

# LOUISIANA CHILD DEATH REVIEW REPORT

## 2010-2012

Key findings and recommendations from 2010-2012 Louisiana Vital  
Statistics death data and state and local death reviews

Annual  
Legislative  
Report

**Submitted To:**

Governor, State of Louisiana  
Health and Welfare Committee, Louisiana Senate  
Health and Welfare Committee, Louisiana House of Representatives  
Louisiana Child Death Review Panels

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# Regional Map of Louisiana

## Breakdown of Parishes by Region

Figure 1. Louisiana Department of Health and Hospitals Administrative Regions

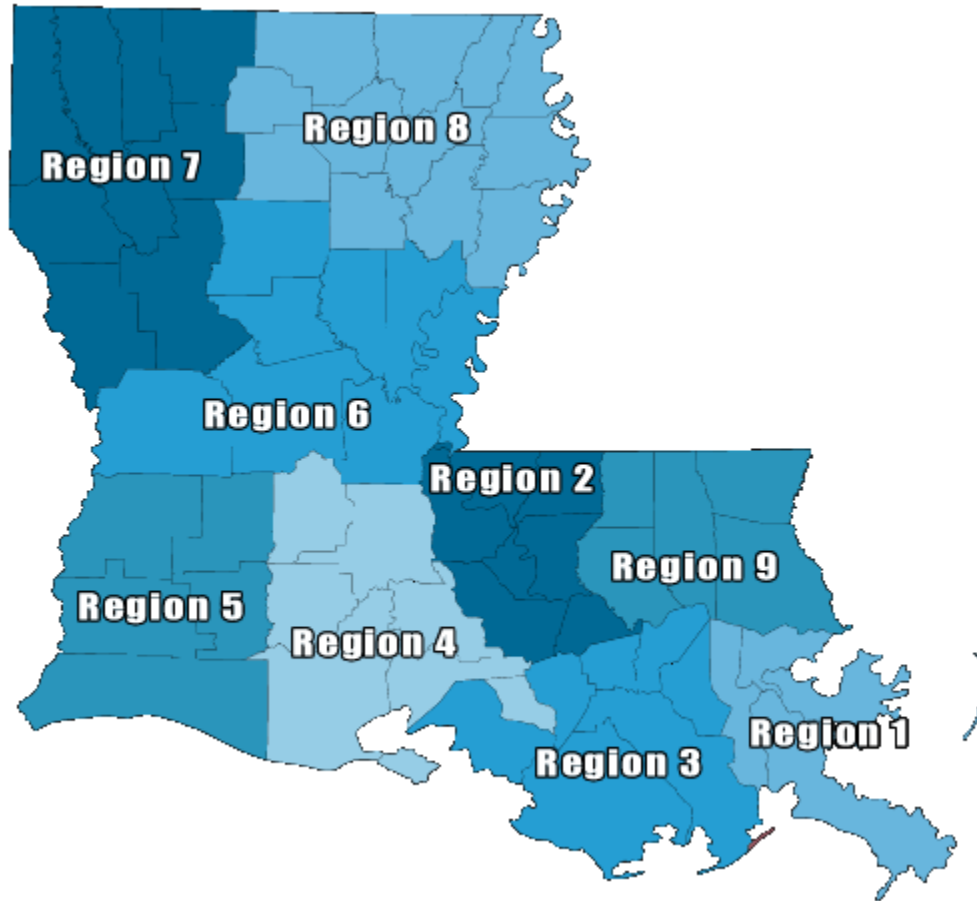


Table 1. Louisiana Department of Health and Hospitals Administrative Regions

Region	Area	Parishes within Region
1	New Orleans	Jefferson, Orleans, Plaquemines, St. Bernard
2	Baton Rouge	Ascension, East Baton Rouge, East Feliciana, Iberville, Pointe Coupee, West Baton Rouge, West Feliciana
3	Houma	Assumption, Lafourche, St. Charles, St. James, St. John the Baptist, St. Mary, Terrebonne
4	Lafayette	Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, Vermillion
5	Lake Charles	Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis
6	Alexandria	Avoyelles, Catahoula, Concordia, Grant, La Salle, Rapides, Vernon, Winn
7	Shreveport	Bienville, Bossier, Caddo, Claiborne, DeSoto, Natchitoches, Red River, Sabine, Webster
8	Monroe	Caldwell, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, West Carroll
9	Hammond/ Slidell	Livingston, St. Helena, St. Tammany, Tangipahoa, Washington

# Cause of Death Explanations

Cause of Death	Explanation <sup>1*</sup>
Congenital malformations, deformations and chromosomal abnormalities (CMDCA)	This category includes anencephaly and similar malformations, congenital hydrocephalus, spina bifida, other congenital malformations of the nervous system, congenital malformations of the heart, other congenital malformations of the circulatory system, congenital malformations of genitourinary system, congenital malformations and deformations of musculoskeletal system, limbs and integument, Down syndrome, Edward syndrome, Patau syndrome, other congenital malformations and deformations and other chromosomal abnormalities not elsewhere classified.
Conditions originating in the perinatal period	This category includes disorders related to the length of gestational age and fetal growth, effects from maternal factors and complications, infections specific to the perinatal period, hemorrhage and hematological disorders and other perinatal conditions.
Diseases of the nervous system	This category includes inflammatory diseases of the central nervous system, systemic atrophies primarily affecting the central nervous system, degenerative diseases of the nervous system and cerebral palsy and other paralytic syndromes.
Diseases of the circulatory system	This category includes rheumatic fever; hypertensive diseases; ischemic heart disease; pulmonary heart disease and diseases of pulmonary circulation; cerebrovascular diseases; diseases of arteries, arterioles and capillaries; and diseases of veins, lymphatic vessels and lymph nodes.
Diseases of the respiratory system	This category includes respiratory infections, influenza, pneumonia, lung diseases due to external agents and diseases of the pleura.
External causes of mortality (injuries)	This category includes deaths from injuries (unintentional and intentional) and causes not related to a medical condition, including motor vehicle accidents, other and unspecified transport accidents, cuts, falls, accidental discharge of firearms, homicide, suicide, drowning and submersion, accidental suffocation and strangulation in bed and other suffocation and strangulation.
Infectious and parasitic diseases	This category includes transmissible diseases, including intestinal infectious diseases, tuberculosis, zoonotic bacterial diseases, spirochetal diseases, rickettsioses and viral diseases.
Neoplasm	This category includes tumors and abnormal growths of body tissue. Neoplasms can be malignant (cancerous) or benign (noncancerous).
Sudden infant death syndrome (SIDS)	This category includes deaths among infants less than one year of age that occur suddenly, unexpectedly and for which the causes of death are not immediately obvious prior to investigation. <sup>2</sup>
Sudden unexpected infant death (SUID)	This category includes ill-defined and unknown causes of mortality, SIDS, and accidental suffocation and strangulation in bed.

\*Explanations do not provide comprehensive lists

# Acronyms and Definitions

Acronym	Definition
ASSB	Accidental suffocation and strangulation in bed
ATV	All-terrain vehicle
BFH	Bureau of Family Health
CDR	Child Death Review
CDRP	Child Death Review Panel
CMDCA	Congenital malformation, deformation and chromosomal abnormality
DHH	Department of Health and Hospitals
FIMR	Fetal and infant mortality review
GA/LBW	Gestational age and low birth weight
ICD	International Classification of Diseases
MCH	Maternal and child health
MVA	Motor vehicle accident
OPH	Office of Public Health
PAMR	Pregnancy-associated mortality review
SIDS	Sudden infant death syndrome
SUID	Sudden unexpected infant death

Term	Definition
Low birth weight	Less than 2,500 grams at delivery (5.5 lbs.)
Fetal death	Stillborn with gestation greater than 20 weeks or birth weight greater than 350 grams
Perinatal death	Fetal deaths plus deaths to infants under 7 days of age
Neonatal death	Deaths to infants under 28 days of age
Postneonatal death	Deaths to infants that occur between 28 days and 365 days after birth
Infant death	Deaths to infants under 1 year of age

# Child Death Review Overview

## A quick guide to the Child Death Review process

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### **What is the purpose?**

The Department of Health and Hospitals (DHH) Office of Public Health (OPH) Bureau of Family Health (BFH) coordinates the Child Death Review (CDR) Program. Per R.S. 40:2019, CDRs are mandated for deaths among children under 15 years of age. State and local panels meet to review child deaths, identify risk factors and provide recommendations to help reduce the occurrence of child mortality in the future. The review panels are made up of multidisciplinary groups of professionals. These groups are called case review teams.

### **What is the difference between the state and local CDR programs?**

The state panel reviews cases when there are issues that cannot be resolved at the local level, issues that require the weight of CDR legislation, issues that are better addressed by the individuals on the state panel or when there are clusters of cases in multiple regions throughout the state.

### **What types of deaths are reviewed?**

Deaths of children under 15 years of age who die in Louisiana unexpectedly are eligible for case review, regardless of resident status. Commonly reviewed cases include deaths attributable to unintended injuries, homicide, suicide, neglect or abuse, unknown causes and sudden unexpected infant death (SUID).

### **Does anyone review other types of deaths?**

Mothers who die during pregnancy or within one year of pregnancy are eligible for case review through a separate review process called pregnancy-associated mortality review (PAMR). There is also a review process for infants who are not eligible for CDR. Stillborn babies delivered at or after 28 weeks gestation and infants under the age of one who die expectedly (due to medical causes) and were delivered at 24-36 weeks gestation are eligible for review through fetal and infant mortality review (FIMR). Please see Figure 2 on page nine for more details. Deaths due to abuse and neglect are also reviewed by the Department of Children and Family Services. Infants who do not fall under one of these categories are not reviewed.

### **How are deaths identified?**

Louisiana Vital Records provides data on newly identified deaths each month. Maternal and child health (MCH) regional coordinators and abstractors throughout Louisiana use this information to identify deaths.

### **What happens after a death is identified?**

The MCH regional coordinators and abstractors obtain case information from medical records, autopsies, death scene investigations and first responder reports. This information is entered into a secure database and used for surveillance at the state level and to create case summaries, which are presented at CDR meetings.

### **Who decides what deaths will be presented at the CDR meetings?**

The MCH regional coordinators use information gathered from the case abstraction process to determine which cases will be presented. MCH regional coordinators are registered nurses charged with coordinating CDR meetings in each public health region. All sudden unexpected infant deaths (SUIDs) and unexpected deaths to children under 15 years of age are reviewed at the local level.

### **How are the recommendations from the CDR meetings used?**

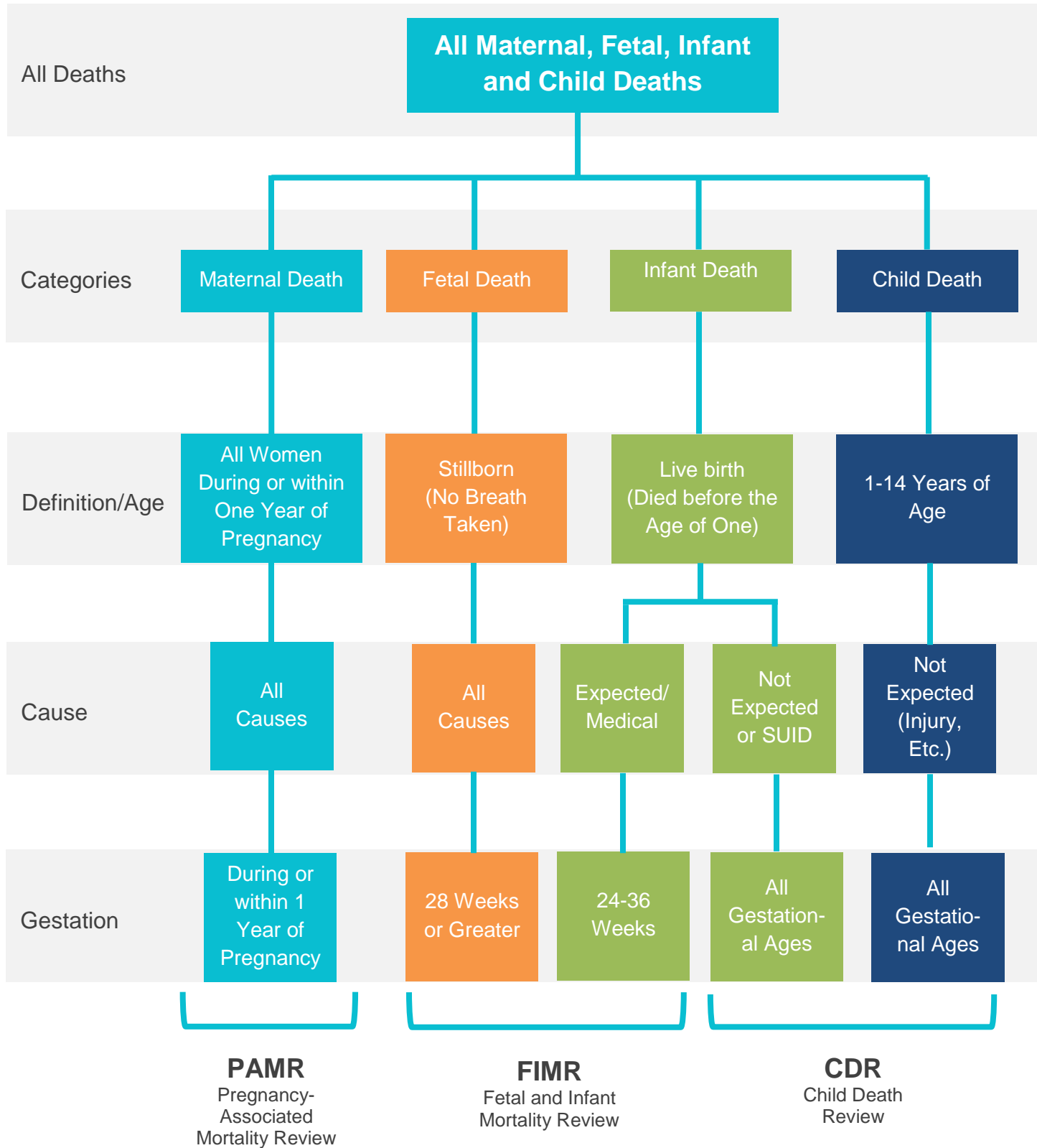
Recommendations from the CDR meetings are referred to regional community action teams. Community action teams are composed of multidisciplinary stakeholders and develop action plans based on the recommendations generated from the CDR meetings.



# Death Review Algorithm

## Case review determination

Figure 2. Louisiana Death Review Algorithm



# Key Findings

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## Infant Deaths (Aged Less than One Year)

In Louisiana from 2010-2012, black<sup>†</sup> infants were 2.1 times as likely as white<sup>†</sup> infants and 3.1 times as likely as Hispanic infants to die during their first year of life ( $p < .05$ ). The infant mortality rate decreased for all races from 2002 to 2012, but the decrease among white<sup>†</sup> infants was not statistically significant. However, there was a 19.9 percent decrease in the mortality rate among black<sup>†</sup> infants and an 18.4 percent decrease in the mortality rate among all races ( $p < .05$ ).

## Neonatal Deaths (Infants Aged Less than 28 Days)

Conditions originating in the perinatal period (see page 6 for criteria) were the leading causes of death in this age group, accounting for nearly 75 percent of the deaths. In Louisiana, black<sup>†</sup> infants were 2.2 times as likely as white<sup>†</sup> infants and 2.5 times as likely as Hispanic infants to die before reaching 28 days old ( $p < .05$ ). There was a 25.5 percent reduction in neonatal deaths among black<sup>†</sup> infants and a 31.8 percent reduction among all infants from 2002-2012 ( $p < .05$ ). The reduction in white<sup>†</sup> infants was not statistically significant.

## Postneonatal Deaths (Infants Aged 28 to 364 Days)

SIDS was the leading cause of postneonatal death. From 2010-2012 in Louisiana, black<sup>†</sup> infants between 28 and 364 days old were 2.1 times as likely as white<sup>†</sup> infants and 5.0 times as likely as Hispanic infants to die during the postneonatal period ( $p < .05$ ). There was not a significant reduction in the postneonatal mortality rate from 2002-2012.

## Child Deaths (Aged 1-4 Years)

Injuries were the leading cause of death among children aged 1-4 years in Louisiana during 2010-2012. Of injury deaths, drowning was the leading cause (34 deaths), just above motor vehicle accidents. Mortality rates for black<sup>†</sup> children were higher in every region compared to white<sup>†</sup> and Hispanic children. Overall, black<sup>†</sup> children aged 1-4 years were 1.7 times as likely to die as white<sup>†</sup> children in the same age group ( $p < .05$ ). There was not a statistically significant reduction in mortality among children aged 1-4 years in Louisiana from 2002-2012.

## Child Deaths (Aged 5-9 Years)

Injuries, of which motor vehicle accidents were the primary contributor (27 deaths), were the leading cause of death among children aged 5-9 years in Louisiana from 2010 to 2012. Overall, black<sup>†</sup> children aged 5-9 years were 1.4 times as likely to die compared to white<sup>†</sup> children in the same age group ( $p < .05$ ). There was a 28.2 percent reduction in deaths among black<sup>†</sup> children from 2002-2012 ( $p < .05$ ). The decrease in deaths from 2002-2012 among white<sup>†</sup> children in this age group was not statistically significant.

## Adolescent Deaths (Aged 10-14 Years)

Though black<sup>†</sup> adolescents had higher mortality rates than white<sup>†</sup> and Hispanic adolescents, the overall difference at the state level was not statistically significant during 2010-2012. Males aged 10-14 years in Louisiana were 1.6 times as likely to die as their female counterparts. There was a 37 percent reduction in deaths among black<sup>†</sup> adolescents from 2002-2012 ( $p < .05$ ), but there was not a significant reduction in white<sup>†</sup> adolescent deaths. Injuries were the leading cause of death among adolescents aged 10-14 years in Louisiana during 2010-2012, causing nearly three times as many deaths as the next leading cause in this age group. Among fatal injuries, MVAs accounted for the largest proportion of deaths at 19.0 percent. Black adolescents were 56.8 percent of deaths. Nineteen adolescents were killed by a firearm in Louisiana from 2010-2012.

<sup>†</sup> Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Louisiana Report Card

## Comparison of Healthy People 2020, United States and Louisiana indicators

Table 2. National and State Comparison of Healthy People 2020 Objectives

Indicator	2020 Targets	U.S.	LA
<b>Infant Deaths (Rate per 1,000 Live Births)</b>			
Neonatal mortality rate	4.1 <sup>1</sup>	4.1 <sup>3†</sup>	4.7 <sup>3†</sup>
Postneonatal mortality rate	2.0 <sup>1</sup>	2.0 <sup>3†</sup>	3.3 <sup>3†</sup>
Infant mortality rate	6.0 <sup>1</sup>	6.1 <sup>3†</sup>	8.0 <sup>3†</sup>
SUID rate	0.84 <sup>1</sup>	0.7 <sup>†</sup>	0.9 <sup>3†</sup>
<b>Child Deaths (Rate per 100,000 Population)</b>			
Child mortality rate, ages 1-4	26.5 <sup>1</sup>	26.4 <sup>†</sup>	38.5 <sup>4†</sup>
Child mortality rate, ages 5-9	12.4 <sup>1</sup>	11.6 <sup>4†</sup>	16.2 <sup>4†</sup>
<b>Adolescent Deaths (Rate per 100,000 Population)</b>			
Adolescent mortality rate, ages 10-14	14.8 <sup>1</sup>	14.1 <sup>4†</sup>	20.7 <sup>4†</sup>
<b>Injury and Violence Prevention</b>			
Percent of deaths due to external causes among children less than 17 years old reviewed by a child fatality review team	90.0% <sup>1</sup>	Unavailable	21.4% <sup>5, 6**</sup>
Unintentional suffocation mortality rate among infants, 0-12 months	20.8 per 100,000 population <sup>1</sup>	23.2 per 100,000 population <sup>3†</sup>	61.5 per 100,000 population <sup>3†</sup>

Above, Louisiana and US data are compared with U.S. Department of Health and Human Services' Healthy People 2020 targets. These evidence-based objectives were selected by a team of experts at Healthy People with the intention of identifying national health priorities. Every 10 years, objectives are selected with a goal of meeting the targets by the end of the decade.

<sup>†</sup>2010-2012 data

<sup>\*\*</sup>2012 data only

# Infant Deaths

## Infants Less than One Year Old

Figure 3. Trend in Infant Mortality by Race/Ethnicity, Louisiana, 2002-2012<sup>3</sup>

NOTE: In order to include US data, data are limited to 2012

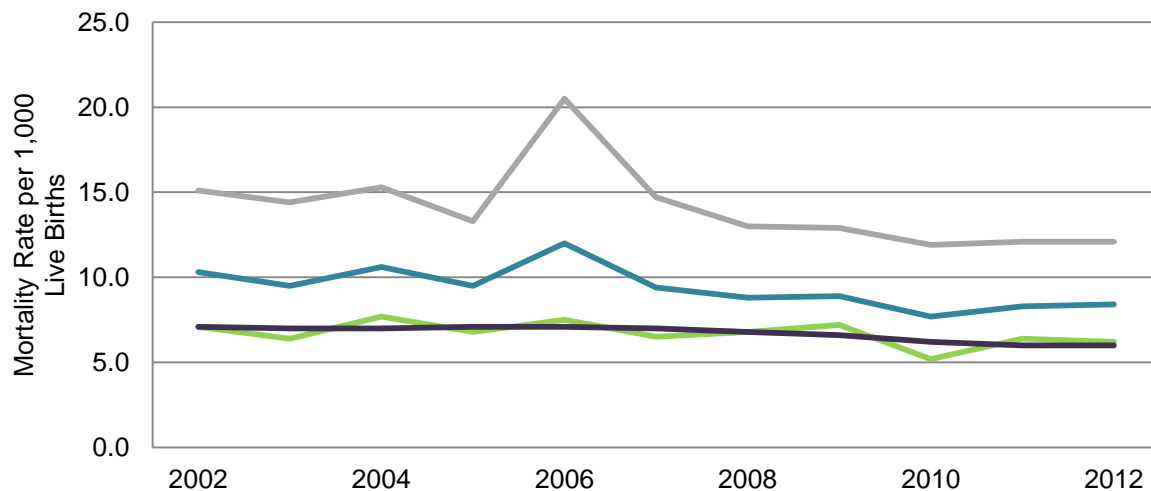
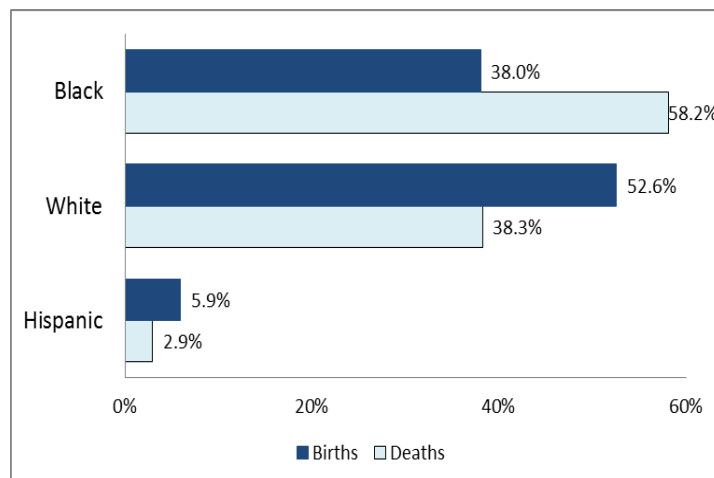


Table 3. Infant Mortality Rate per 1,000 Live Births by Region and Race/Ethnicity, 2010-2012<sup>5</sup>

Region	Black <sup>†</sup>	White <sup>†</sup>	Hispanic	All
LA	12.0	5.7	3.9	8.0
1	10.3	4.5	4.0*	6.6
2	12.7	5.6	3.7*	9.0
3	10.8	6.1	5.7*	7.6
4	10.9	4.6	--	6.6
5	14.3	5.5	--	7.5
6	11.0	6.3	--	7.3
7	15.2	5.9	--	9.9
8	10.7	7.0	--	8.6
9	12.9	6.8	--	7.9

Figure 4. Proportion of Live Births and Deaths by Race/Ethnicity, Louisiana, 2010-2012<sup>5</sup>



## Key Findings

From 2010-2012 in Louisiana, black<sup>†</sup> infants were 2.1 times as likely as white<sup>†</sup> infants and 3.1 times as likely as Hispanic infants to die during their first year of life ( $p < .05$ ). The infant mortality rate decreased for all races from 2002 to 2012, but the decrease among white<sup>†</sup> infants was not statistically significant. However, there was a 19.9 percent decrease in the mortality rate among black<sup>†</sup> infants and an 18.4 percent decrease in the mortality rate among all races during the same period ( $p < .05$ ).

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

--Rates based on counts <5 are suppressed to maintain confidentiality.

† Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Causes of Infant Death

## Infants Less than One Year Old

Figure 5. Proportion of Infant Deaths by Cause, Louisiana, 2010-2012<sup>5</sup>

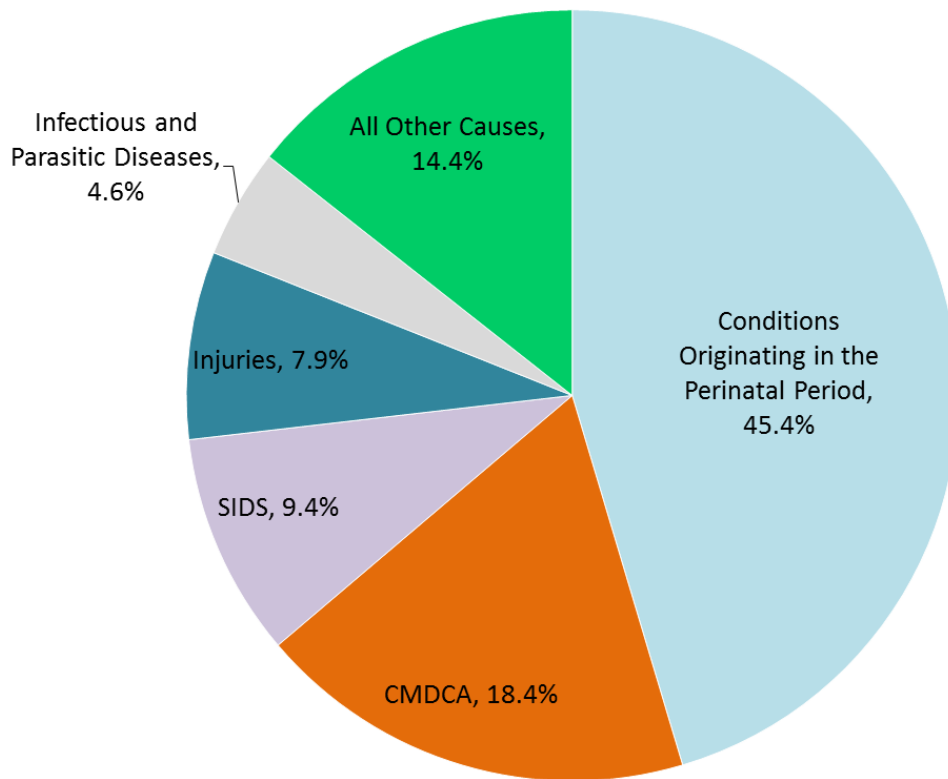


Table 4. Leading Causes of Infant Death, Louisiana, 2010-2012<sup>5</sup>

Rank	Cause of Death	Number	Rate (per 1,000 Live Births)
1	Conditions originating in the perinatal period	663	3.6
2	CMDCA *	269	1.4
3	SIDS	137	0.7
4	Injuries	115	0.6
5	Infectious and parasitic diseases	67	0.4

### Key Findings

Conditions originating in the perinatal period (see page 6 for criteria) were the leading causes of death among infants aged less than one year, accounting for 45.4 percent of infant deaths in Louisiana from 2010-2012. Within that category, disorders arising from preterm birth or malnutrition were the largest contributing factors, followed by factors associated with complications of labor, pregnancy or delivery.

\*Congenital Malformations, Deformations and Chromosomal Abnormalities (CMDCA)

# Neonatal Deaths

## Infants Less than 28 Days Old

Figure 6. Trend in Neonatal Mortality Rate by Race/Ethnicity, Louisiana, 2002-2012<sup>5</sup>

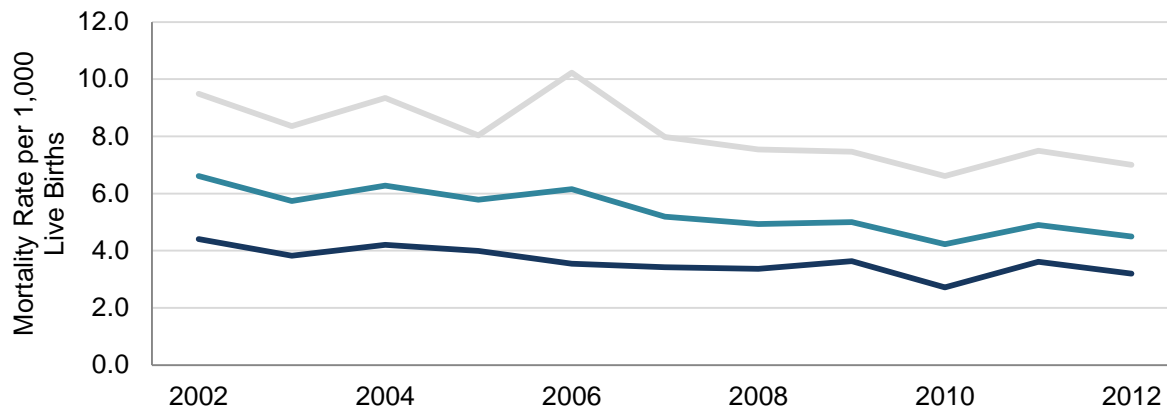
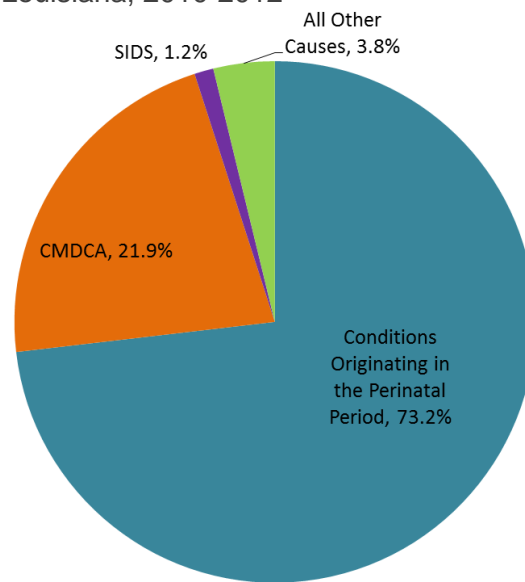


Table 5. Neonatal Mortality Rate per 1,000 Live Births by Region and Race/Ethnicity, 2010-2012<sup>5</sup>

	Black <sup>†</sup>	White <sup>†</sup>	Hispanic	All Races
Louisiana	7.0	3.2	2.8	4.5
Region 1	5.6	2.5	2.6*	3.8
Region 2	7.9	3.8	--	5.6
Region 3	5.8	3.6	4.7*	4.2
Region 4	5.5	2.1	--	3.2
Region 5	8.9	2.6	--	4.0
Region 6	5.6*	3.3	--	4.0
Region 7	9.4	2.9	--	5.8
Region 8	6.6	3.8	--	5.0
Region 9	8.4	4.5	--	5.1

Figure 7. Proportion and Frequency of Neonatal Deaths by Cause, Louisiana, 2010-2012<sup>5</sup>



**From 2010-2012 in Louisiana, 54.9% of neonatal deaths were boys.<sup>5</sup>**

### Key Findings

Conditions originating in the perinatal period (see page 6 for criteria) were the leading causes of death in this age group, accounting for nearly 75 percent of the deaths. In Louisiana, black<sup>†</sup> infants were 2.2 times as likely as white<sup>†</sup> infants and 2.5 times as likely as Hispanic infants to die before reaching 28 days old ( $p < .05$ ). There was a 25.5 percent reduction in neonatal deaths among black<sup>†</sup> infants and a 31.8 percent reduction among all infants from 2002-2012 ( $p < .05$ ). The reduction in deaths among white<sup>†</sup> infants was not statistically significant.

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

\*\*Congenital Malformations, Deformations and Chromosomal Abnormalities (CMDCA)

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† Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Postneonatal Deaths

## Infants between 28 and 364 Days Old

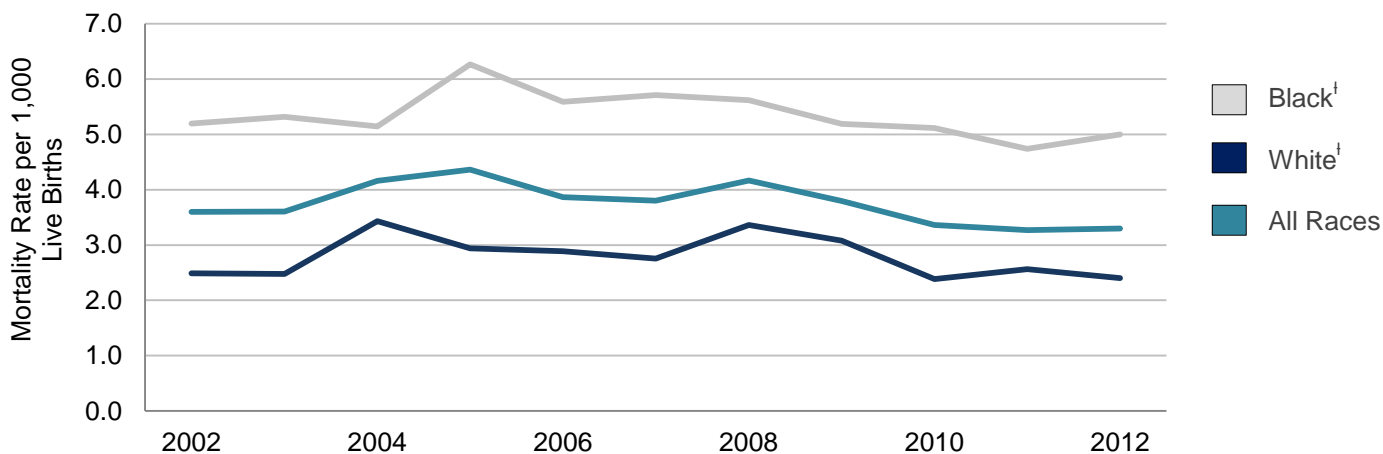
Table 6. Postneonatal Mortality Rate per 1,000 Live Births by Region and Race/Ethnicity, 2010-2012<sup>5</sup>

	Black <sup>†</sup>	White <sup>†</sup>	Hispanic	All Races
Louisiana	5.0	2.4	1.0*	3.3
Region 1	4.6	1.6	1.4*	2.8
Region 2	4.9	1.8	--	3.3
Region 3	5.0	2.5	--	3.3
Region 4	5.4	2.4	--	3.3
Region 5	5.5*	2.9	--	3.5
Region 6	5.4	3.0	0.0	3.4
Region 7	5.8	2.7	0.0	4.0
Region 8	4.1	3.2	0.0	3.6
Region 9	4.5	2.3	--	2.7

Table 7. Leading Causes of Postneonatal Death, Louisiana, 2010-2012<sup>5</sup>

Rank	Cause of Death	Number	Rate (per 1,000 Live Births)
1	SIDS	127	0.7
2	Injuries	111	0.6
3	CMDCA**	85	0.5
4	Infectious and parasitic diseases	60	0.3
5	Diseases of the respiratory system	59	0.3

Figure 8. Trend in Postneonatal Mortality Rate by Race/Ethnicity, Louisiana, 2002-2012<sup>5</sup>



**From 2010-2012 in Louisiana, 58.9% of postneonatal deaths were boys.<sup>5</sup>**

### Key Findings

SIDS was the leading cause of postneonatal death. From 2010-2012 in Louisiana, black<sup>†</sup> infants between 28 and 364 days old were 2.1 times as likely as white<sup>†</sup> infants and 5.0 times as likely as Hispanic infants to die during the postneonatal period ( $p < .05$ ). There was not a significant reduction in the postneonatal mortality rate from 2002-2012.

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† Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Sudden Unexpected Infant Deaths (SUID)

## Infants Less than One Year Old

Figure 9. Trend in SUID Cases by Cause of Death, Louisiana, 2002-2012<sup>5</sup>

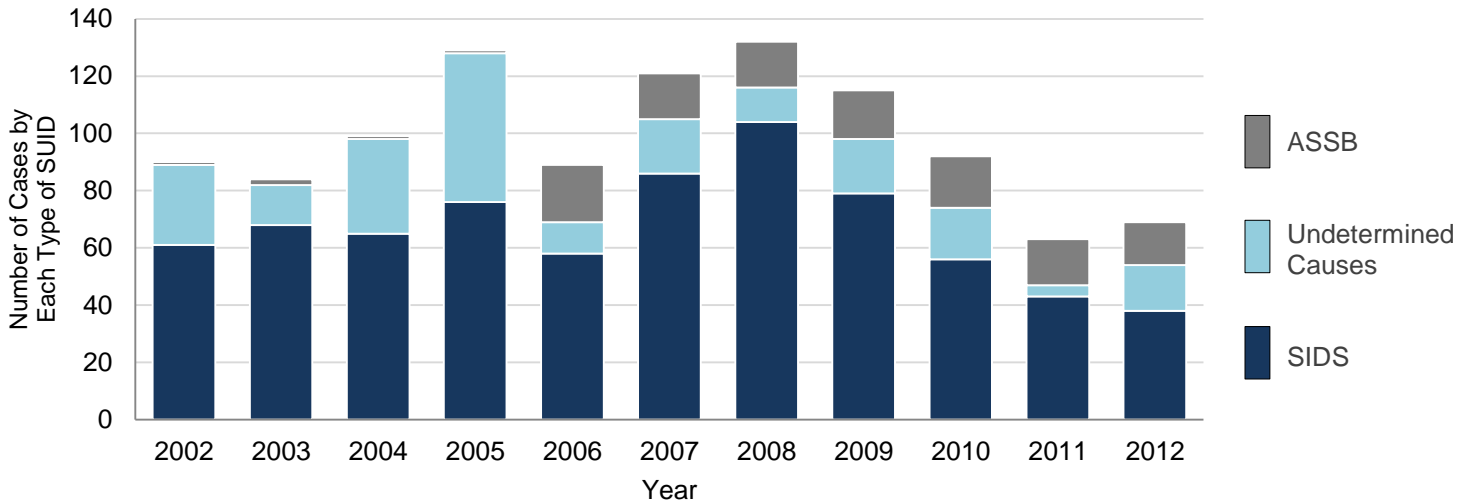


Table 8. SUID Rate per 1,000 Live Births by Region, Louisiana, 2010-2012<sup>5</sup>

Location	Rate	Cases
Louisiana	1.2	224
Region 1 New Orleans	1.4	46
Region 2 Baton Rouge	0.7	20
Region 3 Houma	1.1*	18
Region 4 Lafayette	0.8	21
Region 5 Lake Charles	1.8	22
Region 6 Alexandria	0.8*	10
Region 7 Shreveport	1.7	39
Region 8 Monroe	1.2*	18
Region 9 Hammond/Slidell	1.2	26

Table 9. Breakdown of SUID\*\* by Cause of Death, Louisiana, 2010-2012<sup>5</sup>

Cause of Death	Number	Rate (per 1,000 Live Births)
SIDS	137	0.7
ASSB	49	0.3
Undetermined	38	0.2

### Key Findings

Of the causes of death categorized under SUID, SIDS was the leading cause of death. Region 5 had the highest SUID rate in the state during 2010-2012, which was 1.5 times that of the rate in Louisiana ( $p < .05$ ). There was a 30.6 percent decrease in the SUID rate from 2002-2012 ( $p < .05$ ). Please note that SUID rates are not available by race due to small counts.

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

\*\*SUID includes SIDS, ASSB and undetermined deaths.

† Black indicates non-Hispanic black, and white indicates non-Hispanic white.



# Child Deaths

## Children Aged 1 to 4 Years

Figure 10. Trend in Child Mortality by Race/Ethnicity, Aged 1-4 Years, Louisiana, 2002-2012<sup>3</sup>

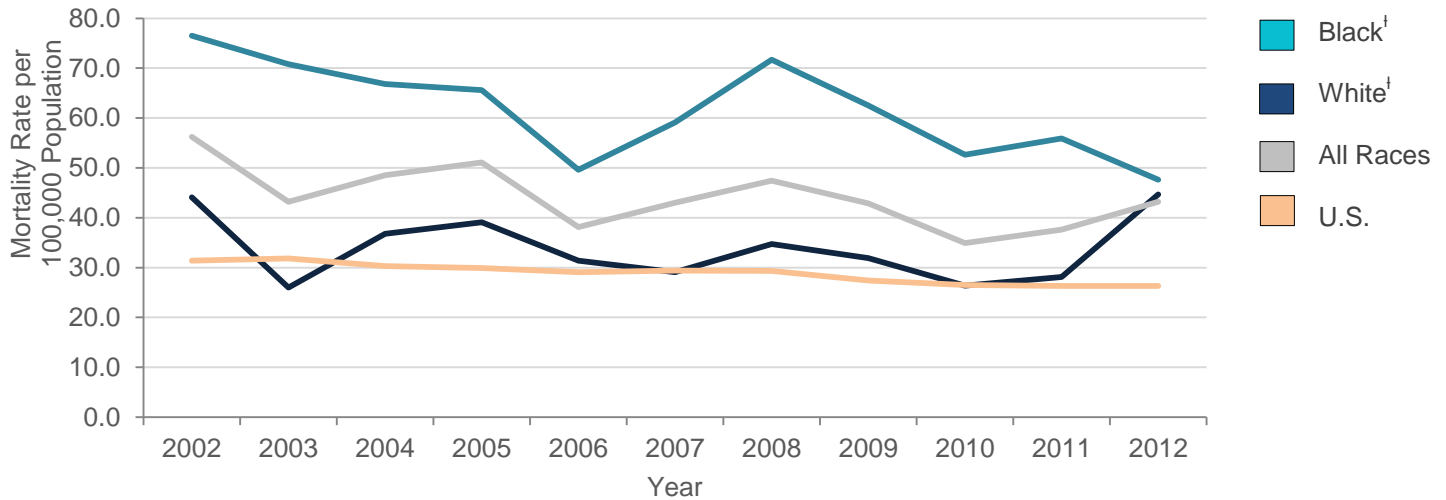


Table 10. Child Mortality Rate per 100,000 Population by Region and Race/Ethnicity, Aged 1-4 Years, Louisiana, 2010-2012<sup>5, 7</sup>

	Black <sup>†</sup>	White <sup>†</sup>	Hispanic	All Races
Louisiana	51.7	31.2	10.3*	37.7
Region 1	49.1	20.3*	--	33.9
Region 2	56.3	22.9*	--	39.3
Region 3	36.4*	38.2*	--	34.8
Region 4	81.8	25.7*	--	44.6
Region 5	34.5*	30.2*	0	40.6*
Region 6	42.0*	30.9*	--	18.8*
Region 7	62.5	45.7	0.0	49.8
Region 8	23.2*	10.2*	0.0	15.4*
Region 9	83.1*	41.5	0.0	48.2

Table 11. Leading Causes of Child Death, Aged 1-4 Years, Louisiana, 2010-2012<sup>3, 5</sup>

Rank	Cause of Death	Number	Rate (per 100,000 population)
1	Injuries	135	17.9
2	Diseases of the Respiratory System	26	3.4
3	CMDCA**	25	3.3
4	Diseases of the Circulatory System	14	1.9*
5	Diseases of the Nervous System	20	2.6

### Key Findings

Injuries were the leading cause of death among children aged 1-4 years in Louisiana during 2010-2012. Of injury deaths, drowning was the leading cause (34 deaths), just above motor vehicle accidents. Mortality rates for black<sup>†</sup> children were higher in every region compared to white<sup>†</sup> and Hispanic children. Overall, black<sup>†</sup> children aged 1-4 years were 1.7 times as likely to die as white<sup>†</sup> children in the same age group (p<.05). There was not a statistically significant reduction in mortality among children aged 1-4 years in Louisiana from 2002-2012.

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

\*\*Congenital Malformations, Deformations and Chromosomal Abnormalities (CMDCA)

--Rates based on counts <5 are suppressed to maintain confidentiality.

† Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Child Deaths

## Children Aged 5 to 9 Years

Figure 11. Trend in Child Mortality by Race/Ethnicity, Aged 5-9 Years, Louisiana, 2002-2012<sup>3</sup>

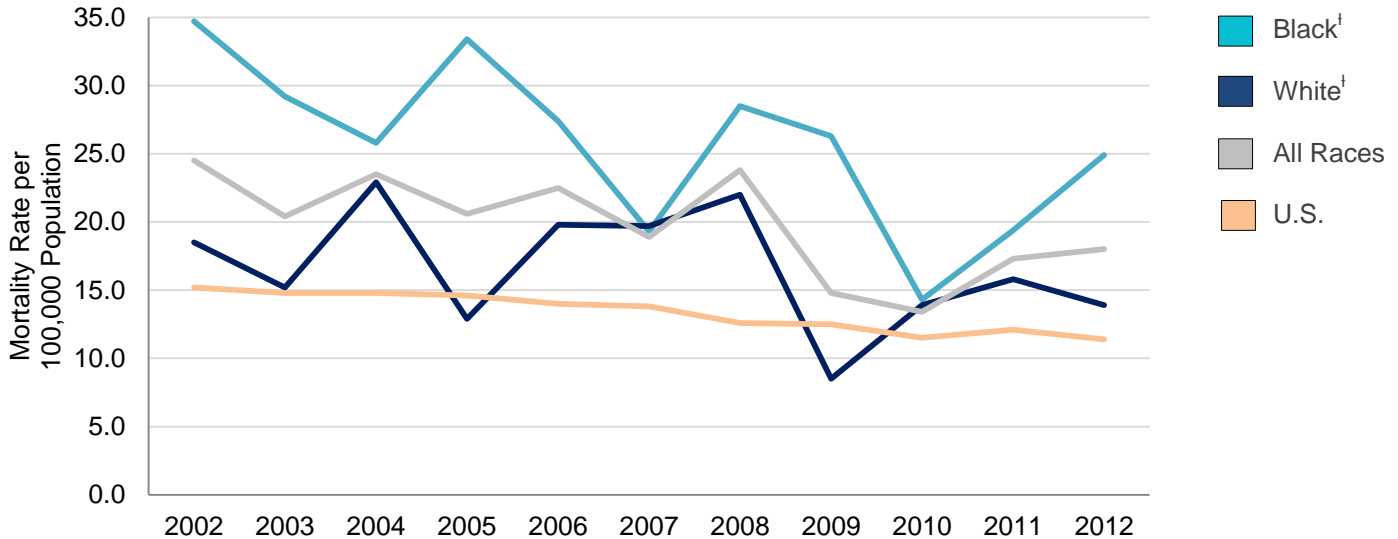


Table 12. Child Mortality Rate per 100,000 Population by Region and Race/Ethnicity, Aged 5-9 Years, Louisiana, 2010-2012<sup>5, 7</sup>

	Black	White	Hispanic	All Races
Louisiana	19.0	13.7	--	16.0
Region 1	30.0*	8.5*	--	17.5
Region 2	17.5*	10.4*	0.0	12.8*
Region 3	10.1*	--	0.0	9.7*
Region 4	10.3*	21.1*	--	14.2*
Region 5	12.1*	58.5*	0.0	22.9*
Region 6	--	34.2*	0.0	12.4*
Region 7	19.9*	20.5*	0.0	19.1
Region 8	16.2*	--	--	13.7*
Region 9	--	57.8*	--	15.9*

Table 13. Leading Causes of Child Death, Aged 5-9 Years, Louisiana, 2010-2012<sup>3, 5</sup>

Rank	Cause of Death	Number	Rate (per 100,000 population)
1	Injuries	70	7.6
2	Neoplasms	20	2.2
3	Diseases of the Nervous System	16	1.7*
4	CMDCA**	10	1.1*

## Key Findings

Injuries, of which motor vehicle accidents were the primary contributor (27 deaths), were the leading cause of death among children aged 5-9 years in Louisiana during 2010-2012. Overall, black<sup>†</sup> children aged 5-9 years were 1.4 times as likely to die compared to white<sup>†</sup> children in the same age group ( $p < .05$ ). There was a 28.2 percent reduction in deaths among black<sup>†</sup> children from 2002-2012 ( $p < .05$ ). The decrease in deaths from 2002-2012 among white<sup>†</sup> children in this age group was not statistically significant.

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

\*\*Congenital Malformations, Deformations and Chromosomal Abnormalities (CMDCA)

--Rates based on counts <5 are suppressed to maintain confidentiality.

† Black indicates non-Hispanic black and white indicates non-Hispanic white.

# Child Deaths Due to Injury

## Children Aged 1 to 9 Years

Figure 12: Proportion of Intentional and Unintentional Injuries among Children, Aged 1-9 Years, Louisiana, 2010-2012<sup>3</sup>

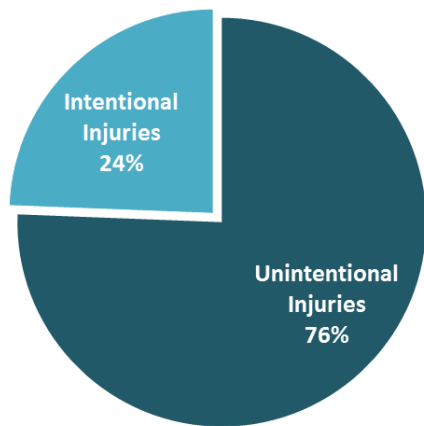


Figure 13: Trend in Injuries among Children, Aged 1-9 Years, All Races, Louisiana, 2002-2012<sup>3</sup>

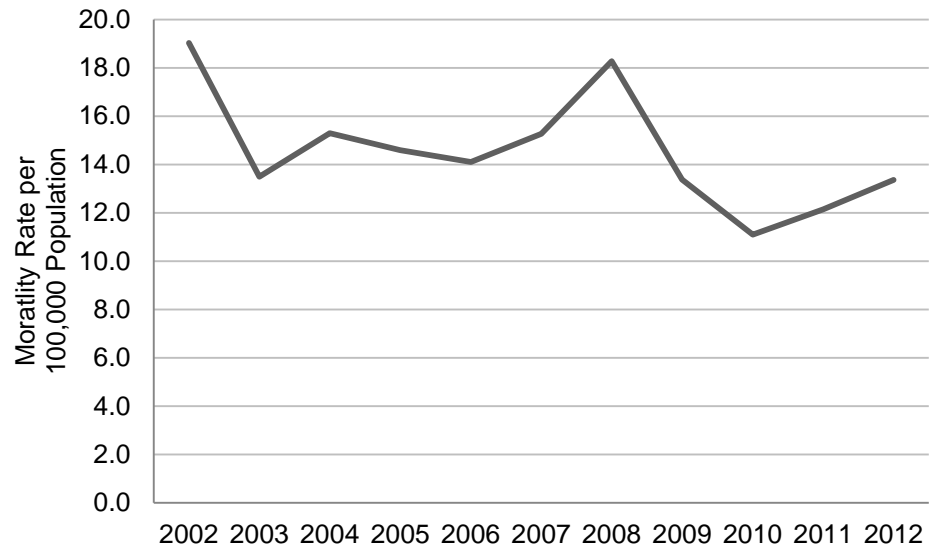


Table 14. Leading Causes of Fatal Injury among Children, Aged 1-9 Years, Louisiana, 2010-2012<sup>3</sup>

Rank	Cause of Death	Number	Rate (per 100,000 population)	Intent
1	Motor Vehicle Accidents	58	3.5	Unintentional
2	Homicide	50	3.0	Intentional
3	Accidental Drowning and Submersion	42	2.5	Unintentional

**Despite being preventable, injuries were the leading cause of death among children aged 1-9 years.<sup>7</sup>**

### Key Findings

Unintentional injuries accounted for more than 75 percent of all injury deaths among children aged 1-9 years old in Louisiana during 2010-2012. Of unintentional injury deaths, motor vehicle accidents (MVAs) were the leading cause. During 2010-2012, 3.5 children per 100,000 in this age group were killed in MVAs. Please note that injury rates are not available by race, ethnicity and region due to small numbers. There was a reduction in injury fatalities among all races in Louisiana from 2002-2012 ( $p < .05$ ).

# Adolescent Deaths

## Adolescents Aged 10 to 14 Years

Figure 14. Proportion of Adolescent Mortality by Gender, Aged 10-14 years, 2010-2012<sup>5</sup>

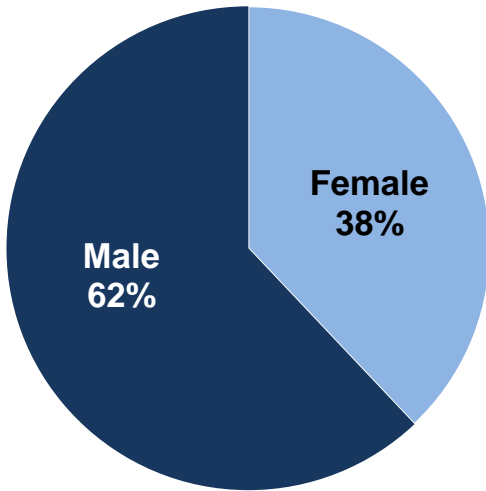
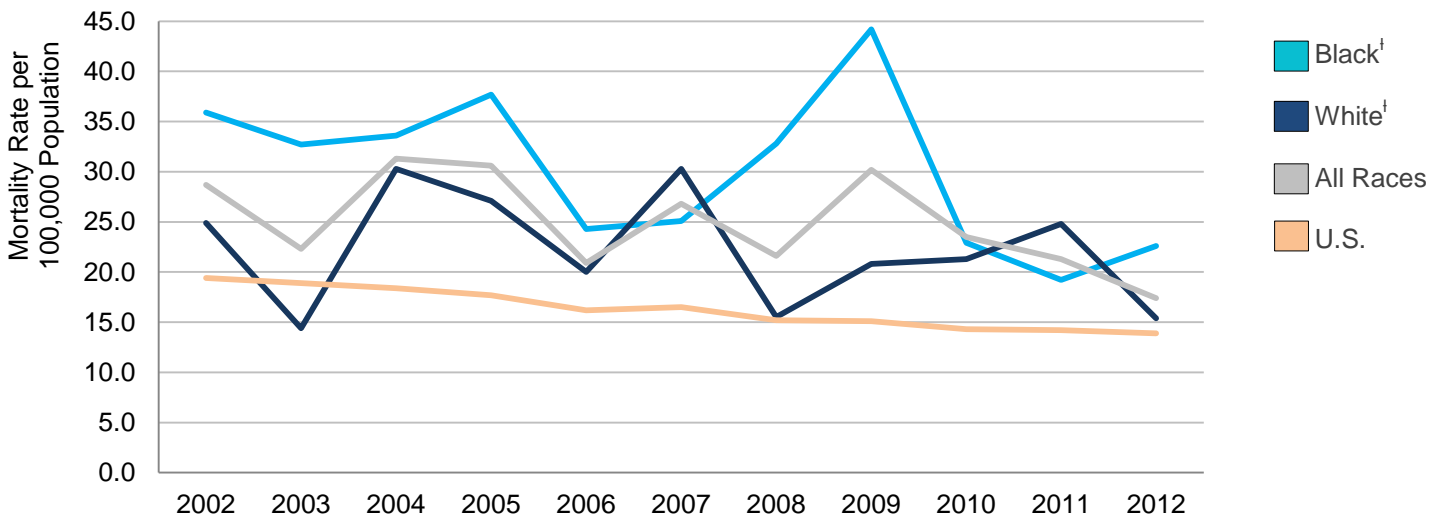


Table 15. Adolescent Mortality Rate per 100,000 Population by Race/Ethnicity, Aged 10-14 Years, Louisiana, 2010-2012<sup>5,7</sup>

	Black <sup>†</sup>	White <sup>†</sup>	Hispanic	All Races
Louisiana	21.5	19.9	11.0*	20.1
Region 1	30.1	12.9*	--	22.0
Region 2	22.4*	14.3*	--	18.3
Region 3	25.8*	16.5*	0.0	17.7*
Region 4	--	11.6*	0.0	10.4*
Region 5	--	23.0*	0.0	23.0*
Region 6	29.8*	19.2*	0.0	21.8*
Region 7	19.7*	32.2*	0.0	24.4
Region 8	18.9*	27.8*	--	24.6*
Region 9	--	26.2	--	22.5

Figure 15. Trend in Adolescent Mortality by Race/Ethnicity, Aged 10-14 Years, Louisiana, 2002-2012<sup>3</sup>



### Key Findings

Though black<sup>†</sup> adolescents had higher mortality rates compared to white<sup>†</sup> and Hispanic adolescents, the overall difference at the state level was not statistically significant during 2010-2012. Males aged 10-14 years in Louisiana were 1.6 times as likely to die as their female counterparts ( $p < .05$ ). There was a 37.0 percent reduction in deaths among black<sup>†</sup> adolescents from 2002-2012 ( $p < .05$ ), but there was not a significant reduction in white<sup>†</sup> adolescent deaths.

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

--Rates based on counts <5 are suppressed to maintain confidentiality.

† Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Causes of Adolescent Death

## Adolescents Aged 10 to 14 Years

Figure 16. Leading Causes of Adolescent Death, Aged 10-14 Years, Louisiana, 2010-2012<sup>3,5</sup>

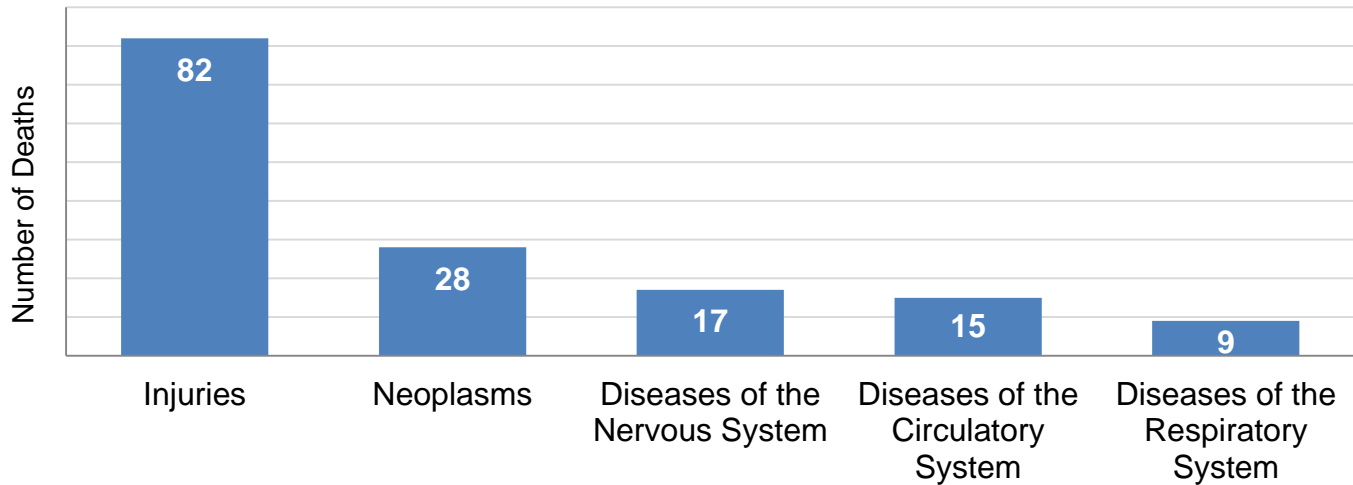
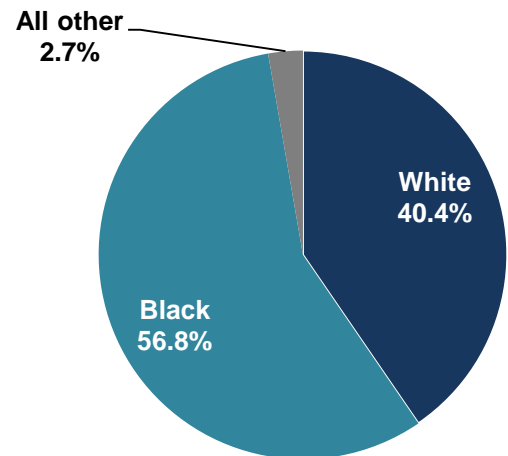


Table 16. Leading Causes of Adolescent Death, Aged 10-14 Years, Louisiana, 2010-2012<sup>5, 7</sup>

Rank	Cause of Death	Rate (per 100,000 population)
1	Injuries	9.0
2	Neoplasm	3.1
3	Diseases of the Nervous System	1.9*
4	Diseases of the Circulatory System	1.6*
5	Diseases of the Respiratory System	1.0*

Figure 17. Proportion of Adolescent Injuries by Race/Ethnicity, Aged 10-14 Years, 2010-2012<sup>5, 7</sup>



### Key Findings

Injuries were the leading cause of death among adolescents aged 10-14 years in Louisiana during 2010-2012, causing nearly three times as many deaths as the next leading cause in this age group. Among fatal injuries, motor vehicle accidents accounted for the largest proportion of deaths at 19.0 percent. Black adolescents were 56.8 percent of deaths. Nineteen adolescents were killed by a firearm in Louisiana from 2010–2012.

\*Rates based on counts less than 20 are unstable and may vary widely from future reports.

--Rates based on counts <5 are suppressed to maintain confidentiality.

† Black indicates non-Hispanic black, and white indicates non-Hispanic white.

# Data Sources and Methodology

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## Data Methods

Data were analyzed using Statistical Analysis System (SAS) 9.2 and Epi Info 7. The alpha level was set at 0.05 when testing for statistical significance.

## Healthy People 2020

Healthy People objectives are selected by a multi-disciplinary team of experts with the intention of identifying national health priorities. Every 10 years, objectives are selected with a goal of meeting the targets by the end of the decade. All Healthy People objectives have standardized indicators with known numerators and denominators.

## Louisiana DHH-OPH Vital Records and Statistics

Data from DHH-OPH Vital Records and Statistics were used to categorize cause of death. The Bureau of Family Health adheres to the International Classification of Diseases (ICD) guidelines for determination of cause of death. In addition to furnishing cause of death, death certificates were used to provide age, race, gender, date of death and parish of death occurrence.

## Child Death Review Case Reporting System

The Child Death Review Case Reporting System hosts data collected about deaths that occur in Louisiana among children under 14 years old. Information is obtained from personal interviews, autopsy reports, medical records, death investigations and death reviews and recorded in the system by maternal and child health regional coordinators. Data from this system were used to report the proportion of deaths reviewed according to age.

# Limitations

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## **Small Number of Events**

Many key indicators are presented at the regional level. Despite the inclusion of multi-year data, some sub-group population counts were less than five and are not presented in the report in order to preserve confidentiality. Though event counts above five are reported, counts less than 20 are considered unstable and should be interpreted with caution, taking into consideration that these numbers, percentages or rates may change drastically in the future. Unstable rates are noted with an asterisk. Furthermore, trends based on unstable rates are not represented in this report. As a result, Hispanics were not included in any trend figures.

## **Data Systems**

Louisiana DHH-OPH Vital Records: Death coding for out-of-state residents was unavailable in death data from 2012. Causes of death for these individuals may be available at a later date.

Child Death Review Case Reporting System: Missing and incomplete data limit the value of child death review (CDR) data prior to 2013, after which the data entry process was improved. Inconsistency in historic data severely limits the use of the data in this system due to an inability to accurately analyze trends and clusters. Due to these limitations, data related to the CDR process from 2010-2012 are unavailable and not reported. Instead, CDR data for years 2012-2013 are reported. These data cannot be compared to data from 2010-2012. In addition to these limitations, quality assessment is currently being conducted for data entered in the CDR Case Reporting System. Thus the reliability and validity of the data are unknown.

# Appendix A: 2015 State CDRP Members

Position	Current Incumbent
Attorney general or designee	Emily Andrews
Citizens-at-large, representing different geographic areas of the State (4)	Dr. Dawn Vick Pam Cart Ashlyn Melton **
Commissioner of the Department of Insurance or designee	Korey Harvey
Louisiana District Attorneys' Association	Joseph Waitz Jr.
Department of Public Safety, Louisiana State Police	Lt. Dave Kolb
Executive director of Highway Safety Commission of the Department of Public Safety and Corrections or designee	Col. John Le Blanc
Executive director of the Louisiana Maternal and Child Health Coalition	*
Forensic pathologist certified by the American Board of Pathology and licensed to practice medicine in the State	**
Health professional with expertise in SIDS and appointed from a list of three names submitted by the Louisiana State Medical Society	Dr. Louis Cataldie
Injury Prevention and Research Center appointee	*
Member of the House of Representatives	The Honorable Scott Simon
Member of the Senate	**
Pathologist experienced in pediatrics	Deborah Cavalier
Pediatrician with expertise in diagnosing and treating child abuse and neglect and nominated by the State chapter of the American Academy of Pediatrics	Dr. Reynaldo Dela Rosa
Louisiana Association of Chiefs of Police	Timothy Lentz Frank Edwards
Secretary of the Department of Children and Family Services or designee	Jan Byland
Secretary of the Department of Health and Hospitals or designee	Amy Zapata
Louisiana Sheriffs' Association	Lauren Meher
State fire marshal or designee	Cindy Gonthier
State health officer or designee	Dr. Takeisha Davis
State registrar of vital records or designee	Devin George

\*Entity no longer exists  
\*\*Open position



# Appendix B: 2015 Local CDRP Coordinators

Region	Coordinator
Region 1	Rosa Bustamante-Forest, A.P.R.N., M.P.H.
Region 2	Kelly Bankston, B.S.N., R.N.
Region 3	Nicole Soudelier, B.S.N., R.N.
Region 4	Christine Cornell, B.S.N., R.N.
Region 5	Linda Pickett, R.N.; Nancy Roach, R.N.*
Region 6	Annelle Tanner, Ed.D., R.N.; Lisa Norman, R.N.
Region 7	Shelley Ryan-Gray, B.N., R.N.
Region 8	Amy Pyles, R.N.
Region 9	Martha Hennegan, R.N.
Statewide	Robin Gruenfeld, M.P.H.

Note: With the exception of the Child Death Review Program (CDRP) coordinators, local CDRPs did not have permanent members.

\*Retired

# Appendix C: Infant Death Review

## A Snapshot of Reviewed Deaths among Infants Less than One Year Old

Child death review panels (CDRPs) reviewed 54.6 percent of infant deaths that occurred during 2012-2013 and met CDR assessment criteria.<sup>5</sup>

### Overview of Deaths Reviewed by CDRPs in Louisiana from 2012-2013

While the majority of deaths reviewed were categorized as accidental, natural or undetermined deaths, there was also a small number of homicides reviewed. Within natural and accidental deaths reviewed, causes of death included asphyxia, SIDS, pneumonia, infections, fatal weapon injuries, motor vehicle accidents (MVs), drowning and falls.

### Risk Factors Identified by CDRPs in Louisiana from 2012-2013

- Unsafe sleep was a frequent factor among SUIDs reviewed. A total of 72.6 percent of SUIDs reviewed occurred in an unsafe sleep environment, with 58.9 percent occurring in an adult bed and 13.7 percent occurring in a couch or chair.
- Sleep position was also identified as a risk factor, with 28.4 percent of SUIDs reviewed reportedly put to sleep on their stomachs.

### What is being done in Louisiana?

- **All 52 birthing hospitals in Louisiana have achieved recognition as safe sleep hospitals** under the Louisiana Safe Sleep Champion Initiative. Designation as a safe sleep champion indicates adherence to American Academy of Pediatrics safe sleep guidelines, ensuring a united and standardized message on safe sleep practices for Louisiana caretakers.
- **Direct on-scene education (DOSE)**, a safe sleep education program carried out in the homes of pregnant women and families with an infant under the age of one, is being piloted in the Lake Charles area. The program is implemented by EMS and firefighters.
- **Coroner and forensic investigator training** is being sponsored by the Bureau of Family Health. These statewide trainings by national experts instruct coroners and forensic investigators on how to properly conduct a SUID investigation, leading to better surveillance of true SIDS and other deaths.
- **Statewide public education and outreach** is conducted by the Bureau of Family Health to promote healthy behaviors to reduce infant mortality. These efforts include safe sleep education and resources; the toll-free helpline, 1-800-251-BABY; and supporting websites.

### What recommendations were made to help prevent infant deaths in the future?

Increased and improved parental education was recommended by many CDRPs, which noted that parents needed to be informed of:

- the need to eliminate soft bedding, bumper pads and other objects from an infant's sleep environment;
- the need for attentive caregiving while an infant is sleeping and for parents to check on their babies at regular intervals, regardless of whether or not they are moving or making noises; and
- the need to promote both placing an infant on his or her back rather than his or her tummy or side and to avoid sharing any sleep surface with an infant.

# Appendix D: Child Death Review

## A Snapshot of Reviewed Child Deaths among Children Aged 1-14 Years

**Child death review panels (CDRPs) reviewed 22.0% of eligible deaths among children 1-14 years old that occurred from 2012-2013 in Louisiana.<sup>5</sup>**

### Overview of Deaths Reviewed by CDRPs in Louisiana during 2012-2013

The majority of deaths reviewed were considered preventable accidental deaths. Natural deaths, suicides, and homicides were also reviewed. Among accidental deaths reviewed, causes of death included motor vehicle accidents (MVAs), drowning, fatal weapon injuries, asphyxia, fire/burns, poisoning/overdose and falls.

### What recommendations were made to help prevent child deaths in the future?

- Tire wear should be included in vehicle inspections to reduce unsafe driving conditions for pedestrians and drivers.
- Public education related to the use of prescription drugs while driving was also identified as an area needing improvement in Louisiana. Pharmacists should be encouraged to review driving precautions with individuals receiving prescription drugs that influence driving ability or to add a safety brochure to the prescription packets for such drugs.
- Seat belt laws and the age and size limits for children riding in the front seat should be strictly enforced.
- Regulations on booster seat usage in Louisiana should be made to match national recommendations.
- Laws prohibiting ATV use on public roads should be strictly enforced, laws requiring helmet use while on an ATV should be implemented, and ATV safety education should be delivered in schools and by Wildlife and Fishery organizations.
- Regulations and enforcement on the presence of barriers (e.g. fences) and other methods used to prevent drownings should be improved.

### What is being done in Louisiana?

Shreveport's Sheriff's Safety Town is a miniature town that allows children to practice safety skills learned within the classroom in a simulated setting. The program provides safety lessons on the use or being in the presence of vehicles, bicycles, pedestrians, fire, guns, water and more. Since opening in 2008, over 33,000 children have visited Sheriff's Safety Town, resulting in a 22.2 percent increase in safety knowledge measured through pre- and post-test scores.<sup>8</sup>

Other efforts include child car seat inspections offered throughout the state, which can be located via [safercar.gov](http://safercar.gov), and the national seatbelt enforcement campaigns, Click It or Ticket and Buckle Up in Your Truck.

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