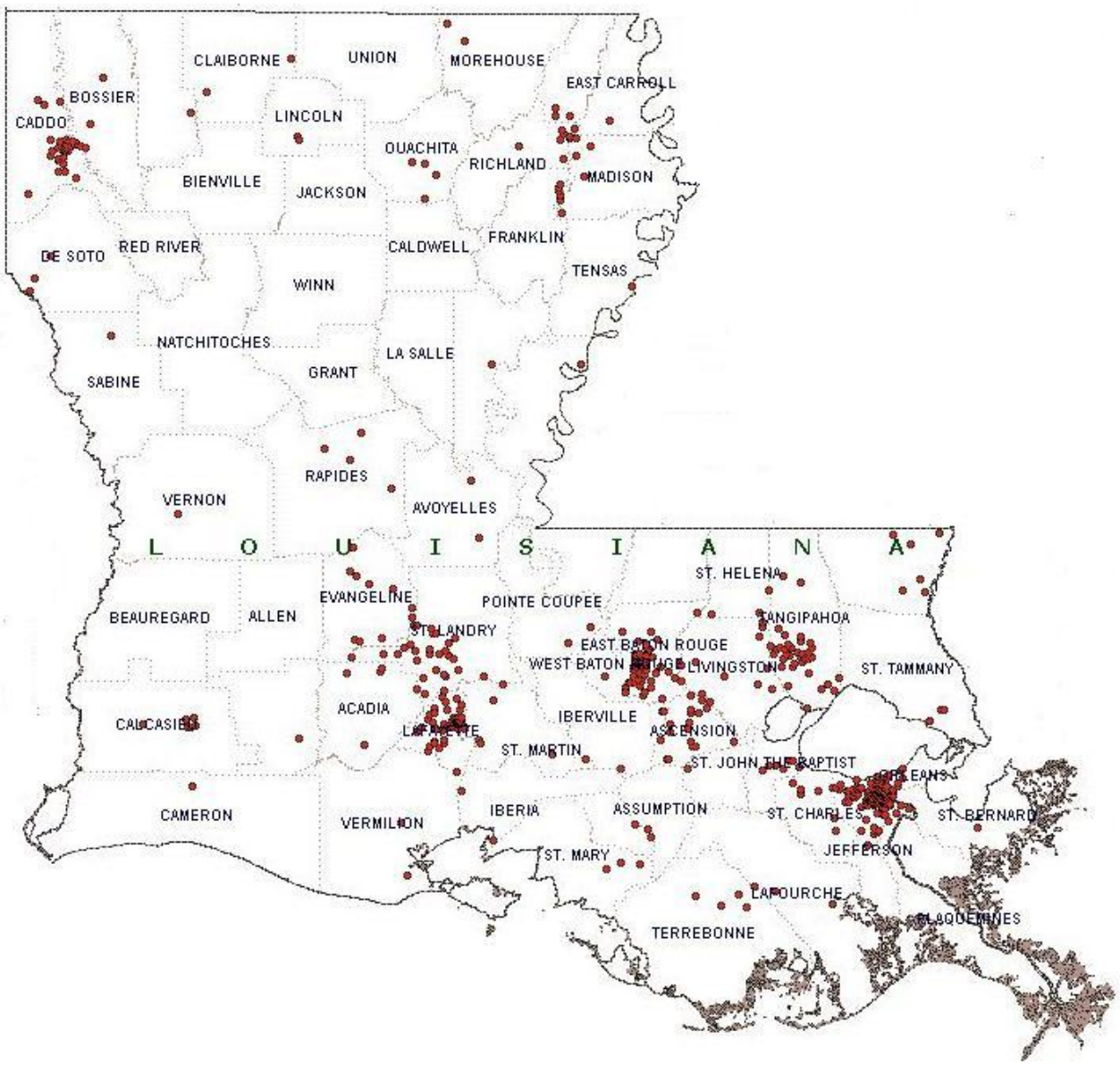
Primary and Secondary Syphilis Rates
Louisiana, Neighboring States, and United States, 2001-2006

State	2001	2002	2003	2004	2005	2006
Alabama	3.2	3.4	2.5	3.7	3.7	7.0
Arkansas	1.8	1.3	1.9	1.7	1.9	2.8
Louisiana	3.9	3.4	4.1	7.4	6.2	7.6
Mississippi	4.9	1.7	1.4	2	1.7	2.9
Texas	2.3	2.8	3	3.7	3.9	4.7
United States	2.2	2.4	2.5	2.7	3.0	3.3

The Louisiana incidence rate for primary and secondary Syphilis for 2007 was 11.9 per 100,000 population. The Year 2007 P&S syphilis rate was 1.57 times higher than the 2006 state rate. The *Healthy People 2010* rate objective for primary and secondary syphilis is 0.2.

The following map shows the geographic distribution of P&S syphilis cases across the state during 2007.

Map: 2007 Primary & Secondary Syphilis Reported cases in Louisiana.



GENDER	PRIMARY SYPHILIS	SECONDARY SYPHILIS	SYPHILIS (CONGENITAL)	SYPHILIS, EARLY LATENT	SYPHILIS, LATE LATENT	SYPHILIS, UNKNOWN LATENT
MALE	111	214	13	358	245	3
FEMALE	36	172	25	365	245	11
UNKNOWN	0	0	0	0	0	0
RACE						
AI/AN	0	0	0	0	0	0
BLACK	110	306	31	593	374	11
WHITE	34	72	4	109	80	3
UNKNOWN	3	8	3	21	36	0
AGE GROUP						
0 - 4	0	0	23	0	0	0
5 - 9	0	0	8	0	0	0
10 - 14	0	2	3	5	0	0
15 - 19	23	42	2	74	19	1
20 - 24	26	86	1	180	57	2
25 - 34	40	104	1	218	106	7
35 - 44	25	85	0	140	114	3
45 - 54	26	49	0	77	109	0
55 - 64	6	12	0	25	53	0
65 - 74	1	5	0	3	14	0
75 & +	0	1	0	1	18	1

Gonorrhea

Gonorrhea is a sexually transmitted disease (STD). Gonorrhea is caused by *Neisseria gonorrhoeae*, a bacterium that can grow and multiply easily in the warm, moist areas of the reproductive tract, including the cervix (opening to the womb), uterus (womb), and fallopian tubes (egg canals) in women, and in the urethra (urine canal) in women and men. The bacterium can also grow in the mouth, throat, eyes, and anus.

Gonorrhea is a very common infectious disease. CDC estimates that more than 700,000 persons in the U.S. get new gonorrheal infections each year. Only about half of these infections are reported to CDC. In 2006, 358,366 cases of gonorrhea were reported to CDC. In the period from 1975 to 1997, the national gonorrhea rate declined, following the implementation of the national gonorrhea control program in the mid-1970s. Gonorrhea rates subsequently appeared to plateau for several years. However, rates increased for the second consecutive year in 2006.

In the year 2007, 11,137 cases of gonorrhea were reported in Louisiana with a corresponding rate of 249.2 cases per 100,000 population. In comparison with the number of reported cases for the year 2006, in the year 2006 there was 2% decrease in the reported cases. The rate among males was 240.5 per

100,000 population and the rate among females was 252.5 per 100,000 population in year 2007. The numbers of reported cases were 8,339 among African American, 1,143 for white in 2007. In year 2007 African Americans had the highest rate and reported cases, nearly 75% of total reported cases were among African Americans.

Reported Cases of Gonorrhea by Gender and Race, Louisiana - 2007			
Gender	**Reported Cases**	**Race**	**Reported Cases**
Male	5201	AI/AN	4
Female	5823	Black	8339
Unknown	113	White	1143
Total	11137	Unknown	1651
		Total	11137

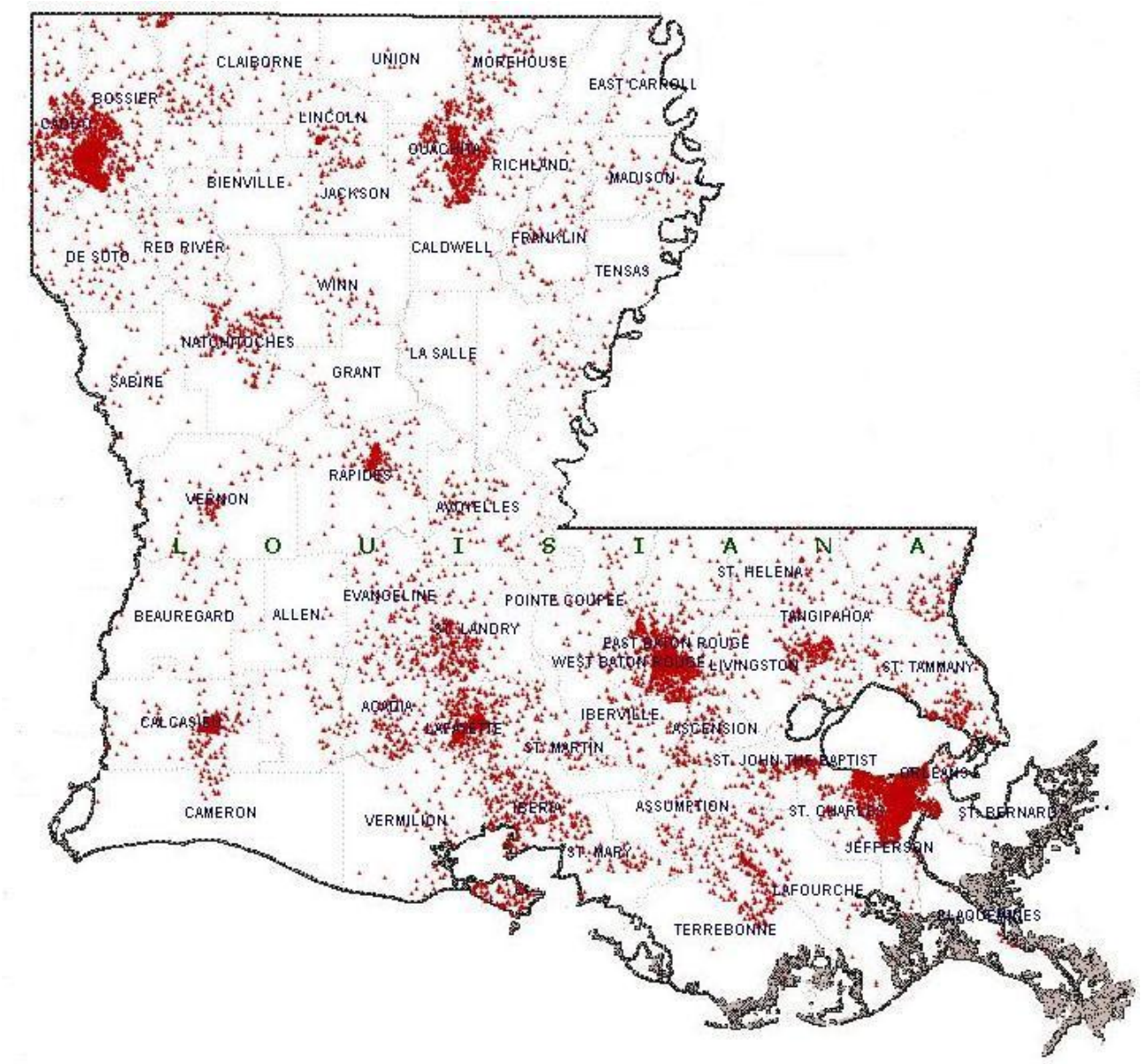
Reported Cases of Gonorrhea by Age Group, Louisiana - 2007	
Age Group	**Reported Cases**
0 - 4	15
5 - 9	11
10 - 14	149
15 - 19	3214
20 - 24	3858
25 - 34	2660
35 - 44	778
45 - 54	317
55 - 64	81
65 - 74	15
75 & +	39
Total	11137

The Louisiana incidence rate of gonorrhea for 2007 was 249.2 per 100,000 population, while the most recent national rate available (year 2006) was 120.9. The 2007 Louisiana gonorrhea rate was 2.1 times higher than the 2006 national gonorrhea rate. The *Healthy People 2010* objective for gonorrhea is to reduce the rate to 19.0 per 100,000 population.

Gonorrhea Rates ***Louisiana, Neighboring States, and United States, 2001-2006***						
State	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*
Alabama	251.4	227.5	207.4	207.7	207.6	234.0
Arkansas	172.2	171.5	156.9	157.7	162.6	154.9
Louisiana	274.2	254.8	264.4	230.4	212.0	240.6
Mississippi	272.8	241.7	220.4	200.6	247.0	257.1
Texas	144	129.4	112.9	108.1	116.1	133.2
United States	128.5	125	116.2	110	115.6	120.9

The following map shows the geographic distribution of gonorrhea cases across the state during 2007.

Map: 2007 Gonorrhea reported cases in Louisiana.



Chlamydia

Chlamydia is the most commonly reported sexually transmitted disease (STD), it is caused by the bacterium, *Chlamydia trachomatis*, which can damage a woman's reproductive organs. In women, chlamydial infections, which are usually asymptomatic, may result in pelvic inflammatory disease (PID), which is a major cause of infertility, ectopic pregnancy, and chronic pelvic pain. Chlamydial infection can

facilitate the transmission of HIV infection. In addition, pregnant women infected with chlamydia can pass the infection to their infants during delivery, potentially resulting in neonatal ophthalmia and pneumonia.

In 2007, there were 19,363 Chlamydia cases reported to the Louisiana STD Control Program from 9 Health Regions. This count corresponds to a rate of 433.3 cases per 100,000 population, a increase of 8.3% compared with the rate of 395.4 in 2006. The numbers of reported cases of Chlamydia infections in females was 15,336 to a corresponding rate of 665 per 100,000 female population. The number of reported cases for males was 3,760 with a corresponding rate of 173.8 per 100,000 male population. In 2007 the number of reported cases for females was 4.1 times higher than males. The rate of Chlamydia infection among African Americans was 858.9 per 100,000 population, while that among whites was 88.9 per 100,000 population.

Chlamydia Rates
Louisiana, Neighboring States, and United States, 2001-2006

State	2001	2002	2003	2004	2005	2006
Alabama	326.6	351	316.7	295.8	377.7	502.8
Arkansas	272.3	273.5	289.9	288.5	309.1	297.2
Louisiana	399.2	412.7	467.8	485.7	381.5	395.4
Mississippi	414.6	414.8	424.6	654.7	732.6	650.5
Texas	334.5	333.4	317.7	317.5	319.7	330.5
United States	278.3	296.5	304.3	319.6	332.5	347.8

Reported Cases of Chlamydia by Gender and Race, Louisiana - 2007

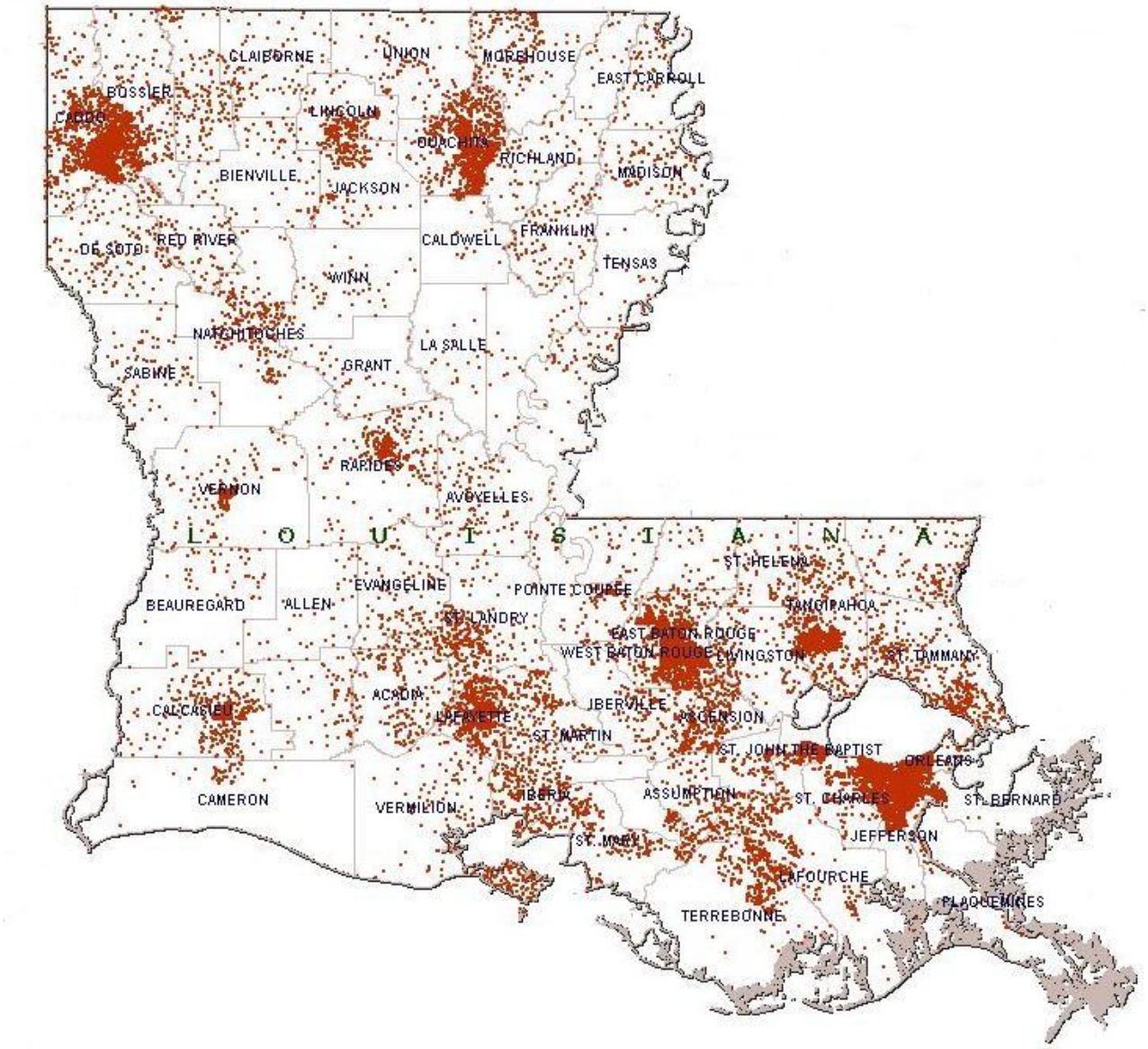
Gender	Reported Cases	Race	Reported Cases
Male	3760	AI/AN	14
Female	15336	Black	12470
Unknown	267	White	2538
Total	19363	Unknown	4341
		Total	19363

Reported Cases of Chlamydia by Age Group, Louisiana - 2007

AGE GROUP	Reported Cases
0 - 4	13
5 - 9	23
10 - 14	313
15 - 19	7028
20 - 24	7442
25 - 34	3753
35 - 44	498
45 - 54	140
55 - 64	29
65 - 74	10
75 & +	114

The following map shows the geographic distribution of chlamydia cases across the state during 2007.

Map: 2007 Chlamydia Reported Cases in Louisiana.



Sexually Transmitted Disease Rates+ by Parish Louisiana, 2006			
Parish	**Primary & Secondary Syphilis**	**Gonorrhea**	**Chlamydia**
State Total	11.9	249.2	433.3
Acadia	6.8	282.0	261.6
Allen	0.0	98.3	212.3
Ascension	23.5	103.1	327.6
Assumption	0.0	183.9	320.7
Avoyelles	4.8	243.5	298.9
Beauregard	0.0	133.4	184.9
Bienville	0.0	177.8	412.6
Bossier	5.1	268.5	478.1
Caddo	13.1	593.3	873.6
Calcasieu	4.9	179.2	347.5
Caldwell	9.5	37.9	170.5
Cameron	0.0	30.0	70.1
Catahoula	9.2	128.2	265.6
Claiborne	5.9	136.5	468.8
Concordia	9.9	187.7	375.4
DeSoto	11.8	274.6	529.5
East Baton Rouge	16.7	297.7	530.2
East Carroll	10.6	127.4	732.4
East Feliciana	0.0	121.7	220.0
Evangeline	28.2	208.8	256.8
Franklin	0.0	263.4	475.0
Grant	0.0	74.9	165.8
Iberia	2.7	404.0	518.7
Iberville	6.0	252.1	528.2
Jackson	0.0	162.4	370.2
Jefferson	7.9	173.9	342.9
Jefferson Davis	3.2	136.8	216.3
Lafayette	29.4	336.0	485.6
Lafourche	2.2	124.5	322.3
LaSalle	0.0	63.0	168.0
Lincoln	7.1	277.6	778.7
Livingston	8.7	61.0	180.8
Madison	0.0	298.7	677.4
Morehouse	9.7	293.3	544.8
Natchitoches	0.0	450.4	701.1
Orleans	24.1	315.5	430.6
Ouachita	2.7	429.2	711.7
Plaquemines	0.0	56.1	138.3
Pointe Coupee	4.4	153.8	426.1
Rapides	4.0	190.8	335.6
Red River	0.0	259.8	623.6
Richland	85.8	247.8	448.0
Sabine	4.3	93.8	324.0
St. Bernard	0.0	55.0	117.5
St. Charles	8.3	131.1	297.5
St. Helena	0.0	104.5	332.5
St. James	4.7	169.7	424.2
St. John	16.3	269.5	541.3
St. Landry	37.6	321.6	436.7

Sexually Transmitted Disease Rates+ by Parish Louisiana, 2006			
Parish	**Primary & Secondary Syphilis**	**Gonorrhea**	**Chlamydia**
St. Martin	4.1	265.5	463.1
St. Mary	9.3	302.8	592.5
St. Tammany	2.1	84.2	225.9
Tangipahoa	41.8	279.4	740.6
Tensas	0.0	45.3	196.4
Terrebonne	4.8	178.0	334.9
Union	4.4	61.4	377.1
Vermilion	3.7	124.5	247.2
Vernon	0.0	169.4	363.6
Washington	11.4	266.4	377.9
Webster	2.4	227.1	399.2
West Baton Rouge	0.0	236.1	351.8
West Carroll	24.4	48.7	170.5
West Feliciana	0.0	119.1	211.8
Winn	0.0	242.7	242.7

+Rates per 100,000 Population, Census 2000
Source: Louisiana Department of Health and Hospitals Office of Public Health, STD Control Program 2007

D. HIV/AIDS

Background

Acquired Immunodeficiency Syndrome (AIDS) is caused by the *human immunodeficiency virus*, or HIV. People infected with HIV can develop many health problems, including extreme weight loss, severe pneumonia, cancer, and damage to the nervous system; these illnesses signal the onset of AIDS. The time at which symptoms first begin to appear varies from person to person. In some people, these illnesses may develop within a year or two, while others may remain asymptomatic for 10 years or more. Although recent advances in treatment have significantly slowed the progression from HIV to AIDS and from AIDS to death, there is still no cure for the disease. This means that the most effective way to curb the HIV/AIDS epidemic is through assuring that individuals understand how the virus is transmitted and that they adopt behaviors that reduce possible exposure to HIV. In addition, individuals are encouraged to access testing so they are aware of their HIV status and, if positive, are urged to access treatment which may improve the length and quality of life.

The HIV/AIDS epidemic continues to greatly impact public health in Louisiana and will make increasing demands on health and social service systems for many decades. The lifetime medical cost for caring for a person with AIDS is approximately $618,900 - most of which is paid for by the government.

Summary

As of December 31, 2007, there were 15,686 persons reported to be living with HIV/AIDS in Louisiana. In 2007 alone, 808 new AIDS cases and 1,163 new HIV cases were diagnosed.

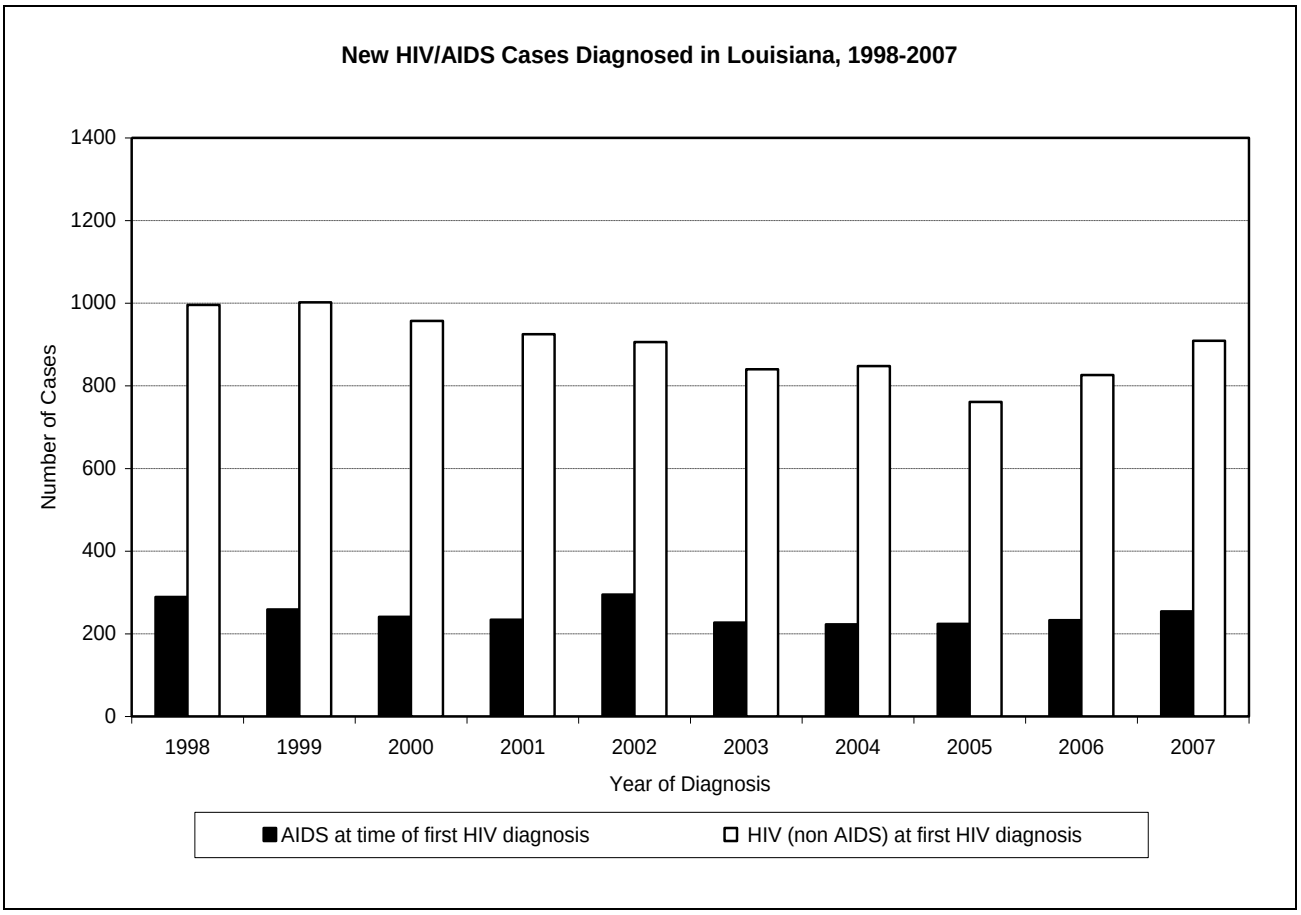
There are persons living with HIV/AIDS in every parish in Louisiana. New cases of HIV/AIDS were diagnosed in 62 of Louisiana's 64 parishes in 2007. The HIV diagnosis rate among black persons remains disproportionately high. Although black persons make up only 32% of the Louisiana population, 72% of persons newly diagnosed with HIV and 75% of those newly diagnosed with AIDS in 2007 were black.

In 2007, the largest proportion of new cases was attributed to men who have sex with men (MSM), after adjusting for unreported risk. For black persons, high-risk heterosexual activity has remained the leading exposure category; while, among white persons, the predominant exposure to HIV is among MSM.

Both new AIDS diagnoses and AIDS-related mortality began to decline dramatically in the mid-1990s, coinciding with the emergence of more effective treatments. However, from 1999 to 2006, the number of deaths among persons with AIDS remained relatively stable, and from 2005 to 2006 new AIDS diagnoses in the state increased.

2007 Status

Highly active antiretroviral therapies (HAART) have been shown to be effective in treating HIV infection. These therapies have delayed the progression from HIV to AIDS and from AIDS to death among many people infected with the virus. However, due to factors such as late testing, limited access to or use of health care services, and limitations of available therapies for some people, a significant number of people continue to be newly diagnosed with AIDS each year. In addition, 22% of new HIV cases also had an AIDS diagnosis at the same time they were first diagnosed with HIV, as shown in the graph below. This indicates that many people are not diagnosed until late in the course of their disease. HIV-infected persons who are unaware of their infection cannot receive appropriate medical treatment and may unknowingly spread HIV to other people in their communities.



Source: Louisiana Department of Health and Hospitals, Office of Public Health, HIV/AIDS Program

In the year 2006 (for which the most recent statistics are available), Louisiana ranked fifth highest in reported AIDS case rates and twelfth in the number of new AIDS cases reported in the United States. Louisiana's AIDS case rate continues to be higher than the rates of neighboring states.

AIDS Cases and Rates
Louisiana, Neighboring States, and United States, 2005 and 2006

	2005		2006		Cumulative Totals		
State	Cases	Rate/100,000	Cases	Rate/100,000	Cases	Children less than 13	Total
Alabama	510	11.2	462	10.0	8,626	76	8,702
Arkansas	237	8.5	252	9.0	3,891	36	3,927
Louisiana	**936**	**20.8**	**824**	**19.2**	**17,612**	**128**	**17,740**
Mississippi	368	12.7	365	12.5	6,642	56	6,698
Texas	3,045	13.3	2,998	12.8	69,735	392	70,127
United States	40,123	13.5	37,911	12.7	952,221	9,094	961,315

Source: CDC HIV/AIDS Surveillance Report (Vol. 18)
*The cumulative total includes all cases of AIDS reported to the health departments from 1984 (when AIDS became reportable) through December 31, 2006.

In Louisiana, the New Orleans area had the highest number of HIV/AIDS cases diagnosed in 2007. Since 1996, however, the New Orleans and Baton Rouge areas have had similar HIV/AIDS diagnosis rates. Among the large metropolitan areas in the nation, the Baton Rouge metropolitan area ranked 4th and the New Orleans metropolitan area ranked 8th in AIDS case rates in 2006.

Persons Living with HIV/AIDS

The number of persons living with HIV/AIDS continues to increase in Louisiana each year. On December 31, 2007, 15,686 persons in Louisiana were reported to be living with HIV/AIDS in the state. These numbers reflect only those persons who were confidentially tested and reported to the state Department of Health and Hospitals, Office of Public Health, HIV/AIDS Program and should be considered a minimum estimate of the total number of persons infected with HIV in Louisiana. As the number of persons living with HIV continues to increase, more resources will need to be directed toward programs and services that address primary and secondary prevention, early diagnosis, and effective treatment.

Currently, there are persons living with HIV/AIDS in every parish in Louisiana. As of the end of 2007, 18 parishes out of 64 (25%) had greater than 300 persons living with HIV per 100,000 persons in the population. The HIV/AIDS Program has funded community-based organizations, medical facilities, and home health providers in every region of the state to deliver HIV prevention programs to persons at high-risk and to provide services for persons living with HIV/AIDS.

Persons Living with HIV/AIDS by Parish Louisiana, 2007			
Parish	**Persons Living with HIV/AIDS**	**Parish**	**Persons Living with HIV/AIDS**
Statewide	15,686	**Region VI**	772
		Avoyelles	197
Region I	5,637	Catahoula	26
Jefferson	1,399	Concordia	33
Orleans	4,114	Grant	28
Plaquemines	26	La Salle	10
St. Bernard	98	Rapides	351
		Vernon	43
Region II	3,767	Winn	84
Ascension	145		
East Baton Rouge	2,959	**Region VII**	1,280
East Feliciana	111	Bienville	24
Iberville	258	Bossier	159
Pointe Coupee	45	Caddo	820
West Baton Rouge	102	Claiborne	80
West Feliciana	147	De Soto	51
		Natchitoches	79
Region III	579	Red River	8
Assumption	31	Sabine	21
Lafourche	99	Webster	38
St. Charles	74		
St. James	52		
St. John the Baptist	100	**Region VIII**	843
St. Mary	65	Caldwell	48
Terrebonne	158	East Carroll	39
		Franklin	15
		Jackson	28
Region IV	1,158	Lincoln	44
Acadia	85	Madison	54
Evangeline	55	Morehouse	51
Iberia	98	Ouachita	446
Lafayette	554	Richland	39
St. Landry	204	Tensas	33
St. Martin	90	Union	38
Vermilion	72	West Carroll	8
Region V	836	**Region IX**	817
Allen	223	Livingston	142
Beauregard	36	St. Helena	15
Calcasieu	526	St. Tammany	304
Cameron	****	Tangipahoa	212
Jefferson Davis	47	Washington	144

Source: Louisiana Department of Health and Hospitals, Office of Public Health, HIV/AIDS Program
**** Count less than 5

Shifts in the Epidemic

In keeping with national trends, Louisiana has seen a shift over the last decade in the HIV/AIDS epidemic, with an increasing proportion of cases among minorities, women, and high-risk heterosexuals. The percentage of persons in the state living with HIV/AIDS who likely contracted their infection through heterosexual contact increased from 18% in 1993 to 24% in 2007.

Black persons continue to be disproportionately impacted by HIV/AIDS. In 2007, 72% of newly diagnosed HIV/AIDS cases in Louisiana were among black persons, who comprise only 32% of the total state population. The 2007 HIV diagnosis rate among black persons was five times higher than the rate among white persons, and nearly twice as high as the rate among Hispanic persons.

The percentage of women in Louisiana living with HIV/AIDS has increased from 11% in 1990 to 34% in 2007. Furthermore, the percentage of newly diagnosed HIV/AIDS cases reported among women in the state has been increasing steadily. In 1990, 18% of all newly diagnosed HIV cases were among women; this percentage has increased to 30% in 2007. Black women accounted for 81% of all new HIV/AIDS cases among women in 2007.

Newly-diagnosed HIV/AIDS Cases, by Demographics and Exposure Group
Louisiana, 2000-2007

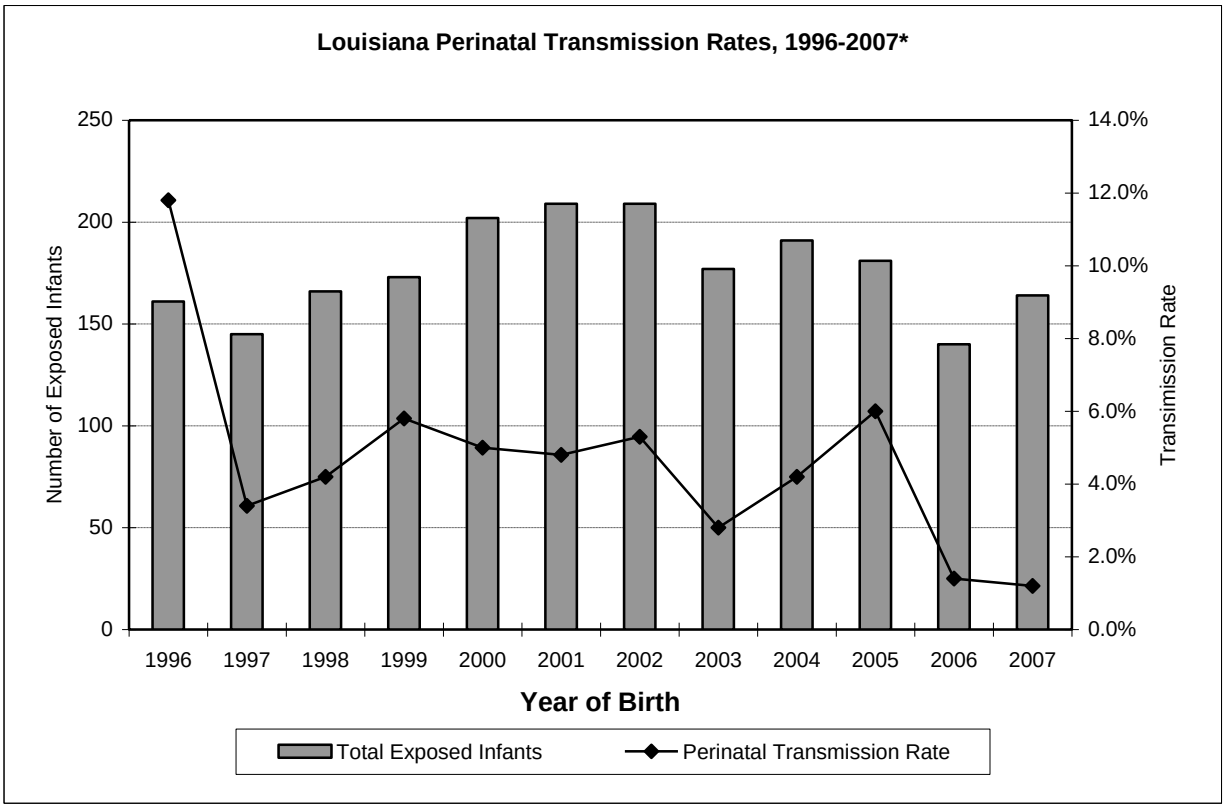
Year	2000	2001	2002	2003	2004	2005	2006	2007
Total Cases	**1,196**	**1,157**	**1,201**	**1,063**	**1,070**	**980**	**1,053**	**1,163**
Gender								
Male	800	740	816	692	729	634	714	809
Female	396	417	385	371	341	346	339	354
Race								
Black	886	870	897	809	828	718	716	836
White	273	251	273	220	214	217	278	254
Other	36	34	30	34	26	40	46	63
Unknown	****	****	****	0	****	5	13	10
Exposure Group								
Cases with Specified Risk	643	596	669	563	507	540	545	532
MSM *	43.4%	42.4%	45.6%	44.2%	50.3%	52.4%	53.2%	59.2%
IDU *	20.2%	20.5%	18.4%	18.5%	13.0%	11.5%	12.1%	9.6%
MSM & IDU	5.3%	5.2%	4.5%	4.1%	4.9%	4.3%	5.1%	3.4%
HRH *	27.5%	29.2%	28.8%	31.8%	29.0%	29.3%	28.6%	27.1%
Transf/Hemo *	1.4%	<1%	<1%	0%	0%	0%	0%	0%
Perinatal	2.2%	2.2%	2.1%	1.4%	2.8%	2.6%	<1%	<1%

Source: Louisiana Department of Health and Hospitals, Office of Public Health, HIV/AIDS Program
MSM: Men who have Sex with Men; IDU: Injection Drug Users; HRH: High Risk Heterosexuals;
Transf/Hemo:Transfusion/Transplant/Hemophiliac
**** Count less than 5

Perinatal Transmission

Between early 1985 and the end of 2007, an estimated 2846 infants were born in to women living with HIV in Louisiana; 10.8% of HIV-exposed infants born during this period were infected with HIV at or around the time of birth. The introduction and widespread use of prophylactic antiretroviral drug protocols for pregnant HIV-positive women and their newborns in the mid 1990s led to a decline in annual perinatal transmission rates from nearly 19% in 1994 to less than 2% in 2006 and 2007. Increases in the 2004 and 2005 perinatal HIV transmission rates appear to be multifactorial but include insufficient or no prenatal care and failure of mothers to receive appropriate antiretroviral therapy during pregnancy. The Office of Public Health's current HIV prevention efforts are aimed at increasing the number of pregnant women screened for HIV, providing statewide training to health care providers on current CDC and United States Public Health Service (USPHS) guidelines for testing and treatment of HIV-positive pregnant women and their newborns, promoting rapid HIV antibody testing in labor and delivery and linking HIV- positive women and children with HIV or HIV exposure to the appropriate medical care and Ryan White funded case management services.

In June 2007, the state of Louisiana passed legislation (Act 153) that requires HIV testing be a component of routine prenatal care, unless a woman declines. Consent for testing may be incorporated into general consent for medical care and the requirement for separate written consent for HIV testing is no longer required. In addition, physicians may test infants born to women whose HIV status is unknown at the time of delivery.



Source: Louisiana Department of Health and Hospitals, Office of Public Health, HIV/AIDS Program
*2006 and 2007 data are incomplete

E. CANCER

2001–2005 Status

In Louisiana, cancer incidence rates for all cancers combined for all race/sex groups have been roughly stable for the past decade whereas mortality rates have been declining for most race-sex groups since the early 1990s. Mortality trends in Louisiana are similar to those nationwide but remain significantly higher than the U.S. rates. More people are surviving cancer now than ever before (nationally, 5-year survival for cases diagnosed in 1996-2004 was 66%, versus 50% for those diagnosed 20 years earlier). Survival rates vary, however, according to race, age-group, and type of cancer.

Five Most Common Cancers Louisiana, January 1, 2001–July 1, 2005 Average Annual Case Counts: Invasive Cases Only	
Type	*Number of Cases*
All Cancers	21,294
Lung	3,478
Prostate	3,354
Breast	2,927
Colon & Rectum	2,483
Non-Hodgkin's Lymphoma	826

Source: Louisiana Tumor Registry

Cancer includes many different diseases, and current evidence indicates that different types of cancer are associated with specific risk factors, although many of these are still unknown. Lung, breast, prostate, and colorectal cancers account for about half the new cases diagnosed each year, and most of these four diseases can either be prevented or be diagnosed early enough to prevent spread to other organs.

The National Cancer Institute estimates that tobacco use accounts for 30% of cancer deaths, with dietary factors and sedentary lifestyle accounting for another third. Tobacco is associated with cancers of the oral cavity and pharynx, lung, larynx, esophagus, stomach, pancreas, kidney, bladder, liver, and cervix and with some leukemias. Consuming a diet low in fat and high in fiber may help prevent colon, rectal, breast, prostate, and other cancers.

Early detection is important in lowering the number of deaths due to cancer and can even prevent cancers of the cervix, colon, and rectum. Mammography, clinical breast examination, Papanicolaou (Pap) tests, fecal occult blood tests, and proctosigmoidoscopy (colon examination with lighted scope) aid in the early detection and treatment of cancers in their early stages to reduce the impact of the diseases. Nonetheless, a significant portion of the population at risk for various cancers fails to participate in screening procedures.[1]

[1] See the CDC's Behavioral Risk Factor Surveillance System website: www.cdc.gov/brfss.

Five Most Common Cancers In Males, Louisiana 2001–2005 Invasive cases only					
Whites		Blacks		Total *	
Type	Rate**	Type	Rate**	Type	Average Annual Count
All Cancers	596.7	All Cancers	692.3	All Cancers	11,515
Prostate	161.0	Prostate	243.5	Prostate	3,354
Lung	106.2	Lung	130.6	Lung	2,061
Colon & Rectum	68.2	Colon & Rectum	77.4	Colon & Rectum	1,290
Bladder	40.6	Kidney & Renal Pelvis	22.4	Non-Hodgkin Lymphoma	431
Non-Hodgkin Lymphoma	24.7	Stomach	20.7	Kidney & Renal Pelvis	444

* All races combined
** Average annual age-adjusted (U.S. 2000) incidence rates per 100,000 population
Source: Louisiana Tumor Registry.

Five Most Common Cancers In Females, Louisiana 2001–2005 Invasive cases only					
Whites		Blacks		Total *	
Type	Rate**	Type	Rate**	Type	Average Annual Count
All Cancers	407.7	All Cancers	401.7	All Cancers	9,779
Breast	120.5	Breast	123.0	Breast	2,903
Lung	61.4	Colon & Rectum	57.4	Lung	1,417
Colon & Rectum	45.4	Lung	50.2	Colon & Rectum	1,193
Non-Hodgkin's Lymphoma	17.8	Uterus	18.4	Uterus	429
Uterus	18.0	Pancreas	14.9	Non-Hodgkin's lymphoma	395

* All races combined
** Average annual age-adjusted (U.S. 2000) incidence rates per 100,000 population
Source: Louisiana Tumor Registry

Background [2]

Among women, *breast cancer* is the most frequently occurring invasive cancer in the United States and is second only to lung cancer in cancer-related deaths. Nationwide, the death rate from breast cancer has decreased steadily since the early 1990s, and this decline is attributed to both early detection and improved treatment. Family history, exposure to hormones, reproductive factors, postmenopausal issues, overweight status, and excessive alcohol use can influence the risk for breast cancer, alterations in two genes can account for most inherited breast cancer, which constitutes 5%-10% of all breast cancers. Since early detection improves the chances of survival, the National Cancer Institute recommends that women in their forties or older undergo screening mammograms every year. Women who are at increased risk for breast cancer should seek medical advice about when to begin having mammograms and how often to be screened.

Cervical (cervix uteri) cancer afflicts about 225 Louisiana women each year. Increased use of the Pap test has contributed to a 70**%** drop in cervical cancer deaths since 1973. Cervical cancer screening should begin approximately three years after a woman begins having sexual intercourse, but no later than

[2] From the National Cancer Institute (HTTP://CANCER.GOV), the American Cancer Society (WWW.CANCER.ORG), and the Louisiana Tumor Registry (HTTP://PUBLICHEALTH.LSUHSC.EDU/TUMORREGISTRY) resources and publications.

at 21 years old. The National Cancer Institute (NCI) recommends that women have a Pap test at least once every three years. The Food and Drug Administration has approved a vaccine to prevent the types of human papilloma virus (HPV) that are responsible for about 70% of the cases of cervical cancer worldwide.

Colorectal cancer caused the second largest number of cancer deaths in the years 2001−2005, although both incidence and mortality rates have generally declined nationwide for about two decades. Incidence and mortality rates in Louisiana are higher than the national ones, especially for men. A diet high in fruits, vegetables, and fiber and low in fat appears to reduce the risk of colorectal cancer while physical activity may also lower the risk. Increased screening and polyp removal has contributed to the reduction in the impact of this disease.

Kidney cancer accounts for about 3% of all new cancers detected in Louisiana. Cigarette smoking, overweight, heredity, high blood pressure, and certain occupational exposures have been linked to increased risk for this disease whereas beverages such as coffee, tea, and alcoholic drinks have not been found to be important risk factors. Among men about 40% of kidney cancer could be avoided by eliminating the use of tobacco; the figure is lower for women.

Leukemias together account for 2%-3% of the annual cancer incidence in the United States, and they constitute over one fourth of cancers in children under 20 years old. Rates for all types of leukemia are higher among males than among females, and for most leukemias, rates are higher among whites than blacks. Risk factors include cigarette smoking, benzene, ionizing radiation, and the human T-cell leukemia/lymphoma virus.

Lung cancer is the leading cause of cancer mortality in the United States. Difficult to detect and hard to treat, lung cancer causes approximately 30% of all cancer deaths in Louisiana. Smoking is responsible for at least 85% of lung cancers. Recent research shows that black smokers are more sensitive to the effects of smoking than are whites or Hispanics. According to the CDC, the prevalence of smoking has been declining steadily in both the U.S. and Louisiana, but that for Louisiana is 15% higher than for the nation as a whole.

Melanoma of the skin incidence rates have doubled since 1975, yet mortality rates have risen only slightly. Earlier diagnoses of melanoma of the skin are associated with increased survival. Whites are over ten times as likely to develop melanoma as blacks. Risk factors include excessive exposure to ultraviolet radiation, occupational exposures, family history, and multiple or atypical moles.

Non-Hodgkin lymphoma cases increased dramatically in the 1970s and 1980s, partly because of AIDS-related cases, but among black males new cases of non-Hodgkin lymphoma have declined in the last decade. Among the risk factors are impaired immune function, family history, and exposure to certain infectious agents. Occupational exposures to certain chemicals are also suspected.

Cancer of the oral cavity and the pharynx accounted for approximately 3% of all Louisiana malignancies in 2001 to 2005. In the United States, oral cancer is two to three times as common among males as females. Heavy consumption of alcohol is associated with 70% of the cases of cancer of the oral cavity and pharynx, and the use of tobacco with 90% of cases. Epidemiological evidence indicates that, while

smoking and drinking are independent risk factors, their combination increases the risk of cancer. The use of snuff or chewing tobacco is a primary cause of cancers of the gum and cheek, as well as other diseases of the teeth and gums. Pipes are associated with cancer in the areas of the lips that touch the pipe stem.

Ovarian cancer strikes almost 300 Louisiana women every year. Currently, the five-year survival rate is approximately 50%. Reproductive history, family history, gynecological surgery, and estrogen alone as a postmenopausal therapy have been linked to the incidence of ovarian cancer. As is the case for almost all cancers, the risk increases with age.

Pancreatic cancer is called a "silent" disease, as it is asymptomatic until well advanced. Survival is considered poor since only about 5% of patients are alive five years after diagnosis. In the period from 2001 through 2005, it ranked eleventh in incidence among all cancers in the United States, but was fifth in cancer mortality. While the only established risk factor is cigarette smoking, others may include age, obesity, chronic pancreatitis, diabetes, physical inactivity, family history, occupational exposures, and possibly stomach problems.

Prostate cancer is the most frequently diagnosed invasive cancer in men but is a distant second to lung cancer as a cause of cancer deaths among men. Men who eat a diet heavy in red meat have a slightly higher risk of developing prostate cancer. Age, race, and family history are also important predictors, and hormones are also being investigated, as well as occupational and other lifestyle factors. The National Cancer Institute (NCI) is currently conducting a study to determine whether regular screening with a digital rectal exam and a blood test for prostate-specific antigen (PSA) reduces mortality. Doctors should discuss annual screening with men aged 50 and above (age 45 for blacks and for those with a family history of diagnosis at an early age).

Urinary bladder cancer was the fourth most common type of cancer in the period from 2001 through 2005 among men and the eleventh most common among women. It is especially prevalent among older white men. Since the mid-1980s, incidence and mortality rates have generally leveled off. The most important known risk factor is cigarette smoking, as smokers demonstrate twice the risk for urinary bladder cancer as non-smokers. Several occupational exposures such as those involved in the rubber, dye, paint, textile, chemical, and leather industries also increase the risk for bladder cancer, as does prolonged exposure to diesel exhaust fumes. Despite previous speculation, research shows that neither artificial sweeteners nor coffee drinking appears to increase the risk of cancer. Drinking more fluids and eating more vegetables may reduce the risk for bladder cancer.

Uterine (endometrial) cancer, the fourth most common cancer in women in Louisiana and the United States, accounted for approximately 4% of all cancer cases in women from 2001 through 2005. It has a good five-year survival rate of 85%. High cumulative exposure to estrogen is the major risk factor for the most common type of cancer of the uterine corpus, and low parity, diabetes, family history, and obesity are also linked to this disease.

To learn more about cancer, visit the following websites:

Louisiana Tumor Registry: http://publichealth.lsuhsc.edu/tumorregistry

Louisiana Cancer Control Partnership's Parish Profiles:
http://www.lcltfb.org/laccp/ParishProfiles/default.htm
State Cancer Profiles: http://statecancerprofiles.cancer.gov
(developed by the National Cancer Institute and the CDC)
American Cancer Society: http://www.cancer.org
National Cancer Institute: http://www.cancer.gov

TABLE 1. Ten Most Common Among Cancers White Males: Average Annual Incidence Rates[1] By Geographic Region 2001-2005

PRIMARY SITE:	U.S.[2]	Louisiana	REGIONS							
			New Orleans	Baton Rouge	South-east	Acadiana	South West	Central	North West	North East
INVASIVE CANCERS										
All Sites Combined	551.4	596.7*	568.4	578.4	596.8	624.9	619.6	584.2	629.0	598.1
Prostate	156.7	161.0*	133.1	163.4	153.8	180.5	179.9	158.7	180.2	155.5
Lung and Bronchus	79.4	106.2*	100.1	96.8	102.8	111.2	115.5	114.7	112.3	112.0
Colon and Rectum	59.0	68.2*	63.0	66.8	70.8	73.6	59.3	75.6	70.6	70.3
Urinary Bladder (Incl. In Situ)	40.6	40.6	41.8	40.1	46.0	40.2	35.9	33.5	40.8	40.6
Non-Hodgkin Lymphoma	24.3	24.7	25.0	24.8	28.2	23.9	29.7	19.0	23.0	22.5
Kidney and Renal Pelvis	18.8	23.4*	24.6	23.9	23.7	22.8	23.5	23.1	24.4	18.7
Melanoma of the Skin	28.5	20.5*	20.2	20.8	18.0	17.3	21.9	17.9	24.1	26.7
Oral Cavity and Pharynx	15.8	18.9*	18.8	19.1	17.8	17.1	19.7	17.2	20.7	26.6
Leukemia	16.7	17.4	13.7	17.3	16.2	18.7	17.4	20.8	20.5	18.4
Pancreas	13.0	13.6	15.8	13.1	12.0	14.2	11.0	16.2	12.2	14.1

TABLE 2. Ten Most Common Cancers Among White Females: Average Annual Incidence Rates[1] By Geographic Region 2001-2005

PRIMARY SITE:	U.S.[2]	Louisiana	REGIONS							
			New Orleans	Baton Rouge	South East	Acadiana	South West	Central	North West	North East
INVASIVE CANCERS										
All Sites Combined	423.6	407.7*	410.4	392.3	409.4	418.5	417.4	383.6	416.8	410.9
Breast	130.6	120.5*	128.1	123.0	123.5	120.1	115.2	98.7	121.3	113.4
Lung and Bronchus	54.9	61.4*	62.0	54.7	60.6	66.7	63.8	53.7	65.8	63.5
Colon and Rectum	43.2	45.4*	42.4	46.8	41.9	45.2	51.3	48.7	47.0	46.8
Uterus	24.3	18.0*	17.1	17.3	16.3	18.9	18.9	14.7	20.8	21.8
Non-Hodgkin Lymphoma	17.1	17.8	18.3	16.9	18.2	18.8	19.9	17.0	16.4	16.3
Thyroid	14.1	12.8*	11.2	8.4	15.0	18.6	11.6	12.5	11.7	14.3
Ovary	14.1	12.7*	13.5	11.8	13.2	11.1	11.2	13.6	14.0	12.7
Kidney and Renal Pelvis	9.5	12.6*	13.1	11.6	14.5	13.5	13.1	13.3	11.4	10.2
Melanoma of the Skin	18.5	11.8*	10.2	12.3	12.1	9.4	15.3	10.4	13.0	15.4
Pancreas	10.0	10.5	9.0	10.4	10.2	15.4	10.7	11.4	9.0	8.1

* Louisiana rate is significantly different from the U.S. rate ($p \leq 0.05$).
1. Rates per 100,000, age-adjusted to the U.S. 2000 standard.
2. U.S. incidence rate estimates are from the Surveillance, Epidemiology and End Results (SEER) Program of the National Cancer Institute.

TABLE 3. Ten Most Common Cancers Among Black Males: Average Annual Incidence Rates[1] By Geographic Region 2001-2005

PRIMARY SITE:	U.S.[2]	Louisiana	REGIONS							
			New Orleans	Baton Rouge	South-east	Acadiana	South-west	Central	North-west	North-east
INVASIVE CANCERS										
All Sites Combined	651.5	692.3*	683.1	718.2	689.4	703.9	645.9	676.1	712.5	661.5
Prostate	248.5	243.5	217.0	280.7	232.2	231.1	222.0	261.3	258.1	256.8
Lung and Bronchus	107.7	130.6*	128.3	126.0	136.0	145.1	133.2	126.7	129.1	126.5
Colon and Rectum	71.2	77.4*	84.0	76.2	76.8	80.9	59.4	73.8	82.3	60.7
Kidney and Renal Pelvis	21.3	22.4	21.3	26.6	26.1	23.9	^	17.2	21.1	19.4
Oral Cavity and Pharynx	17.4	21.2*	20.3	24.3	17.6	20.2	23.9	19.4	24.2	17.4
Stomach	17.4	20.7*	23.2	18.2	21.4	19.9	^	^	22.9	19.0
Urinary Bladder	20.4	19.3	23.4	17.9	16.6	20.5	27.2	^	15.1	16.1
Pancreas	16.2	18.4*	16.0	18.7	19.6	23.1	^	22.1	19.0	17.7
Non-Hodgkin Lymphoma	18.4	16.7	21.1	15.6	17.2	16.6	23.2	^	14.8	^
Myeloma	14.0	16.2*	17.2	18.6	^	15.3	^	^	16.2	19.9

TABLE 4. Ten Most Common Cancers Among Black Females: Average Annual Incidence Rates[1] By Geographic Region 2001-2005

PRIMARY SITE:	U.S.[2]	Louisiana	REGIONS							
			New Orleans	Baton Rouge	South East	Acadiana	South West	Central	North West	North East
INVASIVE CANCERS										
All Sites Combined	398.9	401.7	405.7	405.1	380.7	420.8	394.9	419.9	388.6	396.7
Breast	117.5	123.0*	125.2	128.8	107.4	131.1	106.9	108.2	123.0	124.8
Colon and Rectum	54.5	57.4	56.1	57.1	51.8	58.7	68.3	54.7	62.3	54.8
Lung & Bronchus	54.6	50.2*	55.0	45.4	48.4	53.8	64.8	63.8	40.5	42.8
Uterus	20.3	18.4*	18.5	18.8	19.6	16.7	17.0	14.0	17.8	22.8
Pancreas	14.3	14.9	14.8	15.9	13.8	18.2	18.3	13.8	10.6	16.1
Cervix	10.8	13.6*	11.3	13.3	13.9	10.1	15.8	19.8	16.9	16.0
Non-Hodgkin Lymphoma	12.1	11.6	10.0	11.8	^	16.5	^	^	11.7	11.5
Kidney and Renal Pelvis	10.1	11.1	9.8	10.8	14.8	13.0	^	17.2	9.6	11.1
Stomach	8.9	10.8*	11.0	11.0	15.1	11.5	^	^	9.0	10.5
Ovary	10.1	10.2	9.8	10.4	9.9	10.1	^	13.8	10.9	9.6

* The Louisiana rate is significantly different from the U.S. rate ($p \leq 0.05$).
1. Rates per 100,000, age-adjusted to the U.S. 2000 standard.
2. U.S. incidence rate estimates are from the Surveillance, Epidemiology and End Results (SEER) Program of the National Cancer Institute.
^ Rates are not calculated if the total number of cases for these five years was less than 20 for a given race-sex group.

Methodology Note: "Usually the use of a population estimate for July 1 of a particular year reflects the average population of that area for the year. Both Hurricane Katrina and Hurricane Rita struck the Gulf Coast area of the United States in 2005. This had the effect of displacing large populations. Since there weren't any population estimates by age, race, sex, and county for time periods just after the hurricanes, it is very difficult to estimate the actual population at risk for certain areas along the Gulf Coast for 2005.

For Louisiana, only the first six months of incidence data for 2005, coupled with ½ of the population estimate for July 1, 2005, were used to calculate cancer incidence. . . For more details, see http://seer.cancer.gov/popdata/methods.html." (Ries LAG, Melbert D, Krapcho M, Stinchcomb DG, Howlader N, Horner MJ, Mariotto A, Miller BA, Feuer EJ, Altekruse SF, Lewis DR, Clegg L, Eisner MP, Reichman M, Edwards BK (eds). Introduction, *SEER Cancer Statistics Review, 1975-2005,* National Cancer Institute. Bethesda, MD). Available at http://seer.cancer.gov/csr/1975_2005/results_single/sect_01_intro_28pgs.pdf (cited 06/10/2008).

F. CHRONIC DISEASES: ASSOCIATED RISK FACTORS

1. HEART DISEASE AND STROKE: RISK FACTORS

Heart disease and stroke are, respectively, the first and third leading causes of death for all racial and ethnic groups in Louisiana and the United States. Almost 1 million people in the United States die from heart disease and stroke each year, accounting for approximately 40% of all deaths; with other diseases of the cardiovascular system causing substantial further death and disability.[3] Each year, heart disease kills more Americans than cancer. In Louisiana, heart disease caused 13,263 deaths in 2004, which accounted for 32% of all deaths that year.[4]

In addition to the approximately 15,000 Louisiana residents that die from heart disease and stroke each year, many more state residents experience a heart attack, stroke, or other non-fatal cardiovascular event. The majority of heart disease survivors will need medications for the rest of their lives, and some are left with permanent, severe disabilities including the loss of speech, or the inability to move an arm or leg.

Some conditions, as well as some lifestyle factors, can put people at a higher risk for developing heart disease. In principle, all persons can take steps to lower their risk of heart disease and stroke by living a healthy lifestyle and addressing the following controllable risk factors:

1.1 Tobacco Use

1.1.1 Cigarette Smoking

Cigarette smoking was the leading risk factor for disease, responsible for an estimated 6,710 deaths and 102,676 years of potential years of life lost in 2001[5]. Furthermore, cigarette smoking is responsible for one in three deaths due to CVDs and contributes to illness and death due to cancers, respiratory

3 American Heart Association, 2004 Heart and Stroke Statistical Update. Dallas: AHA, 2000.

4 Louisiana Office of Public Health, State Center for Health Statistics

diseases, premature and low birth weight infants, sudden infant death syndrome, and burns. More than 725,000 adults,[6] 79,000 high school,[7] and 28,000 middle school[8] aged children in Louisiana currently smoke cigarettes. Smokers not only put their own lives at risk, but also affect the lives of people around them. The human and economic costs of cigarette smoking are substantial. Recent estimates show that the total direct and indirect costs for 1999 in Louisiana attributable to cigarette smoking stood at $2.81 billion or $645 per capita.[9]

1.1.1.1 Cigarette Smoking Among Adults

1.1.1.1.1 Prevalence of Cigarette Smoking among Adults

Nearly one in four (22.6%) adults in Louisiana currently smokes cigarettes.[10] Rates of adult smoking in Louisiana have slightly declined over past years but have consistently been above the national mean which according to the 2007 BRFSS national mean was 19.8%.

Rates of current smoking are higher among males, Hispanics, individuals in the 18 - 49 year age group, individuals with annual household income less than $15,000 and in individuals with less than a high school level of education.[11]

Demographic Profile of Current Smokers

Age	% Who Currently Smoke	Gender	% Who Currently Smoke	Race	% Who Currently Smoke	Income	% Who Currently Smoke	Education	% Who Currently Smoke
18-24	26.1	Male	26.4	White	21.7	Less than $15,000	34.1	Less than H.S.	34.7
25-49	25.5	Female	19.2	Black	22.2	$15,000-$24,999	30.4	H.S. or G.E.D.	27.0
50-64	23.6			Hispanic	27.7	$25,000-$49,999	25.3	Some post-H.S.	21.0
65+	9.9					$50,000+	17.1	College Graduate	14.5

Source: Louisiana Department of Health and Hospitals Office of Public Health, Chronic Disease Epidemiology Unit, BRFSS 2007

1.1.1.1.2 Smoking Cessation among Adults

5 Chronic Disease Epidemiology Unit, Office of Public Health, Louisiana Department of Health and Hospitals. Smoking Attributable Mortality, Morbidity and Economic Costs (SAMMEC) Report – Louisiana 2001.

6 Chronic Disease Epidemiology Unit, Office of Public Health, Louisiana Department of Health and Hospitals. Behavioral Risk Factor Surveillance System (BRFSS) – 2007.

7 Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System (YRBS) – Louisiana, 1997.

8 Tobacco Control Program, Office of Public Health, Louisiana Department of Health and Hospitals. Louisiana Youth Tobacco Survey – 2000.

9 Chronic Disease Epidemiology Unit, Office of Public Health, Louisiana Department of Health and Hospitals. Smoking Attributable Mortality, Morbidity and Economic Costs (SAMMEC) Report – Louisiana 1999.

10 Chronic Disease Epidemiology Unit, Bureau of Primary Care and Rural Health, Louisiana Department of Health and Hospitals. Behavioral Risk Factor Surveillance System (BRFSS) – 2007.

11 Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, 2007.

The best way to avoid the undue consequences of smoking is to never start smoking. However, reduction in disease rates among current smokers is best achieved only through cessation. Smoking cessation has major and immediate health benefits for individuals of all ages. Smoking cessation is known to reduce the risk of lung cancer, other cancers, cardiovascular disease and chronic lung disease. Research shows that:[12]

- Individuals who quit before 50 years of age have a 50% reduction in the risk of dying in the next 15 years compared with continuing smokers.
- The risk of lung cancer declines steadily in people who quit smoking, with a 30 to 50% reduction in the risk after 10 years, compared to the risk for those who continue smoking.
- There is a 50% reduction in the risk of cardiovascular disease after 1 year in those who quit smoking and after 15 years, their risk equals that of non-smokers.

In the readiness-to-change model, smoking cessation is viewed as a process of change with five stages: pre-contemplation, contemplation, preparation, action and maintenance. Results from the 2007 Louisiana BRFSS show that approximately 713,000 adult Louisianans have quit smoking. Furthermore, an additional 402,000 have tried to quit smoking for at least one day in the past year. Trend data over the past ten years (1997 – 2007) show a gradual increase in the proportion of adults who are trying to give up the deadly habit, from 49.0% to 55.0%.

1.1.1.2 Cigarette Smoking among Youth

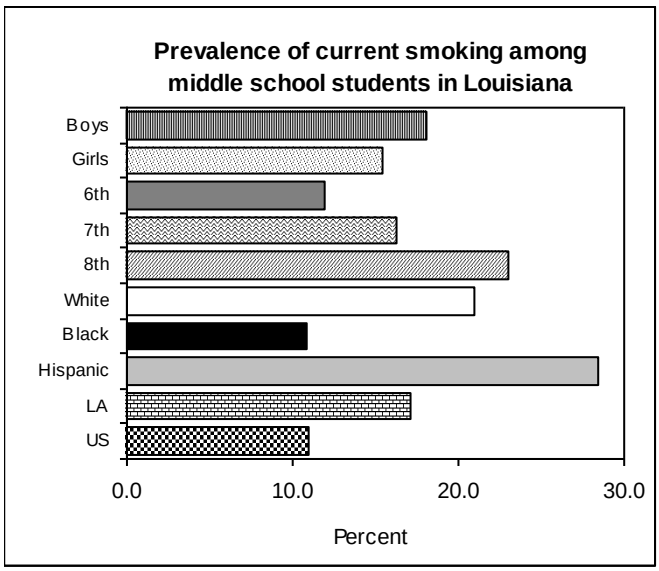
Nine out of ten current smokers started before they were 18 years of age. The younger one begins to smoke, the more likely one is to remain a smoker as an adult. Health problems associated with smoking are a function of the duration (years) and the intensity (amount) of use.[13] Earlier onset of tobacco use also provides more life-years to use tobacco and thereby increases the potential duration of use and the risk of a range of more serious health consequences. Tobacco use is considered a part of the continuum of high-risk behaviors, which include the use of illegal drugs and anti-social behavior. These problem behaviors can be considered a syndrome, since involvement in one behavior increases the risk for involvement in others. Delaying or preventing the use of tobacco may have implications for delaying or preventing these other behaviors as well. [14]

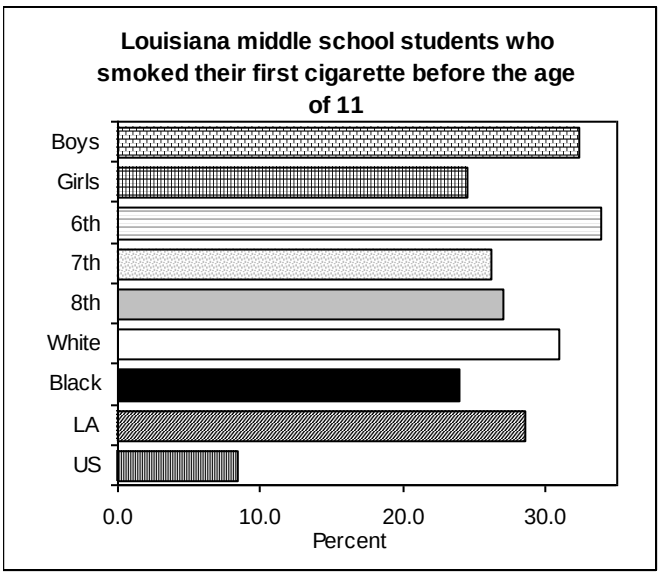
1.1.1.2.1 Prevalence of Cigarette Smoking among Youth

12 U.S. Department of Health and Human Services. The health benefits of smoking cessation: a report of the Surgeon General, Atlanta: U.S. Department of Health and Human Services, Public Health Service, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1990.

13 U.S. Department of Health and Human Services. Preventing Tobacco Use Among Young People – A Report of the Surgeon General: U.S. Department of Health and Human Services, Public Health Service, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

Results from the 2000 Louisiana Youth Tobacco Survey (YTS) show that more than 70,000 (50.0%) public middle school students in Louisiana reported having ever smoked a cigarette, and 17.1% currently smoke cigarettes. Moreover, more than a fourth (28.6%) of the students had smoked their first cigarette





Source: 2000 Louisiana Youth Tobacco Survey, Louisiana Tobacco Control Program, Louisiana Office of Public Health

before the age of 11. Apart from cigarette smoking, other forms of tobacco use reported by middle school students include cigars (12.5%), pipes (6.3%), bidis (small brown cigarettes from India consisting of tobacco wrapped in a leaf and tied with a thread) (7.1%), and smokeless or chewing tobacco (9.9%). The rates of cigarette smoking and use of other tobacco products increase with each increasing school grade. Furthermore, white and Hispanic students have higher rates of cigarette smoking compared to black students. Rates of current smoking among middle school students in Louisiana are 50% higher than those of their peers nationally.

Sales of tobacco products to children under the age of 18 years are illegal and punishable by law in all 50 states and the District of Columbia. However, underage tobacco sales continue to be a major source of tobacco for minors. Nearly one in two (46.8%) middle school students (under the age of 18) who reported currently smoking cigarettes bought their last pack of cigarettes from a gas station, convenience, grocery, or drug store. Results from the same survey also show that 70.5% of the middle school aged current smokers who bought cigarettes in a store were not asked to show proof of age when buying cigarettes during the 30 days preceding this survey. In addition, a greater proportion of white students (76.0%) reported not being asked for proof of age as compared to black students (55.5%).

14 EPA. Respiratory health effects of passive smoking: Lung Cancer and other disorders. EPA/600/6-90/006F; December 1992

1.1.1.2.2 Smoking Cessation among Youth

The continuum of smoking behavior among children and adolescents can be described in five stages: preparation, initial trying, experimentation, regular smoking, and nicotine dependence or addiction. Persons who have smoked can discontinue at any stage, but quitting becomes more difficult as smokers progress through the continuum and become increasingly dependent on nicotine. Desire to quit smoking was shown to decrease with each additional school grade. Current smokers in the sixth grade were more likely to state that they wanted to quit smoking, as compared to eighth graders (61.0% and 47.3%, respectively).

1.1.2. Smokeless Tobacco

Smokeless tobacco (chewing or spit tobacco) can also lead to nicotine addiction, oral cancer, gum disease, and an increased risk of cardiovascular disease, including heart attacks.

1.1.2.1 Use of Smokeless Tobacco among Adults

According to 2004 BRFSS data, 15.3% of the adult population in Louisiana has ever used smokeless tobacco products such as chewing tobacco, dip or snuff. Overall, 4% of the adult population currently uses smokeless tobacco products.

Current Smokeless Tobacco Users									
Age	**% Who Use Smokeless Tobacco**	**Sex**	**% Who Use Smokeless Tobacco**	**Race**	**% Who Use Smokeless Tobacco**	**Income**	**% Who Use Smokeless Tobacco**	**Education**	**% Who Use Smokeless Tobacco**
18-24	4.8	**Male**	7.6	**White**	5.1	**Less than $15,000**	3.5	**Less than H.S.**	5.4
25-49	5.0	**Female**	0.6	**Black**	1.7	**$15,000-$24,999**	3.9	**H.S. or G.E.D.**	3.9
50-64	2.2					**$25,000-$49,999**	3.7	**Some post-H.S.**	4.1
65+	2.7					**$50,000+**	5.2	**College Graduate**	2.9

Source: Louisiana, Department of Health and Hospitals, Office of Public Health, Chronic Disease Epidemiology Unit, BRFSS 2004

1.1.2.2 Use of Smokeless Tobacco among Youth

Use of smokeless tobacco products among youth in Louisiana appears to be widely prevalent. Results from the 2000 YTS show that more than one in two (56.1%) middle school students have used smokeless tobacco products before the age of 11 years. One in ten (9.9%) middle school students currently use smokeless tobacco products. Significantly higher rates of use were observed among boys compared to girls (15.8% vs. 3.2%) and white students compared to blacks (12.8% vs. 5.4%).

1.1.3 Environmental Tobacco Smoke

There is a growing body of evidence to support the harmful effect of exposure to Environmental Tobacco Smoke (ETS) or second-hand smoke. ETS is classified as a Group A carcinogen under the United States Environmental Protection Agency's (EPA) carcinogen assessment guidelines. Exposure to ETS causes lung cancer and has been linked to an increased risk for heart disease in nonsmokers. ETS is also known to cause irritation of the conjunctiva of the eyes and the mucous membranes of the nose, throat, and lower respiratory tract.[15] Provision of completely smoke-free environments is the most effective method for reducing ETS exposure.

1.1.3.1 ETS Exposure at home

Results from the 2006 Louisiana BRFSS survey show that nearly one in five adults (19.3%) in Louisiana allow smoking indoors or did not have any rules about smoking inside the house.

Adults who Allow Smoking Indoors

Age	% Who Allow Smoking	Sex	% Who Allow Smoking	Race	% Who Allow Smoking	Income	% Who Allow Smoking	Education	% Who Allow Smoking
18-24	24.1	**Male**	20.2	**White**	17.1	**Less than $15,000**	27.5	**Less than H.S.**	26.5
25-49	17.1	**Female**	18.5	**Black**	26.1	**$15,000-$24,999**	25.3	**H.S. or G.E.D.**	25.0
50-64	21.5			**Hispanic**	9.4	**$25,000-$49,999**	21.4	**Some post-H.S.**	18.1
65+	18.2					**$50,000+**	11.2	**College Graduate**	10.3

Source: Louisiana Department of Health and Hospitals, Bureau of Primary Care and Rural Health, Chronic Disease Unit, BRFSS 2006

1.1.3.2 ETS Exposure at work

Exposure to ETS in the workplace represents a substantial contribution to lifetime ETS exposure.

Results from the 2006 Louisiana BRFSS survey show that one in seven (14.8%) adults (who work indoors most of the time) report that smoking is allowed in some or all work areas or that there were no rules about smoking in their place of work. Blacks, individuals in the 18 - 24 year age group, individuals with an annual household income between $15,000 and $24,999, and individuals with a high school education were more likely to report that their place of work did not prevent indoor smoking. These statistics highlight the increased level of health risk among a large proportion of individuals who are exposed to ETS on a daily basis at their places of work.

15 EPA. Respiratory health effects of passive smoking: Lung cancer and other disorders. EPA/600/6-90/006F; December 1992.

Demographic Profile of Adults Whose Place of Work Does Not Prevent Smoking Indoors									
Age	% Whose Work Allows	Sex	% Whose Work Allows	Race	% Whose Work Allows	Income	% Whose Work Allows	Education	% Whose Work Allows
18-24	18.0	Male	18.8	White	14.8	Less than $15,000	14.6	Less than H.S.	19.7
25-49	16.0	Female	11.4	Black	16.1	$15,000-$24,999	20.9	H.S. or G.E.D.	21.8
50-64	9.9			Hispanic	12.7	$25,000-$49,999	18.3	Some post-H.S.	16.1
65+	15.5					$50,000+	11.2	College Graduate	8.2

Source: Louisiana Department of Health and Hospitals, Bureau of Primary Care and Rural Health, Chronic Disease Unit, BRFSS 2006

1.1.3.3 Youth Exposure to Environmental Tobacco Smoke

Research has shown that children exposed to ETS are at an increased risk for SIDS, acute lower respiratory tract infections, asthma induction and exacerbation, and middle-ear effusions.[16]

Results from the most recent YTS show that more than three out of four middle school students (84.5%) believe that exposure to ETS is harmful. Middle school students who are current smokers were less likely to believe that ETS exposure can be harmful, as compared to those who have never smoked (77.1% and 87%, respectively).

Nearly one in two middle school students (48.9%) currently lives with someone who smokes cigarettes. Middle school students who were smokers were significantly more likely to be living with someone who smoked, as compared to non-smokers, (66.7% and 33.7% respectively). One out of two middle school students (50.8%) in Louisiana rode in the car with someone smoking on at least one out of the seven days preceding the survey.

1.1.4 Impact of Tobacco Use

1.1.4.1 Morbidity and mortality

Results from the recent Smoking Attributable Morbidity, Mortality and Economic Costs (SAMMEC) study show that in 2001, cigarette smoking contributed to an estimated 6,710 deaths in Louisiana, accounting for 16.0% of all deaths in that year. Also, an estimated 102,676 Years of Potential Life were Lost (YPLL) as a result of the premature mortality resulting from cigarette smoking. Cancer was the leading cause of smoking-attributable YPLL in Louisiana in 2001, it was specifically responsible for 46,767 years of potential life lost (31,0468 male and 15,721 female). Cardiovascular disease (CVD) caused a loss of 38,381 years (24,736 male and 13,645 female) of potential life, while respiratory diseases caused 17,528 years to be lost (8,975 male and 8,553 female).

16 EPA. Respiratory health effects of passive smoking: Lung cancer and other disorders. EPA/600/6-90/006F; December 1992.

1.1.4.2 Economic costs

Results from SAMMEC also estimate the total direct and indirect costs for 1999 in Louisiana attributable to cigarette smoking at $2.81 billion. Smoking attributable direct medical costs totaled $1.15 billion:

- $392 million for ambulatory care
- $308 million for hospitalizations
- $101 million for prescription drugs
- $268 million for nursing home services
- $82 million for other professional services

Indirect costs due to loss of productivity resulting from the premature deaths for 1999 in Louisiana due to cigarette smoking were estimated at $1.66 billion. This included $731 million due to malignant neoplasms, $755 million due to CVD and $178 million due to respiratory diseases.

1.2 Overweight and Obesity

NEW DEFINITIONS:
Overweight - an adult with a BMI between 25.0-29.9 kg/m^2
Obesity - an adult with a BMI of 30 kg/m^2 or greater
Note: Because of these changes, readers may find earlier obesity/overweight figures that do not agree with those found in this report.

Excess body fat is linked to higher LDL (bad) cholesterol and triglyceride levels; and to lower HDL (good) cholesterol, high blood pressure, and diabetes. Three main factors that affect weight are metabolism, food intake and activity level. While some individuals may have underlying physical disorders that cause them to gain or lose too much weight, most people can control their weight by matching their food intake to their activity level. Even though an individual's Body Mass Index (BMI) is, for the most part, within his or her control, the percentage of people in the United States who are overweight or obese has been steadily and dramatically on the rise. Adult obesity in Louisiana rose from 16% in 1991 to 30.7% in 2007, with the largest jump seen in the 18 to 24 year old age group. Being overweight and/or obese substantially increases the risk of hypertension, high cholesterol, type II diabetes (adult onset), heart disease, stroke, gallbladder disease, osteoarthritis, and various cancers.[17] During the period between 1991 until 2007, the percentage of overweight and/or obese Louisiana residents increased from 49% to 65%.

1.3 High Blood Pressure

High blood pressure, or hypertension, is a major risk factor for both heart disease and stroke. According to results from the 2007 BRFSS survey, nearly one in three adult residents or 32.1% of Louisianans suffers from high blood pressure. The proportion of Louisiana residents with undiagnosed hypertension is unknown. Nationally, only two thirds of people with high blood pressure know they have it, one-half are receiving treatment, and one fourth are under control. High blood pressure is a major risk factor for both

17 Stunkard AJ, Wadden TA. (Editors) Obesity: Theory and therapy, Second Edition. New York: Raven Press, 1993.

coronary heart disease (CHD) and stroke.[18] It is important to ensure adequate control of high blood pressure through exercise, weight management, and medication.

1.4 High Cholesterol

Elevated cholesterol is one of the strongest risk factors associated with heart disease.[19] Cholesterol plays a direct role in the atherosclerotic process, the disease process that causes heart disease and stroke, where cholesterol accumulates on the arterial walls, building plaque and restricting blood flow. Low-density lipoprotein (LDL), the "bad cholesterol," clogs the arteries to the heart and increases the risk for heart disease. High-density lipoprotein (HDL), the "good cholesterol," decreases the risk for heart disease. A high total cholesterol level increases the risk for heart disease. Lowering high total blood cholesterol levels can decrease the likelihood of death from heart disease.

In 2007, the percentage of Louisiana adults who had not had their blood cholesterol checked within the previous five years was 2.2%; never checked was 22.1%. Of persons who had ever been checked, 33.7% reported having high cholesterol levels.

1.5 Physical Inactivity

A lack of adequate physical inactivity is also related to the development of heart disease. Regular physical activity is associated with significant health benefits and has been shown to decrease mortality and morbidity due to several diseases. The benefits of regular physical activity include, but are not limited to a reduction in the rates of heart disease and stroke, lower blood pressure, and a lower incidence of diabetes, osteoporosis, colon cancer, and mood disorders, such as anxiety and depression. Regular physical activity also helps maintain body weight; aids in the management of osteoarthritis; and reduces the risk of falls and fractures.[20] Moderately intense physical activity, such as a brisk walk or raking a lawn, can provide the desired results.

Regular moderate or vigorous physical activity can reduce the risk for heart disease. Healthy People 2010 recommends that adults should engage in vigorous-intensity physical activity three or more days per week for 20 or more minutes per occasion, or engage in moderate-intensity physical activities for at least 30 minutes on five or more days of the week. Only 35% of Louisianans met the recommendations in 2001. The proportion of those who met the recommendations increased to 38.6% in 2007, but is still below the national level of 49.5%.

18 American Heart Association, Heart and Stroke Statistical Update, 2004. Dallas, TX: AHA, 2001.

19 American Heart Association, Heart and Stroke Statistical Update, 2004. Dallas, TX: AHA, 2001.

20 U.S. Department of Health and Human Services. Physical Activity and Health: Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.

Inadequate physical activity can impact other risk factors for heart disease including obesity, high blood pressure, diabetes, high triglycerides (bad cholesterol), and a low level of HDL (good) cholesterol.

1.6 Diet

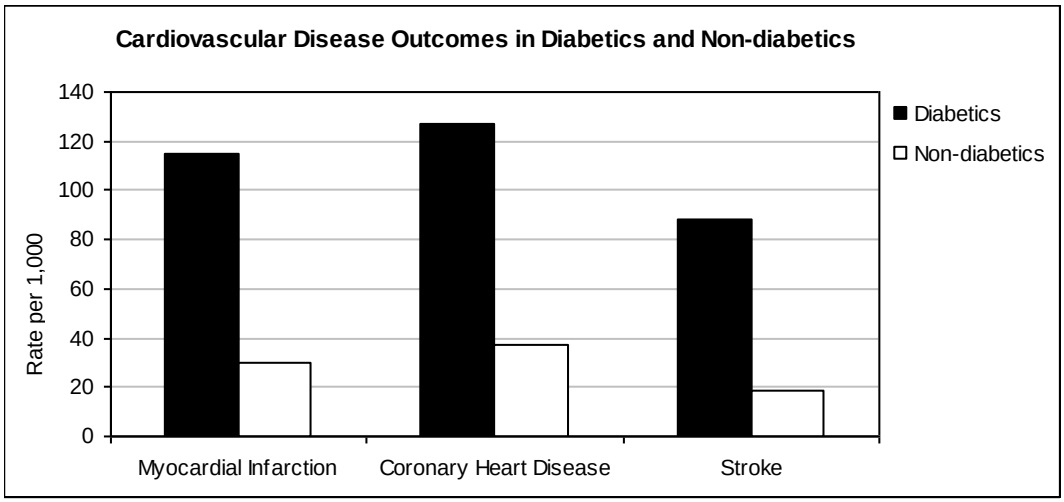
An unhealthy diet, high in saturated fats and cholesterol, will raise blood cholesterol levels and promote atherosclerosis. High salt or sodium in the diet also causes higher blood pressure levels. Eating five or more servings of fruits and vegetables per day can help prevent heart disease, cancer, and other chronic conditions. In 2007, 80.4% of Louisianans reported that they did not consume at least five servings of fruits and vegetables per day.

1.7 Excessive Alcohol Use

Excessive alcohol use leads to an increase in blood pressure, and increases the risk for heart disease. It also increases blood levels of triglycerides, which contributes to atherosclerosis. Control of this risk factor is especially needed by people who have already been diagnosed with heart disease.

1.8 Diabetes and Co-Risk Factors for Heart Disease

Because diabetes causes damage to many vital organs over time, diabetics are at higher risk than non-diabetics for morbidity and mortality. To assess the extent to which diabetes does increase the risk of morbidity, three outcomes were selected for analysis, comparing the rates (per 1,000) between diabetics and non-diabetics. Louisiana diabetics were found to have about four times the risk for myocardial infarction that non-diabetics have, five times the risk for coronary heart disease, and three times the risk for stroke.



Source: Louisiana Department of Health and Hospitals.
Office of Public Health, Chronic Disease Epidemiology Unit, BRFSS 2004

Reducing the burden of disease due to diabetes requires monitoring diabetics on their risk factors associated with other morbidity outcomes. Risk factors that may potentially speed the progression of disease in diabetics, and impose excess morbidity include obesity, physical inactivity, hypertension, high cholesterol, and tobacco use.

1.9 Uncontrollable Risk Factors

Uncontrollable risk factors for heart disease, or risk factors one cannot change, include the following:

- **Aging:** Mortality from heart disease increases with age.
- **Gender:** Males have higher mortality rates from heart disease than women, especially before menopause, (330/100,000 vs. 214/100,000 populations respectively).
- **Race:** African Americans generally have higher rates than whites (295/100,000 vs. 249/100,000 populations respectively
- **Family History:** A family history of stroke or heart attacks at a young age, is an important uncontrollable risk factor.

2. DIABETES: MANAGEMENT

Diabetes mellitus (diabetes) is a metabolic disorder in which the body does not produce or properly use insulin. Insulin, produced by the pancreas, is a hormone that allows glucose (sugar) and starch to enter cells and be converted into energy. Diabetes is characterized by the hyperglycemia (high blood glucose) and other conditions. Uncontrolled diabetes, the prolonged presence of glucose and fats in the blood, can damage vital organs and cause serious complications such as heart disease, stroke, kidney disease, blindness (loss of eyesight) and amputation. Obesity, poor nutrition, physical inactivity, family history of diabetes and history of gestational diabetes during pregnancy are risk factors for developing diabetes. Blacks, Hispanic/Latino Americans and American Indians have a higher risk for developing diabetes as compared to Whites.

Diabetes is a common and serious disease in Louisiana. It is costly not only in terms of the economic burden it imposes on the state, but also in terms of the human suffering it inflicts, including complications. In 2006, the total cost of diabetes for people in Louisiana was $2.431 billion. This includes $1.625 million in direct medical costs and $806.2 million in lost productivity (American Diabetes Association, 2008)

Diabetes is the fifth leading cause of death in Louisiana. In 2005, the age adjusted diabetes death rate for the state of Louisiana is 38.5/100,000, whereas the national age adjusted death rate is 24.6/100,000 people (CDC National Center for Health Statistics, 2006). In the United States, diabetes is the leading cause of blindness in adults aged 20 to 74 and the most common cause of non-traumatic amputations and end-stage renal disease, accounting for approximately 40% of new cases of end stage renal disease nationwide (CDC, 2003 and American Optometric Association, 2006).

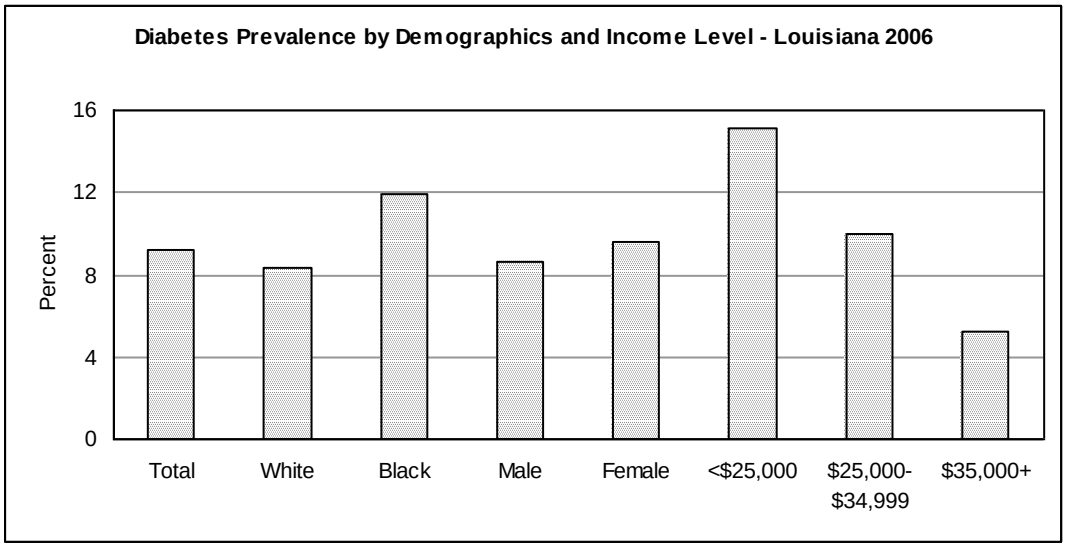
In 2001, approximately 16% (93,000) of Louisiana hospital discharges and 18% ($1.5 billion) of the costs associated with these discharges were attributable to people of all ages with diabetes as the principal or secondary diagnosis. This cost, which reflects estimates derived from known cases of diabetes, is likely an underestimate, given that about one third of all diabetics are undiagnosed.

2.1 Prevalence

The overall prevalence of diabetes in Louisiana is 9.2% (BRFSS, 2006). There are, however, many demographic variables to account for when studying prevalence. Using BRFSS, these differences were identified for race, sex, age, and household income.

Data analysis showed that, in 2006, blacks had a higher prevalence of diabetes than whites (11.9% vs. 8.3%), and that adult women had a higher prevalence than men (9.6% vs. 8.6%). The likelihood of having diabetes increases with age among Louisiana residents, with the highest prevalence found among those 65 years or older (19.1%), and the lowest prevalence found in those under 45 years of age (2.9%).

In terms of household (HH) income, the prevalence of diabetes is higher for adults in Louisiana from households with lower total incomes and for those with less than high school education. For persons living in households with a yearly income less than $25,000, the prevalence of diabetes is approximately 15.1%. This prevalence steadily decreases as the yearly income rises with the lowest prevalence for those with annual income of more than $35,000 (5.7%) (BRFSS, 2006).



*Source: Louisiana Department of Health and Hospitals, Bureau of Primary Care and Rural Health, Chronic Disease Unit, BRFSS 2006

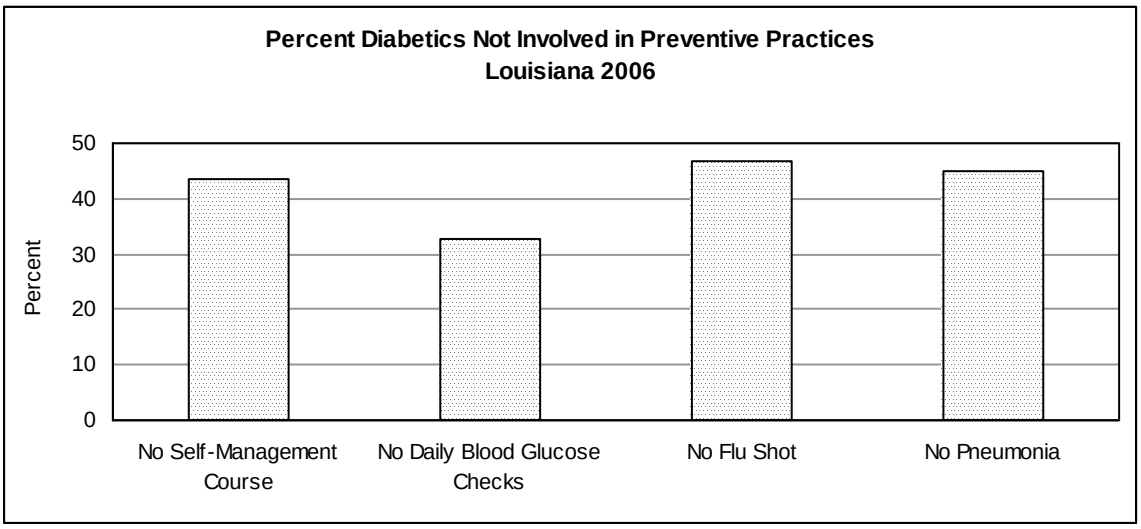
2.2 Preventive Practices

Reducing the burden of disease due to diabetes requires active and effective management of the disease, by both diabetics and those who treat them. For those affected by diabetes, following recommended preventive and curative practices is the best way to ensure a good quality of life. These practices include self-management classes, monitoring blood glucose levels, and vaccinations for both influenza and pneumonia.

2.2.1 Self-Management Courses

A thorough understanding of diabetes is critical to knowing how to properly manage the disease. It is important for diabetics to be consistent with care and up to date on the best practices for management. For this reason, it is recommended that diabetics and their families take classes that teach self-management. An estimated 43.6% of Louisiana diabetics, however, have not yet taken such a course (BRFSS, 2006).

Louisiana diabetics 65 years of age and older, who are most vulnerable to morbidity, are the least likely to have taken a self-management course. Also almost half of diabetics aged 18-44 years of age are not likely to take a self-management course (45.9%). In addition, more white diabetics (45.6%) than black diabetics (39.3%) reported that they have never taken a class on how to manage their diabetes.



Source: Louisiana Department of Health and Hospitals, Bureau of Primary Care and Rural Health
Chronic Disease Unit, BRFSS 2006

2.2.2 Blood Glucose Monitoring

The most fundamental aspect of self-managing diabetes is keeping blood sugar levels within the normal range. Although diabetics are advised to monitor their blood glucose levels several times a day, it is crucial that they check the level, at least, once a day. When asked how often they checked their blood

glucose levels in a day, 32.8% of Louisiana's diabetics responded that they failed to check, at least, once daily (BRFSS, 2006).

2.2.3 Influenza

Because diabetics are more likely than non-diabetics to suffer from complications of influenza (flu), it is recommended that they get an annual flu shot as a necessary precaution. In 2004, over half of Louisiana diabetics (53.1%) had received a flu shot within the last year. In terms of race, 47% of black diabetics and 55.8% of white diabetics reported that they had not received an annual flu shot. Approximately 80.7% of diabetics under the age of 45 and 54.5% of diabetics ages 45 to 64 had not received a flu shot.

2.2.4 Pneumonia

Like the flu vaccine, pneumonia vaccinations are important to the health of diabetics. Nationally, however, only about one in three adults with diabetes are vaccinated for pneumonia. A pneumonia shot every 10 years is recommended for anyone aged two years or older who might be at higher risk of getting pneumonia due to an existing chronic condition, such as diabetes. Unfortunately, 45% of diabetics in Louisiana reported never having received a pneumonia vaccination (BRFSS, 2006). Black diabetics were less likely to have ever received a pneumonia vaccination than white diabetics (49.3% vs. 57.5%). Those with annual household incomes less than $25,000 were more likely to have had a pneumonia vaccination than those with annual household incomes over $35,000.

2.3 Medical Office Visits

It is essential that persons with diabetes see a physician or other health professional specifically for their condition. Diabetes has the distinction of being one of the few chronic diseases that must be actively managed on a daily basis in order to be effectively controlled. Individuals with diabetes should perform daily blood glucose monitoring and ensure that they receive the recommended standard of care from their healthcare professionals in terms of consultations, foot examinations, and eye examinations.

2.3.1 Hemoglobin A1c (HgA1c)

The HgA1c test is the most reliable method for determining average blood sugar levels over the three months prior to the test. Diabetics are advised to have this test done once every three months. Since the test provides the best indication of blood sugar over the previous three months, health professionals can make the necessary determination on how to proceed with care, including insulin adjustment. BRFSS analysis shows that, of diabetics surveyed in 2004, only an estimated 61.1% reported that they had received even at least two HgA1c tests in the past 12 months. About 30.9% of blacks and 26.6% of whites responded that they had not had the test at least once in the previous year. Diabetics in the highest income bracket ($35,000 and over) comprise the lowest proportion not having received an HgA1c

annually (21.4%). Those with a yearly household income of less than $25,000 have the highest proportion with 32.2% not receiving an HgA1C test at least twice annually.

2.3.2 Foot Examinations

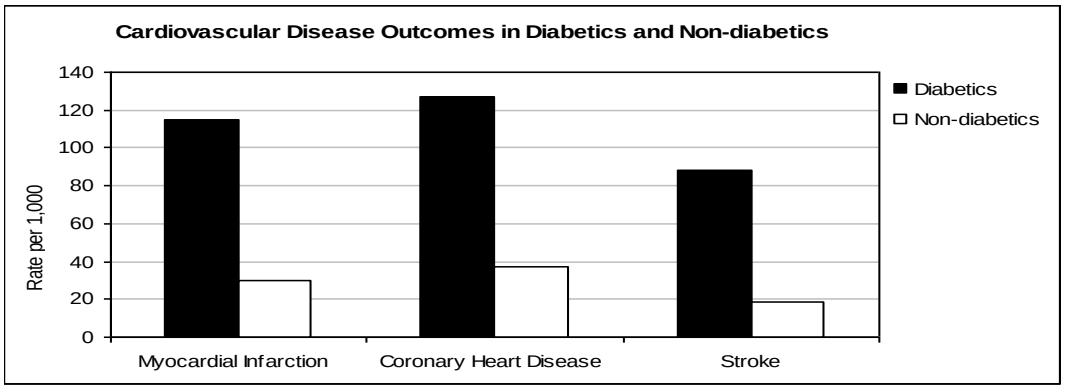
Diabetics are asked to check their own feet regularly and to have them checked by a health professional at least once a year. While self-examinations of the feet allow the patient to catch any sores or cuts that might progress if undetected, medical professionals have the proficiency to, among other aspects of complications, detect signs of nerve damage and prescribe appropriate measures. Overall, 35.7% of adult Louisiana diabetics did not receive a foot examination in the 12 months prior to the survey. The state's white diabetics are more likely than black diabetics to report not receiving a foot examination (37% and 32.1%, respectively).

2.3.3 Eye Examinations

Diabetes is the leading cause of new cases of blindness in adults aged 20 to 74 years (American Optometric Association, 2006). Therefore, annual eye examinations by healthcare professionals provide the possibility of early detection for signs of retinopathy and allow appropriate measures to be taken. Overall, an estimated 31.4% of Louisiana diabetics did not have an eye examination in the previous year.

2.4 Co-Risk Factors

Because diabetes causes damage to many vital organs over time, diabetics are at higher risk than non-diabetics for morbidity and mortality. To assess the extent to which diabetes increases the risk of morbidity, three outcomes were selected for analysis, comparing the rates (per 1,000) between diabetics and non-diabetics. Louisiana diabetics were found to have about four times the risk for myocardial infarction that non-diabetics have, five times the risk for coronary heart disease, and three times the risk for stroke.



Source: Louisiana Department of Health and Hospitals.
Office of Public Health, Chronic Disease Epidemiology Unit, BRFSS 2004

Reducing the burden of disease due to diabetes requires monitoring diabetics on risk factors associated with other morbidity outcomes. Risk factors that may potentially speed the progression of disease in diabetics and impose excess morbidity include obesity, physical inactivity, hypertension, high cholesterol,

and tobacco use. The following section examines the distribution of some important risk factors among Louisiana diabetics.

2.4.1 Overweight/Obesity

Overweight and obesity continue to be an area of particular relevance in the state. 29.3% of Louisiana diabetics are overweight, and another 56.2% are obese. Hence, approximately 85.5% of all adult diabetics in Louisiana are overweight/obese. Because the maintenance of an ideal body weight depends on lifestyle choices over which every individual has some measure of control, this is an area with considerable opportunity for worthwhile impact. The consumption of proper foods in moderation is essential to weight control.

2.4.2 Physical Activity

Combined with a nutritionally balanced diet, moderate physical activity is critical for physiological balance and well-being. The 2003 BRFSS defines “any exercise” as participation, over the previous month, in any physical activities such as running, calisthenics, golf, gardening, or walking, outside of the duties of one’s regular work. Nearly half (42.6%) of Louisiana diabetics reported that they had not exercised at all over the month prior to the survey.

The benefits of physical activity are greater when activity is regular and sustained. The BRFSS defines moderate physical activity as engaging in 30 minutes of moderate activities, five or more times per week, or 20 minutes of vigorous activity 3 or more times per week. In Louisiana, about 71.7% of diabetics do not engage in moderate physical activity as defined above.

2.4.3 Hypertension

In the absence of physical activity and a nutritious diet, many diabetics are in jeopardy of developing high blood pressure. The CDC reports that an estimated 60 to 65% of persons with diabetes have high blood pressure, placing them at increased risk for several morbidity outcomes, including heart attack and stroke. The overall rate of high blood pressure among Louisiana diabetics in 2004 was 69.3%. Of black diabetics in the state, 74.6% appear to be particularly affected by high blood pressure, relative to white diabetics (67.2%). Moreover, diabetics from households with the lowest total income have the highest rates of high blood pressure (79.4%).

2.4.4 Cholesterol

As with blood pressure, elevated blood cholesterol levels are associated with adverse cardiovascular outcomes for diabetics. Approximately 54% of all adult diabetics in Louisiana have high blood cholesterol. Broken into demographic groups, cholesterol prevalences are directly proportional to levels

of education, those with less than a high school education having the largest prevalence of high cholesterol (61%) (BRFSS, 2004).

2.4.5 Tobacco Use

Tobacco use, even without the complication of other chronic diseases, is one of the most important risk factors for morbidity. Combined with the complications of other chronic diseases such as diabetes, it greatly increases the risk of stroke and cardiovascular health problems. The prevalence for smoking among diabetics is estimated to be 18.4% (BRFSS, 2004).

Some of the greatest disparities in current smoking among diabetics occur between gender and age. At 16.9%, female diabetics are less likely to smoke than males (20.2%) (BRFSS, 2004). In addition, younger diabetics are proportionately more likely than older diabetics to be current smokers. The relationship between age and current smoking among Louisiana adult diabetics shows a gradient decrease with age. The youngest group of Louisiana adult diabetics (less than 45 years of age) smokes at a rate (24.6%) that is more than the rate (21.8%) of the next age group (45-64 years), and more than two times the rate (10%) of the oldest age group (65 years and above). While diabetics are strongly advised not to smoke, smoking represents a risk factor that diabetics and non-diabetics alike should be encouraged to avoid.

While it has been shown that diabetes is a very serious and costly disease, it is often preventable and even manageable. Because diabetes management involves behavior modifications, self-management is very important to control. Surveillance systems such as the BRFSS and the Diabetes Prevention and Control Program are instrumental to identifying areas of need for increased emphasis on diabetes education in an effort to reduce the morbidity and mortality of those affected by the disease.

3. ASTHMA PROGRAM

3.1 Asthma in the Nation

Asthma is a chronic respiratory disease characterized by wheezing and shortness of breath. In the last few years, the disease has become an emergent public-health concern in the United States. Asthma is the most common chronic disease facing children, accounting for 10.1 million missed days of school, and is the third-ranking cause of hospitalization among those younger than 15 years of age. Nationwide, approximately 4.8 million children under the age of 18 (7%) currently have. According to the Centers for Disease Control and Prevention, approximately 10.3% of adults in the United States in 2002 had ever been told that they had asthma, and 7.7% were current asthmatics.

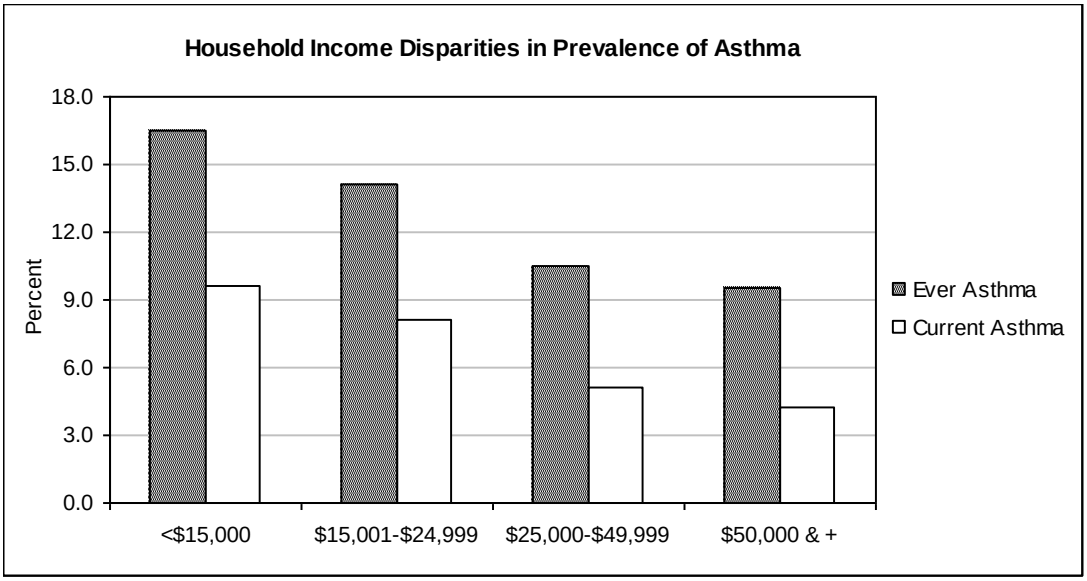
3.2 Adult Asthma in Louisiana

In 2004, the BRFSS Optional Asthma Module was used to determine the prevalence of asthma in adults in Louisiana. This module included two questions about asthma that had been asked in previous years: 1) Did a doctor ever tell you that you had asthma? and 2) Do you still have asthma? Analysis showed

that approximately 11.8% of adults in the state have had asthma at some time, and approximately 6.0% currently have asthma. This is an increase from 2000 when only 8% of respondents had ever had asthma and 5% currently had asthma.

Demographically, blacks were more likely than whites to report that they had asthma at some time in the present or past (13.5% vs.10.6%). When asked if they still had asthma, 7.5% of blacks and 5.4% of whites reported that they did at the time of the interview. BRFSS analysis also showed that there is a direct correlation between age and ever having asthma as well as current asthma. Survey respondents in the 18-24year age group had the highest prevalence of ever having asthma while the lowest prevalence occurred in those who are 65 years of age or older (13.4% vs. 10.7%). Similarly, 7.4% of those aged 18-24 currently had asthma in comparison to 4.8% of those 65 and older.

Of all demographic categories analyzed, the greatest disparity in asthma prevalence existed in income levels. As shown in the figure on the next page, adults in Louisiana who have a yearly household income of less than $15,000 are twice more likely to have suffered with asthma at some time in their lives than those in the highest income bracket of over $50,000 (16.4% vs. 9.5%). These results were consistent with the current asthma analysis where 9.6% of those in households with earnings of less than $15,000 yearly had asthma at the time and only 4.2% of those in households with yearly incomes above $50,000 had asthma at the time of the interview.



Source: Louisiana, Department of Health and Hospitals.
Office of Public Health, Chronic Disease Epidemiology Unit, BRFSS 2004

3.3 Childhood Asthma in Louisiana

In an effort to measure the prevalence of asthma among children under the age of 18 years, a new Module was added to the BRFSS in 2002. The Optional Childhood Asthma Module asks if there are children with asthma in the home of the respondent. Survey participants who indicated that there were, in

fact, children living in their homes were subsequently asked if one or more of the children had ever had asthma and if the child/children had asthma currently. Analysis revealed that approximately 43.1% of homes in Louisiana have children living in them and, of these, 10.7% have children with current asthma.

Houses in which the survey respondent was white have the lowest prevalence of children with asthma. At 8.4%, white households are in stark contrast to all other racial groups surveyed. The prevalence of childhood asthma was 13.5% among black households, 16.2% in Hispanic households, and 17.5% for households in which the respondent chose "Other" as their racial group. Those households with an annual income of less than $15,000 per year had the highest prevalence of childhood asthma (21.3%). In comparison, houses with an income of $50,000 per year or more have a prevalence of 8.1% for children in the house with asthma. Houses in which the survey participant is unemployed also have a high prevalence of childhood asthma, at 21.8%. In homes where the respondent was retired, the prevalence was 18.4%, while, in homes where the respondent was employed, it stood at 6.4%.

3.4 Effect of Smoking on Childhood Asthma

Because the BRFSS is an adult survey and children are not questioned directly, the State of Louisiana Chronic Disease Epidemiology Unit added the International Study of Asthma and Allergies in Childhood (ISAAC) wheezing module to the 2001 Youth Tobacco Survey, a survey of public middle-school students age 12-16 years. An estimated 17.4% of students questioned were classified as current asthmatics, while 25.7% of the students reported having ever had asthma in their lives. The prevalence of asthma was found to be higher in female students than in males (19.6% vs. 15.6%) and slightly lower for whites than for blacks (16.8% vs. 18.0%). The most significant source of disparity in asthma prevalence was between students aged 12-14 and those aged 15-16. Further analysis showed that 17.8% of 12-14 year old students were current asthmatics, while only 12.8% of those 15-16 also had asthma. Of students who are current asthmatics, 30.7% are themselves smokers, 68.7% were likely to spend at least one day a week in the room with someone who smoked, 57.8% live with someone who smokes, 54.7% ride in the car with a smoker, and 39.3% has, at least, one close friend who smokes.

Association between Smoking and Current Asthma		
Characteristic	**Current Asthma**	
	Yes	No
1. Current Tobacco Use (excluding smokeless)	30.7	22.8
2. In the same room with someone who was smoking (at least 1 day in the last week)	68.7	59.3
3. In the car with someone who was smoking (at least 1 day in the last week)	54.7	40.9
4. Live with someone who smokes	57.8	47.0
5. At least one of close friend smokes	39.3	33.7

Source: Louisiana, Department of Health and Hospitals, Office of Public Health, Chronic Disease Epidemiology Unit, BRFSS 2002

3.5 Asthma Mortality

The national mortality rate for asthma in 2002 was 2.0/100,000. Although Louisiana has one of the lowest state prevalences for asthma, a three year aggregate of mortality rates found that the state ranked 13th in death rates due to asthma. In the years 1996-1998, mortality rates for asthma in Louisiana were 2.4/100,000 for all citizens and 10.1/100,000 for those over the age of 65. In the City of New Orleans, the overall mortality rate attributable to asthma was 6.9/100,000. For Orleans Parish residents over the age of 65, the asthma mortality rate is 2.5 times the rate for the same age group in the state as a whole (27.5/100,000 vs. 10.1/100,000). Furthermore, it is more than three times the 1998 rate for the United States in the 65 and older age group (27.5/100,000 vs. 8.7/100,000).

Because there is no asthma-specific emergency room surveillance in the State of Louisiana, surveillance systems such as the BRFSS, YTS, and ISAAC make it possible to generate information and to develop interventions that will help control asthma in the state. Further studies on the prevalence of asthma in school aged children, as well as the association between smoking and asthma, are important in reducing the asthma mortality rates in Louisiana.

H. TRAUMATIC BRAIN INJURY

Traumatic Brain Injury (TBI) is one of the leading causes of death and disability to children and young adults in the United States and Louisiana. An estimated 5.3 million individuals, approximately 2% of the United States' population, are living with a disability resulting from a TBI.

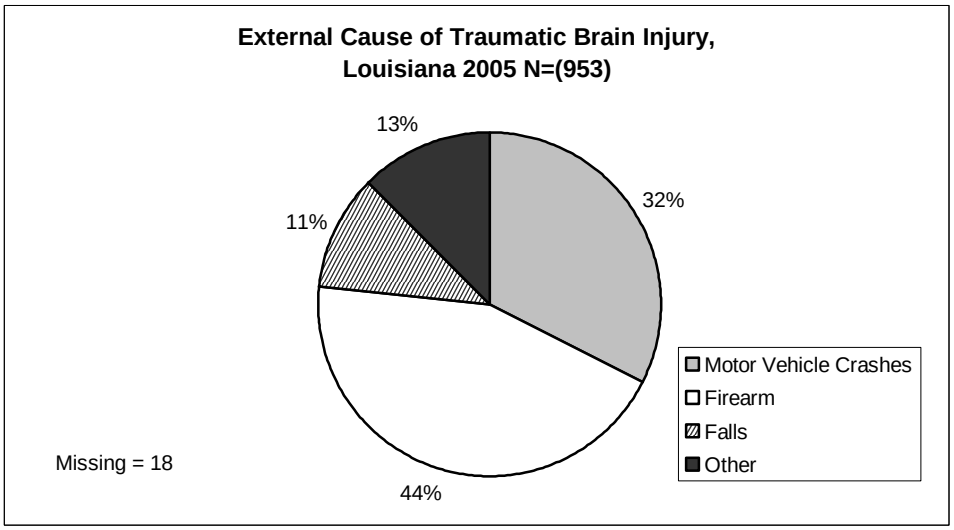
An analysis of 2005 Louisiana mortality data indicates that 953 individuals died as a result of a TBI. Several thousand more individuals will not recognize that they have sustained a preventable injury (as in closed head trauma from sports or falls) capable of causing long-term deficits. TBIs can have a deep impact on families and communities and are resource-intensive, both financially and emotionally.

TBIs can be markers of inadequate prevention policies, correctable environmental hazards (e.g., uneven sidewalks that precipitate falls), and other injury-prevention opportunities. Alcohol-impaired driving, unsafe boating, unsafe bicycling, and violence can be assessed separately. Pedestrian injuries may be linked to poor signage, alcohol use, poor outdoor lighting, and unsafe pedestrian paths. Falls may be linked to home safety, work safety, playground safety, and other environmental obstacles. Violence injuries may be linked to gun use, aggression, alcohol use, and child abuse. These examples show how programs not particularly aimed at reducing brain injuries may use the same data to plan and evaluate prevention and intervention strategies.

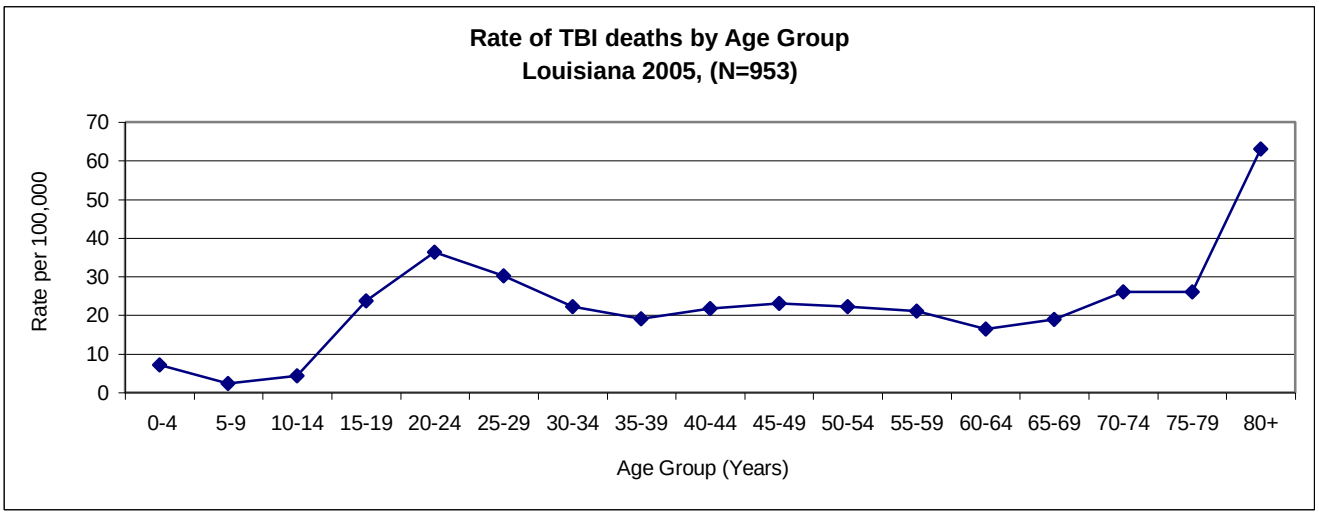
The majority of TBIs are preventable. That fact, coupled with the seriousness and prevalence of their occurrence, makes TBIs a public health concern. The Louisiana State Legislature has established the Traumatic Brain and Spinal Cord Injury Registry and has mandated the reporting of these events.

Traumatic Brain Injury Facts

In 2005, firearm related deaths were the leading cause of TBI deaths, followed by motor-vehicle crashes and falls. Analyzing TBI deaths by age group allows for the development of targeted interventions in sub-populations. Motor-vehicle crashes were the leading cause of injury among youth from birth to 24 years of age. Fall-related TBIs, in turn, were the leading cause of injury among persons aged 75 and older.

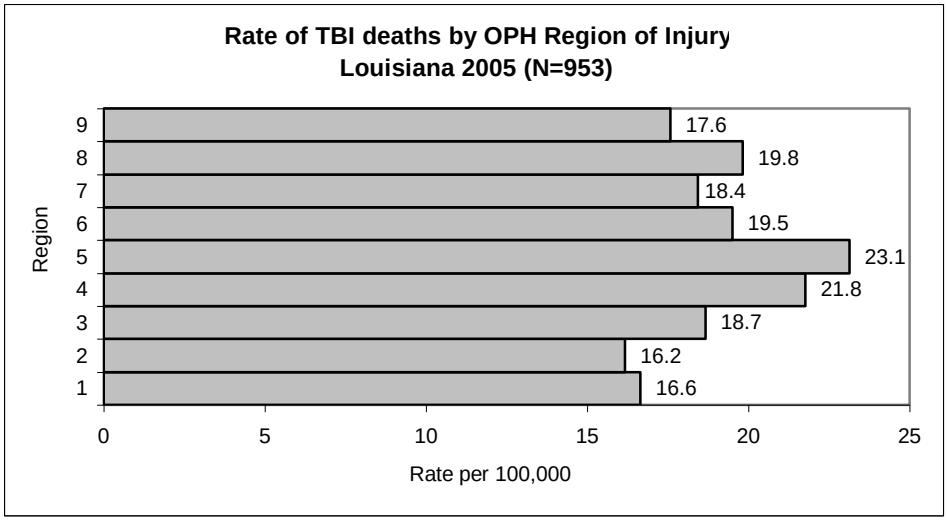


Source: Louisiana Department of Health and Hospitals, Office of Public Health
BEMS/Injury Research and Prevention Program



Source: Louisiana Department of Health and Hospitals, Office of Public Health
BEMS/Injury Research and Prevention Program

The following chart shows that Office of Public Health Regions 4 and 5 had high TBI mortality rates in 2005, whereas Region 2 had the lowest TBI mortality rate.



Source: Louisiana Department of Health and Hospitals, Office of Public Health
BEMS/Injury Research and Prevention Program

I. NONFATAL INJURY- RELATED HOSPITAL DISCHARGES

Injuries are the leading cause of death among Louisiana residents in the 1-44 year age group. While deaths only show part of the picture, injury hospitalizations reflect the more severe outcomes. Injuries are costly to society not only in terms of morbidity and mortality, but also in terms of treatment costs and years of productive life lost.

The Louisiana Hospital Inpatient Discharge Database, compiled by the OPH, Center for Health Statistics, is a population-based surveillance system. In addition to other conditions, it relays information on injuries serious enough to warrant hospitalizations and are, therefore, priority targets for prevention. All hospitals submit data through the Medicare Uniform Hospital Billing form (UB-04), which records the **E**xternal **C**ause of **I**njury **c**ode (**E code**). The data are cleaned, and quality-control checks are administered, before they are analyzed at the state, OPH Region, and parish levels so that community-based injury risk factors and prevention methods may be monitored at the community level.

In 2004, there were a total of 30,129 injury-related hospitalizations. The following table shows that falls were the most common cause (36%) of a nonfatal injury discharge, followed by poisonings (14.4%) and motor-vehicle traffic crashes (12.3%).

Nonfatal Injury Hospital Discharges by Cause (All Intents), Louisiana 2004		
Cause/Mechanism	**Total (All Intents)**	**Percent (%)**
Cut/Pierce	935	3.5
Drowning/submersion	30	0.1
Falls	9,637	36.0
Fire/Flame	439	1.6
Firearm	530	2.0
Machinery	141	0.5
MVT	3,295	12.3
Pedal cyclist, other	146	0.5
Pedestrian, other	28	0.1
Transport	498	1.9
Natural/environment	1,219	4.5
Overexertion	366	1.4
Poisonings	3,858	14.4
Struck by, against	1,137	4.2
Suffocation	130	0.5
Other specified and classifiable	1,733	6.5
Other specified not elsewhere classifiable	817	3.0
Unspecified	1,858	6.9
Missing	3,332	
Total	**30,129**	**100**

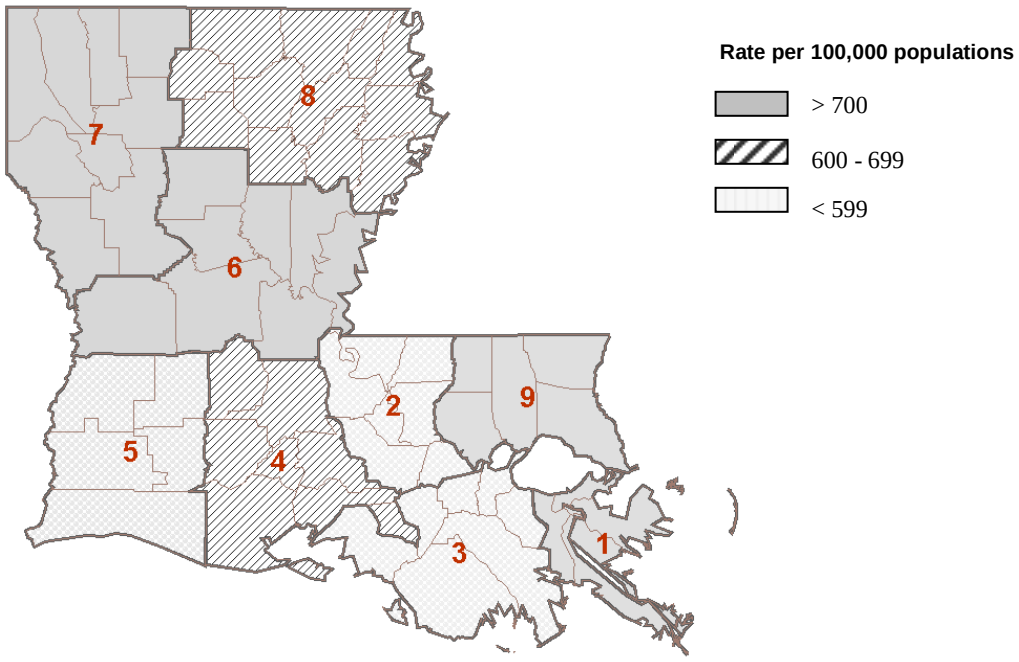
Source: IRP from LA OPH Health Statistics Program, Hospital Inpatient Discharge Data , 2004

The chart below shows that the rate of nonfatal injuries was high in OPH Region 6 (795.1/100,000) followed by Region 1 (776.4/100,000), Region 9 (748.1/100,000) and Region 7 (726.8/100,000) and was the lowest in Region 3 (455.9/100,000).

Number and Rate of Nonfatal Injury Related Hospital Discharges by OPH Regions in Louisiana, 2004		
OPH Region	**Number**	**Rate/100,000***
1	7,845	776.4
2	3,233	527.6
3	1,782	455.9
4	3,699	661.0
5	1,450	508.1
6	2,380	795.1
7	3,829	726.8
8	2,329	662.2
9	3,582	748.1
Total	**30,129**	**667.2**

Source: IRP from LA OPH Center for Health Statistics, Hospital Inpatient Discharge Data 2004
* Rate per 100,000 population calculated using 2004 US Census Population Estimates

Rate of Nonfatal Injury related Hospital Discharges by OPH Regions, Louisiana 2004



The next table ranks the top ten causes of nonfatal injury-related hospital discharges by age group and intent. Among all injury related hospitalizations 80% were unintentional in nature. The most common events resulted from falls and motor vehicle traffic related injuries respectively.

10 LEADING CAUSES OF NONFATAL INJURY HOSPITAL DISCHARGES BY AGE GROUP (ALL INTENTS), LOUISIANA -

	Age Groups (Years)										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Unintentional Falls 70	Unintentional Poisoning 163	Unintentional Falls 132	Unintentional MVT 119	Unintentional MVT 841	Unintentional MVT 540	Unintentional MVT 520	Unintentional Falls 777	Unintentional Falls 1,025	Unintentional Falls 6,438	Unintentional Falls 9,619
2	Unintentional Unspecified 24	Unintentional Falls 128	Unintentional MVT 90	Unintentional Falls 92	Suicide Poisoning 540	Suicide Poisoning 384	Unintentional Falls 498	Unintentional MVT 443	Unintentional MVT 276	Unintentional Unspecified 750	Unintentional MVT 3,292
3	Unintentional Poisoning 22	Unintentional Natural Environmental 112	Unintentional Natural Environmental 55	Suicide Poisoning 81	Unintentional Falls 199	Unintentional Falls 260	Suicide Poisoning 460	Suicide Poisoning 292	Unintentional Unspecified 223	Unintentional Other Specified & Classifiable 544	Suicide Poisoning 1,910
4	Unintentional Natural Environmental 19	Unintentional Fire/Burn 61	Unintentional Struck by, against 44	Unintentional Other Transport	Tied[4] 185	Unintentional Other Specified & Classifiable 161	Unintentional Other Specified & Classifiable 229	Unintentional Other Specified & Classifiable 238	Unintentional Other Specified & Classifiable 191	Unintentional MVT 397	Unintentional Other Specified & Classifiable 1,646
5	Unintentional Fire/Burn 16	Unintentional MVT 55	Unintentional Other Transport 30	Unintentional Struck by, against 54	Undetermined Poisoning 151	Unintentional Poisoning 154	Unintentional Poisoning 191	Tied[4] 222	Unintentional Poisoning 128	Unintentional Poisoning 265	Unintentional Unspecified 1,642
6	Unintentional Other Specified & Classifiable 14	Tied[1] 35	Unintentional Other Pedal Cyclist 29	Unintentional Natural Environmental 43	Homicide Firearm 144	Unintentional Natural Environmental 135	Unintentional Unspecified 184	Undetermined Poisoning 103	Unintentional Natural Environmental 116	Unintentional Natural Environmental 226	Unintentional Poisoning 1,335
7	Unintentional Suffocation 12	Unintentional Cut/Pierce 16	Unintentional Cut/Pierce 26	Unintentional Other Pedal Cyclist 30	Unintentional Struck by, against 133	Unintentional Unspecified 108	Unintentional Natural Environmental 164	Homicide Struck by, against 91	Suicide Poisoning 108	Unintentional Overexertion 126	Unintentional Natural Environmental 1,218
8	Unintentional MVT 11	Unintentional Unspecified 15	Unintentional Other Specified & Classifiable 22	Unintentional Other Specified & Classifiable 27	Unintentional Natural Environmental 126	Undetermined Poisoning 107	Undetermined Poisoning 127	Unintentional Struck by, against 84	Unintentional Struck by, against 61	Unintentional Struck by, against 118	Unintentional Struck by, against 693
9	Unintentional Other Specif Not elsewhere Classifiable <10	Unintentional Drowning 13	Undetermined Poisoning 20	Unintentional Unspecified 21	Homicide Struck by, against 116	Undetermined Struck by, against 83	Homicide Struck by, against 103	Unintentional Other Transport 72	Unintentional Other Specif Not elsewhere Classifiable 56	Unintentional Other Specif Not elsewhere Classifiable 99	Undetermined Poisoning 609
10	Undetermined Poisoning <10	Unintentional Suffocation 12	Tied[2] 10	Tied[3] 18	Unintentional Other Transport 104	Homicide Firearm 80	Unintentional Struck by, against 86	Unintentional Cut/Pierce 67	Undetermined Poisoning 48	Unintentional Fire/Burn 70	Unintentional Other Transport 498

Tied[1] - Unintentional Struck by, against /Other specified elsewhere classifiable Tied[2] - Unintentional Fire/Burn / Unspecified
Tied[3] - Unintentional Poisoning/ Fire/Burn. Tied[4] - Unintentional Poisoning /Other specified elsewhere classifiable
Tied[5]- Unintentional Natural/ Environmental/ Unspecified

Source: IRP using data from the LA OPH Center for Health Statistics Program, Hospital Inpatient Discharge Database, 2004

Reports

The Injury Research and Prevention Program can generate specific tables, reports, and analyses by cause of injury, residency, and a variety of demographic factors upon request. Nonfatal injury-related hospital discharge reports are available from the BEMS/Injury Research and Prevention Program on the following website www.dhh.louisiana.gov/offices/?ID=221.

III. HEALTH ASSESSMENT PROGRAMS

A. IMMUNIZATION COVERAGE

Background

Vaccines are among the most effective and reliable methods to prevent and control disease. Every year, they prevent countless serious illnesses and thousands of possible deaths. About 100 million vaccine doses are given annually in the United States, most of them to infants and children as part of their routine immunization schedule. A single dose of some vaccines gives nearly complete protection. With others, a series of doses spread over months or years is needed for the best results.

Children in particular are beneficiaries of the protection from infectious diseases that vaccines offer. Currently, there are twelve diseases from which children are routinely protected through the use of standard childhood immunizations: diphtheria, tetanus, pertussis (whooping cough), polio, measles, mumps, rubella (German measles), hepatitis B, HAV, HiB, MCV4, RVV, varicella (chickenpox), and pneumococcal (pneumococcal pneumonia).

Two vaccines which protect from bacterial meningitis are *Haemophilus influenzae type B vaccine* and *Meningococcal Conjugate vaccine.* Drastic reductions in the occurrence of these serious diseases have taken place since the introduction of vaccines. For example, there were 894,134 cases of measles reported in the United States in 1941, but only 86 cases reported in year 2000. Louisiana has had no reported cases of measles since 1996.

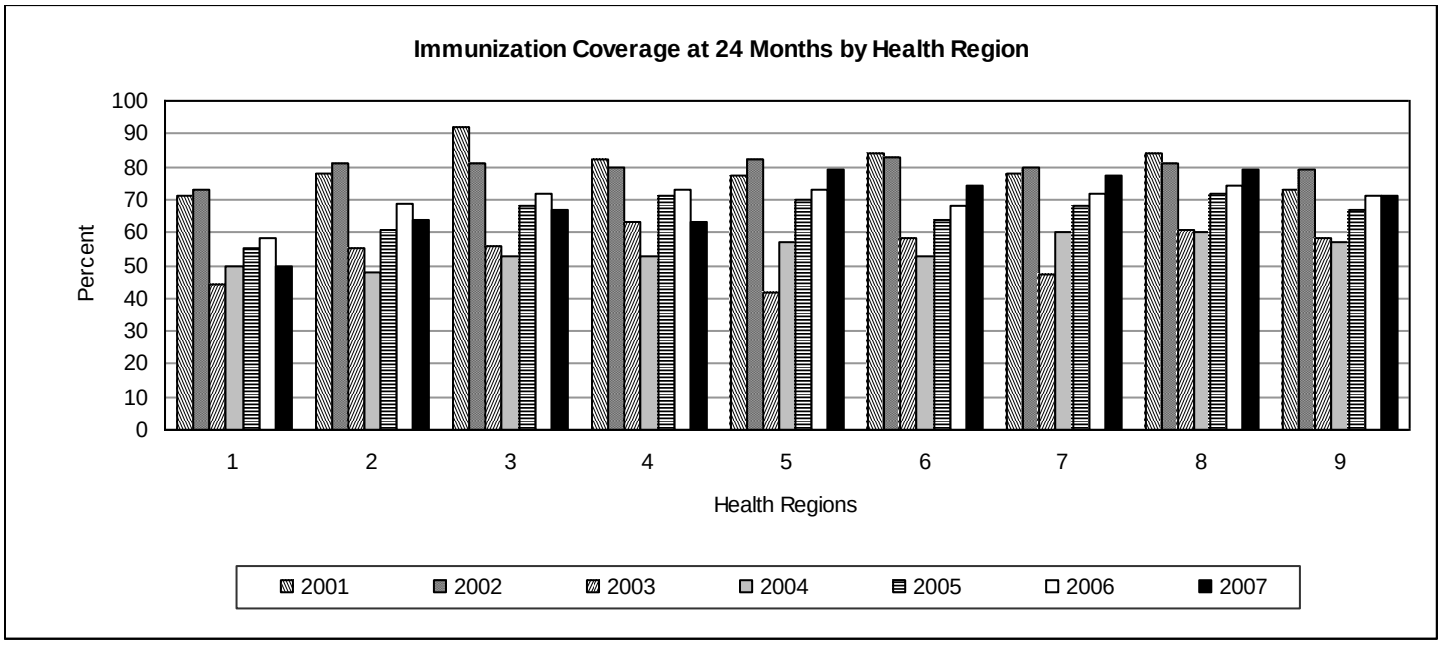
In addition to being reliable and effective, vaccines are also some of the most cost-effective medical procedures available. The vaccine-preventable diseases addressed in standard childhood immunizations are very serious illnesses and very expensive to treat. Vaccines are relatively inexpensive and very effective. Cost estimates show that each dollar spent on immunization saves $12 in direct medical and hospitalization costs. These estimates do not include attendant costs, such as workdays lost by family members, costs for outbreak control, or the burden of lives lost to these severe diseases. A prime example is measles, which leads to the hospitalization of approximately 10% of those who become ill. Even with excellent medical care, approximately 1- 2 cases out of every 1,000 cases dies, usually from complications with measles.

However, diseases that are prevented by routine childhood immunizations have not disappeared. Pertussis is spread by direct contact such as coughing on others who are not immune. In countries where childhood immunizations against this disease have been stopped, large outbreaks of whooping cough have occurred.

The number of pertussis cases reported in Louisiana has ranged from 10 to 21 cases since 2000. Diphtheria, another dangerous infectious disease which has been controlled through childhood

immunization, has not been observed in Louisiana since 1972. However, in recent years, epidemics of diphtheria have occurred in Eastern Europe and Asia. Without immunization, diphtheria and other vaccine-preventable diseases may be re-introduced to Louisiana and contribute to an increasing number of cases.

The Immunization Program of the Office of Public Health (OPH) conducts periodic assessments to determine the immunization coverage rates throughout the state. As the graph below indicates, rates of coverage have generally been increasing steadily between 1996 and 2007, though there have been variations between the nine OPH administrative regions over the years and a significant decrease reflected statewide in 2003.



The table on the following pages displays the percent of immunization coverage at age 24 months among those served by parish health units.

Immunizations: Percent Up-To-Date (UTD) at Age 24 Months* Louisiana 2007	
Clinic	**% UTD 2007 Results**
Region I	
Orleans-Edna Pilsbury	62
Orleans-Mandeville Detiege	N/A
Orleans-Mary Buck	N/A
Orleans-Katherine Benson	N/A
Orleans-Helen Levy	N/A
Orleans-St. Bernard Gentilly	N/A
Orleans-Ida Hymel	44
St. Bernard	N/A
Jefferson-Marrero	46
Plaquemines	75
Jefferson-Metairie	50
Region II	
Ascension	56
West Baton Rouge	73
West Feliciana	72
Iberville	81
East Feliciana-Clinton	65
Pointe Coupee	59
E. Baton Rouge	58
Region III	
St. James	69
Lafourche-Galliano	76
Lafourche-Thibodaux	70
Terrebonne	62
St. Mary	68
St. John	54
Assumption	60
St. Charles	75
Region IV	
Evangeline	68
St. Landry	68
St. Martin	71
Acadia	48
Vermilion	60
Lafayette	65
Iberia	64
Region V	
Allen	66
Calcasieu-Sulphur	87
Calcasieu-Lake Charles	85
Jefferson Davis	74
Beauregard	82
Cameron	71
Region VI	
Catahoula	85
LaSalle	87
Rapides	64
Grant	84
Winn	78
Vernon	76
Concordia	69
Avoyelles	71

Immunizations: Percent Up-To-Date (UTD) at Age 24 Months* Louisiana 2007	
Clinic	**% UTD 2007 Results**
Region VII	
Red River	82
Claiborne	81
Webster-Springhill	79
DeSoto	84
Natchitoches	72
Bienville	79
Sabine	80
Webster-Minden	75
Bossier-Bossier City	76
Caddo	76
Region VIII	
Morehouse-Bastrop	81
Franklin-Winnsboro	81
West Carroll-Oak Grove	87
Ouachita-Monroe	72
Caldwell	79
Tensas-St. Joseph	74
Lincoln	87
Jackson-Jonesboro	87
East Carroll	73
Union	77
Richland-Rayville	70
Ouachita-West Monroe	67
Madison	69
Region IX	
St. Helena	82
Washington-Franklinton	70
Washington-Bogalusa	70
Tangipahoa	73
St. Tammany	65
Livingston	72

*Up-to-date includes 4 DTAP, 3 OPV or IPV, and 1 MMR
N/A: Not Applicable - no longer an OPH Parish Health Unit
Source: Louisiana Department of Health and Hospitals Office of Public Health, Immunization Program

B. INFECTIOUS DISEASE SURVEILLANCE

Disease Surveillance

Surveillance of infectious diseases, chronic diseases, and injuries is essential to understanding the health status of the population and planning effective prevention programs. The history of reporting and tracking of diseases that pose a risk to public health in the United States dates back to more than a century ago. Fifty years ago, morbidity statistics published each week were accompanied by a statement: "No health department, state or local, can effectively prevent or control diseases without the knowledge of when, where, and under what condition cases are occurring." Today, disease surveillance remains the primary tool for the gathering of information essential to controlling disease spread in the population.

Achievement of the CENTERS FOR DISEASE CONTROL AND PREVENTION, Healthy People 2010 Objectives depends in part on the ability to monitor and compare progress toward the objectives at the federal, state, and local levels. Infectious disease surveillance activities are a primary function of the programs within the DEPARTMENT OF HEALTH AND HOSPITALS (DHH), OFFICE OF PUBLIC HEALTH (OPH). Many OPH programs exist to conduct disease surveillance for the State of Louisiana. A sampling of these programs includes the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM, the SEXUALLY TRANSMITTED DISEASES CONTROL PROGRAM, the TUBERCULOSIS CONTROL PROGRAM, the HIV/AIDS PROGRAM, and the IMMUNIZATIONS PROGRAM.

Disease surveillance involves the collection, tabulation, and evaluation of pertinent data, and the dissemination of the information to all who need to know. This process is a very important aspect of public health because its purpose is the reduction of morbidity (i.e., disease occurrence). The immediate use of surveillance is for disease control; the long-term use is to assess trends and patterns in morbidity.

Surveillance also facilitates epidemiologic and laboratory research, both by providing cases for more detailed investigation or case-control studies and by directing which research avenues are most important. Reports of unusual clusters of diseases are often followed by an epidemiological investigation to identify and remove any common source exposure or to reduce other associated risks of transmission.

Notifiable Diseases

Reporting of notifiable diseases to public health agencies is the backbone of disease surveillance in Louisiana and nationwide. The Sanitary Code, State of Louisiana, Chapter II, entitled “The Control of Diseases,” charges the BOARD OF HEALTH (i.e., DHH/OPH) to promulgate a list of diseases that are required to be reported, who is responsible for reporting those diseases, what information is required for each case of disease reported, what manner of reporting is needed, and to whom the information is reported. Reporting of cases of communicable diseases is important in the planning and evaluation of disease prevention and control programs, in the assurance of appropriate medical therapy, and in the detection of common-source outbreaks. Surveillance data gathered through the reporting of notifiable diseases are used to document disease transmission, quantify morbidity, estimate trends, and identify risk factors for disease acquisition.

DHH routinely follows up on selected disease cases, either directly or through the individual’s physician or other health care provider. Tracking and follow-up are done to ensure initiation of appropriate prophylactic therapy for contacts of persons with the infectious condition and appropriate preventive measures for the community. All disease tracking/follow-up reports are confidential and constitute an essential element in monitoring and maintaining the health of the public in Louisiana. Through participation in disease-reporting, physicians and other health care providers are integral parts in ensuring

that public health resources are used most effectively. Reporting for a number of infectious diseases is mandatory as listed in the Sanitary Code.

Bioterrorism Surveillance

The INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM has developed several systems to identify disease syndromes associated with bioterrorism agents prior to their confirmation, which may take several days.

Early detection of a bioterrorism event is considered essential. Most diseases caused by a bioterrorism agent are rapidly fatal, but may be treatable in the early stages or even preventable with timely administration of antibiotics or vaccination. If the disease is transmissible from person to person, early intervention is the best measure to prevent the spread of disease. People affected by a bioterrorism agent may present themselves at emergency rooms, be transported by emergency medical service (EMS), consult a dermatologist, or be examined by a coroner. An animal may even be the first to be affected since many of the bioterrorism agents are, in fact, primarily affecting animals.

The bioterrorism-surveillance systems in place are:

(1) An emergency room syndromic surveillance, a web-based reporting system for emergency departments;
(2) An emergency medical services syndromic surveillance, a web-based reporting system for emergency medical services;
(3) An intensive care syndromic surveillance system, also web based;
(4) a veterinary disease reporting system, another web-based system;
(5) a call-in notification system with dermatologists;
(6) a call-in notification with the coroners; and
(7) a web-based syndromic surveillance automatically mining data entered by emergency-room physicians and conditions at the emergency rooms. This project is piloted in the Medical Center of Louisiana at New Orleans.

Infectious Disease Outbreak Investigations

Infectious diseases are transmitted by a variety of methods: human to human via oral/fecal route (ingestion of the organism), exposure to blood, airborne and droplet routes and direct person-to-person contact; vectors such as mosquitoes and ticks; and animal to human (zoonotic). In Louisiana, outbreaks of a wide variety of infectious diseases have occurred including Norovirus, gastroenteritis, rotavirus, hepatitis A, salmonellosis, shigellosis, perfringens food poisoning, pertussis, and West Nile encephalitis, among others. The most compelling reason to investigate a recognized or suspected outbreak of disease is that exposure to the source(s) of infection may be continuing; by identifying and eliminating the source of infection, OPH can prevent additional cases. Another reason for investigating outbreaks is that the results of the investigation may lead to recommendations or strategies for preventing similar outbreaks in

the future. Other reasons for investigating outbreaks are the opportunity to describe new diseases and learn more about known diseases; evaluate existing prevention strategies, e.g., vaccines; teach and improve research on epidemiology; and address public health concern about the outbreak.

The effectiveness of the investigation is in large part determined by how quickly and thoroughly investigative activities are initiated. Historically, all infectious disease outbreak investigations were initiated and managed through the OPH'S INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM. This program, however, is now relying on a statewide regional network of epidemiologists (Regional Disease Surveillance Specialists and Regional Epidemiologists) assisted, if need be, by additional staff such as a nurse, sanitarian, and/or disease intervention specialist, among others. Each OPH administrative region has an Infectious Disease Rapid Response Team (ID-RRT), which the Infectious Disease Epidemiology Program provides training to. The training comprises basic epidemiologic principles, outbreak investigation methodology, computer analysis and interpretation of data, presentation of results, and selection of the appropriate disease control methods. Each team member brings a unique set of skills/knowledge that is very important in conducting outbreak investigations. Activities are coordinated and supervised by the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM, and guidance and assistance are provided as needed. The ID-RRT members conduct most of the field activities, and both the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM and the regional teams analyze the data. Recommendations are provided and guidance given for instituting appropriate disease control measures.

Outbreak investigations, an important and challenging component of epidemiology and public health, can help identify the source of ongoing outbreaks and prevent additional cases. Even when an outbreak is over, a thorough epidemiologic and environmental investigation often can increase the public health community's knowledge of a given disease and prevent future outbreaks. Outbreak investigations also provide epidemiologic training and foster cooperation between the clinical and public health communities. Most outbreaks are handled in a timely manner with effective outcomes. Additionally, since these staff members are located in the communities, they are in a better position to identify potential outbreak situations than are staff members housed in the OPH central office. The concept of using public health staff from different disciplines and cross training them for a common, collaborative purpose sets a precedent for similar efforts dealing with other public health issues, and reflects the agency's goal of developing a streamlined, cost effective, integrated workforce. One unexpected benefit has been the increased local visibility creating positive impressions with the public and the media.

Diseases reported in the OPH surveillance program include: arthropod-borne encephalitis (including West Nile neuro-invasive disease); aseptic meningitis; campylobacteriosis; *E. coli 0157:H7* and hemolytic-uremic syndrome; giardiasis; *Haemophilus influenzae* (invasive disease); hepatitis A, B, and C; legionellosis; Lyme disease; malaria; *Neisseria* meningitidis (invasive disease); pertussis; rabies (animal and human); salmonellosis; shigellosis; *Streptococcus pneumoniae* (invasive infection in children less

than 5 years of age); varicella (chickenpox); and *Vibrio* infections. There are many more reportable diseases in Louisiana but their numbers are extremely small.

Surveillance also focuses on three antibiotic-resistant microorganisms: vancomycin resistant enterococcus (VRE), methicillin-resistant *Staphylococcus aureus* (MRSA), and drug-resistant *Streptococcus pneumoniae* (DRSP).

The following are two examples describing surveillance and epidemiologic response to these diseases:

Surveillance for West Nile and other encephalitides

All health care providers are required to immediately report suspected cases of arboviral encephalitis to OPH. When a suspect case is reported, an epidemiologist evaluates the case and attempts to obtain confirmation. Once confirmed, information about the distribution of new cases is compiled without any identifiers. This information is then widely disseminated to parishes, regional public health staff, hospitals and private practitioners, local health government, and mosquito control programs. This information is the most useful guide for preventive measures against arboviral encephalitis.

Surveillance for meningococcal meningitis and invasive disease

Once a suspect case of meningococcal meningitis is reported, an epidemiologist calls the physician, laboratory specialist, or hospital infection control practitioner to obtain confirmatory evidence and to establish a rapid control effort in order to prevent the spread of the illness. All close contacts are identified, interviewed by telephone or in person, and given prophylaxis. These preventive activities are carried in close collaboration with the medical providers of the case. All cases are fingerprinted with pulse field electrophoresis techniques (PFGE) to identify strains that may be potentially more virulent and alert the medical community and the public about their presence.

Reports

The bimonthly *Louisiana Morbidity Report* and the *Epidemiology Annual Report* are published by the OPH INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM. Both publications present information and statistics describing the status of reportable diseases in the state.

C. SEXUALLY TRANSMITTED DISEASE (STD) AND HIV/AIDS SURVEILLANCE

Contracting a sexually transmitted disease (STD) can have serious consequences. Examples of STD related consequences include: neurological, cardiovascular, and other terminal disorders, pelvic inflammatory disease; infertility; ectopic pregnancy blindness; cancer; fetal and infant death; birth defects; and mental retardation in children born to infected mothers.

The DHH-OFFICE OF PUBLIC HEALTH STD Sexually Transmitted Disease (STD) CONTROL PROGRAM and HIV/AIDS PROGRAM work to: 1) conduct Surveillance to determine the incidence and prevalence of STDs and HIV/AIDS; 2) monitor STD and HIV/AIDS trends; 3) collect data on the location and referral of persons with or suspected of having an STD, in order to facilitate medical examination and provide early treatment; and 4) conduct Partner Notification to limit the spread of disease.

2006 National Rankings

- Primary and secondary Syphilis rates in Louisiana ranked the highest in the nation in 2006.
- Gonorrhea rate ranked 3rd highest in the nation in 2006.
- Chlamydia rate ranked 13th in the nation in 2006.
- Louisiana ranked 5th highest in AIDS case rates and 12th highest in the number of AIDS cases reported in the United States in 2006.

2006 Disease Statistics

Please refer to the STDs and HIV/AIDS sections in "Chapter II: Morbidity."

Reports

The Sexually Transmitted Disease (STD) CONTROL PROGRAM and the HIV/AIDS PROGRAM maintain program databases, and generate specific analyses and reports by cause, location, and demographic factors for individuals, communities, and agencies. The STD Program's Annual Report is available on the STD Program website. The HIV/AIDS PROGRAM also publishes the *HIV/AIDS Annual Report and Epidemiologic Profile,* four *Quarterly HIV/AIDS Surveillance Reports*, and periodic regional fact sheets, all of which are available to the public on the HIV/AIDS Program website.

D. TUBERCULOSIS (TB) SURVEILLANCE

The DHH-OPH TB CONTROL PROGRAM conducts active surveillance for tuberculosis in the state. Regional staff interact with area physicians, hospitals, and laboratories in the course of their duties. All known or suspected cases of tuberculosis are investigated to assure that transmission of the disease is contained. Currently, the TB Control Program in Louisiana is working with CDC to enhance surveillance activities. An improved methodology is being implemented to facilitate reporting and tracking.

2005 and 2006 Disease Statistics

Please refer to the Tuberculosis section in "Chapter II: Morbidity."

E. ALCOHOL & DRUG ABUSE PROGRAM: INTRAVENOUS DRUG USE TREATMENT, STD, TB, AND HIV/AIDS SCREENING

National statistics show that more than 70 conditions requiring hospitalization (most notably cancer, heart diseases, and HIV/AIDS) have risk factors associated with substance abuse. One out of every five dollars Medicaid spends on hospital care is attributable to substance abuse (U.S. Department of Health and Human Services, 1997 Fact Sheet). The same report shows that injecting-drug use is the primary mode of transmission of HIV among women and is responsible for 71% of AIDS cases among women. The lifetime cost of taking care of one AIDS patient is approximately $85,000. The U.S. Substance Abuse and Mental Health Services Administration estimates that over five million persons in the United States were in need of treatment for severe drug abuse problems in 1998. Almost 60%, or an estimated 2.9 million, have not received treatment for their addiction. The size of this treatment gap has remained relatively unchanged over the past eight years, ranging from 54% to 68%[1].

Epidemiology

While marijuana continues to be the most prevalent illicit drug used among U.S. high school seniors, the nonmedical use of narcotic drugs is the second most prevalent drug used among this population, according to data from the national 2006 Monitoring the Future study. Nearly one in ten 12th grade students reported using prescription-type narcotic drugs, such as Vicodin® (9.7%) and OxyContin® (4.3%), in the past year without a doctor's order. Other drugs used by more than 5% of 12th graders include amphetamines (8.1%), over-the-counter cough or cold medicines (6.9%), tranquilizers (6.6%), sedatives (6.6%), and cocaine (5.7%). The nonmedical use of prescription pain relievers is also the second most prevalent illicitly used drug among the U.S. household population ages 12 years and older.

A State Epidemiological Work Group (SEWG) on drug abuse was held in Baton Rouge, Louisiana on September 23, 2004. The primary purpose of the meeting was to identify and assess substance abuse patterns in cities, parishes, and the state as a whole.

- The leading substances of abuse in Louisiana continued to be alcohol, marijuana, and cocaine/crack.
- Indicators of opiates/synthetics and methamphetamine abuse continued to increase in some areas, and there was growing concern that the abuse of these drugs is spreading to areas throughout the state.

ALCOHOL abuse continued to account for the highest percentages of substance-abuse treatment admissions in 7 of the 10 regions in 2003-2004. However, some alcohol-abuse indicators decreased in 2003. According to the Capital Area Human Services District (CAHSD), arrests for DRIVING WHILE INTOXICATED (DWI) totaled 947 in East Baton Rouge Parish, while 646 were reported in OPH Region III in 2003; both totals represented decreases in DWI arrests since 2002. Another important decline in

alcohol-abuse indicators involved BINGE DRINKING AMONG YOUTH. Based on CAHSD survey data, there was a decrease in binge drinking among students in grades 6, 8, 10, and 12. According to survey data in OPH Region VII, past 30-day alcohol use also decreased among students in grades 6, 8, 10, and 12.

MARIJUANA availability and abuse continued at high levels throughout the state. This drug accounted for the highest percentages of 2003-2004 substance abuse treatment admissions in Region I and Region III. Marijuana abuse accounted for sizeable proportions of youth treatment admissions in 2003. For example, 88% of the youth entering treatment in East Baton Rouge Parish reported marijuana as their primary drug of abuse. Law-enforcement indicators also illustrate the high levels of marijuana abuse throughout the state, with the drug accounting for 55% of drug-related arrests in Region VI and 36.4% in Region VII and the majority of drug seizures in the Metropolitan Human Services District (MHSD), Region VI, and Region VII.

COCAINE/CRACK indicators remained at high levels throughout the state. The percentages of primary cocaine admissions increased in some parishes and decreased in others. In 2003, almost one-half (48%) of the treatment admissions in East Baton Rouge Parish were for primary cocaine abuse, up from 41% in fiscal year 2002. A decline in the proportion of primary cocaine treatment admissions was reported in Region III and an increase was reported in the area served by the Florida Parishes Human Services Authority (FPHSA). In MHSD, 47.6% of adult male arrestees tested positive for cocaine during the first three quarters of 2003, and in Region III, seizures of cocaine/crack totaled 2,130 in 2003.

PRESCRIPTION OPIATE abuse indicators continued to increase throughout Louisiana. The most commonly reported prescription opiates abused were hydrocodone, oxycodone, and illicit methadone. Although the proportions of 2003 treatment admissions reporting prescription drug abuse were relatively low, admissions for abuse of these substances increased in MHSD, Regions III and V, and FPHSA, and deaths involving mentions of narcotic analgesics were up in MHSD compared with 2002. In some clinics in FPHSA, other opiates and synthetics have become the third most popular substance of choice.

AMPHETAMINE AND METHAMPHETAMINE abuse indicators continued to increase in areas throughout the State. In MHSD, mention of methamphetamine during emergency-room visits in 2002 represented a significant increase over such mentions in 2000. The Calcasieu Parish Sheriff's Office in Region V described methamphetamine as the "hottest drug" in the area. The manufacture and distribution of methamphetamine continued to be of growing concern.

The Louisiana CARING COMMUNITIES YOUTH SURVEY (Louisiana CCYS), which has been administered to Louisiana's youth in grades 6, 8, 10, and 12 five times (Fall 1998, Spring 2001, Fall 2002, Fall 2004, and Fall 2006), was designed to measure the need for prevention services among youth in the areas of substance abuse, delinquency, antisocial behavior, and violence. The questions on the survey

ask youth about the factors that place them at risk for substance use and other problem behaviors along with the factors that offer them protection from problem behaviors. The survey also inquires about the use of alcohol, tobacco, and other drugs (ATODs) and engaging in various antisocial behaviors. Enrollment figures from the *2004-2005 Annual Financial and Statistical Report* released in August 2006 show that, for the 2004-2005 school year, there were a total of 242,770 students in grades 6, 8, 10, and 12 who were eligible to participate in the Louisiana CCYS; of these, 116,780 participated in the 2006 survey. The results for the 2006 Louisiana CCYS are not yet posted on the DHH Website (but will be at some point). The data, however, may be accessed on the University of Louisiana at Lafayette (ULL) website at http://ccd.louisiana.edu/ .

Intravenous Drug Users Treatment

DHH Office for Addictive Disorders (OAD) policy gives intravenous drug users (IDU) statewide priority admission status to programs (contract and state) and treatment modalities. Block grant requirements mandate that IDUs be admitted to treatment programs within 14 days after request for admission. Interim services are provided within 48 hours if comprehensive care cannot be made available upon initial contact, with a waiting period of no longer than 120 days. OAD offers outreach services statewide using the Indigenous or Behavioral Model, or other models. Activities include education, prevention, condom distribution, clean needle demonstrations, medical evaluations, and referrals.

STD, TB, and HIV/AIDS Screening

In addition to the treatment of problems of addiction, OAD makes testing available for STDs, TB, and HIV to each individual receiving treatment. Testing is offered, either directly or through arrangements with other public or nonprofit private entities, through a Qualified Service Organization Agreement (QSOA) and a Memorandum of Understanding (MOU) between OPH and OAD. This system includes the provision of the necessary supplies by OPH's STD Control, TB Control, and HIV/AIDS Programs for onsite STD, TB, and HIV testing of OAD clients. Early intervention services include screening, testing, and pre- and post-test counseling.

Individuals testing positive for HIV are referred to the DHH-OPH clinics for further evaluation and appropriate testing. Once a client is identified as an HIV patient in the DHH-OPH system, he or she is referred to the local consortium and/or directly to a charity hospital outpatient clinic, under the auspices of DHH-OPH. Besides referrals to public agencies, clients can be referred to other HIV supportive services that are available in the community. OAD utilizes this referral network to access additional services for substance abuse clients diagnosed with HIV/AIDS. The Office has established a working relationship with the referral entities and is able to monitor the needs of clients who have been referred. OAD also provides ongoing counseling to its clients regarding HIV prevention and treatment, self-help groups, and information and referral services.

STATEWIDE HIV PREVENTION COMMUNITY PLANNING GROUP (SCPG): The SCPG was designed to meet the guidelines of community planning and is comprised of the following: one OPH co-chair, one community co-chair, ten representatives from each region/district who generally represent at-risk communities or various areas of expertise (e.g., minority populations, men who have sex with men (MSM), IDUs), additional community representatives (e.g., the clergy), and representatives from the Department of Corrections, the Department of Education, the OPH STD program, the OAD, and the Office of Mental Health.

OAD participates in SCPG and two subcommittees, Nominations and Special Needs, at the regional level. The goal of the Group is to identify interventions that will assist in preventing future infections with HIV and STDs among Louisiana's residents. Groups targeted for intervention are racial and ethnic minority groups, sexually active females MSM, youth, and substance abusers. Currently, interventions utilized are street outreach, counseling and testing, and condom availability. There is pending legislation regulating condom distribution.

A comprehensive statewide HIV prevention program has been developed by statewide and regional community planning groups. This comprehensive plan is used in the development of the cooperative agreement between OPH and CDC regarding the distribution of prevention resources by OPH. The comprehensive plan also provides guidance to other governmental agencies and community-based organizations in planning and implementing HIV prevention activities.

SFY 2002-SFY 2006 Program Statistics

Intravenous Drug Users (IDUs)

For state fiscal year (SFY) 2006, the Louisiana Addictive Disorders Data System (LADDS) reported 2,502 IDU clients' admissions and 3,094 for SFY 2005. OAD's Management Information Systems (MIS) program reports that there were 3,148 IDU admissions (9% of all admissions) to the OAD continuum of care for SFY 2004; 3,211 admissions for SFY 2003 (11% of total admissions); and 2,826 for SFY 2002 (9% of total admissions).

HIV/AIDS

An Executive Summary from the Louisiana HIV/AIDS 2002 Annual Report[3] indicates that, at the end of 2002, 14,647 persons in Louisiana were known to be living with HIV/AIDS, of which 6,945 (47%) have been diagnosed with AIDS. The report highlights that there are persons living with HIV in every parish in Louisiana, and this number continues to increase each year. According to the report, the higher life expectancy rate is due to more effective drug therapies.

According to the OPH information published in the most recent CDC HIV/AIDS Surveillance Report (Vol. 14), Louisiana ranked 5th highest in state AIDS case rates and 10th in the number of AIDS cases reported in 2002. Also in 2002, new cases of HIV/AIDS were detected in 62 of Louisiana's 64 parishes.

The highest rates of newly detected HIV/AIDS cases were in Iberville, Orleans, Catahoula, and East Baton Rouge parishes. Additionally, the New Orleans region had the highest number of HIV/AIDS cases detected in 2002, and 44% of all persons living with HIV in Louisiana live in this area. However, in 2002, as in past years, the Baton Rouge region surpassed the New Orleans region in the rate of new HIV/AIDS cases. The metropolitan Baton Rouge area ranked 7th and the metropolitan New Orleans area ranked 19th in AIDS case rates in 2001 among the large cities in the nation (CDC HIV/AIDS Surveillance Report, Vol. 13, No. 2).

The following statistics represent the regions currently under OAD jurisdiction (Regions 3 through 9). In SFY 1999, Louisiana had an incidence rate of 18 HIV cases per 100,000 population. The most recent incidence rate figure available from OPH is for the year 2002 *Louisiana HIV/AIDS Cases and Case Rates by Parish*, which shows an increase in the detected rate of cases per 100,000 from 18 in 1999 to 27 in SFY 2002. As a result, the state continues to be eligible for block grant expenditures for HIV services (minimum of 5% of the total award). The most recent data prior to October 1, 2005 by the Centers for Disease Control & Prevention's (CDC's) HIV/AIDS Surveillance Report 2003 shows Louisiana with a rate of 23.2 cases per 100,000 and keeps it ranked 10th in the nation. DHH-OPH's summary of statistics for calendar year (CY) 2003 showed that 4,533 tests were conducted at OAD sites; of these, 42 yielded a positive result (less than 1%). During CY 2003, OAD conducted 6,127 Pretest counseling sessions, 2,886 Post Test counseling sessions, and 4,795 services.

In CY 2006, according to OAD set-aside report, 1,823 clients were tested for HIV and 25 (1%) tested positive. The apparent decline in numbers tested is due to the impact of hurricanes Katrina and Rita. During CY 2005, 3,210 HIV tests were conducted at OAD sites; of these, 32 (<1%) tested positive. Historically, in CY 2004 and CY 2003, there were 4,533 clients tested of whom 42 (<1%) tested positive; in CY 2002 5,371 HIV tests were conducted, with 65 (> 1%) testing positive. according to OAD set-aside reports.

Tuberculosis

During SFY 2006 OAD tested 4,567 clients of whom 208 (4%) were positive for TB. During SFY 2005, there were 8,084 tests administered and 307 (3%) yielded positive results. In SFY 2004, OAD tested 12,327 clients for TB which yielded 546 (4%) positive results. OAD tested 8,406 clients for TB which yielded 461 (5%) positive results in SFY 2003, according to OAD set-aside quarterly reports.

F. STATEWIDE CHILD DEATH REVIEW PANEL

Data from the state and local Child Death Review Panel (CDRP) investigations allow the injury epidemiologists to perform analyses of unexpected, unintentional deaths of children under age 15 years. These data can drive decision-making for preventive intervention strategies, resource planning, legislation, and special trainings on injury prevention at the state and local levels. Also, these data analyses are reported in the CDRP Annual Report to the Legislature.

Reports

Each year, the Panel submits a mandated Annual Report to the Legislature, which reports the findings from state and local Child Death Review Panels and data analyses performed by injury epidemiologists. The report serves as an educational tool for state and local leaders and policymakers as well as the general public on the circumstances surrounding unexpected, unintentional child deaths in an effort to decrease the number of all child deaths in the future.

A report on the outcome of this surveillance project is available from the Bureau of Emergency Medical Services (BEMS)/Injury Research and Prevention Program (www.dhh.louisiana.gov/offices/?ID=221).

G. INJURY MORTALITY DATABASE

The combination of natural bodies of water, swimming pools, and numerous drainage canals in Louisiana In 2005, the most recent year in which injury mortality data are available, 900 residents of Louisiana died as a result of a motor-vehicle crash (rate 20.0 deaths per 100,000). As is the case nationally, males died at a higher rate than females (male 27.6 per 100,000, or 640 deaths for males vs. 11.9 per 100,000 or 260 deaths for females). Firearm use resulted in 825 deaths (18.3 per 100,000), while poisonings were responsible for 651 deaths (14.4 per 100,000), in 2005.

The Injury Mortality Database, maintained by the Injury Research and Prevention Program, organizes death certificate information on all injury-related deaths in the state. The database is extracted from the DHH-OPH Vital Records electronic death files dating back to 1986. The information is used to examine trends in the occurrence of specific injuries or groups of injuries and to identify and track the injury experiences of different at-risk groups. It provides important data for the planning and evaluation of interventions, public policy development, resource planning, and identification of emerging problems.

Reports

The Injury Research and Prevention Program can generate specific tables, reports, and analyses by cause of death, residency, and a variety of demographic factors, upon request. Injury mortality information is also available on the Internet through the CDC's Web-based Injury Statistics Query and Reporting System (WISQARS).

H. INJURY MORBIDITY INFORMATION FROM HOSPITAL DISCHARGE DATA

Hospital discharge data allow the injury epidemiologists to perform analyses of general injury morbidity. These data can anchor the development of injury prevention initiatives, resource planning, and identification of higher risk groups. Special training for community injury prevention specialists and advocates, EMS and emergency room staff, and other injury control personnel can be based on these findings. The 2004 report on nonfatal injury-related hospital discharges is available from the EMS/Injury Research and Prevention Program on the following website (www.dhh.louisiana.gov/offices/?ID=221)

I. LOUISIANA ADOLESCENT HEALTH INITIATIVE

In September 1995, the Louisiana Adolescent Health Initiative (AHI) was launched. AHI facilitates a coordinated, multi-disciplinary approach to adolescent health care, disease prevention, and health promotion in the state. The goal of the initiative was to provide Louisiana adolescents with the opportunity to grow and prosper in a healthy, nurturing, and safe environment. AHI reached this goal by increasing coordination and collaboration among internal programs and external agencies, infusing adolescent voices in planning and policy-making efforts of the state and providing an infrastructure that enables local communities to more effectively and efficiently address adolescent health needs.

As the needs of Family Planning Program changed, there was a shift in Adolescent Services. Family Planning Adolescent Health Services consists of:

Parish Health Units

Family Planning provides reproductive health services to adolescents in 69 Parish Health Units throughout the state. Adolescent receive priority scheduling in these Parish Health Units. In 2007, the Family Planning Program served 11,485 adolescents in the Parish Health Units.

Tulane University's Adolescent Drop-In Clinic

The Adolescent Drop-In Clinic has been contracted to provide clinical, informational, educational, social and referral services relating to family planning to clients who desire such services. The clinic will provide services during traditional and non-traditional hours with emphasis on patients 24 years of age and under who are homeless or at risk for homelessness and/or substance abuse The only clinic of its kind in the Greater New Orleans area, The Adolescent Clinic served 978 adolescents in 1,447 visits in 2007, a monthly average of 81.5 clients and 120 visits.

St. Thomas Community Health Clinic

The St. Thomas Community Health Clinic has recently been contracted to provide family planning services in the parish of Orleans. These services include Adolescent Health Services. The St. Thomas Clinic provides family planning services including contraceptive methods, pregnancy testing, laboratory testing, examinations, pap smears, STD/HIV testing, counseling, and referral.

Outreach

The Family Planning Program has an approved list of outreach informational and educational material for the adolescent population. The distribution of information and educational materials is used to inform, teach and encourage adolescents. Topics covered include self-esteem, anger, respect, communication, personal values, sexual behavior and choices, preventing teen pregnancy, and more. Titles (some in Spanish) in our library include:

Anger – What Young People Should Know
Abstinence – Saying No
Values and Young People
Young People and Building Respect
Boys and Self Esteem
How to Talk to Your Parents
Choosing Abstinence Makes Sense
Making Responsible Choices
Are You Ready for Parenthood
HPV Testing
Making Responsible Choices about Sex
Why Follow the Crowd
Depression – Help for Young People
Talking to Adolescents
About Dating Violence
Girls and Self Esteem
Making Abstinence Work
Emotional Effects of Sex
About Sex and Alcohol
Teen Pregnancy
Thinking about Contraceptives

The Health Education and Outreach Coordinator (HEOC) in the Family Planning Program Central Office will direct the Adolescent Health Services activities. This person is responsible for the outreach, information, and education programming for Adolescents. A statewide Health Education and Outreach Plan is being developed to better serve adolescents in the community and attract adolescents to clinics.

The Statewide HEOC develops and strengthens community-based organizations working with adolescents, develops and maintains collaborative efforts with community-based organizations to specifically target the adolescent community, and coordinates and facilitates the issuance of educational materials to adolescents.

Outreach contractors with the Family Planning Program include the adolescent population in their efforts. The two contractors, Women with a Vision (Region 1) and Metro Health (Region 2) have reached 2,778 adolescents in 2007.

Adolescent Outreach Activities by Contractor 2007

	<19 Yrs
Metro Health	637
Women with A Vision	2141
Total Adolescents	2778

Source: Family Planning Annual Outreach Report for Metro Health and Women with a Vision

L. ENVIRONMENTAL EPIDEMIOLOGY AND TOXICOLOGY

The DHH-OPH Section of Environmental Epidemiology and Toxicology (SEET) promotes reductions in disease morbidity and mortality related to human exposure to chemical contamination. SEET responds to public health needs across the state related to environmental health issues.

In recent years, there has been an increase in public awareness of the acute and chronic health effects of chemicals in the environment and a greater demand for SEET to investigate these effects. SEET attempts to address residents' concerns by:

- Identifying toxic chemicals in the environment that are likely to cause health effects;
- Evaluating the extent of human exposure to these chemicals and the adverse health effects caused by these exposures;
- Making recommendations for the prevention/reduction of exposure to toxic chemicals and the adverse health effects caused by these exposures; and
- Promoting a better public understanding of the health effects of chemicals in the environment and of the ways to prevent exposure.

Activities conducted by SEET include:

Epidemiological and Toxicological Investigations

- Public Health Assessment/Health Consultation Program
- Pesticide Surveillance Program
- Occupational Health Surveillance Program
- Disease Cluster Investigations Program
- Louisiana Environmental and Health Effects Tracking Program
- Health/Fish Consumption Advisories Program
- Chemical Event Exposure Assessment

Environmental Health Advisories (See "Chapter IV: Preventive Health Outreach")

- Mercury in Fish

Environmental Health Education (See "Chapter IV: Preventive Health Outreach")

- Pesticide Exposure
- Occupational Health
- Mercury in Fish
- Health Professional Outreach
- Indoor Air Quality

Environmental Health Emergency Response Programs (See "Chapter IV: Preventive Health Outreach")

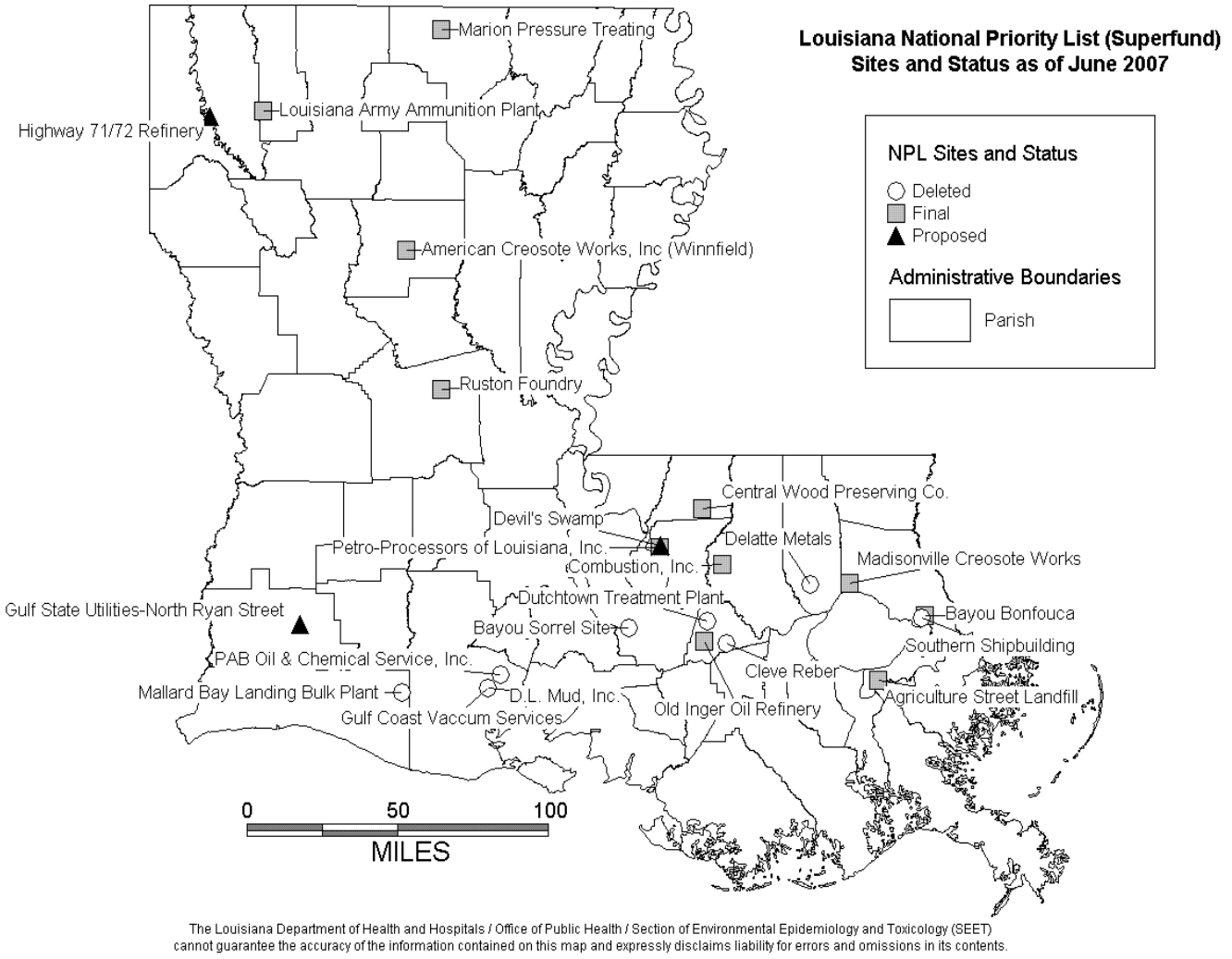
- Environmental Public Health Emergency Preparedness and Response
- Geographical Information System (GIS) Program
- Hazardous Substances Emergency Events Surveillance Project

Other projects as described below are representative of those coordinated by SEET.

Public Health Assessment/Health Consultation Program

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5752

Health assessors complete extensive Public Health Assessments or shorter Health Consultations for hazardous waste sites in Louisiana. A Public Health Assessment is an evaluation of all relevant environmental information, health outcome data, and community concerns about hazardous waste sites. It identifies populations potentially at risk and offers recommendations to mitigate exposures. A Health Consultation is a response to a request for information and addresses specific public health issues that could arise as a result of human exposure to hazardous materials. Based on the above documents, health studies, environmental remediation, health education, exposure investigation, or further research may be recommended. SEET also (1) develops fact sheets and other handouts to provide health information to communities near hazardous waste sites, (2) responds to individual requests for toxicological and medical information, and (3) makes presentations in public meetings and availability sessions.



As of July 2008, there were 150 confirmed inactive and abandoned hazardous waste sites in Louisiana, and 433 similar potential sites, according to the Louisiana Department of Environmental Quality (LDEQ). Currently, SEET is evaluating the public health impact of several of these sites. The potential for further involvement and/or work with additional sites is very likely.

Hurricanes Katrina and Rita

As a result of hurricane activity in 2005, SEET has performed a multitude of tasks in order to assist affected communities and provide environmental health and safety information. SEET continues to collaborate with the U.S. Environmental Protection Agency (EPA) and the Agency for Toxic Substances & Diseases Registry (ATSDR) to answer resident's questions about mold, indoor air, safety, and site-related contaminants resulting from a major oil spill at the Murphy Oil Refinery in Chalmette, St. Bernard Parish. In addition, SEET has evaluated the impact of the 2005 hurricanes on 15 current and deleted National Priority List (NPL) sites throughout Louisiana: Agriculture Street Landfill; Bayou Bonfouca; Bayou Sorrel;

Cleve Reber; Combustion, Inc.; D.L. Mud Inc.; Dutchtown Treatment Plant; Gulf Coast Vacuum Services; Delatte Metals; Old Inger Refinery; Mallard Bay Landing; Madisonville Creosote Works; PAB Oil and Chemical Services, Inc.; Petro-Processors; and Southern Shipbuilding Corporation. SEET assessed post-hurricane sample data for each site to assess the impact of the hurricanes. At a majority of the sites, the hurricanes had no effect on site-related contaminants.

Orleans and St. Bernard Parishes

In September 2007, SEET completed an evaluation of pre- and post-hurricane soil and blood lead levels in Orleans and St. Bernard Parishes noting a correlation between pre-hurricane soil lead medians above 400 parts per million (ppm) and pre-hurricane child blood lead medians above 10 micrograms per deciliter (ug/dl) in six census tracts from Orleans parish. In an effort to reach out to at-risk communities in the affected areas, SEET is targeting construction workers, migrant workers, homeowners, parents and children to educate them about lead poisoning. We're presenting messages to eliminate and/or reduce soil and paint lead exposures by telling workers to shower and changes clothes after work and before playing with their kids, using doormats and removing shoes when entering the home, washing work clothes and cleaning rags separately from the family laundry, keeping children away from peeling paint both indoors and outdoors, and good hygiene after playtime and before eating. We are achieving our goal of minimizing/eliminating lead exposures by aggressively collaborating with several stakeholders in our community including the LA Childhood Lead Poisoning Prevention Program, Tulane University School of Public Health and Tropical Medicine, Common Ground Health Clinic, ACORN, the LA Public Health Institute and many others. Work on this environmental health education initiative will continue via these and other partnerships throughout 2008.

Calcasieu Parish, Mossville

Mossville is a small, unincorporated community in Calcasieu Parish, near Lake Charles. Mossville residents have health and quality-of-life concerns related to industrial activity in the area. In 1998, ATSDR conducted an exposure investigation of blood dioxin levels in 28 Mossville residents and elevated dioxin levels were detected in some of the residents. In response to public concerns about dioxins and other chemical pollutants in the Mossville/Lake Charles area, SEET conducted a review of cancer incidence rates (*Cancer in Calcasieu Parish, Louisiana 1988-1997),* which compared cancer incidence in Calcasieu Parish and the State of Louisiana. Age-adjusted rates of all cancers combined and cancers of 22 specific anatomic sites were examined for the following demographic groups: black females, white females, black males, and white males. As part of SEET's ongoing environmental health investigation in Mossville, Louisiana, staff examined cancer incidence data for Calcasieu Parish for 1988-2004. This review compared cancer incidence in Calcasieu Parish and the State of Louisiana. Cancer incidence rates were assessed for 24 distinct anatomic cancer sites and all cancers combined for black females, black males, white females, and white males. The final health consultation, *Assessment of Cancer Incidence from the Louisiana Tumor Registry from 1988-2004, Calcasieu Parish, Louisiana,* was completed in 2007.

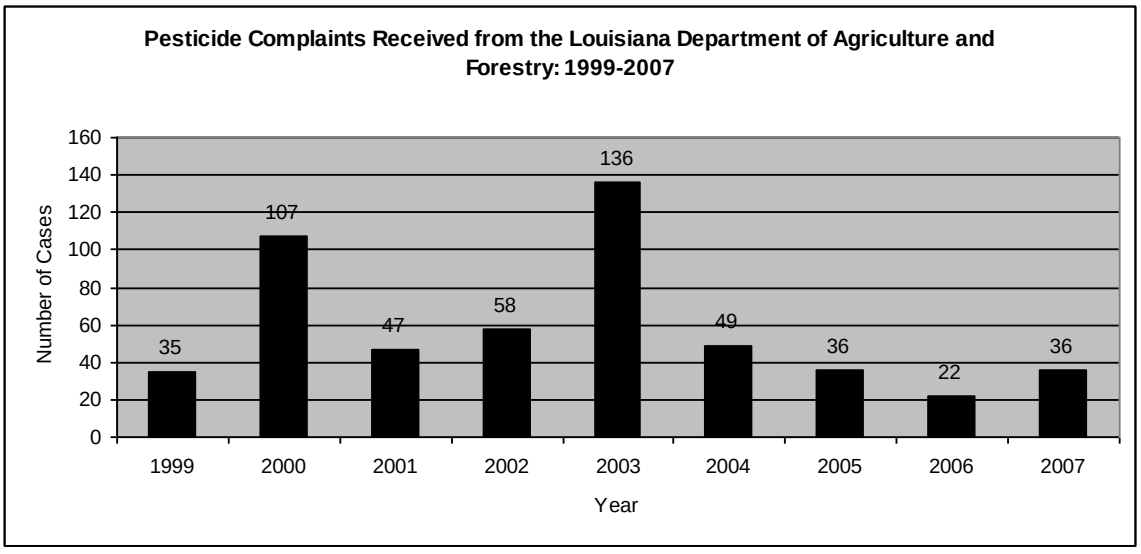
Ouachita Parish, West Monroe

Following complaints about a strong sulfur odor in a tributary at one of the General Chemical Monroe Works site in West Monroe, Louisiana, the US EPA performed a removal assessment at the site. On behalf of EPA, LDEQ requested that SEET assess surface water, soil, and sediment samples collected during the removal assessment. SEET completed the assessment in September 2007 with a finding of no apparent public health hazard onsite at General Chemical Monroe Works. Lead and arsenic were found at concentrations of concern in the tributary, but the tributary is not used as a domestic or recreational water source on a daily basis. Surface water and sediment from an on-site process recycling pit also contained contaminants that could pose a health hazard with daily exposures, but the pit is not open to the public. Site workers would not regularly be immersed in this pit without protective clothing or ingesting water or sediment from it. SEET informed EPA of our findings and recommended that further sampling be performed on potential exposure pathways, such as groundwater underneath the site, to develop a more complete picture of the potential impact of site contaminants on workers and on the community. SEET also recommended further monitoring to ensure that the water from the tributary does not carry site contaminants to the public water supply sources. If land use at the site changes in the future, the site will need to be re-evaluated using estimated exposures that are appropriate for the new land usage.

Pesticide Surveillance Program

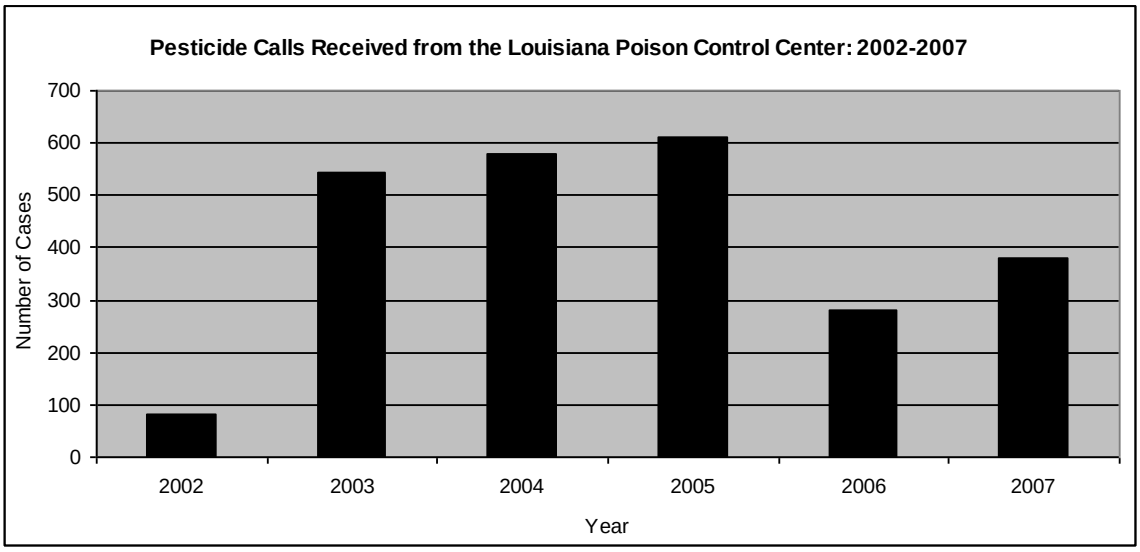
http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=6679

The Pesticide Surveillance Program is a statewide program designed to investigate and evaluate adverse health effects related to acute pesticide exposure. In addition to investigating pesticide exposure complaints, SEET maintains a statewide database. Pesticide exposure cases are obtained from three major sources: the Louisiana Department of Agriculture and Forestry (LDAF), the Louisiana Poison Control Center (LAPCC), and via laboratory reporting of pesticide biomonitoring data. Complaints obtained from LDAF are jointly investigated by LDAF and SEET. Investigations involve the collection and review of environmental and health data relevant to the pesticide exposure incident. SEET provides information on the health effects that can result from exposure to the complainant.



Source: Louisiana Department of Agriculture and Forestry: 1999-2007.

Since October 2002, SEET has been receiving all pesticide-related calls made to the Louisiana Poison Control Center (LAPCC). Case reports obtained from the LAPCC are reviewed and entered into the pesticide surveillance database. Only cases reporting pesticide exposure and a minimum of two reported health effects are included in the database; cases with unclear exposure histories or less than two reported symptoms are not included. Most LAPCC cases are investigated solely by SEET. Those incidents that occur on the job or in a public place are referred to LDAF for follow-up.



Source: Louisiana Poison Control Center: 2002-2007.

Cases obtained from LDAF and LAPCC are evaluated to determine short-term and long-term health effects related to pesticide exposure. For surveillance purposes, cases are classified using standardized pesticide exposure criteria developed by the Centers for Disease Control and Prevention (CDC). Classification categories consider the level of certainty of exposure, documentation of health effects, and the plausibility of reported health effects based on the known toxicology of the pesticides.

In June 2006, SEET amended the Louisiana Sanitary Code's list of reportable diseases and conditions to include pesticide (and heavy metals) poisoning. Additional changes included adding Poison Centers and Laboratory Directors to the list of health care providers required to report, and clearly defining the reporting requirements of clinical laboratories operating within or outside the state. These important changes have enabled OPH to require laboratories to report any analysis result for pesticides. Since the rule change, SEET has worked to notify laboratories of the changes and to establish electronic reporting of laboratory results.

Louisiana's Registry of Pesticide Hypersensitive Individuals Sub-Program

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=6679

LDAF and SEET established a statewide Registry of Pesticide Hypersensitive Individuals. The registry's purpose is to enable hypersensitive individuals to receive prior notification of pesticide applications in the

vicinity of their homes. With prior notification, individuals can take necessary precautions to protect themselves from inadvertent pesticide exposure. There is no charge for inclusion in the registry, although a physician licensed to practice medicine in Louisiana must certify that the registrant is hypersensitive to pesticides. The registry is updated annually and provided to all licensed applicators and pest control operators (PCOs). Applicators and PCOs are requested to notify registrants prior to making a pesticide application to a property within 100 feet of, or adjacent to, the registrant's property. Notification by applicators and PCOs is voluntary, and there is no penalty for non-compliance.

Occupational Health Surveillance Program

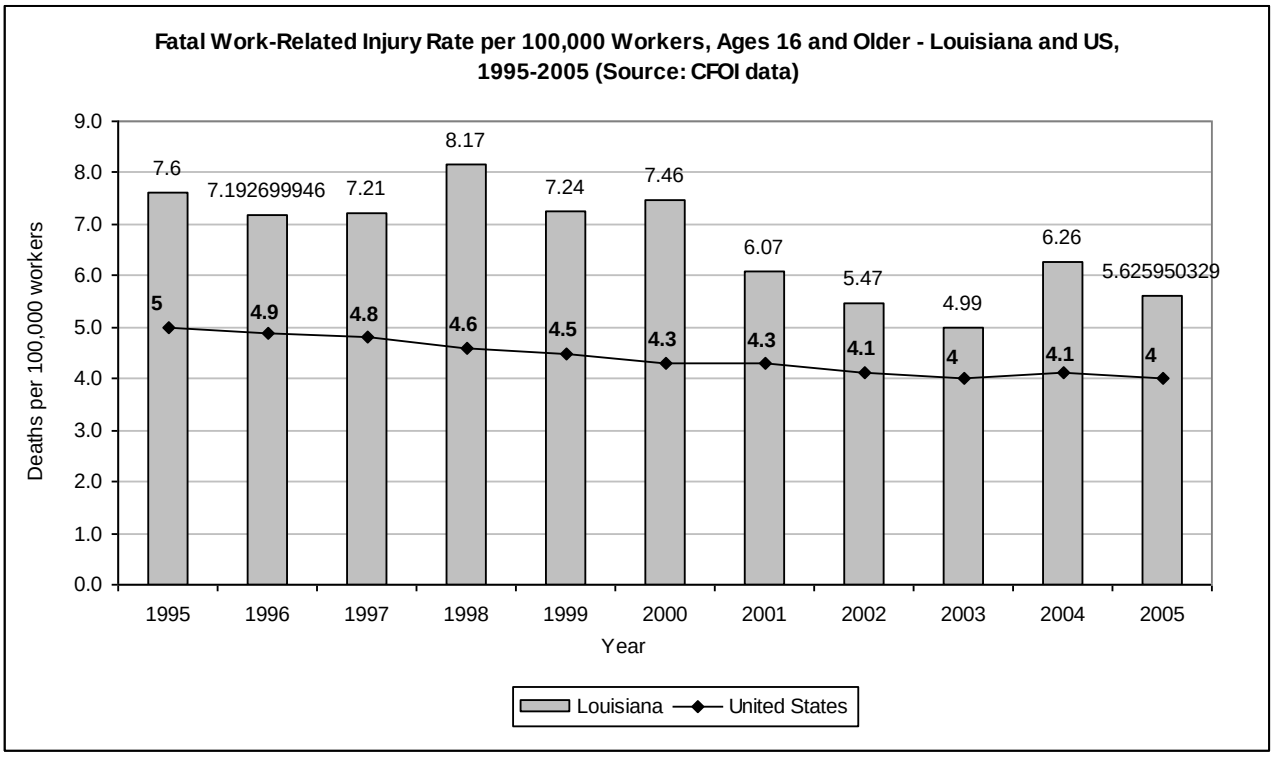
http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=6737

In August of 2005, SEET was awarded a 3-year grant from CDC's National Institute for Occupational Health and Safety (NIOSH) to develop a statewide Occupational Health Surveillance Program. The grant's purpose is to strengthen the state's capacity to conduct population-based surveillance of specified occupational health indicators using existing data systems. The occupational health conditions identified by NIOSH for study are non-fatal work related injuries and illnesses, work-related hospitalizations, fatal work-related injuries, work-related amputations, hospitalization for work-related burns, work-related musculoskeletal disorders with days away from work, carpal tunnel syndrome, hospitalization from or with pneumoconiosis, mortality from or with pneumoconiosis, acute work-related pesticide-associated illness and injury reported to poison control centers, incidence of malignant mesothelioma, and elevated blood lead levels among adults.

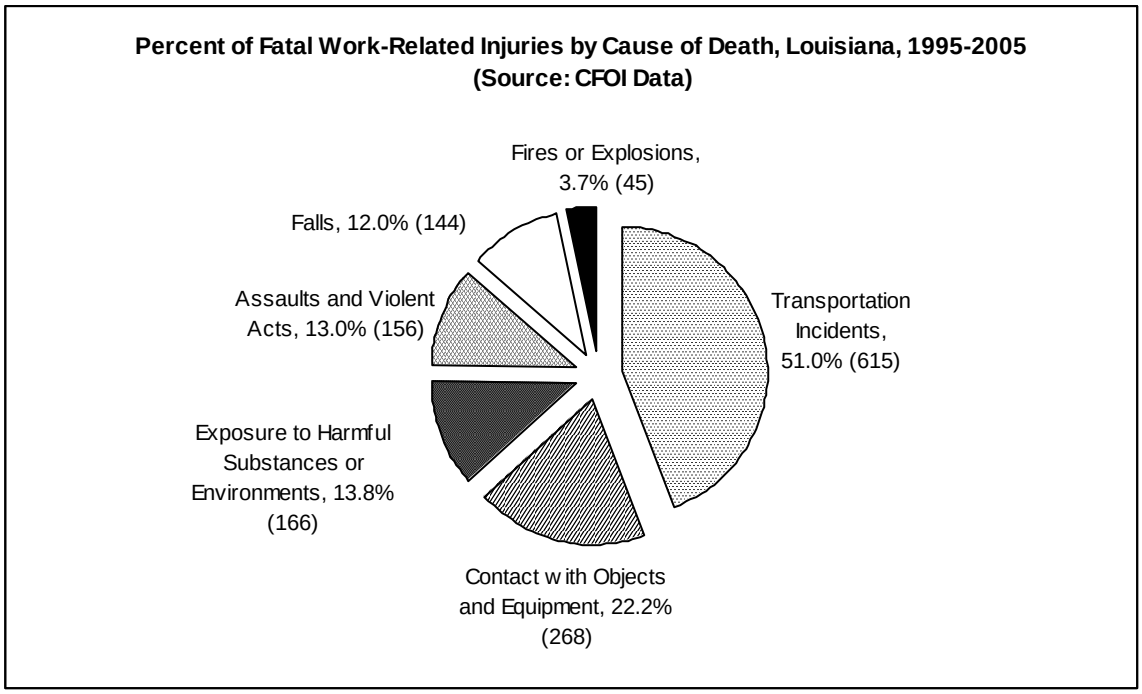
OPH's Occupational Health Program webpage contains links to reports involving occupational health surveillance data. Included are the following reports:

- Additions to disease reporting requirements: pesticide-related illness and injury and heavy metals (arsenic, cadmium, lead & mercury)
- Don't Mix with Bleach: Harmful Exposures to Mixtures of Bleach/Ammonia-Based Products and Bleach/Acid-Based Products: Louisiana, September 2005 – February 2006.
- Carbon monoxide exposure in office building sickens employees – Louisiana, 2007
- Worker Health Alert – Bronchiolitis obliterans among food manufacturing workers
- Death at work: fatal occupational injuries Louisiana 1995-2004.

SEET evaluated fatal occupational-injury data were obtained by the Census of Fatal Occupational Injuries (CFOI), a Federal/State cooperative program charged with annually collecting detailed information on all work-related injuries. CFOI data indicate Louisiana's workforce has a greater risk of work-related injuries than the U.S. workforce as a whole. Transportation accidents, particularly highway accidents, account for a significant proportion of deaths, followed by contact with objects and equipment. These fatalities typically involve incidents where a worker is struck by an object (including a falling object) or caught in equipment or machinery.



Source: Census of Fatal Occupational Injuries (CFOI): 1995-2005.



Source: Census of Fatal Occupational Injuries (CFOI): 1995-2005

Disease Cluster Investigations

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5721

SEET provides Louisiana residents with information on chemicals or other factors (environmental or naturally occurring) that could potentially be associated with a reported disease cluster. In some cases, comparative rates of the disease are tabulated. SEET works closely with the Louisiana Tumor Registry (LTR) at the Louisiana State University Health Sciences Center in New Orleans to address public concerns about cancer rates throughout the state. In 2006, SEET was notified about or responded to approximately four reports of disease clusters throughout the state. In an effort to increase the effectiveness of the program, SEET has drafted Cancer Cluster Investigation Guidelines along with the LTR to address Louisiana residents' concerns. SEET provides public outreach services concerning disease clusters throughout the state, such as environmental public health education on cancer.

Louisiana Environmental & Health Effects Tracking (LEHET) Program

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=6502

SEET's LEHET Program ended on April 30, 2007. A 3 Year Report, which included details of program activities, accomplishments and barriers, was submitted to CDC and to stakeholders at their request. It also contained a comprehensive 3 Year program evaluation, program fact sheets and other publications. LEHET was a collaborative effort of SEET and LDEQ to develop environmental public health tracking in Louisiana. The LEHET was funded through a three-year cooperative agreement with the CDC's Environmental Public Health Tracking Program. This program fulfilled the mandate of Louisiana Act 666 to investigate ways to develop an Environmental Health Surveillance System. The purpose of this program was to demonstrate and evaluate methods for linking data from ongoing, existing public health surveillance systems with data from existing surveillance systems for human exposure and environmental hazards. The national effort to develop an environmental public health tracking program will ultimately lead to the standardization of how both public health and environmental data are collected and used.

Wood Preservation and Treatment Demonstration Project and Private Well Water Testing Initiative:

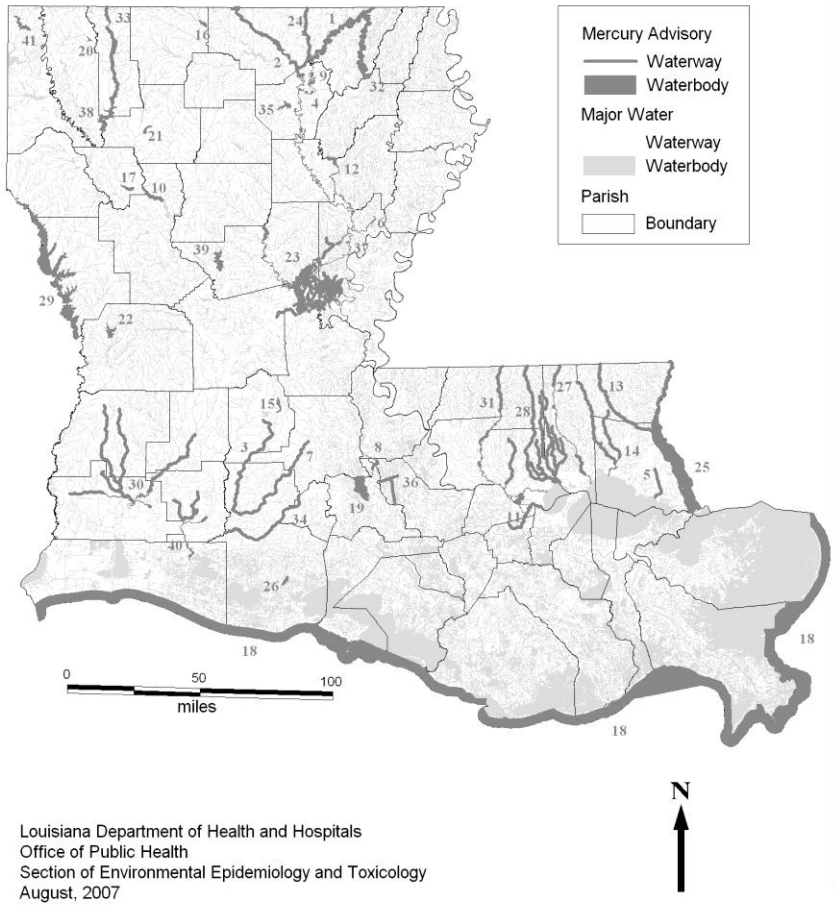
Data collection for the LEHET Wood Preservation and Treatment Demonstration Project suggested that many private well owners are not aware that their drinking water may contain contaminants. As a result, LEHET and its stakeholders proposed to educate private well owners. In addition to providing this information to new registrants, this information was also provided to the Louisiana State University, Agricultural Extension Services, Water Education Program, and the LDEQ's Wellhead Protection Program to disseminate to farmers and other individuals who reside in rural communities and may use private wells as a primary drinking water source. SEET and the OPH Safe Drinking Water Program are collaborating with the Louisiana Department of Transportation and Development (DOTD) to develop a Memorandum of Understanding (MOU) to establish the Private Water Well Initiative. SEET will provide new well registrants with information on maintenance and well testing when their wells are registered with DOTD.

Health/Fish Consumption Advisories Program

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5749

SEET issues fish consumption advisories in consultation with state environmental agencies when chemicals in sport fish reach levels that could potentially harm the public. SEET works with the LDEQ and the Louisiana Department of Wildlife and Fisheries (LDWF) to assess the extent of mercury contamination in fish. Methylmercury, a compound present in fish tissue, can cause birth defects and neurological problems when present at high levels. LDEQ samples fish from water bodies that are selected based on water quality, usage, and SEET recommendations. SEET then conducts a public health risk assessment, and, if warranted, the State Health Officer issues a fish consumption advisory for specific species of fish. Of nearly 500 water bodies tested to date in Louisiana, 41 health advisories for fish containing mercury have been issued. These advisories cover at least 66 freshwater bodies in or traversing 43 parishes, and include an advisory on king mackerel, cobia, greater amberjack, and blackfin tuna for parishes along the Gulf of Mexico.

Louisiana Mercury Fish Consumption Advisories



Louisiana Department of Health and Hospitals
Office of Public Health
Section of Environmental Epidemiology and Toxicology
August, 2007

LOCATION	NUM
Amite River Drainage Basin	31
Bayou Bartholomew	1
Bayou Bonne Idee	32
Bayou Chene and Bayou Lacassine	40
Bayou De Loutre and Associated Lakes	2
Bayou des Cannes	3
Bayou DeSiard	4
Bayou Dorcheat	33
Bayou Liberty	5
Bayou Louis and Lake Louis	6
Bayou Plaquemine Brule	7
Bayou Queue De Tortue	34
Big Alabama Bayou	8
Black Bayou Lake (Caddo)	41
Black Bayou Lake (Ouachita)	9
Black Lake	10
Blind River	11
Boeuf River	12
Bogue Chitto River	13
Bogue Falaya and Tchefuncte Rivers	14
Calcasieu River Drainage Basin	30
Cheniere Lake	35
Chicot Lake	15
Corney Lake	16
Grand Bayou Reservoir	17
Gulf of Mexico	18
Henderson Lake Area	19
I-10 Canal and Work Canal	36
Iatt Lake	39
Ivan Lake	20
Kepler Creek Lake	21
Lake Bistineau	38
Lake Vernon	22
Little River/Catahoula Lake Area	23
Ouachita River	24
Pearl River	25
Seventh Ward Canal	26
Tangipahoa River	27
Tew Lake	37
Tickfaw River Drainage Basin	28
Toledo Bend Reservoir	29

The Louisiana Department of Health and Hospitals/Office of Public Health/ Section of Environmental Epidemiology and Toxicology (SEET) cannot guarantee the accuracy of the information contained on this map and expressly disclaims liability for errors and omissions in its contents.

Population-based Blood Mercury Services

In 1998, 313 individuals from selected parishes in Louisiana participated in a blood mercury screening. Ninety-eight percent of the study participants were within an expected range of mercury blood levels. The remaining 2% exhibited slightly elevated mercury levels and were advised to decrease fish consumption. The 1998 blood mercury services screening revealed that a small percentage of the participants had a slightly elevated blood mercury level. These individuals were from Ouachita and Morehouse parishes. In 2003, SEET returned to northeast Louisiana to offer additional blood mercury screening for commercial fishers and their families, as well as others who eat fish caught in local water bodies. Seventy-seven individuals from Morehouse, Union, and Ouachita parishes participated in the screenings. Sixty-eight percent of those participants had a blood mercury level within the expected range, while 25% exhibited slightly elevated mercury levels and were advised to decrease fish consumption. The remaining 7% were advised to seek a medical evaluation because their blood mercury level was elevated.

In June 2006, SEET amended the Louisiana Sanitary Code's list of reportable diseases and conditions to include heavy metals poisoning. Laboratory results for mercury, arsenic, lead and cadmium are required under Louisiana state law to be reported to OPH by all laboratories and other healthcare providers. SEET has designed a database to track laboratory tests, regardless of results, for occupational and non-occupational exposures.

Chemical Event Exposure Assessment

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=6704

SEET responds to requests for information and investigations from the public and government agencies regarding health effects of known and suspected toxic substances in the environment. SEET often provides health and exposure information and makes referrals. In some cases, these inquiries developed into comprehensive health investigations involving interagency workgroups. In addition, SEET receives notifications of Poison Control Center cases that involve exposure to chemicals and maintains a database with the details of each exposure. Those incidents that occurred on the job or in a public place are referred for follow-up.

M. VITAL STATISTICS

Vital statistics data provide a body of information that serves as the foundation for monitoring the health and well-being of Louisiana residents. These data are collected via birth, death, fetal death, abortion, marriage, and divorce certificates. Collection and processing of vital statistics information is the responsibility of DHH-OPH's VITAL RECORDS REGISTRY.

A large number of health status indicators rely on vital statistics data. These indicators include infant death rates, numbers of low birthweight infants, percentage of mothers lacking adequate prenatal care, teen birth rates, homicide and suicide rates, rates of death from AIDS, and motor-vehicle injury death rates, among many others. Vital statistics data are used in both the public and the private sectors to identify health needs in the population and to target effective health interventions. Vital statistics health status indicators are also used to measure achievement of the CDC'S Healthy People 2010 objectives.

The role of the STATE CENTER FOR HEALTH STATISTICS (CHS) is to analyze vital statistics data and distribute findings to government programs, community organizations, universities, and interested members of the general public. The Center accomplishes this through publication of the annual *Louisiana Vital Statistics Report*, the *Louisiana-Health at a Glance* poster and through response to ad hoc requests for data and information. CHS is also responsible for compiling information from the different DHH programs to create the legislatively mandated annual *Louisiana Health Report Card*.

2005 Statistics

Please refer to "Chapter I: Population and Vital Statistics."

Reports

Reports and data tables published by CHS, including the annual *Louisiana Health Report Card, Louisiana Vital Statistics Report,* and the *Louisiana-Health at a Glance* poster, may be viewed and downloaded by the public at the Center's internet website:

http://www.oph.dhh.state.la.us/recordsstatistics/statistics/page0cda.html?page=117

CHS also maintains databases of births, deaths, fetal deaths, abortions, marriages, and divorces, which it uses to respond to data requests from communities, agencies, and the general public through generation of ad hoc reports and analyses.

N. STATE HEALTH CARE DATA CLEARINGHOUSE

Act 622 of the 1997 Regular Legislative Session (Louisiana Revised Statutes 40:1300.111-1300.113) defined the STATE HEALTH CARE DATA CLEARINGHOUSE as the entity responsible for the collection of health care and health industry-related data. The Act charged the CLEARINGHOUSE with responsibility for creating population-based health care data registries that will offer Louisiana and its health care providers their first opportunity to plan and operate systematic intervention strategies that address morbidity and the antecedents of death.

In prioritizing the mandates of the CLEARINGHOUSE (which is housed within CHS), the OFFICE OF PUBLIC HEALTH (OPH) considered the various health information data streams already in existence and the data collection experiences of some 36 other states, and determined that Louisiana would benefit most by focusing initial data collection efforts on hospital inpatient discharge data. As a result, the **Louisiana Hospital Inpatient Discharge Database (LAHIDD)** was designated as the registry containing inpatient discharge data submitted to DHH/OPH by hospitals within Louisiana.

In June 2007, the Louisiana Legislature passed House Bill 602, which the Governor signed into law as Act 410 the following month. This new statute amended and expanded Act 622 of 1997 concerning the collection and dissemination of health-care data by the CLEARINGHOUSE. Act 410 mandates the establishment of a Health Data Panel "to make recommendations…that facilitate the release of data", allows for the release of names of medical facilities and providers in order to compare quality of care and cost effectiveness, and requires the collection of information on health plans "that will assist in decision making on how coverages…are purchased[.]" The amended legislation, therefore, increases the CLEARINGHOUSE's health-care data collection, analysis, and dissemination responsibilities beyond LAHIDD.

As of this writing, work on implementing Act 410 was in progress and should be completed by the time the 2008 Regular Session of the Legislature convenes.

History

The rulemaking process enabling the development of LAHIDD, which involved the participation of public and private stakeholders, was completed in the fall of 1998. The following three milestones depict the legislative and regulatory history of the project:

- House Bill 1462 passed in May 1997; signed by the Governor in July as Act 622.
- Rules committee formed in DHH/OPH in November 1997.
- Rules governing LAHIDD published in July 1998.

An extensive survey of all hospitals in the state regarding their database systems and their discharge data submission capacities was conducted from late 1997 to early 1998. As a result of this survey, a comprehensive submittal guide was created and mailed out to hospitals in October 1998. In December 1998, hospitals began submitting data on discharges occurring between January and June 1998 and quarterly thereafter, from January 1999.

As of this writing, the 1998 LAHIDD Rule was still in force. However, with the passage of Act 410 of 2007, it will eventually be revised and superseded by a new Rule which will provide procedures and guidelines for the reporting and handling of LAHIDD and additional health-care/health-plan databases yet to be established with the assistance of the Health Data Panel.

Purpose

LAHIDD underlies the commitment of DHH/OPH to the practice of sound public health by expanding the state's ability to carry out its three Core Public Health Functions:

- Assessment of community health status and resources;
- Assurance of availability and provision of necessary, high-quality, effective services; and
- Development of health policy that accurately addresses community needs.

The LAHIDD data helps DHH/OPH accomplish its functions by:

- Enhancing Disease Surveillance and Reporting: LAHIDD provides a unique resource for the investigation of the progression of morbidity in the population and helps to identify at-risk populations within the community. LAHIDD data can be enriched through linkage to other DHH/OPH databases and can be further enhanced by information gathered by the state's other surveillance programs (e.g., Injury Research and Prevention, Behavioral Risk Factor Surveillance System). Linking LAHIDD data to these other population-based databases will enable the development of effective prevention policies targeted at at-risk populations. For DHH/OPH programs such as Tuberculosis and HIV/AIDS, these data can be used to track patient treatment and to evaluate the completeness of programmatic surveillance.
- Assessing Healthcare Utilization: Many areas in Louisiana are experiencing rising healthcare costs and shortages of health professionals. These costs and shortages make it essential that patients, healthcare professionals, hospitals, and third-party payers have the necessary

information to evaluate health care needs and identify the appropriate and efficient utilization of health services.

Ultimately, evaluation of needs and identification of appropriate and efficient utilization of health services requires an understanding of the patterns and trends in the availability, utilization, and costs of health care services as well as the underlying patterns of disease that necessitate these services. Through LAHIDD, the CLEARINGHOUSE provides information needed to make these determinations. It is different from other sources of data in that LAHIDD is Louisiana's only comprehensive, population-based repository for hospital inpatient data, while DHH/OPH has been the state's repository for mortality data. LAHIDD contains information needed to measure and evaluate morbidity and hospital charges associated with inpatient stays in the state. It also contains information on the diagnoses of those treated, the procedures performed, and the hospital charges for those procedures.

The detailed information available in LAHIDD enables the state to identify specific geographic areas and populations in need of improved access to healthcare and health education. While maintaining LAHIDD confidentiality restrictions, identification of healthcare needs can be accomplished by tracking:

- utilization of hospital care for specific diagnoses and procedures in targeted populations and geographic areas and
- hospital charges for services provided to targeted populations and in geographic areas.

In 2003, CHS published the first *LAHIDD Report* and distributed copies to the Legislature. The report described patient trends throughout Louisiana and inpatient care in the state during the period 1998-2000, along with cost of hospitalization. The next reports were published in 2004 (containing LAHIDD data for the years 2001-2002), 2005 (containing LAHIDD data for the year 2003), and 2007 (containing data for 2004).

It is the goal of the CLEARINGHOUSE that, along with LAHIDD, the new databases to be created by virtue of Act 410 of 2007 will provide a more complete picture of the health of Louisiana residents and especially help address the urgent concerns regarding the increasing threat of bioterrorism.

LAHIDD Summary

The following graph and tables present a brief summary of 2006 LAHIDD data. For a more comprehensive summary, see the online version of the *2006 LAHIDD Report* in the "Vital Statistics Publications" page of the CHS website (http://www.dhh.louisiana.gov/offices/?ID=275).

Number of Discharges by Gender & Age Group (in years), LA 2006

Gender	<1	1-12	13-17	18-44	45-64	65-84	85 &+
Female	34,758	10,612	6,428	103,351	63,369	79,355	23,674
Male	38,542	13,043	3,478	35,177	62,532	64,109	10,732
Unknown	20	0	0	0	1	1	0
Total	**73,320**	**23,655**	**9,906**	**138,528**	**125,902**	**143,465**	**34,406**

Invalid Values: Female = 0 , Male = 3 , Missing = 1

Top 15 Principal Diagnoses by Discharges, LA 2006

Principal Diagnosis	Discharges	Rate	LOS	Charges
Liveborn	58,622	138.2	4.0	9,434
Pneumonia (except by TB or STDs)	20,847	49.1	5.3	19,532
Congestive heart failure, nonhypertensive	19,661	46.3	5.2	24,723
Coronary atherosclerosis and other heart dis	17,971	42.4	3.3	44,772
Skin and subcutaneous tissue infections	12,044	28.4	4.4	12,557
Urinary tract infections	10,423	24.6	4.7	14,605
Nonspecific chest pain	10,216	24.1	2.0	11,983
Other complications of birth, puerperium	10,134	23.9	2.9	8,899
Cardiac dysrhythmias	9,732	22.9	3.4	23,590
Other complications of pregnancy	9,252	21.8	2.5	7,318
COPD and bronchiectasis	8,647	20.4	4.7	17,520
Septicemia (except in labor)	8,425	19.9	8.5	39,382
Rehab care, prostheses & devices	8,338	19.6	14.5	33,855
Acute cerebrovascular disease	7,911	18.6	6.3	28,500
Affective disorders	7,671	18.1	8.2	10,804

Disch=No. of Discharges; Rate per 10,000 LA population (4,243,288), U.S. Census Bureau estimate 2006; LOS=Average Length of Stay in days; Charges=Average Charges in dollars; Total Discharges of 2006 = 549,186

Top 15 Principal Procedures by Discharges LA 2006				
Principal Procedure	**Discharges**	**Rate**	**LOS**	**Charges**
Low Cervical Cesarean Section	19,922	46.9	3.5	11,687
Circumcision	15,085	35.6	3.2	5,707
Other Manually Assisted Delivery	14,217	33.5	2.3	6,849
Prophylactic Vaccine Administration +	10,027	23.6	2.7	3,313
Transfusion of Packed Cells	8,928	21.0	5.5	20,699
Left Heart Cardiac Catheterization	8,300	19.6	3.3	26,901
Esophagogastroduodenoscopy	7,035	16.6	5.3	21,617
Repair of Obstetric Laceration	7,024	16.6	2.3	6,944
Venous Catheterization	6,770	16.0	9.5	38,262
Total Knee Replacement	5,340	12.6	4.2	40,880
Hemodialysis	5,221	12.3	5.4	22,037
Total Abdominal Hysterectomy	4,517	10.6	2.8	16,565
Laparoscopic Cholecystectomy	4,463	10.5	4.4	28,059
Other Incision with drainage (skin & ST *)	4,107	9.7	4.3	13,532
Other Endoscopy of Small Intestine	3,930	9.3	5.8	22,840

+ Against Other Diseases Including Anthrax.
** ST=Subcutaneous Tissue.*

Disch=Total No. of Discharges; Rate per 10,000 LA population (4,243,288), U.S. Census Bureau estimate 2006; LOS=Average Length of Stay in days; Avg. $ = Average Charges in dollars

Hospital Discharges by Primary Payers, LA 2006					
Primary Payer	**Discharges**	**Rate**	**Females**	**Males**	**Charges**
TRICARE	11,139	26.3	6,610	4,528	23,217
Medicaid	142,900	336.8	93,963	48,921	13,817
Medicare	184,508	434.8	103,135	81,371	26,685
No Charge	0	0	0	0	0
Private	160,932	379.3	94,568	66,360	21,179
Self Insured	1,822	4.3	1,031	791	14,539
Self Pay	22,878	53.9	9,947	12,931	18,801
Workers Compensation	2,126	5.0	458	1,668	31,213
Unknown *	22,881	53.9	11,835	11,046	14,964
Total	549,186	1,294.2	321,547	227,616	164,415

** Includes Missing, Invalid and Other Unknown.*

Disch=Total No. of Discharges; Rate per 10,000 LA population (4,243,288), U.S. Census Bureau estimate 2006; Charges=Total Charges in 10,000 dollars. Unknown Gender values: CHAMPUS=1, Medicaid=16, Medicare=2, Private=3.

IV. PREVENTIVE HEALTH OUTREACH, SERVICE, AND EDUCATION PROGRAMS

The Department of Health and Hospitals (DHH), Office of Public Health (OPH) provides Louisiana residents with a variety of Preventive Health Outreach Programs targeted to assure the health of its most vulnerable citizens: infants and children; adolescents; women; families; and persons suffering from infectious and chronic diseases, violence and injury, substance addictions, and mental impairment. The programs detailed in this chapter provide services to thousands of Louisiana residents and are essential to the health of the state as a whole.

Programs Targeting: Infants, Children, Adolescents, Women, and Families

A. Maternal and Child Health Program

The Maternal and Child Health (MCH) Program is dedicated to identifying health problems and developing solutions to improve the health of women of childbearing age, pregnant women, infants, children, and adolescents. This goal is accomplished through the provision of needed preventive health care services for the population in general as well as those who have limited access to preventive services due to financial or geographic barriers, or lack of service providers. Through parish health units and contract agency sites statewide, the MCH Program offers pregnancy testing, prenatal care, and nutrition education/counseling. In some locations, comprehensive prenatal care is provided to women who are unable to access such services elsewhere in their communities. The prenatal care includes regular physical assessments, laboratory tests, counseling and education on physical and behavioral issues, and home visiting when indicated. HIV education for all patients and HIV screening and counseling are provided for those who choose to participate. In state fiscal year 2007, 1,900 pregnant women initiated or received comprehensive prenatal care, while 47,687 women received prenatal, postnatal, and nutrition counseling and education in conjunction with the Women, Infants, and Children (WIC) Program services. Over 13,700 women came to the health units for pregnancy tests. The total number of maternity related visits was 113,168. The Maternity Program also provides prenatal care in areas of the state with access problems through contracts with the Louisiana State University Health Sciences Center and Community Health Centers. Through these contracts, 546 women received prenatal and postpartum care in 2,455 visits. Over 700 children received 889 comprehensive health screenings, and 16,199 children received 18,922 health counseling and follow up services in parish health units statewide.

Infant and Child Mortality

Infant Mortality Reduction Initiatives have been established in each region to examine the causes of fetal and infant death through a formal review process, and recommendations to address the need for prenatal and infant health interventions are made by these community coalitions. Injury prevention coordinators

address prevention of unintentional injuries, which are the leading cause of death among children. Car, pedestrian, bicycle, playground, and water safety are addressed through education and public awareness events. Prevention of injury from fires and suffocation are also targeted.

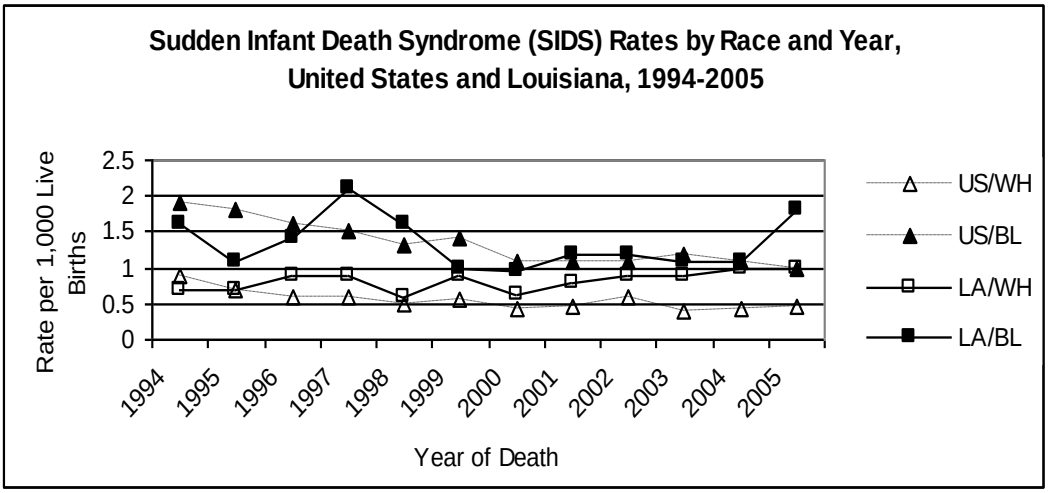
SUDDEN INFANT DEATH SYNDROME (SIDS)

The DHH-OPH Sudden Infant Death Syndrome (SIDS) Counseling and Risk Reduction Program is designed to increase public awareness on the topic of SIDS and to provide education to reduce the risk of SIDS deaths. The SIDS Program developed media messages aimed at encouraging parents of infants to place healthy babies on their backs for sleeping and promoting a safe sleep environment. Educational materials promoting the new revised 2005 American Academy of Pediatrics (AAP) guidelines regarding SIDS risk-reduction have been developed and distributed to populations at risk. These materials include: flyers that provide basic SIDS information; a healthcare provider tip sheet to provide risk-reduction information for physicians and nurses; and posters that promote back sleeping. Grief counseling is made available to all families who have experienced the death of an infant due to SIDS. The SIDS risk-reduction community outreach and education initiative has continued; activities included the following:

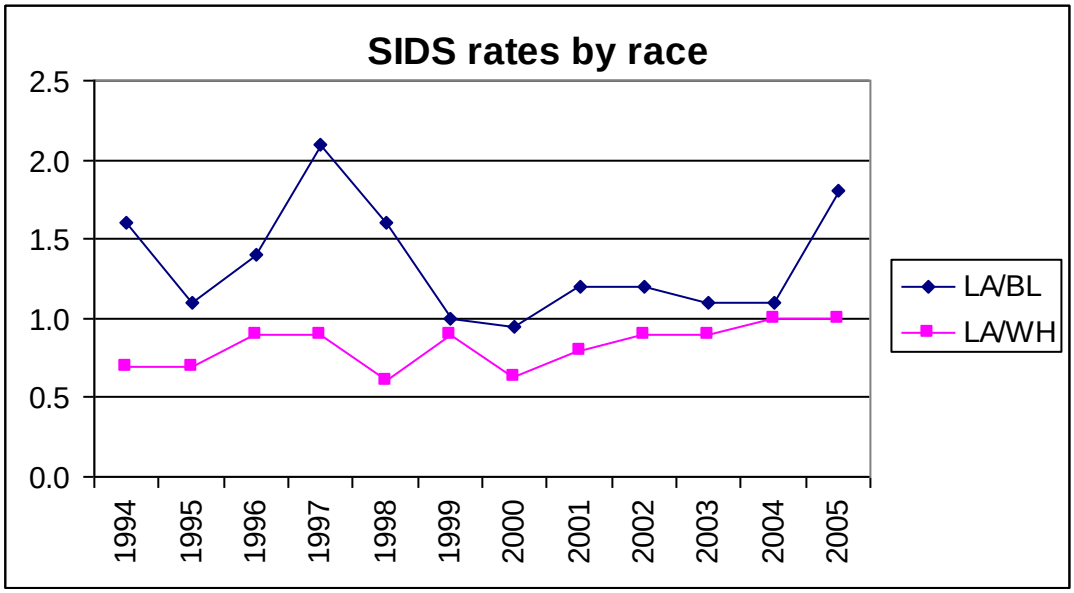
- Developed new media to educate the community on SIDS risk reduction.
- Provided professional education training to childcare providers, nurses, and other healthcare providers.
- Provided SIDS education through faith-based organizations.
- Distributed educational materials on SIDS risk-reduction to hospitals, physicians, childcare providers, and community groups statewide.
- Collaborated with the MCH Feto-Infant Mortality Reduction Coordinators Initiative and MCH Child Safety Coordinators in regional risk reduction activities such as educational programs, health fairs, and crib giveaway program.
- Provided technical assistance for the development of policy and/or regulatory standards related to safe sleep environment in licensed childcare.

In addition to public and professional education and grief counseling, standard data are collected on each case with the hope of identifying preventable circumstances that are associated with unexpected deaths in infancy. Cases are assessed for SIDS risk factors, ethnic-racial trends, and geography-specific trends. To improve the investigation of unexpected infant deaths, a Sudden Unexpected Infant and Child Death Scene Investigation training conference was held, in collaboration with the National Center for Child Death Review, to provide new information and skills for professionals who investigate unexpected infant and child deaths in order to better understand how and why children die and to use those findings to take action to prevent future deaths from injuries. Over 140 death scene investigators, coroners, medical examiners, law enforcement officials, emergency medical personnel and other first responders, infant death review experts (Child Death Review and Fetal Infant Mortality Review), physicians, nurses, epidemiologists, public health administrators, social workers, Emergency Medical Service Council Members, Safe Kids Coordinators, and other qualified individuals attended the training.

In 2005, SIDS was a leading cause of unexpected death to children under age 1, with 77 deaths from SIDS in the state, equivalent to a death rate of 1.3 per 1,000 live births. The United States' Sudden Infant Death Syndrome (SIDS) death rate per 1,000 live births was 0.54 in 2005. Louisiana's SIDS rate has consistently been higher than the United States SIDS rate. There has been a disparity between SIDS rates by race, both at the national level and in Louisiana. Blacks were more likely to die from SIDS than whites. In 2005, Louisiana's SIDS rate by race per 1000 live births was 1.8 for African Americans and 1.0 in for Caucasians. PRAMS data indicate that back sleeping has increased from 32% in 1997 to 56% in 2004.



*SOURCE: National Center for Vital Statistics and
Louisiana Office of Public Health-State Center for Health Statistics



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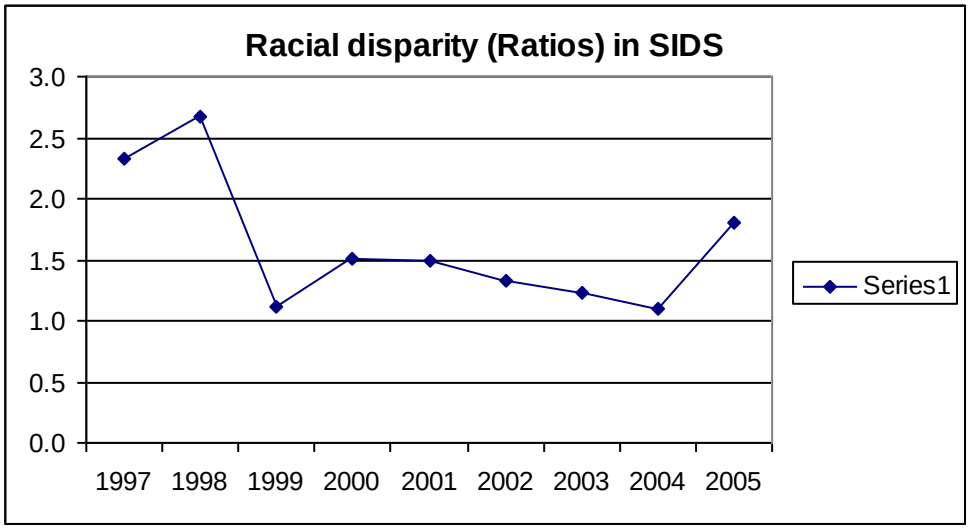


*SOURCE: National Center for Vital Statistics and
Louisiana Office of Public Health-State Center for Health Statistics

LOUISIANA PREGNANCY RISK ASSESSMENT MONITORING SYSTEM (LAPRAMS)

Overview

The Louisiana Pregnancy Risk Assessment Monitoring System (LaPRAMS) is an ongoing, population-based surveillance system designed to identify and monitor selected maternal behaviors that occur before and during pregnancy and during a child's early infancy. It is a joint effort between the OFFICE OF PUBLIC HEALTH (OPH) and the CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC). CDC, the OPH VITAL RECORDS REGISTRY, the STATE CENTER FOR HEALTH STATISTICS, and the TULANE UNIVERSITY SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE provide technical assistance to LaPRAMS. CDC, along with the MATERNAL AND CHILD HEALTH program, provide funding for the project.

LaPRAMS data are collected from a representative random sample of new mothers through mail surveys and telephone interviews. About 3-4% of Louisiana women who have had a recent live birth are randomly selected to participate each year. Data collection was initiated in October 1997, and more than 20,000 women have received the LaPRAMS questionnaire since that time. Because LaPRAMS is based on a representative sample, the data collected can be generalized to represent the whole State of Louisiana for each year except 2005, where Hurricanes Katrina and Rita disrupted data collection. Information provided by LaPRAMS includes: medical and physical factors; socioeconomic status; prenatal maternal experiences and behaviors (e.g., cigarette smoking, alcohol use, and physical abuse); prenatal care counseling; use and barriers to prenatal care; content and quality of care; sources of prenatal care and payment of delivery; birth control use before and after pregnancy; complications during pregnancy; and postpartum maternal experiences and behaviors.

Data from LaPRAMS are used to supplement information from vital records and to generate information for planning and assessing perinatal health programs around the state. Findings from the data are used to develop programs designed to identify high-risk pregnancies. In addition, LaPRAMS data continue to enhance the understanding of maternal behaviors and the relationship between these behaviors and adverse pregnancy outcomes, such as low birth weight and infant mortality.

Results

Of ten leading health indicators identified through *Healthy Louisiana 2010*, LaPRAMS monitors pre-pregnancy overweight and obesity, tobacco and alcohol use, partner violence, and access to health care among pregnant women. The following are selected findings based on LaPRAMS data.

- ***Pre-pregnancy overweight and obesity:***

  LaPRAMS 2004 data indicate that less than half of Louisiana women enter pregnancy in the normal weight range (body mass index of 19.6 to 26). About 12% of women are overweight (body mass index of 26 to 29) and 23% are obese (body mass index of more than 29) just prior to pregnancy. In addition to the large percent of women who are overweight or obese prior to pregnancy, 44% of Louisiana women gained more than the recommended amount of weight during pregnancy based on the 1990 recommendations by the Institute of Medicine.

- ***Tobacco Use (Cigarette smoking) during pregnancy*:**

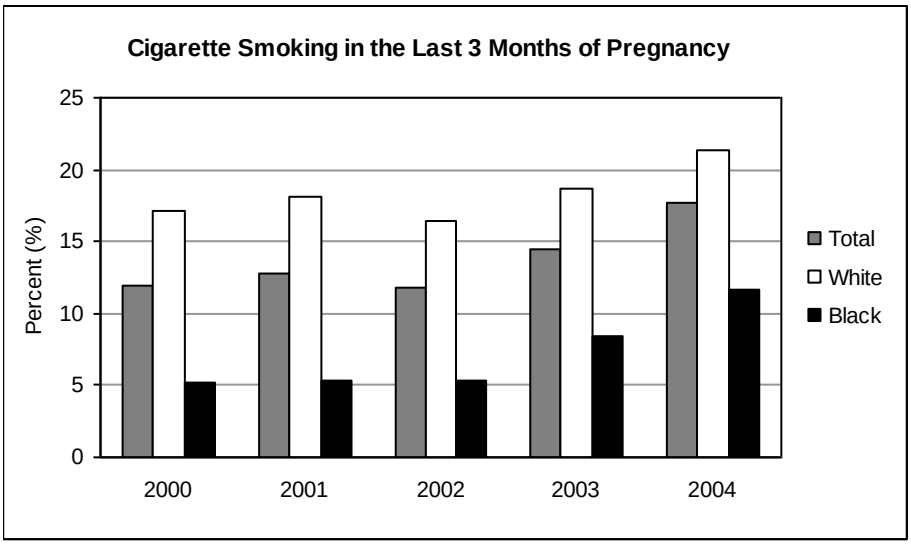
  The *Healthy Louisiana 2010* target for cigarette smoking among pregnant women is 1%. In 2004, 18% of Louisiana women reported smoking in the last 3 months of pregnancy, compared to 12% in 2000.

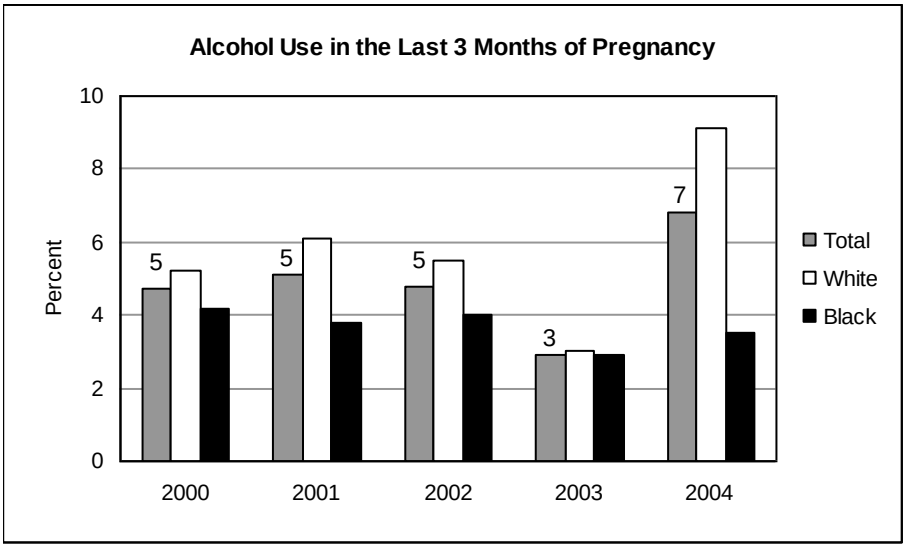
  Some of the factors associated with cigarette smoking in the last 3 months of pregnancy from 2000 to 2004 included white maternal race, maternal age over 20 years, being unmarried, not continuing education after high school, and having experienced stressful life events, such as moving, being in a physical fight, or having a lot of unpaid bills.

- ***Alcohol use during pregnancy*:**

  The *Healthy Louisiana 2010* target for pregnant women is 6%. In 2004, 7% of Louisiana women reported that they drank alcohol during the last trimester of their pregnancy, compared to only 3% in 2000. Some of the factors associated with alcohol use in the last 3 months of pregnancy from 2000 to 2004 included white maternal race, maternal age over 30 years, living in an urban area, and being in a physical fight.

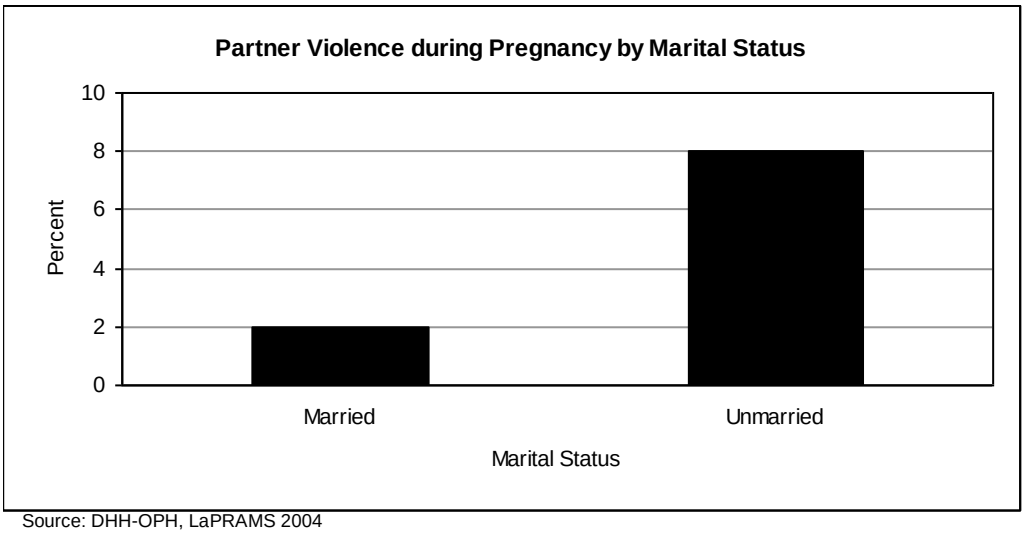
Trend of reported cigarette smoking and alcohol use from 2000 to 2004, Louisiana PRAMS.





- ***Partner Violence during pregnancy*:**

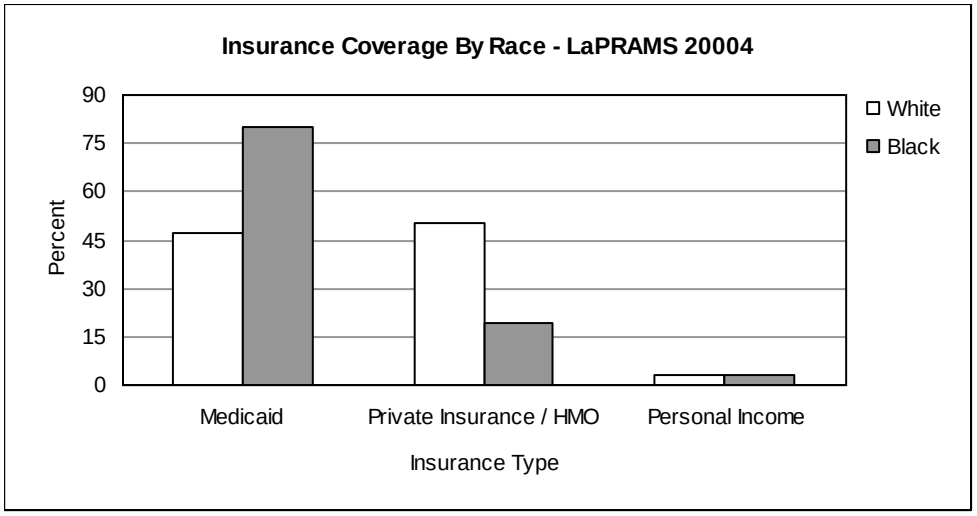
  In 2004, 4.4% of Louisiana women reported experiencing violence by their partner during pregnancy. This represents a steady decrease each year since 2001, when just over 6% of Louisiana women reported partner violence during pregnancy. Factors associated with violence during pregnancy from 2000 through 2004 included a history of partner violence prior to pregnancy, being unmarried, experiencing an increased frequency of arguing with partner, being in a physical fight, having someone close with a drinking or drug problem, and having someone close die. The following graph shows the percent of women reporting physical violence by marital status in 2004.



Source: DHH-OPH, LaPRAMS 2004

- ***Access to Health Care*:**

  One measure of Access to Health Care includes the percent of women who have medical insurance. LaPRAMS 2004 data indicate that 46% of Louisiana women had private insurance prior to becoming pregnant, and an additional 14% had Medicaid, either alone or in combination with another form of insurance. The remaining 39% of Louisiana women were uninsured prior to pregnancy. Once pregnant, prenatal care visits were paid by private insurance for 38% of women, Medicaid for 59% of women, and self-pay for 2% of women.



Source: DHH-OPH, LaPRAMS 2004

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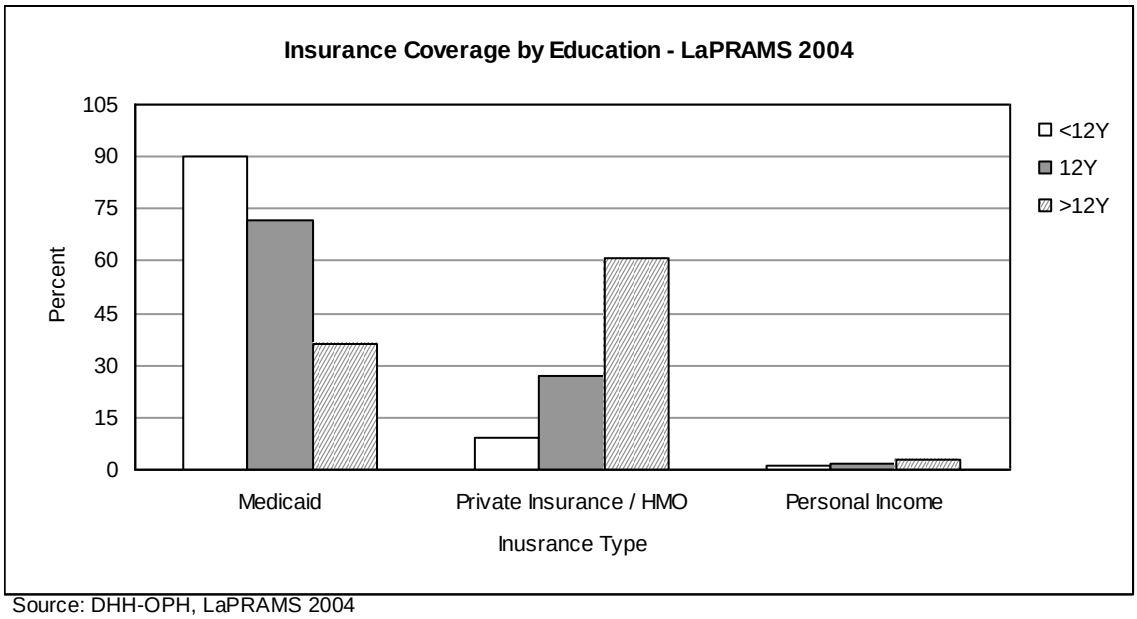
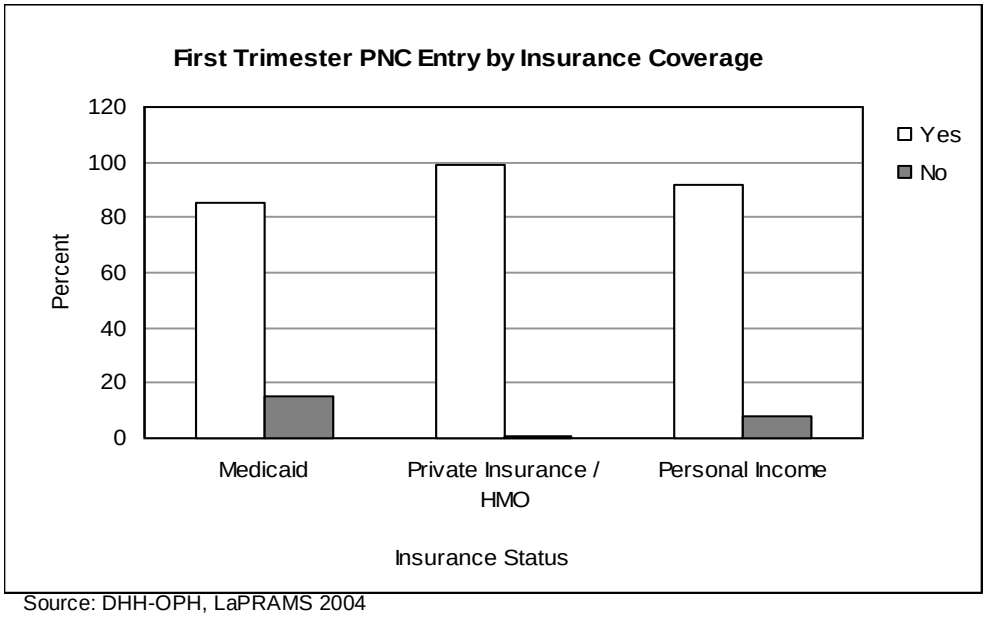
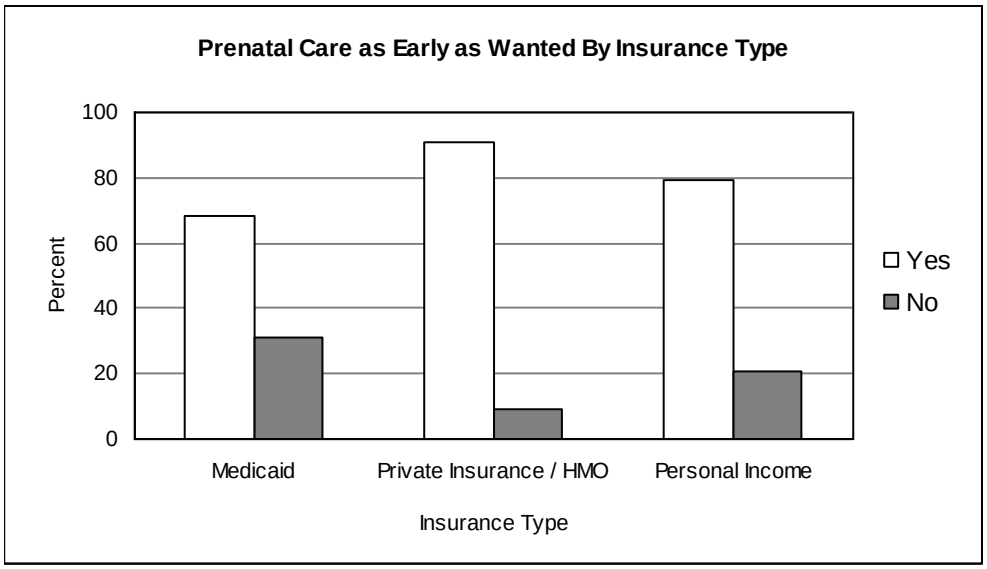


Source: DHH-OPH, LaPRAMS 2004

Another measure of Access to Health Care includes the percent of women who receive prenatal care in pregnancy as early as they wanted. In 2004, 76% of women reported receiving prenatal care as early as they wanted, and 62% reported experiencing no barriers to obtaining prenatal care. Among women who did not receive care as early as they wanted, the most common reasons were: not having their Medicaid card (17%), not having money (12%), wanting to keep the pregnancy a secret (7%), and not having transportation (7%).



Source: DHH-OPH, LaPRAMS 2004



Source: DHH-OPH, LaPRAMS 2004

PARTNERS FOR HEALTHY BABIES

The Partners for Healthy Babies (PHB) social marketing campaign developed messages to further brand the campaign and promote the helpline, PHB website, oral health and prenatal care. PHB continues to use a mix of communication strategies. The updated 24 hour Hotline and website continues, as does the newsletter. Prenatal Care Health Fairs were held in New Orleans (2006), and Slidell (2007). A post-disaster needs assessment was piloted in the Slidell event. Formative research was conducted to assure that the project remain culturally sensitive and competent. In 2007, the Helpline received 7,045 calls and made referrals to medical and social services statewide.

Nurse-Family Partnership: Helping First-Time Parents Succeed

The Nurse Family Partnership program (NFP) targets first-time mothers of low socio-economic status. Home-visiting nurses follow well-developed guidelines that require weekly to biweekly visits to the family early in pregnancy to the child's 2nd birthday. This model, developed by Dr. David Olds and colleagues, was chosen by MCH because of its proven effectiveness as a preventive intervention. Clinical trials and longitudinal studies have shown that NFP reduced by 48% the verified reports of child abuse and neglect, reduced by 32% the number of subsequent pregnancies in low-income unmarried mothers, and increased by 83% the rates of labor force participation by the mothers at the time of the child's 4th birthday. In addition, the randomized controlled trials demonstrated 61% fewer arrests, 72% fewer convictions and 98% fewer days in jail among the NFP mothers, by the time the child reached 15 years of age. Furthermore, the latest follow-up study revealed improved school readiness in the NFP children, including improvements in language, cognition, and attention.

Since 1999, NFP has been available in Region IV (Iberia, St. Martin, and Vermilion parishes) and Region VIII (Franklin, Jackson, Morehouse, and Richland parishes). Services were expanded to Region III (Terrebonne and Lafourche parishes) and Region V (Calcasieu, Beauregard, Jefferson Davis, and Allen parishes) in the spring of 2000. In 2002, via partnerships with local, state, and community organizations, NFP was expanded to Region II (East Baton Rouge Parish), Region VI (Rapides Parish), and Region VII (Caddo Parish). During calendar year 2003 the MCH PROGRAM expanded the NFP program to include a presence in all nine administrative regions of the state, for a total of 19 out of 64 parishes. Half or partial teams were developed in Region I (Jefferson Parish), Region IX (St. Tammany Parish), and Region VIII (Ouachita Parish); additional nurses were added to make full teams in Regions III, V, and VI. Two additional teams in Regions IV and V developed through grants and private case management organizations. Most recently, two full teams have been added to service additional parishes in northwest and central Louisiana. Lastly, Region 1 expansion will shortly provide more NFP service to Orleans Parish. Continually, services are being added in adjacent parishes within Regions whenever possible. At present, the NFP program is available in 41 parishes, with the eventual goal to have NFP available in all parishes of the state. Since the inception of the program through June 2008, NFP in Louisiana has provided nearly 118,500 visits to 5,089 families.

A program implementation evaluation was conducted by the NFP National Service Office in 2007. This study indicated that all Louisiana NFP sites were implementing the program with fidelity to the model which produced the statistically significant results experienced in the randomized trials. Recent Louisiana NFP results indicate several positive outcomes in maternal and child health functioning including:

- 18% relative decrease in cigarette smoking by NFP prenatal clients
- 41% breastfeeding initiation rates for NFP mothers in, increase by 7% in one year
- 95% immunization completion rates for NFP children at 24 months of age
- Over 94% NFP children have adequate to advanced language production scores at 21 months of age
- Over 89% of NFP children at 24 months of age are developmentally appropriate
- 62% of NFP mother over 18 years of age are working by the time their child is 24 months old

Provider Training for Parenting Education & Child Abuse Prevention Intervention

The MCH program offers a number of trainings and educational programs aimed at improving parenting education and the ability of public health professionals to identify and respond appropriately to children and families at risk for abuse and neglect. MCH continues to train nursing, social work, and other public health staff in Infant Mental Health in all regions of the state. Since 1998, OPH has offered this 30-hour training, completed in five separate sessions, designed to improve the staff's knowledge and skills in the early recognition of factors and conditions which place the infant and caregiver at risk for immediate, as well as long-term, problems in social, emotional, and cognitive growth and development. Culturally-salient information regarding the needs of and approaches to working with minority and low income families and,

adolescent parents, as well as recognition of personal biases and expectations regarding parenting, are incorporated into the trainings.

Linked to this program is a six hour training in Keys to Caregiving, a parenting education program developed at the University of Washington, School of Nursing. Keys to Caregiving provides information to new parents about newborn behavior, communication, the infant's capacity for relationships from birth, and strengthening the parent-infant relationship, but its usefulness extends well beyond the newborn period. This material is well received by staffs who work directly with infants and their caregivers, and is a required part of NFP training. The IMH/Keys to Caregiving training is offered twice per year, and to date, more than 660 public health and early childhood providers have participated. Through the Early Childhood Coordinated Systems (ECCS-Bright Start) initiative, MCH has broadened the availability of these and other trainings in infant mental health to include early childhood mental health and early intervention providers throughout Louisiana.

In addition, the MCH Program also sponsors a variety of brief trainings via conference presentations, video conferences, and on-site presentations, in infant mental health, child care consultation, perinatal depression, perinatal loss and grief, and unique aspects of loss in SUID (sudden unexpected infant death). These trainings are offered to a health, public health, mental health, early intervention, child care, and other professionals and paraprofessionals who work with infants, young children, and their caregivers.

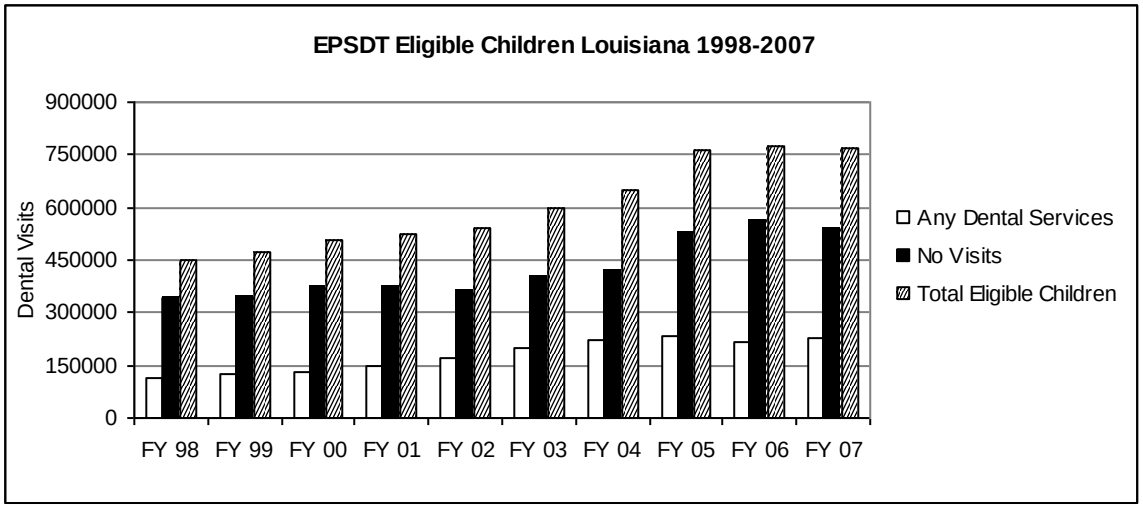
Oral Health Assessment

The Oral Health Program aims to improve the oral health status of the residents of Louisiana. Poor oral health in children can have far-reaching consequences, including pain and suffering from infections, absence from school, malnutrition, and diminished sense of self-esteem. Dental decay is the most common disease affecting children. In addition, poor periodontal health has been linked to diabetes, cardiovascular disease, stroke, and adverse pregnancy outcomes. The Oral Health Program of the Office of Public Health, Maternal and Child Health Program, addresses the oral health status of Louisiana's children and pregnant women.

In 2002, the Oral Health Program collected data by school nurses on 871 3rd grade students from 7 parishes in the state. Thirty nine schools participated in the dental screenings. Of the screened children, 37.3% had untreated dental caries; 63.5% had previous dental caries experience; only 18% had dental sealants; and 38.5% had to be referred to dentists for treatment. Data collected by school nurses in 1998 for 3rd graders showed that 38% of the children had untreated dental caries and the prevalence of dental sealants among the children was 22%. This trend indicates a decline in sealant utilization since 1998. The

Healthy Louisiana 2010 objective for dental sealants states that 50% of children should have sealants on their permanent molars.

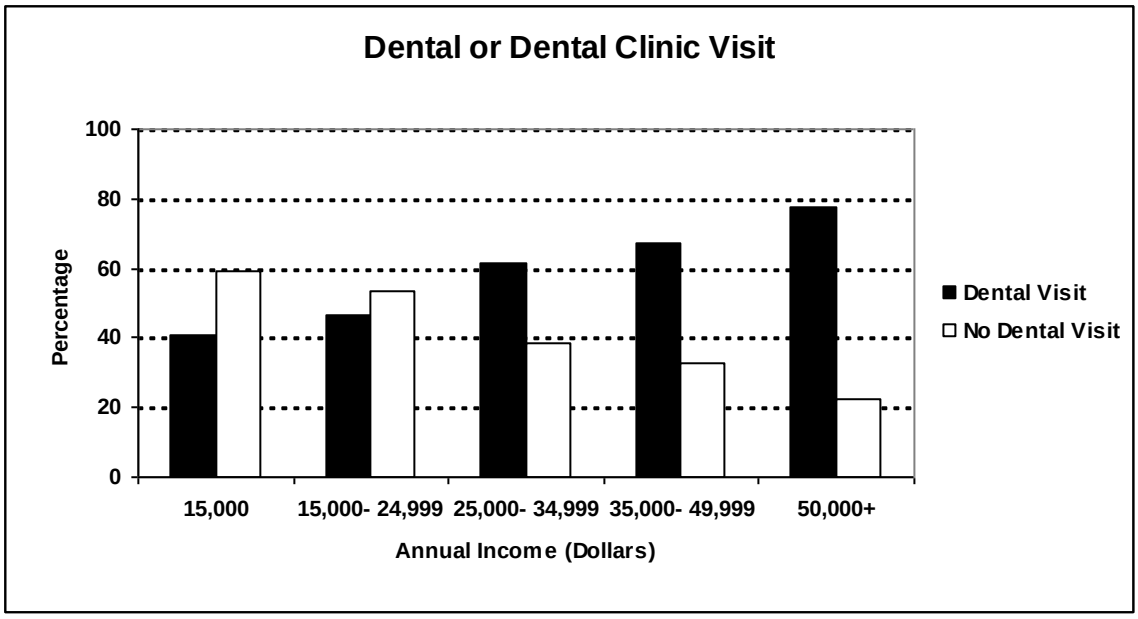
Between 2003(32.8) and 2004(34.8), the proportion of Medicaid eligible children who received at least one dental visit increased by 2 percent. However, there was a decrease of 3.2% in dental visits between 2005 (30.8%) and 2006(27.6%). (See chart below) In spite of a slight increase in dental visits occurring in FY 07, concurrently with FY06, less than one-third of Medicaid-eligible children received dental services.



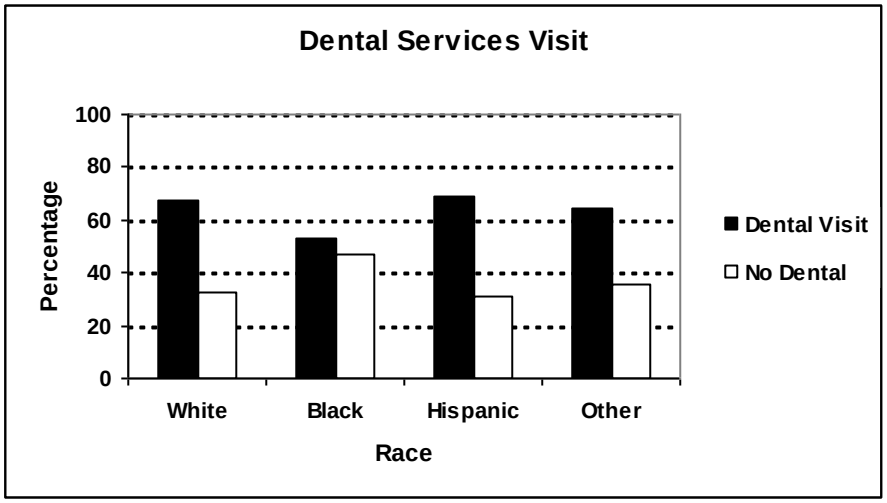
Source: Louisiana Medicaid

Behavior Risk Factor Surveillance System: 2006 Dental Data

- 63.5% of the population surveyed reported visiting a dentist
- 59% of Louisiana residents with an annual income of less than $15,000 per year did not visit a dentist or dental clinic
- 22.2% of Louisiana residents with an annual income of more than $50,000 per year did not visit a dentist or dental clinic
- Hispanics were more likely to visit a dentist than Blacks
- 28.3% of the population aged 65 years and above have had all their natural teeth extracted



Source: Behavior Risk Surveillance System 2006



Source: Behavior Risk Surveillance System 2006

Community Water Fluoridation

Over 50 years of scientific research has demonstrated the efficacy of community water fluoridation in reducing tooth decay, regardless of age and socioeconomic status. The Oral Health Program is committed to preventing dental decay through increased community water fluoridation efforts. Pre-Katrina, 46% of the population of Louisiana received optimally fluoridated water. With the initiation of

fluoridation in Crowley, in May 2008, and the re-initiation of fluoridation in Orleans Parish, currently 40% of Louisiana's population is now benefiting from community water fluoridation.

The Oral Health Program works with local government to secure an ordinance for fluoridation and provides funding and technical support in the implementation of fluoridation efforts. The Fluoridation Program is working to implement community water fluoridation in the town of Walker, LA in the 2009 fiscal year. With the addition of Crowley and Walker, and the re-instatement of fluoridation in some of the hurricane-affected water systems, it is estimated that by the end of 2009, 43% of Louisiana residents will have access to community water fluoridation. While this is certainly a gain, it is well below the *Healthy People 2010* objective of 75% of the population receiving optimally fluoridated water.

The Oral Health program in collaboration with the Office of Public Health Engineering Services Section monitors the water systems that adjust fluoride to ensure the optimally level of fluoride is maintained. Water systems report monthly on the daily determination of fluoride concentrations to the Office of Public Health, Fluoridation Engineer. This information is then sent to the Centers for Disease Control and Prevention (CDC) and may be viewed on line at the "Waters Fluoridation Reporting System" (WFRS) site, http://apps.nccd.cdc.gov/MWF/Index.asp.

Child Care Health Consultant Program

The MATERNAL AND CHILD HEALTH PROGRAM coordinates the activities of the Child Care Health Consultant (CCHC) Program. Over 150 consultants serve as a source of education, guidance, and support to childcare facilities; provide technical assistance; act as a health resource and referral point; and provide access to health care information. The program:

- Provides an annual conference to certify health care professionals as Child Care Health Consultants (CCHC), and provides continuing education to CCHC through quarterly statewide video conferences. CCHC provide training, technical assistance, and educational materials on health and safety topics to child care providers.
- Plays an integral role in helping child-care facilities achieve "stars" on Louisiana's Quality Start Program. This involvement includes providing education and technical assistance to child care providers in order to improve their scores on the environmental rating scales in the areas that pertain to health and safety.
- Provides expertise and leadership in the development and enhancement of childcare standards and serve as a resource in the state on health and safety issues in child care facilities.

B. IMMUNIZATION PROGRAM

The Shots for Tots Program was developed by the Immunization Program of the Office of Public Health to improve immunization levels among infants and toddlers. The program has four major methods, as detailed below, to improve immunization levels: (1) service and delivery; (2) parent/provider information and education; (3) assessment; and (4) coordination and oversight.

- Service and delivery are enhanced by increasing the number of locations where immunizations can be received, reducing the barriers for families, encouraging evening and weekend immunization clinics, and improving communication among providers.
- Information and education are provided to health care providers and to parents. Health care providers are kept informed of immunization updates and the correct use of vaccines. Parents are educated about the importance of having their children immunized on time.
- Assessment is used to provide feedback to providers regarding their immunization practices, both from the program's perspective and the client's perspective.
- Coordination and oversight establish a central point of responsibility to help improve all of the methods listed above.

Shots for Tots has improved access to immunizations, decreased cost to families, improved public awareness of the need for immunizations, and educated health care providers about proper immunization practices. The following chart illustrates the effectiveness of the Shots for Tots Program. Since its inception in 1992, the program has increased by 25% the immunization levels among two-year-old children receiving care at parish health units (PHUs) in Louisiana through 2002. The impact of PHU closures, lack of immunization opportunities due to on-demand/appointment only system, lack of flexible immunization clinic hours, inability to immunize managed care children without a referral, absorbency issues within the private sector, and not providing simultaneous immunizations have synergistically impacted the immunization levels among two-year-old children in 2003, resulting in the lowest immunization level since the inception of the Shots for Tots Program. A steady improvement since 2004 has been noticed, but the rates are still reflecting the impact of the aforementioned issues. More education, information, and quality assurance visits will be conducted to ensure immunization best practices and simultaneous administration of vaccines. The Immunization Program will continue to work with its coalitions comprised of physicians, nurses, voluntary agencies, political leaders, churches, and community organizations. These diverse groups have come together specifically to improve immunization coverage in Louisiana, and the coalition will continue to work and oversee the Shots for Tots plan as progress is made toward achieving improvements.

Immunization Levels Among Two-Year-Old Children Receiving Care at Parish Health Units. Louisiana, 1992-2007	
1992	55%
1993	59%
1994	64%
1995	75%
1996	79%
1997	81%
1998	82%
1999	80%
2000	83%
2001	80%
2002	78%
2003	47%
2004	54%
2005	66%
2006	71%
2007	70%

Source: Louisiana Department of Health and Hospitals, Office of Public Health, Immunization Program

C. HEARING, SPEECH, AND VISION PROGRAM: INCLUDING SOUND START PROGRAM FOR THE EARLY IDENTIFICATION OF HEARING IMPAIRMENTS IN INFANTS

The goal of the HEARING, SPEECH AND VISION PROGRAM (HSV) is early identification of communication disorders. A child's vision, hearing, and language development are critical milestones for lifelong learning. Early intervention has profound benefits for infants and toddlers with any of these disorders. Additionally, these interventions contain costs of special education and other services provided by the state.

During the year 2007, HSV continued to work collaboratively with public agencies and private providers to avoid duplication of services. Many services offered previously by OPH staff will be provided by community agencies. The DEPARTMENT OF EDUCATION and private providers will provide vision screening. HSVP offers training to personnel and loan of vision and hearing screening equipment to schools. In 2007, over 780 persons were trained in vision screening by two contract vision screening specialists.

The HSV audiologists continue to work to ensure that audiological services are available in all areas of the state through Children's Special Health Services (CSHS), the private sector and other public agencies. In order to increase the provision of hearing aid services by private providers, the department worked closely with Medicaid and successfully raised the reimbursement rates for hearing aids. This will make services available closer to the child's community. In 2007, HSV audiologists and speech pathologists provided 967 visits in infant/toddler screenings, audiology and otology clinics. They dispensed 328 hearing aids to CSHS eligible children.

The SOUND START PROGRAM (SSP) under HSV made great strides during 2007. In 1999, the Legislature mandated UNIVERSAL NEWBORN HEARING SCREENING (UNHS). Since that time, the SSP has worked to insure that hospitals comply with the law. In 2007, 97% of newborns had hearing screening prior to hospital discharge. Of the children identified with hearing loss, 68% of those received their diagnosis by three months of age. This finding represents a significant improvement over the average age of identification prior to the SSP, which was 2.5 years of age. Due to the success of this screening initiative, the SSP is now emphasizing follow-up and tracking components of the program to ensure that each child is not only screened, but receives appropriate referrals for follow-up and intervention as well. Two federal grants have been awarded to expand universal newborn hearing screening and intervention in Louisiana, with an emphasis on improving follow-up and tracking of infants who do not pass the hospital screening. The program encourages community and private sector involvement, which allows unique regional emphasis while maintaining statewide compliance and coordination.

D. CHILDREN'S SPECIAL HEALTH SERVICES

CHILDREN'S SPECIAL HEALTH SERVICES (CSHS) is a program that provides services for eligible children and families with serious disabilities that significantly limit major life activities. These children have complex medical conditions that may be rare, severe, or disabling and require pediatric subspecialty services on an ongoing basis. Some of the products and services provided by CSHS are medications, durable medical equipment, home health care, physical therapy, hospital care, parent training, care coordination of services in the community, and services to assist young adults as they transition to adult services. There are nine regional CSHS clinics throughout the State of Louisiana.

According to the latest 2006 national State and Local Area Integrated Telephone Survey (SLAITS), Louisiana ranks twenty-sixth in the nation for population of children with special health care needs (CSHCN), a marked improvement from previous surveys, with 14.8% of its children having a special health care need versus 13.9% at the national level.

CSHS provides services to CSHCN with conditions such as congenital heart defects, cystic fibrosis, cleft lip and palate, spina bifida, craniofacial malformations, cerebral palsy, and other neurological disorders. These conditions often require complex medical care including numerous surgeries, hospitalization, and expensive drug therapies. CSHS strives to provide cost effective treatment to CSHCN that often have limited or no access to medical care. The program provides direct medical services to children with disabilities and chronic medical conditions by making pediatric subspecialists available in medically underserved areas, which prevents medical conditions from becoming worse and more costly to treat. The program enables the children to achieve their full potential in life and to become contributing citizens

of Louisiana. In 2007, CSHS provided 17,874 encounters in Office of Public Health facilities and served 13,078 children.

Children's Special Health Services is one of the leaders in encouraging and facilitating the Medical Home Concept in Louisiana. The CSHS Program is also at the forefront of implementing Transition Services for teens with special health-care needs, seeking to assure educational, vocational, and medical coverage for this population as they become adults. CSHS actively contributes to the training of Tulane and Louisiana State University (LSU) Medical School residents in Medical Home, CSHCN, and Transition issues. Agencies and organizations Children's Special Health Services partners with include the Louisiana Chapter of the American Academy of Pediatrics, the Louisiana State University Health Sciences Center, the Tulane University School of Medicine, Children's Hospital, Families Helping Families, Louisiana Area Health Education Centers, and numerous community agencies and groups concerned with children with special needs.

E. LOUISIANA BIRTH DEFECTS MONITORING NETWORK

Birth defects are the leading cause of infant mortality in the United States, accounting for more than 20% of all infant deaths each year. The mission of the LOUISIANA BIRTH DEFECTS MONITORING NETWORK (LBDMN) is the prevention of birth defects and birth-defect related disabilities in Louisiana's children. Program objectives are:

- to perform ongoing collection of data on birth defects in children ages 0–2;
- to provide information to the families of children identified as having birth defects on locally available social, educational, and medical services;
- to analyze collected data to determine the frequency and distribution of birth defects; and
- to be active partners in birth defects education and prevention efforts in Louisiana.

LBDMN is a relatively new DHH/OPH program that is undergoing rapid growth and expansion. In January 2005, the program began active data collection in DHH Regions 1, 2, 5 and 7. Since then the program has expanded into Regions 4 and 9. In 2008, a Family Resources Coordinator was added to the staff to assist families with information about locally available programs and services for children with special needs. Depending on the availability of funding, LBDMN is projected to reach statewide coverage by 2010.

F. NEWBORN HEEL STICK SCREENING AND FOLLOW-UP

DHH-OPH's Genetic Diseases Program, in collaboration with the State Public Health Laboratory, operates a statewide Newborn Heel Stick Screening and Follow-up Program in accordance with pertinent legislation and rules (R.S. 40:1299.1., et seq and LAC 48: V. 6303). Screening for Phenylketonuria (PKU) began newborn screening in 1964, with screening for other diseases being added through the following years. The current official panel includes the following diseases:

Disorders of Amino Acid Metabolism

Phenylketonuria (PKU)	Maple Syrup Urine Disease (MSUD)
Homocystinuria (HCY)	Citrullinemia (CIT)
Argininosuccinic Aciduria (ASA)	Tyrosinemia type I (TYR I)

Disorders of Fatty Acid Metabolism

Medium Chain Acyl-CoA dehydorgenase Deficiencey (MCAD)	Trifunctional protein deficiency (TFP)
Very Long-Chain Acyl-CoA Dehydrogenase Deficiency (VLCAD)	Carnitine Uptake Defect (CUD)
Long Chain-3-Hydroxy Acyl-CoA Dehydrogenase Deficiency (LCHAD)	

Disorders of Organic Acid Metabolism

Isovaleric Acidemia (IVA)	Methylmalonic Acidemia (MUT),(CBL A, B)
Glutaric Acidemia Type 1 (GA1)	Proprionic Aciduria (PROP)
3-Hydroxy -3-Methylglutaryl–CoA Lyase (HMG)	Multiple Carboxylase Deficiency (MCD)
β-Ketothiolase Deficiency (BKT)	3-Methylcrotonyl CoA Carboxylase Deficiency (3MCC)

Other Metabolic Disorders

Biotinidase Deficiency (BIOT)	Galactosemia (GALT)

Endocrine Disorders

Congenital Hypothyroidism (CH)	Congenital Adrenal Hyperplasia (CAH)

Hemoglobinopathies (Sickle Cell Diseases)

SS Disease (Sickle Cell Anemia) (Hb SS)	SC Disease (Hb SC)
S/Beta Thalassemia (Hb S/βTH)	Other Sickling Diseases

Pulmonary Disorders

Cystic Fibrosis (CF)	

The program's mission of early detection coupled with immediate referral for specialized medical care of an infant with any of these disorders will prevent many, and in some disorders, all of the serious clinical sequelae. Benefits to Louisiana residents and savings to the state have been substantial over the years as described below:

- Every year, on average, three infants with PKU and 16 infants with congenital hypothyroidism are detected and treated early. Given the early initiation of specialized care, these children can live normal lives instead of suffering mental retardation and requiring expensive support. Since the expansion of metabolic screening an additional 10 children a year are detected with a rare genetic metabolic disorder

- There are approximately 80 infants with sickle cell disease detected and referred into specialized care each year. Before the standard of care included newborn screening, penicillin, and other aspects of specialized care, 30 percent of the children with sickle cell disease would not reach their third birthday. Recently, the case fatality rate has been within the range for that of the general population for this age group.

The following table provides statistics from the Newborn Screening Program for detection of all diseases included in the panel. The table shows the number of infants detected with a genetic disorder by disease and by race for each calendar year 2003 through 2007.

Table 1: Louisiana Newborn Screening Detection by Year From 2003 - 2007

Congenital Disorders	2003		2004		2005		2006		2007**†	
	White	Non-white	White	Non-white	White	Non-white	White	Non-white	White	Non-white
Disorders of Amino Acid Metabolism										
Phenylketonuria (PKU)	2	1	1	0	5	0	4	0	3	1
CIT: Citrullinemia					1	0	1	0	0	0
Tyrosinemia Type I (TYR I)									1	1
Disorders of Fatty Acid Metabolism										
MCADD: Medium Chain Acyl-CoA dehydrogenase Deficiency					5	0	6	0	4	2
VLCAD: Very Long-Chain Acyl-CoA Dehydrogenase Deficiency									3	0
Disorders of Organic Acid Metabolism										
Glutaric Acidemia Type I									1	0
Other Metabolic Disorders										
Biotinidase Deficiency	3	0	1	0	3	1	4	3	1	1
Galactosemia	0	0	1	1	1	0	5	0	3	0
Endocrine Disorders										
Congenital Hypothyroidism*	25	16	22	25	17	18	10	4	14	11
Congenital Adrenal Hyperplasia							0	0	1	2
Sickle Cell Disease (SS,SC,S-THAL)	0	79	1	96	0	72	0	78	0	79
Pulmonary Disorders										
Cystic Fibrosis									11	1
TOTAL BIRTHS	37,066	27,623	37400	28,173	34,383	25058	36434	25924	N/A	N/A

* Definition for congenital hypothyroidism: patient requiring thyroid replacement medication for adequate thyroid functioning

** Provisional Data from Vital Records

† Cases reported to date. Data for 2007 are incomplete.

G. LOUISIANA CHILDHOOD LEAD POISONING PREVENTION PROGRAM (LACLPPP)

The DHH-OPH Louisiana Childhood Lead Poisoning Prevention Program (LACLPPP) is designed to identify and prevent lead poisoning in children between 6 months and 6 years of age through screening, case management, surveillance, health education, and primary prevention initiatives.

Childhood lead poisoning is a reportable disease. The Louisiana Childhood Lead Poisoning Prevention Program Rule (LAC 48:V.7001-7007) requires health providers to report a case of lead poisoning (that is, a case in which the blood-lead level is 15 micrograms per deciliter (µg/dl) or higher) within 48 hours to ensure that the child receives the necessary medical and environmental services. In addition, the rule requires laboratories to report all blood lead levels, regardless of whether or not they are elevated. The information received is used for case management and surveillance. The rule also allows DHH to designate areas as high-risk for lead poisoning and to mandate screening in those areas. Designation of those areas is reviewed and updated on an annual basis.

Statewide lead poisoning prevention services at parish health units began in 1981. In 1998, funding was received from the Centers for Disease Control and Prevention, which enabled the program to establish the Louisiana Childhood Blood Lead Surveillance System (CBLSS) and to become a fully comprehensive, population-based program. The grant also enhanced patient case management and allowed the program to expand its target population from children screened at parish health units to all children, including children screened at private providers. The City of New Orleans Lead Poisoning Prevention Program has also played an important role in addressing lead poisoning. Orleans Parish has taken part in lead poisoning prevention initiatives since the early 1970s and continues to do so with support from the Office of Public Health.

Pursuant to Act 893 of 2004, No. 893, which gave DHH authority to designate high-risk parishes for lead poisoning through rulemaking, the Lead Program rules (LAC 48: V. 7005-7009) were amended on July 20, 2005 to designate Orleans, Tensas, Morehouse, and West Carroll as high-risk parishes. Through 2007, these four parishes will remain designated as high risk parishes. Each spring, surveillance data are evaluated to determine the parishes to be designated as high risk.

Program Activities

LACLPPP has collaborated with its advisory committee to compose a strategic plan to eliminate childhood lead poisoning by the year 2010. The essential components of the plan are: surveillance, primary prevention (including education/outreach and environmental/housing), and initiatives for reaching high-risk populations. LACLPPP works with local and statewide organizations to curb childhood lead poisoning by increasing screening in high-risk populations and areas, improving knowledge of lead poisoning, and facilitating comprehensive medical and environmental case management for lead-poisoned children. The program also has a statewide case management system designed to ensure that

children with elevated blood lead levels receive adequate care. The driving force behind LACLPPP's activities is its surveillance system, which enables the program to target resources to high-risk areas and populations.

Since Katrina, the Lead Program has focused on displaced children (6 months to 6 years) who meet the criteria for blood-lead screening and spending time in homes in designated high-risk areas such as Orleans Parish, homes built before 1978 that are undergoing repairs and renovations, or high-risk environments anytime during the hurricane evacuation.

Screening and Prevalence

Lead poisoning is a preventable disease that affects 4.4% of children in the United States between 6 months and 6 years of age. Data from 2006 show that 57,276 children in Louisiana (16%) were screened at parish health units and by private providers. Of the children screened, 2% had blood lead levels that were 10 µg/dl or greater. A majority of children aged 6 months to 6 years of age have not been reached through screening.

Summary of the Number of Children with Elevated Blood Lead Levels by Parishes - 2006

Parish	Total Tested	micrograms /deciliter (µg/dl)			
		10-14.9	15-19.9	≥ 20	≥10
Acadia	240	6	1	3	10
Allen	238	1	0	0	1
Ascension	312	0	2	1	3
Assumption	169	5	0	0	5
Avoyelles	463	2	0	0	2
Beauregard	312	0	0	1	1
Bienville	57	1	1	0	2
Bossier	584	9	3	2	14
Caddo	1141	19	6	1	26
Calcasieu	2191	9	5	2	16
Caldwell	120	3	2	0	5
Cameron	55	1	0	0	1
Catahoula	121	2	0	0	2
Claiborne	79	2	0	0	2
Concordia	252	3	0	1	4
De Soto	95	0	0	0	0
East Baton Rouge	2808	45	10	11	66
East Carroll	115	6	2	1	9
East Feliciana	196	5	0	0	5
Evangeline	505	7	4	0	11
Franklin	524	8	3	2	13
Grant	190	2	1	2	5
Iberia	424	1	2	0	3
Iberville	117	1	2	3	6
Jackson	106	0	0	2	2
Jefferson Davis	383	7	1	1	9

Summary of the Number of Children with Elevated Blood Lead Levels by Parishes - 2006					
Parish	Total Tested	micrograms /deciliter (μg/dl)			
		10-14.9	15-19.9	≥ 20	≥10
Jefferson	2928	19	7	6	32
La Salle	141	3	2	0	5
Lafayette	1008	8	3	1	12
Lafourche	788	3	2	1	6
Lincoln	214	5	0	0	5
Livingston	652	5	1	1	7
Madison	197	5	0	0	5
Morehouse	407	12	4	0	16
Natchitoches	609	1	0	0	1
Orleans	2359	77	23	4	104
Ouachita	1133	22	4	4	30
Plaquemines	139	2	1	0	3
Pointe Coupee	51	0	0	0	0
Rapides	1620	27	10	14	51
Red River	101	1	1	0	2
Richland	352	11	1	0	12
Sabine	175	4	0	0	4
St. Bernard	84	0	0	0	0
St. Charles	357	1	3	0	4
St. Helena	150	3	0	0	3
St. James	254	5	2	0	7
St. John the Baptist	438	1	1	3	5
St. Landry	768	7	1	3	11
St. Martin	253	2	1	0	3
St. Mary	709	10	2	3	15
St. Tammany	1189	2	3	2	7
Tangipahoa	893	5	5	1	11
Tensas	107	4	0	0	4
Terrebonne	538	7	1	1	9
Union	235	4	0	0	4
Vermilion	349	1	0	0	1
Vernon	271	5	2	0	7
Washington	367	11	3	0	14
Webster	306	16	1	1	18
West Baton Rouge	79	0	0	1	1
West Carroll	198	1	1	1	3
West Feliciana	122	3	1	0	4
Missing	24938	334	73	72	479
Total	57276	772	204	152	1128

Source: LACLPPP's Childhood Blood Lead Surveillance System (CBLSS)

Screening is an important component of lead poisoning prevention and elimination as it is only through screening that lead-poisoned children are identified. Once identified, the program can ensure that lead poisoned children receive the necessary services.

Future Plans

Over the next year, LACLPPP will focus on expanding the scope of screening and increasing screening rates of at-risk children screened using the following three-pronged approach:

- Work with medical providers to ensure their awareness of, and compliance with, the mandated screening legislation; screening of at-risk children; and appropriate treatment, case management, and follow-up of affected children
- Work with the state's Medicaid Program to ensure screening and follow-up of at-risk children who receive Medicaid-funded services
- Work with the state's WIC Program to ensure screening and follow-up of at-risk children who receive WIC services.

LACLPPP also intends to spend the next year focusing on primary prevention and strengthening environmental activities by:

- Ensuring implementation of the statewide screening plan, which includes mandated screening in high risk areas as specified by LAC 48 V. 7005;
- Implementing primary prevention activities for families at high risk for lead poisoning, particularly those who live in housing built prior to 1978;
- Collaborating with program partners to promote lead poisoning preventive measures and to increase abatement and remediation activities in the state; and
- Implementing the childhood lead-poisoning strategic plan to meet the *Healthy People 2010* objective of eliminating childhood lead poisoning by 2010.

H. SAFE KIDS COALITION

The DHH, Office of Public Health, Emergency Medical Services (EMS)/Injury Research and Prevention Program includes Louisiana SAFE KIDS. This non-profit coalition is dedicated to the reduction of unintentional injuries in children from birth to age 14 years.

At the state level, Louisiana SAFE KIDS promotes media coverage of preventable childhood injuries, sponsors injury prevention events, and provides ongoing messages that unintentional injuries are the leading cause of death for children under age 14. Louisiana SAFE KIDS also works actively to promote policies and programs to prevent childhood injury. Eight community chapters and three community coalitions sponsor injury prevention education activities in their respective areas.

Examples of these injury prevention education activities include: hands-on child safety seat clinics where trained, certified specialists check for proper child safety seat installation and educate parents how to use car seats correctly; promotion of the use of bicycle helmets through grant programs supporting community projects and reminder tags that are hung on bicycle handlebars; and bicycle rodeos. For information on the broad list of prevention materials available or information on how to start a chapter, SAFE KIDS Louisiana may be contacted at (504) 219-4540.

I. ADOLESCENT SCHOOL HEALTH INITIATIVE

Pursuant to a legislative request, the DHH OFFICE OF PUBLIC HEALTH (OPH) conducted a study in 1990 that concluded that the causes of adolescent deaths and illnesses could be reduced or prevented through greater adolescent health education and improved teen access to primary/preventive health care and professional counseling. Therefore, in 1991, the Louisiana State Legislature created the Adolescent School Health Initiative to facilitate the development of comprehensive health centers in public middle and senior high schools.

The School-Based Health Center Program, officially known as the Adolescent School Health Initiative, is directed by the DHH-OPH ADOLESCENT SCHOOL HEALTH PROGRAM. School Based Health Centers (SBHCs) are an integral part of the state's Coordinated School Health Program, which also encompasses education, school environment, nutrition, physical fitness, and parent and community involvement.

Sources of funding for the SBHCs include the State General Fund & Tobacco Settlement monies, Maternal and Child Health Block Grant, local in-kind contributions, and Medicaid reimbursement.

SBHCs are established by a sponsoring agency (the grantee), which is responsible for management of the health center. Hospitals, medical schools, health departments, youth-serving agencies, community organizations, or school systems may be sponsoring agencies. Each SBHC's staff includes a licensed physician, a nurse practitioner, a registered nurse, a mental health counselor, a clinic administrator, and support staff, who work in collaboration with the counselors, social workers, psychologists, and speech, physical, and occupational therapists on school campuses. Services provided include preventive health care, medical screenings, sports and employment physical examinations, treatment for common simple illnesses, referral and follow-up for serious illnesses, and emergencies. Other services include mental health counseling, immunizations, and preventive services for high-risk conditions such as pregnancy, sexually transmitted diseases, drug and alcohol abuse, violence, and injuries.

In the academic year 2006-2007, 52 OPH-funded SBHCs were operational in 23 parishes, serving 82 public schools and providing access to 46,285 students. In addition, OPH funded 9 communities to plan for new SBHCs that will become operational in 2007-2008. In the 2006-2007 school year, 25,114

students received services, comprising a total of 120,303 individual visits to the centers. This number does not include students who participated in group counseling sessions with mental health professionals.

J. LOUISIANA'S SERVICE SYSTEM FOR PERSONS WITH DEVELOPMENTAL DISABILITIES

The Office for Citizens with Developmental Disabilities (OCDD) within the Department of Health and Hospitals serves as the Single Point of Entry (SPOE) into the Developmental Disabilities (DD) Services System. OCDD conducts an assessment of people who request services to determine the person's eligibility for system entry. Eligibility is based on the definition of developmental disability contained in Louisiana R.S. 28:451.1-455.2. The DD Services System includes public and private residential services and other supports and services for people with developmental disabilities. The DD Services system is administered through ten community services regional offices and human services authorities/districts and seven supports and services centers. These regional offices and authorities/districts and centers are located statewide in or near major cities providing a range of supports and services to enable people to achieve identified personal outcomes and goals. The community services regional offices and human services authorities/districts serve as the points of entry for individuals to receive DD services.

OCDD community regional offices and human services authorities/districts offer a broad range of services including individual and family supports (i.e., personal care assistance, cash subsidy, respite, crisis intervention, and supported living services). Services are provided by private provider agencies through contractual agreements or through individualized agreements with individuals and families who obtain their own service providers. Services include the following:

- The Individual and Family Support Program provides resources to people with developmental disabilities to allow them to live in their own homes or with their families in their own community. Regional offices and human services authorities/districts administer the program through state general fund monies to provide support that is not available from any other source. Individual and Family Support services include, but are not limited to respite care, personal assistance services, specialized clothing, dental and medical services not covered by other sources, equipment and supplies, communication services, crisis intervention, specialized nutrition, and family education.
- The Cash Subsidy Program provides a monthly stipend to families of eligible children with severe disabilities, until the age of 18. Funds are intended to help families meet the extraordinary cost associated with maintaining their child in the home. Stipends are awarded on a first come-first serve basis to eligible children with exceptionalities identified through the Department of Education's Pupil Appraisal Evaluation.
- Home and Community-Based Waiver Services (HCBS) are offered through the New Opportunities

Waiver (NOW), the Children's Choice Waiver, and the Supports Waiver. These waivers offer a variety of services and supports to allow individuals to reside in community settings other than ICFs/DD. A fourth developmental disability waiver, Residential Options Waiver (presently in the application process) will enable Money Follows the Person strategies for people served in ICFs/DD and nursing facilities to move to a comprehensive HCBS waiver option.

- The EarlySteps Program is Louisiana's early intervention system for children with disabilities and developmental delays ages birth to three years and their families. Services provided include: audiology, speech-language therapy, occupational therapy, physical therapy, special instruction, assistive technology, service coordination, medical evaluation, health services, nursing services, vision services, social work services, psychology services, family training, nutritional services, and transportation.

Seven Supports and Services Centers (formerly named Developmental Centers) in Louisiana are licensed as Intermediate Care Facilities for persons with Developmental Disabilities (ICF/DD); they provide residential services along with an array of community-based supports and services. The names of the centers were changed during the 2007 Legislative Session to better reflect the array of supports and services offered by the centers: North Lake (Hammond); Greater New Orleans (Belle Chasse); Northwest (Bossier City); Bayou Region (Thibodaux); Pinecrest (Pineville); Northeast (Ruston); and Acadiana Region (Iota). Additionally, these centers operate two associated residential/employment centers (Leesville Residential and Employment Services; Columbia Community Residential and Employment Services) and 27 community homes.

Transition Services are provided to people who currently live in a publicly-operated supports and services center and who choose to move to a community living setting. Services provided include, but are not limited to, development of an Individual Support Plan to identify supports and services necessary for a person to move into a community living setting of his/her choice, and provision of ongoing monitoring and oversight of community supports and strategies.

Five Resource Centers are located throughout the state, each offering specialized information and expertise: Resource Center on Aging with Developmental Disabilities, Columbia; Resource Center on Community Inclusion, Charles; Greater New Orleans Expanded Resource Center, Westbank; Resource Center on Nutritional, Physical & Nursing Supports, Pineville; and Resource Center on Psychiatric & Behavioral Supports, Hammond. The Resource Centers provide leadership, enhance communication and collaboration, and increase the availability and capacity of support and services to people with developmental disabilities. Services provided include training opportunities, training curriculum development, provision of resource materials, resource guides, peer reviews, and program reviews.

Community Support Teams (CSTs) are located in various regions throughout the state; they are managed through local supports and services centers and accessed through OCDD Regional Offices and human services authorities/districts. CSTs provide support and services to people with developmental disabilities

who need intensive treatment intervention, thus allowing them to remain in their community living setting. CSTs consist of psychologists, social workers, nurses, and psychiatrists. They provide support and services on an as-needed basis, 24 hours a day, and seven days a week. The services and supports include initial and ongoing assessment, psychiatric services, family support and education, support coordination, and other services critical to an individual's ability to live successfully in the community. Additionally, CST services are provided in the community rather than in an office-based practice and combine skills development with clinical management.

K. NUTRITION SERVICES PROGRAM

The Nutrition Services Program in the Office of Public Health is comprised of several programs, including: the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); the Commodity Supplemental Food Program (CSFP); the Fruits and Veggies, More Matters Program; and nutrition consultative services currently provided to the Genetics Program, Maternal and Child Health Program, Children's Special Health Services, Chronic Disease Programs and the Louisiana Obesity Council. The overriding goal of Nutrition Services is to promote health through nutrition education and, when necessary, through medical nutrition therapy.

The **Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)** is the largest program operated by OPH Nutrition Services. The Program serves pregnant, breastfeeding and postpartum women, infants, and children up to the age of five years who meet eligibility criteria, including an income of less than 185% of the poverty level. WIC is available through a statewide system of 105 clinics located in parish health units and contract local agencies. The statewide participation in the WIC Program during state fiscal year 2008 was approximately 137,630 women, infants, and children representing a 7% increase in participation from fiscal year 2007.

The WIC Program in Louisiana is 100% federally funded by two grants from the United States Department of Agriculture (USDA): a Food grant and a Nutrition Services and Administration grant. The Program received $106 million as of April 16 2008 during federal fiscal year 2008 (which began on October 1, 2007 and will end September 2008). Of that total, $75.2 million were allocated directly to the purchase of specific supplemental foods rich in vitamins A and C, iron, calcium, and protein. Foods are provided through the issuance of food instruments, which are redeemed at approximately 660 approved WIC vendors across the state, thus impacting the state's economy.

In addition to the provision of supplemental foods, the WIC Program provides services including assessment of nutrition risk; development of a nutrition plan of care; and nutrition counseling based on nutrition risk, educational activities, reassessment, and continued nutrition guidance. Prenatal nutrition

counseling is extremely important to ensure healthy pregnancy outcomes. Breastfeeding is promoted to prenatal women as a means of providing optimal nutrition and health to their babies.

The **Commodity Supplemental Food Program (CSFP)** is also 100% federally funded by a grant from the USDA. This program provides monthly food boxes primarily to senior citizens, but also serves pregnant women, breastfeeding and postpartum women, infants, and children until six years of age. The caseload allocated by the USDA to Louisiana CSFP as of December 2007 is 64,939 individuals per month, of whom approximately 93% are senior citizens. Foods provided for the program are purchased by the USDA and distributed to the participating states around the country. In Louisiana, the CSFP program is administered through a subcontract with the Catholic Archdiocese of New Orleans, which operates in most parishes of the state.

The DHH-OPH Nutrition Services Program has been designated as the licensee for the national Fruits and Veggies More Matters Program. While no funding exists for this program, Louisiana does benefit from national public partnerships. The state is able to access free materials on the benefits of consuming at least five servings of fruits and vegetables per day, which are then distributed to the public through the system of parish health units around the state. In addition to the general benefits of good health that fruit and vegetable consumption provide, consuming five servings of fruits and vegetables per day has been associated with a decrease in cancer occurrence in 13 anatomical sites.

Consultative services are provided statewide to Louisiana's population participating in the Maternal and Child Health Program, the Genetics Program, the Children's Special Health Services Program and the Chronic Disease Programs. These services are provided both at the state level (directly to program managers) and at the local level (by public health nutritionists in the communities around the state). Consultation relative to these programs usually involves medical nutrition therapy providing intervention in cases of underweight, overweight, oral motor dysfunction, and metabolic disorders such as PKU and galactosemia. Nutrition intervention is essential in managing these conditions.

Obesity Initiatives: Nutrition Services provides a part time position, through funding from the state-funded Nutrition Services to coordinate the Louisiana Council on Obesity Prevention and Management. While no funding exists for this legislatively mandated, state-wide Council, the members work together to strengthen the alignment, development and implementation of programs in the public, non-profit and private sectors to respond to the public health challenge of obesity. During the 2008 state fiscal year Louisiana was one of 15 states to be awarded a $110,000 grant as part of the National Governor's Association's Healthy Kids, Healthy America program. The grant money is utilized to collaborate with the LA Department of Education and LSU AgCenter to improve obesity rates among the states youth. The goal of this grant project is to enhance the efforts at the district and school level to implement the federally

mandated School Wellness Policy, which is the avenue to increase healthy eating and physical activity in schools. In addition to the grant, obesity initiatives were implemented into state public health programs through WIC operational adjustment funds awarded to Louisiana in the approximate amount of $390,000.

Programs Targeting Infectious Diseases

L. Tuberculosis (TB) Prevention and Outreach

Through the work of Disease Intervention Specialists (DIS), the DHH-OPH TB Control Section monitors the treatment of reported cases of TB statewide. The DIS staff accomplishes this monitoring through Directly Observed Therapy (DOT), which is a service provided to ensure compliance with and completion of TB treatment for all Louisiana patients in either public or private health-care settings. The DIS staff also investigates each case of TB to assure timely identification and evaluation of contacts to TB. Of those patients whose TB cases have been designated "closed," 93% completed therapy in 2000 and 95% completed therapy in 1999, as compared with the 96% completing therapy among the "closed" cases in 1998. The high therapy completion was due to both the intense DOT efforts of DIS staff and to the utilization of incentives and enablers.

M. Sexually Transmitted Diseases (STDs) and HIV/AIDS Prevention Programs

DHH/OPH aims to prevent the spread of STDs and HIV/AIDS through a variety of methods, including: prevention education; HIV counseling, testing, and referral; and partner notification. Other methods include STD treatment and control (including syphilis partner notification) and encouraging patients with other STDs to have their partners seek medical treatment as STD contacts. Additional activities implemented statewide by DHH/OPH involve peer programs, street and community outreach in selected Zip Code areas, and condom distribution via businesses in communities with high rates of STDs and HIV/AIDS.

STDs

STD control is a labor-intensive task which relies on the rapid location of a person's sexual partners in the community to halt further spread of the disease. The OPH STD CONTROL PROGRAM conducts the following four basic activities in order to prevent the spread of disease:

- Prevention activities which provide education and information to patients and the general public about STDs and the use of condoms;
- Clinical services that include the testing, diagnosis, and treatment of patients seen in public health clinics;

- Epidemiology in conjunction with surveillance, location, and referral of persons suspected of having an STD for examination and early treatment; and
- Targeted screening, which is a mechanism to discover infections in certain populations and determine disease prevalence.

To reach people who have the highest risk of infection, the STD Control Program works with a number of other health-related programs, including Maternal and Child Health (MCH), Family Planning, correctional institutions, substance abuse centers, and other facilities where STDs may be prevalent. Through collaboration with these programs and efforts of STD field personnel, 250,000 STD screening tests are administered annually.

HIV/AIDS

The goal of the HIV/AIDS Program (HAP) is to educate citizens regarding HIV/AIDS prevention, to monitor disease trends, and to offer client-centered services via the following components.

- Prevention: This component is responsible for behavioral interventions and educational activities that are focused on reducing the spread of HIV in Louisiana. Prevention activities include HIV counseling and testing, prevention with HIV positive individuals, outreach, partner services, and interventions designed to change behaviors that put individuals at risk of contracting HIV.
- Services: This component is designed to assist HIV-infected and affected clients with supportive services such as primary medical care, HIV medication assistance, insurance assistance, home health, and housing.
- Surveillance: This unit is responsible for monitoring the progression of the HIV/AIDS epidemic throughout the state. Surveillance also assists in the targeting of prevention efforts and guides the allocation of resources for HIV treatment, care, and other supportive services.
- Evaluation: This unit is responsible for examining the services provided to persons infected or affected by HIV and the prevention activities targeted at reducing the spread of HIV to ensure the quality and effectiveness of those activities, and ultimately to make recommendations for improvements to enable HAP to more efficiently achieve its goals.

During 2007, OPH/HAP provided comprehensive primary medical care to 1,044 eligible clients in four of the nine DHH public health regions of the state; provided antiretroviral medication to 2,989 clients; maintained health and dental insurance premiums for 419 eligible clients, and assisted 517 clients with their co-payments and deductibles. Maintenance of health insurance reduces the burden of care on the State public medical care system. HAP also conducted 56,980 HIV tests and prevention counseling sessions in public health clinics, addictive disorder clinics, and community-based organizations, and as a result, 401 new HIV infections were identified. HAP provided a statewide infoline that responded to over 1,000 calls for information and referrals to services.

In 2007, HAP successfully competed for several grants from the Centers for Disease Control and Prevention totaling over $6 million, including a new $1.4 million initiative to increase testing among African Americans. HAP also successfully applied for federal funding in the amount of $23.9 million to provide medical care, social services, and antiretroviral medications to eligible HIV-infected clients.

The Perinatal HIV Prevention Program, now in its sixth year, is funded by a grant from the CDC. The aim of the program is to prevent mother-to-child transmission of HIV through the promotion of CDC and U.S. Public Health Service recommended testing and treatment guidelines as well as the facilitation of access to medical care and supportive social services. Increased efforts were directed towards raising the number of Louisiana birthing hospitals that offer rapid testing in the labor and delivery room. In late 2007, a clinical training coordinator was designated to provide technical assistance to high volume delivery centers that lack rapid testing capability. In addition, numerous educational events were offered throughout the state to health care providers and birthing centers. The presentations provided an epidemiologic overview of perinatal HIV transmission in Louisiana as well as updates on current CDC recommended testing guidelines and U.S. Public Health Service task force recommendations for treatment of HIV+ pregnant women and their exposed infants. During the year, over 600 care providers were reached. In addition, 1,000 "What You Need to Know" brochures, 5000 "Partners for Health Baby" cards and 600 perinatal prevention guideline pocket cards were distributed. In 2007, the HIV/AIDS Program worked with Louisiana state legislators to enact a bill that requires that all pregnant women be tested for HIV as a routine part of prenatal care, unless they decline. The adoption of an opt-out HIV testing strategy was a significant achievement for the program.

Programs Targeting Substance Abuse

N. Alcohol, Drug, Tobacco, and Prevention Addiction Services

The Impact of Substance Abuse: Office for Addictive Disorders (OAD) Services

Substance abuse has been called the nation's number one health problem[1]. According to the Johns Hopkins University's Innovators Award website (http://innovatorsawards.org/facts) as of updated June 27, 2007, update the following are facts about substance abuse: "One in four US deaths can be attributed to alcohol, tobacco, or illicit drug use. Tobacco users run the biggest risk of harm, since the majority of those deaths—430,700 annually—are associated with smoking. Excessive alcohol use is responsible for 100,000 deaths annually. Sixteen thousand deaths annually are due to illicit drug use, but this estimate is likely to be conservative as substance abuse is indirectly associated with deaths from diseases such as HIV/AIDS, hepatitis, tuberculosis, homicides, and other violent crimes and incidental injuries." The research also addresses: "The economic burden of substance abuse to the US economy is estimated at a

staggering $414 billion annually. Alcohol abuse alone costs nearly $166 billion each year. Illicit drug users make over 527,000 costly emergency room visits each year for drug related problems. One dollar out of every $14 of the nation's health care bill is spent to treat those suffering from smoking-related illnesses. Health care costs for employees with alcohol abuse problems cost nearly twice as much as those of other employees."

Other consequences enumerated indicated that drug offenders account for more than one-third of the growth in the state prison population and more than 80% of the increase in the number of federal prison inmates since 1985, and more than 75% of domestic violence victims report that their assailant had been drinking or using illicit drugs at the time of the incident. Substance abuse tends to be more common among certain occupations and industries; for instance heavy alcohol and illicit drug use is highest among construction and food service workers, while auto mechanics, laborers, and light-truck drivers are among several populations that are more susceptible to alcohol abuse. Children from families with substance-abusing parents are more likely to have problems with delinquency, poor school performance, and emotional difficulties than their peers from homes without substance abuse. Children whose parents smoke are more likely to develop ear infections and asthma and to miss one-third more school days than their peers who live in smoke-free homes[2].

The Center for Substance Abuse Research (CESAR) highlights significant findings in the field of addictive disorders and gives scientific validation to the information presented above in a weekly report distributed by fax. According to CESAR FAX, the prevalence of cigarette use among U.S. public high school seniors has reached the lowest point ever recorded, according to the most recent data from the national Monitoring the Future survey. Slightly more than one-fifth (21.6%) of 12th graders reported smoking cigarettes in the past 30 days, down from peaks of 36.5% in 1997 and 38.8% in 1976. At the same time, the percentage of students who perceived a "great risk "of harm from smoking one pack or more of cigarettes per day reached an all-time high of 77.6% in 2006. Previous research has found that increases in perceived risk of using a drug are related to decreases in the use of the drug.[3]

A 2003, Study by Loren Scott and Associates, Inc. estimated that, for each dollar the state puts into an alcohol-and drug-abuse treatment program, society enjoys a reduction in future crime and medical-care cost savings between $3.69 to $5.19. Because Louisiana has one of the highest HIV infection rates in the United States as well as the highest incarceration rate, it is reasonable to assume that the medical care and crime cost savings from alcohol and drug-abuse treatment programs will be greater than the national average figures cited above. Finally, it should be noted that the estimated cost savings would be greater if the effects of alcohol and drug abuse treatment programs on education, public assistance, and lost productivity were included in the analysis[4].

Louisiana's substance-abuse healthcare picture resembles that of the nation. Tobacco use was cited as a leading actual cause of death (i.e., played a significant role in cancer, heart disease, stroke, vascular and respiratory diseases) in 1994 in Louisiana[5]. One of every five deaths was attributable to tobacco use. The Louisiana Office of Community Services, which provides child welfare services, estimates that, currently, up to 75% of the families receiving Child Protective Services interventions have some substance abuse involvement. Less than one-fifth (18%) of child passengers who died while being transported by a drunken driver were restrained at the time of the fatal crash, according to an analysis of data from the National Highway Traffic Safety Administration.[6] In all age groups, child passenger restraint use decreased as the blood alcohol concentration of the child's driver increased. Older children were least likely to have been restrained. Louisiana treats 10% of adults identified as in need of treatment compared to the national average of 16.1%. According to a study conducted by the National Center on Addiction and Substance Abuse at Columbia University[7] the national average per capita expenditure for substance abuse treatment services is $11.09, and in Louisiana it is $3.32. This difference partly reflects the relative absence of private and Medicaid funding.

A cumulative report from the LOUISIANA DEPARTMENT OF SOCIAL SERVICES (DSS) indicates that, as of state fiscal year (SFY) 2006-2007, 2,219 assessments have been completed under the Family Independence Temporary Assistance Program (FITAP) Drug Testing Program. Office for Addictive Disorders (OAD) referral tracking records from SFY 2006-2007 show 174 recipients (8%) have been referred by DSS, with 60 (34%) admitted to treatment. The Department of Public Safety and Corrections reports that approximately 75% of incarcerated adults have substance abuse problems. Smokers who begin smoking at a younger age are more likely than those who begin smoking at a later age to report lifetime drug use and dependency.

OAD is the state authority for substance abuse; its services are delivered through a regionalized Community Services District/Regions structure. There are currently six regions under direct supervision of OAD. On July 1, 1997, the Department of Health and Hospitals (DHH) entered into an agreement with the Capital Area Human Services District (CAHSD) to manage programs and afford local communities the opportunity and authority to manage services and resources for the Region II Area. Effective July 1, 2004, two new districts, the Metropolitan Human Services District (MHSD), formerly Region 1, and the Florida Parishes Human Service Authority (FPHSA), formerly Region 9, were created. An additional entity, the Jefferson Parish Human Services Authority (JPHSA), formerly Region 10, operates and reports independently of OAD. Future plans within the scope of this document include the creation of two new districts: South Central Louisiana Human Services Authority (currently Region 3) and the Northeast Delta Human Service Authority (currently Region 8). As a single state agency within DHH, OAD retains its responsibility, as a recipient of Federal Block Grant funds, to ensure that all regions and districts receiving Block Grant funds comply with all grant-related requirements.

Programs within OAD are categorized as either PREVENTION OR TREATMENT. Prevention programs address the individual, interpersonal, social, and environmental influences that cause an individual to abuse alcohol and other drugs. Prevention program activities must include, at least, three of the following six strategies: Information Dissemination; Education; Alternatives; Problem Identification and Referral; Community-Based Process; and Environmental Processes/Social Policy/Advocacy. Prevention services have the additional responsibility of the Synar Initiative, a community development and educational program designed to comply with the federal and state laws regarding tobacco sales to individuals under the age of 18 years. The December 1996 baseline found 75% of retailers to be non-compliant.

OAD implemented programs to educate tobacco vendors regarding tobacco sales to minors. Enforcement efforts are conducted via compliance checks by the Office for Alcohol and Tobacco Control through a contractual agreement with OAD. The federal mandate was to reduce the illegal sales of tobacco to minors from 75% to 20% over a five-year period. Louisiana met the federal goal in 18 months. The most current non-compliance rate available stands at 4.7%, which is among the best in the nation.

Research on RISK AND PROTECTIVE FACTORS has important implications for prevention efforts. Louisiana has been using the Risk and Protective Framework to guide prevention efforts aimed at reducing youth problem behaviors. Risk factors are characteristics of school, community, and family environments, as well as characteristics of students and their peer groups that are known to predict increased likelihood of drug use, delinquency, school dropout, teen pregnancy, and violent behavior among youth. Protective factors exert a positive influence or buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. Louisiana students have similar levels of risk compared to students in other states. The highest risk factors in Louisiana communities for twelfth graders are Laws and Norms that Favor Drug Use (51.3%), Community Disorganization (44.6%), Low Neighborhood Attachment (44.3%), and Perceived Availability of Drugs (43.6%). The lowest risk factors in Louisiana communities are Perceived Availability of Handguns (35.9%) and Transitions and Mobility (33.7%). Complete details of this study can be found at http://www.dhh.state.la.us/offices/publications .

THE LOUISIANA STATE INCENTIVE GRANT, which changed its project title from the Louisiana New Connections Incentive Project to Louisiana's Partners in Prevention (LaPIP), was committed to the advancement of the state's prevention system through strong interagency collaboration, development of a common vision and a comprehensive statewide plan. The comprehensive statewide plan promoted and advocated systemic changes that would potentially produce and establish rewarding interagency collaboration while optimizing resources. The LaPiP Grant came to an end in September 30, 2006.

In September 2004, Louisiana was awarded $11.75 million to implement the STRATEGIC PREVENTION FRAMEWORK STATE INCENTIVE GRANT (SPF-SIG) - "The Governor's Initiative to Build a Healthy

Louisiana", is a data-driven, outcome-based planning process intended to achieve sustainable reductions in the abuse of alcohol, tobacco, and other drugs among targeted populations through evidence based prevention. The purpose of the SPF is to develop a system that coordinates planning, funding, and evaluation for substance abuse prevention at all levels for the past 18 months; state partners have been involved in SPF's Strategic Planning Process. At the state Level, this process led to the development of a Statewide Strategic Plan for Prevention outlining five goals related to the following topic areas: Data, Capacity, Alcohol, Tobacco, and Illicit Drugs. In addition, 12 parishes were identified to receive funding to develop coalitions to address alcohol-related problems in their respective parish with the target population of 12-29 year olds; these parishes have agreed to participate in this important initiative. It is important to note that all regions/districts/authorities will be provided this training along with on-going technical assistance in the Strategic Prevention Framework to develop regional/district plans that address the goals of the State Strategic Plan.

OAD provides a continuum of treatment services: detoxification, inpatient, halfway houses, residential, and outpatient. These treatment services provide assessment, diagnosis, and treatment of alcohol abuse, alcoholism, drug abuse, and drug addiction. In addition, OAD provides services in three programs: Drug Courts (services are provided upon referral by the Courts to any OAD 24-hour care facility), Compulsive Gambling (Inpatient and Outpatient), and Driving While Intoxicated (DWI) treatment. Federal funding mandates require that OAD provide specialized services to pregnant women, women with dependent children, intravenous drug users, and those infected with HIV.

OAD continues to participate in a collaborative project between OPH and The Office Of Mental Health (OMH) to provide services to the school-based health centers (SBHCs) in the state. An interdepartmental agreement for SBHCs was approved by the Assistant Secretaries of OAD, OMH, and OPH. This agreement will afford each Office an opportunity to provide prevention and early intervention services to children and adolescents served by SBHCs.

Programs Targeting Intentional and Unintentional Injury

O. Prevention of Sexual Violence

The EMS/Injury Research and Prevention Program provides statewide data, educational resources, funding, technical support, and leadership in public health methods to groups working for the prevention of sexual violence. This category includes child sexual abuse, date rape, and violence against women. To facilitate violence prevention initiatives within communities, staff and contractors organize training events and presentations, provide access to key agencies, offer inter-agency mentoring, and promote the creation of local groups.

Prevention of sexual violence through support of local and statewide volunteer agencies is an ongoing project. In addition to direct services for victims, the agencies also work to achieve coordination within the

medical and legal systems to minimize victim trauma. The agencies challenge communities to examine attitudes and actions which implicitly support violence against women, and to replace that implicit support with explicit support of non-violence. The EMS/Injury Research and Prevention Program provides information on outreach to media, faith-based communities, athletic organizations, businesses, universities, and other groups which can use their authority to change community norms concerning violence toward women and children.

P. UNINTENTIONAL INJURY PREVENTION - COMMUNITY INJURY PREVENTION

Unintentional injuries are the leading cause of death for Louisiana residents 1 to 44 years of age, and the fourth leading cause of all deaths. The Community Injury Prevention Program reviews research and existing injury prevention curricula and then tailors information to fit the specific needs of agencies. In addition, the curriculum includes fact sheets regarding data specific to injuries, prevention tips, and laws in Louisiana.

The EMS/Injury Research and Prevention Program collaborates with the Maternal and Child Health (MCH) Program's nine Regional Coordinators who coordinate their local Child Death Review Panel efforts and who provide education and resources for community activities which address deaths from unintentional injuries of children under age 15 years (including SIDS) and promote injury prevention. The Injury Prevention Program also collaborates with MCH and Louisiana Safe Kids, Inc. in their promotion of injury prevention policies and practices, public education campaigns, and injury prevention activities regarding: wearing seat belts and bicycle helmets; pedestrian, home, playground, water, sports, fire, and firearm safety; fall prevention; and poison prevention.

Several local, state, and federal agencies have missions related to injury prevention. Examples are the U.S. Coast Guard, law enforcement, the state Department of Wildlife and Fisheries, North and South Louisiana Area Health Education Center (AHEC), Christus St. Francis Cabrini Hospital, Family Voices, Maternal and Child Health Coalition, and Options for Independence. The Program joins with these groups to maximize messages and provide public health perspectives to safety programs.

For more information about the Community Injury Prevention Program, the EMS/Injury Research and Prevention Program may be contacted at (504) 599-1080.

Programs Targeting Pre-hospital Emergency Medical Services

Q. EMERGENCY MEDICAL SERVICES (EMS) PROGRAM

Assuring that pre-hospital healthcare professionals receive appropriate training, examination, and certification is the responsibility of the OPH Emergency Medical Services Program.

Certified Emergency Medical Technicians and Paramedic personnel may be found in a variety of public safety and first response settings which vary from large multi-parish ambulance services to town volunteer fire departments. These personnel are the first line of critical medical assistance for many individuals. They respond to incidents of drowning, heart attacks, industrial injuries, automobile crashes, and childbirth, among other incidents. Their pre-hospital actions often mean the difference between additional disability or death.

The approximately 20,000 EMS students, personnel, and instructors in Louisiana are dependent on testing and national certification handled by and through the Program. In any one year, approximately 3,000 to 5,000 of these individuals are processed by the Program for initial certification or for bi-annual recertification, as required by national standards. For real-time clinical testing, the Program supervises an additional temporary corps of about 400 trained contract personnel as examiners and victims. While written test scoring and registration are handled by the national organization, this Program offers credentials for practice to those eligible. The Program is the repository of all certification data, and frequently must respond to pre-employment queries. EMS instructors must also be trained and certified through the section.

The OPH/EMS Program within the Center for Community Preparedness provides leadership in domestic disaster preparedness in the pre-hospital setting. Working for seamless utilization of personnel, resources, and communications, the section collaborates closely with entities such as the DHH Office of Emergency Preparedness; the Louisiana State Police; the Office of the State Fire Marshal; the Commission on Highway Safety; pediatric, trauma, and emergency room physicians and nursing organizations; and the military. The Program also participates in traffic safety planning; State Trauma Plan initiation; management of a unified EMS data reporting system; and training citizens, industrial employees, and others as First Responders.

The Section staffs the EMS Certification Commission, which reviews charges of practice irregularities by individuals. There are additional projects such as the extensive **A**utomatic **E**xternal **D**efibrillators (**AEDs**) training and distribution project with an emphasis on rural sites. AEDs can be used by trained bystanders to assist in cardiac emergencies prior to the arrival of trained personnel. Another supported project allows high school seniors to complete their Basic **E**mergency **M**edical **T**echnician (**EMT**) Training prior to graduation. This has the benefit of keeping more children in school, and of graduating children with

highly marketable and desirable skills. Special training in recognition of stroke signs and symptoms for early treatment is also provided by the EMS Program.

Emergency Medical Services for Children: EMS-C

To serve children better, the EMS Program directs additional training toward childhood emergencies, including children with special needs. As a leader of the Governor's Council on EMS and Children, the Project has published and distributed recommendations for child-sized or child-specific ambulance and emergency room equipment and standards for daycare first-aid and cardiopulmonary resuscitation (CPR). The Project has trained emergency personnel in communicating with, and understanding the needs of, the child patient and his/her family, and in managing equipment used by children with special needs.

Safety training in fire and burn prevention and use of 911 has been provided to thousands of children in Head Start programs and grammar schools through EMS-C. This programming includes education and family safety information for parents and daycare personnel.

Programs Targeting Mental Health

R. Suicide Assessment

The DHH Office of Mental Health (OMH) provides a comprehensive crisis intervention program throughout the state for all citizens who may experience thoughts of suicide, as well as other signs and symptoms of a mental-health crisis. This system includes crisis telephone lines with toll-free numbers, a Single Point of Entry system for those who need face-to-face evaluation, hospital diversionary programs (such as respite), or acute hospitalization.

Mental Health professionals conduct a suicide assessment of any client who presents to the system with emotional or behavioral problems, or with symptoms of severe mental illness. Additionally, all paraprofessionals who work with mentally ill clients are trained in the mental health assessment of potential suicide. These assessments include current ideations of self-harm, plans for self-harm, and whether the individual has the means to harm him/herself. Immediate steps are taken to protect that individual when suicide potential is indicated by the mental health assessment. Additionally, the assessment includes past history of suicidal ideation, an assessment of the severity of previous attempts, and the emotional and environmental factors surrounding previous suicidal issues for the consumer.

S. OFFICE OF MENTAL HEALTH (OMH) PROGRAMS

Acute Unit

The acute-care psychiatric inpatient units provide psychiatric, psychosocial, and medical services in compliance with all licensing and accreditation standards in order to meet the individualized patient needs of adult and adolescent patients in the State of Louisiana who require a level of care which must be rendered in an inpatient setting. These units address the need for inpatient treatment in a less restrictive, shorter term, and more cost effective manner than in the state's longer term care psychiatric facilities.

Specialized Inpatient Services

OMH operates four state psychiatric facilities which provide mental health evaluation, treatment, and rehabilitation services to adults with severe and persistent mental disorders and to child/adolescent clients with serious emotional/behavioral disorders.

Clinic-based Services

OMH currently has an annual caseload of over 52,400 individuals with serious and persistent mental illness. This caseload includes children and youth with serious emotional disturbances receiving outpatient mental health services through the operation of licensed Community Mental Health Centers (CMHCs) and their satellite outreach clinics located throughout the six OMH geographic regions and the four service district regions. The CMHC facilities provide an array of services: screening and assessment; emergency crisis care; individual evaluation and treatment; medication administration and management; clinical casework services; specialized services for children and adolescents, the criminal justice system, and the elderly; and pharmacy services. Inability to pay does not have an impact on the receipt of services.

Crisis Management Services

Crisis services are provided on a 24-hour basis. These services are designed to provide a quick and appropriate response to individuals who are experiencing acute distress. Crisis services include telephone counseling and referrals, face-to-face screening and assessment, community housing for stabilization, and crisis respite.

Day Programs and Psychosocial Rehabilitation Programs

Psychosocial programs and day-treatment programs provide opportunities for teaching new rehabilitative skills related to community living and work activities; build networks of peer support; teach self-help community activities; and provide a place where individuals can learn how to relate to persons and communicate their needs and desires successfully. In addition, day programs provide secure, structured environments where individuals experiencing disruption in routine behaviors brought on by their illness can receive treatment and support. Day programs also provide structured activities which allow children and adolescents with severe emotional disturbances to continue along their educational path.

Support Services

Supported living services, either through specialized residential programs or through case management and other services which support persons living in their own homes, are available throughout Louisiana. Individuals with serious psychiatric disabilities are provided with services necessary to address their housing, employment, and mental-health rehabilitative needs.

Programs Targeting Environmental Health

T. Community Water Fluoridation

Currently, 54.9% of the United States population served by public water systems is serviced by optimally fluoridated water systems. Renewed effort has been undertaken to reach the Centers for Disease Control and Prevention's Healthy People 2000 goal of optimally fluoridating 75% of the population's water supply. Community water fluoridation efforts have been re-established with recent legislation, ensuring a stable Office of Public Health (OPH) Fluoridation Program. The program will oversee monitoring and evaluation of current systems, provide training, and assist in promotional activities in collaboration with the Oral Health Program, the Center for Environmental Health Services of OPH, and the newly established Fluoridation Advisory Board. This board will function to secure additional resources needed to implement fluoridation systems created as a result of promotional activities. The Parish of Plaquemines and the City of Amite, Louisiana have recently passed ordinances to implement community water fluoridation with the potential to reach an additional 31,000 state residents.

U. Environmental Health Advisories

The OPH Section of Environmental Epidemiology and Toxicology (SEET) issues fish consumption advisories in consultation with state environmental agencies when chemicals or heavy metals in sport fish reach levels that could potentially harm the public.

Mercury in Fish

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5749

SEET works with the Louisiana Department of Environmental Quality (LDEQ) and the Louisiana Department of Wildlife and Fisheries (LDWF) to assess the extent of mercury contamination in fish. Methylmercury, a compound present in fish tissue, can cause birth defects and neurological problems when present at high levels. LDEQ samples fish from water bodies that are selected based on water quality, usage, and SEET recommendations. SEET then conducts a public health risk assessment, and, if warranted, the State Health Officer issues a fish consumption advisory for specific species of fish. Of nearly 500 water bodies tested to date, 41 health advisories for fish containing mercury have been issued. These advisories cover at least 66 freshwater bodies in or traversing 43 parishes, and include an advisory on king mackerel, cobia, greater amberjack, and blackfin tuna for parishes along the Gulf of Mexico.

V. Environmental Health Education

Pesticide Exposure

http://www.dhh.louisiana.gov/offices/page.asp?ID=205&Detail=6686

In 2001-2002, 21% of the total number of reported pesticide exposures occurred at school. To better educate residents about pesticide use in Louisiana schools, a multi-agency workgroup developed a pamphlet for statewide distribution. The pamphlet, "What You Should Know about Pesticide Use in Louisiana Schools", was jointly developed by SEET, the Louisiana Department of Agriculture and Forestry (LDAF), and the Louisiana Environmental Action Network (LEAN). The pamphlet discusses the Louisiana Pesticide Law, state requirements, Integrated Pest Management (IPM), and examples of IPM strategies. Distribution of the pamphlet will occur through Parish School Systems, the LDAF Pesticide and Environmental Programs and the Louisiana School Nurses Association as well as health units, state libraries, the Louisiana Cooperative Extension Service, colleges and universities, and organizations and agencies working in the area of environmental health.

In 2001, another pamphlet, "What You Need to Know About Pesticides and Your Health in Louisiana", was jointly developed by SEET, the Louisiana Department of Agriculture and Forestry (LDAF), and the Louisiana Environmental Action Network (LEAN). The U.S. Environmental Protection Agency (EPA) funded printing and distribution costs. The pamphlet discusses health effects related to commonly used pesticides, how pesticide exposure occurs, what a person should do if exposed to a pesticide, laws regulating the use and application of pesticides, and how to file a Health-Related Pesticide Incident Report with LDAF. Ongoing distribution of the pamphlet occurs through parish health units, state libraries, the Louisiana Cooperative Extension Service, colleges and universities, and organizations and agencies working in the area of environmental health.

Occupational Health

In response to the National Institute for Occupational Safety and Health's (NIOSH) Health Alert - *Preventing Lung Disease in Workers Who Use or Make Flavorings* – and the information provided by the California Department of Health on diacetyl and bronchiolitis obliterans, outreach to potentially affected business and healthcare providers was conducted. SEET partnered with the Occupational Safety and Health Administration (OSHA)-Baton Rouge Office to develop a joint OSHA – OPH letter and fact sheet discussing health problems associated with diacetyl. The letters and fact sheets were sent to 164 food manufacturing and/or preparation businesses identified by standard industrial classification (SIC) codes. To inform medical care providers, an article was published in the Louisiana Morbidity Report that provided details on diacetyl and the symptomology and diagnosis of work-related bronchiolitis obliterans.

Mercury in Fish

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5749

The Louisiana Departments of Health and Hospitals (LDHH), Environmental Quality (LDEQ), Wildlife and Fisheries (LDWF), and Agriculture and Forestry entered into an interagency agreement in 1997 to determine jointly which water bodies in Louisiana needed health advisories based on levels of

environmental contamination, particularly from mercury. That same year, the Louisiana Legislature provided funding to assess mercury levels in recreationally caught fish and to offer free blood-screening services in parishes where high levels of mercury had been identified. In 2003, SEET returned to one of these areas to offer blood mercury screening to commercial fishers and their families and others who eat fish from local water bodies.

SEET, working jointly with representatives of LDEQ, LDWF, the Sierra Club, and the Louisiana Audubon Council, produced two informational brochures, one for the general public and the other directed specifically toward pregnant or breastfeeding women and mothers of small children. The publications were widely distributed throughout Louisiana by obstetrician/gynecologists' and pediatricians' offices as well as parish health units. The environmental organizations continue to work closely with the Legislature and the state departments to inform the public about the potentially harmful effects of mercury and other contaminants on people's health.

Health Professional Outreach:

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5752

SEET conducts Health Professional Education as part of its educational activities. Outreach is targeted toward physicians and other health professionals located near hazardous waste sites. Information provided focuses on site contaminants, health effects from exposure, and clinical descriptions of the diagnosis and management of cases of chemical exposure. SEET's Health Education Program also offers environmental health education to members of the medical community concerning the recognition and management of pesticide, heavy metal, and other occupational as well as non-occupational chemical exposures. SEET develops, publishes, and distributes environmental health education materials; prepares and presents environmental health information to schools, physicians and communities; and coordinates with other state educational programs regarding current environmental health projects and issues. Since 1996, SEET has disseminated Agency for Toxic Substances and Disease Registry (ATSDR) case studies to over 4,000 Louisiana physicians in 20 parishes.

Indoor Air Quality:

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5750

SEET provides consultations for indoor air quality (IAQ) complaints and inquiries. Telephone consultations generally consist of a discussion of the complaint/inquiry followed by an appropriate referral, if any is indicated. Complainants may also be directed to the OPH/SEET "Indoor Air Quality and Mold Information" web page for IAQ information; if callers lack Internet access, information is mailed to them.

During the year following hurricanes Katrina and Rita, SEET conducted over 2,500 IAQ phone consultations for the residents of Louisiana. The majority of callers sought guidance on proper clean up

and safety measures for returning to the area. As a result of flooding and storm devastation, information was distributed across the state and throughout the country. SEET's updated fact sheets and informational bulletins such as, "Coming Home: Steps to Stay Safe as You Return to Your Home", "Mold: What You Need to Know About Your Health and Your Property", and the "Hurricane Public Information Packet" continue to be an ongoing environmental information resource. Many Louisiana residents are still in the process of repairing their homes.

SEET initiated the implementation of the EPA: Indoor Air Quality Tools for Schools program in area schools as a pilot intervention to help reduce asthma triggers and improve indoor air quality in school settings.

W. Environmental Health Emergency Response Programs

Environmental Public Health Emergency Preparedness & Response (EEPR)

Accidental releases, explosions, and other chemical releases occur each year in Louisiana. SEET evaluates the public-health threat of selected events and provides information and recommendations to affected communities, hospitals, and physicians treating exposed individuals. SEET maintains a surveillance system of emergency chemical releases in the state by screening event notifications from the Louisiana State Police, LDEQ, and the National Response Center of the U.S. Coast Guard. SEET also receives notifications of Poison Control Center cases that involve exposure to chemicals and maintains a database with the details of each exposure. During a hazardous-materials release, which affects or threatens the public's health, incident briefs, chemical information, and treatment guidelines are provided to hospital emergency departments in the impacted area. Appropriate OPH regional staff members are notified when chemical events requiring a response occur in their region. SEET generates maps of incident locations pinpointing critical facilities and susceptible populations that may potentially be affected. In 2007, SEET screened over 12,000 event notifications. There were no notifications that required a SEET on-scene response.

Geographical Information System (GIS) Support Services

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=6710

The GIS Support Services maintains public health related location databases used in the generation of maps and for special SEET projects. Maps generated by the program can be used by public health assessors and by emergency responders when dealing with accidental chemical releases and/or terrorism as well as by agency personnel during local and statewide drills. In addition to completing the various mapping requests for other portions of SEET and OPH, SFY 2007 saw SEET GIS staff began building a state-wide published map file, that when complete, will be provided to appropriate OPH personnel and will allow them to have complete access to various emergency response databases as

well as satellite photography of the state. SEET GIS staff has also assisted LDHH staff with implementing a department wide data integration plan.

Hazardous Substances Emergency Events Surveillance Project

http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5748

In the fall of 2000, funds were awarded to ATSDR to participate in the Hazardous Substances Emergency Events Surveillance (HSEES) system. Currently, 13 other states also participate in this project. SEET collects information on acute hazardous substance events and enters it into a comprehensive database, which includes releases to the air, water, land, and threatened releases that lead to public health actions. Data are also collected about associated public health consequences including evacuations, injuries and deaths. The database includes data collected from the National Response Center (NRC), LDEQ, the Louisiana State Police (LSP), and other sources. SEET collects public health information which focuses on the impact of releases on the population, e.g., injuries, medical care, evacuations and in-place sheltering. In SFY 2007, SEET screened over 11,500 events reported to the LSP and the NRC; of those, approximately 1,284 events were entered initially to the HSEES database system. Of the events initially entered into the HSEES system, 605 events met the criteria for final inclusion in the Louisiana HSEES database. An additional 436 events are still pending at the time of this writing.

The purpose of HSEES is to collect data that can be used to reduce the injuries and fatalities to employees, first responders, and the public resulting from acute hazardous substances releases. Using these data, SEET targets its efforts to prevent further adverse public health consequences from acute hazardous releases in Louisiana. By describing injuries and deaths which result from the releases of hazardous substances, strategies are developed to reduce such consequences.

X. PHARMACY SERVICES

For the first time appearing in the Louisiana Health Report Card, you will find a brief summary of the main activities carried out by the Pharmacy Services Program (PSP) of the Louisiana Department of Health and Hospitals, Office of Public Health, assisting the following programs:

Maternal and Child Health Program (MCH): Provides Rhogam to the MCH program. Rhogam is an immunoglobulin injectable drug treatment administered to pregnant women who are blood group type RH negative. Since this is a somewhat rare condition, there are limited numbers of prescriptions.

Tuberculosis (TB) Control Program: Provides prescriptions TB control drugs.

Genetics Program (GP): Patients are approved by the Genetics program to receive prescription services. Some of the conditions treated are cystic fibrosis and enzyme deficiencies such as PKU, PSP provides the patients approved by GP with appropriate prescription medications.

Children's Special Health Services (CSHS): Patients who have been identified by the CSHS are eligible to receive prescription services under this program. Some of the conditions treated are seizure disorder, hypertension and anticoagulant therapy. The following tables summarises the services rendered by PSP to various OPH programs.

Prescriptions(Rx) provided by Pharmacy Services to Office of Public Health Programs by Year- Month

Month	CSHS Rx	FP Rx	GENE Rx	MCH Rx	STD Rx	TB Rx	TOTAL Rx
July 07	36	15657	8	0	12017	2890	30608
August	139	11128	552	0	7379	1923	21121
September	614	13383	39	0	5901	2521	22458
October	154	8539	285	0	6334	2287	17599
November	84	14821	759	1	6487	2408	24560
December	98	5870	281	1	5547	1755	13552
January	106	7948	570	0	7296	1886	17806
February	112	11141	580	0	5369	2109	19311
March	0	9636	671	0	6346	2281	18934
April	108	12012	698	2	5234	1182	19236
May	95	11323	491	0	5817	2147	19873
June 08	520	12176	32	0	5968	1581	20277
Total Rx	2066	133634	4966	4	79695	24970	245335

Y. LABORATORY SERVICES

The DHH-OPH-Section of Laboratory Services consists of a central laboratory in Metairie and regional laboratories in Amite, Lake Charles, and Shreveport. The Laboratory analyzes samples submitted by OPH Programs, hospitals, clinics, and private submitters. Prior to Hurricane Katrina the central laboratory was located in New Orleans, and accounted for approximately 70% of the analyses. The building that housed the laboratory was not reopened, and the central laboratory has since been relocated to a renovated facility in Metairie. Some testing that was performed prior to the hurricane is still being contracted out to the LSU Health Sciences Center in Shreveport and to the Texas Department of Health and Human Services, but is expected to be brought back in-house in SFY09. The following table gives a breakdown by some OPH Programs of the number of samples analyzed over the past four years.

Central Laboratory Services to OPH Programs by Year

Program	SFY05	SFY06	SFY07	SFY08
STD	178,240	116,412	124,010	122,309

Central Laboratory Services to OPH Programs by Year				
Program	**SFY05**	**SFY06**	**SFY07**	**SFY08**
HIV Prevention	50,566	31,132	34,282	26,260
TB Control	19,427	2,866	2,632	3,105
Immunization	8,774	1,390	1,121	2
Epidemiology	251	502	156	325
Molluscan Shellfish	13,155	5,401	7,501	11,353
Genetics	85,552	6,543	0	44,064
Beach Monitoring	949	414	783	1,184
Rabies	626	450	506	499
Milk & Dairy	9,966	8,151	7,232	6,942
Arbovirus	2,992	336	548	0
Bioterrorism	4,564	2,312	3,315	105
Family Planning	4,859	3,400	3,085	3,494
MCH Maternity	8,554	1,408	720	527
MCH Child Health	4,512	300	0	0
Safe Drinking Water	59,287	44,199	50,600	58,849

V. LOUISIANA STATE HEALTH CARE SYSTEM

A. Analysis of Health Care in Louisiana

In the United Health Foundation's *State Health Rankings 2005*[1], Louisiana ranked 49th—as the second least healthy state in the nation. According to this report, Louisiana is 49th for the combined measures of risk factors and 49th for the combined measure of outcomes, possibly indicating that the relative health of the population will remain at current levels in the future. The state's greatest deficiencies were in the areas of: Premature Death, ranking 49th (10,546 years lost per 100,000 population); Infant Mortality, ranking 49th (9.6 deaths per 1,000 live births); Cancer Deaths, ranking 48th (223.5 deaths per 100,000 population); Infectious Disease, ranking 46th (32.3 cases per 100,000 population); and Prevalence of Obesity, ranking 46th (26.9 % of population). Racial disparity with regard to health access and outcomes was also listed as one of the state's problems. Examples of this include the differences between infant mortality of race groups, at 6.9 deaths per 1,000 live births for non-Hispanic whiles to a high of 13.7 deaths for non-Hispanic blacks.

Despite the negative findings, there were also some positive points. Up to 49th after two years ranked 50th, Louisiana ranked 8th in the Adequacy of Prenatal Care measure, with 81.8 % of all pregnant women in the state receiving adequate prenatal care, as defined by the Kessner Index. Additionally, the percentage of persons under age 18 in poverty decreased from 25.2 % to 20.6 %, the immunization coverage for children aged 19 to 35 months increased 5.0 % to 74.9 % and the prevalence of smoking decreased from 26.5 % to 23.5 %.

Shortages affecting the accessibility and availability of primary-care physicians (family practice, general practice, internal medicine, pediatrics, and obstetrics/gynecology) pose a significant problem in the delivery of healthcare in Louisiana. As of August 2006, the National Center for Health Workforce Analysis (NCHWA) within the Bureau of Health Professions of the Health Resources and Services Administration (HRSA/BHPR) recognized 239 primary care shortage areas in 64 parishes within the state: 46 whole parish, 11 partial parish geographic areas, 6 whole parish and 3 partial parish population groups, and 173 healthcare facilities, consisting of 108 Rural Health Clinics, 64 Federally Qualified Health Center and 1 Federally Qualified Health Center Look Alike. There are also 51 designated dental shortage areas consisting of 48 whole parish and 3 partial parishes, as well as 38 whole parish mental health designations.

In addition to the shortages of primary-care physicians, other healthcare occupations identified by the NCHWA as posing a general supply problem in the state are physician assistants, nurse practitioners, certified nurse midwives, registered nurses, dentists, dental hygienists, dental assistants, psychologists, and social workers.

[1] United Health Foundation State Health Rankings 2005 © United Health Foundation

Louisiana has attempted to address the problems associated with health professional shortages over the years in many ways. State schools of medicine, nursing schools, and schools of allied health professions have been mandated to cooperate, in collaboration with the Louisiana Area Health Education Centers (AHECs), to improve and expand programs for health-professional shortage areas. Currently, hundreds of thousands of dollars in state funds have been allocated to secure federal monies for professional development initiatives, including loan repayment programs for medical professionals to practice in shortage areas in exchange for payment of professional education loans and medical placement services to assist medical professionals in finding a practice site.

- The Louisiana State Loan Repayment Program is designed to encourage primary-care, mental health, and dental practitioners to serve in health-professional shortage areas. This program is funded with federal monies that match the state investment in recruitment and retention of healthcare providers to practice in health professional shortage areas.
- Med Job Louisiana is a non-profit recruitment and retention program designed to assist rural and underserved communities located in health-professional shortage areas in attracting qualified health professionals to improve residents' access to primary-care services. The project is a collaboration between the Louisiana Department of Health and Hospitals' Bureau of Primary Care and Rural Health, the Louisiana AHECs, the Louisiana Rural Health Access Program, and local communities.
- The National Health Service Corps is a federally funded scholar and loan repayment program managed by HRSA/BHPR that is designed to bring quality primary-healthcare professionals to communities in need, as well as support communities in their efforts to build better systems of care.

Louisiana must continue to meet the healthcare needs of its residents by working to reduce the health professional shortages in the state. Ensuring appropriate and adequate primary-care services for Louisiana can only take place when there is a concerted effort among the residents of the state to secure state financing to support these services.

B. Louisiana Health Care Statistics

Percent of Population Enrolled in Medicaid in 2006 [2]	
Alabama	16.1%
Arkansas	22.5%
Louisiana	22.2%
Mississippi	19.2%
Texas	11.9%
United States	14.8%
Percent of Population Not Covered by Health Insurance in 2006 [2]	
Alabama	14.1%
Arkansas	17.5%
Louisiana	18.5%
Mississippi	18.1%
Texas	24.1%
United States	15.3%
Change in Percent of Population Uninsured: 2002 to 2006 [2]	
Alabama	8.5
Arkansas	12.2
Louisiana	-0.5
Mississippi	16.0
Texas	0.0
United States	4.1
Rate of Physicians in Primary Care per 100,000 Population in 2006 [2]	
Alabama	84
Arkansas	82
Louisiana	99
Mississippi	69
Texas	78
United States	99
Rate of Beds in Community Hospitals In 2006 per 100,000 Population [2]	
Alabama	341
Arkansas	331
Louisiana	374
Mississippi	447
Texas	252
United States	269
Average Stay(in Days) in Community Hospitals in 2006 [2]	
Alabama	5.2
Arkansas	5.2
Louisiana	5.7
Mississippi	6.5
Texas	5.2
United States	5.6
Number of Health Maintenance Organizations (HMOs), Louisiana, 2005 [2]	19
Percent of Population Enrolled in HMOs in 2005 (National Percent = 23.8%) [2]	7.1%
Number of Nurses, Louisiana, November, 2008 [3]	51,408
Number of Physician Assistants, Louisiana, 2006	468

[2] Morgan, K.O. and Morgan, S. (Eds.).2008. *Health Care State Rankings 2008*.

[3] Louisiana State Board of Nursing

C. Louisiana Health Care Access

Number of Hospitals and Beds Louisiana, 2008		
Type of Hospital	**Hospitals**	**Licensed Beds**
Acute	102	18,708
Children's	2	263
Critical Access	28	730
Long Term	40	1,915
Psychiatric	39	2,443
Rehabilitation	22	540

Source: Health Standards Section, DHH

Health Facilities Louisiana, 2008	
Type of Facility	**Number**
Alcohol/Drug Abuse Facilities	187
Community Health Centers	64
State Developmental Centers	6
Hospitals	233
Mental Health Clinics	35
Rural Health Clinics	108
Parish Health Units	77

Source: Health Standards Section, Bureau of Primary Care/Rural Health DHH

Licensed Nursing Home Statistics Louisiana, 2008	
Number of Nursing Homes	307
Number of Beds	
Licensed Beds	38,124
*Medicaid **	34,051
*Average Annual Occupancy (Medicaid)**	73.5%

*From October, 2001 thru September, 2002
Source: Health Standards Section, DHH

Lack of Access to Primary Care* Louisiana, Neighboring States, and United States, 2007		
State	**Percent**	**Rank****
Alabama	22.0	5
Arkansas	9.8	28
Louisiana	35.8	1
Mississippi	31.7	2
Texas	12.1	19
United States	11.1	-

* Lack of Access to Primary Care measures the percent of population areas where the population is underserved by primary care practitioners residing in designated Health Manpower Shortage Areas.
** Rank reflects worst (lowest) to best (highest).
Source: Morgan, K.O. and Morgan, S (Eds.). 2008. *Health Care State Rankings 2008*

D. MEDICAID

Medicaid, or Title XIX of the Social Security Act, became law in 1965 as a jointly funded cooperative venture between the federal and state governments. Its purpose was to assist states in the provision of adequate medical care to eligible individuals and families with low incomes and resources. Within broad, federally provided national guidelines, Louisiana has autonomy in establishing its own eligibility standards; determining the type, amount, duration, and scope of services; setting the rate of payment for services; and administering its own program.

As the largest provider of medical and health-related services to America's poorest people, Medicaid includes funding for these basic healthcare programs: inpatient and outpatient hospital services; laboratory and X-ray services; skilled nursing and home health services; physician's services; family planning; and periodic health checkups, diagnoses, and treatments for children.

Louisiana Medicaid Program
SFY 2002/03 (July 1 2002 to June 30 2003)

	Unduplicated Recipients			
Race/Ethnicity	**Male**	**Female**	**Unknown**	**Grand Total**
White	142,007	199,234	17	341,258
Black or African American	225,185	314,254	27	539,466
American Indian or Alaskan Native	827	1,149	-	1,976
Asian	1,594	2,121	1	3,716
Hispanic or Latino (no other race info)	2,417	3,409	-	5,826
Native Hawaiian or Other Pacific Islander	70	92	-	162
Hispanic or Latino and one or more other races	141	166	1	308
More than one race indicated (and not Hispanic or Latino)	121	139	3	263
Unknown	22,111	33,466	3,134	58,711
Grand Total	394,473	554,030	3,183	951,686

Louisiana Medicaid Program
SFY 2002-2003 (July 1 2002 to June 30 2003)

	Payments *			
Race/Ethnicity	**Male**	**Female**	**Unknown**	**Grand Total**
White	$650,018,662	$967,032,761	$40,800	$1,617,092,222
Black or African American	$637,527,361	$922,590,038	$43,580	$1,560,160,979
American Indian or Alaskan Native	$1,831,031	$2,984,115	$638	$4,815,785
Asian	$3,657,927	$4,622,327	$1,925	$8,282,179
Hispanic or Latino (no other race info)	$5,319,629	$7,607,537	$0	$12,927,166
Native Hawaiian or Other Pacific Islander	$228,069	$189,065	-	$417,134
Hispanic or Latino and one or more other races	$159,578	$369,374	$847	$529,799
More than one race indicated (and not Hispanic or Latino)	$226,984	$189,756	$1,682	$418,422
Unknown	$108,818,454	$178,249,956	-$22,636,760	$264,431,650
Grand Total	$1,407,787,693	$2,083,834,931	-$22,547,289	$3,469,075,335

* Figures have been rounded to the nearest dollar.
Source: DHH / Division of Health Economics (Medicaid)

Louisiana Medicaid Program, SFY 2002-2003 (July 2002-June 2003)		
Age Group (Years)	**Total Number of Recipients**	**Total Payments**
Under 1	57,679	$237,026,459
1- 5	188,106	$256,827,756
6 - 14	269,143	$321,390,076
15 - 20	124,803	$263,173,731
21 - 44	146,967	$825,322,158
45 - 64	74,917	$755,525,161
65 - 74	35,570	$241,425,052
75 - 84	32,217	$300,014,515
85+	22,284	$268,370,427
Total	951,686	$3,469,075,335

Source: Division of Health Economics (Medicaid), for SFY (July 2002-June, 2003)

The following tables compare Louisiana's Medicaid statistics to those of its neighboring states and the United States.

Medicaid Statistics Louisiana, Neighboring States, and United States, Fiscal Year 2006			
State	**Medicaid enrollment**	**Medicaid Expenditures ***	**Medicaid expenditures per enrollee ***
Alabama	738,971	$4,497,000,000	$6,085.49
Arkansas	630,671	$3,470,000,000	$5,502.08
Louisiana	942,734	$5,373,000,000	$5,699.38
Mississippi	555,881	$3,747,000,000	$6,740.65
Texas	2,778,761	$19,841,000,000	$7,140.23
United States	45,156,803	$308,801,000,000	$6,838.42

* Figures correspond to year 2006
Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008.

Medicaid Statistics Louisiana, Neighboring States, and United States, Fiscal Year 2003 & 2006		
	Percent change in Medicaid expenditures	**Percent change in expenditures per Medicaid enrollee**
Alabama	45.1%	44.8%
Arkansas	55.1%	29.6%
Louisiana	10.0%	-2.7%
Mississippi	30.2%	52.5%
Texas	46.7%	27.4%
United States	25.4%	14.3%

Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008.

E. MEDICARE

Medicare provides health insurance to people who are at least 65 years old, the disabled, and those with permanent kidney failure. People who receive Social Security or Railroad Retirement benefits are automatically enrolled when they become eligible for Medicare. Others must apply at their local Social Security offices.

Medicare has two parts: Hospital Insurance (Part A) and Medical Insurance (Part B). Medicare Part A helps pay for inpatient hospital services, skilled nursing facility services, home health services, and hospice care. Medicare Part B helps pay for physician services, outpatient hospital services, medical equipment and supplies, and other health services and supplies. Many Medicare beneficiaries choose to enroll in managed care plans like health maintenance organizations. These beneficiaries are eligible for both Part A and Part B benefits in most managed care plans. A total of 624,151 Louisiana residents were enrolled in the Medicare program in 2006.[2]

Medicare Statistics
Louisiana, Neighboring States, and United States, 2006

State	*Medicare Enrollment*	*Percent of Population Enrolled*
Alabama	772,280	16.9%
Arkansas	484,836	17.4%
Louisiana	624,151	13.8%
Mississippi	461,641	15.8%
Texas	2,625,612	11.5%
United States	43,338,571	14.3%

Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008.

Medicare Statistics
Louisiana, Neighboring States, and United States, 2006

State	*Medicare benefits payments*	*Medicare payments per enrollee*
Alabama	$5,052,000,000	$7,479
Arkansas	$3,137,000,000	$6,974
Louisiana	$4,947,000,000	$9,234
Mississippi	$3,555,000,,000	$8,025
Texas	$20,915,000,000	$9,076
United States	$279,452,000,000	$7,941

Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008.

[2] Source: Morgan, K.O. and Morgan, S (Editors) 2008. Health Care State Rankings 2008.

F. PROVIDER SITES

The following pages describe the various healthcare facilities available to the public throughout the State of Louisiana. These facilities include the state charity hospital system, small rural and community hospitals, parish health units, rural health clinics, Federally Qualified Health Centers (FQHCs), developmental centers, mental health clinics, mental health and rehabilitation hospitals, and substance abuse prevention clinics. Other programs such as school-based health centers, community care, and health maintenance organizations (HMOs) also are discussed.

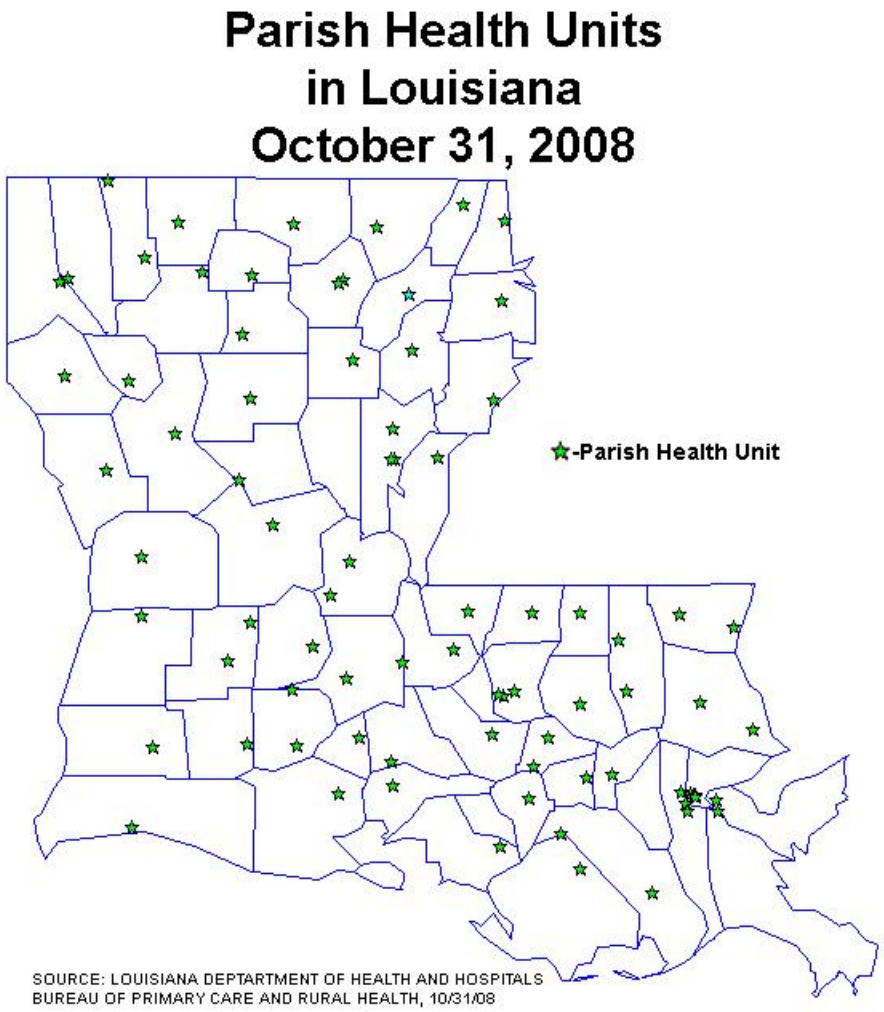
State Charity Hospitals

The Louisiana charity hospital system is currently being operated by the LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER (LSUHSC). The first Charity Hospital in New Orleans was built in 1736. The system was expanded across the state during the administration of Governor Huey Long. Two new medical centers were added in 1978 and 1993, and two were rebuilt in the late 1970s.

Most of the charity hospitals are teaching hospitals used to train medical school, graduate, and postgraduate students from LSUHSC's Schools of Medicine and Nursing, as well as other professional educational institutions.

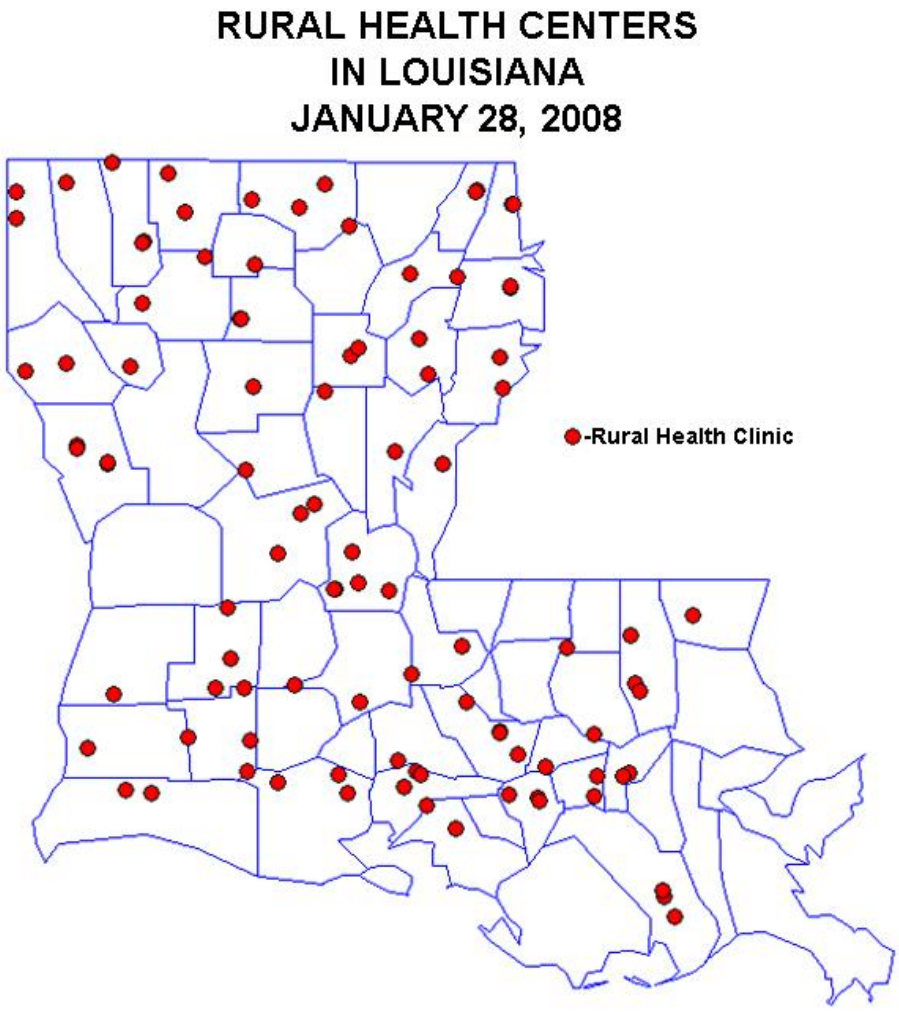
Parish Health Units

Louisiana has 77 parish health units (PHUs). DHH-OPH currently operates parish health units (see map below) that provide services in the following areas: immunization, family planning, prenatal care, newborn screening for genetic disorders, well-baby care, nutrition therapy, individual nutrition education and counseling, genetic evaluation and counseling, early intervention services for individuals infected with HIV, health education, testing and monitoring of infectious diseases (e.g., tuberculosis, sexually transmitted diseases/HIV/AIDS), environmental health services, and vital records services.



Rural Health Clinics

Louisiana has 108 Rural Health Clinics (RHC). These facilities are located in non-urbanized areas, as defined by the 2000 Census, and in Health Professional Shortage Areas (HPSAs) or Medically Underserved Areas (MUAs). The facility must be staffed by, at least, one physician and, at least, one mid-level practitioner, such as a physician assistant, a nurse practitioner, or a certified nurse midwife at least 50% of the time the clinic is open. RHCs provide routine diagnostic services, maintain medical supplies, dispense drugs, and have arrangements with local hospitals and other providers for services not available at the clinic.



Source: Department of Health and Hospitals Bureau of Primary Care and Rural Health, 10/27/08

Small Rural Hospitals

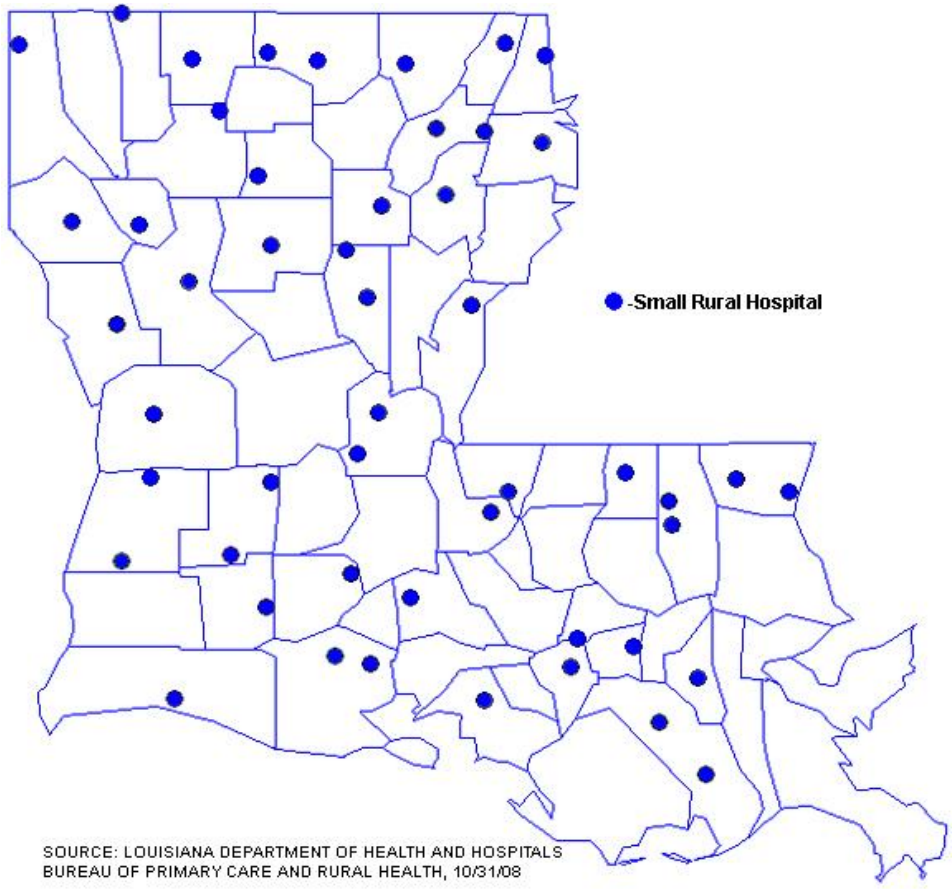
Louisiana has 49 Small Rural Hospitals. A Small Rural Hospital is defined as a hospital, other than a long-term care hospital, rehabilitation hospital, or free-standing psychiatric hospital, but including distinct-part psychiatric units, meeting the following criteria:

a. had no more than 60 hospital beds as of July 1, 1994, and is located in a parish with a population of less than 50,000 or in a municipality with a population of less than 20,000; or
b. meets the qualifications of a sole community hospital under 42 CFR §412.92(a); or
c. had no more than 60 hospital beds as of July 1, 1999 and is located in a parish with a population of less than 17,000 as measured by the 1990 census; or
d. had no more than 60 hospital beds as of July 1, 1997 and is a publicly-owned and operated hospital that is located in either a parish with a population of less than 50,000 or a municipality with a population of less than 20,000; or
e. had no more than 60 hospital beds as of June 30, 2000 and is located in a municipality with a population, as measured by the 1990 census, of less than 20,000; or
f. had no more than 60 beds as of July 1, 1997 and is located in a parish with a population, as measured by the 1990 and 2000 census, of less than 50,000; or
g. was a hospital facility licensed by the department that had no more than 60 hospital beds as of July 1, 1994, which hospital facility:
   i) has been in continuous operation since July 1, 1994;
   ii) is currently operating under a license issued by the department; and
   iii) is located in a parish with a population, as measured by the 1990 census, of less than 50,000; or
h. has no more than 60 hospital beds or has notified the department as of March 7, 2002 of its intent to reduce its number of hospital beds to no more than 60, and is located in a municipality with a population of less than 13,000 and in a parish with a population of less than 32,000 as measured by the 2000 census; or
i. has no more than 60 hospital beds or has notified DHH as of December 31, 2003, of its intent to reduce its number of hospital beds to no more than 60; and
   i) is located, as measured by the 2000 census, in a municipality with a population of less than 7,000;
   ii) is located, as measured by the 2000 census, in a parish with a population of less than 53,000; and
   iii) is located within 10 miles of a United States military base; or
j. has no more than 60 hospital beds as of September 26, 2002; and
   i) is located, as measured by the 2000 census, in a municipality with a population of less than 10,000; and

ii) is located, as measured by the 2000 census, in a parish with a population of less than 33,000; or

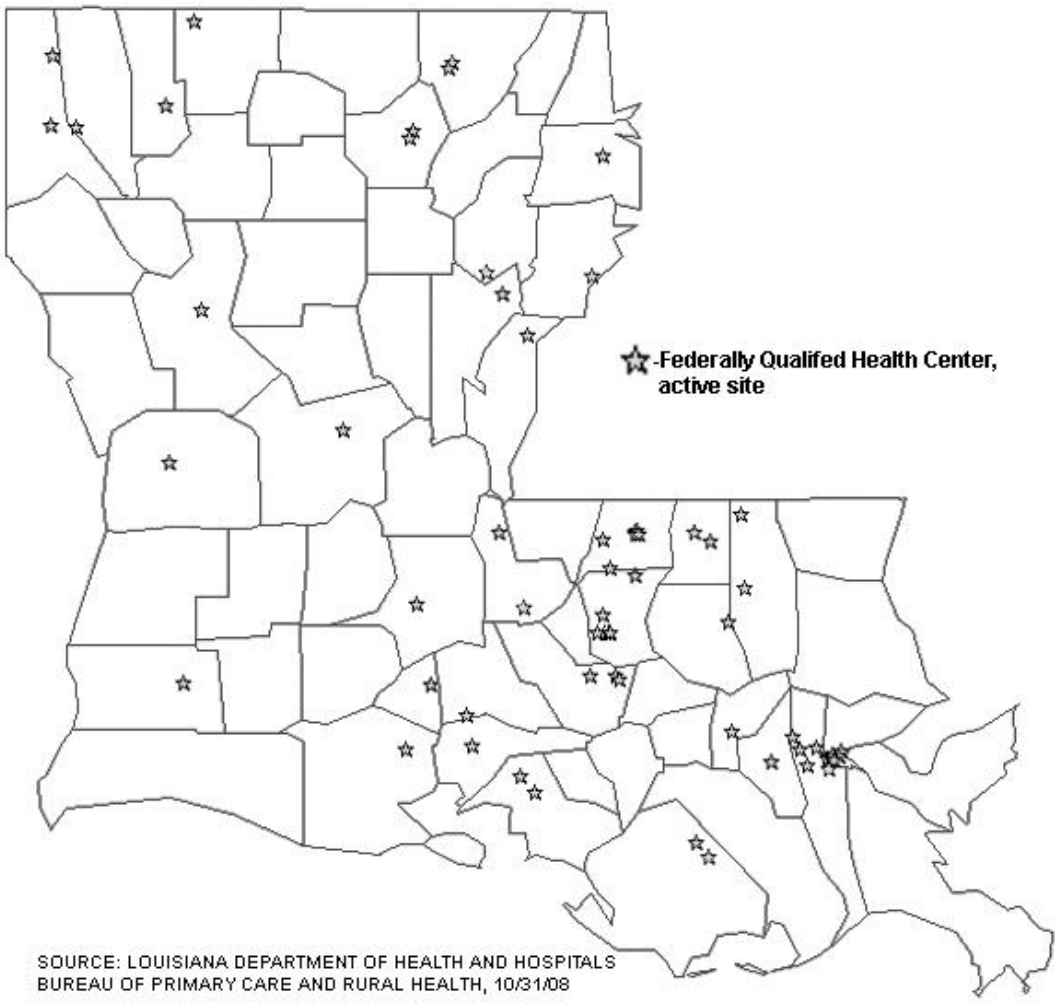
k. has no more than 60 hospital beds as of January 1, 2003; and
i) is located, as measured by the 2000 census, in a municipality with a population of less than 11,000; and
ii) is located, as measured by the 2000 census, in a parish with a population of less than 90,000; or

l. has no more than 40 hospital beds as of January 1, 2005, and
i) is located in a municipality with a population of less than 3,100; and
ii) is located in a parish with a population of less than 15,800 as measured by the 2000 census.



Federally Qualified Health Centers (FQHCs)

Louisiana has 20 grantees for community health centers delivering services to 64 sites supported through a federal grant program funded under Section 330 of the United States Public Health Service Act. FQHCs (also known as Community Health Centers) are health clinics that provide primary and preventive healthcare services in medically underserved areas throughout the United States and its territories. FQHC staff may include primary care physicians (pediatricians, general practitioners, family practitioners, obstetricians, gynecologists, and general internists), advanced nurse practitioners, physician assistants, dentists, social workers, counselors, psychologists, other mental-health and substance abuse professionals, and support staff. Services most commonly provided include primary and preventive healthcare, outreach, dental care, mental health services, laboratory tests, pharmacy services, health education, transportation, translation, and prenatal services.



SOURCE: LOUISIANA DEPARTMENT OF HEALTH AND HOSPITALS
BUREAU OF PRIMARY CARE AND RURAL HEALTH, 10/31/08

CommunityCARE

CommunityCARE is a Medicaid primary care case management (PCCM) managed care program that operated in specific parishes in Louisiana under the authority of a 1915(b)(1) waiver from 1992 through April 2001. In May 2001, DHH embarked on a statewide expansion of the program and in December 2003 CommunityCARE was fully implemented statewide. Effective April 1, 2006, the Centers for Medicare and Medicaid Services (CMS) approved Louisiana's request to operate the CommunityCARE program as a State Plan Amendment program instead of a waiver program. CommunityCARE is designed to assure Medicaid recipients a "medical home".

The program links most Medicaid recipients with a physician, clinic, FQHC, or RHC that serves as the primary care provider (PCP). The PCP is responsible for coordinating and providing preventative acute care and health education and maintaining a comprehensive integrated health chart. Referrals and authorizations for medically indicated specialty care, outpatient hospital services, and other ancillary health services are an integral component of the PCP responsibilities.

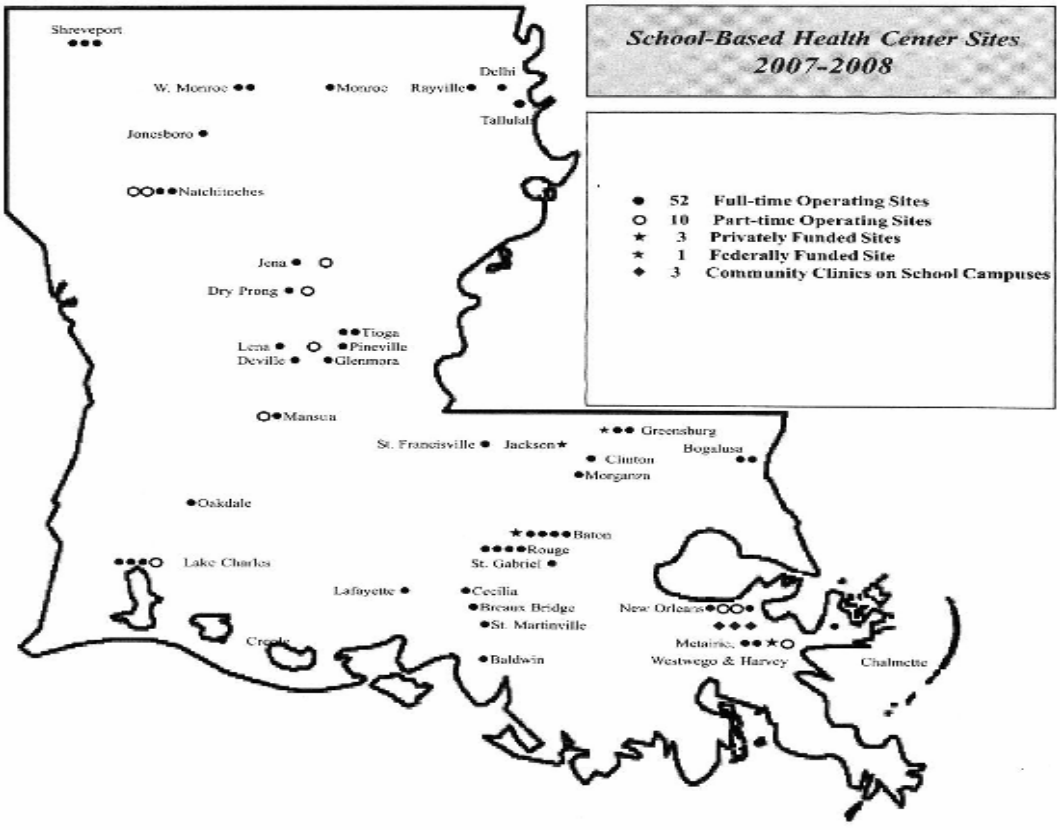
The primary goal of CommunityCARE is to provide a "Medical Home" to all enrollees to assure access to quality, continuity, and preventive health care for Medicaid enrollees participating in the CommunityCARE program. The CommunityCARE program provided services to 816,900 recipients during SFY 2006/07 with a total cost of $22,727,316.

As a result of recommendations by advisory groups of physicians and hospitals, numerous changes have been made in the program to reduce unnecessary paperwork, streamline processes, and ease the administrative burden on PCPs and other providers while maintaining the quality of care. The CommunityCARE quality unit, a staff of registered nurses, conducts ongoing quality improvement projects based on the Health Plan Employer Data and Information Set (HEDIS), the national data collection and reporting instrument that CMS recommends for Medicaid managed care, supplemented by other widely utilized quality measures.

School-Based Health Centers

In response to the Adolescent School Health Initiative Act passed by the Louisiana State Legislature in 1991, DHH-OPH funds and provides technical assistance to localities for the establishment and operation of full service health centers in elementary, middle, and secondary schools (see map below). Currently, there are 47 state-funded sites, one foundation funded site, one federally funded site, and one funded by other sources. These school-based health centers are sponsored and operated at the local level by a health or education agency under contract with OPH. The state reimburses to each of these centers a portion of their costs.

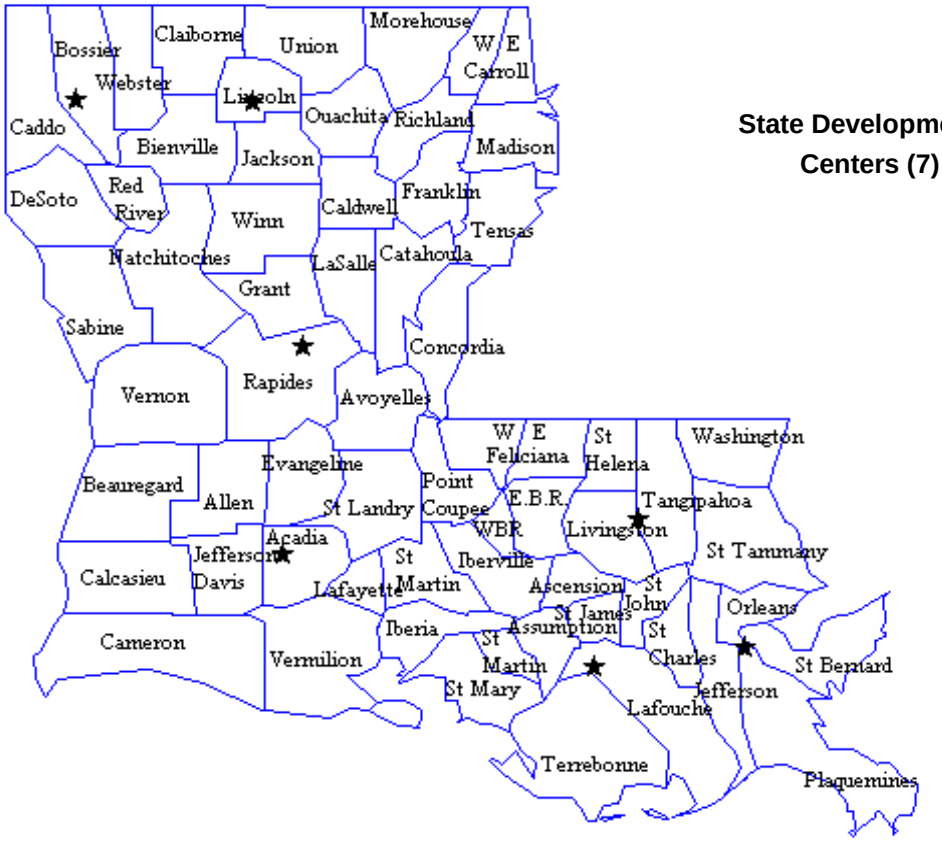
The centers primarily serve low-income adolescents in rural and medically underserved urban areas. They offer primary and preventive physical and mental healthcare, including health education, and counseling services. They are staffed by physicians, nurse practitioners, registered nurses, and master-level mental-health counselors and have been immensely popular with the high-risk adolescent population.



Developmental Centers

There are six large state-operated supports and services centers which are licensed as Intermediate Care Facilities for persons with Developmental Disabiliities (ICFs/DDs) which provide active treatment services and a range of residential services including 24-hour care in large and small settings such as institutions and community or group homes. In addition, these centers provide a variety of services such as extended family living, supported living in one's own home, supported employment, day habilitation and support servcies to people with devleopmental disabilities living in the community. They include the Northlake (at Hammond), Northwest (at Bossier City), Bayou Region (at Thibodaux), Pinecrest (at Pineville), Northeast (at Ruston), and Acadiana Region (at Iota) Supports and Services Centers.

The state also operates three total community based operations including Columbia (at Columbia) and Leesville (at Lessville) Residential and Employment Services and Greater New Orleans Supports and Services Center (metropolitan New Orleans area).



State Developmental Centers (7)

Note: A symbol may not be geographically correct for each location
Source: Office for Citizens with Developmental Disorders

Mental Health Clinics

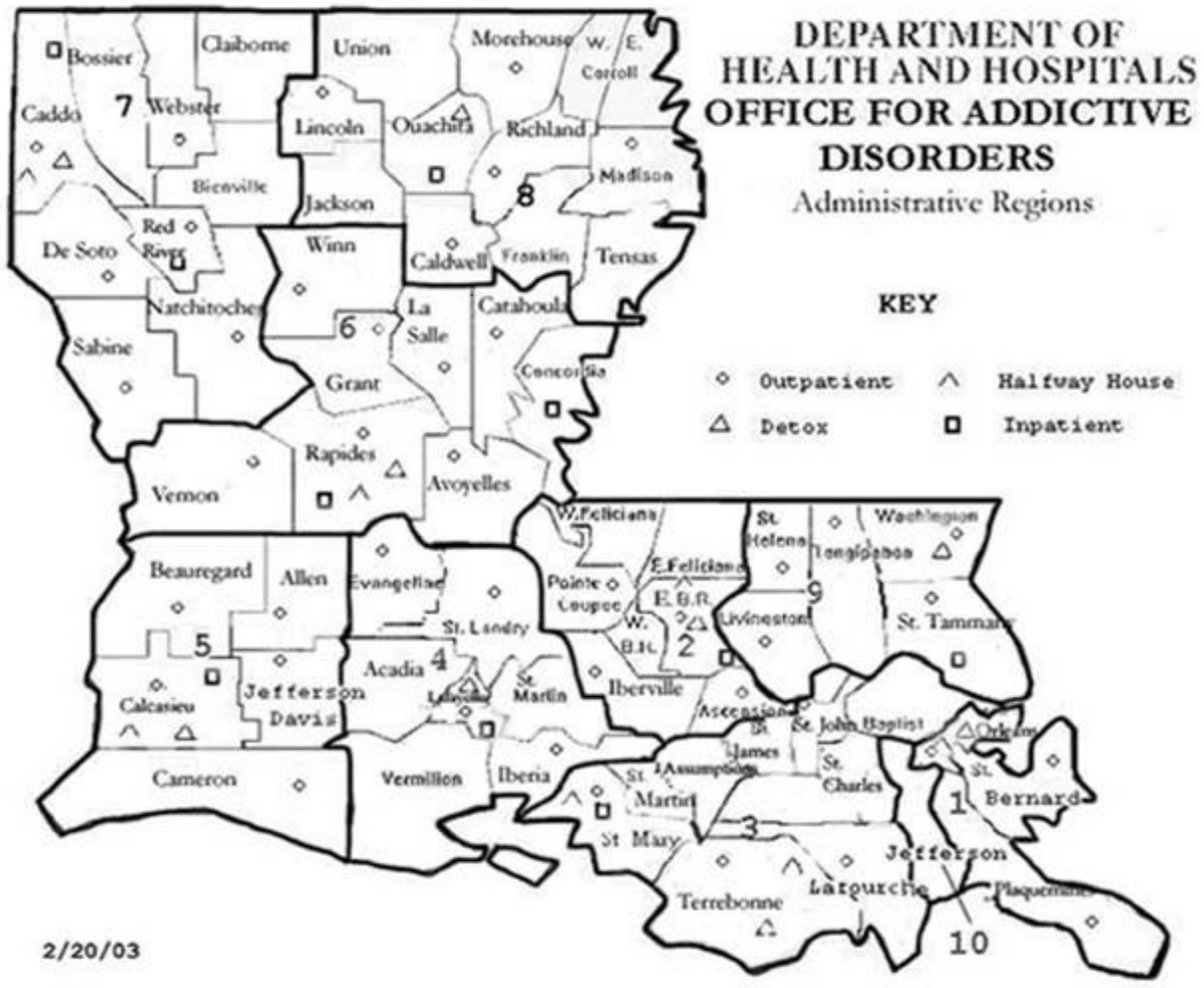
THE DHH Office of Mental Health (OMH), either directly or through partnerships with private and university resources, provides an array of community-based and hospital-based services, the range of which is consistent with national models for public mental-health care for individuals with serious mental illnesses. Statewide, there are currently 43 community mental-health centers, 33 outreach sites, seven acute treatment units, four intermediate/long-term care hospitals, and one forensic hospital (see map below). Major service components include crisis response programs, assertive community treatment, family or consumer respite care, traditional clinic-based services, community forensic interventions, hospital-based inpatient intensive and intermediate units, case management, and rehabilitative services.

NOTE: A symbol may not be geographically correct for each location

Source: Louisiana Department of Health and Hospitals, Office of Mental Health

Substance Abuse Prevention Clinics

The DHH Office for Addictive Disorders (OAD) offers a continuum of care for prevention, diagnosis, treatment, rehabilitation, and follow-up care for alcohol and drug abuse through contracts and state-operated facilities. This system is composed of six (6) treatment delivery regions and four (4) Human Service Districts/Authorities.OAD has 15 inpatient clinics (12 adult and 3 adolescent), 13 detoxification clinics, 16 halfway houses and 5 residential facilities. OAD prevention has a total of 61 providers. 41 are Community-Based Prevention Providers, 10 are Synar Contractors and 10 are COA Providers. The 41 Community-Based Prevention Providers are providing a total of 65 programs.



Source: Louisiana Department of Health and Hospitals, Office for Addictive Disorders

Existing Health Maintenance Organizations

Louisiana currently has 8 licensed health maintenance organizations (HMOs) operating in the state. Under state insurance law, an HMO is defined as any plan delivering basic health benefits for a prepaid fee. Most of the state's HMOs are composed of independent physicians practicing alone or in small medical groups. As of the year 2005, approximately 435,870 Louisiana residents (9.7% of the population) were enrolled in HMOs.[6] In addition to HMOs, the LOUISIANA MANAGED HEALTH CARE ASSOCIATION lists as members preferred provider organizations (PPOs) and several physician hospital networks (PHOs) operating in the state.

G. INVENTORY OF PRIMARY CARE/ MENTAL HEALTH PROVIDERS

Number of Selected Health Professionals by Parish
Louisiana, 2008

Location	*Primary Care Physicians (PCPs)*							*Mental Health Provider*	
Parish	*Family Practice*	*General Practice*	*Infectious Disease*	*Internal Medicine*	*Obstetrics & Gynecology*	*Pediatrics*	*Total PCP*	*Psychiatrists*	*Social Workers*
Acadia	12	1		6	2	5	26	1	8
Allen	7	1		3			11	1	4
Ascension	10	2		13	1	6	32	1	22
Assumption	4			1			5	1	2
Avoyelles	8	3		4			15		10
Beauregard	7			3	3	3	16		6
Bienville	3					1	4		3
Bossier	18			25	8	8	59	2	31
Caddo	88	2	2	263	98	92	545	40	164
Calcasieu	64	3		61	15	22	165	14	92
Caldwell	3			1		1	5		2
Cameron				1			1		0
Catahoula	2	0		1		1	4		1
Claiborne	8			1		1	10		3
Concordia	5	1		3	1	1	11		5
DeSoto	2	1		1			4	1	4

Source: Louisiana Board of Medical Examiners, January 2003

Louisiana Board of Certified Social Work Examiners, 2000

Number of Selected Health Professionals by Parish
Louisiana, 2008

Location	Primary Care Physicians (PCPs)							Mental Health Provider	
Parish	Family Practice	General Practice	Infectious Disease	Internal Medicine	Obstetrics & Gynecology	Pediatrics	Total PCP	Psychiatrists	Social Workers
East Baton Rouge	101	8	1	267	53	123	553	49	577
East Carroll	2			2			4		0
East Feliciana	4	4		4	1		13	3	14
Evangeline	10			7	1	1	19	1	1
Franklin	4			1			5		3
Grant	2					2			4
Iberia	20	20		13	4	10	67		18
Iberville	10			6	1	5	22		14
Jackson	2			2			4		3
Jefferson	94	11	4	280	70	116	575	54	376
Jefferson Davis	6			6	2	3	17	2	7
Lafayette	73	3		115	26	52	269	25	181
Lafourche	23	5		19	5	9	61	3	23
LaSalle	4	1		1			6		1
Lincoln	8	1		16	3	4	32	1	15
Livingston	6	1		6		4	17	0	25
Madison	1	1		3		1	6		2
Morehouse	10	1		4	1	2	18		3
Natchitoches	7	3		8	3	8	29	1	15
Orleans	52	8	3	436	51	235	782	128	798
Ouachita	58	4		63	10	29	164	14	96
Plaquemines	3	2		1			6		4
Pointe Coupee	9			2			11		8
Rapides	48			77	12	27	164	20	111
Red River	2			2			4		3
Richland	9	1		6	1		17		5
Sabine	3	1		2			6		3
St. Bernard	3			6		1	10	1	15
St. Charles	3			11	1	4	19	1	14
St. Helena	3						3		1

Source: Louisiana Board of Medical Examiners, January 2003

Louisiana Board of Certified Social Work Examiners, 2000

Number of Selected Health Professionals by Parish
Louisiana, 2008

Louisiana, 2008	Primary Care Physicians (PCPs)							Mental Health Provider	
Parish	Family Practice	General Practice	Infectious Disease	Internal Medicine	Obstetrics & Gynecology	Pediatrics	Total PCP	Psychiatrists	Social Workers
St. James	5	1		3	1	2	12	1	6
St. John	6	1		7	4	4	22	1	12
St. Landry	29	2		19	8	13	71	2	26
St. Martin	7	1		2		2	12		4
St. Mary	22			9	4	3	38	1	7
St. Tammany	40	3	1	129	29	60	262	27	214
Tangipahoa	25	6		36	8	14	89	8	59
Tensas		0							0
Terrebonne	17	2		34	13	19	85	7	39
Union	1	1		3		1	6		11
Vermilion	9			7	3	2	21	2	14
Vernon	7			13	1	3	24	3	5
Washington	7	1		9	1	2	20	1	11
Webster	15			2	3	2	22	1	9
West Baton Rouge	3	1		2			6		4
West Carroll	3			2		3	8		2
West Feliciana	6			1		1	8		11
Winn	2	2		3		2	9		2
Total	1025	110	11	2034	448	439	4531	418	3133

Source: Louisiana Board of Medical Examiners, January 2003
Louisiana Board of Certified Social Work Examiners, 2000

H. HEALTH PROFESSIONAL SHORTAGE AREAS (HPSAS)

Health Professional Shortage Area (HPSA) designations identify geographic areas, population groups, or facilities where a lack of primary-care providers poses serious barriers to adequate healthcare. The equitable geographic distribution of healthcare resources has long been recognized as a problem in the United States, particularly Louisiana. Adequate access to healthcare services for all residents is an important objective of current state and federal policy. Availability of an adequate supply and distribution of health professionals is essential to the ability to access basic healthcare services, regardless of ability to pay. The redistribution of the supply of health professionals, particularly primary-care providers, through the designation of HPSAs, is one method used to attain this goal.

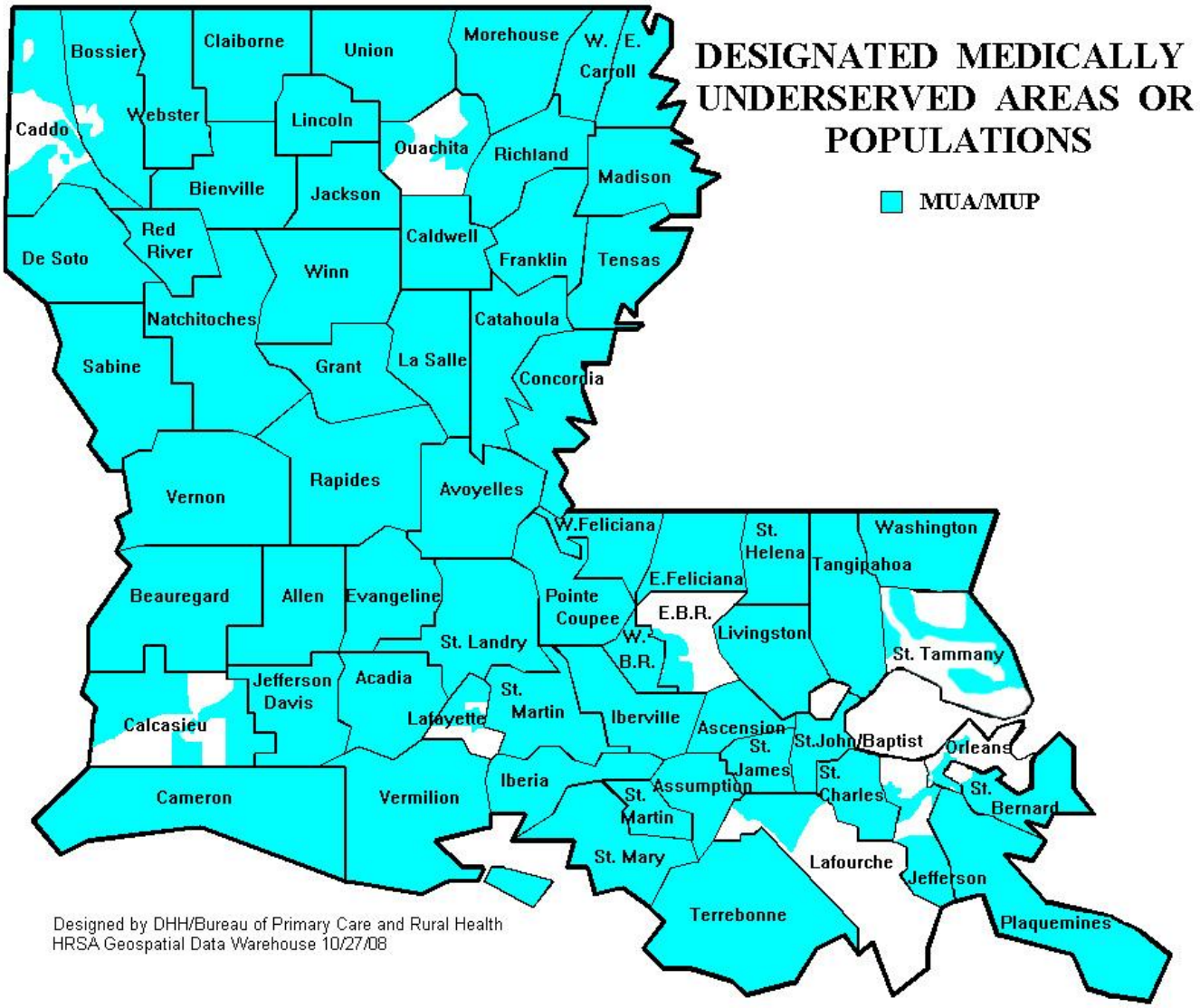
HPSA designations are used to create incentives to improve the distribution and the number of primary care providers in the most critical shortage areas. The designation methodology was developed to determine exactly where shortages exist in order to define those areas eligible for participation in the incentive programs.

Designation requests and reviews are the responsibility of the DHH BUREAU OF PRIMARY CARE AND RURAL HEALTH. After analysis and review, the designation requests and recommendations are forwarded to the Shortage Designation Branch in Health Resources and Services Administration/Bureau of Health Professions/National Center for Health Workforce Analysis (HRSA/ BHPR/ NCHWA), which is a part of the U.S. Department of Health and Human Services. The entire designation process can take up to six to eight months for completion.

There are approximately 36 federal programs utilizing HPSA designations. The following are examples:

- National Health Service Corps
- Medicare Incentive Payments
- J-1 Visa Waiver Program
- Rural Health Programs


Louisiana's Health Professional Shortage Area (HPSA) Designations
LEGEND
Primary Care (P.C.) HPSA
Dental HPSA
Mental Health HPSA
P.C. HPSA & Dental HPSA
P.C. HPSA & Mental Health HPSA
P.C. HPSA, Dental HPSA, & Mental Health HPSA
Dental & Mental HPSA
Facility Designation
Facilities in Orleans Parish
Healthcare for Homeless
MCLNO
Excelth Health Care Ctrs. (5)
Claiborne
Union
Morehouse
W. Carroll
E. Carroll
Webster
Caddo
Bossier
Lincoln
Ouachita
Richland
Madison
Bienville
Jackson
De Soto
Red River
Caldwell
Franklin
Tensas
Winn
Natchitoches
LaSalle
Catahoula
Concordia
Sabine
Grant
USP Pollock
Rapides
Avoyelles
Vernon
W.Feliciana
St. Helena
Washington
E.Feliciana
FCI Oakdale
Evangeline
Beauregard
Allen
Pointe Coupee
E.B.R.
Tangipahoa
St. Tammany
St. Landry
W.B.R.
Livingston
Jefferson Davis
Acadia
Lafayette
St. Martin
Iberville
Ascension
Calcasieu
Orleans
St. John the Baptist
St. James
St. Charles
St. Bernard
Iberia
Assumption
Cameron
Vermilion
St. Martin
St. Mary
Lafourche
Jefferson
Terrebonne
Plaquemines
Jefferson Parish
Old Kenner/ River Town
Lafitte
Avondale/ Westwego
Harvey
Gretna
*Degree of shortage is based on the ratio of the relevant population to one (1) full time equivalency (FTE) relevant provider.
DHH/Bureau of Primary Care and Rural Health, April 3, 2008



Medically Underserved Area and Population designations entitle a provider to many of the same benefits as does Health Professional Shortage Areas (HPSA).

Medically Underserved Areas (MUA) may be a whole parish or a group of contiguous parishes, a group of parish or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services.

Medically Underserved Populations (MUPs) may include groups of persons who face economic, cultural or linguistic barriers to health care.

Contact Information

Louisiana Department of Health & Hospitals	http://www.dhh.state.la.us/
Office of Public Health	http://www.dhh.louisiana.gov/offices/?ID=79
Office for Addictive Disorders	http://www.dhh.state.la.us/offices/?ID=23
Office for Citizens with Developmental Disabilities	http://www.dhh.state.la.us/offices/?ID=77
Office for Community Services	http://www.dss.state.la.us/
Office of Mental Health	http://www.dhh.state.la.us/offices/?ID=62
Children's Special Health Services	http://www.dhh.louisiana.gov/offices/?ID=256
Chronic Disease Control	http://www.dhh.louisiana.gov/offices/?ID=243
Environmental Epidemiology & Toxicology	http://www.dhh.louisiana.gov/offices/suboff.asp?ID=242
Family Planning	http://www.dhh.louisiana.gov/offices/?ID=262
Administration & Technical Support	http://www.dhh.louisiana.gov/offices/?ID=195
HIV/AIDS	http://www.dhh.louisiana.gov/offices/?ID=264
Immunizations	http://www.dhh.louisiana.gov/offices/?ID=265
Infectious Epidemiology	http://www.dhh.louisiana.gov/offices/?ID=249
Injury Research & Prevention	http://www.dhh.louisiana.gov/offices/?ID=221
Maternal & Child Health	http://www.dhh.louisiana.gov/offices/?ID=267
Oral Health	http://www.dhh.louisiana.gov/offices/page.asp?id=267&detail=6347
Sexually Transmitted Diseases	http://www.dhh.louisiana.gov/offices/?ID=272
State Center for Health Statistics	http://www.dhh.louisiana.gov/offices/?ID=275
Tuberculosis	http://www.dhh.louisiana.gov/offices/?ID=273
Vital Records Registry	http://www.dhh.louisiana.gov/offices/?ID=252
Women, Infants, & Children (WIC) Nutrition Program	http://www.dhh.louisiana.gov/offices/?ID=269