MSDH

MISSISSIPPI CHILD DEATH REVIEW

Review of 2021 and 2022 Child Deaths

Publication Date: February, 2025

2024 Child Death Review Panel Members

Agency/Organization/Association	Members
State Medical Examiner	Kristy Simmons, Chief Dr. Ariane Robison, Deputy Medical Examiner
University of Mississippi Medical Center, Pathologist	VACANT
Appointee, Lieutenant Governor	VACANT
Appointee, Speaker of the House of Representatives	VACANT
Mississippi Coroners and Medical Examiners Association	David Ruth
Mississippi Chapter of the American Academy of Pediatrics	Dr. Randy Henderson, Chair
Mississippi State Department of Health, Office of Vital Records and Public Health Statistics	Joseph (Sam) Miller
Attorney General's Office	Teri Gleason
State Sherriff's Association	Commander Persundra Jones
Mississippi Child Protection Services	Tara LeBlanc Dornette Thompson
Mississippi Police Chief's Association	VACANT
Children's Advocacy Centers of Mississippi	Sheila G. Brand
Mississippi Children's Safe Center Children's of Mississippi Hospital	Dr. Scott Benton Amanda Sanford
Safe Kids Mississippi	Elizabeth Foster
Mississippi State Fire Marshal's Office	Reed Abraham, Vice Chair
Mississippi Supreme Court	Justice Dawn Beam

Ad Hoc Members

Agency/Organization/Association	Members
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MS Baptist Medical Center/Trauma Program	Michelle Goreth
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Submitted to:
Chairmen of the Mississippi House Public Health and Human Services Committee and Senate Public Health and Welfare Committee

Report prepared by:
Mississippi State Department of Health, Office of Vital Records and Public Health Statistics and Office of Women's Health, Maternal and Infant Health Bureau with support provided by
Randy Henderson, MD Chair and Neonatologist, Southern Mississippi Neonatology
Tami Brooks, MD, FAAP Pediatrician and MSDH Interim Medical Director

Acknowledgements
This report reflects the hard work of the Mississippi Child Death Review Panel and those who respond directly to infant and child fatalities. Without the work of coroners, medical examiners, law enforcement, emergency medical services, physicians, social service agencies, and countless others, the Child Death Review Panel would not be able to review these deaths.

The Mississippi State Department of Health acknowledges the families touched by child death each year. This report is generated with the goal of preventing these tragic losses. To explore or request data, please check the Mississippi Statistically Automated Health Resource System (MSTAHRS) or submit an online request for MSDH data or public records at: https://apps.msdh.ms.gov/DataRequestEntry/requestform

A LETTER FROM MSDH EXECUTIVE DIRECTOR AND STATE HEALTH OFFICER

MSDH

Dear Chairman,

I am pleased to submit this report on behalf of the Mississippi State Department of Health that summarizes child and infant deaths due to external causes from 2013 to 2022. The report reflects the ongoing work of the Mississippi Child Death Review Panel and the professionals who support this effort, including coroners, medical examiners, law enforcement, and healthcare providers.

In 2022, Mississippi experienced 569 total child deaths, with 262 of those due to external causes. The leading causes were Sudden Unexpected Infant Death (SUID), firearm-related deaths, homicides, and motor vehicle accidents. Mississippi's child death rate remains one of the highest in the nation, with firearm-related deaths and child homicides far exceeding the national average.

To reduce these tragic deaths, we recommend increasing efforts to educate caregivers on safe sleep practices, particularly regarding the dangers of co-sleeping and proper infant sleep positions. We also need stronger measures to address distracted driving, including laws against phone use while driving and incentives for safe driving. Additionally, improving access to records from hospitals and law enforcement is critical to strengthening our review process. Lastly, we must take action on the gun deaths by raising awareness and considering legislation to hold individuals accountable for improper gun storage, thereby preventing firearm-related child fatalities.

I would like to personally thank the members of the review committee and the Mississippi State Department of Health personnel who have assisted in this important work. Their dedication and professionalism have been invaluable in preparing this report, and their continued efforts are essential as we strive to improve child safety in Mississippi.

Addressing these issues is essential to reducing preventable child deaths in Mississippi. I look forward to collaborating with you to implement these recommendations and protect our children.

Daniel Edney, MD, FACP, FASAM
Executive Director State Health Officer
Mississippi State Department of Health

EXECUTIVE SUMMARY

The task of the Child Death Review Panel is often a grim one. Each quarter, we review the deaths of children who die due to external causes. Natural deaths are due to internal causes in the body such as heart disease or cancer. An external cause of death would be an injury due to an accident or drowning in a body of water, a death due to conditions external to the body and its functions. We try to determine which of these external causes are preventable by reviewing the details of the cases and making suggestions. The panel draws on a wide background of experience from physicians, nurses, attorneys, first responders, coroners, and many professionals tasked with caring for and protecting children. In 2022, there were 262 deaths less than 17 years of age that were categorized as external, or 46% of the total deaths of 569.

For our latest report, the committee reached the following conclusions. First, the committee needs more help gathering the pertinent information about the children who die; the information we get is often incomplete and this lack of information makes it hard for the committee to do its job. Second, deaths due to sudden unexpected infant death lead the portion of deaths that were likely preventable with the education of Mississippi mothers. Third, the increasing number of deaths due to gun violence will be difficult to address politically, but the number of deaths that were preventable by practical gun safety deserves attention and continued advocacy. Finally, cell phone use while driving is a leading cause of accidents leading to the deaths of children in automobile accidents. The committee advocates for measure to curb cell phone usage while driving.

I want to thank the dedicated members of the Child Death Review Panel for their difficult work. I want these volunteer advisers to know that their work can only make the lives of Mississippi children safer.

Sincerely,

Randy Henderson, MD
Chair
Child Death Review Panel

Executive Summary:

This report summarizes child and infant deaths due to all external causes occurring among Mississippi residents from 2013 to 2022. The goal of the Child Death Review Panel is to identify which of these deaths due to external causes could have been prevented. There were 569 total deaths including natural and external causes of children from birth to 17 years of age in 2022. This number was down from 607 in 2021, but the rate per 100,000 population was 83.9 which unfortunately led the nation. Children in the United States have a higher chance of dying in Mississippi than any other state. The child death review panel only looks at deaths due to external causes each quarter. In 2022, there were 262 deaths less than 17 years of age that were categorized as external or 46% of the total deaths of 569.

The leading cause of external death in 2022 was Sudden Unexpected Infant Death. From 2020 to 2022, there were 78, 87, and 82 deaths of infants less than one year of age due to external cause related to Sudden Unexpected Infant Death. In 2022, 82 of 262, or 31% of external deaths, were related to SUID. The number due to accidental suffocation and strangulation in bed (ASSB) was 34 which is the highest number recorded since 2013 for this
cause and was 41% of the SUID causes. The increased number of ASSB deaths may be due to training of coroners and medical staff and better recognition of ASSB. Public Health District VI
(East Central) led the state in 2022 in SUID at a rate of 2.6 per 100,000 followed by Public Health District III (Delta) at 2.4 per 100,000.

The second leading cause of external child death in Mississippi in 2022 was firearm - related deaths at 63, or 24% of the 262 causes of preventable death. The rate of child firearm-related deaths in Mississippi in 2022 was 9.3 per 100,000 versus a United States average of 3.5 per 100,000. The rate in Mississippi is almost 3 times the national average. The age group 14 to 17 was responsible for 45 or 71% of the firearm-related deaths. There were 18 firearm-related deaths between the age of 0 and 13 years. The panel reviewed accidental shootings in this age group that could have been prevented by gun safety. Public Health District III (Delta) had the highest rate of firearm-related deaths at 7.9 per 100,000.

The third leading cause of external child deaths in Mississippi were homicides. In 2022, 54 deaths, or 20.6% of deaths, were related to homicide. There is overlap between firearm-related deaths and homicides. For ages 0 to 4 in 2022, 4 deaths were firearm-related while there were 11 homicides in this age group. For ages 5 to 13 in 2022, 14 deaths were firearms- related while there were 9 homicides in this age group. The 14 to 17-year-old group was responsible for 34 or 63% of homicide deaths. In 2022, 47, or 87% of the deaths, were male; 45, or 83%, of those who died, were Black. Public Health District III (Delta) accounted for the most homicide related deaths at 6.8 per 100,000. Overall, the Mississippi child homicide deaths were 8 per 100,000 versus 3.3 in the United States as a whole.

The fourth leading cause of external death were motor vehicle/transport accidents.

In 2022, 53 child deaths, or 20% of preventable deaths, were due to vehicle/other transport accidents. Public Health District VIII (South East) had the highest number of child motor vehicle deaths in 2022. Children less than 13 years of age accounted for 25 or 47% of all deaths. The deaths were evenly divided between races at 45% Black children and 49% White children.

There were 18 suicide deaths in 2022. There have been 144 suicide deaths in the last ten years. In 2022, 12, or 67%, were male. The 14 to17 age group accounted for 13 or 72% of deaths. Of the deaths, 8 were White, 6 were Black, and 4 were other, non-Hispanic.

The number of drowning child deaths was 14 in 2022. There were 14 in 2020 and 12 in 2021. In 2022, 10 were in the 0 to 4 age group, and 10 were male. In 2022, 11 were White and three were Black. The majority of these drownings were due to a lack of supervision.

Finally, fire-related child deaths were down to 4. The national average was 0.5 per 100,000 in 2022 and Mississippi was 0.6 per 100,000. There were three deaths in the 0 to 4 age group and 1 in the 5- to 13-year-old age group.

Executive Recommendations:

1. We only review the deaths of children if we have access to enough information. **For many children, we don't have any records about their death other than their death certificate and so we cannot review them and make recommendations.** The CDR has the authority to have any records we need. But the committee needs help getting records from hospitals and policemen and local coroners. Our request for records are often ignored, and there is no enforcement mechanism. We need resources for staff to get these records and the accountability to see that our authority is recognized.

2. **The number one external cause of child death is SUID.** We must renew our efforts to educate parents and other infant caregivers about the dangers of co-sleeping. Safe sleep education at prenatal classes to include swaddling techniques and safe sleep positioning is much needed. Also needed is education about safe sleep for parents and other infant caregivers from obstetricians, from the hospitals at discharge, and from pediatricians and family practice physicians. Lastly, a statewide campaign or coalition of stakeholders and advocates should be developed across the state to focus on safe sleep. Resources should be dedicated to a relentless statewide campaign led by one or two people who know how to build a coalition.

3. According to Reed Abraham, vice chair of the CDRP, and State Fire Coordinator, **first responders are frustrated by the increasing number of child deaths in car accidents due to the use of cell phones.** It is very difficult to press charges against

drivers whom first responders feel were distracted by their phone with a deadly result. Some solutions are needed: there need to be stronger laws to prevent phone usage while driving; traffic stops to educate distracted drivers; and incentive for drivers to use phones less while they drive. One example of this incentive is an insurance company app called *Drivewise* tracks driving habits and may offer discounts on premiums and rates for safe driving. We should work with the insurance commissioner and should encourage these apps for Mississippi.

4. **Child deaths due to gun related incidents have surpassed deaths due to motor vehicle accidents.** However, the committee reviewed cases this past year about guns laying out in the open in a house with young children. In one dramatic case, one child found the gun and shot another child. These tragedies can be prevented with gun safety. Talking about guns in any way is politically difficult; we must emphasize the senseless and preventable nature of these deaths. The committee feels that sharing one of these true-life stories (with the permission of the family) would be worthwhile as a public service announcement. As unpopular as any restriction on guns may be, there should be laws that hold people accountable whose negligence regarding gun

DEFINITIONS & TERMS

Definitions & Terms

Accidental Strangulation or Suffocation: An explained sudden and unexpected infant death in a sleep environment (bed, crib, couch, chair, etc.) in which the infant's nose and mouth are obstructed, or the neck or chest is compressed from soft or loose bedding, an overlay, or wedging causing asphyxia.

Bed Sharing or Surface Sharing: Parent(s) and infant sleeping together on any surface (bed, couch, chair).

Cause of Death: On a death certificate, "cause of death" includes the sequence of medical conditions that had the greatest impact in causing death and the approximate time intervals between the onset of each condition and death. The underlying cause of death is used for tabulating death counts. The cause of death and underlying causes listed on the death certificate are coded by the National Center for Health Statistics (NCHS) according to the appropriate revision of the *International Classification of Diseases* (ICD. Effective with deaths occurring in 1999, the United States began using the 10th revision of ICD (ICD–10); during 1979–1998, causes of death were coded and classified according to the 9th revision (ICD–9).

Co-sleeping: A general term for sleeping near or with an infant. This term can describe both room sharing and bed sharing and is not recommended for use.

Infant Mortality: The deaths of children less than one year of age. The birth certificate and infant death certificate are linked, and a data set is created. This data set is a valuable tool for monitoring and exploring the complex inter-relationships between infant death and risk factors present at birth. In the linked birth and infant death data set the information from the death certificate is linked to the information from the birth certificate for each infant under 1 year of age who dies in the United States, Puerto Rico, The Virgin Islands, and Guam. The purpose of the linkage is to use the many additional variables available from the birth certificate to conduct more detailed analyses of infant mortality patterns. The linked files include information from the birth certificate such as age, race, and Hispanic origin of the parents, birth weight, period of gestation, plurality, prenatal care usage, maternal education, live birth order, marital status, and maternal smoking, linked to information from the death certificate such as age at death and underlying and multiple cause of death.

Death Certificate: The death certificate is a permanent record of the fact of death. State law specifies the required time frame for completing and filing the death certificate. The death certificate provides important personal information about the decedent and about the circumstances and cause of death. This information has many uses related to the settlement of the estate and provides family members with closure, peace of mind, and documentation of the cause of death. The death certificate collects demographic information on the decedent such as sex, age race, ethnicity and medical certification information which includes date and time of death, cause and manner of death. The death certificate is a legal record and has legal safeguards protecting the confidentiality of the record.

The registration and storage of deaths is supported by state laws and regulations. Mississippi uses an electronic death registration system (EDRS), which is a secure web-based system for registering deaths electronically. This system is designed to simplify the data collection process and enhance communication between medical certifiers, medical examiners and coroners, funeral directors, as they work together to register deaths. The EDRS follows the 2003 U.S. Standard Death Certificate in content and structure and has built-in edits, prompts, and alerts to improve data quality. The U.S. standard certificate is revised periodically to ensure that the data collected relates to current and anticipated needs and is comparable with data from other states.

The death certificate is the source for local, state, and national mortality statistics. Mississippi has a contract with NCHS that allows the federal government to use information from that state's records to produce national vital statistics.

Manner of Death: On a death certificate, "manner of death" is important: 1) in determining accurate causes of death, 2) in processing insurance claims, and 3) in statistical studies of injuries and death. Choices are natural, homicide, accident, pending investigation, suicide and could not be determined. "Could not be determined" should only be used when it is impossible to determine the manner of death.

Natural and External Causes of Death: Natural death is due to internal factors of the body such as heart disease or cancer. An external cause of injury may be classified to Accidents (V01- X59), Intentional self harm (X60-X84), Assault (X85-Y09), Event of undetermined intent (Y10- Y34), Legal intervention and operations of war (Y35-Y36), Complications of medical and surgical care (Y40-Y84), and Sequela of external causes (Y85-Y89). When unspecified, assume all external cause one-term entities to be accidental unless the External Causes of Injury Index provides otherwise.

Overlaying: Overlaying is the accidental death by smothering caused by a larger individual sleeping on top of an infant.

Positional asphyxiation: Positional asphyxiation, also known as postural asphyxia, occurs when someone's breathing is restricted due to their body position, which leads to a blockage in the airway structure, and it might occur in babies, children, and adults.

Room sharing: Parent(s) and infant sleeping in the same room but on a separate sleep surface made for infants.

Sudden Unexpected Infant Death (SUID): An umbrella category that describes all sudden, unexpected infant deaths—those from known causes, such as an injury or accident, and those from unknown causes.

Sudden Infant Death Syndrome (SIDS): The sudden death of a baby younger than 1 year of age that doesn't have a known cause, even after a full investigation. Healthcare providers, law enforcement, and others investigate infant deaths to figure out what caused them. This investigation includes a complete autopsy, examining the death scene, and reviewing the clinical history. If they cannot determine a cause of death for the baby or explain why the baby died, the medical examiner or coroner may categorize the death as SIDS.

Wedging or entrapment: A form of suffocation or mechanical asphyxia in which the nose, mouth or thorax is compressed or obstructed because of the infant being trapped or confined between inanimate objects, preventing respiration.

NCHS 71 Rankable Causes of Infant Death

	Cause of Death	ICD-10 Codes
1	Diarrhea and gastroenteritis of infectious origin	A09
2	Tuberculosis	A16-A19
3	Tetanus	A33, A35
4	Diphtheria	A36
5	Whooping cough	A37
6	Meningococcal infection	A39
7	Septicemia	A40-A41
8	Congenital syphilis	A50
9	Gonococcal infection	A54
10	Acute poliomyelitis	A80
11	Varicella	B01
12	Measles	B05
13	Human immunodeficiency virus (HIV) disease	B20-B24
14	Mumps	B26
15	Candidiasis	B37
16	Malaria	B50-B54
17	Pneumocyctosis	B59
18	Malignant neoplasms	C00-C97
19	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior	D00-D48
20	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89
21	Short stature, not elsewhere classified	E34.3
22	Nutritional deficiencies	E40-E64
23	Cystic fibrosis	E84
24	Volume depletion, disorders of fluid, electrolyte and acid-base balance	E86-E87
25	Meningitis	G00, G03
26	Infantile spinal muscular atrophy, type I	G12.0
27	Infantile cerebral palsy	G80
28	Anoxic brain damage, not elsewhere classified	G93.1
29	Diseases of the ear and mastoid process	H60-H93
30	Diseases of the circulatory system	I00-I99
31	Acute upper respiratory infections	J00-J06
32	Influenza and pneumonia	J09-J18
33	Acute bronchitis and acute bronchiolitis	J20-J21

34	Bronchitis, chronic and unspecified	J40-J42
35	Asthma	J45-J46
36	Pneumonitis due to solids and liquids	J69
37	Gastritis, duodenitis, and noninfective enteritis and colitis	K29, K50-K55
38	Hernia of abdominal cavity and intestinal obstruction without hernia	K40-K46, K56
39	Renal failure and other disorders of kidney	N17-N19, N25, N27
40	Newborn affected by maternal hypertensive disorders	P00.0
41	Newborn affected by other maternal conditions which may be unrelated to present pregnancy	P00.1-P00.9
42	Newborn affected by maternal complications of pregnancy	P01
43	Newborn affected by complications of placenta, cord and membranes	P02
44	Newborn affected by other complications of labor and delivery	P03
45	Newborn affected by noxious influences transmitted via placenta or breast milk	P04
46	Slow fetal growth and fetal malnutrition	P05
47	Disorders related to short gestation and low birth weight, not elsewhere classified	P07
48	Disorders related to long gestation and high birth weight	P08
49	Birth trauma	P10-P15
50	Intrauterine hypoxia and birth asphyxia	P20-P21
51	Respiratory distress of newborn	P22
52	Congenital pneumonia	P23
53	Neonatal aspiration syndromes	P24
54	Interstitial emphysema and related conditions originating in the perinatal period	P25
55	Pulmonary hemorrhage originating in the perinatal period	P26
56	Chronic respiratory disease originating in the perinatal period	P27
57	Atelectasis	P28.0-P28.1
58	Bacterial sepsis of newborn	P36
59	Omphalitis of newborn with or without mild hemorrhage	P38

60	Neonatal hemorrhage	P50-P52, P54
61	Hemorrhagic disease of newborn	P53
62	Hemolytic disease of newborn due to isoimmunization and perinatal jaundice	P55-P59
63	Hematological disorders	P60-P61
64	Syndrome of infant of a diabetic mother and neonatal diabetes mellitus	P70.0-P70.2
65	Necrotizing entercolitis of newborn	P77
66	Hydrops fetalis not due to hemolytic disease	P83.2
67	Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
68	Sudden infant death syndrome	R95
69	Unintentional injuries (accidents)	V01-X59
70	Assault (homicide)	U01, X85-Y09
71	Complications of medical and surgical care	Y40-Y84

Child Death Review Selected Causes of Death

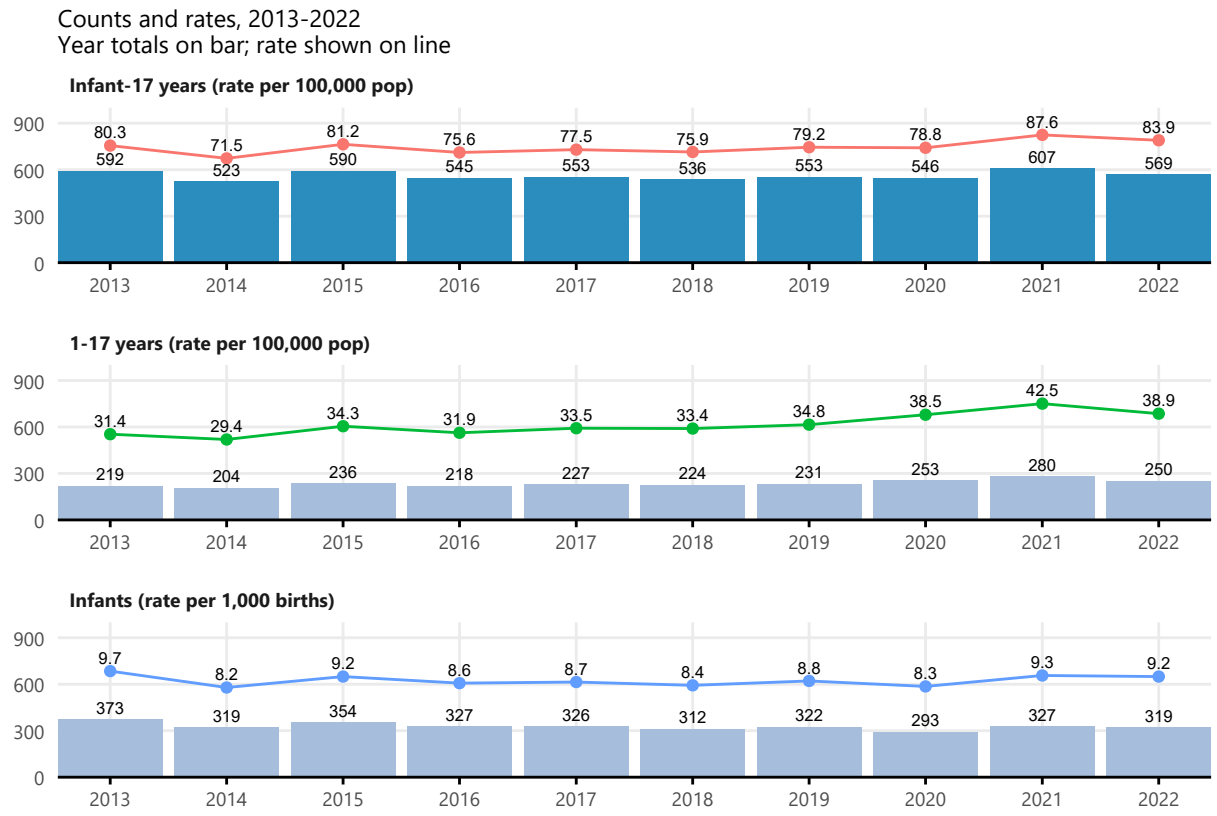
Causes of Death	ICD-10 Codes
External causes of death	V01-Y36, Y44-Y48, Y90-Y98, R99, R95
Fire	U01.3, X01-X19, X76-X77, X97-X98, Y26-Y27, Y36.3
Suicide	X60-X79, X80-X84, Y87.0
All motor vehicle, transport	V00-V99, Y85
Drowning	W65-W69, W70-W74
Homicide	X85-X99, Y00-Y09, Y87.1
SUID	R99, R95, W75
Firearms	W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0, U01.4

DATA

Mississippi Child Deaths, 2013-2022

MSDH Office of Vital Records and Public Health Statistics, December 2024

Figure 1: Child death counts and rates for infants and ages 1-17, Mississippi residents, 2013-2022



NOTE: Case counts may be incomplete and are subject to change; Shaded region more likely to be incomplete;
MSDH Office of Vital Records; Rates calculated as per 100,000 population

Table 1: Child deaths for ages 1-17, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**Rate**	**%**	**Count**	**Rate**	**%**
Total	250	38.9	100.0	2,342	34.8	100.0
Age (years)						
1-4 years	72	51.5	28.8	658	43.9	28.1
5-9 years	37	20.4	14.8	389	19.8	16.6
10-14 years	54	27.5	21.6	510	25.0	21.8
15-17 years	87	69.3	34.8	785	63.9	33.5
Sex						
Female	88	27.9	35.2	879	26.6	37.5
Male	162	49.5	64.8	1,463	42.6	62.5
Race/ethnicity						
Black, non-Hispanic	135	51.0	54.0	1,136	40.2	48.5
White, non-Hispanic	103	32.7	41.2	1,084	32.6	46.3
Other, non-Hispanic	10	34.7	4.0	64	23.4	2.7
Hispanic	2	5.7	0.8	58	18.4	2.5

Note:
Source: MSDH Office of Vital Records; Rates calculated as per 100,000 population

Child Mortality, Ages 1-17

Figure 2: Child death rates for ages 1-17, Mississippi and the United States, 2013-2022

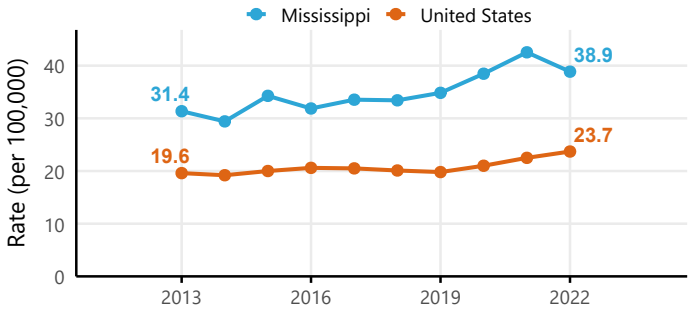
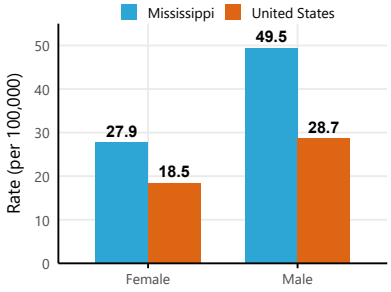


Figure 3: Children ages 1-17, death rates by sex

(a) Mississippi and the United States, 2022



Source: MSDH Office of Vital Records; CDC WONDER

(b) Mississippi crude rates, 2013-2022

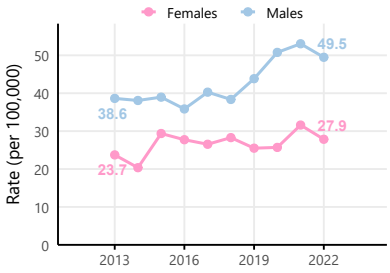
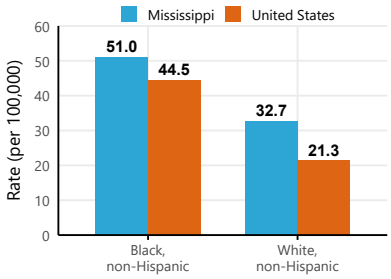


Figure 4: Children ages 1-17, death rates by race

(a) Mississippi and the United States, 2022



Source: MSDH Office of Vital Records; CDC WONDER
Other race/ethnicities not shown due to small counts

(b) Mississippi crude rates, 2013-2022

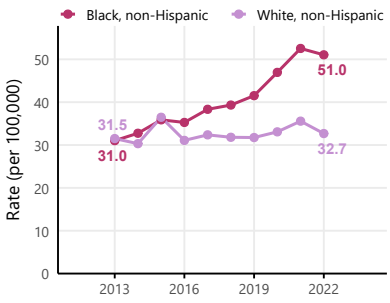
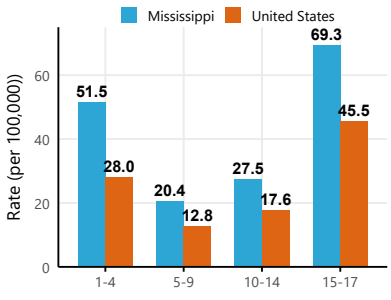


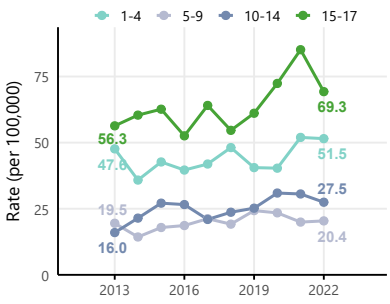
Figure 5: Children ages 1-17, death rates by age group (years)

(a) Mississippi and the United States, 2022



Source: MSDH Office of Vital Records; CDC WONDER

(b) Mississippi crude rates, 2013-2022



Causes of Child and Infant Death

In 2022, there were 569 Mississippi infant and child resident deaths (Table 2). Of these deaths, 307 (54.0%) were due to natural causes, and 262 (46.0) were due to injuries or violence related to accidents, homicides, suicides, and other external and undetermined causes. Sudden unexpected infant deaths accounted for 82 cases (31.3% of external causes) and motor vehicle/other transport accidents accounted for 63 cases (20.2% of external causes). Firearm-related deaths accounted for 11.1% of cases, and homicide and suicide deaths accounted for 9.5% and 3.2% of deaths, respectively.

Table 2: Child deaths by cause of death, ages 0-17, 2022 Mississippi resident deaths

Cause of Death	Count	% of all deaths	% of external deaths
All deaths	569	100.0	–
Natural causes	307	54.0	–
External causes	262	46.0	100.0
SUID			
SUID - All SUID	82	14.4	31.3
— SUID - SIDS	18	3.2	6.9
— SUID - ASSB	34	6.0	13.0
— SUID - unknown	30	5.3	11.5
Motor vehicle/transport	53	9.3	20.2
Firearm	63	11.1	24.0
Homicide	54	9.5	20.6
Suicide	18	3.2	6.9
Drowning	14	2.5	5.3
Fire	4	0.7	1.5

Note:
Percentages may not add to 100% since firearm with homicide/suicide are not mutually exclusive categories and other cause categories with small counts are not shown

Table 3: 2022 Leading Causes of Child Death ages 1-17; Based on NCHS Rankable Cause Groupings)

Ages 1-17 Cause Group	2022 Deaths
Total Of All Causes	**250**
Accidents	78
Homicide	50
All other	35
Malignant Neoplasms	18
Suicide	18
Congenital Malformations and Chrom. Abnormalities	13
Symptoms, Signs, Ill-Defined Conditions	13
Heart Diseases	8
SARS-CoV-2 (COVID-19)	5
Septicemia	3
Diabetes Mellitus	3
In Situ, Benign and Unspecified Neoplasms	2
Emphysema and Other Chronic Lower Resp. Diseases	2
Cerebrovascular Disease	1
Legal Intervention	1

Note:
Causes based on the National Center for Health Statistics rankable mortality cause groupings

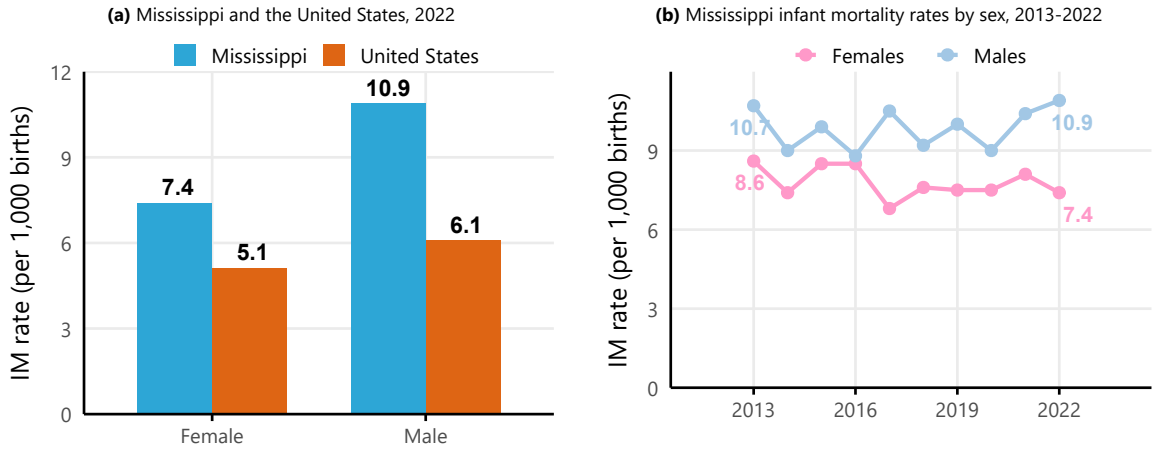
Infant Mortality

Table 4: Infant deaths, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**IM rate**	**%**	**Count**	**IM rate**	**%**
Total	319	9.2	100.0	3,272	8.8	100.0
Sex						
Female	127	7.4	39.8	1,417	7.8	43.3
Male	192	10.9	60.2	1,855	9.8	56.7
Race/ethnicity						
Black, non-Hispanic	170	12.1	53.3	1,876	12.0	57.3
White, non-Hispanic	127	7.2	39.8	1,233	6.6	37.7
Other, non-Hispanic	16	15.9	5.0	85	9.0	2.6
Hispanic	6	3.1	1.9	77	4.6	2.4

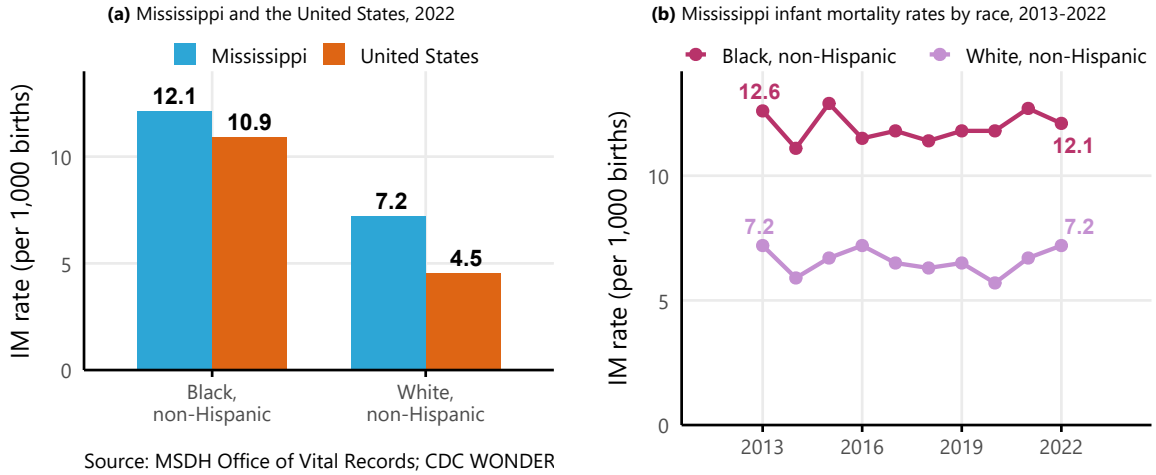
Note:
Infant mortality rates calculated as per 1,000 live births

Figure 6: Infant mortality, rates by Sex



Source: MSDH Office of Vital Records; CDC WONDER

Figure 7: Infant mortality, rates by race



Source: MSDH Office of Vital Records; CDC WONDER
Other race/ethnicities not shown due to small counts

Sudden Unexpected Infant Deaths (SUID), 2013-2022

Table 5: Infant SUID deaths and infant mortality (IM) rates, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**IM rate**	**%**	**Count**	**IM rate**	**%**
Total	82	2.4	100.0	712	1.9	100.0
Sex						
Female	32	1.9	39.0	300	1.7	42.1
Male	50	2.8	61.0	412	2.2	57.9
Race/ethnicity						
Black, non-Hispanic	55	3.9	67.1	394	2.5	55.3
White, non-Hispanic	25	1.4	30.5	287	1.5	40.3
Other, non-Hispanic	2	2.0	2.4	18	1.9	2.5
Hispanic	0	0.0	0.0	13	0.8	1.8
Cause group						
SIDS	18	0.5	22.0	200	0.5	28.1
ASSB	34	1.0	41.5	160	0.4	22.5
Unknown	30	0.9	36.6	352	1.0	49.4

Note:
Infant mortality (IM) rates calculated as per 1,000 births

Figure 8: SUID infant deaths by sex and race/ethnicity, Mississippi, 2013-2022

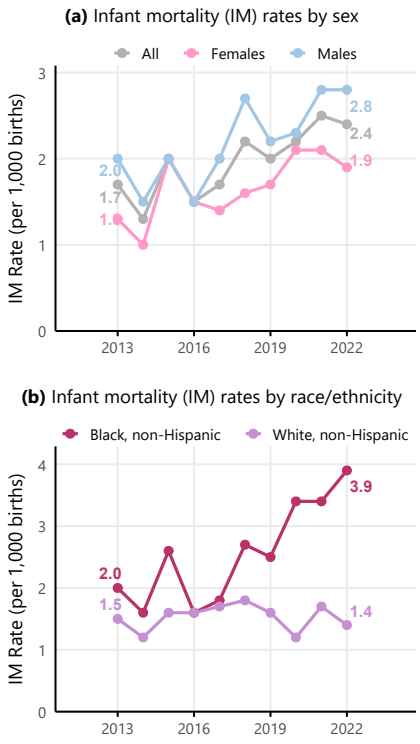
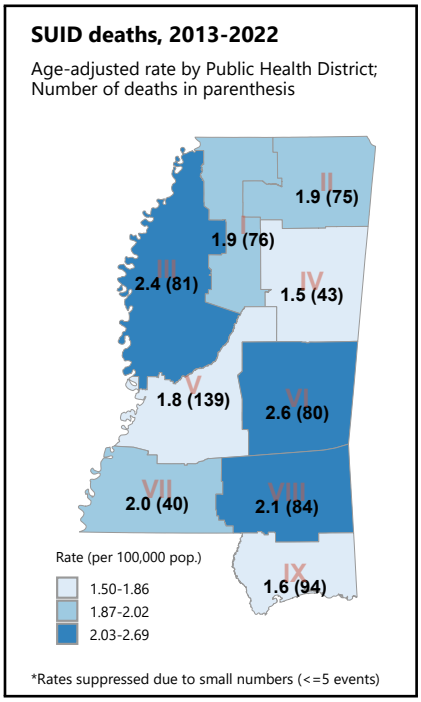


Figure 9: SUID infant deaths by Public Health District, 2013-2022



Motor Vehicle and Transport Child Deaths, 2013-2022

Table 6: Child motor vehicle and transport deaths by age, sex, and race/ethnicity, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**Rate**	**%**	**Count**	**Rate**	**%**
Total	53	7.8	100.0	607	8.6	100.0
Age (years)						
0-4 years	14	8.0	26.4	134	5.4	22.1
5-13 years	11	3.3	20.8	176	3.7	29.0
14-17 years	28	16.6	52.8	297	13.8	48.9
Sex						
Female	22	6.6	41.5	244	7.0	40.2
Male	31	9.0	58.5	363	10.0	59.8
Race/ethnicity						
Black, non-Hispanic	24	8.6	45.3	246	8.2	40.5
White, non-Hispanic	26	7.8	49.1	333	9.5	54.9
Other, non-Hispanic	2	6.5	3.8	13	4.5	2.1
Hispanic	1	2.7	1.9	15	4.5	2.5

Note:
Rates calculated as per 100,000 population

Figure 10: Child MVA deaths by US comparison (2022) and sex, 2013-2022

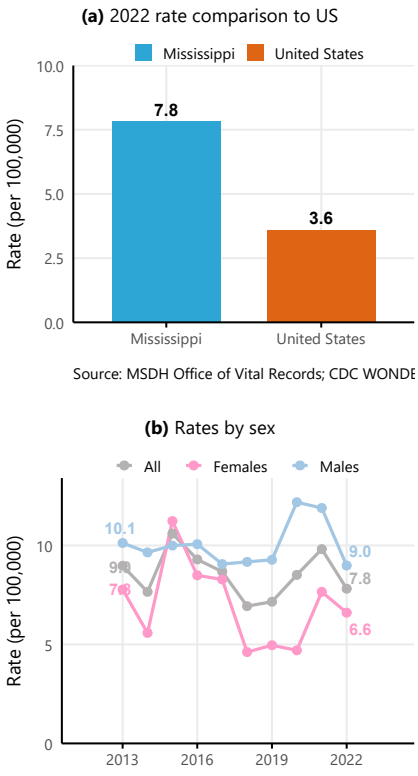


Figure 11: Child mMVA deaths by age and race/ethnicity, 2013-2022

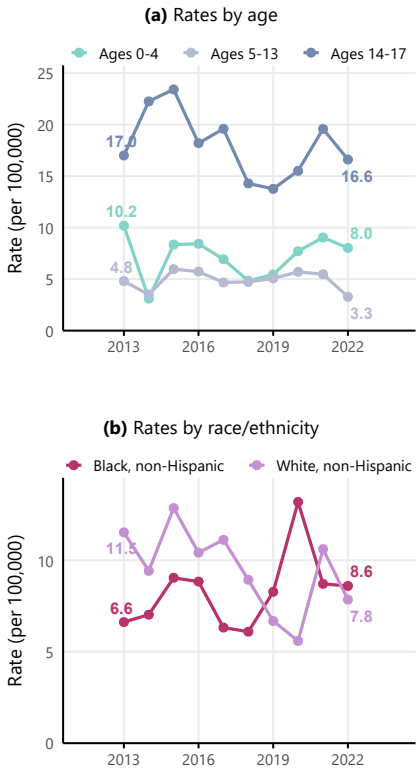
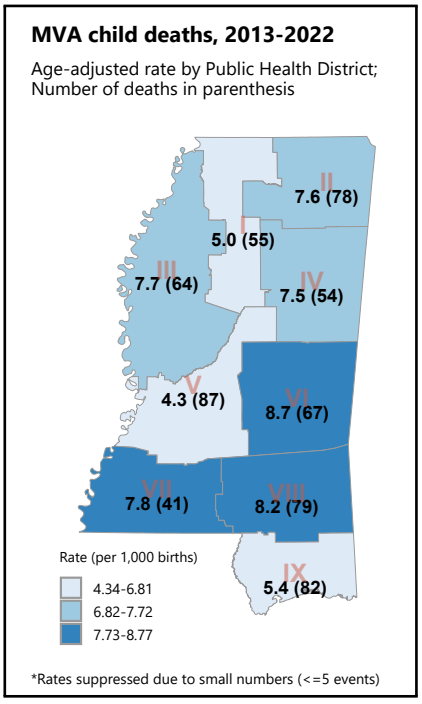


Figure 12: Child MVA deaths by Public Health District, 2013-2022



Firearm-related Child Deaths, 2013-2022

Table 7: Child firearm-related deaths by age, sex, and race/ethnicity, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**Rate**	**%**	**Count**	**Rate**	**%**
Total	63	9.3	100.0	379	5.3	100.0
Age (years)						
0-4 years	4	2.3	6.3	24	1.0	6.3
5-13 years	14	4.2	22.2	83	1.8	21.9
14-17 years	45	26.7	71.4	272	12.7	71.8
Sex						
Female	9	2.7	14.3	56	1.6	14.8
Male	54	15.7	85.7	323	8.9	85.2
Race/ethnicity						
Black, non-Hispanic	45	16.1	71.4	254	8.5	67.0
White, non-Hispanic	16	4.8	25.4	107	3.1	28.2
Other, non-Hispanic	2	6.5	3.2	9	3.1	2.4
Hispanic	0	0.0	0.0	9	2.7	2.4

Note:
Rates calculated as per 100,000 population

Figure 13: Child firearm deaths by US comparison (2022) and sex, 2013-2022

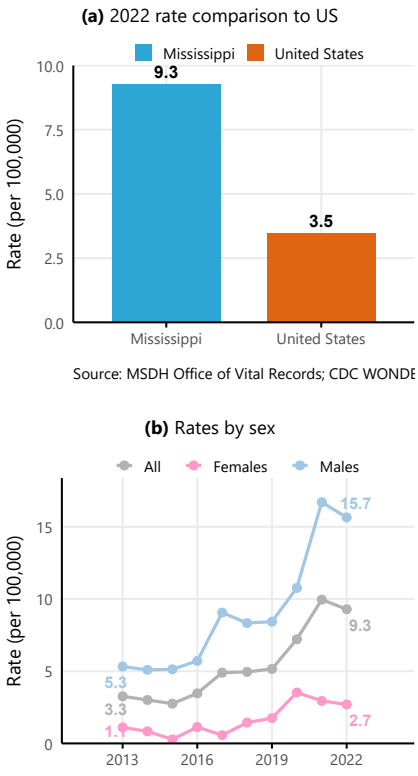


Figure 14: Child firearm deaths by age and race/ethnicity, 2013-2022

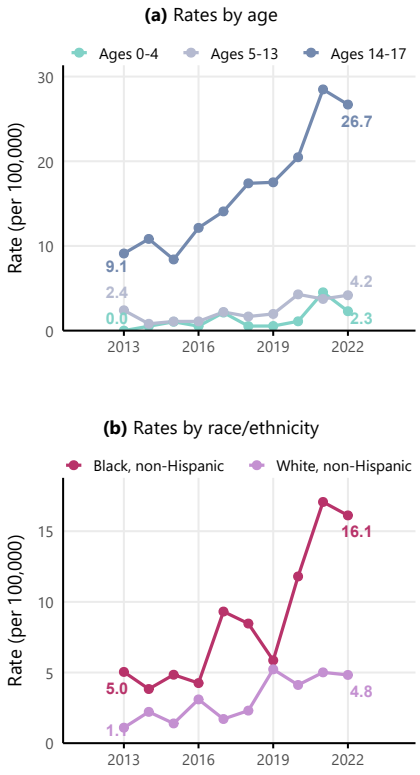
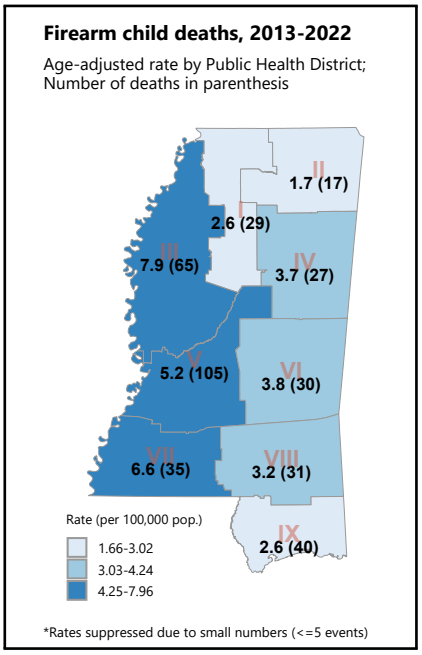


Figure 15: Child firearm deaths by Public Health District, 2013-2022



Suicide Child Deaths, 2013-2022

Table 8: Child suicide deaths by age, sex, and race/ethnicity, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**Rate**	**%**	**Count**	**Rate**	**%**
Total	18	2.7	100.0	144	2.0	100.0
Age (years)						
0-4 years	0	0.0	0.0	0	0.0	0.0
5-13 years	5	1.5	27.8	35	0.7	24.3
14-17 years	13	7.7	72.2	109	5.1	75.7
Sex						
Female	6	1.8	33.3	32	0.9	22.2
Male	12	3.5	66.7	112	3.1	77.8
Race/ethnicity						
Black, non-Hispanic	6	2.1	33.3	39	1.3	27.1
White, non-Hispanic	8	2.4	44.4	87	2.5	60.4
Other, non-Hispanic	4	13.1	22.2	11	3.8	7.6
Hispanic	0	0.0	0.0	7	2.1	4.9

Note:
Rates calculated as per 100,000 population

Figure 16: Child suicide deaths by US comparison (2022) and sex, 2013-2022

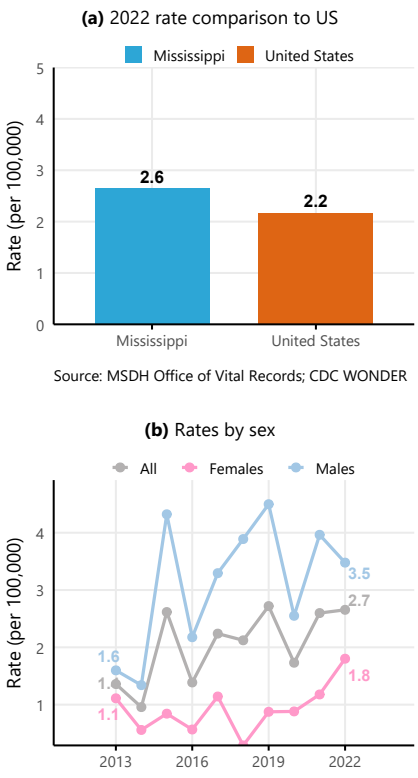


Figure 17: Child suicide deaths by age and race/ethnicity, 2013-2022

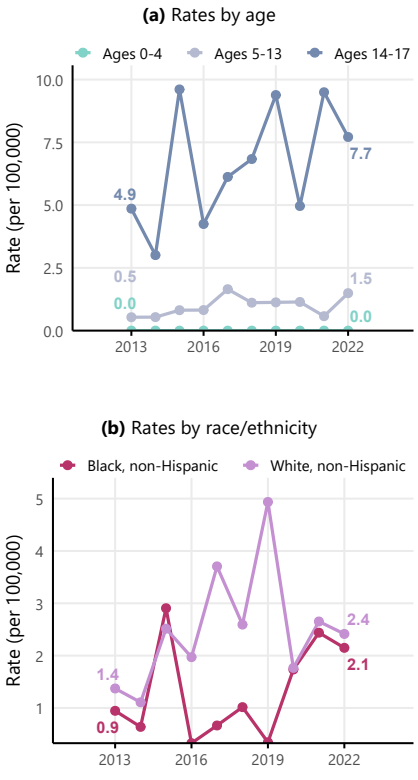


Figure 18: Child suicide deaths by Public Health District, 2013-2022

Homicide Child Deaths, 2013-2022

Table 9: Child homicide deaths by age, sex, and race/ethnicity, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	Rate	%	Count	Rate	%
Total	54	8.0	100.0	304	4.3	100.0
Age (years)						
0-4 years	11	6.3	20.4	66	2.7	21.7
5-13 years	9	2.7	16.7	54	1.1	17.8
14-17 years	34	20.2	63.0	184	8.6	60.5
Sex						
Female	7	2.1	13.0	68	2.0	22.4
Male	47	13.6	87.0	236	6.5	77.6
Race/ethnicity						
Black, non-Hispanic	45	16.1	83.3	242	8.1	79.6
White, non-Hispanic	8	2.4	14.8	54	1.5	17.8
Other, non-Hispanic	1	3.3	1.9	4	1.4	1.3
Hispanic	0	0.0	0.0	4	1.2	1.3

Note:
Rates calculated as per 100,000 population

Figure 19: Child homicide deaths by US comparison (2022) and sex, 2013-2022

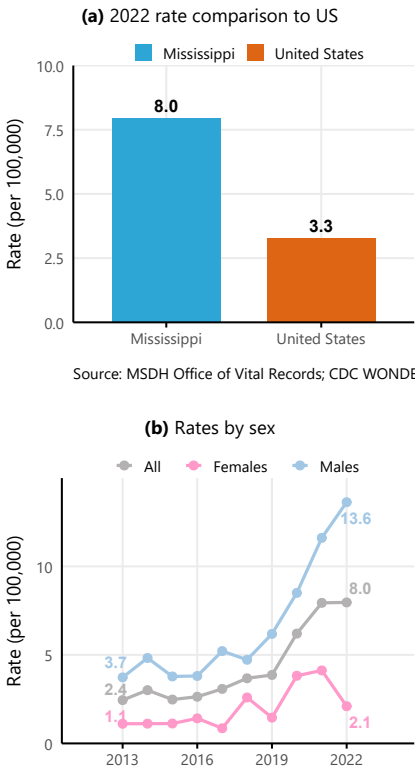


Figure 20: Child homicide deaths by age and race/ethnicity, 2013-2022

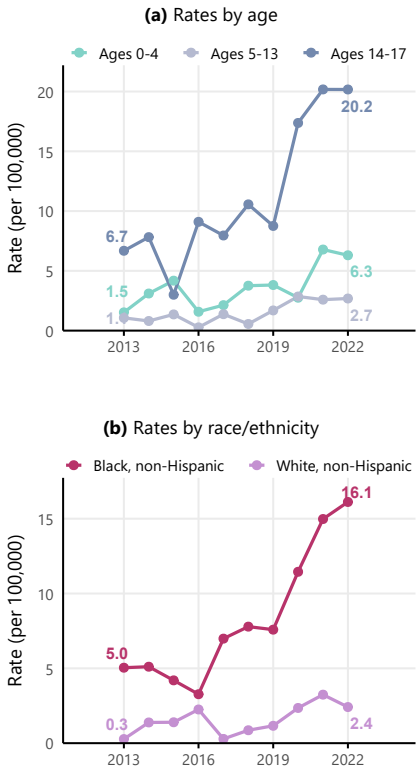
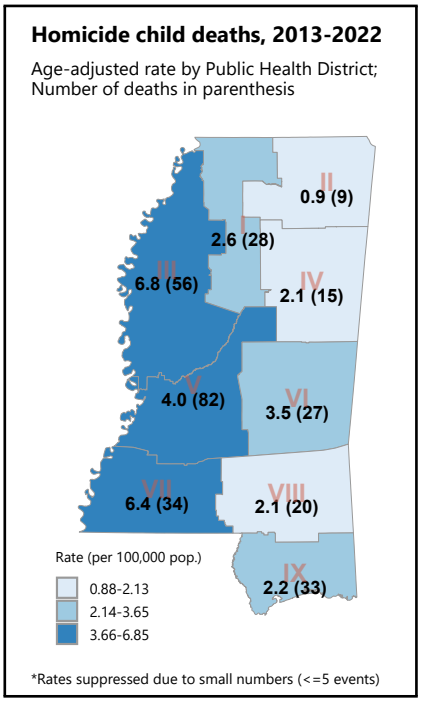


Figure 21: Child homicide deaths by Public Health District, 2013-2022



Fire-related Child Deaths, 2013-2022

Table 10: Child fire-related deaths by age, sex, and race/ethnicity, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**Rate**	**%**	**Count**	**Rate**	**%**
Total	4	0.6	100.0	71	1.0	100.0
Age (years)						
0-4 years	3	1.7	75.0	39	1.6	54.9
5-13 years	1	0.3	25.0	26	0.6	36.6
14-17 years	0	0.0	0.0	6	0.3	8.5
Sex						
Female	1	0.3	25.0	22	0.6	31.0
Male	3	0.9	75.0	49	1.4	69.0
Race/ethnicity						
Black, non-Hispanic	2	0.7	50.0	35	1.2	49.3
White, non-Hispanic	1	0.3	25.0	29	0.8	40.8
Other, non-Hispanic	1	3.3	25.0	3	1.0	4.2
Hispanic	0	0.0	0.0	4	1.2	5.6

Note:
Rates calculated as per 100,000 population

Figure 22: Child fire deaths by US comparison (2022) and sex, 2013-2022

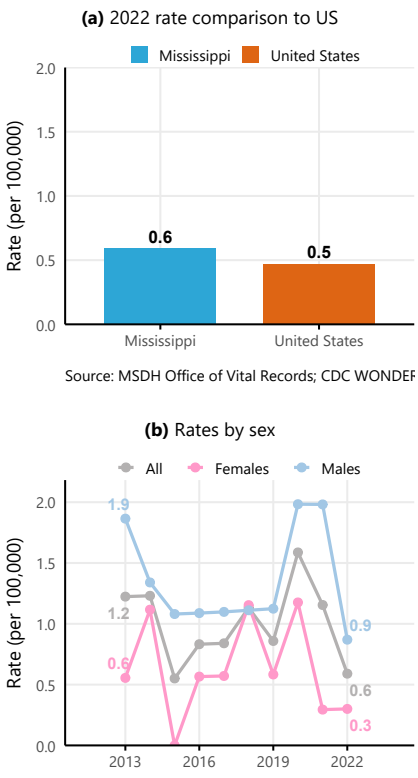


Figure 23: Child fire deaths by age and race/ethnicity, 2013-2022

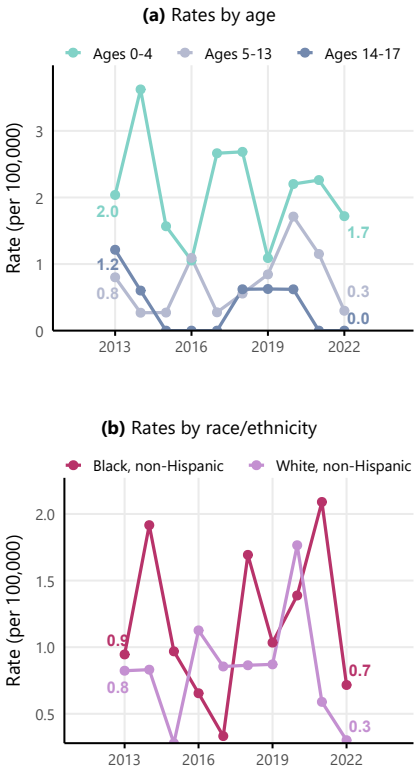
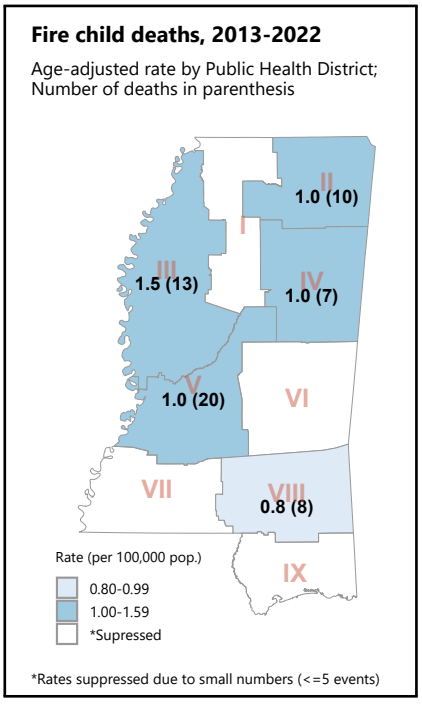


Figure 24: Child fire deaths by Public Health District, 2013-2022



Child Drowning-related Deaths, 2013-2022

Table 11: Child drowning deaths by age, sex, and race/ethnicity, 2013-2022 Mississippi resident deaths

	2022			2013-2022 Total		
	Count	**Rate**	**%**	**Count**	**Rate**	**%**
Total	14	2.1	100.0	143	2.0	100.0
Age (years)						
0-4 years	10	5.7	71.4	73	2.9	51.0
5-13 years	2	0.6	14.3	39	0.8	27.3
14-17 years	2	1.2	14.3	31	1.4	21.7
Sex						
Female	4	1.2	28.6	41	1.2	28.7
Male	10	2.9	71.4	102	2.8	71.3
Race/ethnicity						
Black, non-Hispanic	3	1.1	21.4	53	1.8	37.1
White, non-Hispanic	11	3.3	78.6	81	2.3	56.6
Other, non-Hispanic	0	0.0	0.0	4	1.4	2.8
Hispanic	0	0.0	0.0	5	1.5	3.5

Note:
Rates calculated as per 100,000 population

Figure 25: Child drowning deaths by US comparison (2022) and sex, 2013-2022

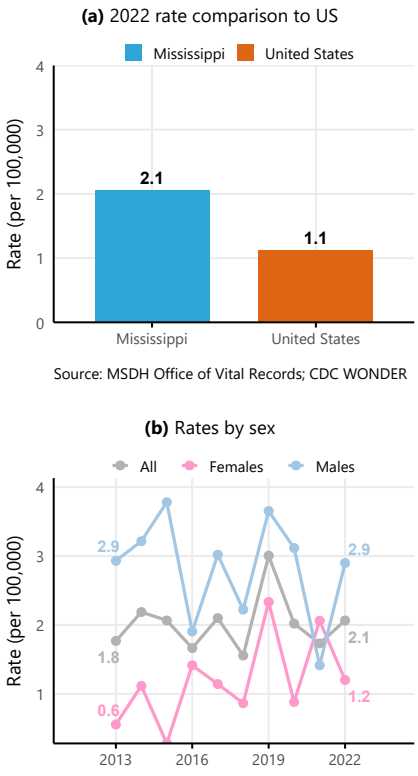


Figure 26: Child drowning deaths by age and race/ethnicity, 2013-2022

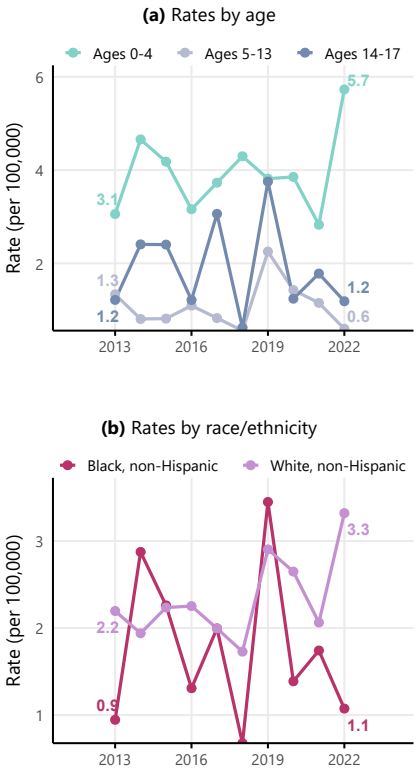
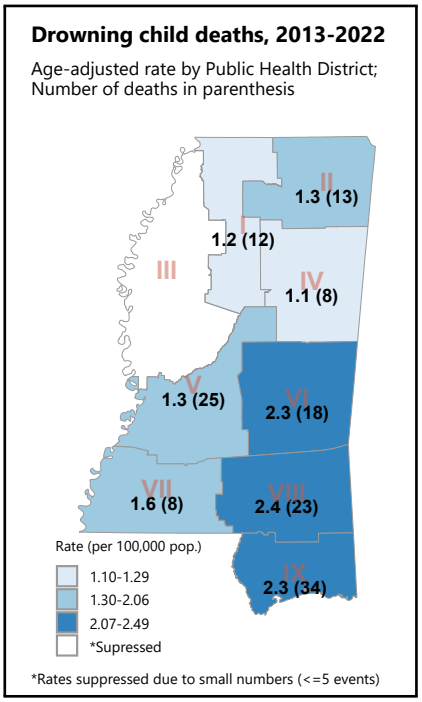


Figure 27: Child drowning deaths by Public Health District, 2013-2022



FINDINGS

Introduction:

The Mississippi Child Death Review Panel (CDRP) was established by House Bill 560 and became effective July 1, 2006. The intent of the legislation is to foster the reduction of infant and child mortality and morbidity in Mississippi and to improve the health status of infants and children. The review of these fatalities provides insight on factors that lead to the death, trends of behavior pattern, increases or decreases in the number of causes of death, and gaps in systems and policies that hinder the safety and well-being of Mississippi's children. Through the review process, the CDRP develops recommendations on how to most effectively direct state and other resources to decrease infant and child deaths in Mississippi.

Child Death Review Process:

The CDRP reviews all child deaths due to external causes (non-natural causes of death) from birth to 17 years. This excludes child deaths due to cancer, congenital anomalies, prematurity, and communicable diseases. Causes of death categorized as "undetermined/unknown" are also reviewed if external causes cannot be ruled out. Most cases reviewed are residents of Mississippi; however, non-Mississippi residents are reviewed if the incident and/ or death occurred in Mississippi and necessary records can be obtained. Child death cases are provided by the Mississippi State Department of Health's Office of Vital Records and Public Health Statistics by the calendar year of death. The cases are categorized by external cause of death such as accident, homicide, suicide, undetermined, and pending investigation. Cases with causes of death indicating injury or actions that lead directly to the death, or circumstances of an accident that produced the fatal injury are selected for review. These selected cases largely fall into the following causes of death: Sudden Unexpected Infant Death (SUID), Sudden Infant Death Syndrome (SIDS), motor vehicle accidents, homicides, suicides, fire-related, drowning, and other. The category of "other" includes incidents for which a small number of cases appear in that calendar year. Cases are prepared for panel review by gathering death investigation reports, SUID investigation forms, autopsy reports, toxicology reports, police reports, and any other documents that can clearly demonstrate the sequence of events that led to the death. Each case is reviewed individually by a panel member who is responsible for presenting the case summary to the panel at large for further discussion. It is through this process that the panel develops recommendations to decrease the number of infant and child fatalities. Lack of documentation is one of greatest hindrances to the efficiency of the CDRP. The CDRP depends on thoroughly, timely, and accurate reports to assess the circumstances that led to a child's death. Without this information, the CDRP is not able to fully execute its duties.

Purpose and Data Sources:

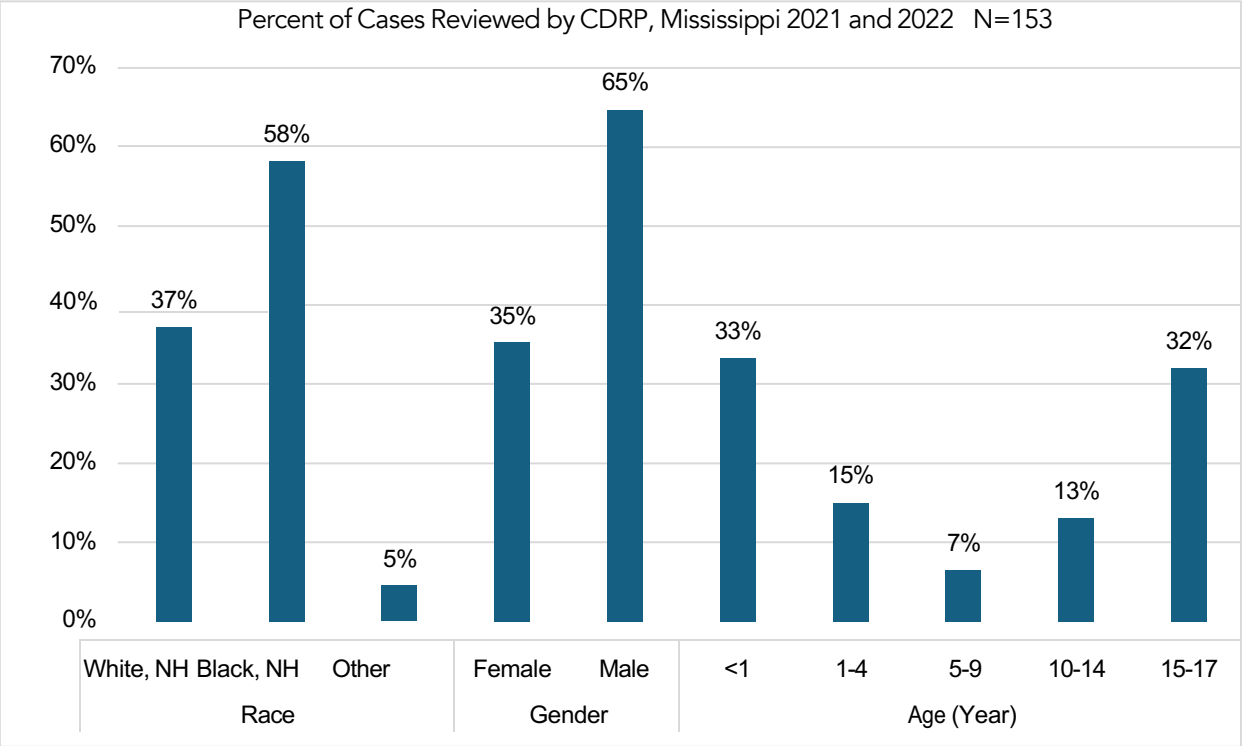
This annual report provides an overview of statistics and data related to child and infant deaths, as well as the cases reviewed by the CDRP and its recommendations for prevention. This report is compiled using Mississippi Vital Statistics and the National Fatality Review Case Reporting System. The National Fatality Review Case Reporting System assists the CDRP with tracking trends and risk behaviors in the cases reviewed.

CHILD DEATH REVIEW PANEL
FINDINGS AMONG 2021 AND 2022 DEATHS REVIEWED

The Child Death Review Panel reviewed a subset of 153 deaths among infants and children who died in 2021 and 2022 across five meetings in CY2024. The selection of cases reviewed was largely influenced by the overall number of deaths in a category and the availability of information related to the death (i.e., autopsy, toxicology, law enforcement reports, witness reports, etc.).

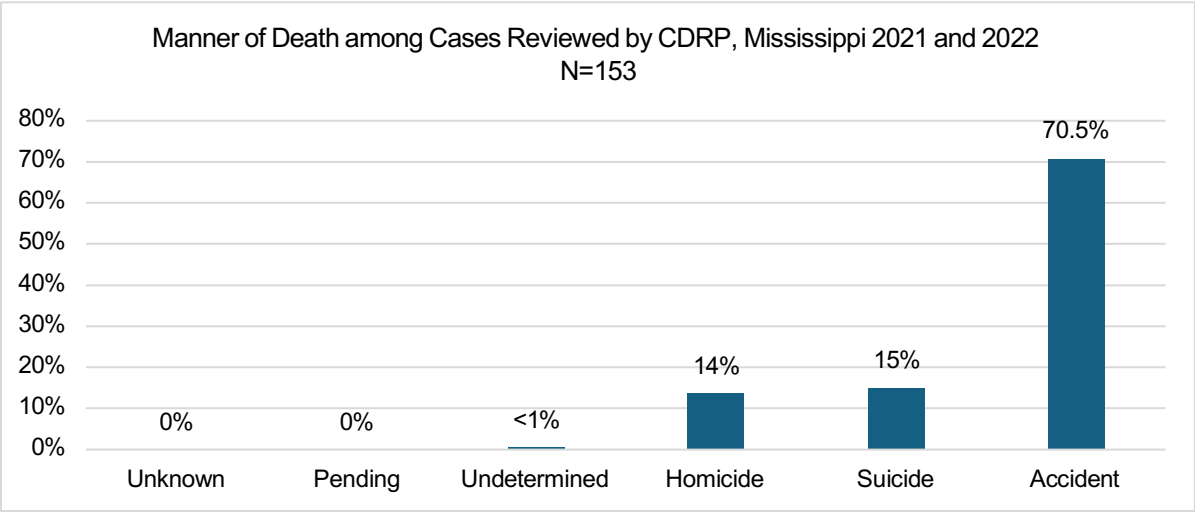
The CDRP reviewed 153 cases from 2021 and 2022. Of those, 54 cases (35%) were female and 99 cases (65%) were male; 57 cases (37%) were White, non-Hispanic, (White, NH), 89 cases (58%) were Black, non-Hispanic, (Black, NH), and 7 cases (5%) were Other races; 51 cases (33%) were infant (less than 1 year old), 23 cases (15%) aged 1-4 years old, 10 cases (7%) aged 5-9 years, 20 cases (13%) aged 10-14 years, and 59 cases (32%) aged 15-17 years.

Infants accounted for 33% (n=51 cases) of all cases reviewed by the CDRP. Children aged 1-17 years accounted for 67% (n=102 cases) of all cases reviewed by the CDRP.

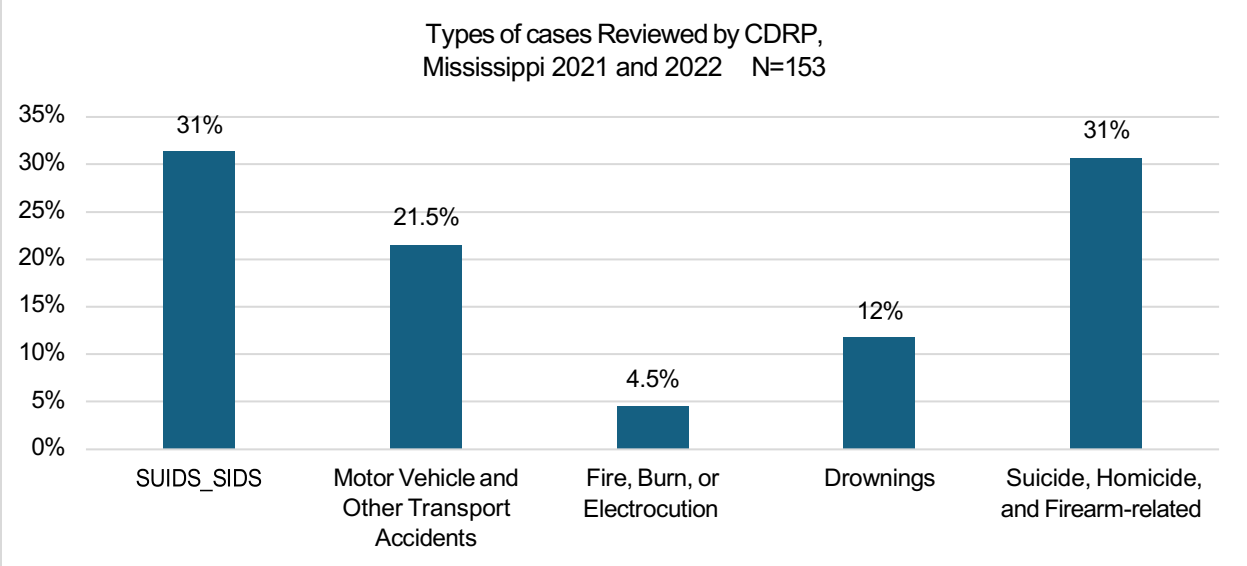


Manner and Cause of Death

By manner of death, of the 153 cases reviewed by CDPR from 2021 and 2022, the majority 108 cases (70.5%) were identified as an accident-related death, 23 cases (15%) suicide, and 21 cases (14%) homicide. The manner of death was undetermined for 1 case (<1%).



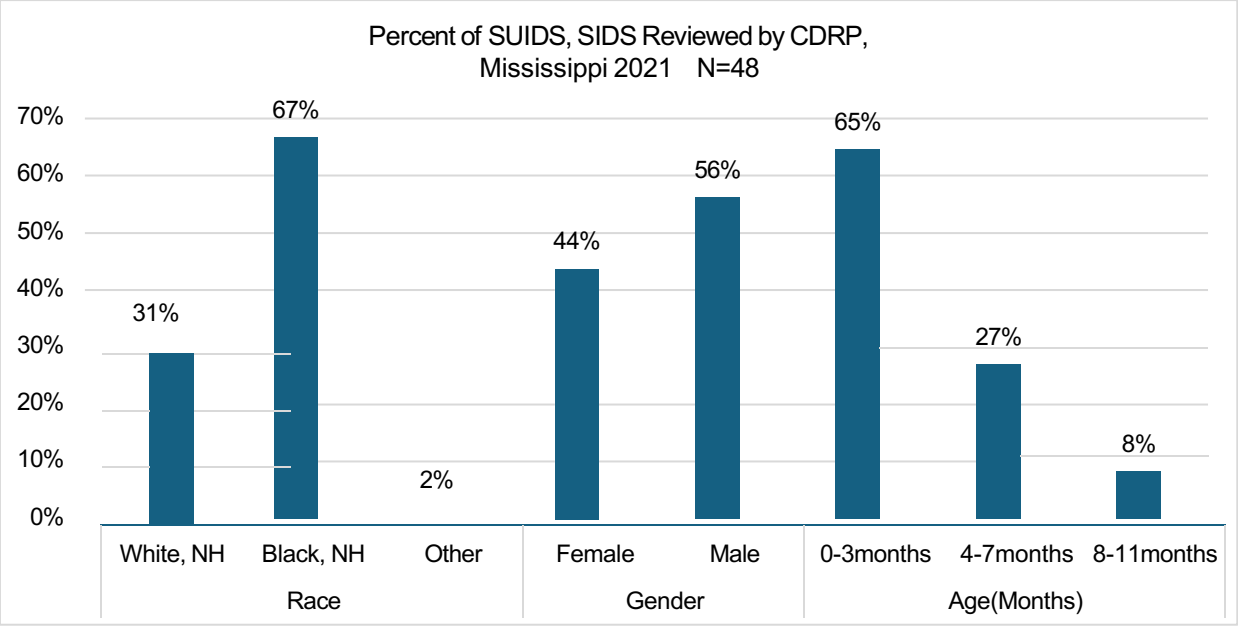
By cause of death, among the 153 cases reviewed, 48 cases (31%) were Sudden Unexpected Infant Death (SUID), 33 cases (21.5%) were Motor Vehicle and Other Transport-related death, 7 cases (4.5%) were Fire, Burn, or Electrocution, 18 cases (12%) were Drowning, and 47 cases (31%) Suicide, Homicide, and Firearm-related.



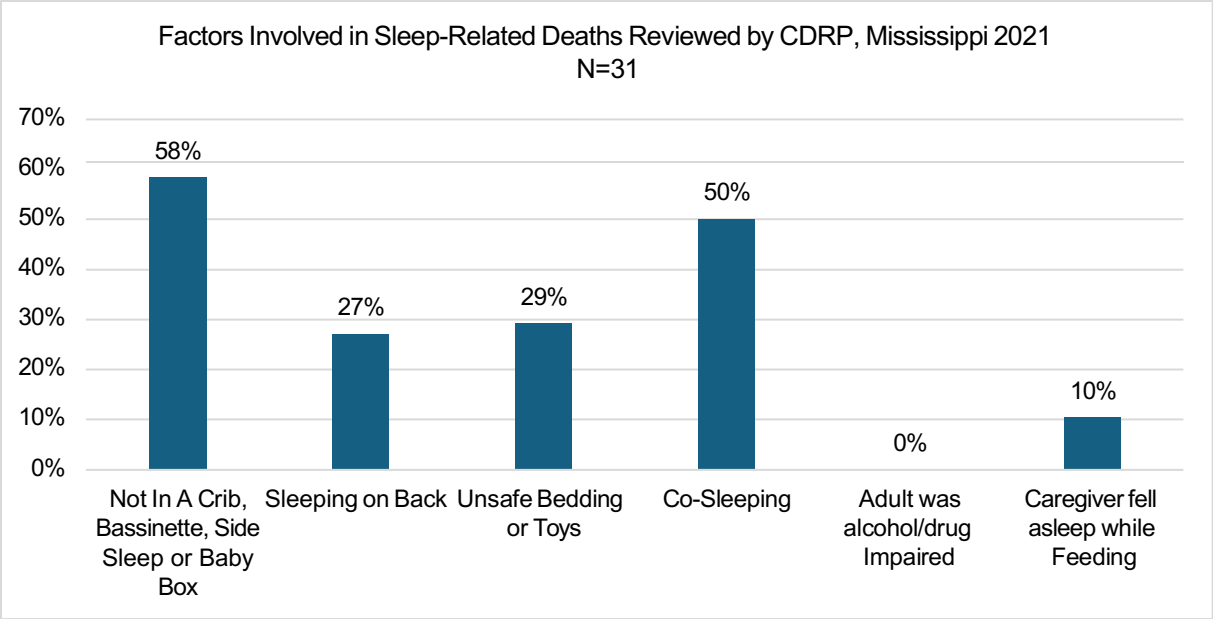
Infant Deaths: Sudden Unexpected Infant Death and Sudden Infant Death Syndrome

Among 2021 infant deaths reviewed, 48 were classified as Sudden Unexpected Infant Death (SUID). SUID is a term used to describe the sudden and unexpected death of an infant less than 1 year old in which the cause is not known before investigation. SUID deaths often occur in the sleep environment or during sleep. SUID deaths fall into three major causes of death: undetermined, Sudden Infant Death Syndrome (SIDS), or accidental suffocation or asphyxiation.

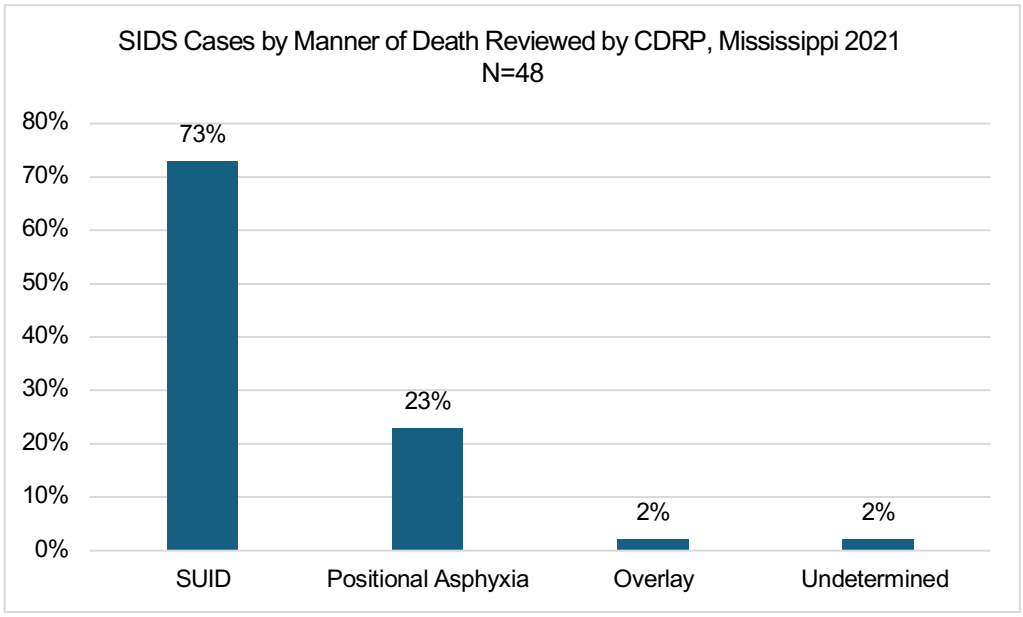
Of the 48 SUID cases reviewed by the CDRP, 15 (31%) cases were White, NH, 32 (67%) cases were Black, NH, and 1 (2%) case reviewed listed 'Other' as their race. By age in months, 31 (65%) cases were 0-3 months, 13 (27%) cases were 4-7 months, and 4 (8%) cases were 8-11 months. 21 cases (44%) were female, and 27 cases (56%) were male.



Of the 48 cases reviewed, 31 (65%) were found to have sleep environment related factors. Among sleep-related factors, 28 (58%) were not sleeping in a crib, bassinette, side sleeper, or baby box, 13 (27%) were not sleeping on their back, 14 (29%) had unsafe bedding or toys in the sleeping area, 24 (50%) were co-sleeping with other people (including adult caregivers or siblings) in an adult bed, couch, or recliner, and 5 (10%) cases had the caregiver/supervisor to fall asleep due to tiredness or while feeding (including bottle and breast feeding) while co-sleeping. Unsafe sleep practices (infants not sleeping alone, on their back, or in a crib, bassinet, or pack n' play) continue to be a contributing factor of sudden unexpected infant deaths.



By manner of death, 35 (73%) included SUID as the immediate cause of death; 11 (23%) cases were caused by positional asphyxia; 1 (2%) was undetermined and 1 (2%) case was due to overlay.

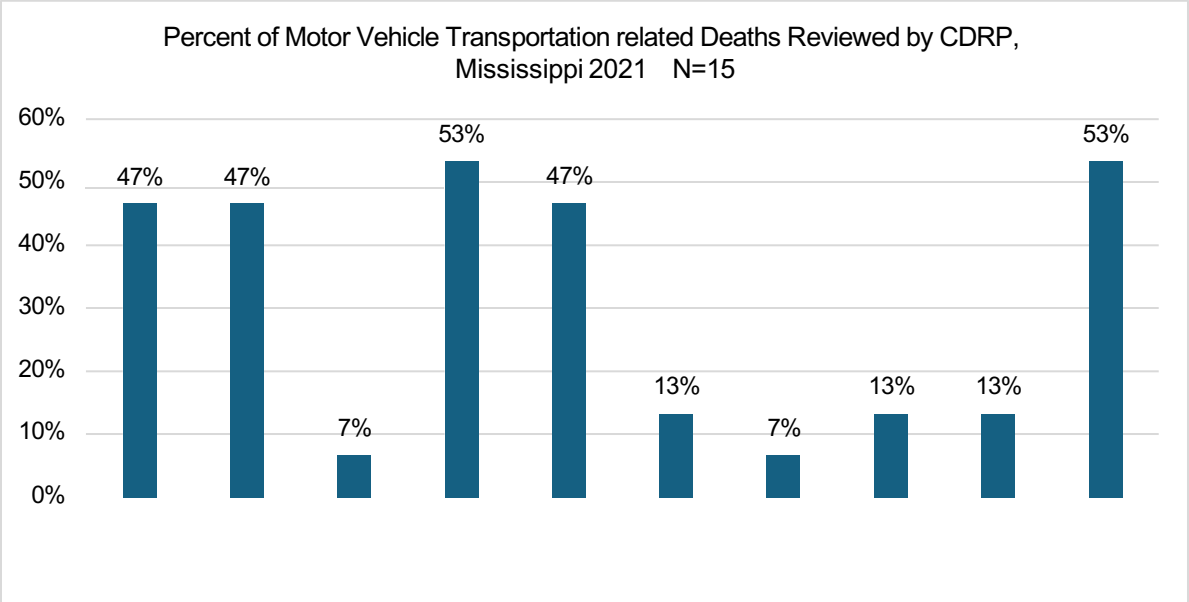


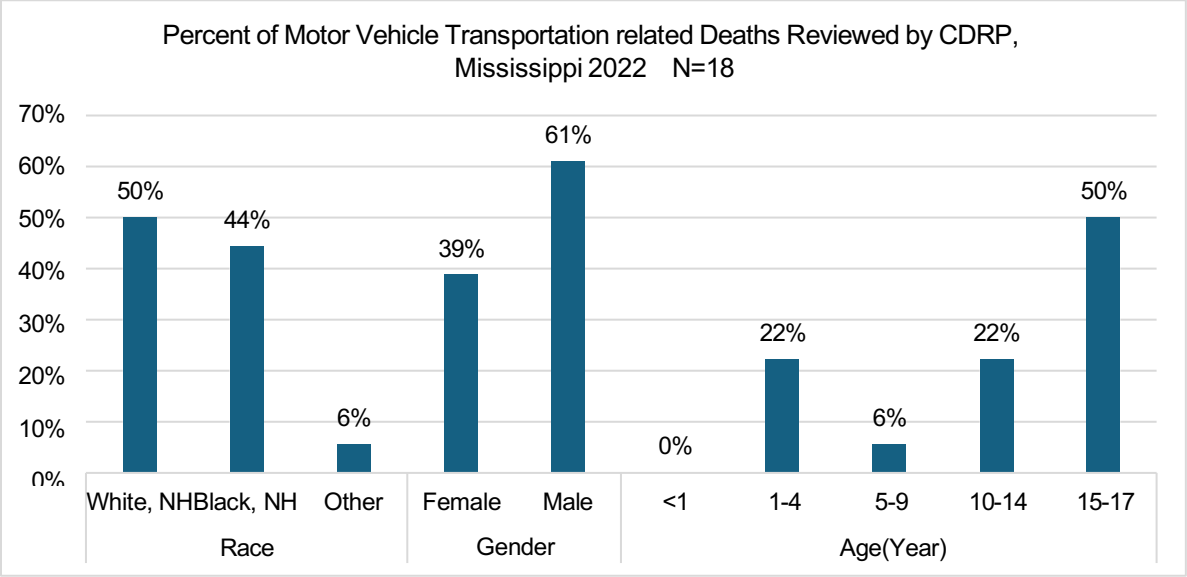
Note: This report only contains data for 2021 SUID cases reviewed by the CDRP. SUID deaths which occurred in 2022 remain under review by the CDRP at the time of publication of this report. A report revision will be released to include 2022 SUID death data when the CDRP has completed reviews.

Motor Vehicle and Other Transport Accidents

Among 2021 deaths, the CDRP reviewed 15 Motor Vehicle and Other Transport Accidents (MVA) cases. Seven cases (47%) were White, NH, 7 cases (47%) were Black, NH, and 1 case (7%) was Other; 7 (47%) were male and 8 (53%) were female. Two cases (13%) were less than 1 year old, 1 case (7%) was aged 1-4 years, 2 cases (13%) were aged 5-9 years, 2 cases (13%) were aged 10-14 years, and 8 cases (53%) were aged 15-17 years.

Among 2022 deaths, the CDRP reviewed 18 MVA cases. Nine cases (50%) were White, NH, 8 cases (44%) were Black, NH and 1 case (6%) was Other; 11 cases (61%) were male and 8 cases (39%) were female. Four cases (22%) were aged 1-4 years, 1 cases (6%) were aged 5-9 years, 4 cases (22%) were aged 10-14 years, and 9 cases (50%) were aged 15-17 years.

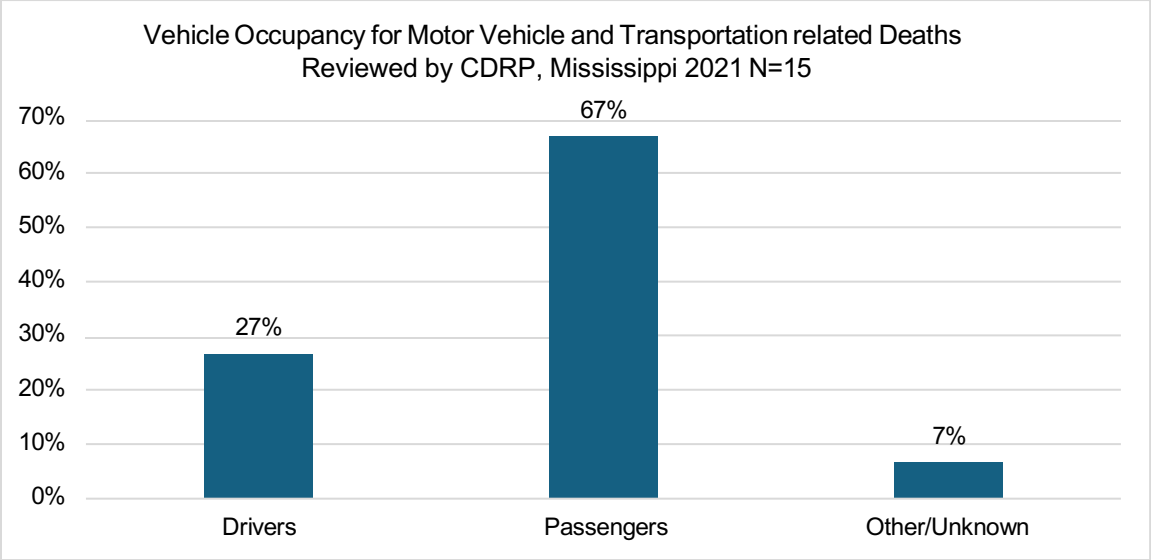


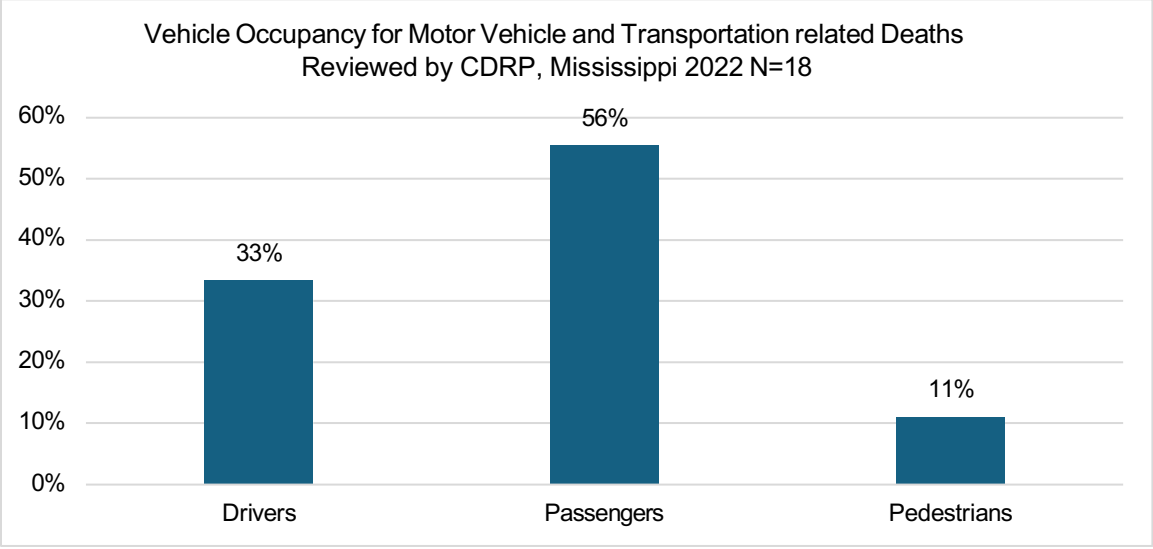


Vehicle Occupancy

Among 2021 deaths reviewed, the majority of MVA cases reviewed were positioned as passengers, followed by drivers. Of the 15 cases reviewed by the CDRP, 4 cases (27%) were drivers in the MVA (including ATVs), 10 cases (67%) were passengers, and 1 cases (7%) was unknown.

Among 2022 deaths reviewed, the majority of MVA cases reviewed were positioned as passengers, followed by drivers. Of the 18 cases reviewed by the CDRP, 6 cases (33%) were drivers in the MVA (including ATVs), 10 cases (56%) were passengers, and 2 cases (11%) were pedestrians.

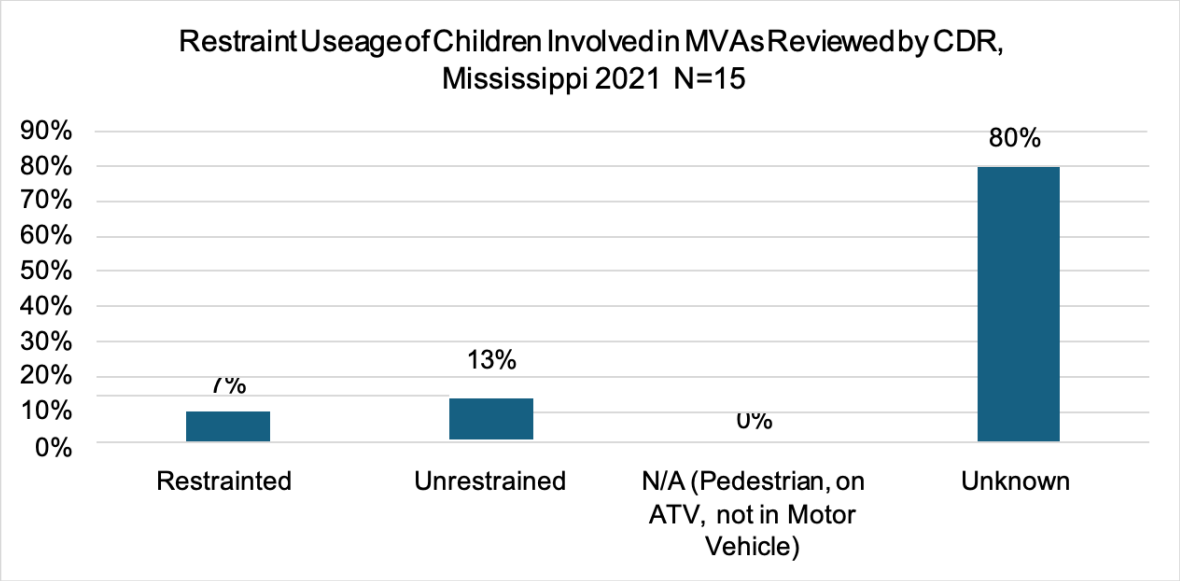


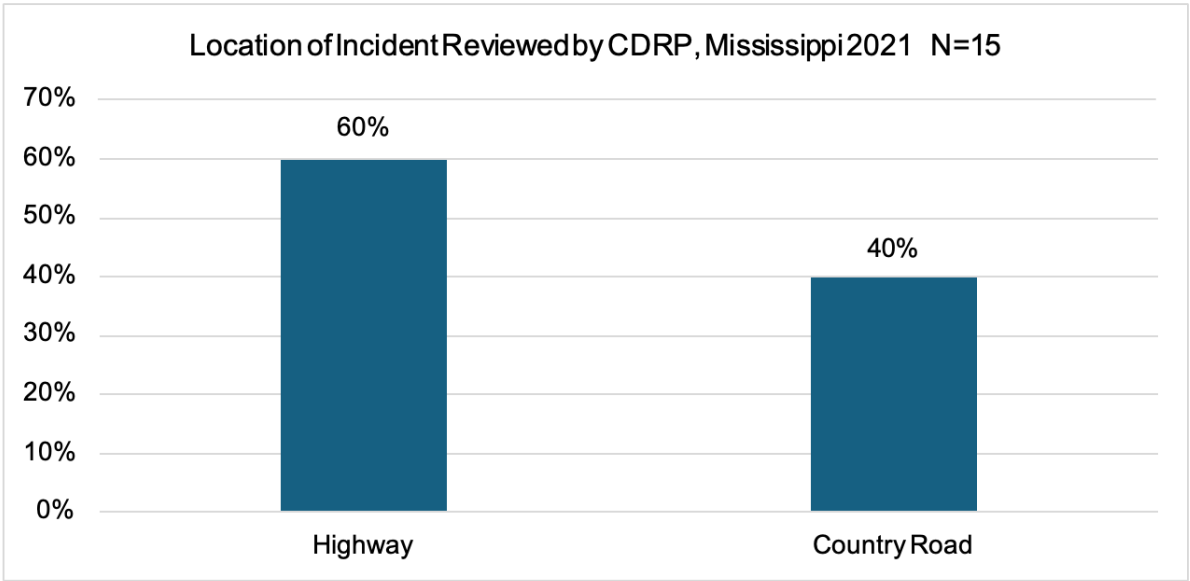


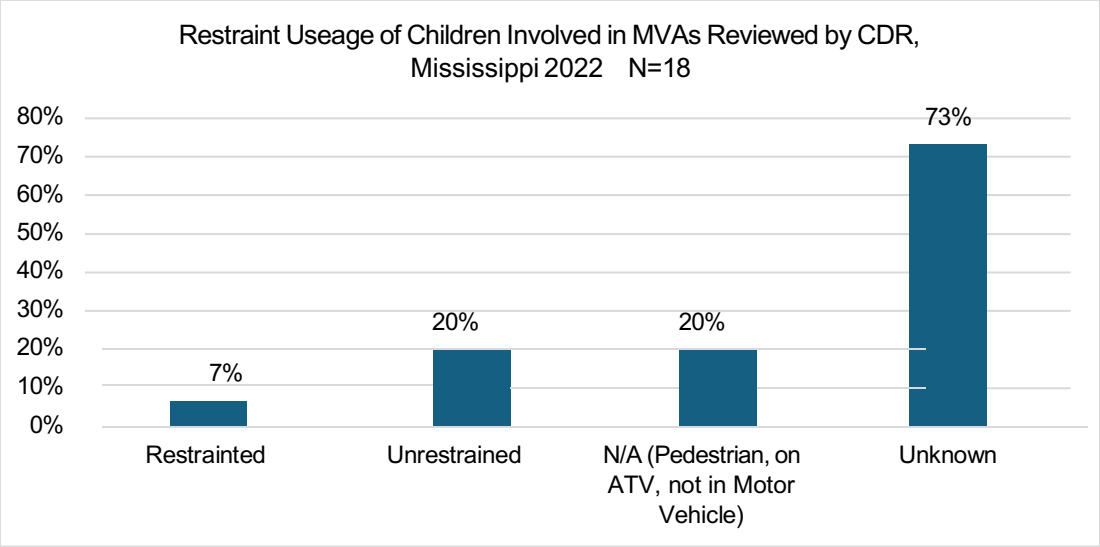
Seatbelt or Restraint Usage and Location

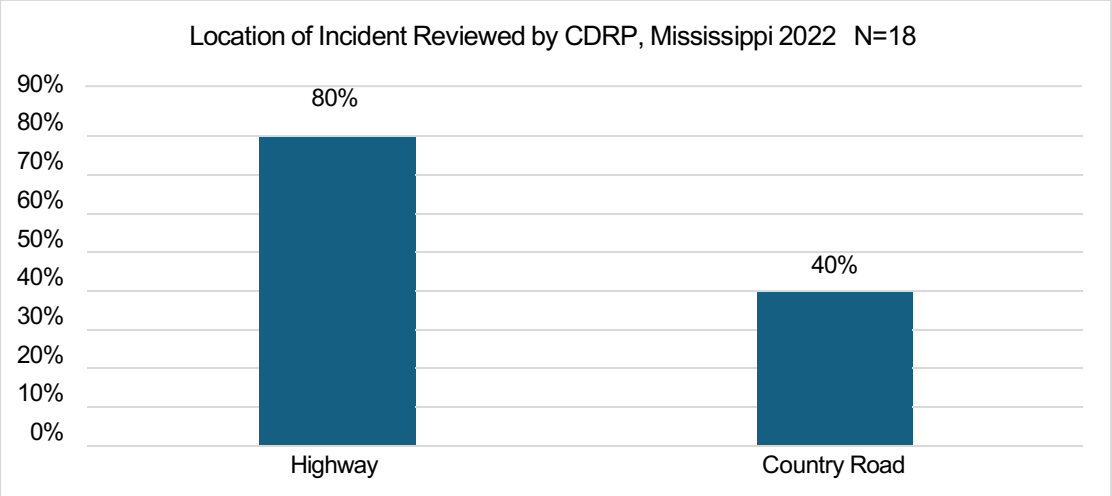
Among the 2021 MVA deaths reviewed, 1 case was restrained (7%), 2 cases (13%) were unrestrained and 12 cases (80%) were unknown and had this information missing from their case. Of the motor vehicle and other transportation related cases reviewed 9 cases (60%) occurred on highways while 6 cases (40%) happened on county roads.

Among the 2022 MVA deaths reviewed, 1 case was restrained (7%), 3 cases (20%) were unrestrained, 3 cases (20%) were either pedestrian, on ATV, not in a Motor Vehicle and 11 cases (73%) were unknown and had this information missing from their case. Of the motor vehicle and other transportation related cases reviewed, 12 cases (80%) occurred on highways while 6 cases (40%) happened on county roads.





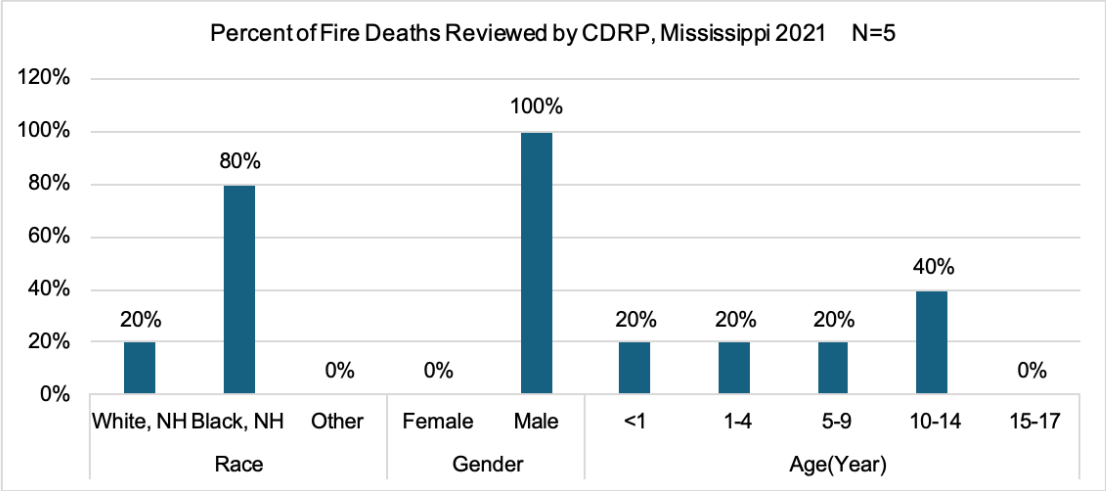

Restraint Useage of Children Involved in MVAs Reviewed by CDR, Mississippi 2022 N=18
80%
70%
60%
50%
40%
30%
20%
10%
0%
7%
20%
20%
73%
Restrainted
Unrestrained
N/A (Pedestrian, on ATV, not in Motor Vehicle)
Unknown

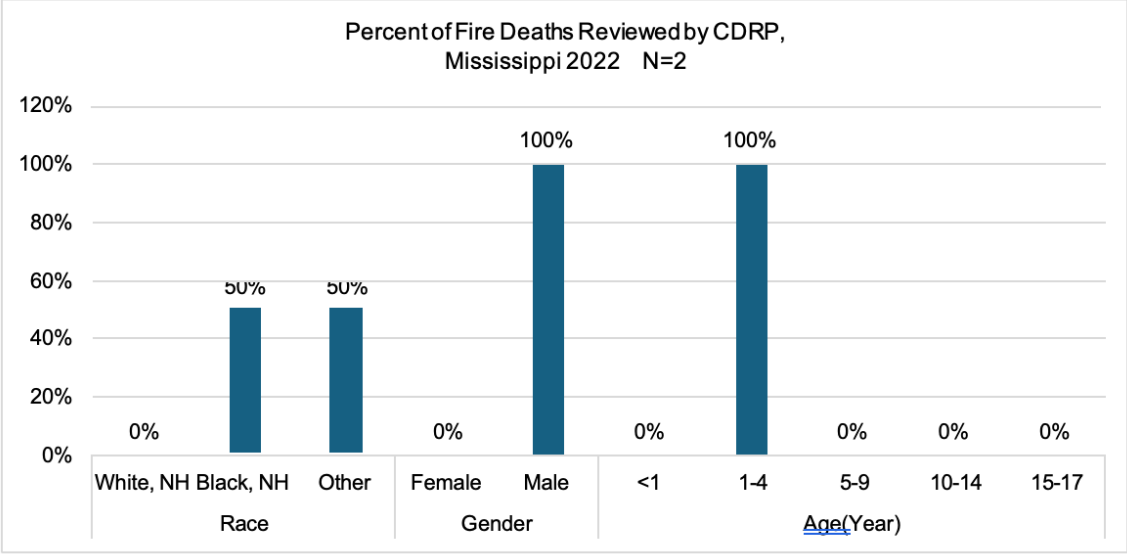

Location of Incident Reviewed by CDRP, Mississippi 2022 N=18
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
80%
40%
Highway
Country Road

Fire, Burn, or Electrocution

There were 5 fire-related deaths in 2021 that were reviewed by the CDRP. Of those, 4 cases (80%) were Black, NH, and 1 case (20%) was White, NH. All cases (100%) were males. One case (20%) was less than 1 year old, 1 case (20%) was aged 1-4 years, 1 cases (20%) was aged 5-9 years, and 2 cases (40%) were aged 10-14 years. Of the fire cases reviewed, 3 cases (60%) were in single homes and 2 cases (40%) were in a trailer/mobile homes. Smoke alarm presence was unknown for all cases (100%). All cases included a child who was not supervised.

There were 2 fire-related deaths in 2022 that were reviewed by the CDRP. Of those, 1 case (50%) was Black, NH, and 1 case (50%) was Other. Both cases (100%) were males. Both fire-related deaths occurred in the age group between 1- 4 years. Of the fire cases reviewed, 1 case (50%) was in a single homes and the other case (50%) was identified as multiple home dwelling (apartment complex). Smoke alarm presence was unknown for both cases (100%). 1 case (50%) included a child who was not supervised.



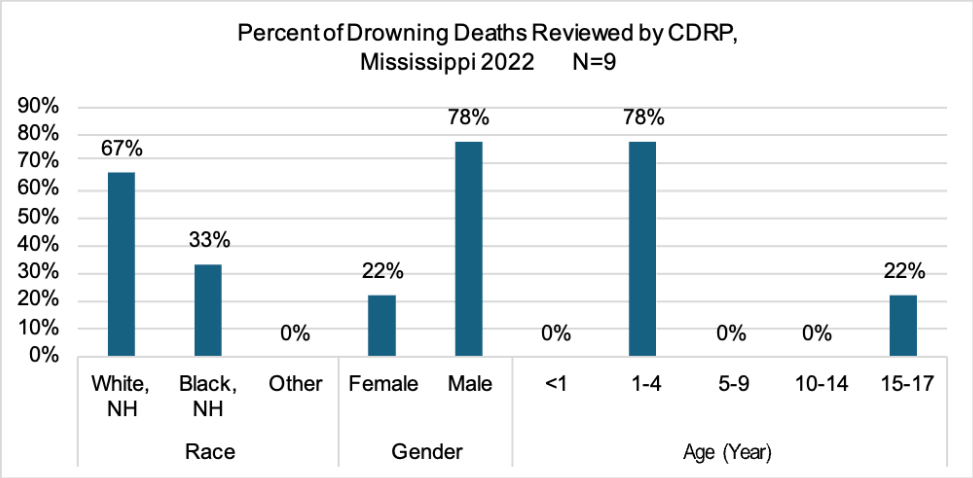


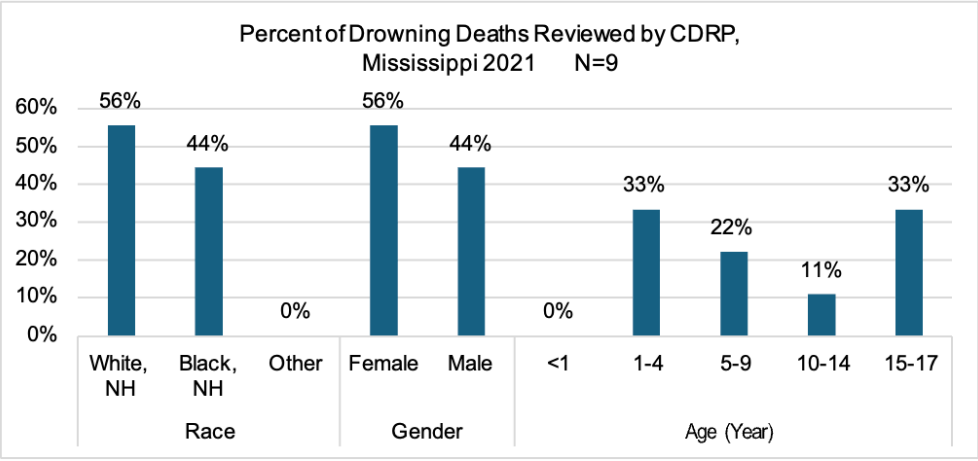
Drowning

There were 9 drowning-related deaths in 2021 that were reviewed by CDRP. Six cases (67%) were White, NH, and 3 cases (33%) were Black, NH. Seven cases (78%) were male and 2 cases (22%) were female. Seven cases (78%) were aged 1-4 years and 2 cases (22%) were aged 15-17 years. Of the drowning cases reviewed, 4 cases (44%) were in a lake, river, pond, or creek, 3 cases (33%) were in a pool, hot tub, or spa, and 2 cases (22%) were in a bathtub. During the review it was undetermined if cases could swim, however it was determined that all cases were noted for lack of supervision.

There were 9 drowning-related deaths in 2022 that were reviewed by CDRP. Five cases (56%) were White, NH, and 4 cases (44%) were Black, NH. Four cases (44%) were male, and 5 cases (56%) were female. Three cases (33%) were aged 1-4 years, 2 cases (22%) were aged 5-9

years, 1 case (11%) was aged 10-14 years, and 3 cases (33%) were aged 15-17 years. Of the drowning cases reviewed, 5 cases (56%) were in a lake, river, pond, or creek, 2 cases (22%) were in a pool, hot tub, or spa, and 2 cases (22%) were in a bathtub. During the review it was undetermined if cases could swim, however it was determined that all children were noted for lack of supervision





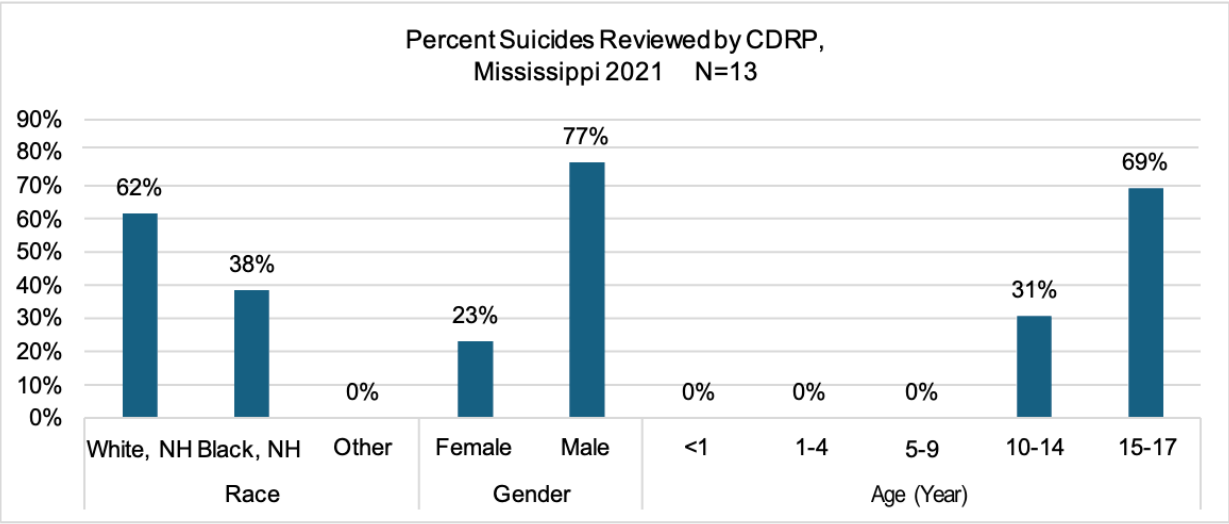
Suicide, Homicide, and Firearm-Related Deaths

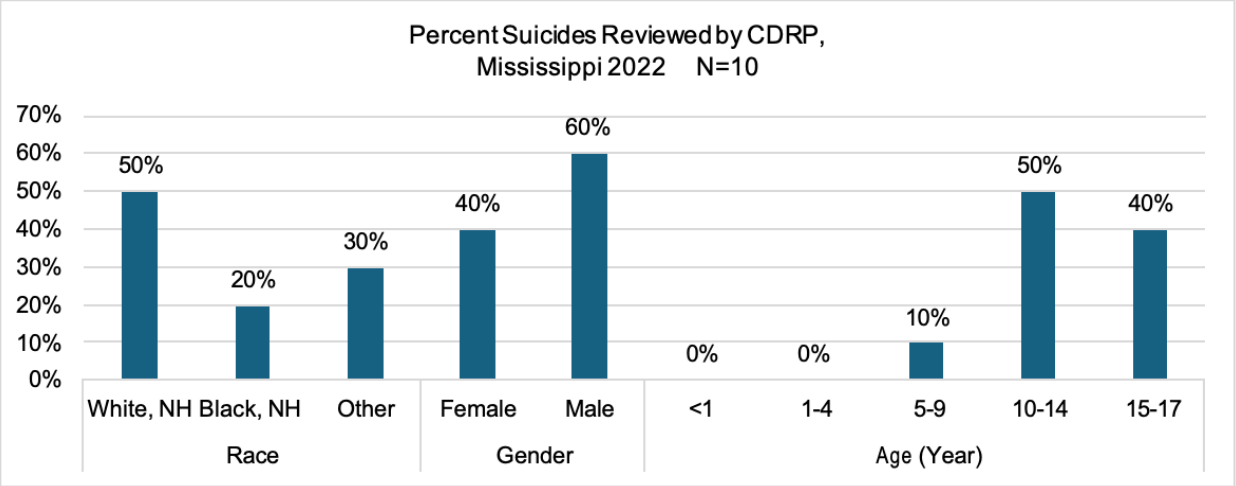
Among suicide, homicide, accident, and undetermined manner of deaths occurring in 2021, the CDRP reviewed 26 total cases. One case (4%) had the manner of death ruled as accident, 1 case (4%) had the manner of death being undetermined, 11 cases (42%) had the manner of death being homicide, and 13 cases (50%) had the manner of death being ruled as suicide. Among suicide, homicide, accident, and undetermined manner of deaths occurring in 2022, the CDRP reviewed 21 total cases. One case (4%) had the manner of death ruled as accident, 10 cases (48%) had the manner of death being homicide, and 10 cases (48%) had the manner of death being ruled as suicide.

Suicide Deaths

Among 2021 deaths ruled as suicide, the CDRP reviewed 13 cases. Eight cases (62%) were White, NH, and 5 cases (38%) were Black, NH. Ten cases (77 %) were male and 3 cases (23%) were female. Four cases (31%) were aged 10-14 years and 9 cases (69%) were aged 15-17 years. Of the suicide cases reviewed, 5 cases (38%) involved a child talking about suicide prior to the act. Of the cases reviewed, an argument or incident occurred prior to the act in 3 cases (23%). Two cases (15%) noted serious school problems with the child before the act was completed. Eleven cases (85%) used a firearm and 2 cases (15%) used a rope/cord or belt.

Among 2022 deaths ruled as suicide, the CDRP reviewed 10 cases. Five cases (50%) were White, NH, 2 cases (20%) were Black, NH, and 3 cases (30%) were Other. Six cases (60%) were male and 4 cases (40%) were female. One case (10%) was aged 5-9, 5 cases (50%) were aged 10-14 years, and 4 cases (40%) were aged 15-17 years. Of the suicide cases reviewed, whether the child talked about suicide prior to the act was not able to be determined for any of the cases. Of the cases reviewed, an argument or incident occurred prior to the act in 2 cases (20%). There were no noted serious school problems with the child before the act was committed for any of the cases. Six cases (60%) used a firearm, 3 cases (30%) used a rope/cord or belt, and for the remaining 1 case (10%), a means was not known.

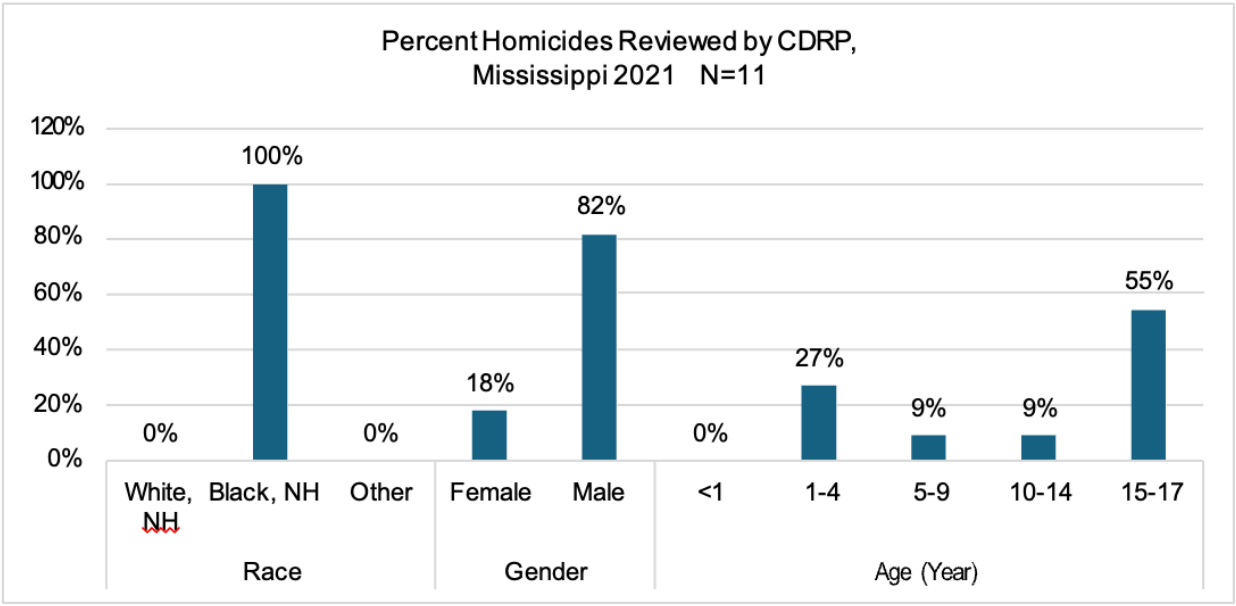


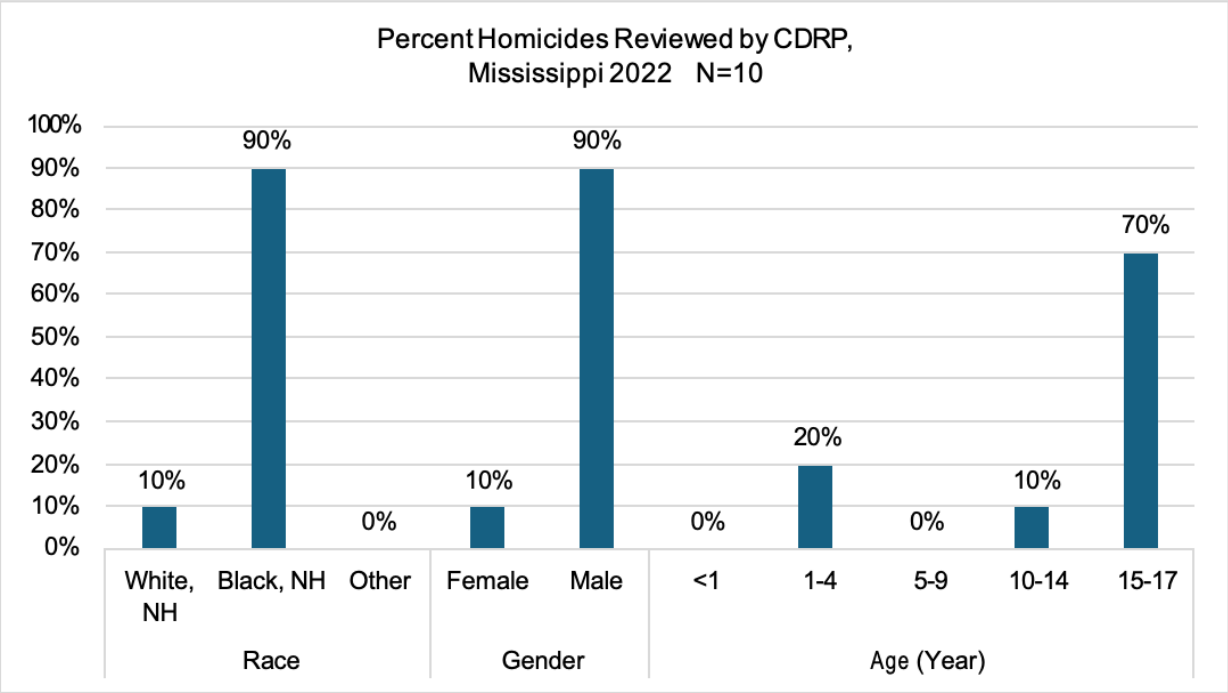


Homicide

Among 2021 deaths ruled as homicide, the CDRP reviewed 11 cases. All cases were Black, NH. Two cases (18%) were female and 9 cases (82%) were male. Three cases (27%) were aged 1- 4 years, 1 case (9 %) was aged 5-9 years, 1 case (9%) were aged 10-14 years, and 6 cases (55%) were aged 15-17 years.

Among 2022 deaths ruled as homicide, the CDRP reviewed 10 cases, 1 case (10%) was White, NH and 9 cases (90%) were Black, NH. One case (10%) was female and 9 cases (90%) were male. Two cases (20%) were aged 1-4 years, 1 case (10%) was aged 10-14 years, and 7 cases (70 %) were aged 15-17 years.

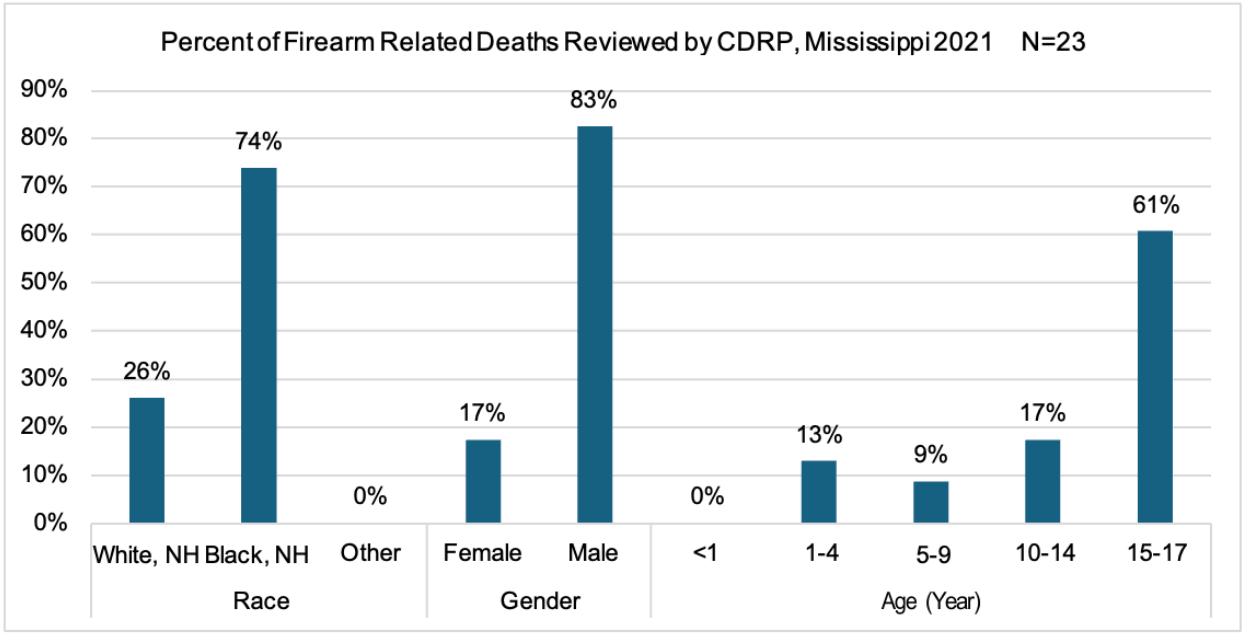


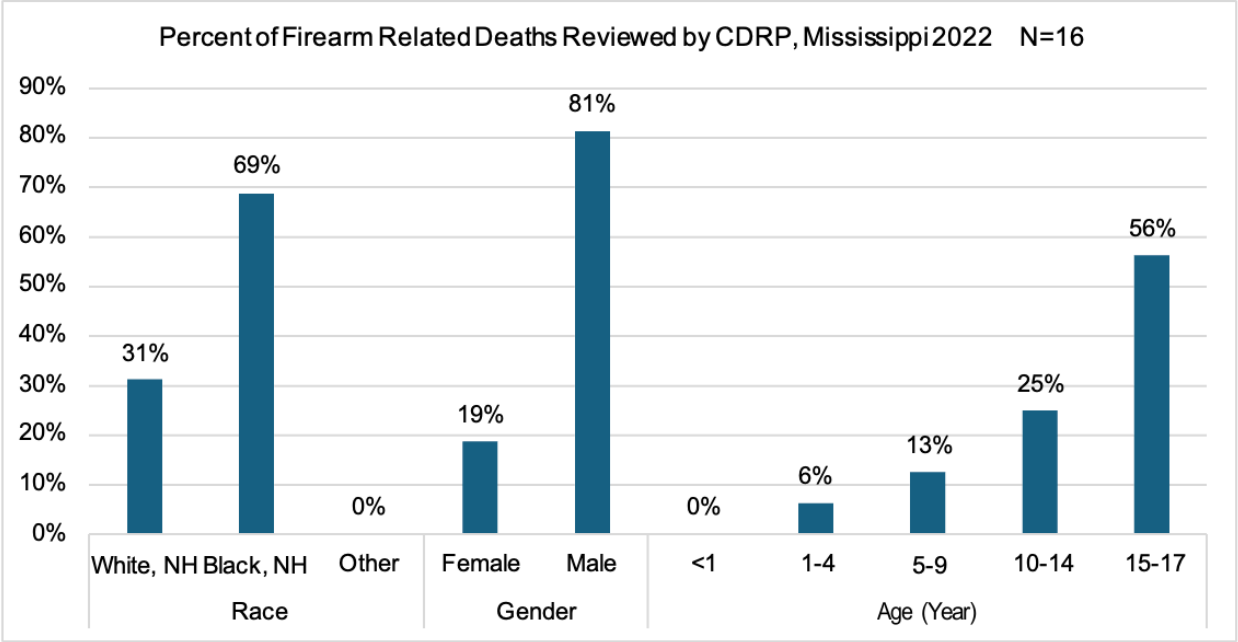


Firearm-Related Deaths

Among 2021 firearm-related deaths, including those ruled suicide or homicide, the CDRP reviewed 23 cases. Seventeen cases (74%) were Black, NH and 6 cases (26%) were White, NH. Nineteen cases (83%) were male, and 4 cases (17%) were female. By age, 3 cases (13%) were ages 1-4 years, 2 cases (9%) were ages 5-9 years, 4 cases (17%) were aged 10-14 years, and 14 cases (61%) were aged 15-17 years.

Among 2022 firearm-related deaths, including those ruled as suicide or homicide, the CDRP reviewed 16 cases. Eleven cases (69%) were Black, NH and 5 cases (31%) were White, NH. Thirteen cases (81%) were male and 3 case (19%) was female. By age, 1 case (6%) was ages 1-4 years, 2 cases (13%) were ages 5-9 years, 4 cases (25%) were aged 10-14 years, and 9 cases (56%) were aged 15-17 years.


Percent of Firearm Related Deaths Reviewed by CDRP, Mississippi 2021 N=23
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
26%
74%
0%
17%
83%
0%
13%
9%
17%
61%
White, NH
Black, NH
Other
Female
Male
<1
1-4
5-9
10-14
15-17
Race
Gender
Age (Year)


Percent of Firearm Related Deaths Reviewed by CDRP, Mississippi 2022 N=16
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
31%
69%
0%
19%
81%
0%
6%
13%
25%
56%
White, NH
Black, NH
Other
Female
Male
<1
1-4
5-9
10-14
15-17
Race
Gender
Age (Year)

RECOMMENDATIONS

CHILD DEATH REVIEW PANEL

RECOMMENDTIONS FOR PREVENTING CHILD AND INFANT DEATHS

The Child Death Review Panel makes the following recommendations to the Chairmen of the House Public Health and Human Services Committee and the Senate Public Health and Welfare Committee, as well as others engaged in caring for and supporting children and infants.

State Leaders:

- Continued engagement with legislators about CDRP recommendations beyond the annual report.
- Continued partnership opportunities for CDRP members to present data and findings from the annual report with examples including legislature day for different organizations, trauma conferences, injury prevention conferences, and child health conferences.
- Legislation that requires firearms to be traced through the Bureau of Alcohol, Tobacco, and Firearms and Explosives when a child has been injured or fatally injured by a firearm.
- Representative from the Department of Mental Health assigned to the Child Death Review Panel.
- Representative from the District Attorney's Office assigned to the Child Death Review Panel.
- Recognize the need for a medical facility in Mississippi that provides drug treatment especially for adolescents -many are being screened and sent for outpatient treatment due to bed limitations
- Hospitals, law enforcement agencies, and others involved in the pre-mortem or post-mortem response to a child or infant death should be required to release all relevant information to the Child Death Review Panel and its administrative agents to assure comprehensive reviews can be conducted.
- Coroners should be required to fill out SUIDI forms which would require an appropriate death scene investigation; overwhelmingly, they are not doing this consistently or completely.

Mississippi State Department of Health

- The MSDH should operationalize Fetal and Infant Mortality Review Programs throughout the state, notably in public health districts with the highest infant mortality rates. Other agencies or organizations charged with carrying out FIMR programs should assure they prioritize this work, partnering with MSDH to support them in doing so. This program will need funding and one paid organizer in each health district.
- MSDH should create a physician committee to review the infant mortality report to include neonatologists, PICU doctors, geneticists, and pediatricians. They can ask questions about the data each year and work to make a report that is clear to them and so will be more useful to clinicians and lawmakers that need the data to make decisions. This committee would need funding for support staff to gather materials and organize any needed research.
- The physician committee should review "other causes" deaths to see if these cases may fall into a leading category of infant death; for example, perhaps an unknown cause of death assigned to an infant who died in bed with mother.

Healthcare, Mental Health, and Child Welfare System and Providers:

- Mass media campaign discouraging co-sleeping and a realistic approach to helping put babies to sleep.
- Provide drowning education at well child visits. Advocate that supervision is the main protective factor against drowning deaths.
- Provide education/partnership with Department of Mental Health's "Shatter the Silence: Suicide Prevention Campaign.
- Include safe sleep education to include swaddling techniques and positioning as part of prenatal/childbirth classes and discharge planning for new parents, as well as inclusion in foster parent training.
- Increase awareness about the need for prenatal visits and support groups. Highlight areas where prenatal support group exists, their success and where these support groups are not available.

School Administrators, Teachers, and Counselors:

- Incorporating a curriculum on risky behaviors for new drivers in high school health courses. In one survey from the CDC about Youth Risk Behavior, in 2023, 66.6% of Mississippi youth aged 13 to 19 said they did not always wear a seatbelt. 19.3% said they rode in the car with a driver who had been drinking.

- Promote the use of crisis hotlines (988) to facilitate just-in-time support. In May of 2024, more than 1,500 calls were made to Mississippi's suicide help line, 988, a 40% increase from May of 2022. Mississippi boasts the highest response rate with 97% of calls answered in 2024. Texts and online chats were added to the 988 programs in April 2023. Data from 2023 Annual Report: www.dmh.ms.gov
- Implement safety support planning for children and youth at-risk for suicide to include guidance on means restriction for parents and adult caregivers.
- Assess the children and adolescent's immediate/local environment and interactions, as well as their social media, gaming, and other communication application presence, notably who they are interacting with (often they are not local), what are they searching for, and what content they are consistently accessing or exposed to

Local Leaders, Communities:

- Public service announcements about the dangers of co-sleeping and the importance of an infant having a separate place to sleep.
- Public service announcements on water safety, swimming safety, and other safety precautions for residential lakes, ponds, pools, and bathtubs.
- Public Service announcements on fire safety and the importance of smoke alarms in homes.
- Collaboration/partnership with Department of Mental Health's "Shatter the Silence Suicide Prevention Campaign".
- More calls to the Child Protection Services hotline for infant and child fatalities from accidents, homicides, suicides, or any injury related deaths.
- Raise awareness on the availability of programs and resources offering firearm safes, trigger locks, smoke alarms, CO2 alarms, child passenger safety seats/installation.

Parents and Caregivers:

- Stress the danger of co-sleeping to other children and other family members. Practice safe sleep.
- Practice firearm safety. Use trigger locks, lock ammunition away separately from the firearm, restrict children and adolescents' access to firearms.
- Monitor children and adolescents' use of social media, gaming, and other applications for content including cyberbullying, extortion, and interactions that encourage self-harm.

- Lock away all poisons or other substances that should not be ingested, including cleaners, pesticides, and detergents. Do not store within reach or access of children. Do not store in unmarked or unlabeled containers. Many are of attractive colors to children and can be mistaken as sodas, juice, etc. If there is an ingestion, report the exact substance as known to Poison Control and medical professionals. Different chemicals have different reactions over time. What may look non-distressing at first can develop into something far more serious in a matter of hours or days; continuous monitoring and staying in touch with Poison Control is critical.
- Provide proper supervision of children, especially outside where animals have access to them. Restrain/contain dangerous animals (i.e., dog breeds known for aggression).
- Secure heavy furniture to walls, floors using hardware that comes with the units or purchase an aftermarket kit to prevent tipping over on children. Secure dresser

Mississippi State Department of Health

To protect and advance the health, well-being and safety of everyone in Mississippi

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