

LOUISIANA CHILD DEATH REVIEW

2016-2018

**Annual
Report**

Submitted To:

Governor, State of Louisiana

Health and Welfare Committee, Louisiana Senate

Health and Welfare Committee, Louisiana House of Representatives

State and Local Child Death Review Panels

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Executive Summary

Child Death Review, 2016 – 2018

Mission Statement

The mission of the Louisiana Child Death Review is to understand how and why children die unexpectedly in Louisiana in order to prevent as many future injuries and deaths as possible. This is accomplished through comprehensive, multidisciplinary review of the circumstances that contributed to each death.

Background

The Louisiana Department of Health (LDH), Office of Public Health (OPH), Bureau of Family Health (BFH), coordinates the Child Death Review (CDR) Program. As mandated by Louisiana Revised Statute 40:2019, CDRs are conducted for unexpected deaths of children under 15 years of age. State and local panels meet to review child deaths, identify risk factors, and provide recommendations for preventive action. The Louisiana CDR Program is funded through the Federal Title V Maternal and Child Health Block Grant and the Centers for Disease Control and Prevention's Sudden Unexpected Infant Death Case Registry grant.

Summation of Data and Statistics

Every year in Louisiana, an average of 61,000 infants are born alive. Of these infants, approximately **474 die before their first birthday**, and **another 205 children do not survive to their 15th birthday**. From 2016-2018, **2,037 children died**, and 668 of those deaths were due to injury. This represents a **yearly average of 679 infant and child deaths**. During this time period, Louisiana ranked in the top ten states with the **highest mortality rates for infants and children** in almost all age groups.

The CDR program focuses on preventable and unexpected deaths. **About one third of all infant (less than 1 year of age) and child (ages 1-14 years) deaths in Louisiana are due to injury and are potentially preventable.** In infants, most injury-related deaths occur in the sleep environment and are classified as Sudden Unexpected Infant Deaths (SUIDs). SUID is a term used to describe any sudden and unexpected death, whether explained or unexplained (including Sudden Infant Death Syndrome [SIDS], Accidental Suffocation or Strangulation in Bed [ASSB], and deaths coded as ill-defined), occurring during infancy. Motor vehicle crashes, drowning, and homicide, are the leading causes of death for children ages 1 through 14 years.

About This Report

To achieve sufficient sample size for statistical reporting, the 2016-2018 Louisiana CDR Report reflects infant and child mortality over a three year period. Multi-year state and regional rates are provided as well as annual averages of deaths, and the leading causes of child death. Annual averages are provided to help estimate the magnitude of the issue in a one-year timeframe. When available, U.S. rates, Louisiana rates, Louisiana rankings in the U.S., and Healthy People (HP) Goals are provided for comparison. The report is organized into sections by age groups, risk factors and prevention recommendations for leading causes of death, and a summary of current efforts to address infant and child mortality. The report highlights preventable injury fatalities, and additional data are included to provide context on contributing factors. Key points and recommendations are derived from Louisiana CDR data and panel findings, national research, and the established public health evidence base. In addition to Vital Records and Child Death Case Reporting System data, Louisiana Pregnancy Risk Assessment Monitoring System (Louisiana PRAMS) data have been used to augment risk factor findings and prevention recommendations for infant mortality. New to this year's report is the addition of data and analysis related to trends in infant and child mortality over time.

Data Sources and Methodology

Data Methods

Data from LDH's Office of State Registrar and Vital Records were used to determine causes of death. BFH uses the International Classification of Diseases (ICD-10) guidelines to categorize causes of death. In addition to furnishing cause of death, death certificates were used to provide age, race, gender, date of death, and parish of residence. Data were analyzed using SAS software version 9.4.

Louisiana Child Death Review Case Reporting System

Data related to Louisiana's Child Death Review are maintained in the National Center for Fatality Review and Prevention's National Fatality Review Case Reporting System.

Louisiana Pregnancy Risk Assessment Monitoring System (PRAMS)

Louisiana PRAMS is a survey cooperatively managed by the Centers for Disease Control and Prevention and LDH-OPH-BFH.

National Data

National level data are from the National Vital Statistics System database, CDC WONDER. Louisiana rankings are based on national data, and national rates may vary slightly from state rates due to timing of reporting.

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, goals are selected with the objective of meeting the targets by the end of the decade. All Healthy People objectives have standardized indicators with known numerators and denominators.

Data Limitations

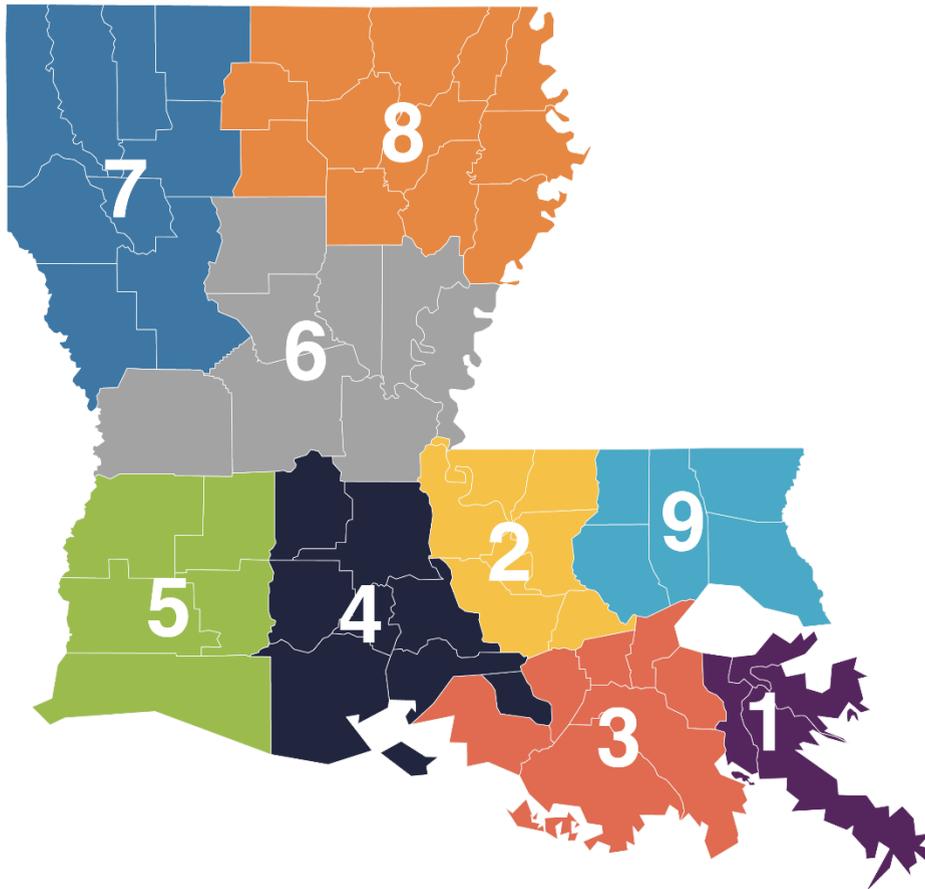
Many key indicators are presented at the regional level, and therefore have smaller counts. Rates based on counts less than 20 are considered unstable and should be interpreted with caution, as these numbers, percentages or rates may change in the future with the addition or loss of a small number of cases. Unstable rates are noted with an asterisk. Trends based on unstable rates are not represented in this report. For example, Hispanic counts were not examined independently as white[†] and Black[†] counts were, due to smaller counts. Additionally, counts of fewer than 5 are not reported to preserve confidentiality. Any cause of death category with counts fewer than 5 were collapsed into an "other" category.

Data Footnotes

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

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

Regional Map of Louisiana



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, Vermilion
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

Infant Mortality in Louisiana

2016-2018 Data

Infant Mortality: All Causes

Birth to 1 year

From 2016-2018 in Louisiana, an average of **474** infants per year died before they reached their first birthday.¹



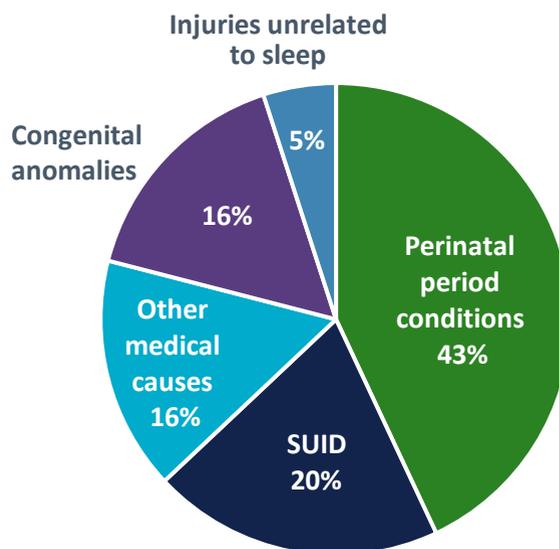
The Louisiana infant mortality rate from 2016-2018 was **7.8 deaths per 1,000 live births**. The U.S. infant mortality rate during the same period was 5.7 deaths per 1,000 live births. **116 fewer** babies would have died each year if Louisiana had the same infant mortality rate as the U.S.

Louisiana Rate ¹	U.S. Rate ²	HP2020 Goal ³			LA Ranking ²					
7.8	5.7	6.0			4th highest in the U.S.					
Infant Deaths by Region (2016-2018) ¹		1	2	3	4	5	6	7	8	9
Average annual infant death counts		74	81	34	57	32	33	69	40	52
Infant mortality rate per 1,000 live births		6.5	9.1	6.7	6.9	7.4	7.9	10.1	8.8	6.9

Causes of Infant Death

Each year, an average of...¹

- **203** infants died from conditions originating in the perinatal period
- **93** infant deaths were classified as Sudden Unexpected Infant Deaths (SUID), which primarily occur in the sleep environment
- **77** infants died from other medical causes
- **75** infants died from congenital anomalies
- **26** infants died from injuries not related to sleep environments



Key Points

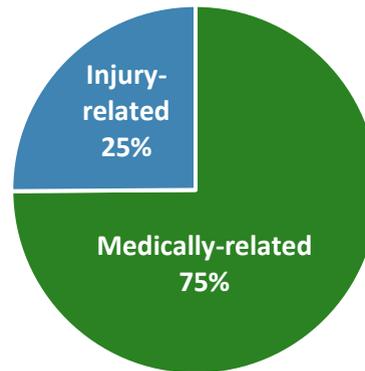
- Louisiana has the fourth highest infant mortality rate in the country.
- Maternal health before conception and during pregnancy is closely linked to the leading cause of infant death: conditions originating in the perinatal period. Nearly half of infant deaths are due to these conditions. Top among those conditions are low birthweight and premature birth, both of which are risk factors for the second leading cause of infant death: SUID. SUID refers to any sudden and unexpected death occurring during infancy, whether explained or unexplained. This category includes Accidental Suffocation or Strangulation in Bed (ASSB), Sudden Infant Death Syndrome (SIDS) and ill-defined deaths.

Infant Mortality: Fatal Injury

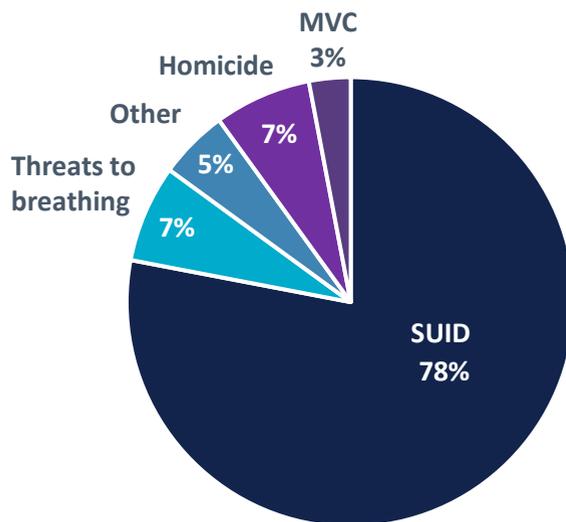
Birth to 1 year

From 2016-2018, an average of **119** infants per year died from an injury before they reached their first birthday.¹

1 in 4 infant deaths were injury-related.¹



Causes of Fatal Injury



Each year, an average of...¹

- **93** infant deaths were classified as Sudden Unexpected Infant Deaths (SUID)
- **8** infants died from threats to breathing
- **6** infants died from another type of unintentional injury, including drowning, falls, fire, and other unintentional causes
- **9** infants died from homicide
- **3** infants died from motor vehicle crashes (MVC)

Key Points

- A significant majority of injury-related infant deaths were classified as SUIDs and were related to the sleep environment.
- In Louisiana, most SUID deaths occur when the infant is 2 to 3 months old. The most common SUID risk factors present among these deaths are: infants sleeping with loose bedding or toys (89%); infants sleeping in something other than a crib or bassinette (81%); and infants sleeping with other people (64%). Other evidence-based risk factors for SUID include: stomach- or side-sleeping position; preterm birth or low birth weight, cigarette smoke in the home; and alcohol, drug, or tobacco use during pregnancy (see pg. 13 for more details).⁴
- 73% of homicides in infants are due to Abusive Head Trauma (AHT) and blunt force injuries.

Neonatal Mortality

Infant deaths between 0 and 28 days

From 2016-2018 in Louisiana, an average of **262** infants per year died during the neonatal period.¹



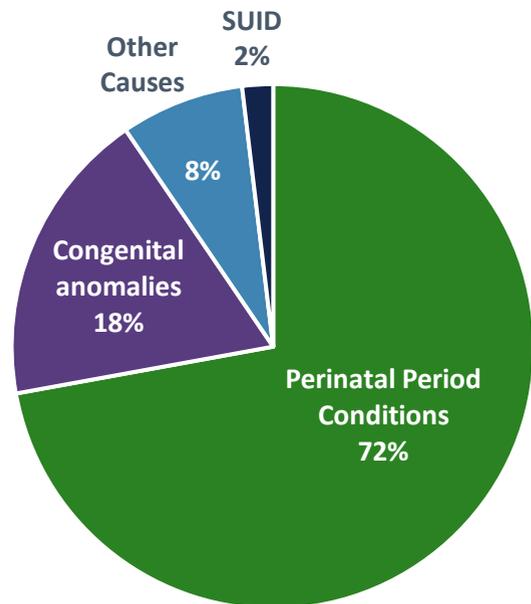
In Louisiana, the **neonatal period** (between 0 and 28 days after birth) is the **period with the most infant deaths** (deaths that occur between birth and 1 year of age). The Louisiana neonatal mortality rate from 2016 to 2018 was **4.3 deaths per 1,000 live births**.

Louisiana Rate ¹	U.S. Rate ²	HP2020 Goal ³	LA Ranking ²
4.3	3.8	4.1	22 st highest in the U.S.

Causes of Death During the Neonatal Period

Each year, an average of...¹

- **189** infants died from conditions originating in the perinatal period
- **48** infants died from congenital anomalies
- **20** infants died from another cause, including injury and other medical causes
- **5** neonatal deaths were classified as Sudden Unexpected Infant Deaths (SUID)



Key Points

- Conditions originating in the perinatal period often stem from poor maternal health prior to conception. Low birth weight and preterm birth account for many of the deaths in this category, but other conditions include, but are not limited to: infections; conditions limiting the baby's ability to receive adequate oxygen; complications related to pregnancy, labor and delivery; and hemorrhage and hematological disorders of the newborn.
- Over 40% of the deaths due to conditions originating in the perinatal period are deaths due to extreme prematurity.
- High stress, inadequate healthcare throughout the life span and during pregnancy, and unmanaged chronic disease negatively affect maternal health, which leads to higher rates of adverse birth outcomes.⁵

Post-neonatal Mortality

Infant deaths between 28 and 365 days

From 2016-2018 in Louisiana, an average of **210** infants per year died during the post-neonatal period.¹



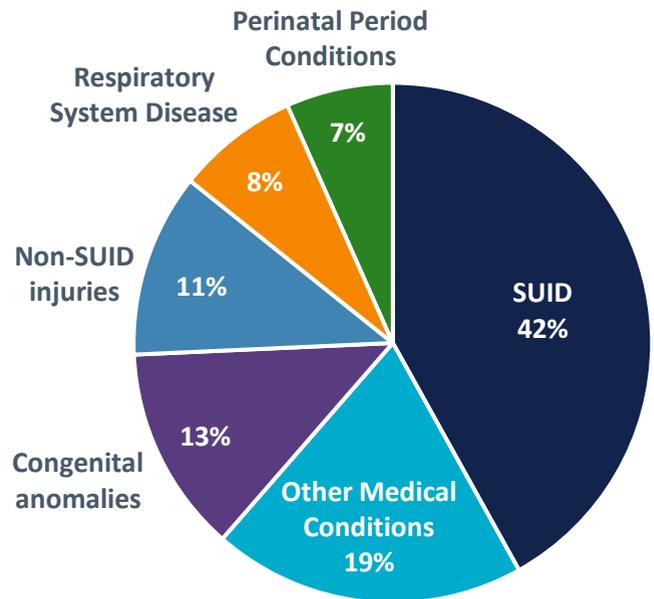
From 2016 to 2018 in Louisiana, fewer deaths occurred during the post-neonatal period than the neonatal period. However, the **causes of death common to this period are more preventable**. For example, 42% of deaths during the post-neonatal period are classified as Sudden Unexpected Infant Deaths (SUIDs). Many of these deaths could be prevented through safe sleep practices.

Louisiana Rate ¹	U.S. Rate	HP2020 Goal ³	LA Ranking
3.3	1.9	2.0	Highest in the U.S.

Causes of Death During the Post-Neonatal Period

Each year, an average of...¹

- **88** infant deaths were classified as SUIDs
- **41** infants died from other medical conditions
- **27** infants died from a congenital anomaly
- **24** infants died from injury unrelated to SUID
- **16** infants died from respiratory diseases
- **14** infants died from conditions related to the perinatal period



Key Points

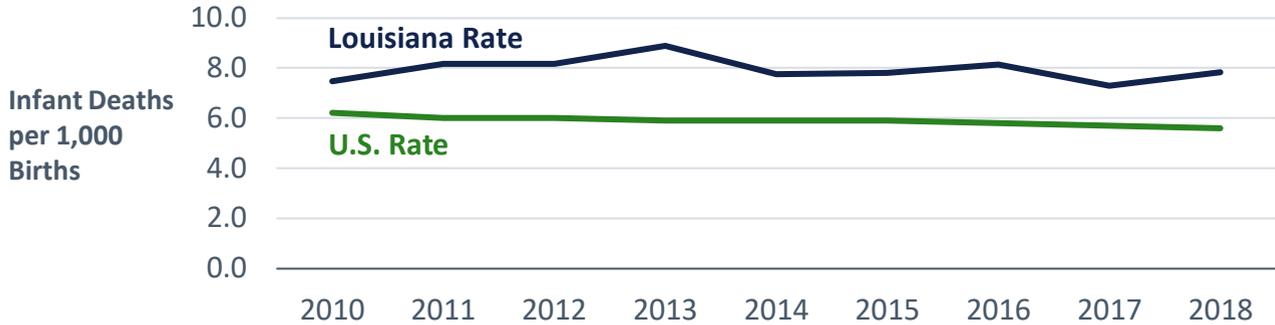
- About half (53%) of deaths during the post-neonatal period were injury-related (this includes SUIDs).
- About 2 out of 5 (42%) infant deaths during this period were classified as SUIDs.
- SUID is considered largely preventable by reducing risk factors and increasing protective factors. Some of these risk factors, including low birth weight or preterm infants and maternal smoking, trace back to maternal health. Other risk factors are behavioral – such as caregivers placing infants to sleep on unsafe surfaces or with soft bedding and toys – or environmental – such as cigarette smoke in the home.⁶ Protective factors include consistently following safe sleep practices (see pg. 13 for details), breastfeeding, regular prenatal care and well-baby check-ups, and keeping infants up to date on immunizations.⁶

Trends in Infant Mortality

Birth to 1 year

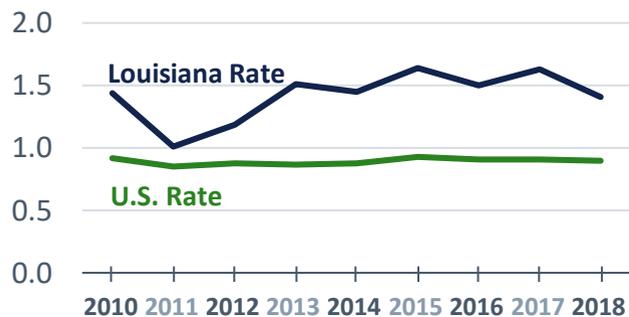
Overall Infant Mortality Over Time

Louisiana’s infant mortality rate stayed relatively consistent from 2010 to 2018, hovering around **8 infant deaths per 1,000 births**. The Louisiana rate also remained consistently higher than the United States rate.



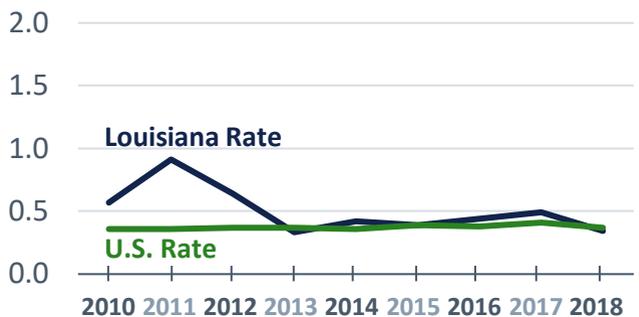
Infant Mortality Due to SUID

While Louisiana’s infant mortality rate due to **Sudden Unexpected Infant Death (SUID)** (measured as deaths per 1,000 births) fluctuated between 2010 and 2018, the average SUID mortality rate remained around **1.5 deaths per 1,000 births**. The infant mortality rate due to SUID in Louisiana also remained consistently above the rate for the United States.



Infant Mortality Due to Injury

The infant mortality rates due to injury (measured as deaths per 1,000 births) seen below do not include deaths due to SUID. Instead, causes include other threats to breathing, homicide, motor vehicle crashes, and other types of unintentional injury (including drowning, falls, and fire). From 2010 to 2018, Louisiana’s overall infant mortality rate due to injury was **0.5 deaths per 1,000 births**.



Key Points

- Overall infant and SUID mortality rates have remained relatively fairly steady since 2010.
- Louisiana consistently has higher infant mortality rates than the United States as a whole.
- SUID prevention is multifaceted. A major component is safe sleep prevention efforts, which have been in place in Louisiana for many years. The state has experienced insignificant fluctuations in rates from year to year, without a consistent decrease in the SUID rate. For more information on SUID, see pages 13 and 16.

Reducing Infant Mortality in Louisiana



Driving factors behind the leading causes of infant deaths and recommendations for prevention

Infant Mortality (Birth to 1 Year)

Driving Factors and Recommendations for Prevention

The top causes of infant mortality include conditions originating in the perinatal period and causes associated with Sudden Unexpected Infant Death (SUID). Many of these deaths can be prevented. The next three pages highlight key risk factors that contribute to infant mortality and provide prevention recommendations.

Conditions originating in the perinatal period are often related to maternal health status. Chronic stress (sometimes due to experiences of racism and discrimination) and inadequate healthcare, coupled with conditions such as hypertension, diabetes, depression, or infections, can lead to adverse birth outcomes. Inadequate healthcare prior to or during pregnancy may be due to the barriers people face when trying to access care, including a lack of transportation, sick leave/sick time, or health insurance.^{16,19} Unequal treatment on the basis of race or insurance type may also deter people from regularly using healthcare services.¹⁶ Further, the healthcare facilities and providers that people do access may not provide adequate reproductive health services, such as a full range of contraceptive options.^{16,18}

Causes of death associated with SUID include Accidental Strangulation and Suffocation in Bed (ASSB) and Sudden Infant Death Syndrome (SIDS), though sometimes the cause is unknown. Some conditions originating in the perinatal period, such as low birth weight and preterm birth, are risk factors for SUID, as are unsafe sleep practices.

Risk Factors for SUID include:⁶

- Preterm birth
- Low birth weight
- Infant sleeping on stomach or side
- Infant sharing a sleeping surface or bed-sharing with other children, pets, or adult(s), especially if the adult is drug- or alcohol-impaired
- Infant sleeping on unsafe sleep surface such as a couch or armchair
- Soft objects, loose bedding, cords, wires, etc. in or near the sleeping area
- Smoking, drinking or using drugs during pregnancy

Protective Factors for SUID include:⁶

- Infant laid down to sleep on back
- Firm sleeping surface, with no objects (toys, pillow, blankets, bumpers)
- Breastfeeding
- Room-sharing with a caregiver, but not in the same bed
- Smoke-free home
- Room at a comfortable temperature and infant is not overdressed
- Pacifier at nap time and bedtime
- Regular prenatal care and well-baby check ups
- Infant is up to date on immunizations

Additional Data Sources

In order to gain a more complete understanding of the context in which infant deaths occur, this section includes information from the 2018 Louisiana Pregnancy Risk Assessment Monitoring System (PRAMS) Survey and case review data from Louisiana CDR, maintained on the [National Fatality Review Case Reporting System](#).

Louisiana PRAMS is an ongoing, population-based risk factor surveillance system designed to find out more about the experiences women have before, during, and immediately following pregnancy. The survey collects quantitative and qualitative data on known risk factors for infant mortality. Louisiana PRAMS data are highlighted on the following pages. More information can be found at PartnersforFamilyHealth.org/PRAMS. Additional Louisiana PRAMS data and reports can be found at PartnersforFamilyHealth.org/data-center. Louisiana CDR data are used in the following pages to determine the prevalence of known risk factors among deaths. Both data sources are used to inform program and policy decisions related to reducing infant mortality.

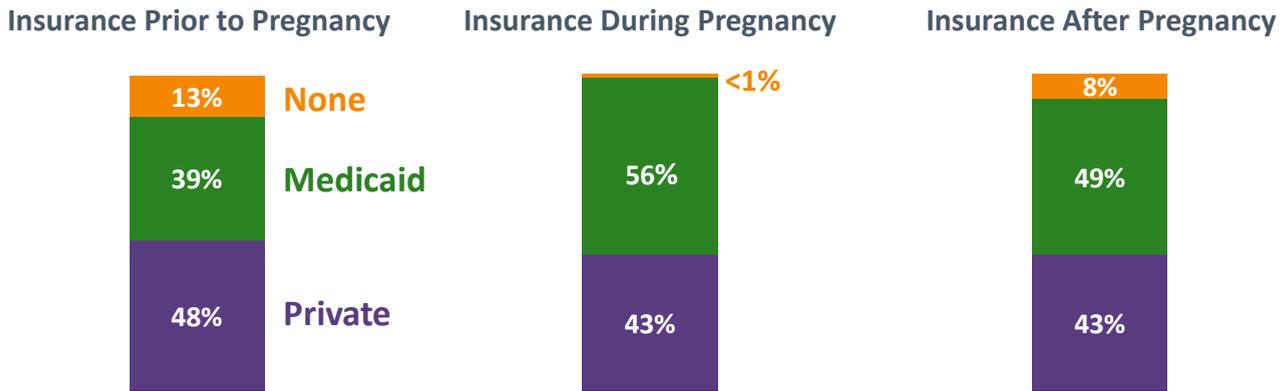
Preconception Health and Family Planning



Maternal health strongly influences infant health. Helping women achieve **optimal health throughout their lives** is key to reducing infant mortality. To remain as healthy as possible, women need adequate **health insurance coverage** and consistent **access to quality healthcare**.

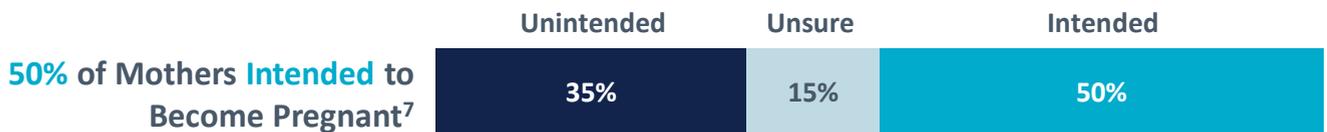
Maternal Health Insurance Coverage (2018)⁷

On June 1, 2016, Louisiana residents with incomes up to 138% of the federal poverty level became eligible to enroll in the state's expanded Medicaid program.



Pregnancy Intention (2018)

Unplanned pregnancies limit women's opportunities to improve their health prior to becoming pregnant. Improving access to family planning services can reduce the rate of unplanned pregnancies and support women's ability to control when they get pregnant, which may be associated with fewer adverse birth outcomes.



Maternal Health Indicators Prior to Pregnancy (2018)

Prior to their most recent pregnancy...⁷

- 60% of mothers were overweight or obese*
- 13% of mothers reported they had depression
- 5% of mothers reported they had diabetes
- 9% of mothers reported they had high blood pressure or hypertension

**Weight criteria based on national Body Mass Index (BMI) categories and calculated from self-reported height and weight on PRAMS Survey*

Recommendation

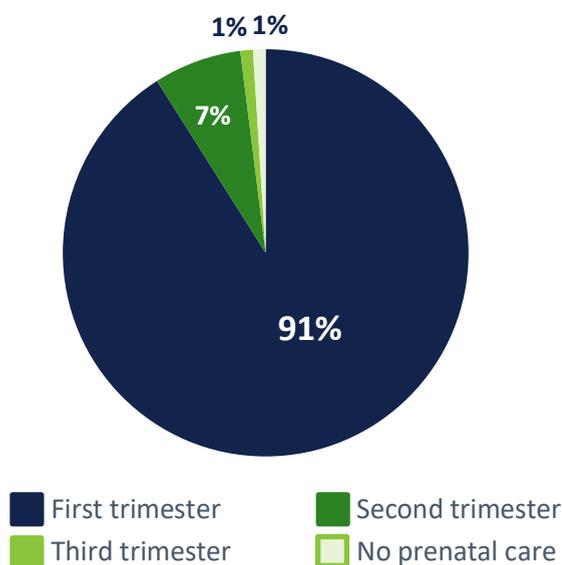
- Improve maternal health by increasing access to family planning services and quality primary care before and between pregnancies. Services focused on care coordination and personalized support, such as home visiting programs, help women navigate insurance coverage options to ensure adequate and consistent coverage.

In 2018, 9% of Louisiana mothers didn't receive prenatal care during the **first trimester**. **Early care is a key part of adequate care and can help reduce infant mortality.**⁷

Adequacy of Prenatal Care in Louisiana (2018)

Adequate prenatal care is defined as having received 80% or more of the recommended prenatal visits for gestational age based on standards set by the American Congress of Obstetricians and Gynecologists.⁷

About 1 in 11 (9%) Louisiana Mothers Do Not Receive Prenatal Care in First Trimester⁷



About 1 in 4 (22%) Louisiana Women Received Less than Adequate Prenatal Care⁷

Inadequate <50% of recommended visits	14%
Intermediate 50-79% of recommended visits	8%
Adequate 80 – 109% of recommended visits	39%
Adequate Plus 110% or more of recommended visits	39%

Data Notes:

- Less than adequate prenatal care includes “Inadequate” & “Intermediate” responses.
- The “Adequate Plus” group tends to represent women with high risk pregnancies.

Reasons for Not Receiving Early Prenatal Care (2018)

On June 1, 2016, Louisiana residents with incomes up to 138% of the federal poverty level became eligible to enroll in the state's expanded Medicaid program. Since expansion, mothers begin prenatal care earlier in pregnancy. However, despite earlier initiation times, increased Medicaid coverage is not associated with a significant effect on the total quality (adequacy) scores of prenatal care during pregnancy.⁷ The most common reasons women reported for not receiving first trimester prenatal care included:⁷

- Didn't know I was pregnant
- Too many other things going on
- Couldn't get an appointment when I wanted
- I didn't have a Medicaid or LaMoms card*

Recommendation

- Home visiting programs support early and adequate prenatal care by helping pregnant women get health insurance that meets their needs, find prenatal care providers, and keep up with appointments.
- Continued legislative support for Medicaid expansion in Louisiana is critical to reduce financial barriers to accessing prenatal care.

Sudden Unexpected Infant Death (SUID)

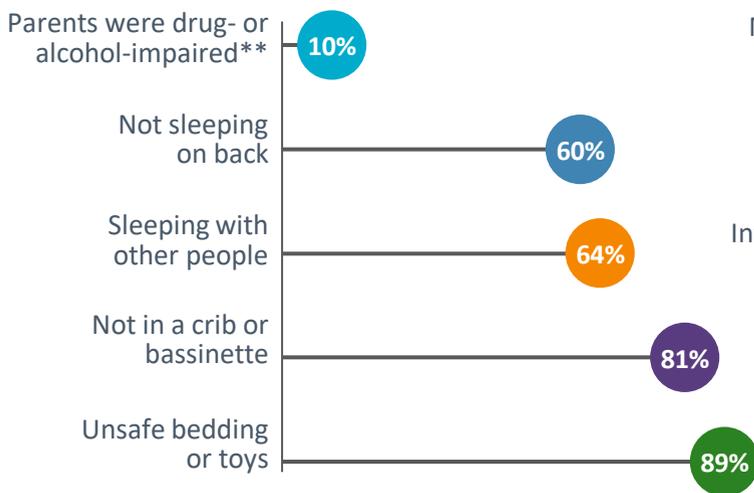


71% of sleep-related deaths in Louisiana occurred by 3 months of age (2016-2018).⁴

SUID Risk Factors in Louisiana

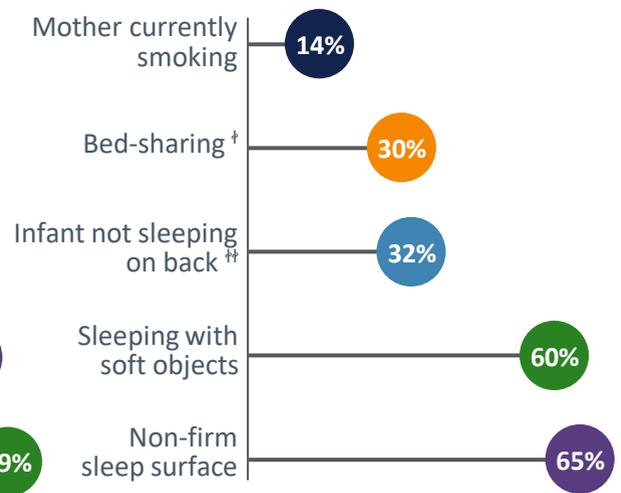
In 2018, **1 in 4 babies (25%)** in Louisiana were exposed to **3 or more risk factors for sleep-related death.**⁷ **30%** of Louisiana mothers said they **sometimes, often or always bed-share** with their baby.⁷ The American Academy of Pediatrics cites bed-sharing as the greatest risk factor for sleep-related infant deaths.

Risk Factors* Present in Louisiana SUIDs (2016-2018 CDR Data)⁴



*Multiple risk factors may be present
 **Drug- or alcohol impairment may be underreported

Infant Sleep Environment Risk Factors (2018 Louisiana PRAMS Data)⁷



† Calculated by mothers' reports of infants sometimes, often or always bed-sharing.
 ‡ Mothers reported how infants were most often laid to sleep in the past two weeks.

Recommendations

- Obstetricians, pediatricians and other direct service providers are encouraged to discuss safe sleep with their patients or clients and their families. These conversations should help parents and caregivers develop realistic strategies to reduce their babies' risk of sleep-related death.
- Providers can model safe sleep environments in clinical, childcare and community settings. This includes setting up safe sleep displays in clinic waiting rooms, workplaces, churches, daycare facilities, and more.
- The Bureau of Family Health manages Give Your Baby Space, a statewide campaign that teaches caregivers the safest ways for babies to sleep. Healthcare, public health, and community partners are encouraged to use the website, GiveYourBabySpace.org, and free printed materials with their patients/clients.
- Agencies responsible for the training and licensure of childcare providers (both center-based and in-home) are encouraged to provide training on safe sleep practices and monitor compliance.
- Maternal and child health agencies and their partners are encouraged to identify and contribute to local or national efforts to persuade businesses and media to show *only* safe sleeping environments in advertisements, entertainment media and news stories featuring sleeping babies.

Child Mortality in Louisiana

2016-2018 Data

Overall Child Mortality

1 to 14 years

From 2016-2018 in Louisiana, an average of **205** children between ages 1 and 14 years old died each year.¹



United States vs. Louisiana

The 2016-2018 Louisiana mortality rate for children ages 1 to 14 years was **23.8 deaths per 100,000 children**. The U.S. rate was 16.5 per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S., **63 fewer** children would have died per year.

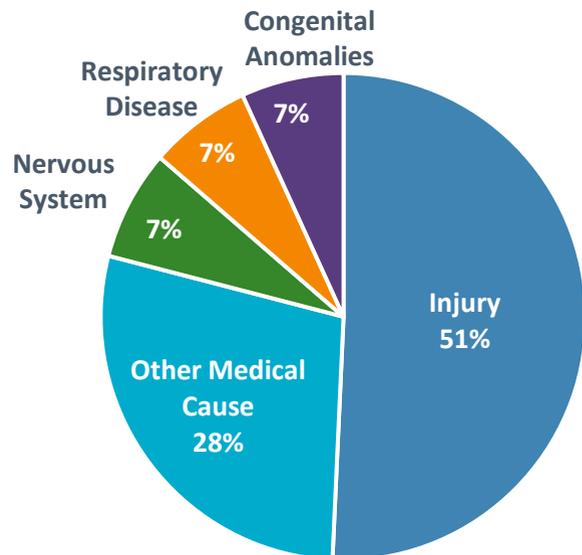
Louisiana Rate ¹	U.S. Rate ²										LA Ranking ²
23.8	16.5										4 th highest in the U.S.
Child Deaths by Region (2016-2018) ¹	1	2	3	4	5	6	7	8	9	10	11
Average annual child deaths	34	29	16	26	16	14	27	18	25		
Child mortality rate per 100,000 children	22.5	23.8	21.6*	21.7	27.5*	24.1*	27.2	27.3*	22.5		

**Rates based on counts less than 20 are unstable and may vary widely in future reporting years.*

Causes of Child Mortality

Each year, an average of...¹

- **104** children died from injury
- **58** children died due to another medical cause
- **15** children died due to diseases of the nervous system
- **14** children died due to diseases of the respiratory system
- **14** children died due to congenital anomalies



Key Points

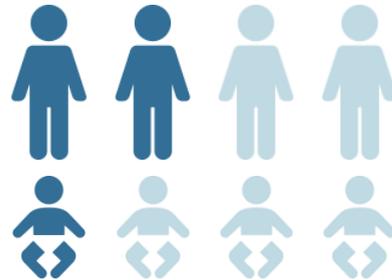
- About half (51%) of childhood deaths (ages 1 to 14 years old) were due to injuries. Most of these deaths are considered preventable.
- The other half (49%) of childhood deaths were due to a medical cause. The most common medical causes are diseases of the nervous system, diseases of the respiratory system, and deaths related to congenital anomalies.

Child Mortality: Fatal Injuries

1 to 14 years

From 2016-2018, an average of **104** children die from injuries each year. The majority of injury deaths were due to motor vehicle crashes, drowning, and homicide.¹

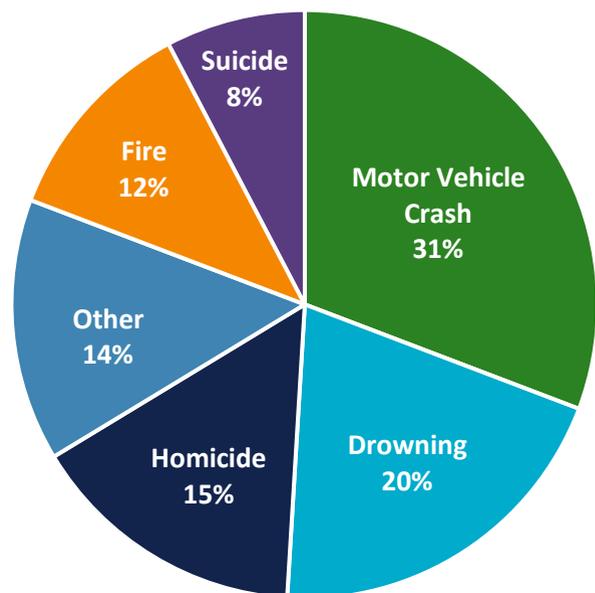
Half of child deaths were a result of injury. Injury makes up a larger percentage of deaths in childhood (**51%**) than in infancy (**25%**).



Causes of Fatal Injury

Each year, an average of...¹

- **32** children died due to motor vehicle crashes
- **21** children died from drowning
- **16** children died from homicide
- **15** children died due to another unintentional cause, including falls, threats to breathing, and other injuries
- **12** children died due to exposure to fire
- **8** children died from suicide



Key Points

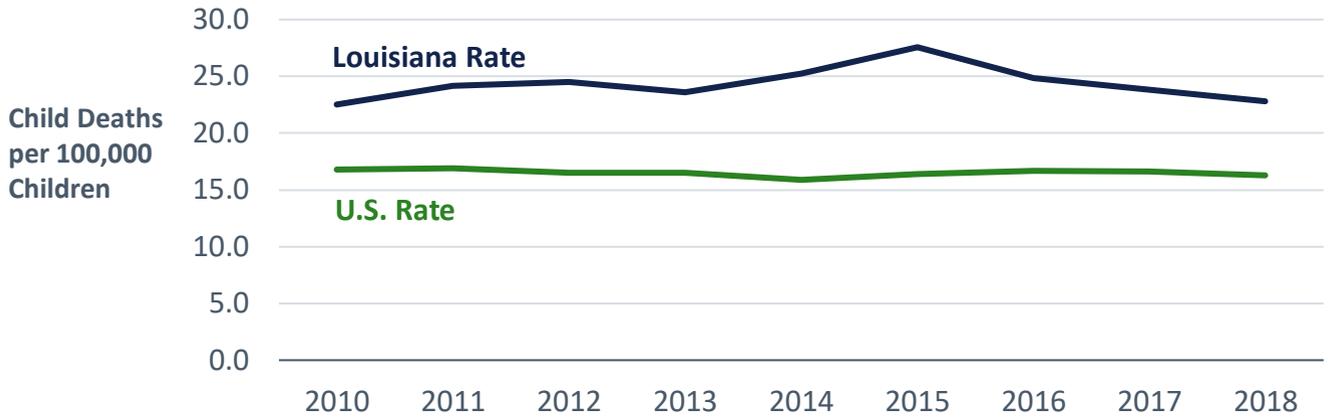
- Motor vehicle crashes, drowning, and homicide were the top causes of injury-related child deaths.
- For the majority of child deaths due to motor vehicle crashes, child safety seats were either not used or used incorrectly.
- Inadequate supervision of children and lack of barriers around water were the top contributing factors in drowning deaths. More than half (61%) of all drowning deaths occurred in swimming pools, hot tubs or spas.

Trends in Child Mortality

1 to 14 years

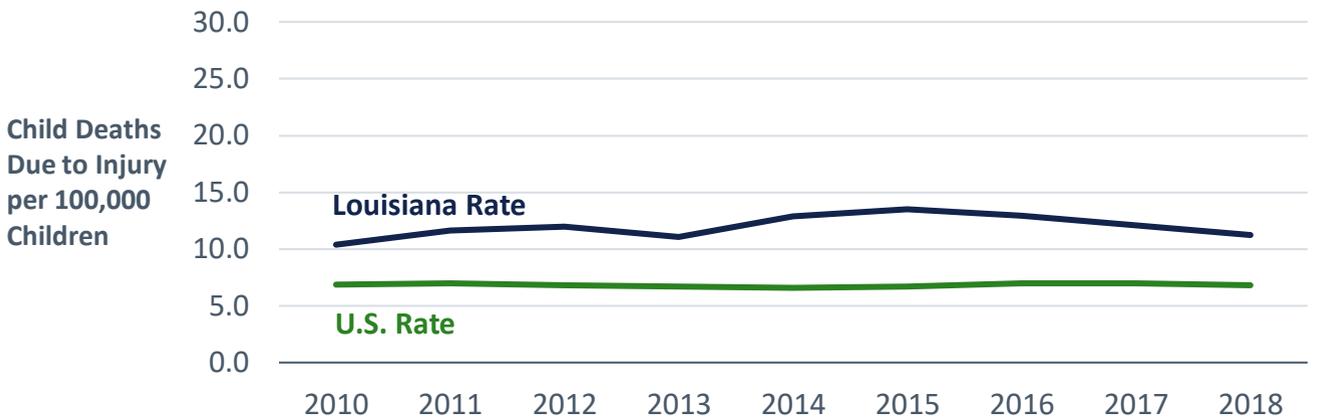
Overall Child Mortality Over Time

Louisiana's overall child mortality rate remained relatively consistent from 2010 to 2018, hovering around **25 child deaths per 100,000 children**. The Louisiana rate also remained consistently higher than the United States rate.



Child Mortality Due to Injury Over Time

Louisiana's child mortality rate due to injury consistently remained around **12 deaths per 100,000 children** from 2010 to 2018. The child mortality rate due to injury in Louisiana has also remained higher than the rate for the United States during this time period.



Key Points

- Overall child mortality and the child mortality rate due to injury have remained relatively steady since 2010.
- Louisiana consistently has higher child mortality rates than the United States as a whole.
- Injury prevention programs have gained traction in the 2016-2018 period. While we have not yet seen an overall decrease in the rates of childhood mortality due to injury, the implementation of swim lessons, building codes for swimming pools, and more protective laws related to child passenger safety will hopefully result in a decrease in injury-related mortality in the next several years.

Child Mortality: Ages 1-4

2016-2018 Data

Child Injury Mortality

Ages 1 – 4 years

From 2016-2018 in Louisiana, an average of **96** children between ages 1 and 4 years died each year. **47** per year died due to injury.¹



United States
vs. Louisiana

From 2016 to 2018, the Louisiana mortality rate for children ages 1 to 4 was **38.6 deaths per 100,000 children**. The U.S. rate was 24.5 per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S. **35 fewer** children in this age group would have died per year.

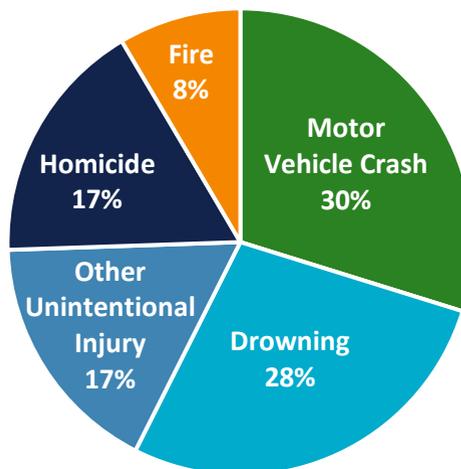
Louisiana Rate ¹	U.S. Rate ²	HP2020 Goal ³	LA Ranking ²
38.6	24.5	26.5	3 rd highest in the U.S.

Causes of Fatal Injury

About half of all deaths among children ages 1-4 years were injury-related.

Each year, an average of...¹

- **14** children died in a motor vehicle crash
- **13** children drowned
- **8** children died due to other unintentional injuries, including but not limited to: falls, blunt force trauma, and threats to breathing
- **8** died from homicide
- **4** died in fires



Key Points

- The greatest disparity between Louisiana and U.S. child mortality rates is found within this age group.
- This age group had the highest injury-related mortality rate among all children in Louisiana.
- The majority of these fatalities were due to unintentional injuries: motor vehicle crashes, drowning, fire-related deaths, falls, and blunt force trauma.
- Homicide is the 3rd leading cause of death in this age group. Specific methods of homicide in this age group include deaths due to blunt force injuries, neglect, asphyxia, and firearms. Note: “other unintentional injury” also causes 17% of deaths, but this category is a grouping of multiple, less frequent causes.
- Creating safe environments for children where they live, learn and play is important to reducing fatalities due to injuries. Safe environments require a variety of physical and behavioral supports, including but not limited to: size-appropriate child passenger safety restraints in vehicles, barriers around bodies of water and fall hazards, smoke alarms inside homes, safe firearm storage, and attentive supervision by caregivers.

Child Mortality: Ages 5-9

2016-2018 Data

Child Injury Mortality

Ages 5 – 9 years

From 2016-2018 in Louisiana, an average of **53** children between ages 5 and 9 years died each year. **25** per year died due to an injury.¹



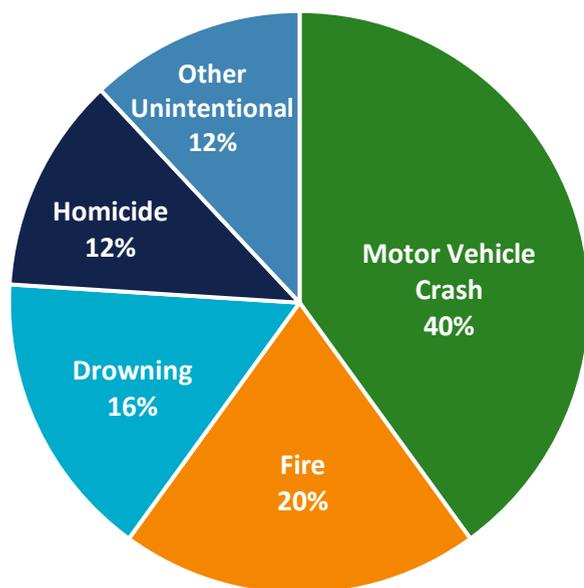
United States
vs. Louisiana

The Louisiana mortality rate from 2016 to 2018 for children ages 5 to 9 years was **17.2 deaths per 100,000 children**. The U.S. rate was 11.8 deaths per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S., **17 fewer** children in this age group would have died per year.

Louisiana Rate ¹	U.S. Rate ²	HP2020 Goal ³	LA Ranking ²
17.2	11.8	12.4	3 rd highest in the U.S.

Causes of Fatal Injury

47% of deaths among children ages 5-9 years were injury-related.



Each year, an average of...¹

- **10** children died in a motor vehicle crash
- **5** children died in fires
- **4** children drowned
- **3** children died from homicide
- **3** children died due to other unintentional injury-related causes, including but not limited to: threats to breathing and falls

Key Points

- Motor vehicle crashes were the most common cause of injury-related death in this age group.
- Among motor vehicle crash deaths in this age group, children were more likely to die as car passengers (79%) than outside the vehicle (i.e. fewer children died as pedestrians or while playing near vehicles). A major risk factor for child passenger deaths was the absence of proper safety gear (shoulder belts, lap belts, child seats, etc.) or improper use of safety gear.⁴
- Among 5 to 9 year olds, 71% of weapons-related injury deaths (including intentional and unintentional injuries) were due to firearms.⁴

Child Mortality: Ages 10-14

2016-2018 Data

Child Injury Mortality

Ages 10 – 14 years

From 2016-2018 in Louisiana, an average of **57** children between ages **10 and 14** years died each year. **31** per year died from injuries.¹



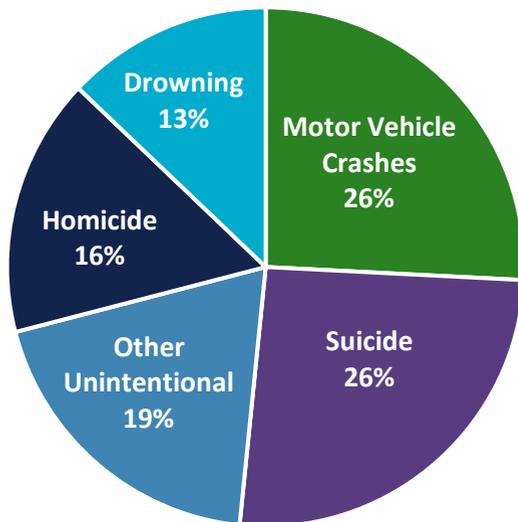
United States
vs. Louisiana

The Louisiana mortality rate from 2016 to 2018 for children between the ages of 10 and 14 years was **18.5 deaths per 100,000 children**. The U.S. rate was 15.0 deaths per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S., **11 fewer** children in this age group would have died per year.

Louisiana Rate ¹	U.S. Rate ²	HP2020 Goal ³	LA Ranking ²
18.5	15.0	14.8	9th highest in the U.S.

Causes of Fatal Injury

54% of deaths among children ages 10-14 years were injury-related.



Each year, an average of...¹

- **8** children died in motor vehicle crashes
- **8** children died from suicide
- **6** children died due to other unintentional injuries, including but not limited to: threats to breathing, falls, blunt force trauma, and fire
- **5** children died from homicide
- **4** children drowned

Key Points

- Motor vehicle crashes and suicides were the most common causes of injury-related deaths in this age group.
- Among motor vehicle crash deaths in this age group, children were more likely to die as car passengers (52%) than outside the vehicle as pedestrians or on bicycles. A major risk factor for child passenger deaths was the absence or improper use of safety gear (shoulder belts, lap belts, etc.).⁴
- In this age group, 77% of weapons-related injury deaths (including intentional or unintentional injuries) were due to firearms.⁴
- Suicides exceed homicides in this age group. Louisiana CDR case reviews indicate that the top risk factors for suicide in this age group include: a history of adverse childhood experiences (term used to describe all types of abuse, neglect, and other potentially traumatic experiences that happen to people under the age of 18) and access to lethal means of self-harm, such as firearms.



Reducing Child Mortality in Louisiana

**Driving factors behind
the leading causes
of child deaths and
recommendations
for prevention**

Child Mortality (Ages 0 to 14 years)

Driving Factors and Recommendations for Prevention

The next four pages highlight risk factors for leading causes of child mortality due to injury, and provide recommendations for reducing risk factors, increasing protective factors and preventing future deaths. Data on infant deaths due to these leading causes have been included as well to provide a more complete picture of injury-related infant and child deaths in Louisiana. Further, reducing the risk factors and increasing the protective factors identified in this section work to prevent both infant and child deaths.

Motor vehicle crashes (MVC) are the top cause of child death in Louisiana. These are predominantly crashes involving motor vehicles, but include all transport-related deaths, such as incidents involving All Terrain Vehicles (ATV), boats, and aircrafts. Homicide and drowning are the second and third top causes of child death (ages 0-14) in Louisiana, respectively. The category of “Other” unintentional injury deaths includes multiple causes, such as falls, blunt force trauma, fire-related, poisoning, and asphyxia (suffocation).

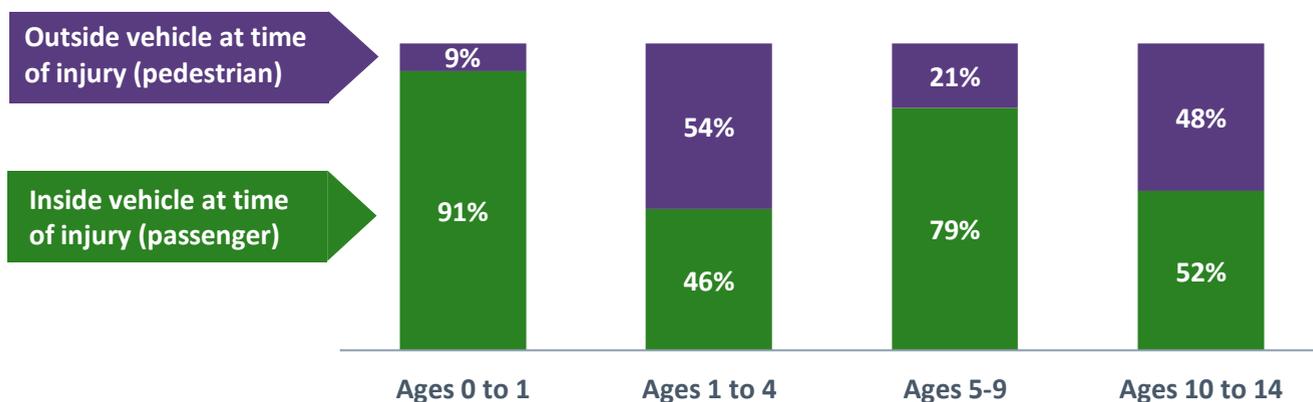
During and following Regional and State Child Death Reviews, data were analyzed and organized, then added to the National Fatality Review Case Reporting System database. Data from this database were used in the following pages to determine the prevalence of risk factors in Louisiana deaths due to motor vehicle crashes, homicide, drowning, and suicide.

Child Motor Vehicle Crash (MVC) Deaths

Risk Factors & Recommendations, 2016-2018 data

107 infants & children in Louisiana died due to MVCs from 2016-2018.⁴ Infants & children ages 5 -14 years were more likely to die as **passengers** in MVCs. Children ages 1-4 years were more likely to die **outside of the vehicle** (e.g. as pedestrians or while riding a bicycle)⁴

Location of Victim at time of MVC, by Age Group⁴



Safety Features Used Incorrectly or Not Present in Child MVC Deaths⁴



For the majority of child deaths due to motor vehicle crashes, **child safety seats** and **seat belts** were either **not used or used incorrectly**.

NOTE: Updated child passenger safety legislation went into effect in 2019. These data reflect only 2016-2018 deaths.

Recommendations

- Pediatricians and other providers should discuss the correct type of car/booster seats parents should use, based on their child's age and size; requirements and national recommendations change as children grow.
- As of 2019, Louisiana's child passenger safety (CPS) legislation reflects best practices and is one of the safest CPS laws in the country. Prevention professionals should work to ensure all families have access to appropriate seats and instruction/assistance for correct installation.
- Car seat distribution programs are recommended to increase the availability of free or low-cost seats for families in need. Programs or events that provide no-cost installation assistance are also recommended.
- Safety professionals should monitor enforcement of legislation related to child safety seats.
- Policies around improper restraint and drinking and driving should be strictly enforced.⁸
- Injury prevention professionals are encouraged to conduct environmental assessments of areas where children gather (parks, schools, libraries, etc.) for unsafe road conditions such as poor visibility, lack of cross-walks or stop signs, high speed, or poorly coordinated traffic.⁹

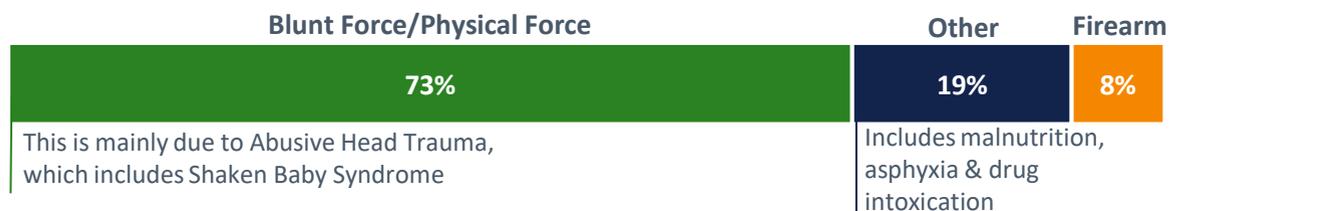
Homicide Deaths in Children

Risk Factors & Recommendations, 2016-2018 data

74 infants and children in Louisiana were victims of homicide from 2016-2018.¹ Infants were more likely to die from **blunt force injuries, including Abusive Head Trauma**, while children ages 1-14 years were more likely to die from **firearms**.

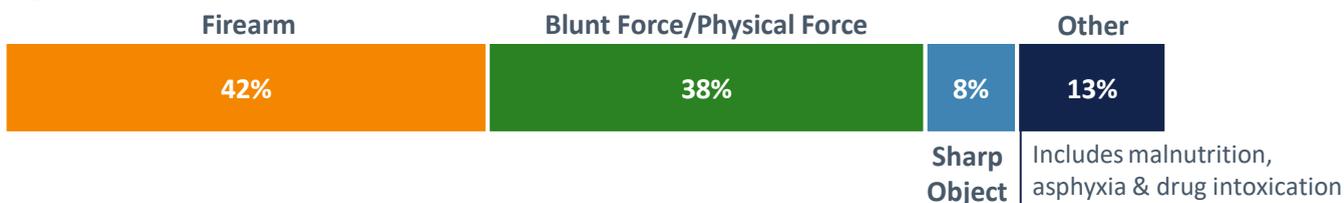
Homicide Methods

Ages 0-1 years in Louisiana¹



Homicide Methods

Ages 1-14 years in Louisiana¹



There were **74** homicides between 2016-2018, but CDR teams only received full case information for **38** of these cases due to policies surrounding open investigations.

Recommendations

Based on recommendations from Children's Safety Network,¹³ American Academy of Pediatrics,¹⁴ and Safe States Alliance.¹⁵

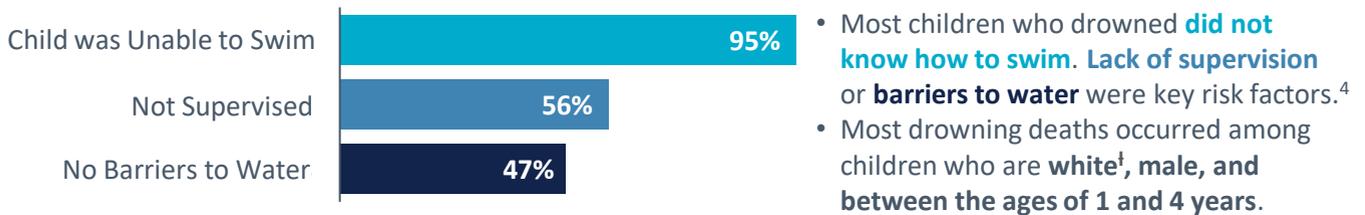
- **Pediatricians are encouraged to regularly talk to parents about:**
 - Safely storing all firearms in children's primary home and relatives' homes. Safe storage includes locking up firearms and storing firearms and ammunition separately.
 - Strategies and resources for managing stressful parenting situations (e.g. excessive crying in infants, toddler meltdowns), including safe, age-appropriate methods of discipline.
- **Policymakers and public health agencies are encouraged to:**
 - Promote and enact evidence-based interventions that promote safe, stable, and nurturing relationships between children and caregivers. Interventions should promote positive parent-child interactions and cultural norms supporting safe child discipline.
 - Support and enact evidence-based violence prevention interventions that are guided by a risk and protective factor approach. Using this approach leads to interventions that impact multiple health outcomes, including chronic disease, injury and violence. More information can be found in the [CDC's Connecting the Dots](#) guide and the Prevention Institute's [Recommendations for Preventing Gun Violence](#).
 - Support the use of CDR and the National Violent Death Reporting System (NVDRS) in Louisiana to collect and analyze comprehensive homicide data in order to inform prevention and policy efforts.
- **Sporting agencies, governmental bodies and hunting enthusiasts** should advocate and facilitate training for novice hunters. Training should cover safe firearm handling and preventing unintentional discharge.

Child Drowning Deaths

Risk Factors & Recommendations, 2016-2018 data

64 infants and children in Louisiana died from drowning from 2016-2018.⁴ Louisiana had the **highest rate of drowning in the U.S.** for children ages 0-14 years. Drowning was the **3rd leading cause of injury-related death** for children ages 0-14 years in Louisiana.¹

Top Risk Factors for Drowning in Louisiana⁴



Drowning Location

Of children who died from drowning in Louisiana, **over half (61%)** drowned in a **pool, hot tub, or spa**.⁴



Recommendations

Based on shared recommendations from the CDC,¹⁰ Safe Kids Worldwide,¹¹ and Children's Safety Network.¹²

Pool owners or operators and water safety instructors should:

- Emphasize or require supervision of all children, at all times, when they are in or around water. Supervision consists of at least 2 designated adult "water watchers" within "touch distance."
- Only use floatation devices that have been approved by the US Coast Guard (USCG) for the specific weight of the child using the device. Product will have the USCG imprint on it.
- Teach children to swim close to lifeguards and to only swim in designated swimming areas.
- Maintain automatic external defibrillators (AEDs) and rescue equipment near pools.
- Require CPR and First Aid certification for pool supervisors, and ensure quick phone access to call 911.
- Follow pool safety standards, secure pool/spa ladders, and install updated safety-compliant drains & pipes.
- Maintain clear visibility of pool surface & floor.

Community and municipal leaders should:

- Organize free or affordable swim lessons for children and adults.
- Increase regulations and code enforcement for barriers around pools, spas/hot tubs, and ponds.

Building officials, insurers and pool professionals should:

- Require and enforce the use of standard safety features around pools, spas and ponds, such as barriers, gates, door and pool alarms, and covers.

Pediatricians and other health and social service professionals serving families should:

- Instruct parents and caregivers to maintain constant supervision of infants while they are in bathtubs, and limit toddlers' access to all water sources, including bathtubs, fountains, buckets & storm drains.
- Share drowning prevention health education resources with caregivers, from sources such as poolsafely.gov.

Suicide Deaths in Children

Risk Factors & Recommendations, 2016-2018 data

From 2016-2018, 25 children in Louisiana died from suicide.¹
 More than **half of these suicides** were completed using a **firearm**.

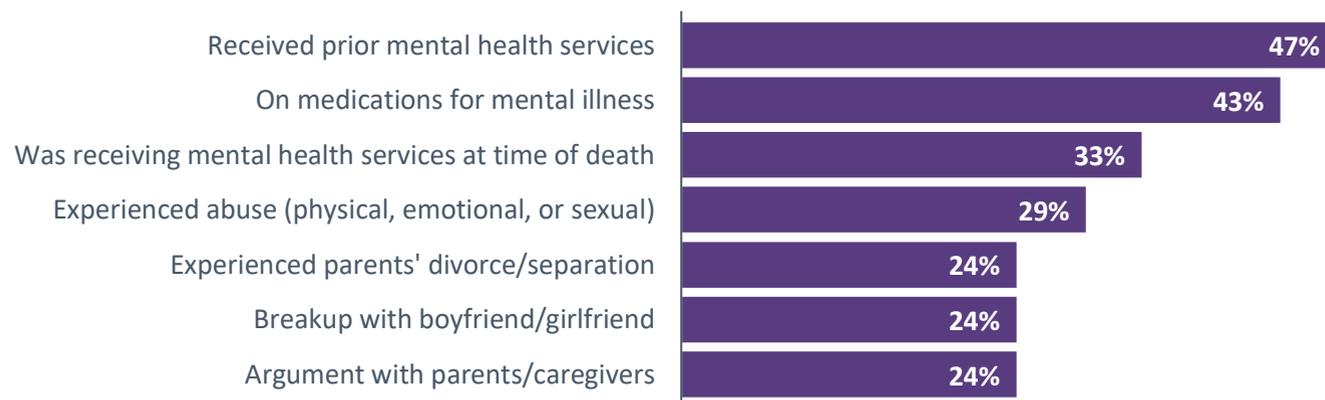
Suicide Methods

Children ages 1-14 years in Louisiana¹



Experiences of Children who Died by Suicide

Local Child Death Review teams reviewed 21 out of 25 child deaths due to suicide from 2016-2018. The graph below reflects only reviewed cases, and data are not mutually exclusive.



Recommendations

Based on recommendations from Children's Safety Network,¹³ American Academy of Pediatrics,¹⁴ and Safe States Alliance.¹⁵

- Pediatricians should regularly talk to parents about how to safely store firearms in children's primary home and relatives' homes. Safe storage includes locking up firearms and storing ammunition separately.
- Healthcare providers and counselors should use valid and reliable screening tools (e.g. ASQ Suicide Risk Screening Tool or Beck's Scale for Suicide Ideation) to assess children for suicide risk.
- Educators and those working with youth should receive training, such as [Living Works' ASIST](#) or [safeTALK](#), in order to recognize warning signs for suicide and connect at-risk youth to help. The Louisiana Department of Education is responsible for monitoring compliance with training for educators.
- Policymakers are encouraged to work with public health agencies to understand how social determinants of health and health inequities (such as historical and community trauma, inequitable distribution of protective services and resources, gender norms, and others) contribute to race, place, and gender differences in suicide and self-harm, including firearm injuries.
- The Louisiana Department of Health and partners should promote evidence-based interventions that work to increase community connectedness and resilience; build individual empathy and emotional regulation skills; and teach children positive behaviors and relationship-building. These interventions are designed to prevent children from using violence against themselves or others.
- Policymakers should support the use of CDR and the National Violent Death Reporting System (NVDRS) in Louisiana to collect and analyze comprehensive suicide data in order to inform prevention and policy efforts.

Racial Disparities

Infant and Child Mortality

2016-2018 Data

1974

“Minority health, as affected by **institutional racism**, can only improve when **efforts from the entire complex of human and public services are purposefully applied to accomplish that specific goal**”

- American Public Health Association
Racism in the Health Care Delivery System Resolution, 1974

2020

“Racism attacks people’s physical and mental health. And **racism is an ongoing public health crisis that needs our attention now!**”

- American Public Health Organization,
Statement from the Executive Director, Georges Benjamin, MD, 2020

Racial Disparities in Mortality

Infants ages 0 to 1 year, and children ages 1 to 14 years

Racial disparities in mortality exist throughout Louisiana and the United States, and are complex and due to many factors. Infant and child mortality is influenced by a wide range of intergenerational social, economic, clinical and environmental determinants. Racial disparities across important non-clinical factors, such as income and wages, opportunities for stable employment, housing costs, community infrastructure, and access to preventive healthcare¹⁶ and family planning services¹⁷ increase corresponding disparities in infant and child mortality.^{18,19}

In Louisiana, **Black† infants** are **more than twice as likely** to die as white† infants. **Black† children** are **almost twice as likely** to die as white† children.

Black† infants are at higher risk for Sudden Unexpected Infant Death, the leading cause of injury-related infant death. Some families may find it especially difficult to consistently follow safe sleep recommendations for a number of social and economic reasons, including shift-work or other non-traditional work schedules, exhaustion, inability to afford safe sleep products such as cribs and Pack ‘n Plays, misconceptions or lack of knowledge about safe sleep practices, or home safety concerns leading caregivers to believe that bed-sharing is the safest option.^{20,21}

Low socioeconomic status is correlated with injury-related child fatalities.²² Families living in economically disadvantaged communities, which are characterized by a lack of resources and effective infrastructure, may be at higher risk for unsafe conditions. Examples include:

- Families with lower incomes and limited resources may need to prioritize basic needs such as housing, food, and transportation over safety equipment. Items such as child passenger safety seats and bicycle helmets can be expensive. Many communities do not have consistent access to organizations that may provide these safety items for free or at reduced cost.
- Older vehicles are equipped with fewer safety features than newer ones.
- Economically disadvantaged neighborhoods may not have municipal swimming pools or access to free or low cost water safety and swim lessons.
- Dilapidated buildings, open drainage canals, limited hazard mitigation, high rates of violent crime, poorly lit or poorly designed roadways, and limited enforcement of road safety rules put children at risk.
- Limited access to affordable, quality childcare may result in infants and children being cared for by non-professionals who do not have adequate safety training.
- Limited access to quality trauma care can result in worse injury outcomes.

Addressing structural and socioeconomic inequities, such as the ones listed above, at a community and institutional level will help reduce health disparities, as well as overall infant and child fatalities. Further, efforts to reduce inequities must address structural racism, which is a key driver of disparities in income, education, neighborhood safety, and access to quality care.

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

Racial Disparities in Mortality

Infants ages 0 to 1 year

Black[†] infants are at an increased risk of dying, as compared to their white[†] peers.¹



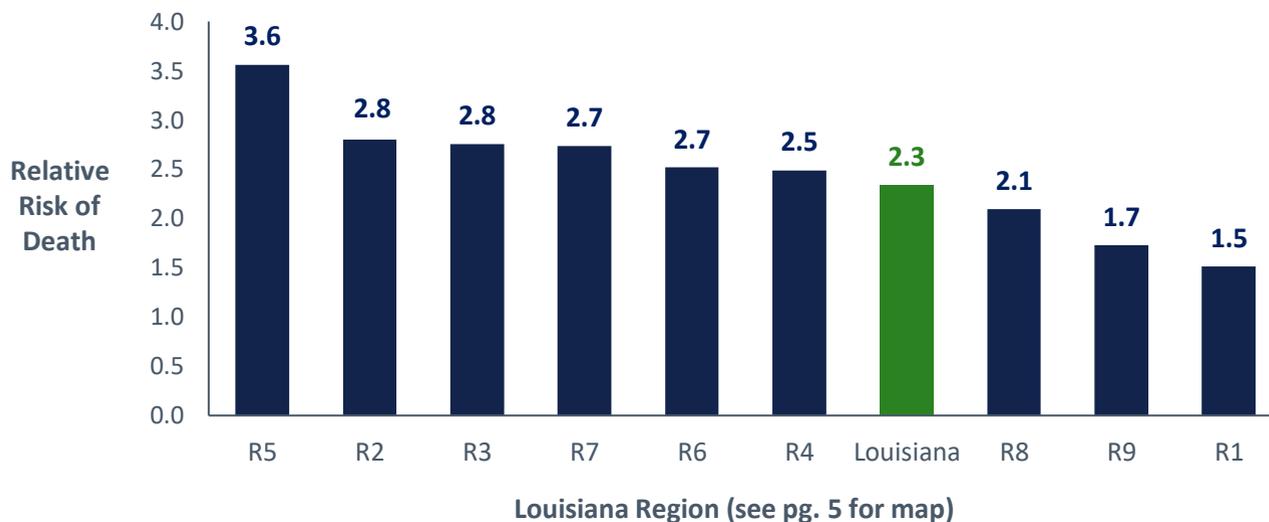
In Louisiana from 2016 to 2018, Black[†] infants were **2.3 times as likely to die** as white[†] infants.

Mortality Rate, 2016-2018		
Age Group	Black [†]	White [†]
Infants, birth to 1 year	12.2 deaths per 1,000 live births	5.2 deaths per 1,000 live births

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

Relative Risk of Infant Death for Black[†] vs. white[†] Infants

Relative risk is the probability of an event occurring in one group and not another.



Key Points

- Infant mortality affects Black infants more than white infants.
- Region 5 (Lake Charles Area) has the greatest racial disparity in birth outcomes. In this region, Black[†] infants are more than 3 times as likely to die as white[†] infants.
- Mortality data for Hispanic infants and children were not included in racial disparity calculations because of insufficient counts – i.e. the number of Hispanic infants or children who died in Louisiana from 2016-2018 was too small for a reliable comparison against mortality rates for white[†] and Black[†] infants.

Racial Disparities in Mortality

Children ages 1 to 14 years

Black[†] children are at an increased risk of dying, as compared to their white[†] peers.¹



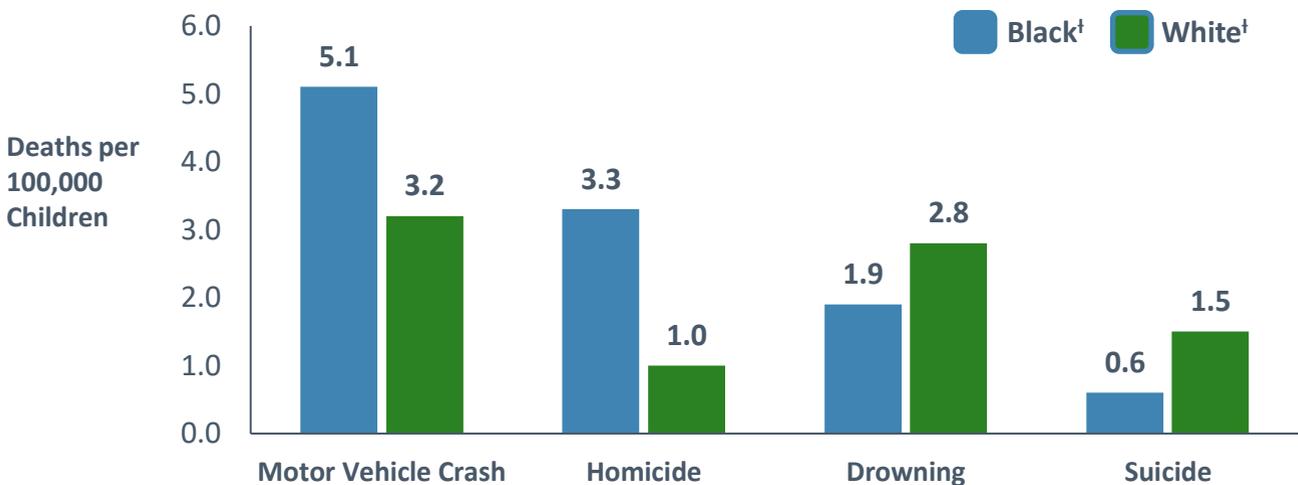
In Louisiana from 2016 to 2018, Black[†] children were **1.6 times as likely to die** as white[†] children.

Mortality Rate, 2016 - 2018		
Age Group	Black [†]	White [†]
Children, 1 to 14 years	32.4 deaths per 100,000 children	20.1 deaths per 100,000 children

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

Mortality Rates by Top Causes of Death & Race

In Louisiana from 2016 to 2018, **Black[†] children** in Louisiana were more likely than white children to die in a **motor vehicle crash** or due to **homicide**. **White children[†]** in Louisiana were more likely than Black children to die by **drowning** or due to **suicide**.



Key Points

- Child mortality affects Black children more than white children.
- While the top cause of injury-related death for both Black and white children was motor vehicle crashes, the second through fourth top causes of death varied by race.
- Mortality data for Hispanic infants and children were not included in racial disparity calculations because of insufficient counts – i.e. the number of Hispanic children who died in Louisiana during this time period was too small for a reliable comparison against mortality rates for white[†] and Black[†] children.



Injury Prevention Recommendations & Considerations for Children and Youth with Special Health Care Needs

Recommendations and Considerations

Children and Youth with Special Health Care Needs

Since 2016, in an effort to address the needs of all children in Louisiana in a more equitable way, the Bureau of Family Health (BFH) has included a Family Advisor in various workgroups and initiatives. In 2018, a Family Advisor joined the Louisiana State CDR panel to provide a family perspective to case reviews, especially with regard to injury prevention for children and youth with special health care needs. While deaths among this population may be few in number, they are no less tragic. In many instances, simple accommodations and systems-level checks and balances can prevent serious injuries and deaths.

The following recommendations and considerations focus on protecting children and youth with special health care needs from the leading causes of fatal injury. They are informed by Louisiana CDR case reviews and national recommendations.

Motor Vehicle Passenger Safety



- Early intervention specialists, case managers, respite and attendant care service providers, pediatricians, and allied health providers should:
 - Ensure every child has an appropriately sized and supportive car seat. Providers may need to make referrals for seating assessments, write prescriptions, or provide letters of medical necessity for payer authorizations.
 - Educate caregivers and families on wheelchair transportation safety protocols, including the need for secure locking systems and appropriate head and neck supports.
- Louisiana Medicaid Managed Care Organizations are required to pay for transportation accommodations, including specialized car seats, for families that can demonstrate medical necessity. Providers and public health agencies should work with families to provide letters of medical necessity when appropriate. More transportation safety resources, including those focused on accommodations for children with special health needs can be found on [Buckle Up, Louisiana](#).
- Identifiers that convey personal health information or medical diagnoses can be placed on or inside cars to quickly alert emergency responders to passengers' special health needs in the event of a crash. Examples of identifiers include seat belt clips or notification stickers that indicate a condition such as deafness, autism, paralysis, rare protocol needs, inability to speak, etc. Providers and agencies serving children with special health care needs should consider partnering with community organizations to provide personal health identifiers to families for use in their cars.
 - The Louisiana Bureau of Emergency Medical Services and BFH's Emergency Medical Services for Children program facilitate the [Louisiana Yellow Dot Program](#), which provides families with a bright yellow envelope containing an emergency information form. The envelope is kept in the vehicle glove box, and a yellow notification sticker is placed on the rear glass.
- Vehicle heat safety awareness is important for all caregivers and families, but children with special health care needs can be particularly vulnerable. Children with chronic medical conditions may be at higher risk in extreme heat situations, as they can be more sensitive to heat, less likely to sense or respond to changes in temperature, or may take medications that compound the effects of extreme heat.²³
- More information about motor vehicle safety and transportation considerations for children and youth with special needs can be found at PreventInjury.pediatrics.iu.edu/special-needs. The website has resources for providers – including a guide to child safety seats and passenger restraints, special considerations by medical condition, and up-to-date information about safety recommendations and equipment – as well as a parent-friendly Frequently Asked Questions page.

Recommendations and Considerations

Children and Youth with Special Health Care Needs

Water Safety



- Early intervention specialists, case managers, respite and attendant care service providers, pediatricians, and allied health providers should ensure children have appropriately supportive bath equipment. Providers and public health agencies may need to make referrals for seating assessments, write prescriptions, or provide letters of medical necessity for payer authorizations.
- Some community organizations offer swimming lessons specifically for children and youth with special health care needs, such as [JoJo's Hope](#).²⁴ Providers should familiarize themselves with organizations in their area that provide this service, and refer families.

Fire Safety



- For families who receive in-home early intervention services, case management, attendant or respite care services, allied health services, or home health services, providers should:
 - Regularly document fire safety education and fire drill demonstrations
 - Perform and document environmental scans noting any risks or hazards
 - Verify the presence of working smoke detectors, fire extinguishers, and window stickers identifying the location of the child's bedroom for firefighters. If any of these items are missing in the home, refer families to community organizations that provide smoke detectors, replacement batteries, fire extinguishers, and identifying window stickers.²⁵
- Families with children who are deaf or hard of hearing should use smoke detectors that use visual alarm indicators, such as flashing lights, especially in the room where the child sleeps. Families may contact a Louisiana Commission for the Deaf [Regional Service Center](#) for assistance. Contact information for service centers can be found at ldh.la.gov/LCD.

Preventing Suicide and Homicide



Homicide includes deaths due to child abuse and neglect

- Early access to behavioral health supports for parents of children with special health care needs, the children themselves, and their siblings is protective against depression, anxiety, and toxic stress.²⁶ Screening for emotional, behavioral and mental health conditions and subsequent referrals to services for the whole family should be part of care coordination efforts and policies.
- Students with disabilities are more likely to be bullied by their peers, and are more likely to experience social isolation.²⁷ The Department of Education and local school boards are encouraged to collaborate with community and national partners to implement anti-bullying and inclusion campaigns in schools.²⁸
- Home visiting, parent education and family support programs should be expanded and enhanced to meet the needs of families of children and youth with special health care needs. Like all parents, these caregivers benefit from coaching on parenting, life skills and family health. However, caring for children with special health care needs requires caregivers to learn additional systems navigation skills and stress management/coping techniques.²⁶

Recommendations and Considerations

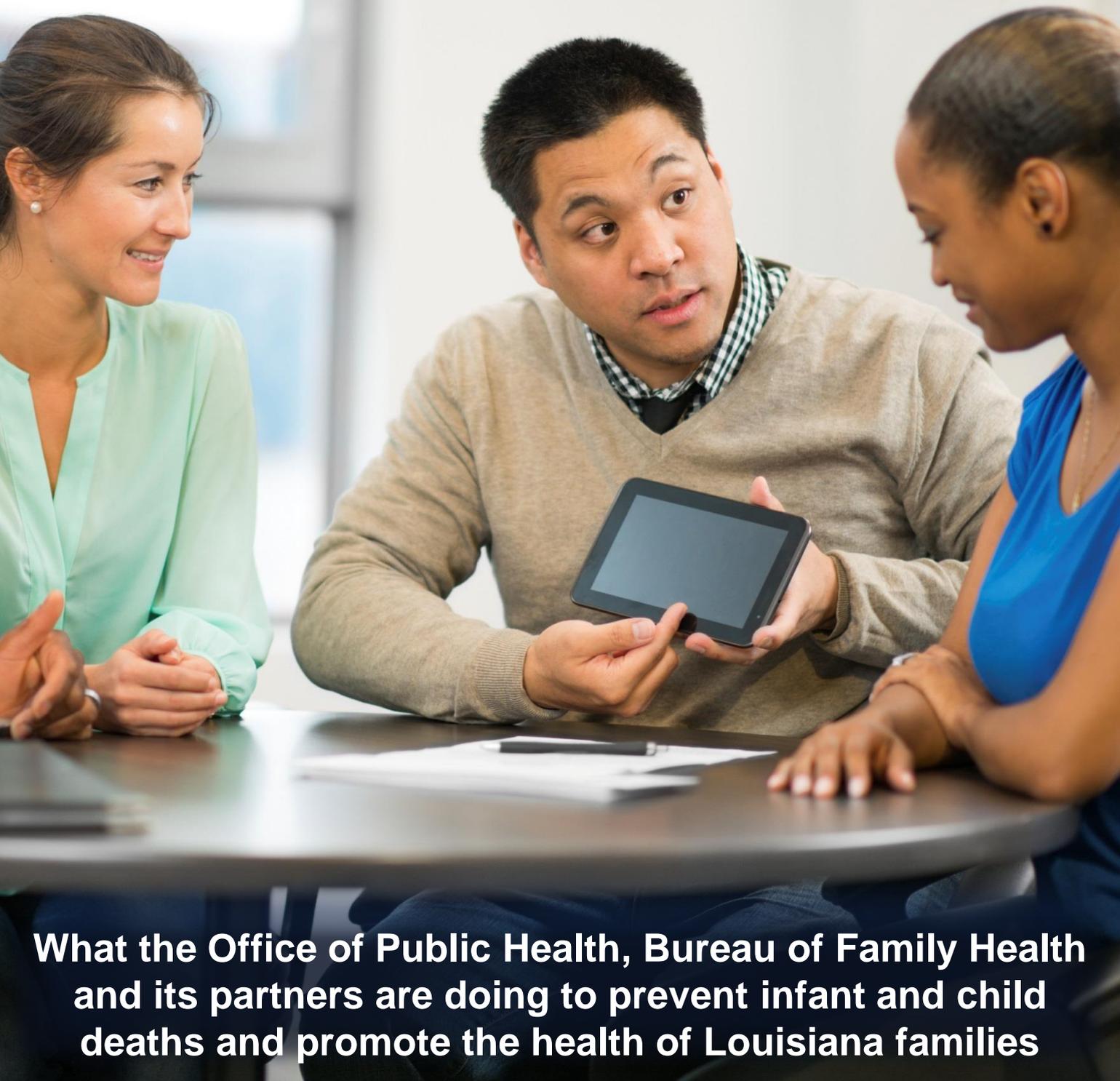
Children and Youth with Special Health Care Needs



Specialized Equipment

- When families need special medical or safety devices:
 - Pediatricians should provide prescriptions, referrals, and letters of medical necessity to Durable Medical Equipment (DME) companies.
 - Allied health professionals should provide operating and safety education to families who need to use the equipment.
 - Respective vendors should provide regular maintenance and safety inspections, and maintain documentation of these activities.
 - Case managers should routinely inquire about equipment issues or needs, and facilitate appropriate referrals.
- Insurance companies should expedite authorizations for specialized medical equipment such as the following:
 - Oxygen concentrators
 - Ventilators
 - Bilevel Positive Airway Pressure (BiPAP) machines
 - Suction machines
 - Hospital beds
 - Wheelchairs
 - Stenders/standing aids
 - Enteral feeding pumps
 - Generators for a backup power source (may be provided through insurance or community organizations)

Moving Data to Action



What the Office of Public Health, Bureau of Family Health and its partners are doing to prevent infant and child deaths and promote the health of Louisiana families

Moving Data to Action

The Bureau of Family Health (BFH) facilitates quarterly meetings of the State CDR Panel to review data on the leading causes of infant and child death, select priorities for the upcoming year, discuss recommendations generated by local level review panels, and identify opportunities for preventive action. The Louisiana Department of Health (LDH), Office of Public Health (OPH), BFH and various partner organizations use State and local CDR findings and recommendations to inform activities, programs, interventions and policies to prevent deaths and promote the health of Louisiana families.

The following efforts were coordinated or facilitated by BFH and its partner organizations. They were informed by CDR findings, in addition to national research and best practices, other statewide surveillance systems and programs, and recommendations from local community advisory teams.

Improving Birth Outcomes



Supporting Families

- Worked directly with pregnant women and families through the BFH’s Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program. In this program, registered nurses or parent educators work side-by-side with clients to help them have healthier pregnancies, care for their newborns, navigate services, and reach their personal goals, including financial and educational achievements. The evidence-based models that the program uses have been shown to reduce pregnancy and birth problems, as well as emergency room visits among participating families.²⁹
 - Because mental and emotional wellbeing is also a critical part of maternal health and healthy child development, the MIECHV program includes a mental health component. Infant and Early Childhood Mental Health Clinical Specialists work with home visitors to increase their capacity to support families who experience mental health and parenting challenges. The specialists engage in educational activities and individualized case discussion with home visitors, observe and assess families, coordinate with community providers, and provide evidence-based treatment for some clients, when possible and appropriate.
- Connected pregnant women and families to health and pregnancy resources, services, and information via the Partners for Healthy Babies (PHB) campaign. The campaign is a state project consisting of a website, PartnersForHealthyBabies.org, a Spanish-language webpage (AliadosParaBebesSanos.org), and toll-free helpline, 1-800-251-BABY (2229). The online content and helpline connect expecting and new parents to health, financial and social services or resources. The Spanish-language webpage highlights resources that are particularly relevant to Spanish-speakers. The helpline is available 24/7 and is completely confidential. For all campaign elements, local and state level resources are prioritized, but national resources are used when necessary or appropriate.
- Provided affordable comprehensive reproductive health services to men and women across the state through BFH’s Reproductive Health Program. The following services contribute to improved birth outcomes:
 - Screening and treatment for Sexually Transmitted Infections (STIs)
 - Screening and referrals for chronic health conditions
 - Family planning counseling and a full range of contraceptive options to empower women and families to plan pregnancies and achieve healthy birth spacing.

Moving Data to Action

Improving Birth Outcomes



- Collaborated with federally qualified health centers to integrate reproductive health services into primary care settings to increase women’s access to complete healthcare before pregnancy.
- Worked to produce improvements in maternal health during the perinatal period through the Louisiana Perinatal Quality Collaborative (LaPQC). LaPQC is a statewide network of hospitals and perinatal care providers, public health professionals, and patient and community advocates who use evidence-based practices and quality improvement methods in the clinical setting to improve outcomes for women, families, and newborns, and advance equity.
 - LaPQC launched their *Reducing Maternal Morbidity Initiative* in August 2018. Preliminary data from May 2020 shows that birthing facilities who participated in the initiative saw a 39% decrease in severe maternal morbidity among women who experienced hemorrhage, and a 22% decrease in severe maternal morbidity among women with hypertension. Further, timely treatment of severe hypertension improved by 30% and risk assessment of hemorrhage upon admission to Labor and Delivery improved by 20%.
 - In September 2020, the LaPQC will launch the *Safe Births Initiative*. This initiative will continue improvement work related to hemorrhage and hypertension, and will also focus on reducing Louisiana’s primary cesarean section rate.
- In 2018, legislation created the *Healthy Moms, Healthy Babies Advisory Council*, which BFH was assigned to coordinate. The council was asked to submit a [report](#) to the Louisiana legislature on how to address racial and ethnic disparities in maternal health outcomes and help current state agencies and partners incorporate a community-engaged, equity-focused approach into their work. Improving maternal health will have a positive impact on birth outcomes.
- BFH, in partnership with the Tulane Educational Fund and the Tulane Department of Psychiatry and Behavioral Science, created the [Louisiana Mental Health Perinatal Partnership \(LAMHPP\)](#). Psychiatrists and other licensed mental health professionals provide mental health consultation to obstetricians, nurse practitioners, midwives, and other clinicians to help them better screen, identify, and assist (i.e. refer to services) pregnant and postpartum women suffering from depression, substance use disorders, and interpersonal violence.

Sudden Unexpected Infant Death (SUID) Prevention



- BFH maintains Give Your Baby Space, a statewide campaign that teaches caregivers the safest ways for babies to sleep. Information and resources for families, providers, and community partners can be found at GiveYourBabySpace.org.
 - Starting in 2017, BFH promoted the campaign and safe sleep practices through radio spots and online ads. BFH also developed an interactive safe sleep quiz game, and videos of actual Louisiana parents and providers talking about safe sleep (all are housed on the website).
 - BFH continually works to incorporate a family-centered, risk-reduction approach, as recommended by national experts. To this end, BFH convened a workgroup in 2019 to determine how to expand campaign messaging to help providers effectively talk to families about safe sleep, help families practice risk reduction when they cannot or choose not to follow all evidence-based safe sleep practices (i.e. provide guidance around safer bed-sharing), and offer tired or frustrated caregivers tips for safely soothing crying babies.

Moving Data to Action

Sudden Unexpected Infant Death (SUID) Prevention



Supporting Families

- Worked with hospitals, Parish Health Units, community-based organizations and the MIECHV program to model safe sleep environments through physical displays in clinics/offices.
- Worked with local partners in central Louisiana to develop regionally-aired public service announcements which promote safe sleep using the Give Your Baby Space messaging.
- Developed teaching tools (flip books) to assist community health and social service professionals tasked with giving safe sleep presentations to caregivers and families. The flip books are designed to provide a script for presenters and visuals to the audience, and they can be used in venues without audio, video, computer or internet access.
- Partnered with the YMCA to offer a Spanish-language seminar on safe sleep to Latino families.
- Mobilized the distribution of Pack 'N Plays to families in need who were temporarily displaced as a result of severe flooding in 2016.
- Trained direct service providers on evidence-based methods to reduce sleep-related deaths, including how to talk to caregivers about safe sleep. Providers included Maternal, Infant and Early Childhood Home Visitors, Louisiana Department of Children and Family Services (DCFS) case workers and childcare providers.



Improving Systems

- Established regional taskforces and State CDR workgroup focused on Safe Sleep Promotion.
- Convened multiple family-serving programs and stakeholders to develop an agency position statement on safe sleep and breastfeeding for the Louisiana Department of Health. The position statement expresses a commitment to move beyond the campaign of the “ABC’s of Safe Sleep” (Alone, on the Back, in a Crib) toward provider-family conversations that prioritize shared decision-making and focus on realistic strategies to minimize risk, especially in scenarios which necessitate alternate sleep environments. This approach is recommended by national experts.
- BFH’s *The Gift* program promotes breastfeeding, a protective factor against SUID, by providing technical assistance to Louisiana birthing facilities to improve the quality of their maternity services, including their policies and practices around breastfeeding. 40 facilities have received *Gift* Designation, and *The Gift* helped 17 of those facilities advance to receive the internationally-recognized Baby-Friendly designation.
- Provided child injury data and research on the connection between parent-child attachment, child safety and paid family leave to Paid Leave + US (PL+US), a state and national initiative that seeks to establish legislation requiring employers to provide paid family leave. This information was shared with Louisiana’s congressional delegation.
- Collaborated with the University of Louisiana Lafayette to explore the use of simulation to improve nursing students’ knowledge and retention of infant safe sleep practices. Tested a modified training for use in hospital settings.
- Evaluated the feasibility, desirability and effectiveness of “baby boxes” as a means to promote safe sleep in response to [House Concurrent Resolution 58 of the 2017 Legislative Session](#). BFH concluded that research does not support the “baby box” as an effective method to reduce sleep-related deaths, but may have utility during emergencies/disasters.

Moving Data to Action

General Injury Prevention



Improving Systems

- Expanded [BFH injury prevention efforts](#) by securing funding for additional statewide programming to prevent the leading causes of childhood injury. Funding was provided through the CDC's Core State Violence and Injury Prevention Program, the National Violent Death Reporting System, and the Consumer Product Safety Commission's Pool Safely initiative.
- Established topic-specific regional taskforces and workgroups across the state through Community Action and Advisory Teams. Topics include: Infant Safe Sleep, Child Passenger Safety, Father Involvement, Advocacy and Public Safety, and Child Death Prevention.
- Implemented the Injury Free Louisiana (IFLA) Training academy to teach community providers to implement a shared risk and protective factor approach to prevent several forms of violence, including child abuse and neglect. This approach is designed to produce interventions that impact multiple adverse health outcomes, including chronic disease, substance use, unintentional injury and violence. BFH is expanding the model to other regions of the state.
- Established surveillance and data communication processes to provide prevention stakeholders with information to inform program and policy efforts.

Child Passenger Safety and Motor Vehicle Crash Prevention



Supporting Families

- Collaborated with Regional Transportation Safety Coalitions and their partners to train car seat safety technicians, establish car seat safety check stations, promote free car seat distribution initiatives, and assist caregivers with correct installation.
- Worked with the Louisiana Passenger Safety Task Force to create regional contact cards listing all car seat technicians who received certifications in both general child passenger safety and safety for children and youth with special health needs.
- Coordinated with emergency department providers and emergency medical personnel on two large Louisiana Department of Wildlife and Fisheries events to promote ATV safety.
- Coordinated with Vantage/Affinity Health Groups in 2015-2016 to create and air a Public Service Announcement promoting car seat and seatbelt usage.



Improving Systems

- Provided data on child injury and best practice recommendations around child passenger safety (seating location, booster seat use) and Graduated Driver's Licensing to the Louisiana Highway Safety Commission, the Strategic Highway Safety Plan and other professional partners. The Highway Safety Commission and Louisiana State Police used this information to pass legislation that reflects best practices, and is one of the most protective child passenger safety laws in the country.
- Partnered with Louisiana State University Highway Safety Research Group (currently known as the Center for Analytics & Research and Transportation Safety) to participate in data integration, linkage, and specialized analyses.
- Completed data analysis linking Louisiana motor vehicle crash data with hospitalization injury data, which revealed the need to emphasize booster seats in child passenger safety legislation.
- Identified motor vehicle crash prevention as a priority for the 2019-2020 State Child Death Review. A subgroup will determine the most effective ways to change cultural norms around child passenger safety, increase child passenger safety for children with special health needs and child passenger in emergency transport vehicles, and optimize the availability of car seats.

Moving Data to Action

Violence Prevention



Supporting Families

- Worked directly with parents through BFH’s MIECHV program to support positive parent-child interactions, emotional health, and nurturing familial relationships. MIECHV also screens for Intimate Partner Violence (IPV) and provides referrals to domestic violence and IPV resources.
- Worked with the Tulane Violence Prevention Institute (VPI), Children’s Hospital and Louisiana DCFS to lay the foundation for an Essentials for Childhood Initiative. This approach focuses on preventing adverse childhood experiences, promoting resilience, shifting cultural norms around discipline, and engaging businesses to enact more family-friendly policies. Community resilience and safe, stable, nurturing relationships are protective factors against family violence.
- Identified safe firearm storage as a priority for the 2019-2020 State CDR. The State CDR is tasked with examining best practices and developing campaign messaging.



Improving Systems

- In 2017, BFH began to gather critical data on homicide, suicide and unintentional firearm fatalities using the National Violent Death Reporting System (NVDRS). NVDRS helps public health agencies understand the circumstances contributing to violent deaths by linking data from medical examiner, coroner, law enforcement, toxicology, and vital statistics records.
- Created recommendations using CDR data and panel expertise for how law enforcement can:
 - Improve and track the status of child death investigations.
 - Increase recognition and reporting of child abuse and neglect.
- Supported mandated reporting seminars designed to prevent fatalities related to child abuse and neglect for the Louisiana Emergency Response Network, Louisiana Emergency Room Nurses Association, DCFS, Emergency Medical Services, law enforcement, teachers, social workers, and childcare providers.
- Provided cross-cutting trainings on shared risk and protective factors for violence via the Injury Free Louisiana (IFLA) initiative and Adverse Childhood Experiences (ACEs) Educator program. BFH secured funding to expand the IFLA model across the state, and to add content on developing interventions for unintentional injury and substance use disorders.
- Joined a national Children’s Safety Network Child Safety Learning Collaborative focused on effective methods to prevent suicide and self-harm. BFH is exploring the use of universal screening for suicide/self-harm risk in schools and health care organizations, and promoting training for school-based professionals to recognize students who may be struggling emotionally and considering self harm or suicide.
- Worked with local and regional suicide prevention taskforces to promote suicide prevention training, and to create a Suicide Prevention Plan and Crisis Intervention Quick Resource Guide.
- Collaborated with behavioral health providers and suicide prevention programs to secure additional funding for suicide prevention in Louisiana.
- Provided data and recommendations related to preventing abusive head trauma for a legislative proposal focused on educating high school students on Shaken Baby Syndrome.
- Continued collaborating with the Louisiana Foundation Against Sexual Assault to educate middle, junior and high school students on preventing physical and emotional aggression.
- Collaborated with Columbia University, Tulane University’s VPI and Solutions Journalism Network to host a workshop in 2019 for media professionals on how to effectively cover sensitive injury and violence topics.

Moving Data to Action

Drowning Prevention



Supporting Families

- Coordinated with partners to distribute [PoolSafely](#) materials (water safety and drowning prevention education) to parents and caregivers.
- Expanded access to free water safety and swim instruction in areas with few resources.
- Partnered with the YMCA to provide a Spanish-language water safety class for Latino families.
- Collaborated with Safe Kids Coalition to host a water safety event.
- Coordinated with local media outlets to air public service announcements promoting swim safety, using *PoolSafely* messaging.



Improving Systems

- Established State CDR workgroup on drowning prevention. The workgroup used data to identify opportunities for prevention and submit a proposal for funding.
- Received a Consumer Product Safety Commission *Pool Safely* grant that allows BFH and partners to build a collaborative model to:
 - Offer free or low cost swim lessons in areas lacking these resources.
 - Conduct trainings on pool construction safety standards and pool safety operation requirements.
 - Provide public education around water safety and drowning prevention.
 - Support local prevention initiatives in underserved communities.
- Updated drowning and water safety infographics/fact sheets to share drowning data and prevention recommendations with State CDR partners across the state. These materials are used in combination with *Pool Safely* materials to support annual water safety promotion efforts throughout the summer, especially during drowning prevention month (May).
- Coordinated with the State YMCA Alliance and the Governor's Office on the YMCA's *Safety Around Water* Initiative.

Appendix



Child Death Review Overview

A quick guide to the Child Death Review process

What is the purpose of the Child Death Review (CDR)?

The Louisiana Department of Health (LDH), 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 all unexpected deaths of 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. Review panels are made up of multidisciplinary groups of professionals. These groups are also called case review teams.

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

The state case review team reviews cases when there are issues that cannot be resolved at the local level or that require policy initiatives that are better addressed by the state panel. The state team is also consulted whenever there are clusters of similar cases in multiple regions throughout the state.

What types of deaths are reviewed?

Deaths of children between 0 and 14 years of age who die unexpectedly in Louisiana are eligible for case review, regardless of resident status. Commonly reviewed cases include deaths attributable to unintended injuries, homicide (including those due to child abuse and neglect), suicide, SUID, and unknown causes.

Does anyone review other types of deaths?

There are two other mortality review systems currently used by the Bureau of Family Health. These are the Pregnancy Associated Mortality Review (PAMR) and the Fetal Infant Mortality Review (FIMR). Cases in which mothers die during or within one year of pregnancy are reviewed through PAMR. Cases involving infant deaths that do not meet CDR criteria may be reviewed through the FIMR system. These cases include infants who died of medical causes between birth and their first birthday. Finally, deaths due to child abuse and neglect are also reviewed by the Department of Children and Family Services (DCFS).

How are the deaths identified?

The Office of State Registrar and Vital Records provides data on newly registered deaths to the Bureau of Family Health's mortality surveillance team each month. Regional Maternal and Child Health (MCH) Coordinators use these data to identify deaths in their respective regions.

What happens after a death is identified?

The Regional MCH Coordinators 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 for review at regional CDR meetings. The review process uses data to create recommendations to prevent similar deaths in the future.

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

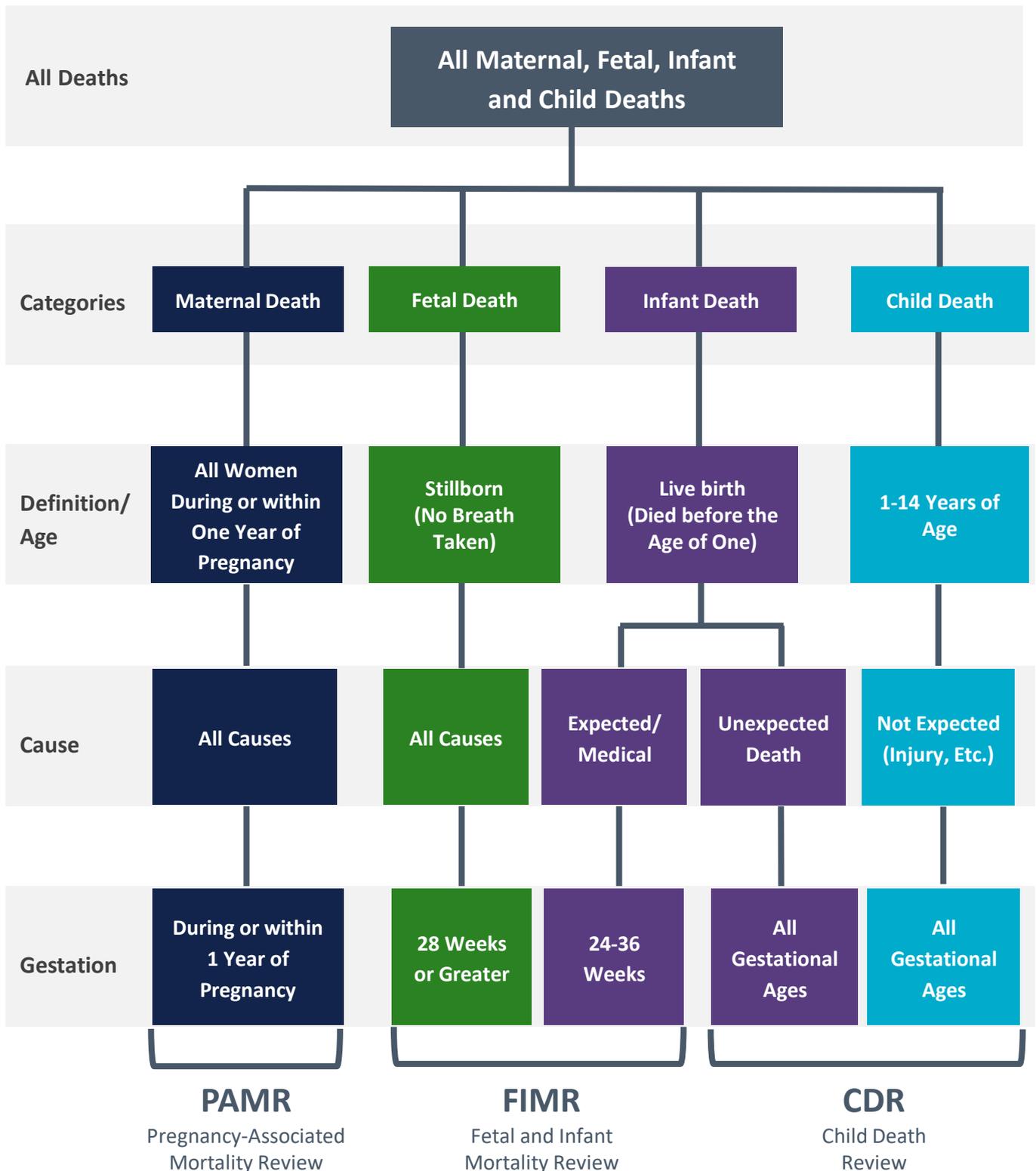
Regional MCH Coordinators are registered nurses charged with, among other duties, coordinating CDR meetings in each of their public health regions. All unexpected deaths of children under 15 years of age are reviewed by CDR teams. In Louisiana, Regional MCH Coordinators use information gathered from case abstraction to determine which cases meet CDR criteria. Criteria are based on age at death, residency status, and cause of death. Please see page 47 for Death Review Algorithm.

How are the recommendations from the CDR meetings used?

Recommendations from the CDR meetings are referred to regional Community Action and Advisory Teams (CAATs). Community action teams are comprised of multidisciplinary stakeholders who develop action plans based on the recommendations generated from the CDR meetings.

Death Review Algorithm

Case review determination



2016-2018 State Child Death Review Members

Position	Current Incumbent
State Health Officer, or designee	Joseph Kanter, M.D.
Secretary of the Louisiana Department of Health, or designee	Jane Herwehe
Secretary of the Department of Children and Family Services, or designee	Lori Miller
Superintendent of the Office of the State Police, or designee	Lieutenant Dave Kolb
State Registrar of the Office of Vital Records, or designee	Devin George
Attorney General, or their designee	Alicia Wheeler
Member of the Senate, appointed by the President of the Senate	Honorable Yvonne Dorsey-Colomb
Member of the House of Representatives, appointed by the Speaker of the House of Representatives	Honorable Scott Simon
Commissioner of the Department of Insurance, or designee	Rebecca DeLaSalle, J.D.
Representative of the Louisiana Partnership for Children and Families	Sandra Adams
Executive Director of the Highway Safety Commission, or the Department of Public Safety and Corrections	Lisa Freeman, J.D.
District Attorney, appointed by the Louisiana District Attorneys Association	Joseph Waitz Jr.
Sheriff appointed by the Louisiana Sheriffs Association	Lauren Meher
State Fire Marshal, or designee	Cynthia Gonthier Naquin
Assistant Secretary of Behavioral Health, or designee	Danita LeBlanc
Police Chief, appointed by the Louisiana Association of Chiefs of Police	Chief Tommy Clark / Chief Frank Edwards
Forensic Pathologist, certified by the American Board of Pathology and licensed to practice medicine in the state, and appointed by the chairman of the Louisiana State Child Death Review Panel subject to Senate confirmation	Michael Cramer, M.D.
Pathologist experienced in pediatrics, appointed by the Louisiana Pathology Society	Deborah Cavalier, M.D.
Coroner, appointed by the president of the Louisiana Coroner's Association	James Groody
Health professional with expertise in Sudden Infant Death Syndrome	Laurel Kitto
Pediatrician with experience in diagnosing and treating child abuse & neglect	Laura Clayton Kleinpeter, M.D.
State Superintendent of Education, or designee	Janice Zube
Director of the Bureau of Emergency Medical Services, or designee	Amanda Perry
Louisiana Title V Family Leader, Louisiana Birth Defects Monitoring Network Program Manager	Julie Johnston
Four citizens from the state at large who represent different geographic areas of the state	Pam Cart Dawn Vick, M.D. Ashlyn Melton Shana Toole

2016-2018 and Current Regional Maternal and Child Health Coordinators

Region	Coordinator
Region 1	Rosa Bustamante-Forest, A.P.R.N., M.P.H.
Region 2	Kelly Bankston, B.S.N., R.N. (2016-2018) Rachel Purgatorio, B.S.N., R.N. (Current)
Region 3	Nicole Soudelier, B.S.N., R.N.
Region 4	Debra Feller, R.N.
Region 5	Jade Marler, R.N.
Region 6	Lisa Norman, R.N.
Region 7	Shelley Ryan-Gray, B.N., R.N.
Region 8	Sara Dickerson, R.N.
Region 9	Martha Hennegan, R.N.
Statewide	Robin Gruenfeld, M.P.H. (2016-2018) Rosaria Trichilo, M.P.H. (current)

Note: With the exception of the Regional Maternal and Child Health Coordinators, local CDR membership is voluntary and not every local CDR meeting will include the same members.

Acronyms and Definitions

Acronym	Definition
ASSB	Accidental Suffocation and Strangulation in Bed (ICD 10 code W75)
BFH	Bureau of Family Health
CDR	Child Death Review
CMDCA	Congenital malformation, deformation and chromosomal abnormality
LDH	Louisiana Department of Health
FIMR	Fetal and Infant Mortality Review
ICD	International Classification of Diseases
MCH	Maternal and Child health
MVC	Motor Vehicle Crash
OPH	Office of Public Health
PAMR	Pregnancy-Associated Mortality Review
PRAMS	Pregnancy Risk Assessment Monitoring System
SIDS	Sudden Infant Death Syndrome (ICD 10 code R95)
SUID	Sudden Unexpected Infant Death (ICD 10 codes W75, R95, and R99*)

*R99 refers to unknown cause of 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 of infants under 7 days of age
Neonatal death	Deaths of infants under 28 days of age
Post-neonatal death	Deaths of infants that occur between 28 days and 365 days after birth
Infant death	Deaths of infants under 1 year of age

Cause of Death Explanations

Cause of Death	Explanation
Congenital malformations, deformations and chromosomal abnormalities (CMDCA)	Referred to as “Congenital anomalies” throughout Report for ease of reading. 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, Downs syndrome, Edward syndrome, Patau syndrome, other congenital malformations and deformations and other chromosomal abnormalities not elsewhere classified.
Conditions originating in the perinatal period	Also referred to as “Perinatal Period Conditions” throughout report for ease of reading. This category includes disorders related to the length of gestational age and fetal growth (prematurity and low birth weight), 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.
Sudden infant death syndrome (SIDS)	This category includes deaths among infants less than one year of age that occur suddenly and for which the causes of death are not able to be determined even after a full investigation and autopsy.
Sudden unexpected infant death (SUID)	SUID is a term used to describe any sudden and unexpected death, whether explained or unexplained (including Sudden Infant Death Syndrome [SIDS], Accidental Suffocation or Strangulation in Bed [ASSB], and ill-defined deaths), occurring during infancy.

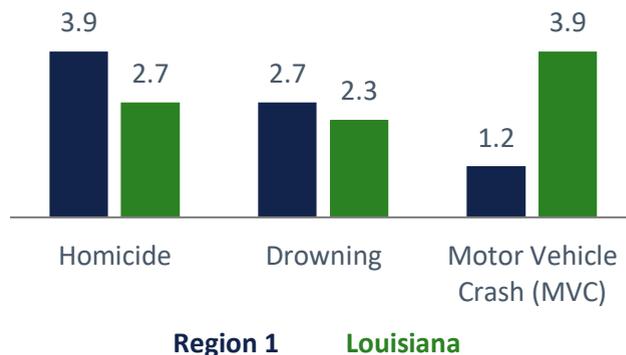
Region 1 Mortality Surveillance Report, 2016-2018

Greater New Orleans Area | April 2020

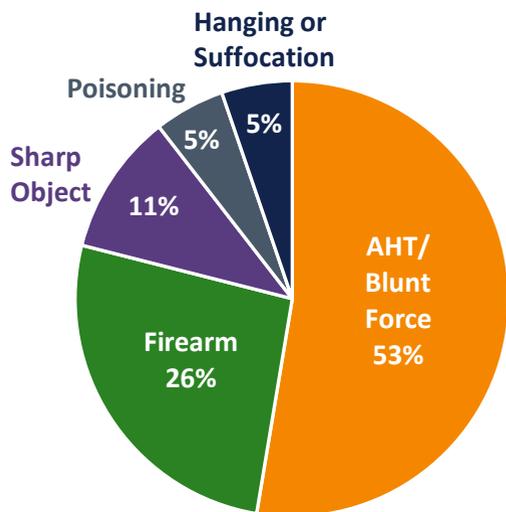
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 1's total unexpected child death rate** of children ages 0-14 years between 2016-2018 is **9.8 per 100,000 children**. Louisiana's is 11.2.
- **Region 1 surpasses Louisiana** in the rate of deaths by **homicide** and **drowning**.
- Region 1 has the **3rd highest homicide death rate** of the 9 regions in the state.
- Region 1 has the **3rd highest drowning death rate** of the 9 regions in the state.



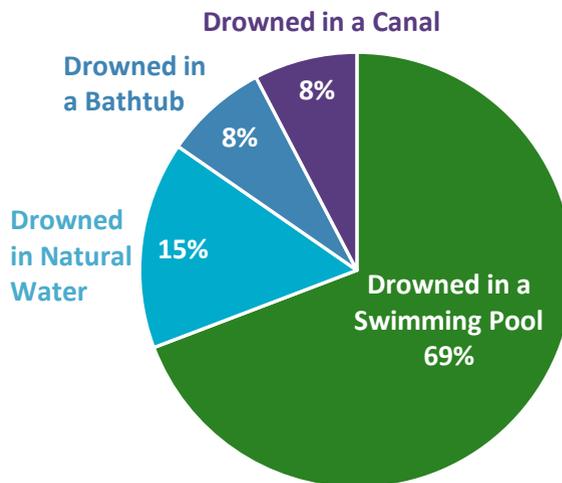
Means Used in Homicide Deaths of Children Ages 0-14 years in Region 1, 2016-2018¹



About Homicide Deaths:

- **Over half** of homicide deaths in infants and children are due to **abusive head trauma (AHT) or blunt force injuries**.

Types of Drowning Deaths in Children Ages 0-14 years in Region 1, 2016-2018²



About Drowning Deaths:

- The **majority of childhood drowning deaths** occur in a **swimming pool**.
- The **most common contributors to drowning deaths** are **lack of barriers to water** and **lack of supervision**.²

Sources: 1. Louisiana Vital Records, 2016-2018. 2. Louisiana Child Death Review

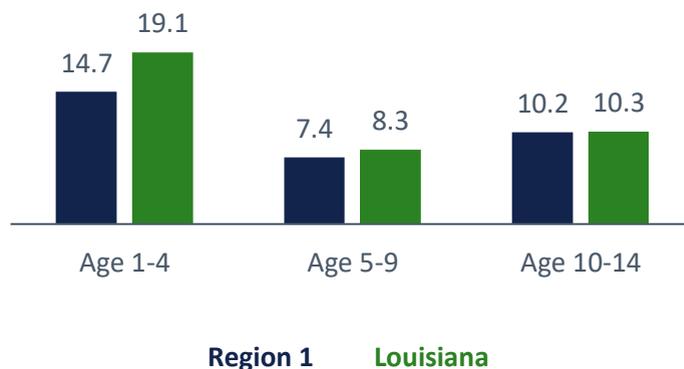
Region 1 Mortality Surveillance Report, 2016-2018

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Child Mortality Rate due to Injury by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 1 has **lower rates of childhood mortality due to injury** than Louisiana in the **age range 1-4**.
- Region 1 has approximately the **same childhood mortality rate due to injury** as Louisiana for **ages 5-9 and 10-14**.



Top Causes of Unexpected Death by Age Group in Region 1¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	Homicide	Drowning	Homicide (tie)
2	Homicide	Drowning	**	Suicide (tie)
3	**	**	**	Drowning

Homicide is the leading cause of death in **ages 1-4**. **Drowning** is the leading cause of death in children **ages 5-9**. **Homicide** and **suicide** are the leading causes of death for **ages 10-14**.

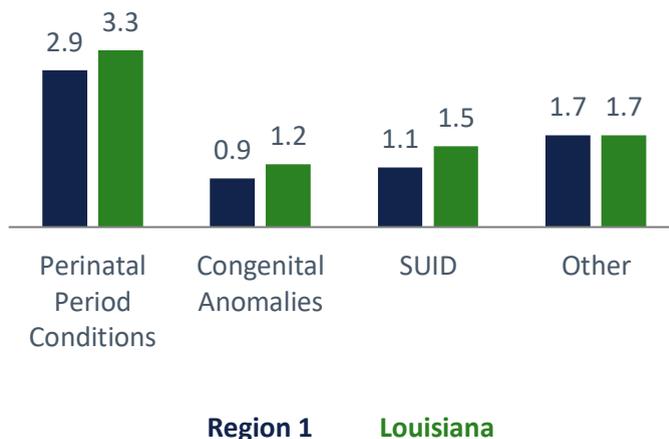
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 1's infant mortality rate is 6.5 deaths per 1,000 live births, lower than Louisiana's rate of 7.8.**
- **The Healthy People 2020 Goal for infant mortality is 6.0 per 1,000 live births.**
- **SUID** is Sudden Unexpected Infant Death.
- **Other category** includes respiratory conditions, circulatory diseases, threats to breathing, inhalation of food or objects, injuries, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

Region 2 Mortality Surveillance Report, 2016-2018

Baton Rouge Area | April 2020

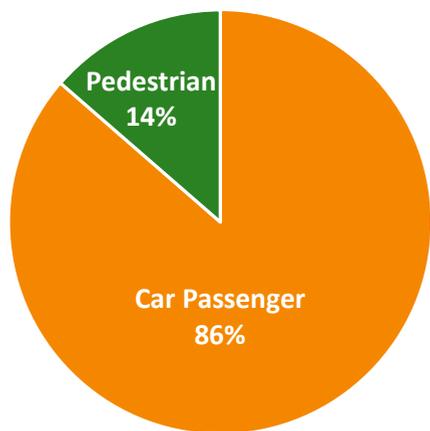
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 2's total unexpected child death rate** of children 0-14 years between 2016-2018 is **10.8 per 100,000 children**. Louisiana's is 11.2.
- **Region 2 surpasses Louisiana** in the rate of deaths by **motor vehicle crash (MVC)**.
- Region 2 has the **2nd highest MVC death rate** of the 9 regions in the state.



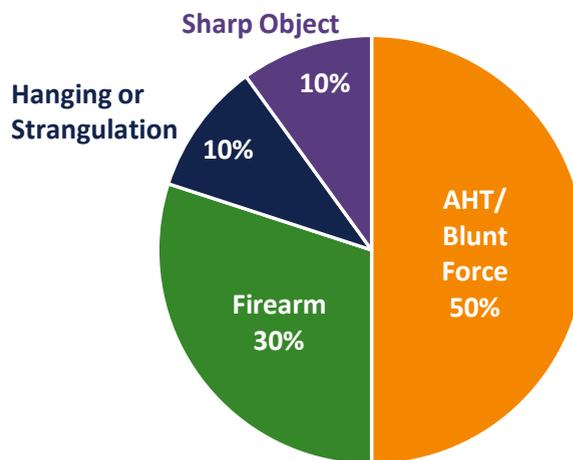
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 2, 2016-2018²



About Motor Vehicle Crash Deaths:

- **Over 3/4** of Motor Vehicle Crash deaths occur in **car passengers**.
- In approximately half of car passenger deaths, child seats were needed. However, **child seats were only present and used correctly 20%** of the time.

Types of Homicide Deaths in Children Ages 0-14 years in Region 2, 2016-2018¹



About Homicide Deaths:

- **Half** of homicide deaths in infants and children are due to **abusive head trauma (AHT) or blunt force injuries**.
- The remaining half are due to firearm fatalities, hanging and strangulation, and death by sharp object.

Sources: 1. Louisiana Vital Records, 2016-2018 2. Louisiana Child Death Review

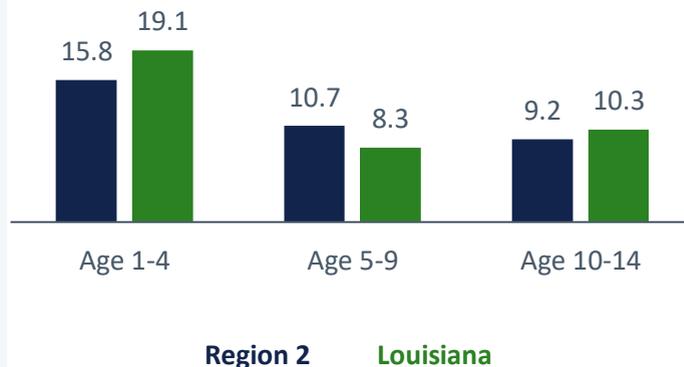
Region 2 Mortality Surveillance Report, 2016-2018

Baton Rouge Area | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 2 has a **higher rate of childhood mortality due to injury** than Louisiana in the **age range 5-9**.
- Region 2 has a **lower rate of childhood mortality due to injury** than Louisiana in the **age range 1-4**.
- Region 2 has approximately the **same childhood mortality rate due to injury** as Louisiana for **ages 10-14**.



Top Causes of Unexpected Death by Age Group in Region 2¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	MVC	MVC	Suicide
2	Homicide	Drowning	Fire	**
3	**	**	**	**

Motor vehicle crashes (MVC) remain the top cause of death across ages 1-4 and 5-9. Suicide is the leading cause of death among children ages 10-14.

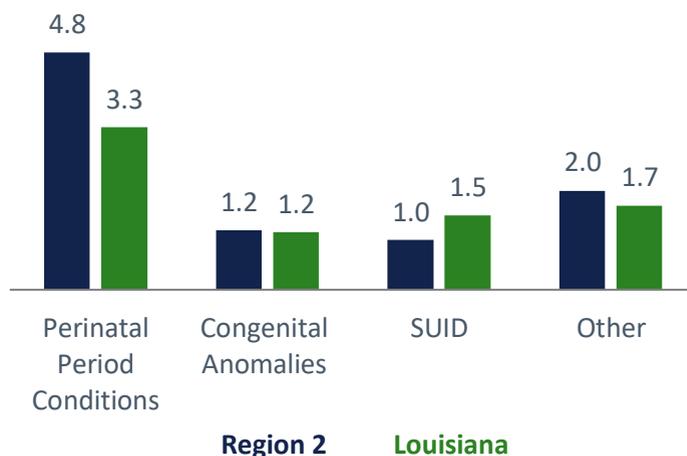
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 2's infant mortality rate is 9.1 deaths per 1,000 live births, greater than Louisiana's rate of 7.8.**
- **The Healthy People 2020 Goal for infant mortality is 6.0 per 1,000 live births.**
- SUID is Sudden Unexpected Infant Death.
- **Other category includes** injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

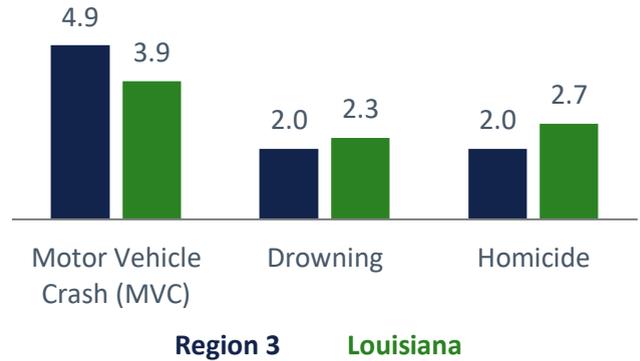
Region 3 Mortality Surveillance Report, 2016-2018

South Central Louisiana | April 2020

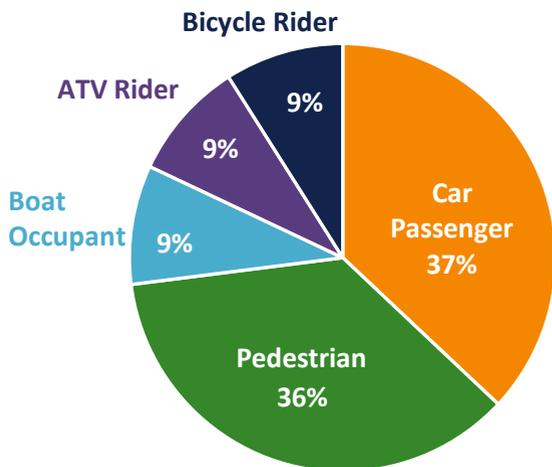
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 3's total unexpected child death rate** of children 0-14 years between 2016-2018 is **9.4 per 100,000 children**. Louisiana's is 11.2.
- **Region 3 surpasses Louisiana in the number of deaths by motor vehicle crash (MVC).**
- Region 3 has the **3rd highest MVC death rate** of the 9 regions in the state.



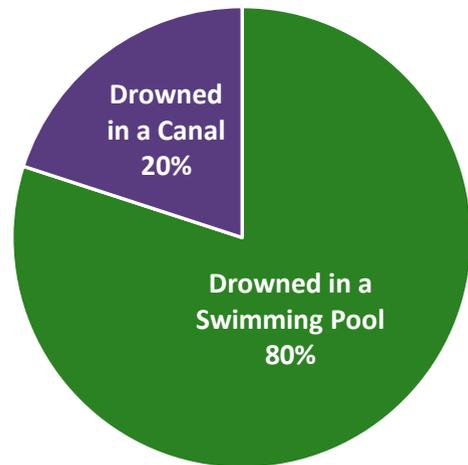
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 3, 2016-2018²



About Motor Vehicle Crash Deaths:

- Greater than **1/3** of the motor vehicle crash deaths occur when the **child is a passenger** in the vehicle.
- Another **1/3** of deaths occur when the **child is a pedestrian**.

Types of Drowning Deaths in Children Ages 0-14 years in Region 3, 2016-2018²



About Drowning Deaths:

- The **majority of childhood drowning deaths** occur in a **swimming pool**.
- The **most common contributors to drowning deaths** are **lack of barriers to water** and **lack of supervision**.²

Sources: 1. Louisiana Vital Records, 2016-2018 2. Louisiana Child Death Review

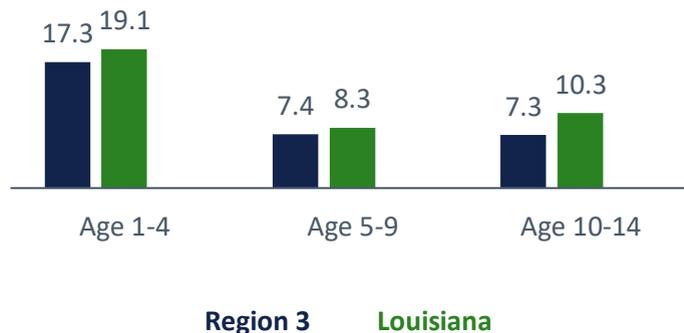
Region 3 Mortality Surveillance Report, 2016-2018

South Central Louisiana | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 3 has a **lower rate of childhood mortality due to injury** than Louisiana in the **age ranges 1-4 and 10-14**.
- Region 3 has approximately the **same childhood mortality rate due to injury** as Louisiana for **ages 5-9**.



Top Causes of Unexpected Death by Age Group in Region 3¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	Drowning	MVC	MVC
2	**	MVC	**	**
3	**	**	**	**

Drowning is the leading cause of death in **ages 1-4**. **Motor vehicle crashes (MVC)** are the top cause of death in **ages 5-9 and 10-14**.

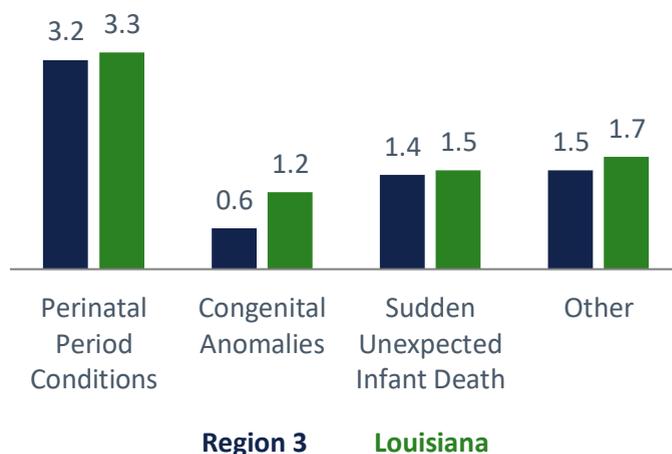
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 3's infant mortality rate is 6.7 deaths per 1,000 live births, lower than Louisiana's rate of 7.8.**
- **The Healthy People 2020 Goal for infant mortality is 6.0 per 1,000 live births.**
- **SUID** is Sudden Unexpected Infant Death.
- **Other category includes** respiratory conditions, infections, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

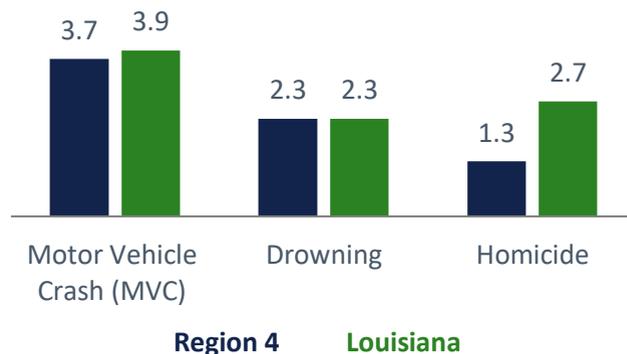
Region 4 Mortality Surveillance Report, 2016-2018

Acadiana | April 2020

Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

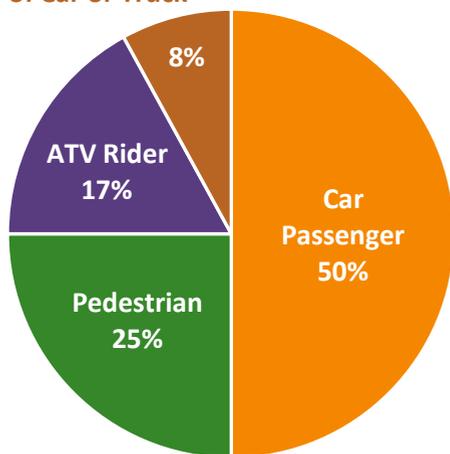
About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 4's total unexpected child death rate** of children 0-14 years between 2016-2018 is **11.2 per 100,000 children**. Louisiana's is 11.2.
- Region 4 has the **5th highest drowning death rate** of the 9 regions in the state.



Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 4, 2016-2018²

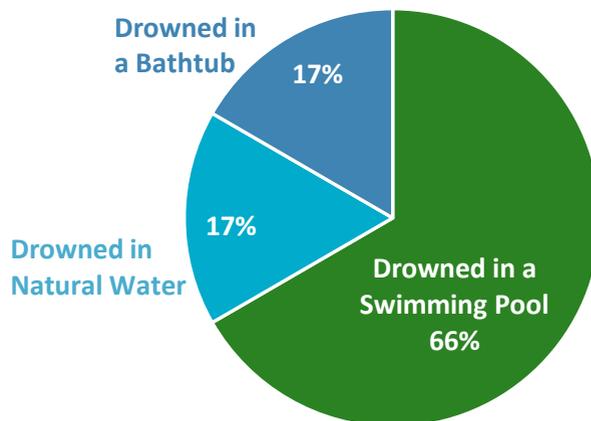
Driver of Car or Truck



About Motor Vehicle Crash Deaths:

- **50%** of deaths occur when the child is a **passenger** in the vehicle.
- **Child seats were needed in more than half** of the car passenger deaths. However, child seats were only **present and used correctly 25%** of the time.

Types of Drowning Deaths in Children Ages 0-14 years in Region 4, 2016-2018²



About Drowning Deaths:

- The **majority of childhood drowning deaths** occur in a **swimming pool**.
- The **most common contributors to drowning deaths** are **lack of barriers to water** and **lack of supervision**.²

Sources: 1. Louisiana Vital Records, 2016-2018 2. Louisiana Child Death Review

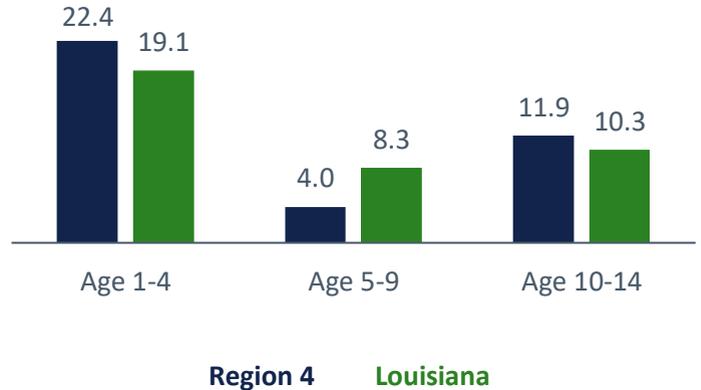
Region 4 Mortality Surveillance Report, 2016-2018

Acadiana | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 4 has a **higher rate of childhood mortality due to injury** than Louisiana in the **age ranges 1-4 and 10-14**.
- Region 4 has a **lower rate of childhood mortality due to injury** than Louisiana in the **age range 5-9**.



Top Causes of Unexpected Death by Age Group in Region 4¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	MVC	**	MVC
2	**	Drowning	**	Suicide
3	**	Fire	**	**

Motor vehicle crashes (MVC) are the leading cause of death in children ages 1-4 and 10-14. Ages 5-9 do not have reportable data for the top causes of death.

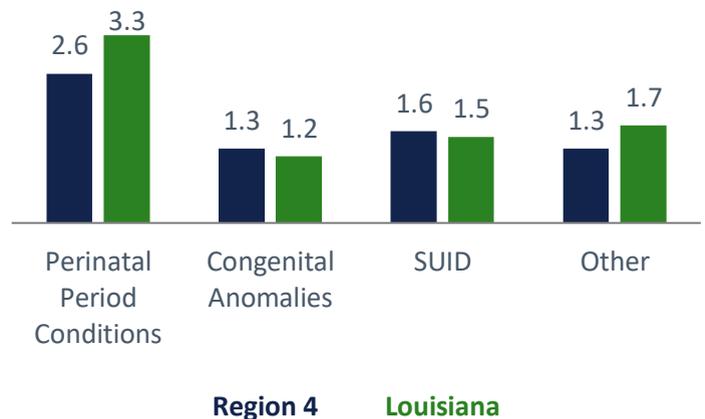
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- Region 4's infant mortality rate is 6.9 deaths per 1,000 live births, **lower than Louisiana's rate of 7.8**.
- The **Healthy People 2020 Goal** for infant mortality is 6.0 per 1,000 live births.
- SUID is Sudden Unexpected Infant Death.
- **Other category** includes injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

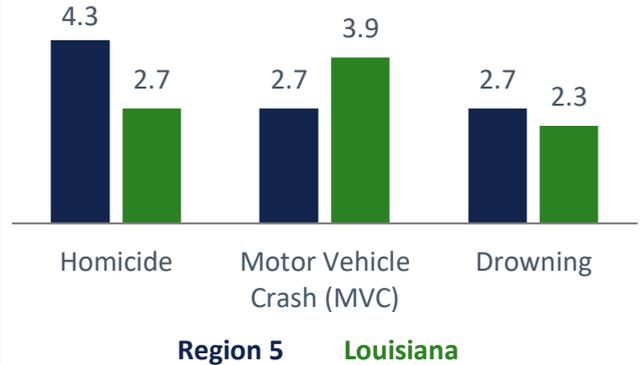
Region 5 Mortality Surveillance Report, 2016-2018

Southwest Louisiana | April 2020

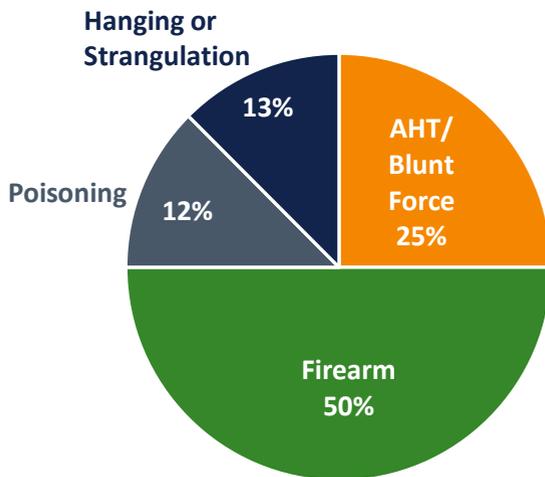
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 5's total unexpected child death rate** of children 0-14 years between 2016-2018 is **12.4 per 100,000 children**. Louisiana's is 11.2.
- **Region 5 surpasses Louisiana** in the number of deaths by **homicide and drowning**.
- Region 5 has the **highest homicide death rate** of the 9 regions in the state.
- Region 5 has the **2nd highest drowning death rate** of the 9 regions in the state.



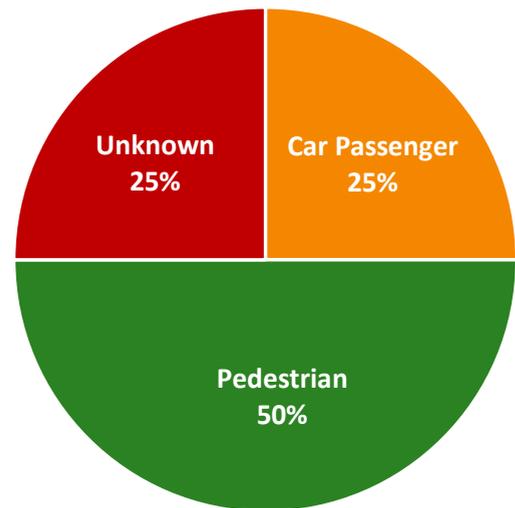
Types of Homicide Deaths in Children Ages 0-14 years in Region 5, 2016-2018¹



About Homicide Deaths:

- **Half** of homicide deaths in infants and children are due to **firearms**.
- The remaining half are split between Abusive Head Trauma (AHT)/ Blunt Force Injuries, hanging and strangulation, and poisoning.

Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 5, 2016-2018²



About Motor Vehicle Crash Deaths:

- **Half** of the MVC deaths **occur in pedestrians**.

Sources: 1. Louisiana Vital Records, 2016-2018 2. Louisiana Child Death Review

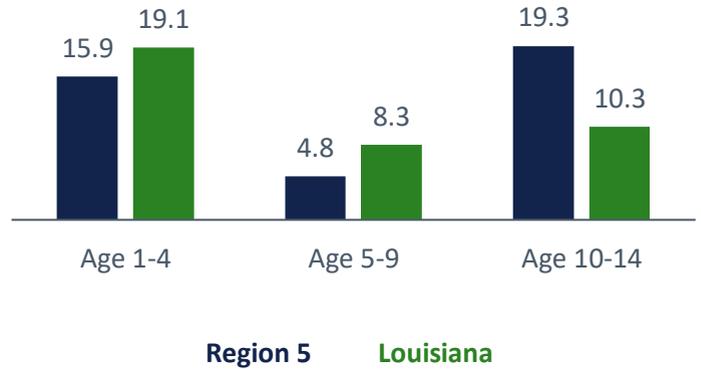
Region 5 Mortality Surveillance Report, 2016-2018

Southwest Louisiana | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 5 has a **higher rate of childhood mortality due to injury** than Louisiana in the **age range 10-14**.
- Region 5 has a **lower rate of childhood mortality due to injury** than Louisiana in the **age ranges 1-4 and 5-9**.



Top Causes of Unexpected Death by Age Group in Region 5¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	**	**	Homicide (tie)
2	**	**	**	Drowning (tie)
3	**	**	**	**

Homicide and drowning are the leading causes of death in **ages 10-14**. Ages 1-4 and 5-9 do not have reportable data for the top causes of death.

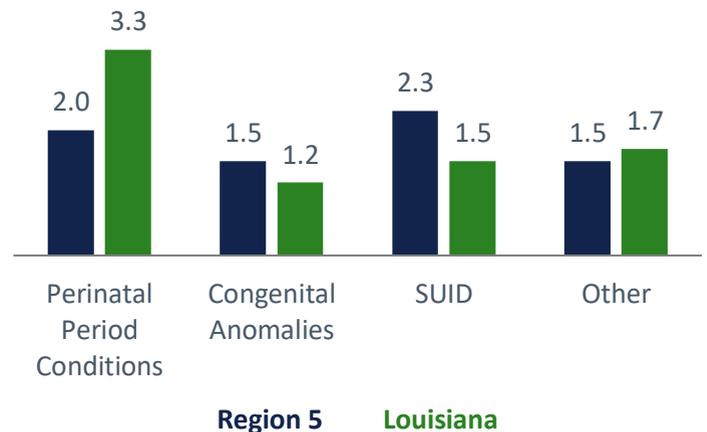
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 5's infant mortality rate is 7.4 deaths per 1,000 live births, lower than Louisiana's rate of 7.8.**
- **The Healthy People 2020 Goal for infant mortality is 6.0 per 1,000 live births.**
- **SUID** is Sudden Unexpected Infant Death.
- **Other category includes** infections, respiratory conditions, injuries, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

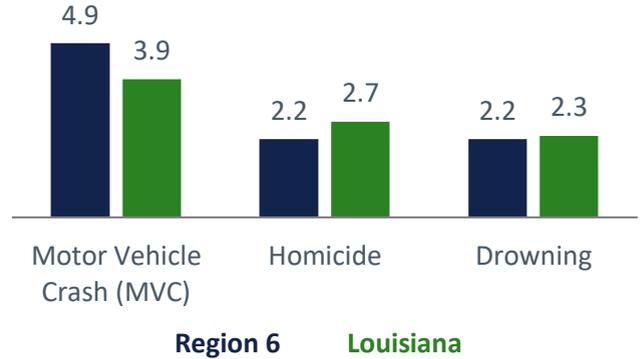
Region 6 Mortality Surveillance Report, 2016-2018

Central Louisiana | April 2020

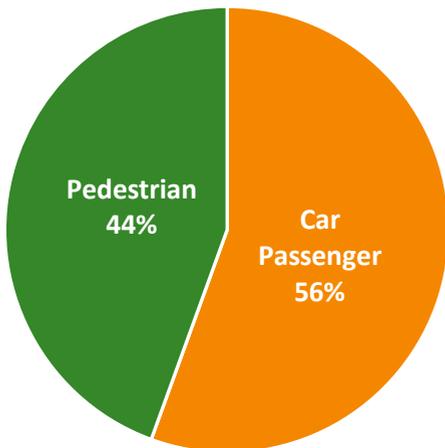
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 6's total unexpected child death rate** of children 0-14 years between 2016-2018 is **11.9 per 100,000 children**. Louisiana's is 11.2.
- **Region 6 surpasses Louisiana in the number of deaths by motor vehicle crash (MVC).**
- Region 6 has the **4th highest MVC death rate** of the 9 regions in the state.



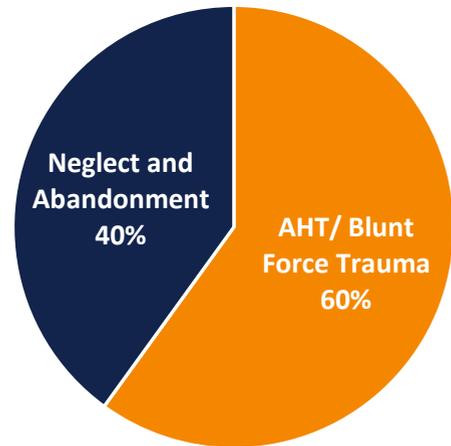
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 6, 2016-2018²



About Motor Vehicle Crash Deaths:

- **Over half** of MVC deaths occur in **car passengers**.
- In **50%** of the deaths to car passengers, children were **not wearing lap or shoulder belts**.

Types of Homicide Deaths in Children Ages 0-14 years in Region 6, 2016-2018¹



About Homicide Deaths:

- **60%** of the homicide deaths in Region 6 are due to **abusive head trauma (AHT) or blunt force injuries**.
- **40%** of the homicides are due to **neglect and abandonment**. Neglect refers to malnourishment and failure to provide medical care.

Sources: 1. Louisiana Vital Records, 2016-2018. 2. Louisiana Child Death Review

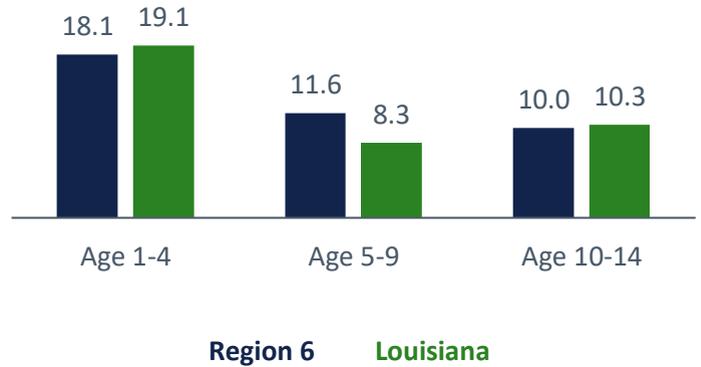
Region 6 Mortality Surveillance Report, 2016-2018

Central Louisiana | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 6 has a **higher rate of childhood mortality due to injury** than Louisiana in the **age range 5-9**.
- Region 6 has approximately the **same childhood mortality rate due to injury** as Louisiana for **ages 1-4 and 10-14**.



Top Causes of Unexpected Death by Age Group in Region 6¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	MVC (tie)	MVC (tie)	Suicide
2	**	Drowning (tie)	Fire (tie)	**
3	**	**	**	**

Motor vehicle crashes (MVC) and drowning are the leading causes of death in ages 1-4. MVC and fire are the leading causes of death in ages 5-9. Suicide is the leading cause of death in ages 10-14.

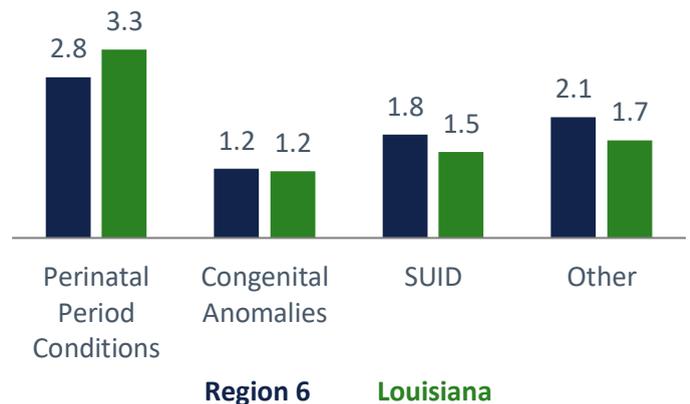
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 6's infant mortality rate is 7.9 deaths per 1,000 live births, greater than Louisiana's rate of 7.8.**
- **The Healthy People 2020 Goal for infant mortality is 6.0 per 1,000 live births.**
- **SUID** is Sudden Unexpected Infant Death.
- **Other category includes** injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

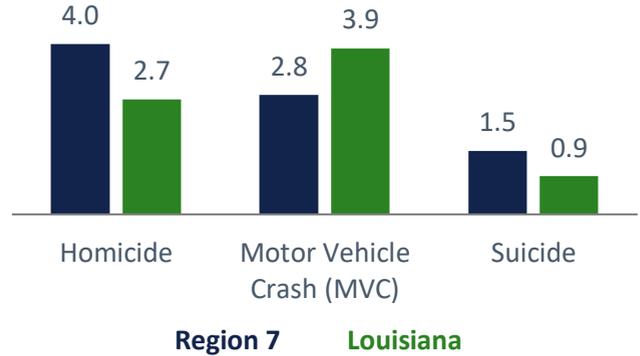
Region 7 Mortality Surveillance Report, 2016-2018

Northwest Louisiana | April 2020

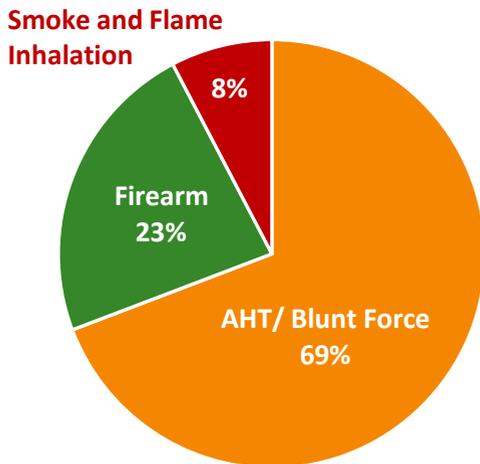
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 7's total unexpected child death rate** of children 0-14 years between 2016-2018 is **11.9 per 100,000 children**. Louisiana's is 11.2.
- **Region 7 surpasses Louisiana in the number of deaths by homicide and suicide.**
- Region 7 has the **2nd highest homicide death rate** of the 9 regions in the state.
- Region 7 has the **2nd highest suicide death rate** of the 9 regions in the state.



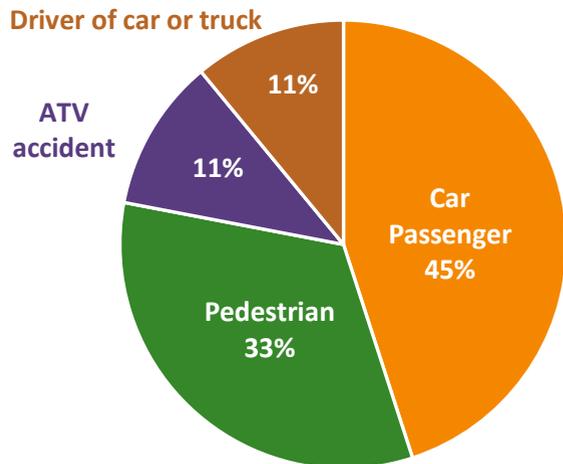
Types of Homicide Deaths in Children Ages 0-14 years in Region 7, 2016-2018¹



About Homicide Deaths:

- **Over two thirds** of homicide deaths in Region 7 occur due to **abusive head trauma (AHT) or blunt force injuries**.

Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 7, 2016-2018²



About Motor Vehicle Crash Deaths:

- **Over half** of MVC deaths in Region 7 occur to **children inside of the car, either as a passenger or driver**.
- **Seat belts were used incorrectly or not used in 60%** of the deaths to children inside a car or truck.

Sources: 1. Louisiana Vital Records, 2016-2018. 2. Louisiana Child Death Review

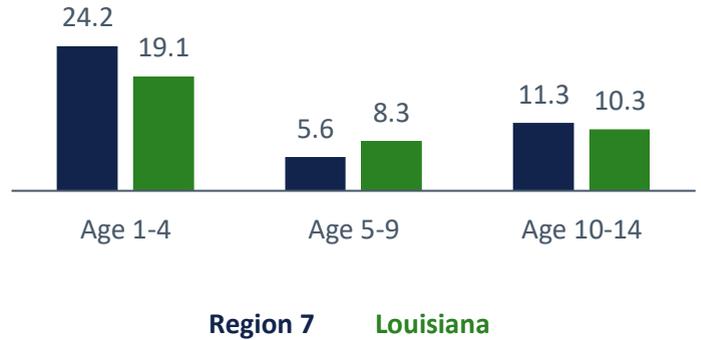
Region 7 Mortality Surveillance Report, 2016-2018

Northwest Louisiana | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 7 has a **higher rate of childhood mortality due to injury** than Louisiana in **ages 1-4**.
- Region 7 has a **lower rate of childhood mortality due to injury** than Louisiana in **ages 5-9**.
- Region 7 has approximately the **same childhood mortality rate due to injury** as Louisiana for **ages 10-14**.



Top Causes of Unexpected Death by Age Group in Region 7¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	Homicide	MVC	Suicide
2	Homicide	MVC	**	**
3	**	**	**	**

The leading cause of death is **homicide** in **ages 1-4**. **Motor vehicle crash (MVC)** leading causes of death in **ages 5-9**. **Suicide** is the leading causes of death in **ages 10-14**.

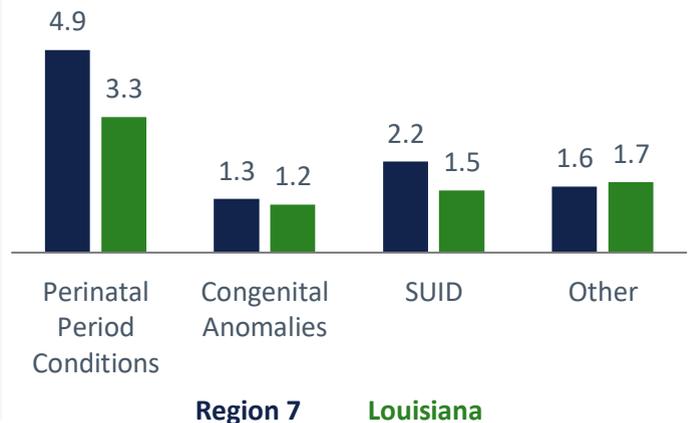
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 7's infant mortality rate is 10.1** deaths per 1,000 live births, **greater than Louisiana's rate of 7.8**.
- **The Healthy People 2020 Goal for infant mortality is 6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- **Other category** includes infections, injuries, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

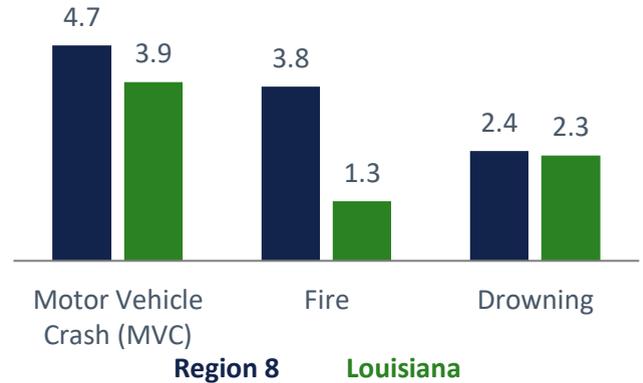
Region 8 Mortality Surveillance Report, 2016-2018

Northeast Louisiana | April 2020

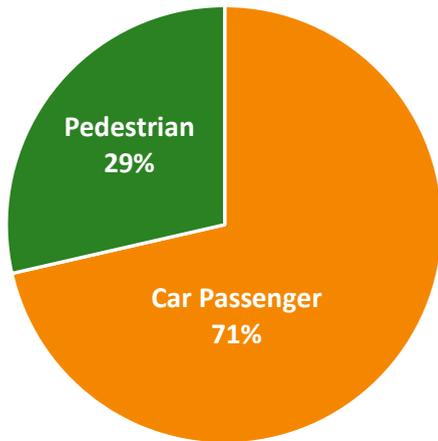
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 8's total unexpected child death rate** of children 0-14 years between 2016-2018 is **16.1 per 100,000 children**. Louisiana's is 11.2.
- **Region 8 surpasses Louisiana in the number of deaths by motor vehicle crash (MVC) and fire.**
- Region 8 has the **highest fire death rate** of the 9 regions in the state.



Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 8, 2016-2018¹



About Motor Vehicle Crash Deaths:

- **Almost 3/4** of MVC deaths in Region 8 occur when children are **passengers in the vehicle**.

Fire Deaths in Children Ages 0-14 years in Region 8, 2016-2018²



About Fire Deaths:

- **In 100%** of the fire deaths reviewed, there was **not a working smoke detector present in the home**.
- **78%** of the cases occurred in **single family homes**, while the remaining **22%** occurred in **trailer homes**

Sources: 1. Louisiana Vital Records, 2016-2018 2. Louisiana Child Death Review

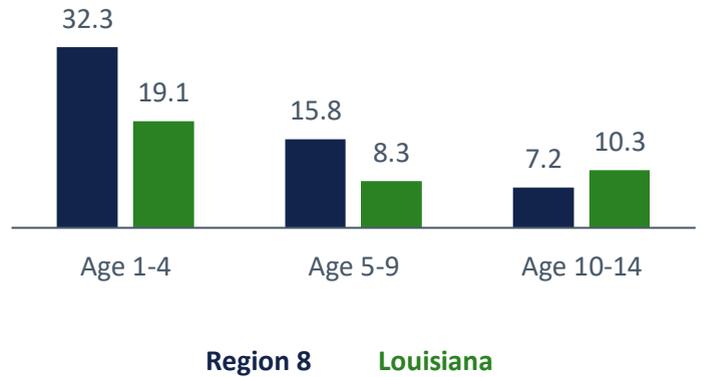
Region 8 Mortality Surveillance Report, 2016-2018

Northeast Louisiana | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 8 has a **higher rate of childhood mortality due to injury** than Louisiana in the age ranges **1-4** and **5-9**.
- Region 8 has a **lower rate of childhood mortality due to injury** than Louisiana in the age range **10-14**.



Top Causes of Unexpected Death by Age Group in Region 8¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	MVC (tie)	Fire	**
2	**	Drowning (tie)	**	**
3	**	**	**	**

Motor vehicle crashes (MVC) and drowning are the leading causes of death in ages 1-4. Fire is the leading cause of death in ages 5-9. Ages 10-14 does not have reportable data for the top causes of death.

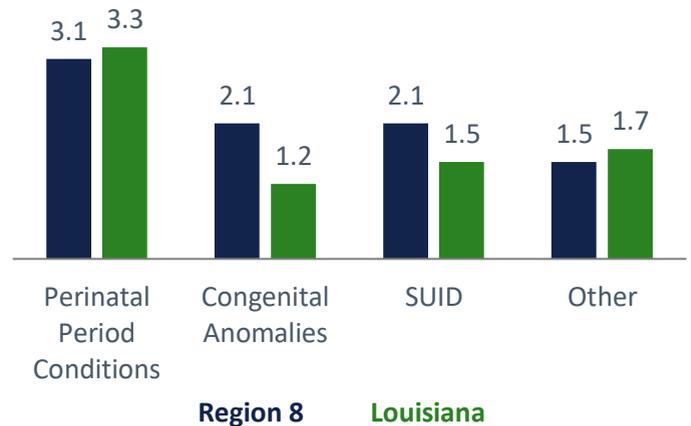
*Sudden Unexpected Infant Death

**Blank boxes indicate causes with counts that are too low to report due to risk of violating confidentiality

Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 8's infant mortality rate is 8.8 deaths per 1,000 live births, greater than Louisiana's rate of 7.8.**
- **The Healthy People 2020 Goal for infant mortality is 6.0 per 1,000 live births.**
- **SUID** is Sudden Unexpected Infant Death.
- **Other category** includes infections, respiratory conditions, injuries, threats to breathing, inhalation of food or objects, etc.



Sources: 1. Louisiana Vital Records, 2016-2018

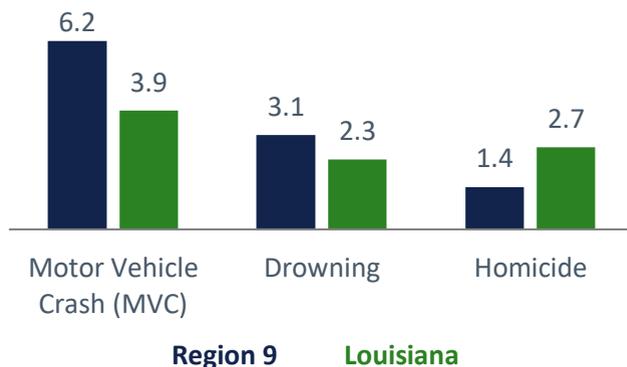
Region 9 Mortality Surveillance Report, 2016-2018

Northshore Area | April 2020

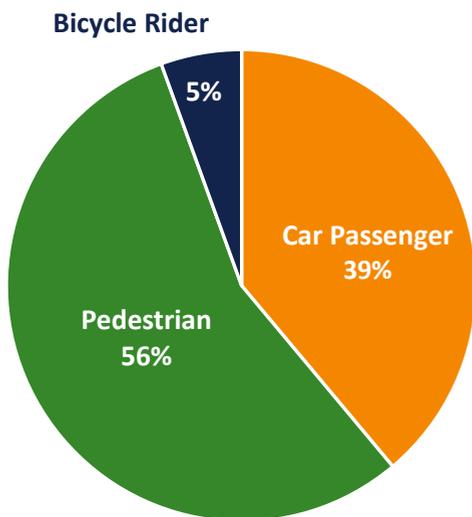
Top Causes of Injury Deaths in Children Ages 0-14 years between 2016-2018¹

About Child Death Due to Injury:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 9's total unexpected child death rate** of children 0-14 years between 2016-2018 is **10.4 per 100,000 children**. Louisiana's is 11.2.
- **Region 9 surpasses Louisiana** in the number of deaths by **motor vehicle crash (MVC)** and **drowning**.
- Region 9 has the **highest MVC death rate** of the 9 regions in the state.
- Region 9 has the **highest drowning death rate** of the 9 regions in the state.



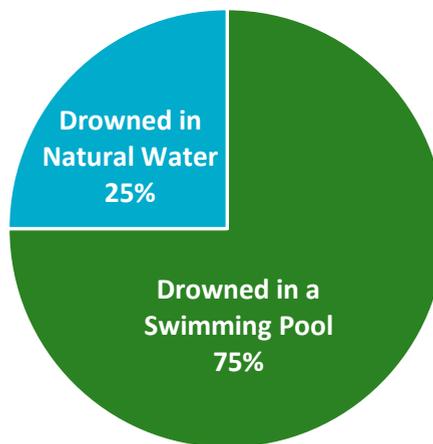
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 9, 2016-2018²



About Motor Vehicle Crash Deaths:

- **Greater than 50%** of motor vehicle deaths in Region 9 occur in **pedestrians**.

Types of Drowning Deaths in Children Ages 0-14 years in Region 9, 2016-2018²



About Drowning Deaths:

- The **majority of childhood drowning deaths** occur in a **swimming pool**.
- The **most common contributors to drowning deaths** are **lack of barriers to water** and **lack of supervision**.²

Sources: 1. Louisiana Vital Records, 2016-2018 2. Louisiana Child Death Review

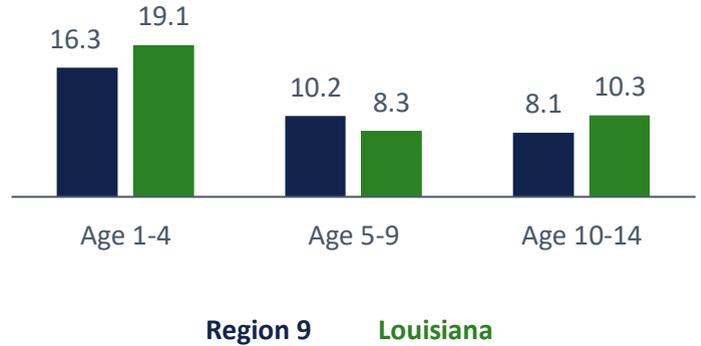
Region 9 Mortality Surveillance Report, 2016-2018

Northshore Area | April 2020

Child Mortality Rate by Age Group between 2016-2018¹

About the Child Mortality Rate Due to Injury:

- Deaths are per 100,000 children.
- Region 9 has a **higher rate of childhood mortality due to injury** than Louisiana in **ages 5-9**.
- Region 9 has a **lower rate of childhood mortality due to injury** than Louisiana in the **ages 1-4 and 10-14**.



Top Causes of Unexpected Death by Age Group in Region 9¹

Rank	Age 0-1	Age 1-4	Age 5-9	Age 10-14
1	SUID*	MVC (tie)	MVC	MVC
2	MVC	Drowning (tie)	Drowning	**
3	Homicide	**	**	**

Motor vehicle crashes (MVC) are the leading cause of death in **ages 5-9 and 10-14**. MVC and **drowning** are tied for leading cause of death in **age 1-4**.

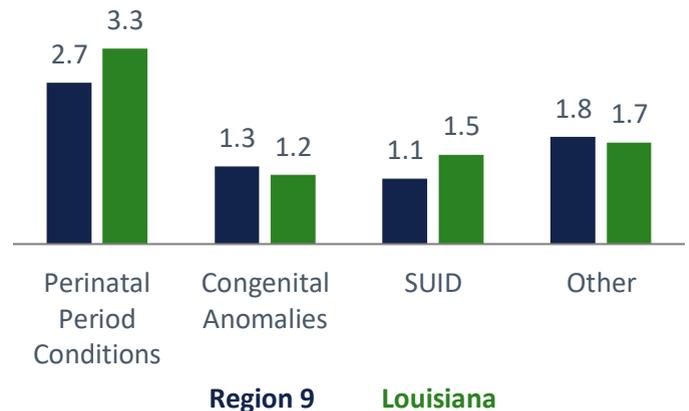
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Top Causes of Infant Death (Medical and Injury) between 2016-2018¹

Infant Death By Region:

- Death rate is per 1,000 live births.
- **Region 9's infant mortality rate is 6.9** deaths per 1,000 live births, **lower than Louisiana's rate of 7.8**.
- **The Healthy People 2020 Goal for infant mortality is 6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- **Other category includes** injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc. This category could also include deaths that are incorrectly coded as natural when they are actually SUID cases.



Sources: 1. Louisiana Vital Records, 2016-2018

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Other Sources:

Bureau of Family Health website, Partners for Family Health: PartnersForFamilyHealth.org

For Additional Information:

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Cooperative Data Agreement

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