LOUISIANA CHILD DEATH REVIEW

2017-2019

Annual Report

Submitted To:

John Bel Edwards, 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, 2017 – 2019

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 **462 die before their first birthday**, and **another 194 children do not survive to their 15th birthday**. From 2017-2019, **1,968 children died**, representing a **yearly average of 656 infant and child deaths.** During this time period, Louisiana ranked in the top 10 states with the **highest mortality rates for infants and children** in almost all age groups.

The CDR program focuses on preventable and unexpected deaths. Between 2017 and 2019, 635 infants and children died due to injury. **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 crash, homicide, and drowning are the leading causes of unexpected death for children ages 0 through 14 years.

About This Report
To achieve sufficient sample size for statistical reporting, the 2017-2019 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, prevention recommendations for leading causes of death, and summaries of current efforts to address infant and child mortality. The report highlights preventable injury deaths, 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 the State Registrar and Vital Records were used to determine causes of death. BFH uses the International Classification of Diseases (ICD-10) guidelines[1] to categorize causes of death. In addition to cause of death, death certificates were used to assess 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 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 is cooperatively managed by the Centers for Disease Control and Prevention and LDH-OPH-BFH.

National Data

National-level data are from CDC WONDER, the National Vital Statistics System database. 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 to highlight 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

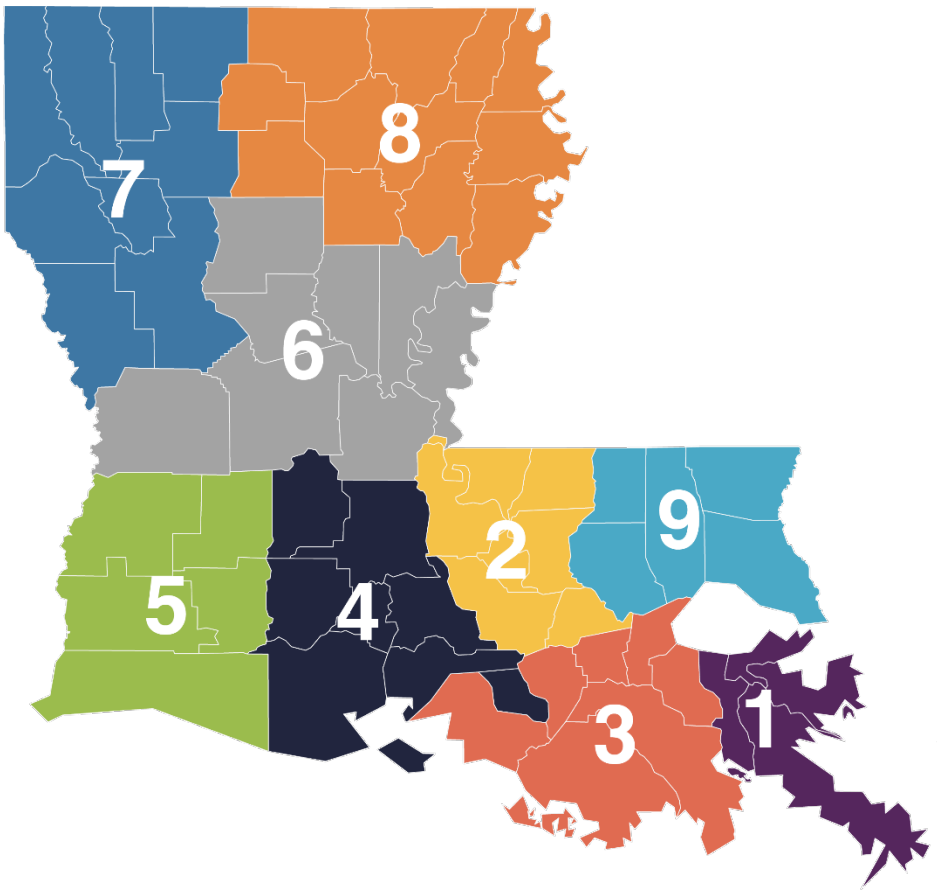
Many key indicators are presented at the regional level, and therefore have smaller counts. Rates based on counts fewer than 20 are considered unstable and should be interpreted with caution, as these numbers, percentages or rates may change in the future with the addition or loss of a small number of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

Data Footnotes

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

ł 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, LaSalle, 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

2017-2019 Data

Infant Mortality: All Causes
Birth to 1 year

From 2017-2019 in Louisiana, an average of 462 infants per year died before they reached their first birthday.[2]

The Louisiana infant mortality rate from 2017-2019 was **7.7 deaths per 1,000 live births**. The U.S. infant mortality rate during the same period was 5.6 deaths per 1,000 live births. **125 fewer** babies would have died each year if Louisiana had the same infant mortality rate as the U.S.

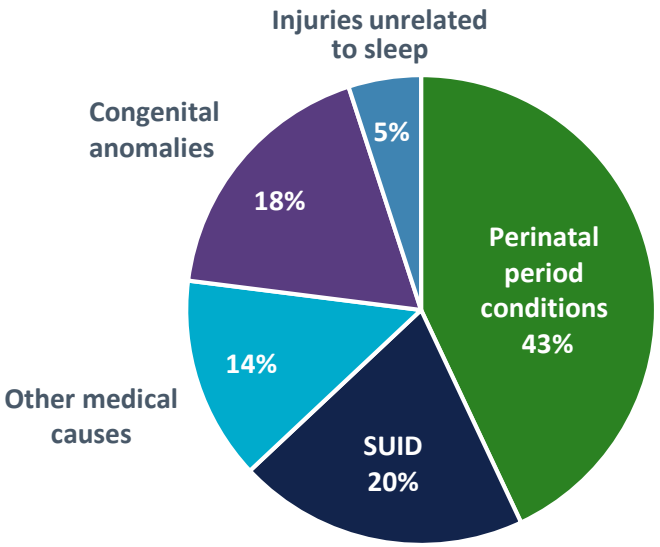
Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking[2]
7.7	5.6	6.0	4th highest in the U.S.

Infant Deaths by Region (2017-2019)[2]	1	2	3	4	5	6	7	8	9
Average annual infant death counts	76	71	35	57	32	29	70	40	51
Infant mortality rate per 1,000 live births	6.7	8.1	7.1	7.1	7.4	7.2	10.4	9.2	7.1

Causes of Infant Death

Each year, an average of…[2]

- **197** infants died from conditions originating in the perinatal period
- **92** infant deaths were classified as Sudden Unexpected Infant Deaths (SUID), which primarily occur in the sleep environment
- **68** infants died from other medical causes
- **82** infants died from congenital anomalies
- **23** infants died from injuries not related to sleep environments



Key Points

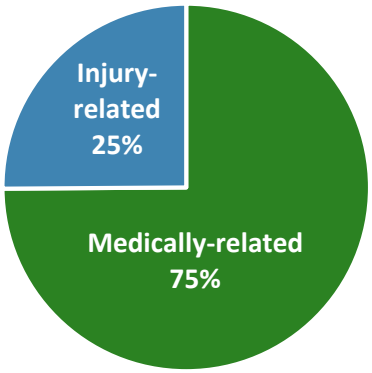
- From 2017-2019, Louisiana had the fourth highest infant mortality rate in the country.
- Maternal health before conception and during pregnancy is closely linked to the leading cause of infant death: conditions originating in the perinatal period (see Appendix pg.52 for full definition). 43% of infant deaths are due to these conditions. Within that category, low birth weight and premature birth are among the top conditions. Both are risk factors for SUID, the second leading cause of infant death. SUID refers to any sudden and unexpected infant death, whether explained or unexplained. This includes Accidental Suffocation or Strangulation in Bed (ASSB), Sudden Infant Death Syndrome (SIDS), and ill-defined deaths.

Infant Mortality: Fatal Injury

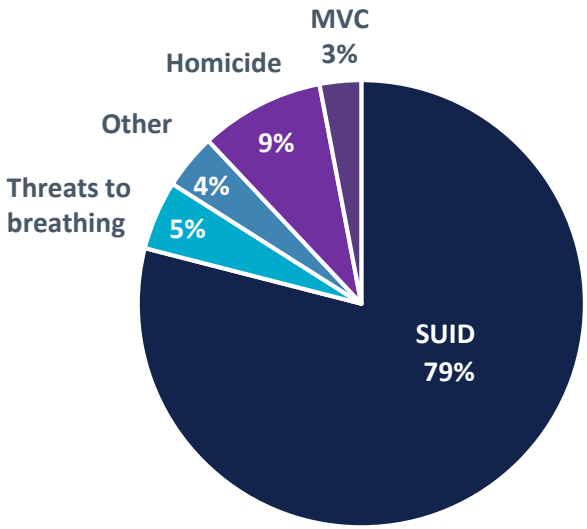
Birth to 1 year

From 2017-2019, an average of 115 infants per year died from an injury before they reached their first birthday.[2]

1 in 4 infant deaths were injury-related.[2]



Causes of Fatal Injury



Each year, an average of…[2]

- **92** infant deaths were classified as Sudden Unexpected Infant Deaths (SUID)
- **5** infants died from threats to breathing
- **5** infants died from another type of unintentional injury, including drowning, falls, fire, and other unintentional causes
- **10** 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 (85%); infants sleeping in something other than a crib or bassinette (83%); and infants sleeping with other people (63%). 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).[5]
- 73% of homicides in infants are due to Abusive Head Trauma (AHT) and blunt force injuries.

Neonatal Mortality

Infant deaths between 0 and 27 days

From 2017-2019 in Louisiana, an average of 268 infants per year died during the neonatal period.[2]

A CLOSER LOOK

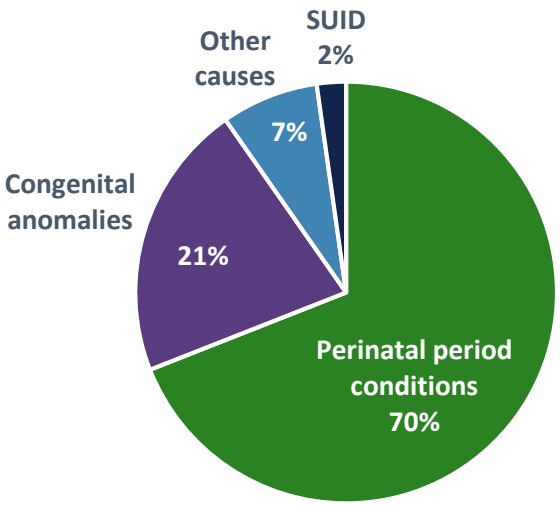
In Louisiana, the **neonatal period** (between 0 and 27 days after birth) is the **period with the most infant deaths** (deaths that occur between birth and 1 year of age). The Louisiana neonatal mortality rate from 2017 to 2019 was **4.5 deaths per 1,000 live births.**

Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking[3]
4.5	3.8	4.1	11st highest in the U.S.

Causes of Death During the Neonatal Period

Each year, an average of…[2]

- **185** infants died from conditions originating in the perinatal period
- **57** infants died from congenital anomalies
- **20** infants died from another cause, including injury and other medical causes
- **6** 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 (e.g., high blood pressure, diabetes, etc.) negatively affect maternal health, which leads to higher rates of adverse birth outcomes.[6]

Post-neonatal Mortality

Infant deaths between 28 and 365 days

From 2017-2019 in Louisiana, an average of 194 infants per year died during the post-neonatal period.[2]

A CLOSER LOOK

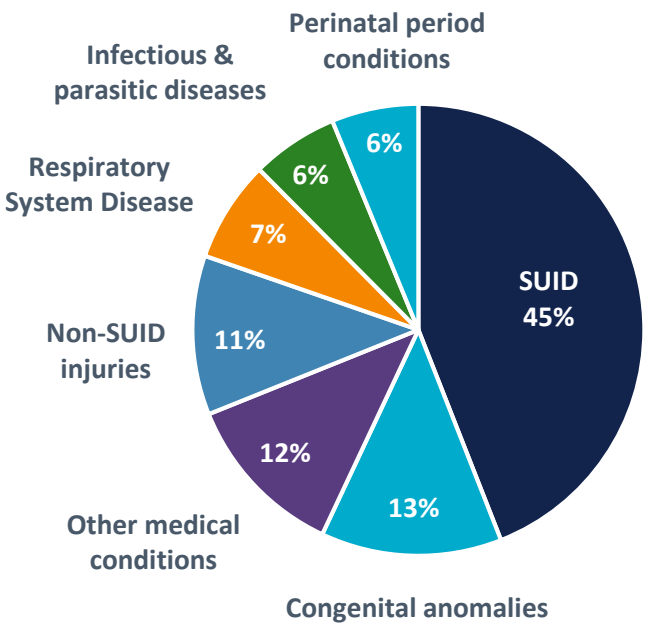
From 2017 to 2019 in Louisiana, fewer deaths occurred during the post-neonatal period than the neonatal period. However, the **causes of death common to this period are more preventable**. For example, 44% of deaths during the post-neonatal period are classified as Sudden Unexpected Infant Deaths (SUIDs). Many of these deaths could be prevented through safe sleep practices.

Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking
3.2	1.9	2.0	Highest in the U.S.

Causes of Death During the Post-Neonatal Period

Each year, an average of…[2]

- **86** infant deaths were classified as SUIDs
- **25** infants died from a congenital anomaly
- **23** infants died from other medical conditions
- **22** infants died from injury unrelated to SUID
- **14** infants died from respiratory diseases
- **12** infants died from conditions related to the perinatal period
- **12** infants died from infectious and parasitic diseases



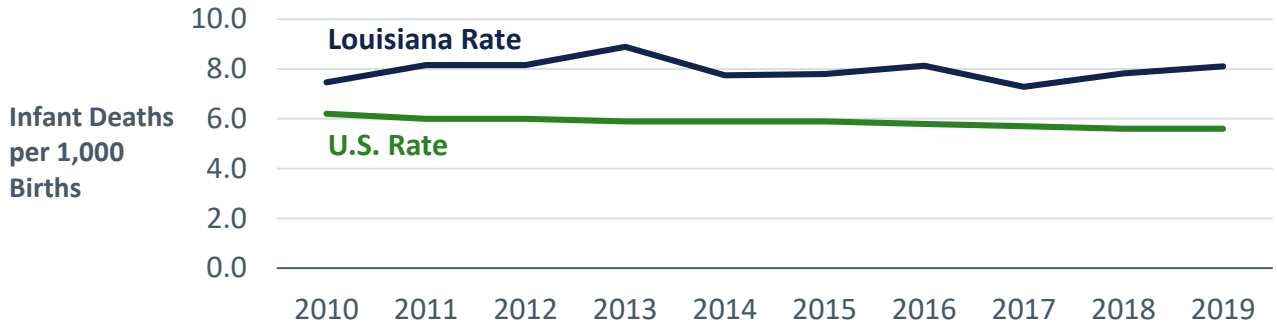
Key Points

- Over half (56%) of deaths during the post-neonatal period were injury-related (this includes SUIDs).
- Almost half (45%) of 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.[7] 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.[7]

Trends in Infant Mortality
Birth to 1 year

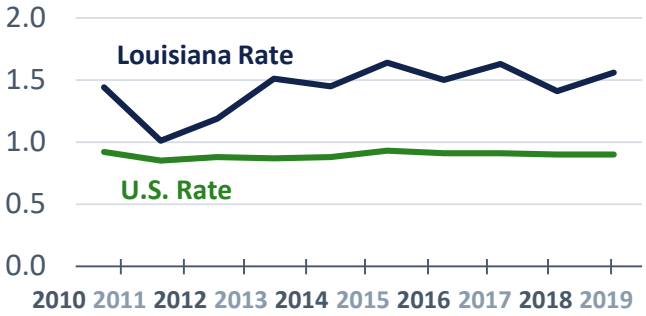
Overall Infant Mortality Over Time[3]

Louisiana's infant mortality rate stayed relatively consistent from 2010 to 2019, hovering around **8 infant deaths per 1,000 births**. The Louisiana rate also remained consistently higher than the United States rate.



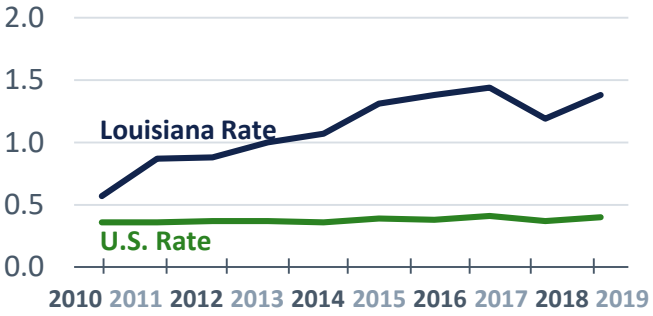
Infant Mortality Due to SUID[3]

While Louisiana's infant mortality rate due to **Sudden Unexpected Infant Death (SUID)** (measured as deaths per 1,000 births) fluctuated between 2010 and 2019, 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[3]

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 2019, 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 steady since 2010.
- Infant mortality due to injury has remained consistent in the United States as a whole but has steadily increased in Louisiana over the past 10 years.
- 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 pgs. 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.[8, 9] Unequal treatment on the basis of race or insurance type may also deter people from regularly using healthcare services.[8] 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.[8,9]

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:[7]

- 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:[7]

- 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 2019 Louisiana Pregnancy Risk Assessment Monitoring System (PRAMS) Survey and case review data from Louisiana CDR, maintained on the **National Fatality Review Case Reporting System**.

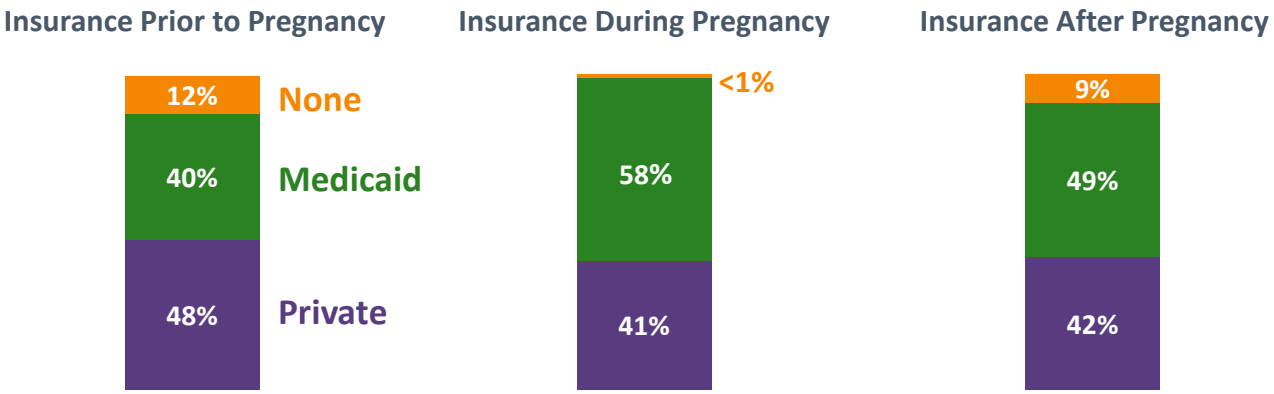
Louisiana PRAMS is an ongoing, population-based risk factor surveillance system designed to find out more about the experiences women have before, during, and immediately following pregnancy. The survey collects quantitative and qualitative data on known risk factors for infant mortality. Louisiana PRAMS 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.

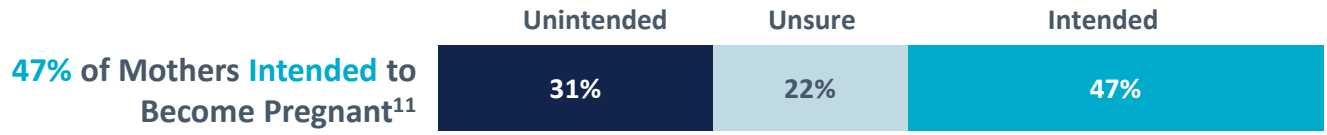
Maternal Health Insurance Coverage (2019)[11]

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 (2019)

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 (2019)

Prior to their most recent pregnancy…[11]

- **60%** of mothers were overweight or obese*
- **16%** of mothers reported they had depression
- **3%** of mothers reported they had diabetes
- **7%** 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.

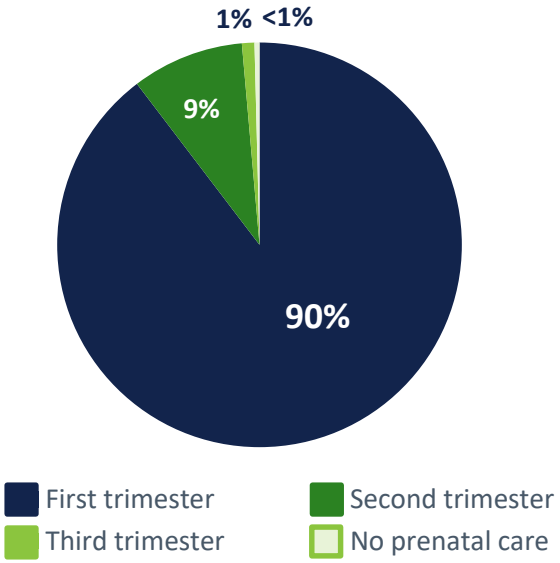
Prenatal Care

In 2019, 10% 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.[11]

Adequacy of Prenatal Care in Louisiana (2019)

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.[11]

About 1 in 10 (10%) Louisiana Mothers Did Not Receive Prenatal Care in First Trimester[11]



About 1 in 4 (22%) Louisiana Women Received Less than Adequate Prenatal Care[2]

Inadequate **<50% of recommended visits**	**15%**
Intermediate **50-79% of recommended visits**	**7%**
Adequate 80 – 109% of recommended visits	42%
Adequate Plus 110% or more of recommended visits	36%

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 (2019)

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[11]. However, despite earlier initiation times, increased Medicaid coverage is not associated with a significant effect on the total adequacy scores of prenatal care during pregnancy.[11] The most common reasons women reported for not receiving first trimester prenatal care included:[11]

- Didn't know I was pregnant
- Couldn't get an appointment when I wanted
- Too many other things going on
- 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.

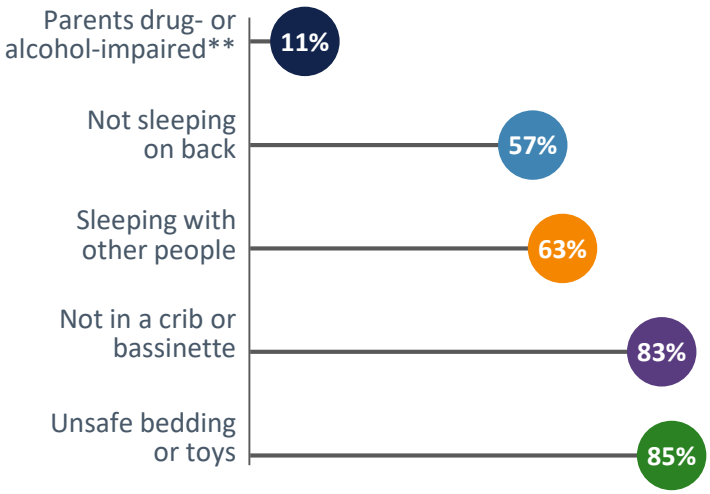
Sudden Unexpected Infant Death

70% of sleep-related deaths in Louisiana occurred by 3 months of age (2017-2019).[5]

Sudden Unexpected Infant Death (SUID) in Louisiana

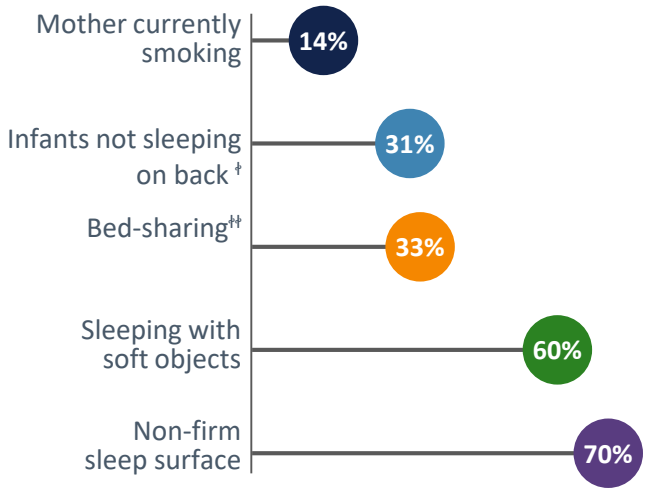
In 2019, **more than 1 in 3 babies** (39%) in Louisiana were exposed to **3 or more risk factors for sleep-related death**.[11] **33%** of Louisiana mothers said they **sometimes, often or always bed-share** with their baby.[11] The American Academy of Pediatrics cites bed-sharing as the greatest risk factor for sleep-related infant deaths.

Risk Factors* Present in Louisiana SUIDs (2017-2019 CDR Data)[5]



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

Infant Sleep Environment Risk Factors (2019 Louisiana PRAMS Data)[11]



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

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 explore the website, GiveYourBabySpace.org.
- 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 are encouraged 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

2017-2019 Data

Overall Child Mortality
1 to 14 years

From 2017-2019 in Louisiana, an average of 194 children between ages 1 and 14 died each year.[2]

The 2017-2019 Louisiana mortality rate for children ages 1 to 14 **was 22.7 deaths per 100,000 children**. The U.S. rate was 16.3 per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S., **55 fewer** children would have died per year.

Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking[3]
22.7	16.3	-	6th highest in the U.S.

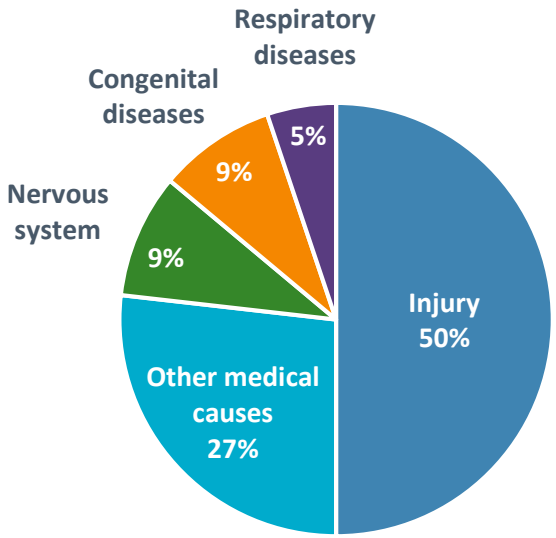
Child Deaths by Region (2017-2019)[2]	1	2	3	4	5	6	7	8	9
Average annual child deaths	31	29	15	23	15	11	26	18	25
Child mortality rate per 100,000 children	20.5	23.3	20.1*	19.8	25.0*	20.3*	26.3	28.7*	22.8

**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…[2]

- **97** children died from injury
- **52** children died due to another medical cause
- **18** children died due to nervous system diseases
- **17** children died due to congenital anomalies
- **10** children died due to diseases of the respiratory system



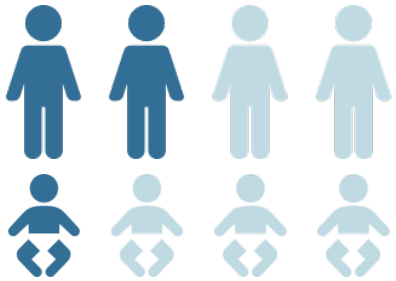
Key Points

- Half (50%) of childhood deaths (ages 1 to 14 years) were due to injuries. Most of these deaths are considered preventable.
- The other half (50%) 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 2017-2019, an average of 97 children died from injuries each year. The majority of injury deaths were due to motor vehicle crashes, drowning, and homicide.[2]

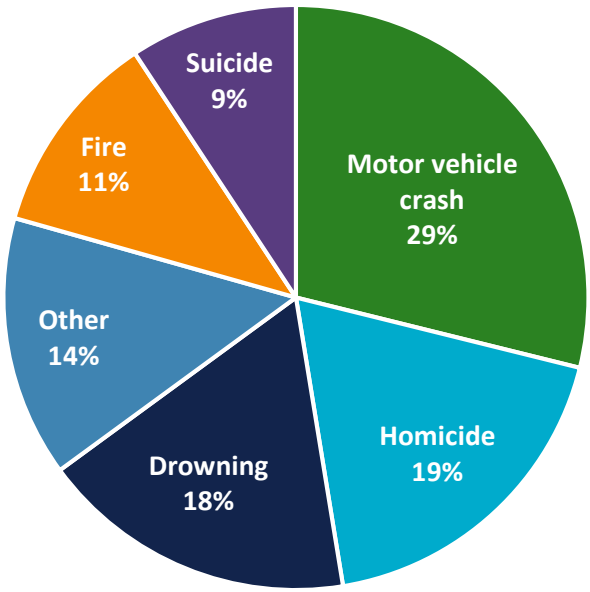
Half of child deaths were a result of injury. Injury makes up a larger percentage of deaths in childhood (50%) than in infancy (25%).



Causes of Fatal Injury

Each year, an average of…[2]

- **28** children died due to motor vehicle crashes
- **18** children died from homicide
- **17** children drowned
- **14** children died due to another unintentional cause, including falls, threats to breathing, and other injuries
- **11** children died due to fire exposure
- **9** children died from suicide



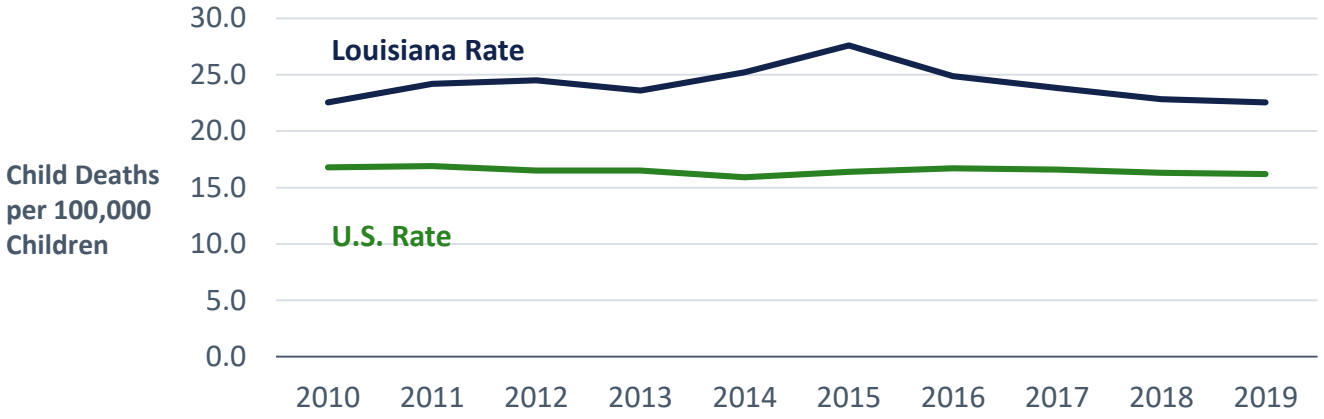
Key Points

- Motor vehicle crashes, homicide, and drowning 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 (60%) of all drowning deaths occurred in swimming pools, hot tubs, or spas.

Trends in Child Mortality
1 to 14 years

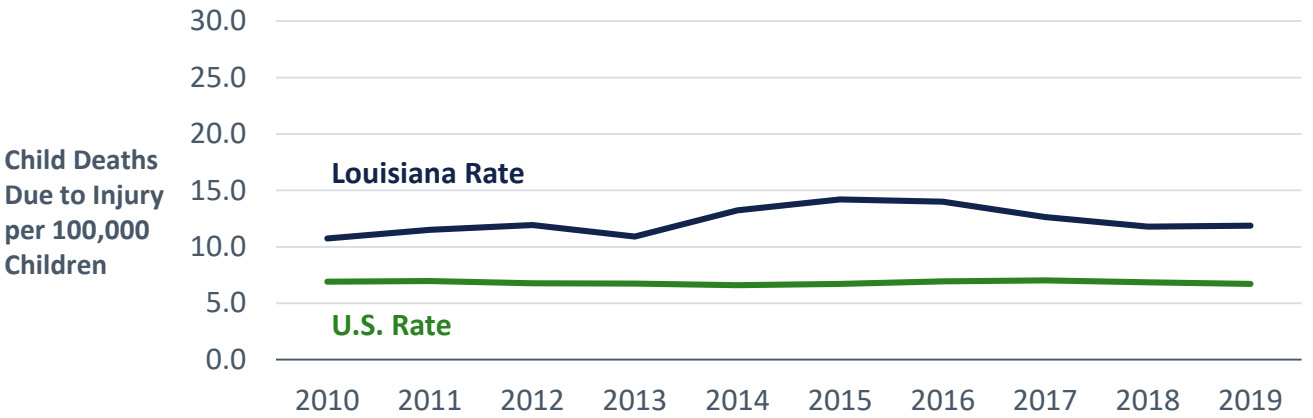
Overall Child Mortality Over Time[3]

Louisiana's overall child mortality rate remained relatively consistent from 2010 to 2019, hovering around **25 child deaths per 100,000 children**. The Louisiana rate also remained consistently higher than the U.S. rate.



Child Mortality Due to Injury Over Time[3]

Louisiana's child mortality rate due to injury remained around **12 deaths per 100,000 children** from 2010 to 2019. 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 has consistently had higher child mortality rates than the United States as a whole.
- During 2017-19, injury prevention programs have gained traction. While rates of child mortality due to injury have not yet decreased, there are promising prevention strategies on the horizon, including: implementing swim lessons for children; enforcing building codes for swimming pools; lowering the cost of safe pool construction; training school health personnel on suicide prevention methods, and revising child passenger safety laws.

Child Mortality Due to Injury

2017-2019 Data

Child Mortality Due to Injury
Ages 1– 4 years

From 2017-2019 in Louisiana, an average of 87 children between ages 1 and 4 died each year. 43 per year died due to injury.[2]

From 2017 to 2019, the Louisiana mortality rate due to injury for children ages 1 to 4 was **17.4 deaths per 100,000 children**. The U.S. rate was 10.0 per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S., **18 fewer** children in this age group would have died per year.

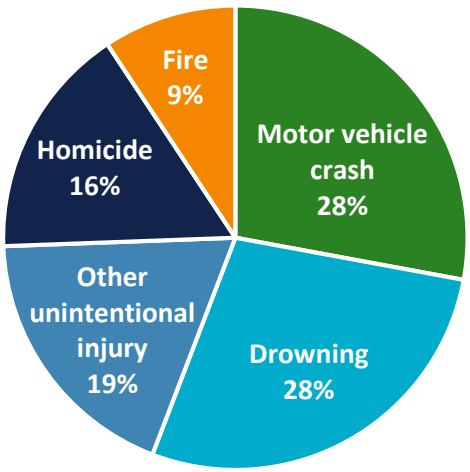
Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking[3]
17.4	10.0	-	4th highest in the U.S.

Causes of Fatal Injury

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

Each year, an average of…[2]

- **12** children died in a motor vehicle crash
- **12** children drowned
- **8** children died due to unintentional injuries, including but not limited to: falls, threats to breathing, excessive heat, and storms
- **7** died from homicide
- **4** died due to fire exposure



Key Points

- The greatest disparity between Louisiana and U.S. child mortality rates is found within this age group.
- Children between ages 1-4 had the highest injury-related mortality rate among all children in Louisiana.
- The majority of these deaths were due to unintentional injuries: motor vehicle crashes, drowning, fire-related deaths, falls, threats to breathing, excessive heat, and storms.
- 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 19% of deaths, but this category is a grouping of multiple, less frequent causes.
- Creating safe environments for children to live, learn, and play is important for reducing fatalities due to injuries. Safe environments require a variety of physical and behavioral supports, including: size-appropriate child passenger safety restraints in vehicles, barriers around pools and natural bodies of water, smoke alarms inside homes, safe firearm storage, and attentive supervision by caregivers.

Child Mortality Due to Injury
Ages 5 – 9 years

From 2017-2019 in Louisiana, an average of 46 children between ages 5 and 9 died each year. 23 per year died due to an injury.[2]

The Louisiana mortality rate due to injury from 2017 to 2019 for children ages 5 to 9 years was **7.7 deaths per 100,000 children**. The U.S. rate was 4.5 deaths per 100,000 children for the same time period. If Louisiana had the same mortality rate as the U.S., **10 fewer** children in this age group would have died per year.

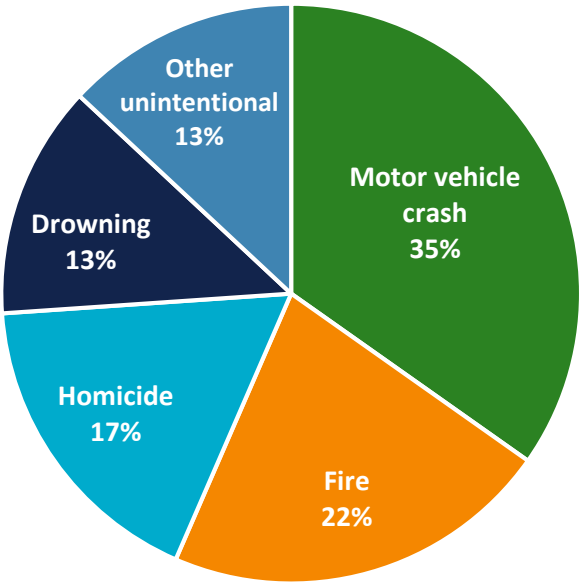
Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking[3]
7.7	4.5	-	4th highest in the U.S.

Causes of Fatal Injury

50% of deaths among children ages 5-9 years were injury-related.

Each year, an average of…[2]

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



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, 62% of homicides were due to firearms.[2]

Child Mortality Due to Injury

Ages 10 – 14 years

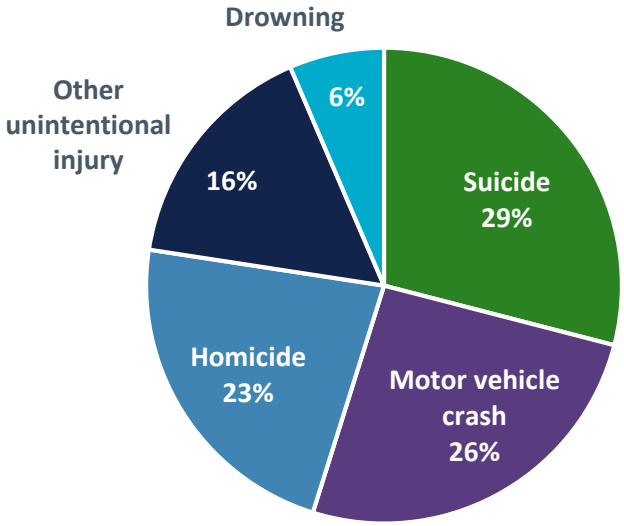
From 2017-2019 in Louisiana, an average of 60 children between ages 10 and 14 died each year. 31 per year died from injuries.[2]

Louisiana's mortality rate due to injury from 2017 to 2019 for children between the ages of 10-14 was **10.0 deaths per 100,000 children**. The U.S. rate was 7.4 deaths per 100,000 children for the same period. If Louisiana had the same mortality rate as the U.S., **8 fewer** children in this age group would have died per year.

Louisiana Rate[2]	U.S. Rate[3]	HP2020 Goal[4]	LA Ranking[3]
10.0	7.4	-	10th highest in the U.S.

Causes of Fatal Injury

52% of deaths among children ages 10-14 years were injury-related.

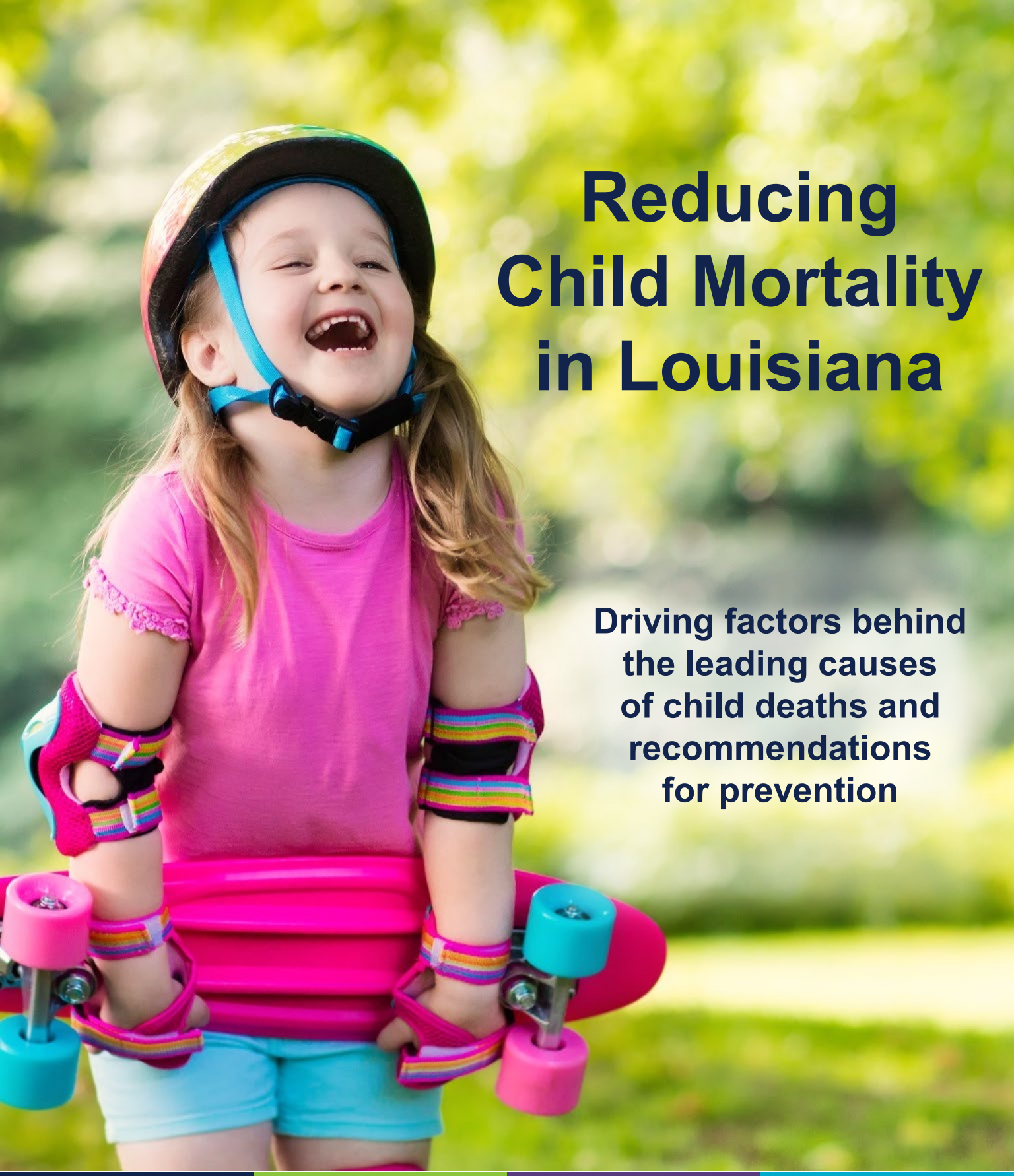


Each year, an average of…[2]

- **9** children died from suicide
- **8** children died in motor vehicle crashes
- **7** children died from homicide
- **5** children died due to other unintentional injuries, including but not limited to: threats to breathing, falls, fire, accidental poisoning, and storms
- **2** children drowned

Key Points

- Suicides and motor vehicle crashes were the most common causes of injury-related deaths in this age group.
- Suicides exceed homicides in this age group. Louisiana CDR case reviews indicate that the top risk factors for suicide in this age group include: access to lethal means of self-harm – such as firearms – and a history of adverse childhood experiences (ACEs). ACEs include all types of abuse, neglect, and other potentially traumatic experiences that happen to people under the age of 18.
- Among motor vehicle crash deaths in this age group, children were more likely to die as car passengers (53%) 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.).[5]
- In this age group, 80% of homicides were due to firearms.[1]



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 following section highlights risk factors for leading causes of child mortality due to injury, and provides recommendations for reducing risk factors, increasing protective factors and preventing future deaths. Data on infant deaths due to these leading causes have also been included 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) and boats. 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).

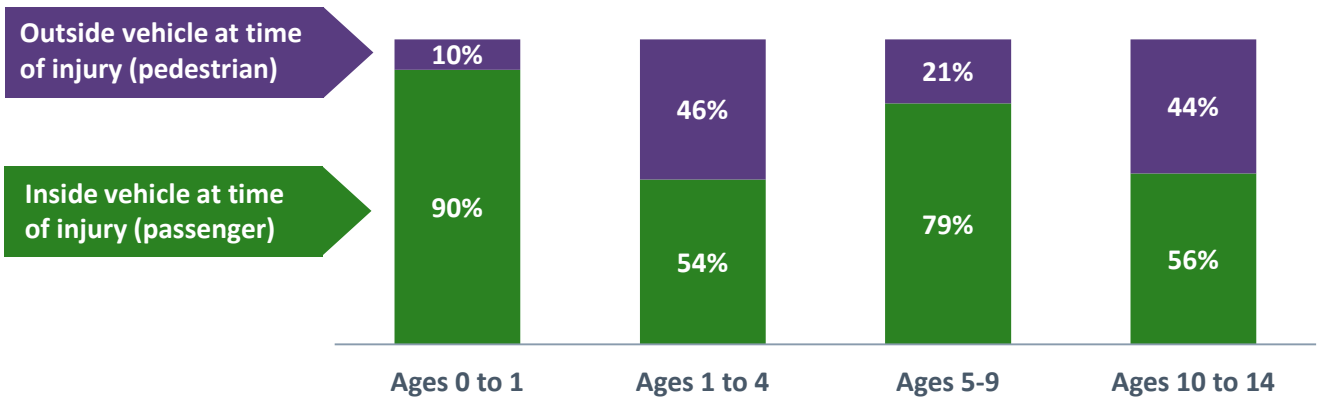
During and following Regional and State Child Death Reviews, data were analyzed and organized, then added to the National Fatality Review Case Reporting System database. Data from this database were used in the following pages to determine the prevalence of risk factors in Louisiana deaths due to motor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

Child Motor Vehicle Crash (MVC) Deaths

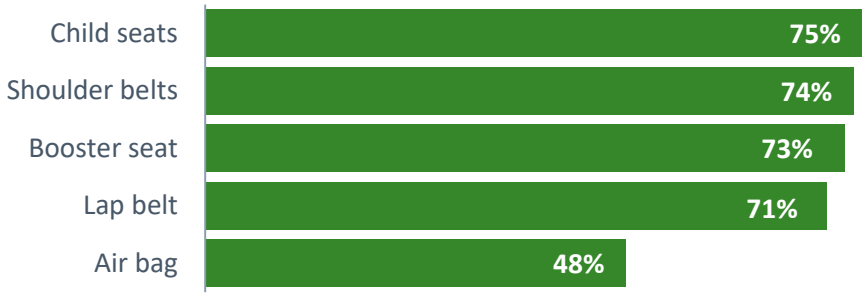
Risk Factors & Recommendations, 2017-2019 data

94 infants and children in Louisiana died due to MVCs from 2017-2019.[5] All age groups of infants and children 1-14 years were more likely to die as passengers in MVCs rather than as pedestrians. MVCs are the leading cause of injury-related death in children 0-14 years in Louisiana.

Location of Victim at time of MVC, by Age Group[5]



Safety Features Used Incorrectly or Not Present in Child MVC Deaths[5]



NOTES: Updated child passenger safety legislation went into effect in 2019. These data reflect only 2017-2019 deaths.

The **Air bag** category includes cases where there was either no air bag or the air bag malfunctioned.

Recommendations

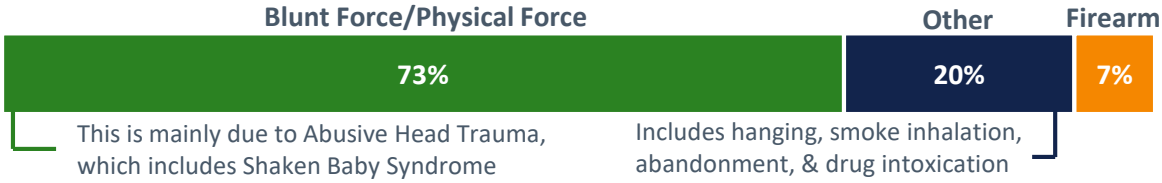
- Pediatricians and other providers should discuss the correct type of car/booster seats parents should use, based on their child's age and size; requirements and national recommendations change as children grow.
- As of 2019, Louisiana's child passenger safety (CPS) legislation reflects best practices and is one of the safest CPS laws in the country. Prevention professionals should ensure that all families have access to appropriate seats and assistance for correct installation.
- For the majority of child deaths due to motor vehicle crashes, child safety seats and seat belts were either not used or used incorrectly. Car seat distribution programs can increase the availability of free or low-cost seats for families in need. Programs 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.[12]
- Injury prevention professionals are encouraged to assess areas where children gather (e.g., parks, schools, libraries, etc.) for unsafe conditions, such as poor visibility, lack of cross-walks, or poorly coordinated traffic.[13]

Homicide Deaths in Children
Risk Factors & Recommendations, 2017-2019 data

83 Louisiana infants and children were victims of homicide from 2017-2019.[2] 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.

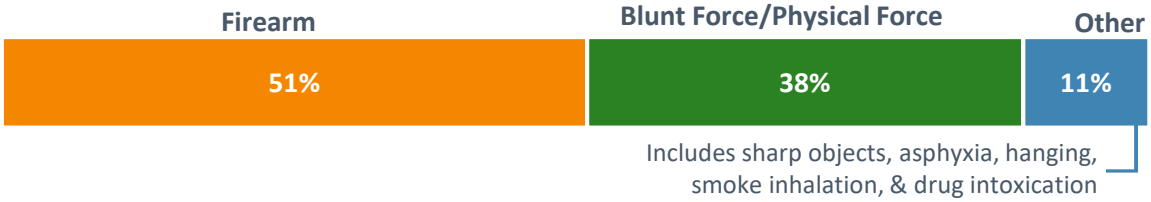
Homicide Methods

Ages 0-1 years in Louisiana[2]



Homicide Methods

Ages 1-14 years in Louisiana[2]



There were 83 homicides between 2017-19. However, some data providers were cautious about sharing case details under LA RS 40:2019. Therefore, CDR teams could only fully review 34 of these cases.

Recommendations

Based on recommendations from Children's Safety Network,[14] American Academy of Pediatrics,[15] and Safe States Alliance.[16]

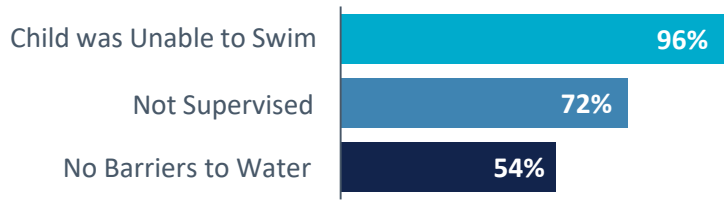
- **Pediatricians are encouraged to regularly talk to parents about:**
  - Safely storing all firearms in children's primary home and relatives' homes. Safe storage includes locking up firearms and storing firearms and ammunition separately.
  - Strategies and resources for managing stressful parenting situations (e.g. excessive crying in infants, toddler meltdowns), including safe, age-appropriate methods of discipline.
- **Policymakers and public health agencies are encouraged to:**
  - Champion evidence-based interventions that promote stable, nurturing relationships between children and their caregivers. Interventions should promote positive parent-child interactions and safe child discipline.
  - Support violence prevention strategies that impact multiple health outcomes, e.g., chronic disease, injury, and violence. Learn more about these approaches in the **CDC's *Connecting the Dots*** or the **Prevention Institute's *Recommendations for Preventing Gun Violence***.
  - Encourage coroners and law enforcement to participate in CDR and the National Violent Death Reporting System (NVDRS) in Louisiana. Their collaboration is vital for collecting and analyzing 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, 2017-2019 data

53 infants and children in Louisiana died from drowning from 2017-2019.[5] Drowning was the 3rd leading cause of injury-related death for children ages 0-14 years in Louisiana.[2]

Top Risk Factors for Drowning in Louisiana[5]



- Most children who drowned **did not know how to swim**. **Lack of supervision** or **barriers to water** were key risk factors.[5]
- Most drowning deaths occurred among children who are **white[i], male, and between the ages of 1 and 4 years**.

Drowning Location

Of children who died from drowning in Louisiana**, over half (60%)** drowned in a **pool, hot tub, or spa.** [5]

Recommendations

Based on shared recommendations from the CDC,[17] Safe Kids Worldwide,[18] and Children's Safety Network.[19]

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 two designated adult "water watchers' within "touch distance."
- Only use floatation devices that have been approved by the U.S. 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 and pipes.
- Maintain clear visibility of pool surface and 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 and storm drains.
- Share drowning prevention health education resources with caregivers, from sources such as poolsafely.gov.

Suicide Deaths in Children

Risk Factors & Recommendations, 2017-2019 data

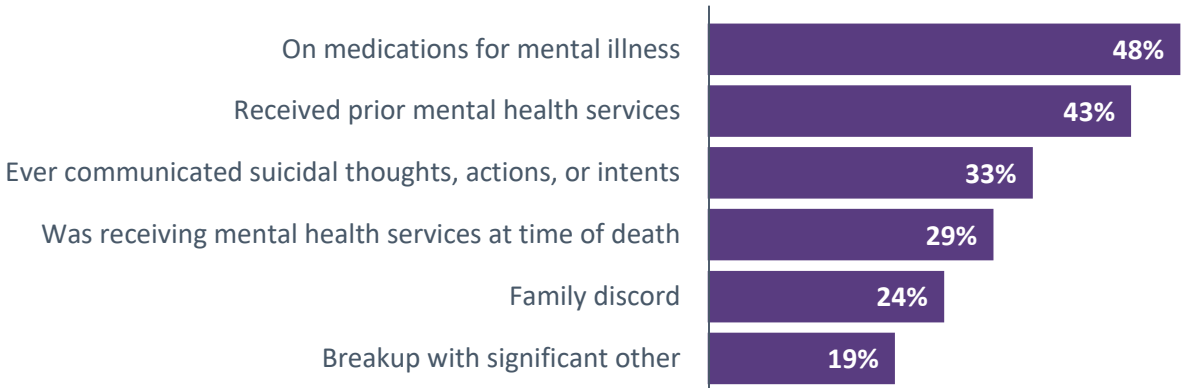
From 2017-2019, 26 children in Louisiana died from suicide.[2]
More than a third of these suicides were completed using a firearm.

Suicide Methods

Children under 15 in Louisiana[2]

Experiences of Children who Died by Suicide

Local Child Death Review teams reviewed 21 out of 26 child deaths due to suicide from 2017-2019. The graph below reflects only reviewed cases, and data are not mutually exclusive.



Recommendations

Based on recommendations from Children's Safety Network,[14] American Academy of Pediatrics,[15] and Safe States Alliance.[16]

- 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, reliable screening tools (e.g. **ASQ Suicide Risk Screening Tool** or the **Beck Scale for Suicide Ideation®**) to assess children for suicide risk.
- Educators and those working with youth should receive training – such as **Living Works' ASIST**, **safeTALK**, or **QPR** – to recognize warning signs for suicide and connect youth with help. The Louisiana Department of Education monitors compliance with training requirements for educators and school staff.
- Policymakers are encouraged to work with public health agencies to investigate how social determinants of health and health inequities (such as historical trauma, inequitable distribution of protective services and resources, gender norms, and others) contribute to 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: 2017-2019 Data

1974

American Public Health Association

"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."[20]

2020

American Public Health Association

"Racism attacks people's physical and mental health. And racism is an ongoing public health crisis that needs our attention now!"[21]

*Institutional racism is the "societal allocation of privilege based on race."[22]

Racial Disparities in Mortality

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

If a health outcome occurs more often or less often for a given group than the general population (e.g., rates of drowning among Black children versus all children), the difference between those groups is called a disparity.[23] **Racial disparities in mortality exist throughout Louisiana and the United States, and they are complex.** Infant and child mortality is influenced by a range of intergenerational social, economic, clinical, and environmental determinants. Racial disparities across important *non-clinical* factors – such as income, opportunities for stable employment, affordable housing, and access to preventive healthcare[8] or family planning services[24] – can exacerbate differences in infant and child mortality by race.[9, 10]

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 (SUID), the leading cause of injury-related infant death. Some families may find it especially difficult to follow safe sleep recommendations for a number of social and economic reasons, such as non-traditional work schedules, exhaustion, inability to afford cribs or Pack 'n Plays, cultural misconceptions about safe sleep practices, or home safety concerns that lead caregivers to believe bed-sharing is the safest option.[25, 26]

Low socioeconomic status is correlated with injury-related child fatalities.[27] 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.

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

Racial Disparities in Mortality

Infants, Birth to 1 year

Black† infants are at an increased risk of dying, as compared to their white† peers.[2]

A CLOSER LOOK

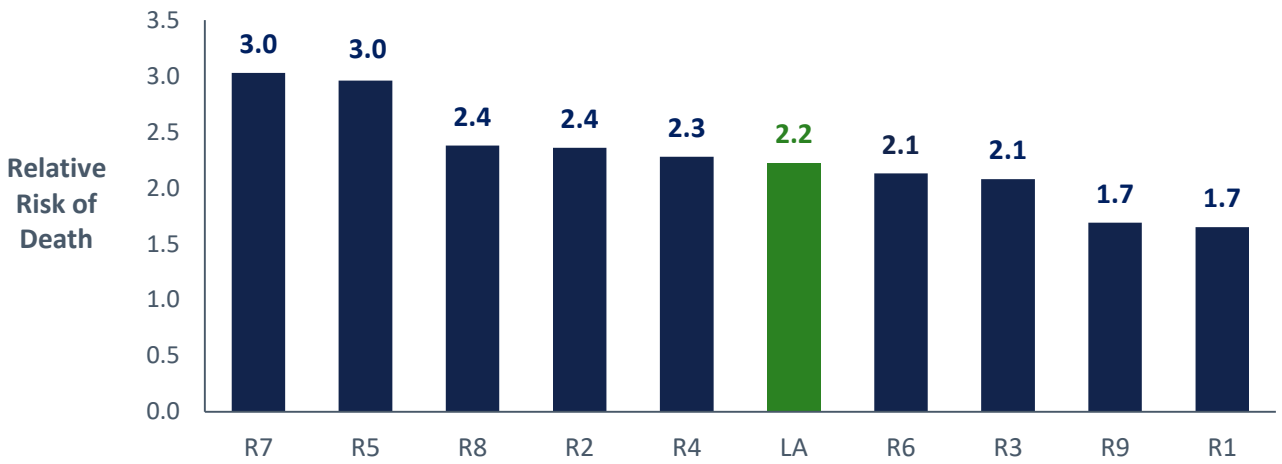
In Louisiana from 2017 to 2019, Black† infants were **2.2 times as likely to die** as white† infants.

Infant Mortality Rate, 2017-2019	
Black†	**White†**
11.8 deaths per 1,000 live births	5.3 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 7 (Shreveport Area) and Region 5 (Lake Charles Area) have the greatest racial disparity in birth outcomes. In these regions, Black† infants are 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 2017-2019 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.[2]

A CLOSER LOOK

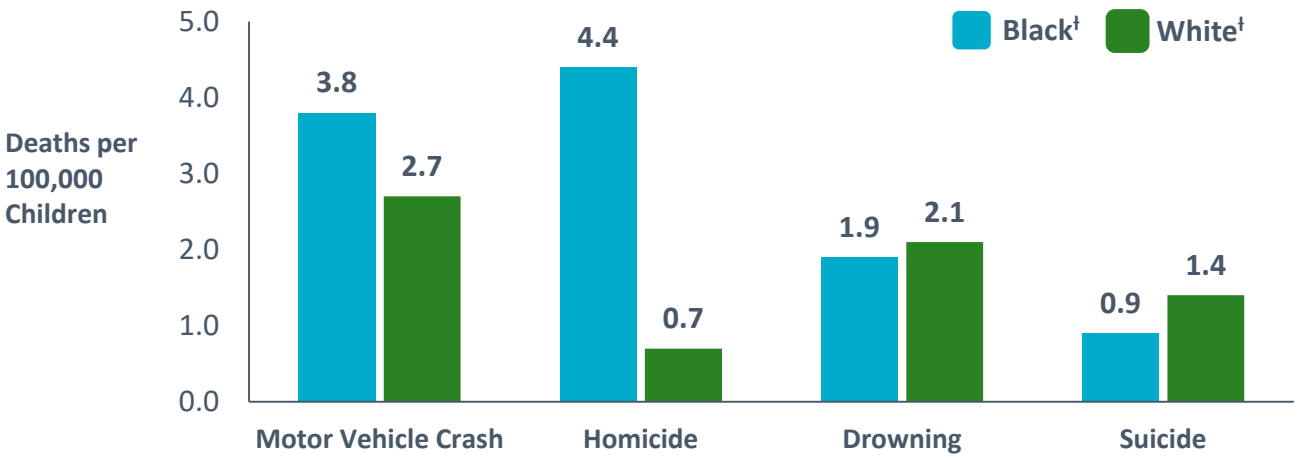
In Louisiana from 2017 to 2019, Black† children were **1.6 times as likely to die** as white† children.

Child Mortality Rate, 2017 - 2019	
Black†	**White†**
30.9 deaths per 100,000 children	18.9 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 2017 to 2019, **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 **suicide**.



Key Points

- In Louisiana, child mortality affects Black children more than white children.
- Between 2017-19, Black children were six times as likely to die from homicide as 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 each 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:

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 healthcare 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 healthcare 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 healthcare 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.[28]
- 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 healthcare needs, such as **JoJo's Hope**.[29] 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.[30]
- 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

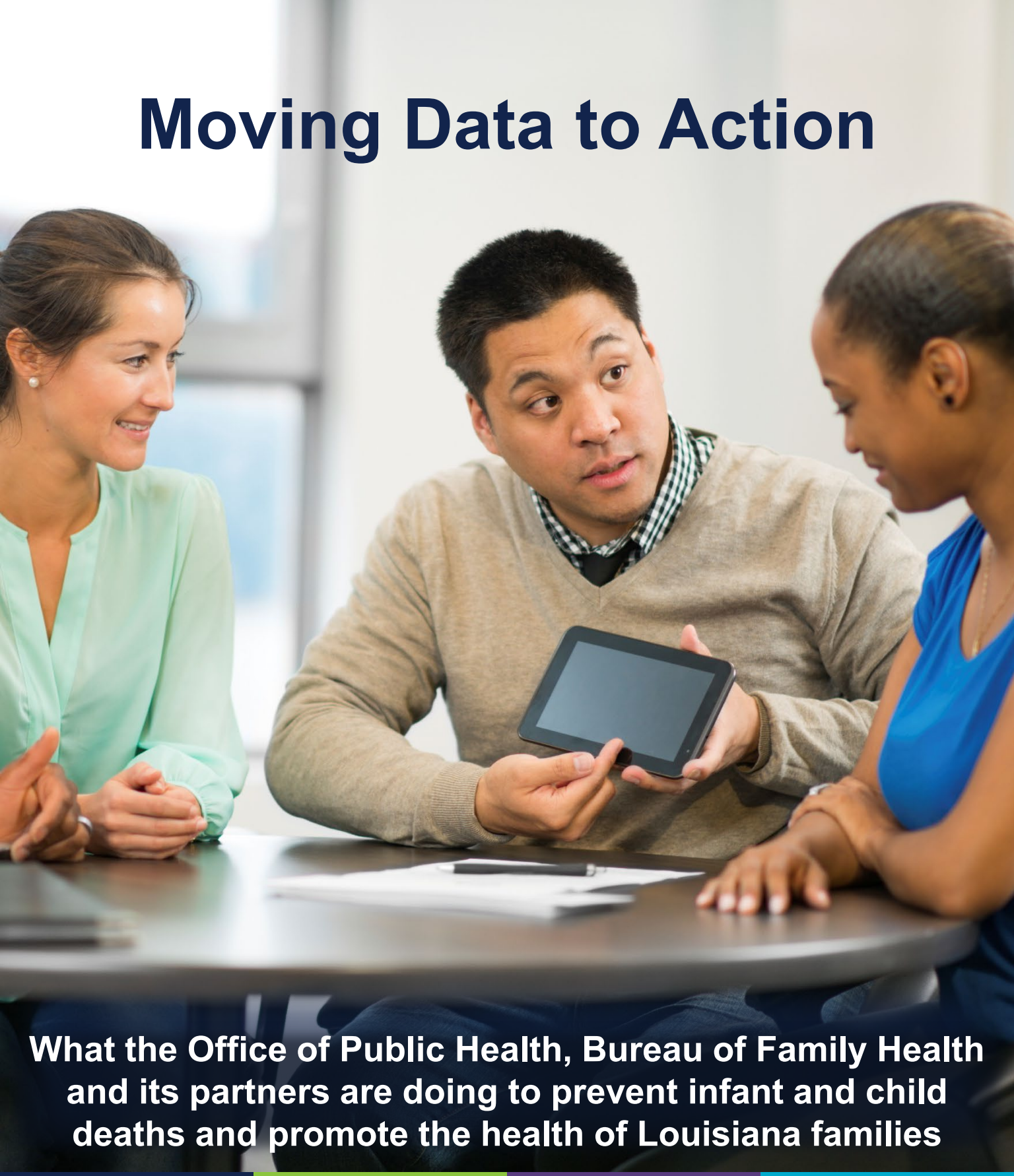
Homicide includes deaths due to child abuse and neglect

- Early access to behavioral health supports for parents of children with special healthcare needs, the children themselves, and their siblings is protective against depression, anxiety, and toxic stress.[31] 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.[32] 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.[33]
- 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 healthcare needs. Like all parents, these caregivers benefit from coaching on parenting, life skills, and family health. However, caring for children with special healthcare needs requires caregivers to learn additional systems navigation skills and stress management/coping techniques.[31]

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
  - Standers/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 Child Death Review (CDR) Panel to review data on the leading causes of infant and child death, select priorities for the year, discuss recommendations from local review panels, and identify opportunities for prevention. The Louisiana Department of Health (LDH), Office of Public Health (OPH), BFH and various partner organizations all use State and local CDR recommendations to plan activities, programs, interventions, and support policies to prevent deaths and improve health for Louisiana families.

The projects listed under the following categories were all coordinated and facilitated by BFH or 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 program's evidence-based models have been shown to reduce health complications associated with pregnancy and birth, as well as emergency department visits among participating families.[34]
    - Because mental and emotional wellbeing is also a critical part of maternal heath 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 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 two websites (**1800251baby.org** and **AliadosParaBebesSanos.org**, a Spanish-language webpage) and a toll-free bilingual 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 confidential helpline is available 24/7. For more information about helpline call volume or website user traffic during this time frame, refer to the Bureau of Family Health's **Communications Report 2019**.
- 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, and
    - 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

Improving Systems

- 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 improve maternal health during the perinatal period through the Louisiana Perinatal Quality Collaborative (LaPQC). LaPQC is a network of hospitals, perinatal care providers, public health professionals, and patient advocates who use evidence-based practices and clinical quality improvement methods to improve outcomes for women, families, and newborns.
  - LaPQC launched its *Reducing Maternal Morbidity Initiative* (RMMI) in August 2018. Data from the **RMMI Final Report** showed that birthing facilities who participated in the initiative saw a 34.8% decrease in severe maternal morbidity among women who experienced hemorrhage, and an 11.6% decrease in severe maternal morbidity among women with hypertension. Further, the percent of patients receiving timely treatment of severe hypertension improved by 211%, and the percent receiving a risk assessment of hemorrhage upon admission to Labor and Delivery improved by 78%.
  - In January 2021, the LaPQC launched the *Safe Births Initiative***.** This initiative will continue improvement work related to hemorrhage and hypertension, and will also focus on reducing the rate of Cesarean delivery for low-risk, first-time birthing persons in Louisiana.
- 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 addressing racial and ethnic disparities in maternal health outcomes and help state agencies and partners adopt a community-engaged, equity-focused work culture. 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 mental health professionals support obstetricians, nurse practitioners, and other clinicians to help them better screen, identify, and assist pregnant and postpartum women experiencing depression, substance use disorders, or interpersonal violence.

Sudden Unexpected Infant Death (SUID) Prevention

Supporting Families

- 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 and hurricanes in 2020.
- 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. 42 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.
- Expanded the *Adverse Childhood Experiences (ACE) Educator* program. This involved developing resources for improved training on ACEs and trauma-informed care and supporting the promotion of the **Louisiana Parent Line (1-833-LA-CHILD)** for parenting support.

Child Passenger Safety and Motor Vehicle Crash Prevention

Supporting Families

- Collaborated with regional transportation safety coalitions to train car seat technicians, open seat safety check stations, promote car seat giveaways, and assist with correct installation.
- Worked with the Louisiana Passenger Safety Task Force to create regional contact cards listing all car seat technicians certified in both general child passenger safety and safety for **CYSHCN**.
- Coordinated with emergency department providers and emergency medical personnel on two large Louisiana Department of Wildlife and Fisheries events to promote ATV safety.
- Collaborated with Highway Safety Coalition to organize a training on transport for children and youth with special healthcare needs for child passenger safety technicians.

Improving Systems

- Provided data and recommendations for improving child passenger safety – including seat location and booster seat use – as well as Graduated Driver's Licensing to the Louisiana Highway Safety Commission (LHSC) and other professional partners. LSHC and Louisiana State Police used this information to support legislation that aligned with best practices. Today, **Louisiana's child passenger safety law** is one of the most protective in the country.
- Partnered with LSU's Highway Safety Research Group - 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 best ways to change cultural norms around child passenger safety, increase passenger safety for children with special health needs and child passengers in emergency transport vehicles, and make car seats more available.

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 refers clients 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 adopt more family-friendly policies.
- 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.
- Supported promotion of the **VIA LINK Louisiana Parent Line**: 833-LA-CHILD (833-522-4453).

Improving Systems

- In 2017, BFH began gathering 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 connecting records from medical examiners, coroners, law enforcement, toxicologists, and vital statistics.
- 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 deaths due to child abuse and neglect. Audiences included the Louisiana Emergency Response Network, Louisiana Emergency Room Nurses Association, DCFS, Emergency Medical Services, law enforcement, teachers, social workers, and childcare providers.
- Hosted trainings on shared risk and protective factors for violence through 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 preventing 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 considering self harm or suicide.
- Worked with regional suicide prevention taskforces to promote suicide prevention training, and to create a Suicide Prevention Plan and Crisis Intervention Quick Resource Guide.
- Secured additional funding for suicide prevention in Louisiana. This work included organizing suicide prevention trainings for professional working with children and youth.
- 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 media workshop on covering 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 new pool construction safety standards and pool safety operation requirements in collaboration with the State Fire Marshall's Office.
  - Provide public education around water safety and drowning prevention.
  - Develop partnerships and 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.
- Provided swim lessons for children with special healthcare needs and expanded the number of instructors certified to teach these children through a collaboration with West Jefferson Medical Center.
- Partnered with Tank Proof to provide no-cost swim lessons for families in the Northshore and Monroe areas.
- Partnered with Children's Water Safety Awareness to distribute children's life jackets to families in the Houma/Thibodaux areas.

Appendices

Overview Child Death Review

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, reviews are mandatory 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 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.

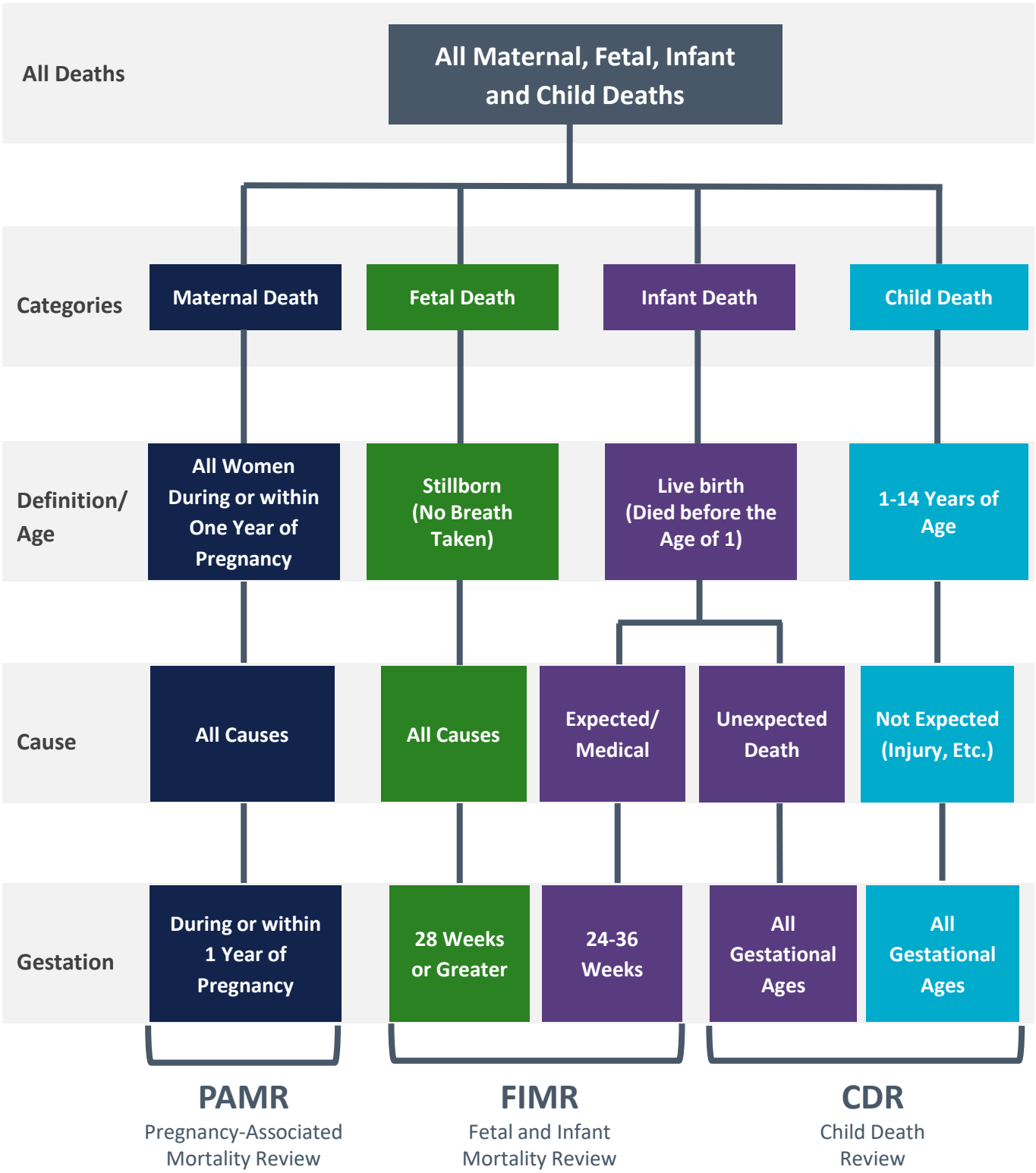
What happens after a death is identified?
The Regional MCH Coordinators obtain case information from medical records, autopsies, death scene investigations, and first responder reports. This information is entered into a secure database and used for surveillance at the state level and to create case 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 50 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

Bureau of Family Health case review determination



2017-2019 State CDR Members

Position	Current Incumbent
State Health Officer, or designee	Joseph Kanter, M.D./ Lacey Cavanaugh, 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	Sunny Funk
Sheriff appointed by the Louisiana Sheriffs Association	Lauren Meher
State Fire Marshal, or designee	Cynthia Gonthier Naquin/ Lorre Claiborne
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

2017-2019 and Current Regional Maternal and Child Health Coordinators

Region	Coordinator
Region 1	Rosa Bustamante-Forest, A.P.R.N., M.P.H. (2017-2019) Kristy Ferguson, B.S.N. (Current)
Region 2	Kelly Bankston, B.S.N., R.N. (2017-2019) Rachel Purgatorio, B.S.N., R.N. (Current)
Region 3	Nicole Soudelier, B.S.N., R.N. (2017-2019) Danielle Mistretta, B.S.N., R.N. (Current)
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	Rosaria Trichilo, M.P.H.

Note: With the exception of the Regional Maternal and Child Health Coordinators, local CDR membership is voluntary. Therefore, local CDR meetings do not always include the same members.

Acronyms and Key Terms

Acronym	Expansion
ASSB	Accidental Suffocation and Strangulation in Bed (ICD 10 code W75)[1]
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)[1]
SUID	Sudden Unexpected Infant Death (ICD 10 codes W75, R95, and R99*)[1]

*R99 refers to unknown cause of death

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

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, Down 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 1 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.

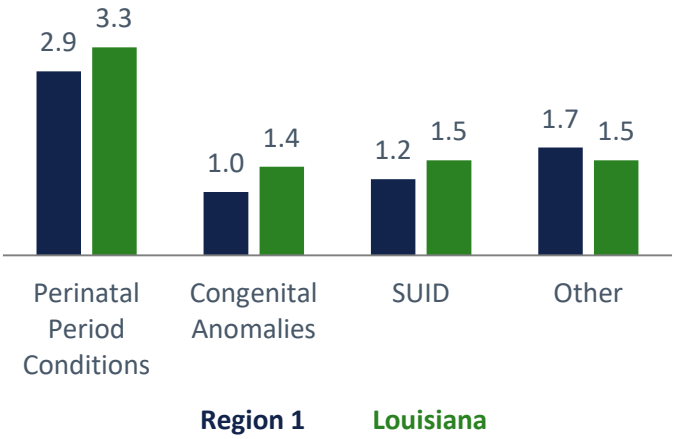
Region 1 Mortality Surveillance Report, 2017-2019

Greater New Orleans Area | Published October 2021

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 1:

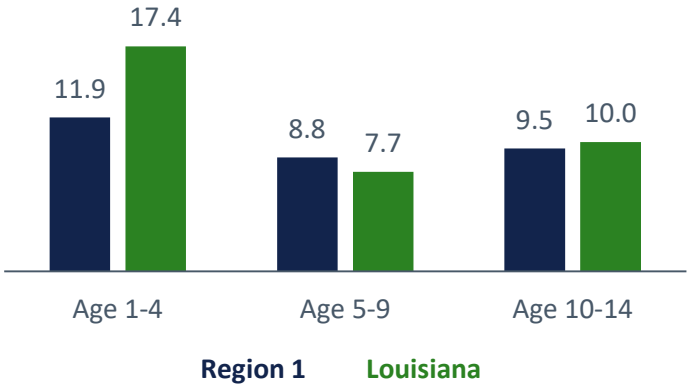
- Death rate is per 1,000 live births.
- **Region 1's infant mortality rate is 6.7** deaths per 1,000 live births**, lower than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** respiratory conditions, circulatory diseases, threats to breathing, inhalation of food or objects, injuries, etc.



Child Mortality Rate due to Injury by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 1:

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



Top Causes of Unexpected Death by Age Group in Region 1[1]

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

Homicide is the leading cause of death in **ages 1-14**. **SUID** is the leading cause of death in **infants under 1.**

**Sudden Unexpected Infant Death*

*** Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

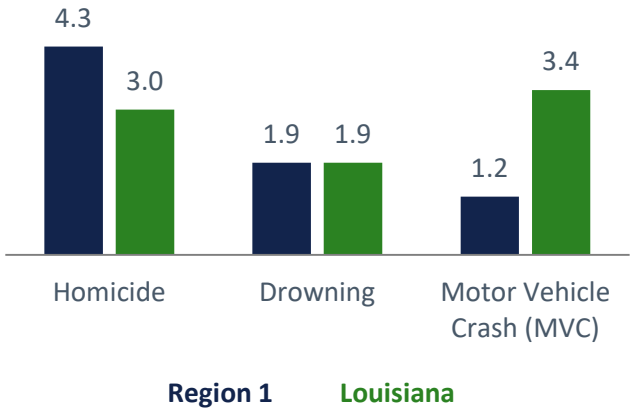
Region 1 Mortality Surveillance Report, 2017-2019

Greater New Orleans Area | Published October 2021

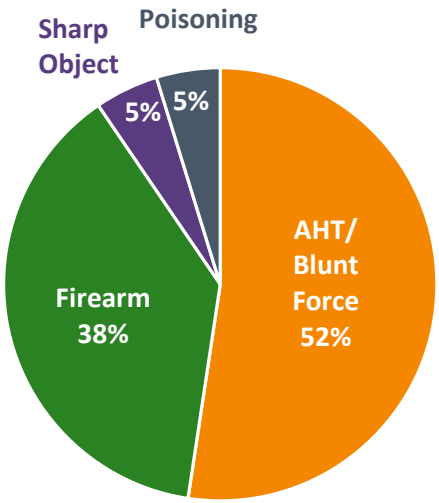
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 1:

- 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 2017-2019 is **11.3 per 100,000 children.** Louisiana's is 13.1.
- **Region 1 surpasses Louisiana** in the **rate of deaths** by **homicide**.
- Region 1 has the **highest homicide death rate** of the 9 regions in the state.



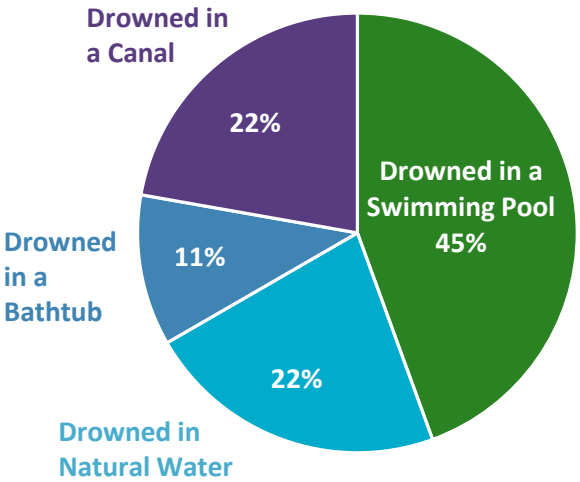
Means Used in Homicide Deaths of Children Ages 0-14 years in Region 1, 2017-2019[1]



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, 2017-2019[2]



About Drowning Deaths:

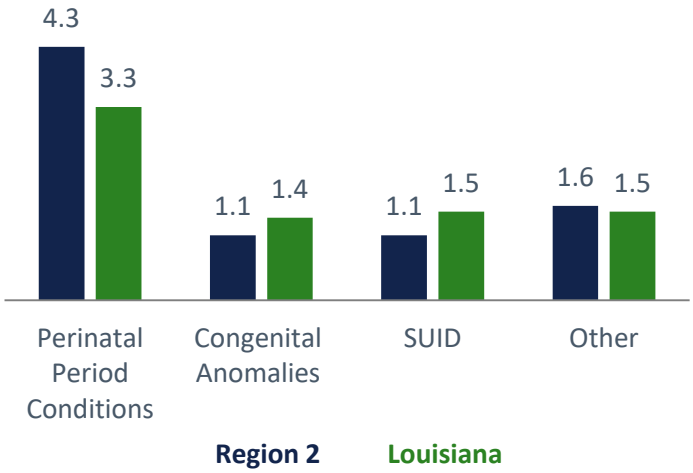
- The **most common contributors to drowning deaths** are **lack of barriers to water** and **lack of supervision.**[2]

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 2:

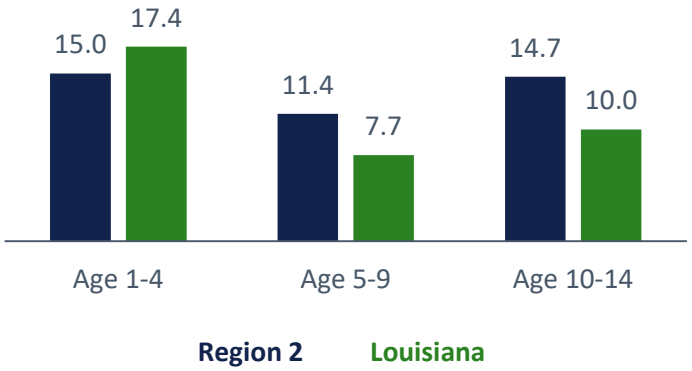
- Death rate is per 1,000 live births.
- **Region 2's infant mortality rate is 8.1** deaths per 1,000 live births**, greater than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 2:

- Deaths are per 100,000 children.
- Region 2 has a **higher rate of child mortality due to injury** than Louisiana for **children ages 5-9 and 10-14.**
- Region 2 has a **lower rate of child mortality due to injury** than Louisiana for **children ages 1-4**.



Top Causes of Unexpected Death by Age Group in Region 2[1]

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

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 very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

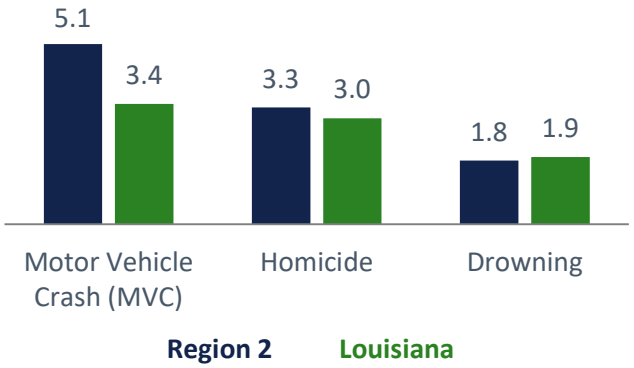
Region 2 Mortality Surveillance Report, 2017-2019

Baton Rouge Area | Published October 2021

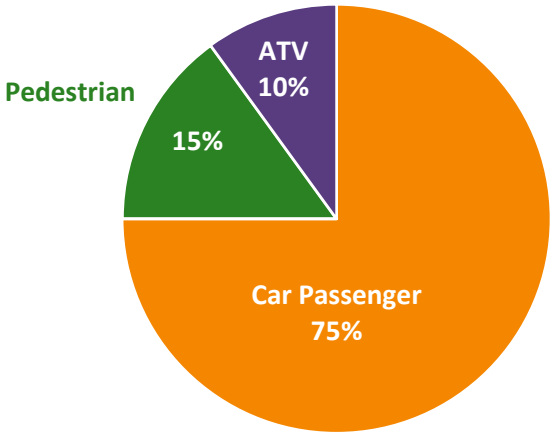
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 2:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 2's total unexpected child death rate** of children 0-14 years between 2017-2019 is **14.7 per 100,000 children.** Louisiana's is 13.1.
- **Region 2 surpasses Louisiana** in the **rate of deaths** by **motor vehicle crash (MVC) and homicide.**
- Region 2 has the **highest MVC death rate** of the 9 regions in the state.



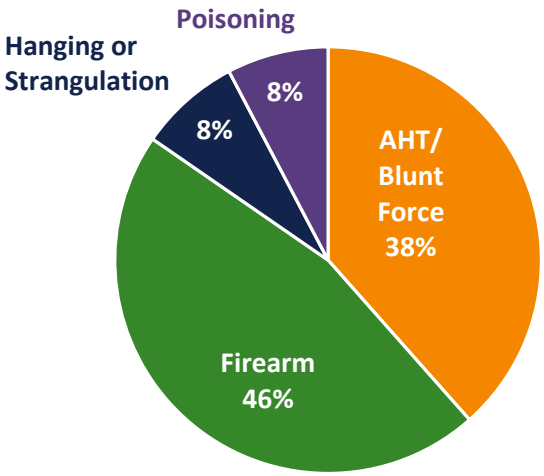
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 2, 2017-2019[2]



About Motor Vehicle Crash Deaths:

- **3 out of 4** MVC 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, 2017-2019[1]



About Homicide Deaths:

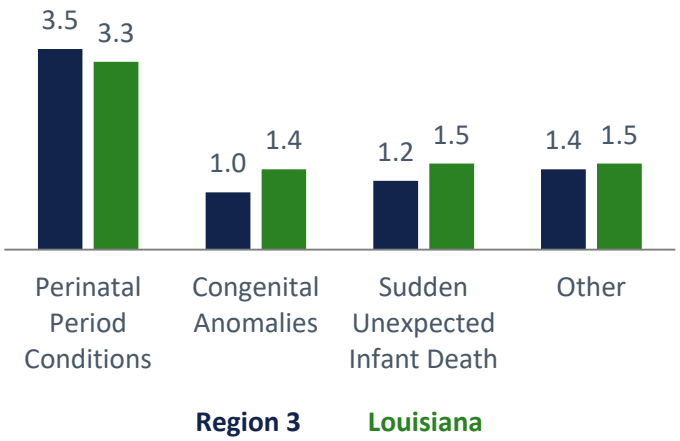
- **Almost Half** of homicide deaths in infants and children are due to **Firearms.**
- **More than half** are due to abusive head trauma (AHT), hanging and strangulation, and death by poisoning.

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 3:

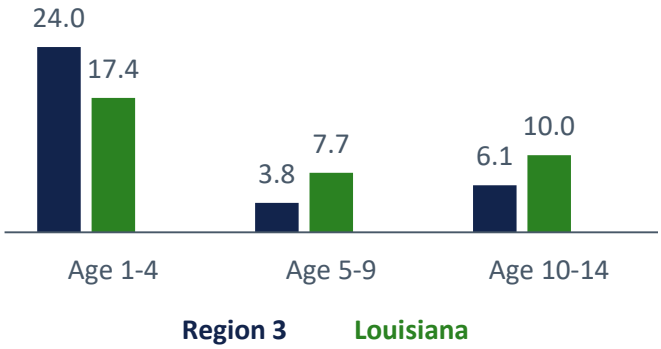
- Death rate is per 1,000 live births.
- **Region 3's infant mortality rate is 7.1** deaths per 1,000 live births**, lower than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** respiratory conditions, infections, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 3:

- Deaths are per 100,000 children.
- Region 3 has a **lower rate of child mortality due to injury** than Louisiana for **children ages 5-9 and 10-14**.
- Region 3 has a **higher rate of child mortality due to injury** as Louisiana for **children ages 1-4.**



Top Causes of Unexpected Death by Age Group in Region 3[1]

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

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

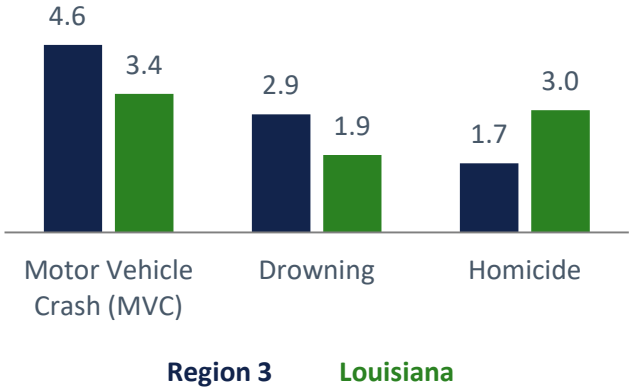
**Sudden Unexpected Infant Death*
*** Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

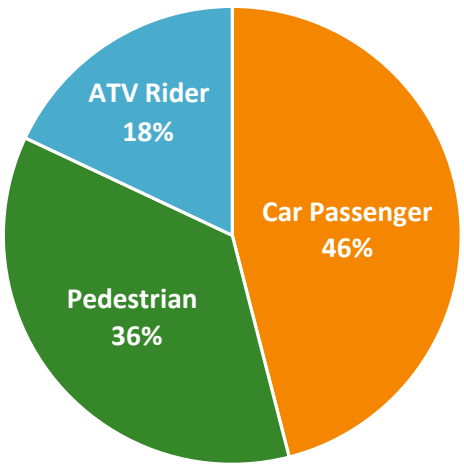
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 3:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 3's total unexpected child death rate** for children ages 0-14 between 2017-2019 is **10.8 per 100,000 children.** Louisiana's is 13.1.
- **Region 3 surpasses Louisiana** in the **number of deaths** by **motor vehicle crash (MVC)** and **drowning.**
- Region 3 has the **3rd highest MVC death rate** of the 9 regions in the state.



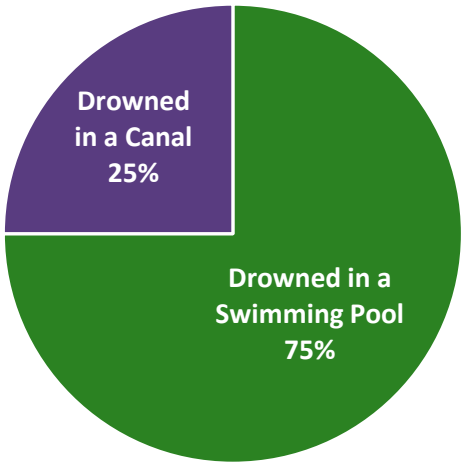
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 3, 2017-2019[2]



About Motor Vehicle Crash Deaths:

- **Almost half** 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, 2017-2019[2]



About Drowning Deaths:

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

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

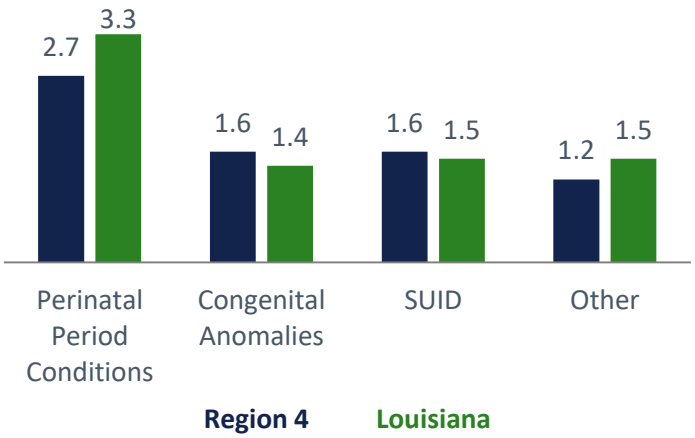
Region 4 Mortality Surveillance Report, 2017-2019

Acadiana | Published October 2021

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 4:

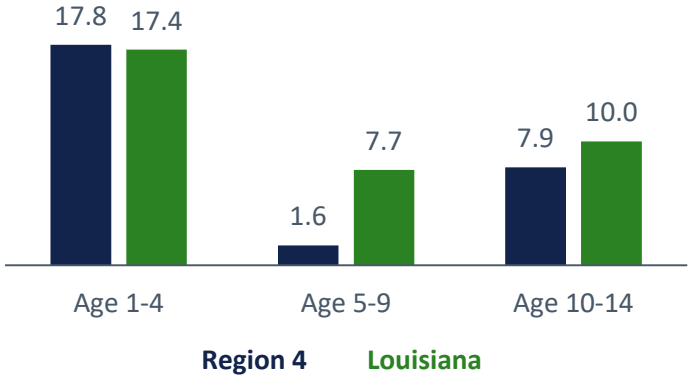
- Death rate is per 1,000 live births.
- **Region 4's infant mortality rate is 7.1** deaths per 1,000 live births**, lower than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 4:

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



Top Causes of Unexpected Death by Age Group in Region 4[1]

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

Motor vehicle crashes (MVC) are the leading cause of death in children **ages 1-4. Suicide** is the leading cause of death for children **ages 10-14.**

**Sudden Unexpected Infant Death*

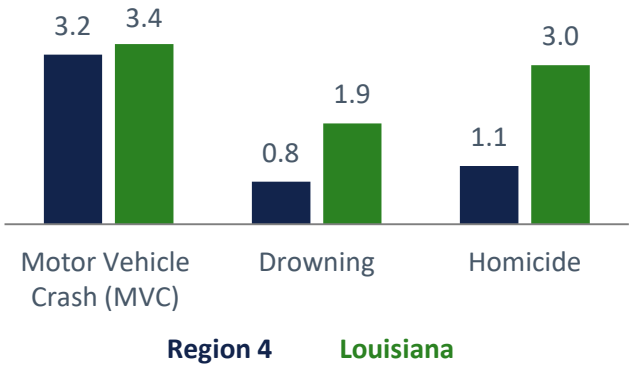
***Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

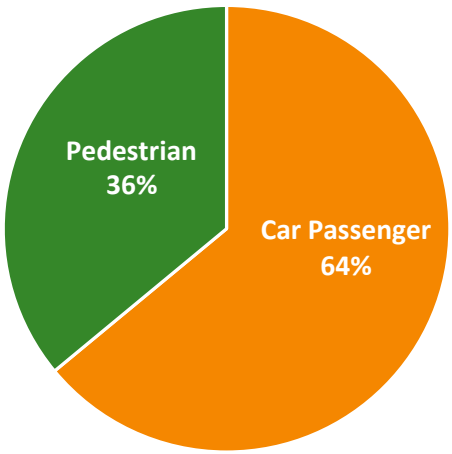
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 4:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 4's total unexpected child death rate** for children ages 0-14 years between 2017-2019 is **11.6 per 100,000 children.** Louisiana's is 13.1.
- Region 4 has lower rates than the state of Louisiana for MVC, drowning, and homicide.



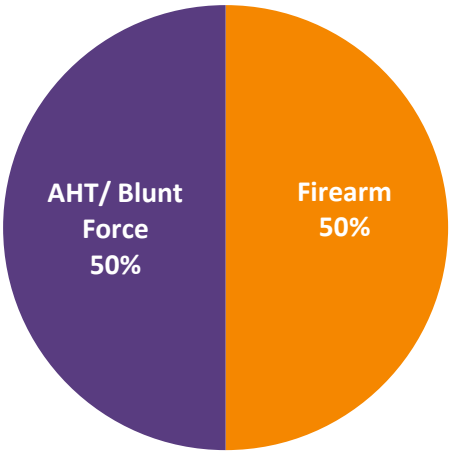
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 4, 2017-2019[2]



About Motor Vehicle Crash Deaths:

- **64%** 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 Homicide Deaths in Children Ages 0-14 years in Region 4, 2017-2019[2]



About Homicide Deaths:

- **Half** of homicide deaths in infants and children are due to **Firearms** and the **other half** are due to **abusive head trauma (AHT).**

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

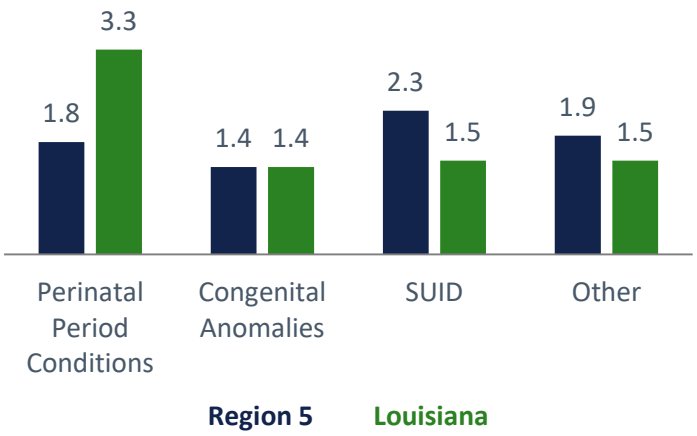
Region 5 Mortality Surveillance Report, 2017-2019

Southwest Louisiana | Published October 2021

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 5:

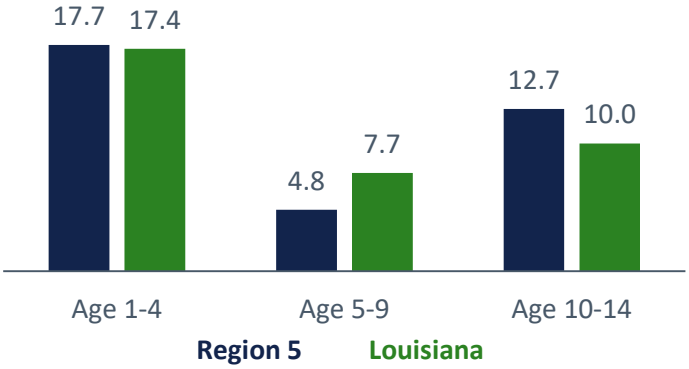
- Death rate is per 1,000 live births.
- **Region 5's infant mortality rate is 7.4** deaths per 1,000 live births**, lower than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** infections, respiratory conditions, injuries, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 5:

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



Top Causes of Unexpected Death by Age Group in Region 5[1]

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

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

**Sudden Unexpected Infant Death*

*** Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

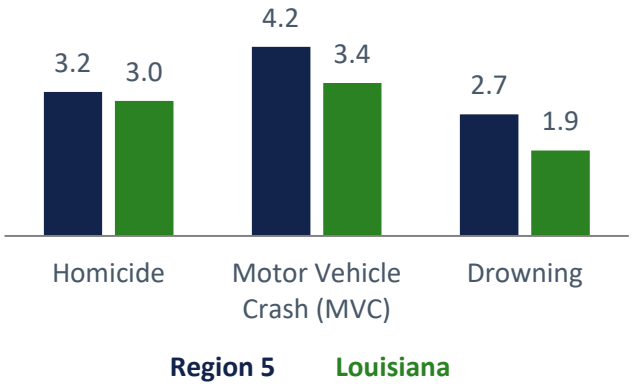
Region 5 Mortality Surveillance Report, 2017-2019

Southwest Louisiana | Published October 2021

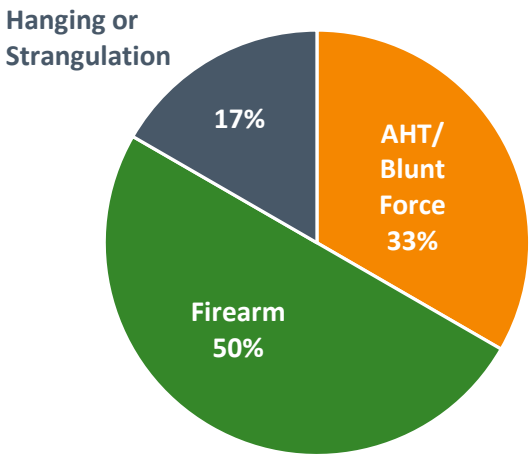
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 5:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 5's total unexpected child death rate** of children ages 0-14 between 2017-2019 is **12.2 per 100,000 children.** Louisiana's is 13.1.
- **Region 5 surpasses Louisiana** in the **number of deaths** by **motor vehicle crashes (MVC)** and **drowning**.
- Region 5 has the **4th highest drowning death rate** of the 9 regions in the state.



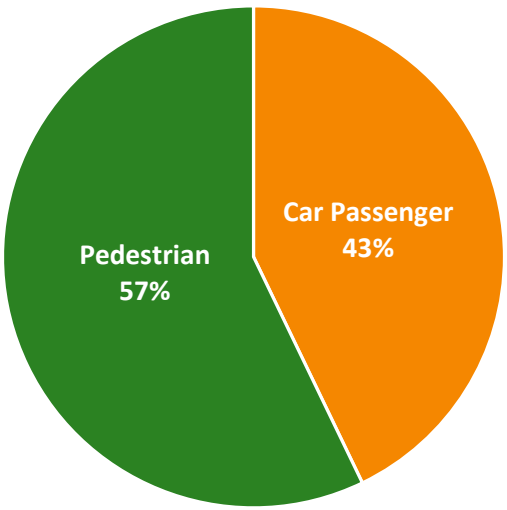
Types of Homicide Deaths in Children Ages 0-14 years in Region 5, 2017-2019[1]



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 and hanging and strangulation.

Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 5, 2017-2019[2]



About Motor Vehicle Crash Deaths:

- **Over half** of the MVC deaths **occur in pedestrians**.

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

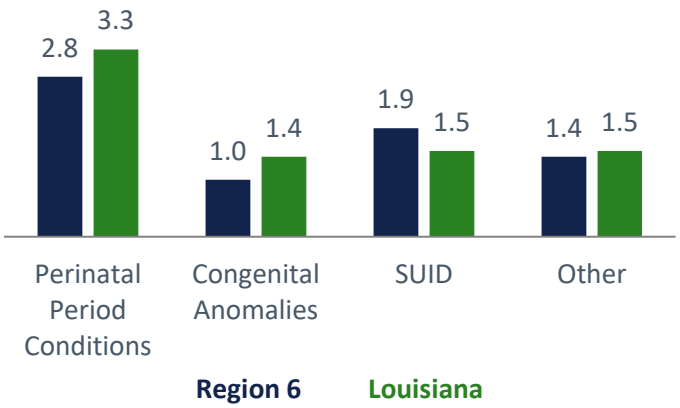
Region 6 Mortality Surveillance Report, 2017-2019

Central Louisiana | Published October 2021

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 6:

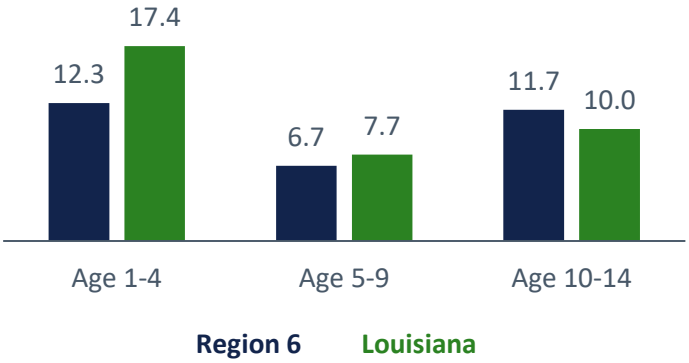
- Death rate is per 1,000 live births.
- **Region 6's infant mortality rate is 7.2** deaths per 1,000 live births**, lower than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** injuries, infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 6:

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



Top Causes of Unexpected Death by Age Group in Region 6[1]

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

Motor vehicle crashes (MVC) 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*

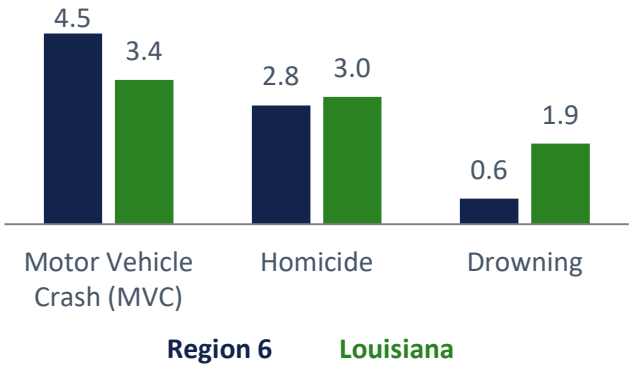
*** Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

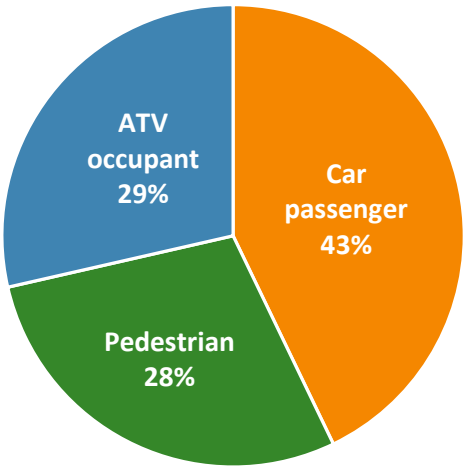
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 6:

- Deaths are per 100,000 children ages 0-14.
- **Region 6's total unexpected child death rate** for children ages 0-14 years between 2017-2019 is **12.2 per 100,000 children.** Louisiana's is 13.1.
- **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.



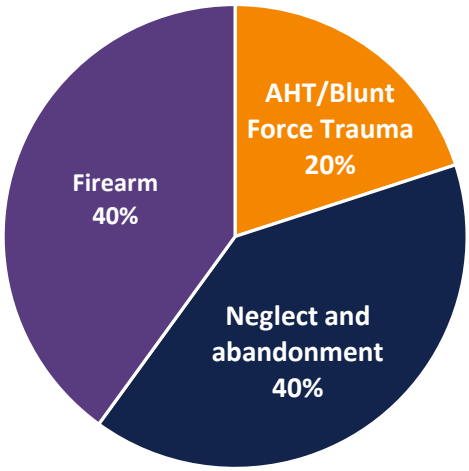
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 6, 2017-2019[2]



About Motor Vehicle Crash Deaths:

- **Almost half** of MVC deaths occur in **car passengers.**
- **In 40%** 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, 2017-2019[1]



About Homicide Deaths:

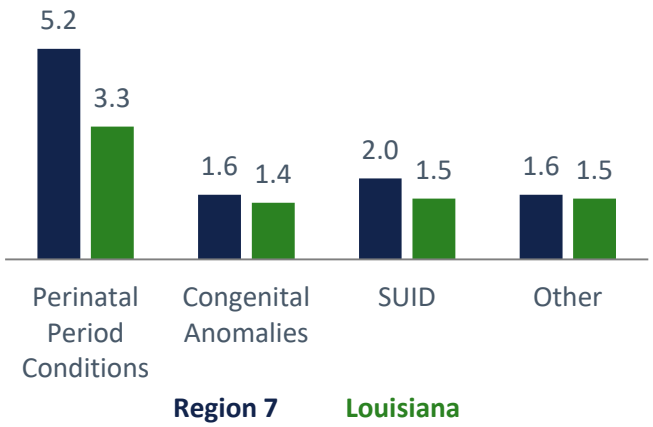
- **40%** of Region 6 homicides are due to **firearms.**
- **40%** of homicides are due to **neglect and abandonment.** Neglect refers to malnourishment and failure to provide medical care.

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 7:

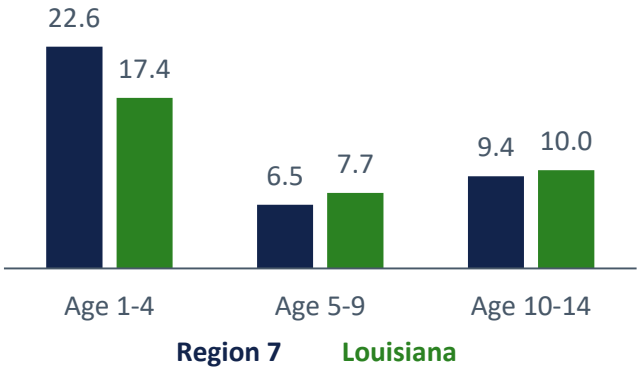
- Death rate is per 1,000 live births.
- **Region 7's infant mortality rate is 10.4** deaths per 1,000 live births**, greater than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** infections, injuries, respiratory conditions, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 7:

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



Top Causes of Unexpected Death by Age Group in Region 7[1]

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

The leading cause of death is **homicide** in **ages 1-4**. **Suicide** is the leading causes of death in **ages 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 very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

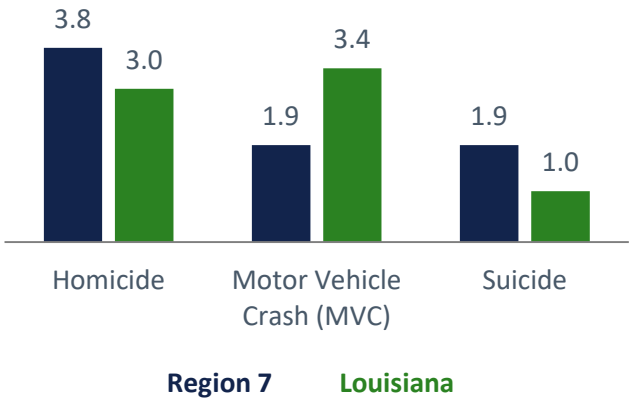
Region 7 Mortality Surveillance Report, 2017-2019

Northwest Louisiana | Published October 2021

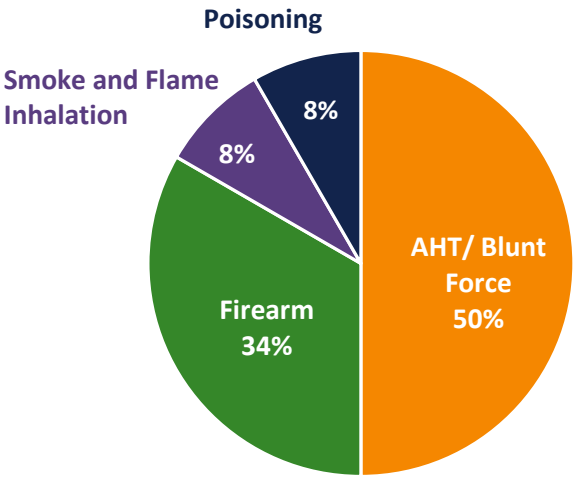
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 7:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 7's total unexpected child death rate** of children ages 0-14 between 2017-2019 is **12.9 per 100,000 children.** Louisiana's is 13.1.
- **Region 7 surpasses Louisiana** in the **number of deaths** by **homicide** and **suicide.**
- Region 7 has the **3rd highest homicide death rate** of the 9 regions in the state.
- Region 7 has the **highest suicide death rate** of the 9 regions in the state.



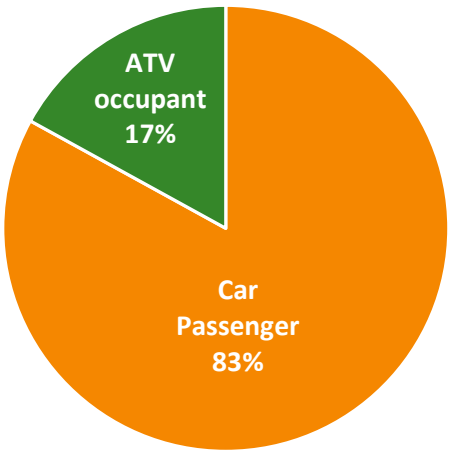
Types of Homicide Deaths in Children Ages 0-14 years in Region 7, 2017-2019[1]



About Homicide Deaths:

- **Half** 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, 2017-2019[2]



About Motor Vehicle Crash Deaths:

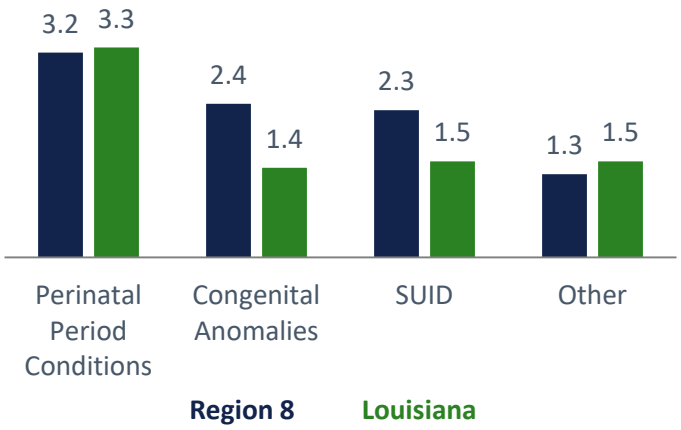
- **More than 3 out of 4** MVC deaths in Region 7 occur when the **child is a passenger** in the vehicle.
- **Seat belts were used incorrectly or not used in 50%** of the deaths to children inside a car or truck.

Source: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death in Region 8:

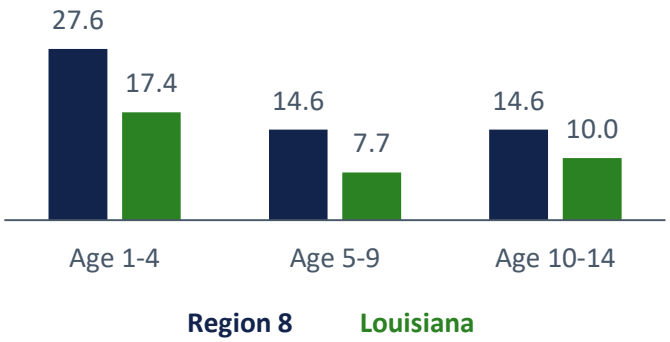
- Death rate is per 1,000 live births.
- **Region 8's infant mortality rate is 9.2** deaths per 1,000 live births**, greater than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** infections, respiratory conditions, injuries, threats to breathing, inhalation of food or objects, etc.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 8:

- Deaths are per 100,000 children.
- Region 8 has a **higher rate of child mortality due to injury** than Louisiana for **children in all age ranges.**



Top Causes of Unexpected Death by Age Group in Region 8[1]

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

Drowning is the leading cause of death for **children ages 1-4**. **Fire** is the leading cause of death for **ages 5-9**. Ages 10-14 do not have reportable data for the top causes of death.

**Sudden Unexpected Infant Death*
*** Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

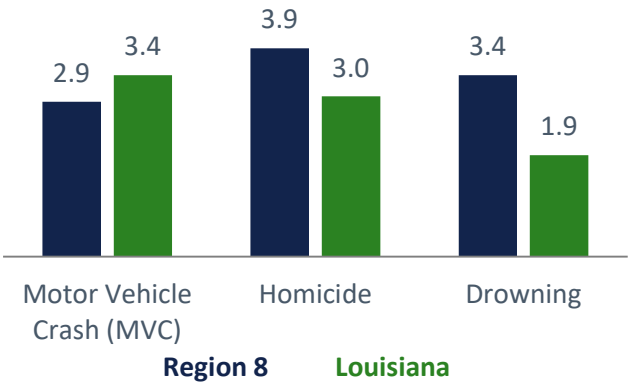
Region 8 Mortality Surveillance Report, 2017-2019

Northeast Louisiana | Published October 2021

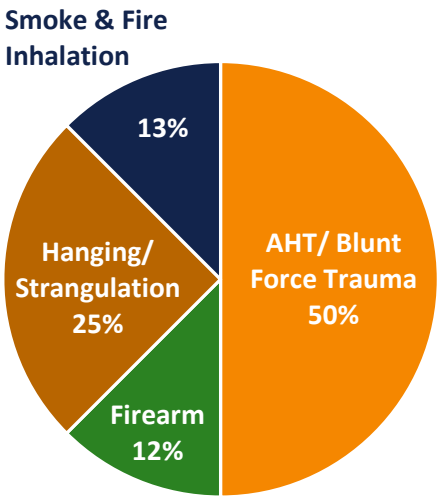
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 8:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 8's total unexpected child death rate** of children ages 0-14 between 2017-2019 is **19.0 per 100,000 children.** Louisiana's is 13.1.
- **Region 8 surpasses Louisiana** in the **number of deaths** by **homicide** and **drowning.**
- Region 8 has the **2nd highest homicide death rate** of the 9 regions in the state.
- Region 8 has the **highest drowning rate** of the 9 regions in the state.



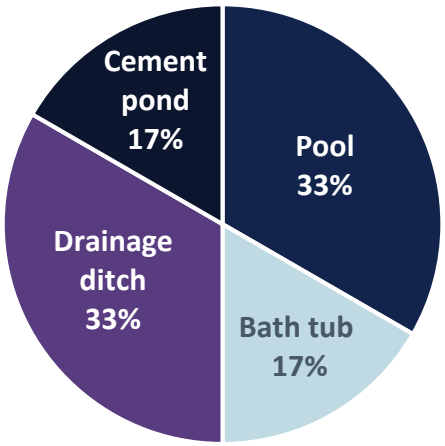
Types of Homicide deaths in Children Ages 0-14 years in Region 8, 2017-2019[1]



About Homicide Deaths:

- **Half** of homicide deaths in Region 8 occur due to **abusive head trauma (AHT) or blunt force injuries.**

Drowning Deaths in Children Ages 0-14 years in Region 8, 2017-2019[2]



About Drowning Deaths:

- **A third of child drowning deaths** occur in a **swimming pool –** and another third occur in a **drainage ditch**.
- The **most common contributors to drowning deaths** are **lack of barriers to water** and **lack of supervision.**[2]

Sources: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

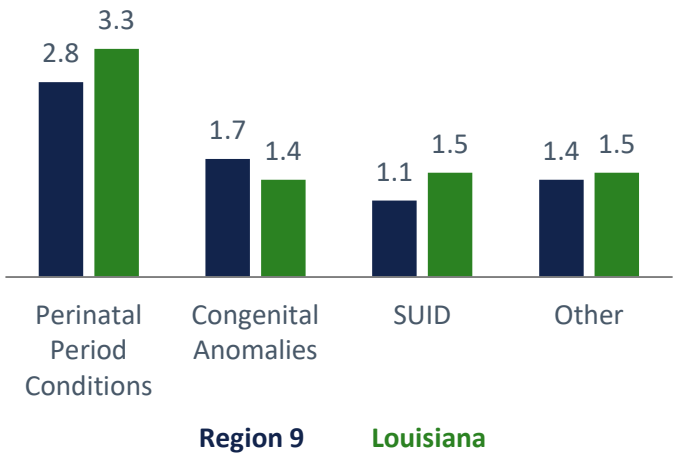
Region 9 Mortality Surveillance Report, 2017-2019

Northshore Area | Published October 2021

Top Causes of Infant Death (Medical and Injury) between 2017-2019[1]

Infant Death By Region:

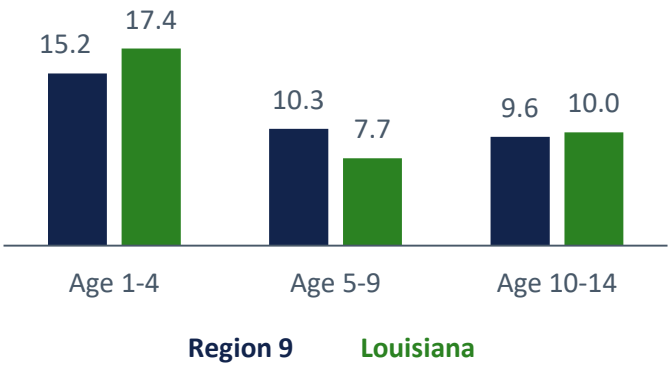
- Death rate is per 1,000 live births.
- **Region 9's infant mortality rate is 7.1** deaths per 1,000 live births, **lower than Louisiana's rate** of **7.7.**
- **The Healthy People 2020 Goal** for **infant mortality** is **6.0** per 1,000 live births.
- **SUID** is Sudden Unexpected Infant Death.
- ***Other category* includes** injuries**,** infections, respiratory conditions, threats to breathing, inhalation of food or objects, etc. This category could also include SUID deaths that were incorrectly coded as "natural" deaths.



Child Mortality Rate by Age Group between 2017-2019[1]

About Child Mortality Due to Injury in Region 9:

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



Top Causes of Unexpected Death by Age Group in Region 9[1]

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

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

**Sudden Unexpected Infant Death*

***Blank boxes indicate causes with very few cases. These causes are hidden to protect individual privacy.*

Source: 1. Louisiana Vital Records, 2017-2019

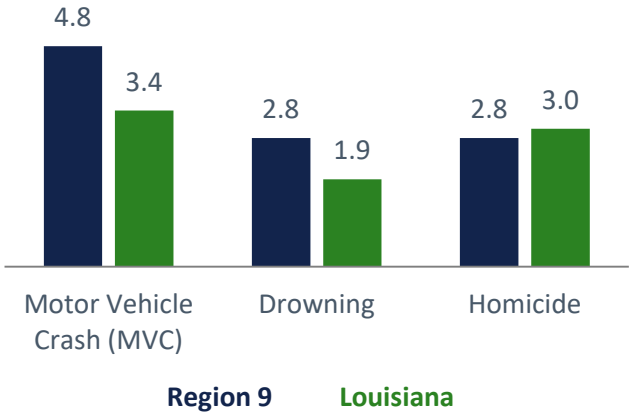
Region 9 Mortality Surveillance Report, 2017-2019

Northshore Area | Published October 2021

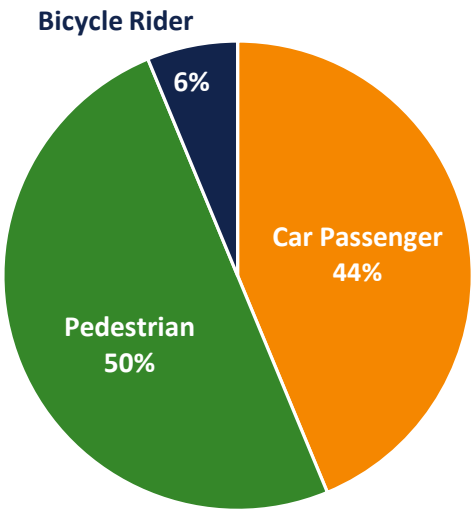
Top Causes of Injury Deaths in Children Ages 0-14 years between 2017-2019[1]

About Child Death Due to Injury in Region 9:

- Deaths are per 100,000 children ages 0-14 years.
- **Region 9's total unexpected child death rate** for children ages 0-14 between 2017-2019 is **14.6 per 100,000 children.** Louisiana's is 13.1.
- **Region 9 surpasses Louisiana** in the **number of deaths** by **motor vehicle crash (MVC)** and **drowning**.
- Region 9 has the **2nd highest MVC death rate** of the 9 regions in the state.
- Region 9 has the **3rd highest drowning death rate** of the 9 regions in the state.



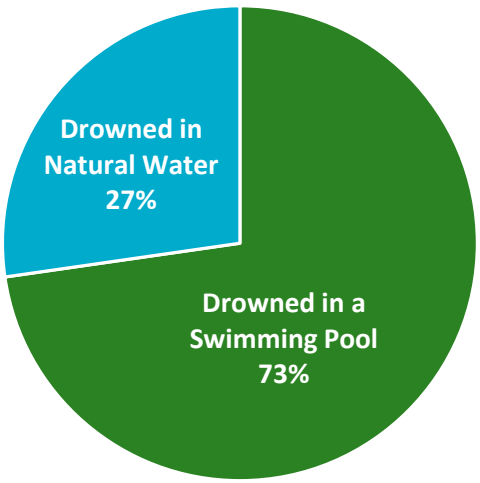
Types of Motor Vehicle Crash (MVC) Deaths in Children Ages 0-14 years in Region 9, 2017-2019[2]



About Motor Vehicle Crash Deaths:

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

Types of Drowning Deaths in Children Ages 0-14 years in Region 9, 2017-2019[2]



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]

Source: 1. Louisiana Vital Records, 2017-2019; 2. Louisiana Child Death Review

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Cooperative Data Agreement

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