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## Child Death Review Panel Members

**Dr. Amanda Penny**

Appointee, Speaker of the House of Representatives

**David Ruth**

Mississippi Coroners & Medical Examiner Association

**Dr. Randy Henderson**

Mississippi Chapter of the American Academy of Pediatrics

**Melanie Parks**

Mississippi State Department of Health  
Office of Vital Records and Public Health Statistics

**Teri Gleason**

Office of the Mississippi Attorney General

**Maya Edwards**

Office of the Mississippi Attorney General

**Nakia McLaurin**

Office of the Mississippi Attorney General

**K.C. Hamp**

Mississippi Sheriff's Association, Sheriff

**Commander Persundra Jones**

Mississippi Sheriff's Association, Sheriff

**Regina Lacking**

Mississippi Child Protection Services

**Tara LeBlanc**

Mississippi Child Protection Services

**Karla Tye**

Children's Advocacy Centers of Mississippi

**Cathy Files**

Mississippi State SIDS & Infant Safety Alliance

**Dr. Scott Benton**

Mississippi Children's Safe Center

**Amanda Sanford**

Mississippi Children's Safe Center

**Elizabeth Foster**

Safe Kids Mississippi

**Brad Smith**

Mississippi State Fire Marshal's Office

**Justice Dawn Beam**

Mississippi Supreme Court

**Amber Kyle**

University of Mississippi Medical Center

**Michelle Goreth**

University of Mississippi Medical Center

**Monica Stinson**

Mississippi State Department of Health

**Teresa Windham**

Mississippi State Department of Health

**Victoria Walker**

Child Death Review Coordinator

**LaShunda Hill**

Child Death Review Abstractor

**Submitted to:**

Chairmen of the Mississippi House Public Health and Human Services Committee  
Senate Public Health and Welfare Committee

**Report prepared by:**

Mississippi State Department of Health, Office of Vital Records and Public Health Statistics

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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.

## Executive Summary

This report summarizes infant and child deaths related to unintentional injuries or violence that occurred in 2019. These often sudden and unexpected deaths greatly impact the lives of families and community members. These deaths also impact Mississippi. By reviewing the circumstances and risk factors associated with the death, it provides a lens on how to better safeguard infants and children in the state from untimely deaths.

In 2019, there were 553 Mississippi infant and child deaths. Of these deaths, 222 were due to injuries or violence related to accidents, homicides, suicides, and other external and undetermined causes. The majority were sudden unexpected infant deaths (72 cases, 32.4% of external causes) and motor vehicle/other transport accidents (50 cases, 22.5% of external causes).

- A total of 553 Mississippi infant and child deaths occurred in 2019, and 222 deaths (40.1%) were due to external or undetermined causes such as accidents, homicides, suicides, or other external and undetermined causes. The Child Death Review Panel reviewed 88 deaths from 2019.
- In 2019, 50 child deaths were due to vehicle/other transport accidents, and a combined 626 motor vehicle deaths occurred in this age group between 2010 and 2019.
- Sudden unexpected infant deaths (SUID) account for 72 infant deaths in 2019 and a total of 694 infant deaths between 2010-2019.
- Firearm related deaths have been trending upwards since 2010 with 36 deaths in 2019 and 77.8% of deaths occurring in ages 14-17 and 83.3% occurring in males.
- Increasing since 2010, 2019 included 27 homicide child deaths with 81.5% of deaths occurring in Black, non-Hispanic children.
- Fire and drowning deaths have increased since 2010 with 19 and 21 cases in 2019, respectively.
- Suicides have increased from 1.1 (per 100,000 children) in 2010 to 2.7 in 2019.
- Continued review and monitoring the prevalence of these fatalities is necessary to evaluate prevention efforts and inform future recommendations for preventing child death.

## 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 patterns, 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 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, SUIDI 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 the 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 the cases reviewed by the CDRP and its recommendations. 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. The following child death statistics for the state of Mississippi include deaths among state residents in order to produce accurate crude rates and infant mortality rates by state population and birth counts.

## Child and Infant Mortality

### Child Mortality, Ages 1-17

In 2019, a total of 231 child deaths occurred in children ages 1-17 years (Table 1). Males accounted for 64.1% of deaths, whereas females accounted for 35.9% of deaths. Ages 1-4 accounted for 60 deaths (26.0%), ages 5-9 years accounted for 46 deaths (19.9%), ages 10-14 accounted for 52 deaths (22.5%), and children ages 15-17 accounted for 73 deaths (31.6%). A total of 114 deaths (49.4%) occurred among Black, non-Hispanic children, and 104 deaths (45%) occurred among White, non-Hispanic children.

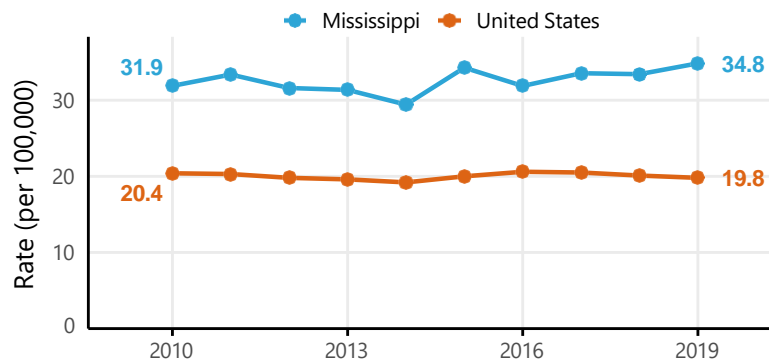
**Table 1:** Child deaths for ages 1-17, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	231	34.8	100.0	2,247	32.5	100.0
<b>Age (years)</b>						
<b>1-4 years</b>	60	40.6	26.0	677	43.0	30.1
<b>5-9 years</b>	46	24.3	19.9	383	18.9	17.0
<b>10-14 years</b>	52	25.2	22.5	473	22.9	21.1
<b>15-17 years</b>	73	61.1	31.6	714	57.6	31.8
<b>Sex</b>						
<b>Female</b>	83	25.5	35.9	893	26.4	39.7
<b>Male</b>	148	43.8	64.1	1,354	38.4	60.3
<b>Race/ethnicity</b>						
<b>Black, non-Hispanic</b>	114	41.5	49.4	1,064	36.2	47.4
<b>White, non-Hispanic</b>	104	31.7	45.0	1,075	31.5	47.8
<b>Other, non-Hispanic</b>	10	36.1	4.3	60	23.1	2.7
<b>Hispanic</b>	3	9.0	1.3	48	16.6	2.1

Note:

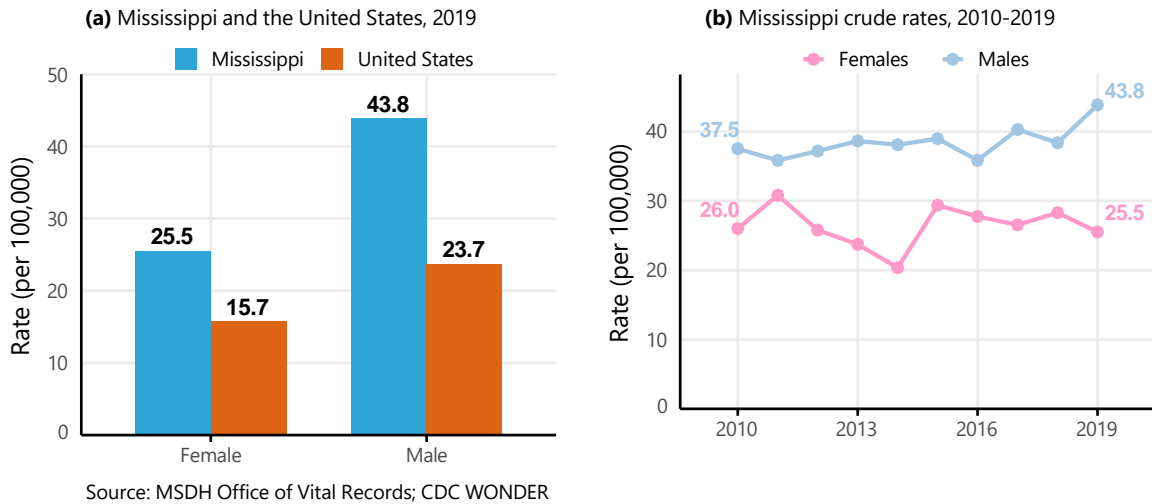
Rates calculated as per 100,000 population

**Figure 1:** Child death rates for ages 1-17, Mississippi and the United States, 2010-2019



Since 2010, the child death rate for Mississippi children ages 1-17 has slightly increased from 31.9 to 34.8 (per 100,000 population) while consistently remaining higher than the rate for children 1-17 in the United States (Figure 1). Out of 49 rankable states, death rates for children ages 1-17 in 2019 for Mississippi ranked 49th with the highest death rate for ages 1-17 (CDC WONDER).

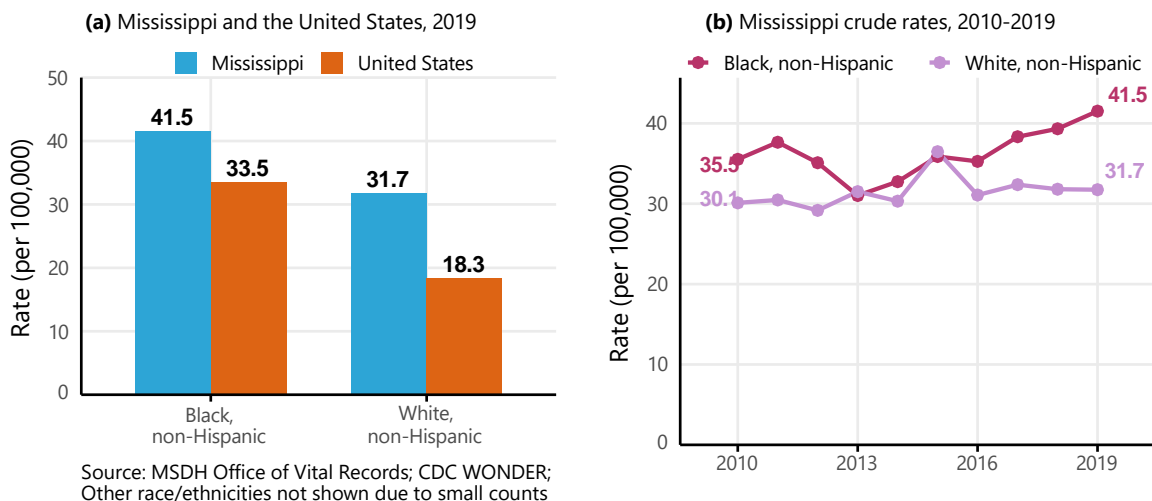
**Figure 2:** Children ages 1-17, death rates by sex



Mississippi’s death rate for males ages 1-17 in 2019 was 43.8 compared to the national male rate of 23.7 (Figure 2a). The death rate for females ages 1-17 was 25.5 compared to the national rate of 15.7. Mississippi ranked 48th out of 49 rankable states for death rates of females ages 1-17 in 2019, and out of 50 rankable states for males, Mississippi ranked 49th (CDC WONDER).

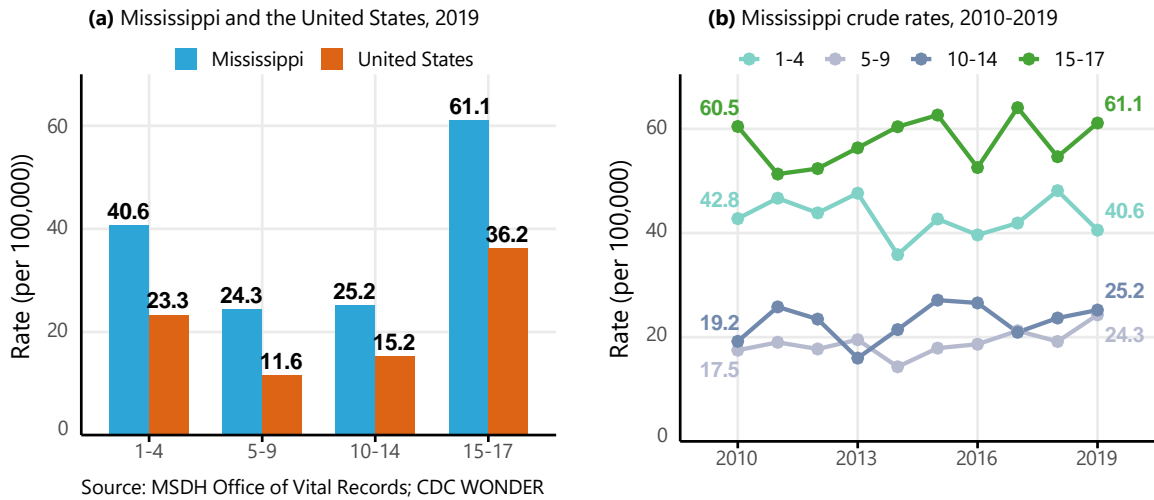
Mississippi’s death rate for Black, non-Hispanic children ages 1-17 in 2019 was 41.5 compared to the national rate of 33.5. The death rate for White, non-Hispanic was 31.7 compared to the national rate of 18.3 (Figure 3a). Out of 34 rankable states for death rates of Black, non-Hispanic children in 2019, Mississippi ranked 24th, and out of 49 rankable states for White, non-Hispanic children, Mississippi ranked 49th (CDC WONDER).

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



The death rate for Mississippi children ages 15-17 was 61.1 while the US death rate was 36.2 (Figure 4a). The rate for Mississippi ages 1-4 was 40.6 compared to the US death rate was 23.2. Over the period of 2010-2019, age groups of 15-17 and 1-4 have consistently had higher death rates than other age groups among children 1-17 (Figure 4b).

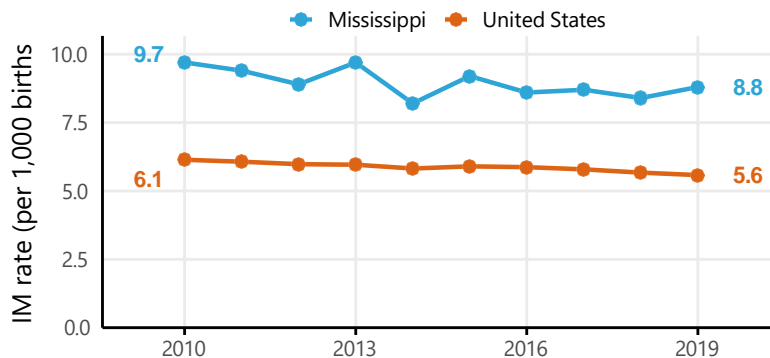
**Figure 4:** Children ages 1-17, death rates by age group (years)



## Infant Mortality

Since 2010, the infant mortality rate for Mississippi infants has slightly decreased from 9.7 to 8.8 (per 1,000 births) while consistently remaining higher than the infant mortality rate for the United States (Figure 5). Out of 50 rankable states of infant mortality in 2019, Mississippi ranked 50th with the highest infant mortality rate (CDC WONDER). In 2019, a total of 322 infant deaths occurred in Mississippi (Table 2). Males accounted for 58.4% of infant deaths, whereas females accounted for 41.6% of deaths. A total of 186 deaths (57.8%) occurred among Black, non-Hispanic infants, and 119 deaths (37%) occurred among White, non-Hispanic infants.

**Figure 5:** Infant mortality rates, Mississippi and the United States, 2010-2019





**Table 2:** Infant deaths, 2010-2019 Mississippi resident deaths

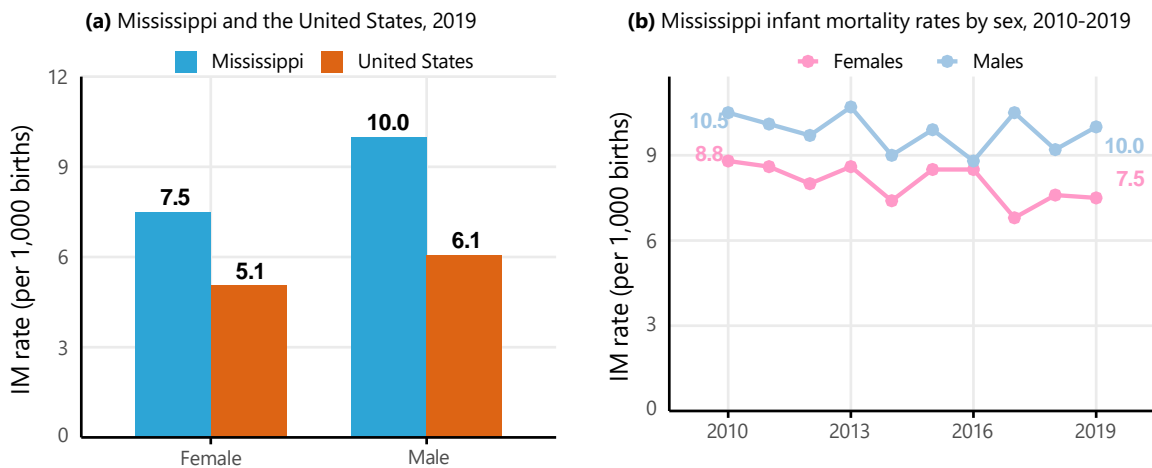
	2019			2010-2019 Total		
	Count	IM rate	%	Count	IM rate	%
<b>Total</b>	322	8.8	100.0	3,434	9.0	100.0
<b>Sex</b>						
Female	134	7.5	41.6	1,513	8.0	44.1
Male	188	10.0	58.4	1,921	9.9	55.9
<b>Race/ethnicity</b>						
Black, non-Hispanic	186	11.8	57.8	2,014	12.3	58.6
White, non-Hispanic	119	6.5	37.0	1,265	6.5	36.8
Other, non-Hispanic	7	7.2	2.2	74	8.4	2.2
Hispanic	10	5.9	3.1	80	5.3	2.3

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

Mississippi’s infant mortality rate for males in 2019 was 10.0 compared to the national male rate of 6.1 (Figure 6a). The infant mortality rate for females was 7.5 compared to the national rate of 5.1. Out of 48 rankable states of infant mortality for females in 2019, Mississippi ranked 46th, and out of 49 rankable states for males, Mississippi ranked 49th (CDC WONDER).

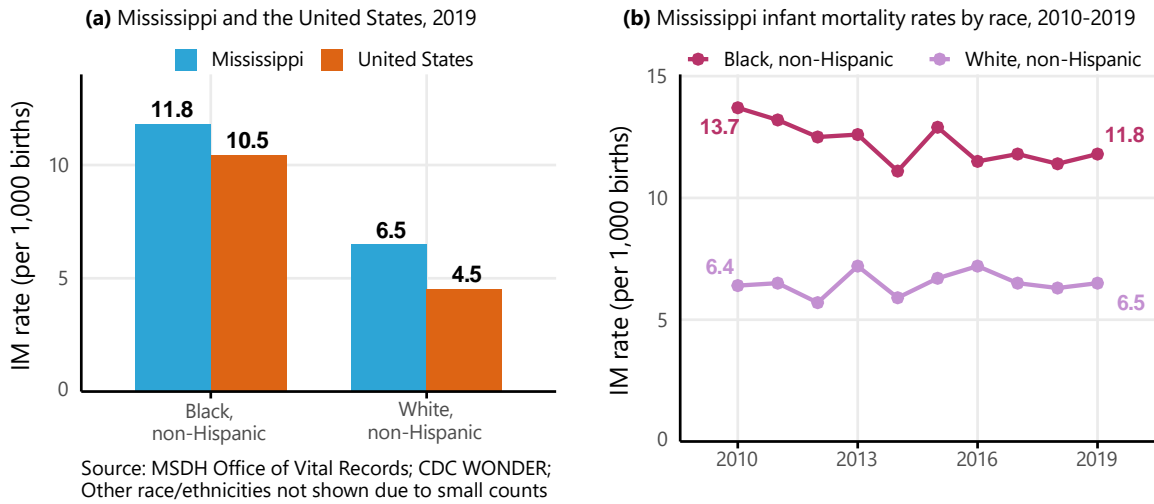
Mississippi’s infant mortality rate for Black, non-Hispanic children in 2019 was 11.8 compared to the national rate of 10.5 (Figure 7a). The infant mortality rate for White, non-Hispanic infants was 6.5 compared to the national rate of 4.5. Out of 37 rankable states, infant mortality for Black, non-Hispanic infants in 2019 for Mississippi ranked 24th, and out of 50 rankable states for White, non-Hispanic infants, Mississippi ranked 49th (CDC WONDER).

**Figure 6:** Infant mortality, rates by Sex



Source: MSDH Office of Vital Records; CDC WONDER

**Figure 7: Infant mortality, rates by race**



## Causes of Child and Infant Death

In 2019, there were 553 Mississippi infant and child resident deaths (Table 3). Of these deaths, 331 (59.9%) were due to natural causes, and 222 (40.1) were due to injuries or violence related to accidents, homicides, suicides, and other external and undetermined causes. Sudden unexpected infant deaths accounted for 72 cases (32.4% of external causes) and motor vehicle/other transport accidents accounted for 50 cases (22.5% of external causes). Firearm-related deaths accounted for 16.2% of cases, and homicide and suicide deaths accounted for 12.2% and 8.6% of deaths, respectively. Of the external and undetermined causes, a total of 88 cases were reviewed by the Child Death Review Committee.

**Table 3: Child deaths by cause of death, ages 0-17, 2019 Mississippi resident deaths**

Cause of Death	Count	% of all deaths	% of external deaths
<b>All deaths</b>	553	100.0	–
<b>Natural causes</b>	331	59.9	–
<b>External causes</b>	222	40.1	100.0
<b>SUID</b>			
<b>SUID - All SUID</b>	72	13.0	32.4
— SUID - SIDS	28	5.1	12.6
— SUID - ASSB	12	2.2	5.4
— SUID - unknown	32	5.8	14.4
<b>Motor vehicle/transport</b>	50	9.0	22.5
<b>Firearm</b>	36	6.5	16.2
<b>Homicide</b>	27	4.9	12.2
<b>Suicide</b>	19	3.4	8.6
<b>Drowning</b>	21	3.8	9.5
<b>Fire</b>	19	3.4	8.6

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

## Causes of Death and Review Findings

### Sudden Unexpected Infant Deaths (SUID)

In 2019, there were 72 infant deaths classified as sudden unexpected infant deaths (SUID) (Table 4). ‘SUID’ describes the death of an infant younger than 1 year of age that occurs suddenly and unexpectedly. Sudden unexpected infant deaths often occur in the sleep environment or during sleep. Sudden unexpected infant deaths fall into three major causes of death: sudden infant death syndrome (SIDS), accidental suffocation and strangulation in bed (ASSB), or unknown cause of death.

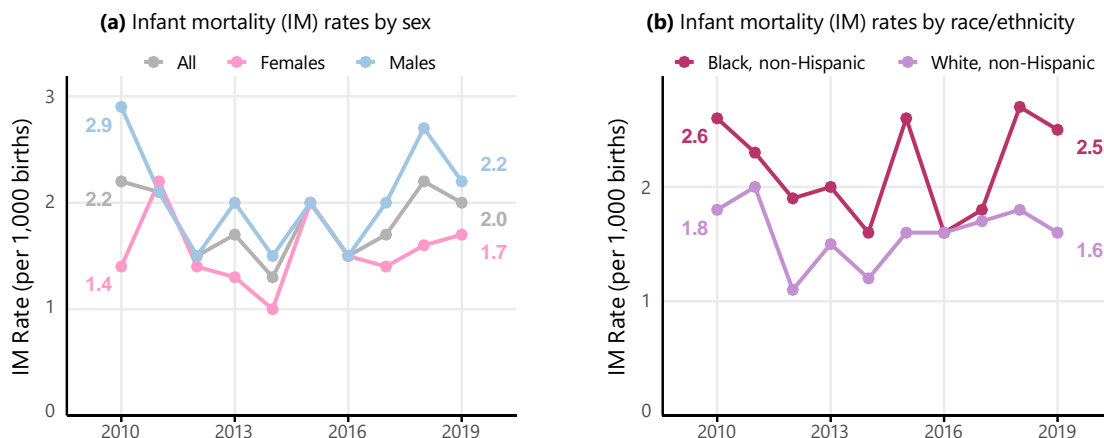
**Table 4:** Infant SUID deaths and infant mortality (IM) rates, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	IM rate	%	Count	IM rate	%
<b>Total</b>	72	2.0	100.0	694	1.8	100.0
<b>Sex</b>						
<b>Female</b>	30	1.7	41.7	292	1.6	42.1
<b>Male</b>	42	2.2	58.3	402	2.1	57.9
<b>Race/ethnicity</b>						
<b>Black, non-Hispanic</b>	39	2.5	54.2	353	2.2	50.9
<b>White, non-Hispanic</b>	29	1.6	40.3	310	1.6	44.7
<b>Other, non-Hispanic</b>	2	2.0	2.8	16	1.8	2.3
<b>Hispanic</b>	2	1.2	2.8	15	1.0	2.2
<b>Cause group</b>						
<b>SIDS</b>	28	0.8	38.9	204	0.5	29.4
<b>ASSB</b>	12	0.3	16.7	130	0.3	18.7
<b>Unknown</b>	32	0.9	44.4	360	0.9	51.9

Note:

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

**Figure 8:** SUID infant deaths by sex and race/ethnicity, Mississippi, 2010-2019





## Motor Vehicle and Transport Child Deaths

In 2019, there were 50 child motor vehicle accident (MVA) deaths. Of the 50 MVA deaths, 33 cases (66%) were male and 17 cases (34%) were female; 24 cases (48%) were Black, non-Hispanic, 23 cases (46%) were White, non-Hispanic, 3 cases (6.0%) was Other, non-Hispanic, and 0 cases were Hispanic (Table 3). Children ages 14-17 accounted for 22 cases (44%), ages 5-13 accounted for 18 cases (36%), and children (0-4) accounted for 10 cases (20%).

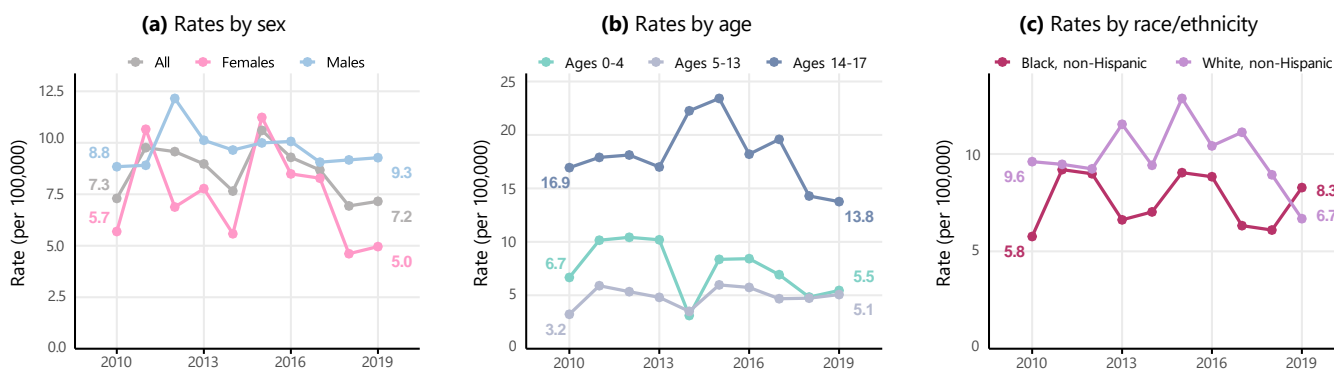
**Table 5:** Child motor vehicle accident (MVA) and transport deaths by age, sex, and race/ethnicity, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	50	7.2	100.0	626	8.6	100.0
<b>Age (years)</b>						
0-4 years	10	5.5	20.0	146	7.5	23.3
5-13 years	18	5.1	36.0	180	4.9	28.8
14-17 years	22	13.8	44.0	300	18.2	47.9
<b>Sex</b>						
Female	17	5.0	34.0	265	7.4	42.3
Male	33	9.3	66.0	361	9.7	57.7
<b>Race/ethnicity</b>						
Black, non-Hispanic	24	8.3	48.0	237	7.6	37.9
White, non-Hispanic	23	6.7	46.0	357	9.9	57.0
Other, non-Hispanic	3	10.3	6.0	21	7.6	3.4
Hispanic	0	0.0	0.0	11	3.6	1.8

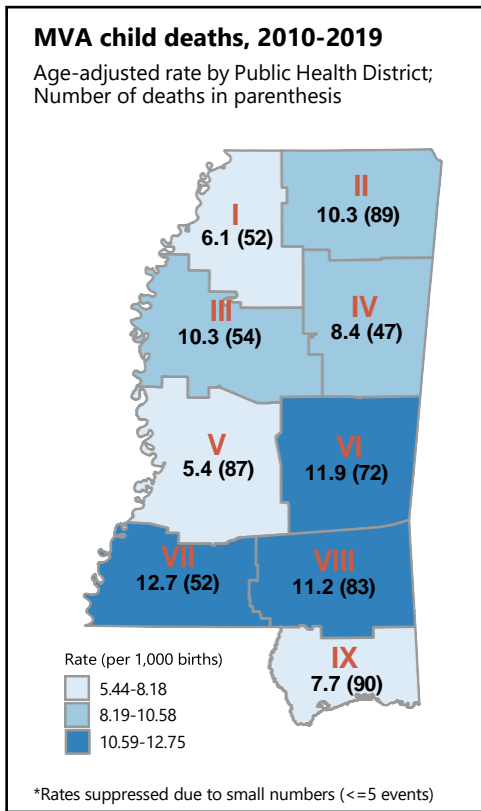
Note:

Rates calculated as per 100,000 population

**Figure 10:** Child motor vehicle and transport deaths by sex, age, and race/ethnicity, 2010-2019



**Figure 11:** Motor vehicle accident deaths by Public Health District, 2010-2019



A total of 15 MVA cases were reviewed by the CDRP, although case information was collected for 38 total cases for internal review. Of reviewed cases, 43.3% of deaths were unrestrained, 36.7% were restrained, and 20% included unknown safety restraint usage. Of reviewed records, 55.3% of MVA deaths were passengers, 21.2% were drivers, and 13.2% were pedestrians. An additional 5.3% were all terrain vehicle (ATV) passengers, and 2.6% were ATV drivers.

Among reviewed cases, 47.3% of MVA deaths occurred on either a state or US highway, 18.4% occurred on an interstate, 15.8% occurred on a county road, and 10.5% occurred on a city street. Single car accidents accounted for 45% of all MVA deaths, while multiple car accidents accounted for 55%.

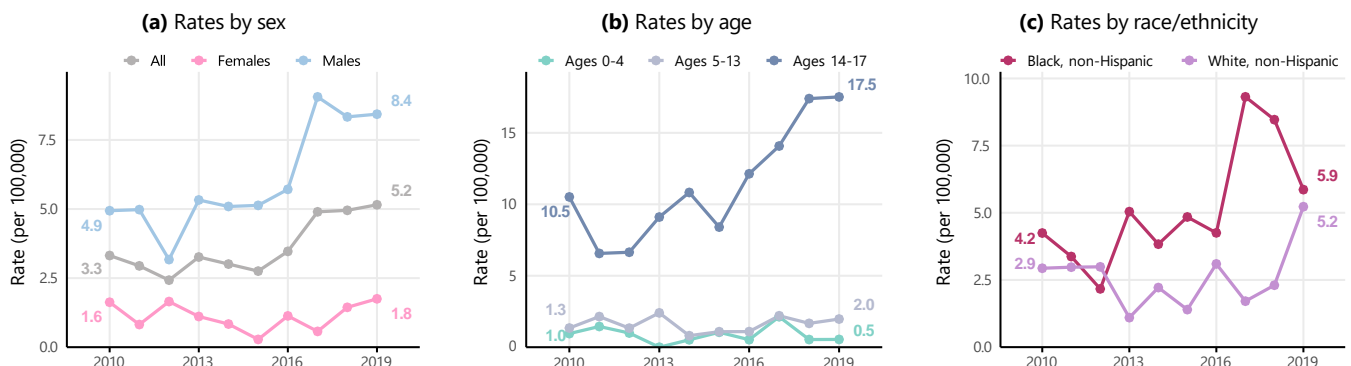
The child MVA death rate between 2010 and 2019 has remained higher for males than females (Figure 10a), with the 2019 rate at 9.3 for males and 5.0 for females. Although the White, non-Hispanic rate was higher than Black, non-Hispanic, throughout the majority of 2010-2019, the Black, non-Hispanic rate was higher in 2019 with a rate of 8.3 compared to the White rate of 6.7 (Figure 10c).

The highest number of child MVA deaths occurred in Public Health District 9 (90 deaths) and District 2 (89 deaths) in 2010-2019 (Figure 11). The highest death rates occurred in District 7 (12.7), District 6 (11.9), and District 8 (11.2).

### Firearm-related Child Deaths

Child firearm-related deaths include homicide, suicide, and unintentional death resulting from a firearm. In 2019, there were 36 child firearm-related deaths and 30 cases (83.3%) were male and 6 cases (16.7%) were female (Table 6); 17 cases (47.2%) were Black, non-Hispanic, 18 cases (50%) were White, non-Hispanic, and 1 case was Other, non-Hispanic. Children ages 14-17 accounted for 28 cases (77.8%).

**Figure 12:** Child firearm-related deaths by sex, age, and race/ethnicity, 2010-2019



**Table 6:** Child firearm deaths by age, sex, and race/ethnicity, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	36	5.2	100.0	262	3.6	100.0
<b>Age (years)</b>						
<b>0-4 years</b>	1	0.5	2.8	17	0.9	6.5
<b>5-13 years</b>	7	2.0	19.4	59	1.6	22.5
<b>14-17 years</b>	28	17.5	77.8	186	11.3	71.0
<b>Sex</b>						
<b>Female</b>	6	1.8	16.7	40	1.1	15.3
<b>Male</b>	30	8.4	83.3	222	6.0	84.7
<b>Race/ethnicity</b>						
<b>Black, non-Hispanic</b>	17	5.9	47.2	158	5.1	60.3
<b>White, non-Hispanic</b>	18	5.2	50.0	93	2.6	35.5
<b>Other, non-Hispanic</b>	1	3.4	2.8	5	1.8	1.9
<b>Hispanic</b>	0	0.0	0.0	6	2.0	2.3

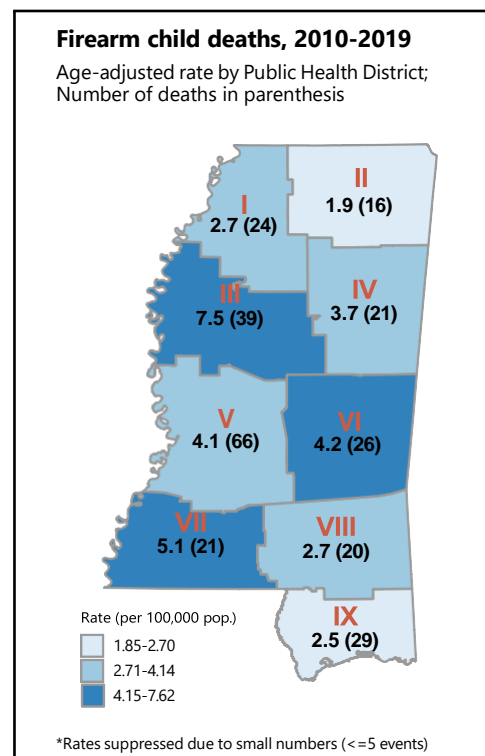
Note:

Rates calculated as per 100,000 population

**Figure 13:** Child firearm related deaths by Public Health District, 2010-2019

A total of 262 child firearm-related deaths occurred between 2010 and 2019 (Table 6). The child death rate due to firearm-related deaths has increased from 3.3 in 2010 to 5.2 in 2019 (Figure 12a). The rate for males has remained higher than females, and the rate for ages 14-17 has steadily been the highest age group over the ten year period (Table 12b). Additionally, the rate for Black, non-Hispanic children (5.9) was higher in 2019 than the rate for White, non-Hispanic children (5.2) (Figure 12c).

By Public Health District for 2010-2019 (Figure 13), the highest number of child firearm-related deaths occurred in District 5 with 66 cases, but the highest rates occurred in District 3 (7.5), District 7 (5.1), and District 6 (4.2).



## Suicide Child Deaths

In 2019, there were 19 child suicide deaths. Of the 19 suicide deaths, 16 cases (84.2%) were male and 3 cases (15.8%) were female; 1 case (5.3%) was Black, non-Hispanic, 17 cases (89.5%) were White, non-Hispanic, 1 case (5.3%) was Other, non-Hispanic, and 0 cases were Hispanic (Table 7). Children ages 14-17 accounted for 15 cases (78.9%), and ages 5-13 accounted for 4 cases (21.1%)

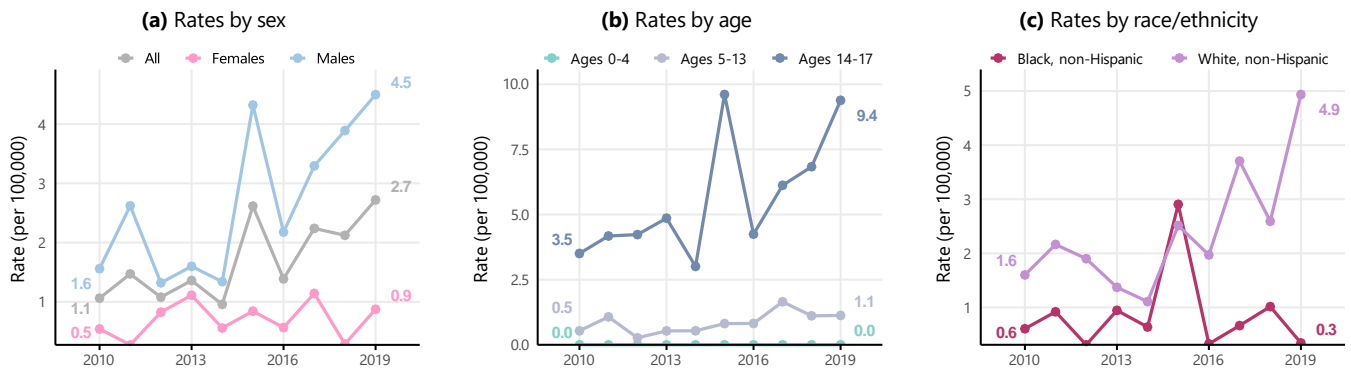
**Table 7:** Child suicide deaths by age, sex, and race/ethnicity, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	19	2.7	100.0	123	1.7	100.0
<b>Age (years)</b>						
0-4 years	0	0.0	0.0	0	0.0	0.0
5-13 years	4	1.1	21.1	31	0.8	25.2
14-17 years	15	9.4	78.9	92	5.6	74.8
<b>Sex</b>						
Female	3	0.9	15.8	25	0.7	20.3
Male	16	4.5	84.2	98	2.6	79.7
<b>Race/ethnicity</b>						
Black, non-Hispanic	1	0.3	5.3	27	0.9	22.0
White, non-Hispanic	17	4.9	89.5	85	2.4	69.1
Other, non-Hispanic	1	3.4	5.3	6	2.2	4.9
Hispanic	0	0.0	0.0	5	1.6	4.1

Note:

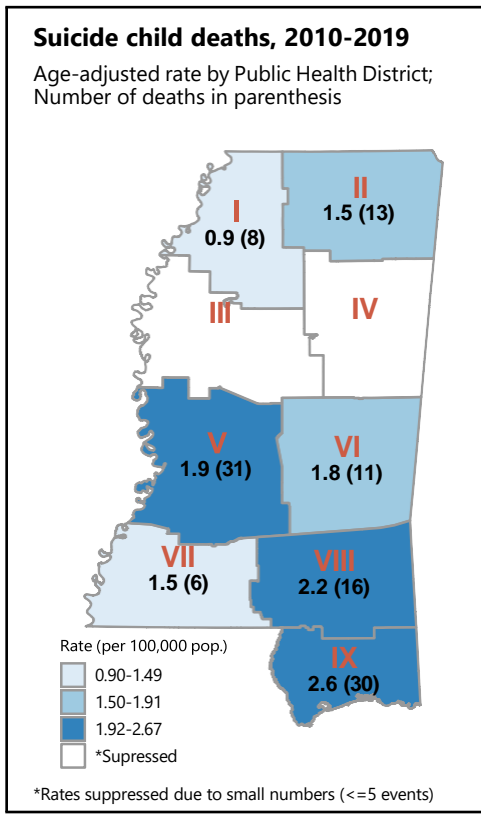
Rates calculated as per 100,000 population

**Figure 14:** Child suicide deaths by age, race/ethnicity, and sex, 2010-2019





**Figure 15:** Suicide deaths by Public Health District, 2010-2019



A total of 10 cases were reviewed by the CDRP. Of the 10 cases, all occurred in the 15-17 age group, and all were due to bodily force or weapons. Between 2010 and 2019, a total of 123 child deaths were classified as suicide deaths.

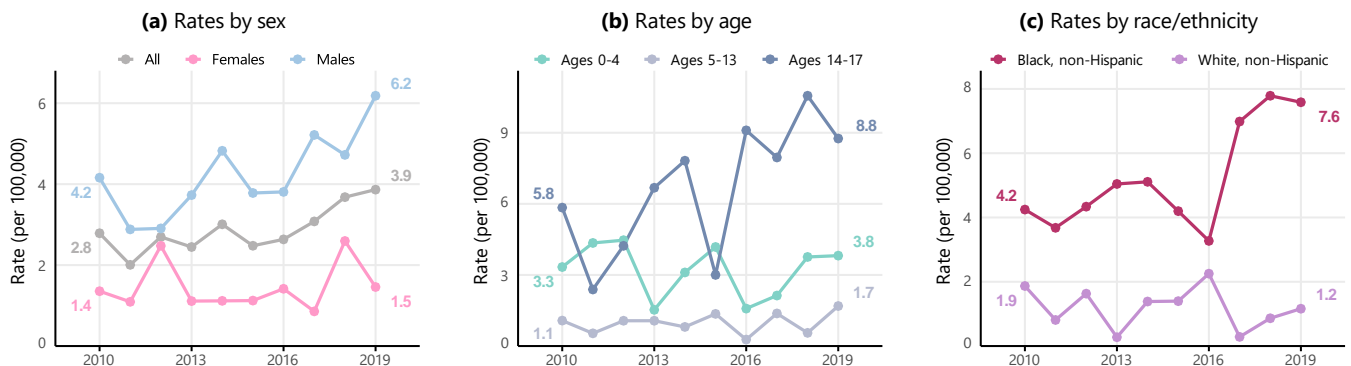
The child fatality rate for suicides between 2010 and 2019 has remained higher for males than females (Figure 14a), with the 2019 rate at 4.5 for males and 0.9 for females. The rate for White, non-Hispanic children remains higher than Black, non-Hispanic, with rates of 4.9 and 0.3 in 2019, respectively (Figure 14c).

By Public Health District for 2010-2019, the highest number of suicide deaths occurred in District 5 with 31 deaths and District 9 with 30 deaths. The highest suicide death rates also occurred in District 9 (2.6), District 5 (1.9), and District 8 (2.2) (Figure 15).

## Homicide Child Deaths

In 2019, there were 27 child homicide deaths. Of the 27 homicide deaths, 22 cases (81.5%) were male and 5 cases (18.5%) were female; 22 cases (81.5%) were Black, non-Hispanic, 4 cases (14.8%) were White, non-Hispanic, 1 case (3.7%) was Other, non-Hispanic, and 0 cases were Hispanic (Table 8). Children ages 14-17 accounted for 14 cases (51.9%), ages 5-13 accounted for 6 cases (22.2%), and children (0-4) accounted for 7 cases (25.9%).

**Figure 16:** Child homicide deaths by sex, age, and race/ethnicity, 2010-2019



**Table 8:** Child homicide deaths by age, sex, and race/ethnicity, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	27	3.9	100.0	208	2.9	100.0
<b>Age (years)</b>						
0-4 years	7	3.8	25.9	63	3.2	30.3
5-13 years	6	1.7	22.2	36	1.0	17.3
14-17 years	14	8.8	51.9	109	6.6	52.4
<b>Sex</b>						
Female	5	1.5	18.5	52	1.5	25.0
Male	22	6.2	81.5	156	4.2	75.0
<b>Race/ethnicity</b>						
Black, non-Hispanic	22	7.6	81.5	161	5.2	77.4
White, non-Hispanic	4	1.2	14.8	43	1.2	20.7
Other, non-Hispanic	1	3.4	3.7	2	0.7	1.0
Hispanic	0	0.0	0.0	2	0.7	1.0

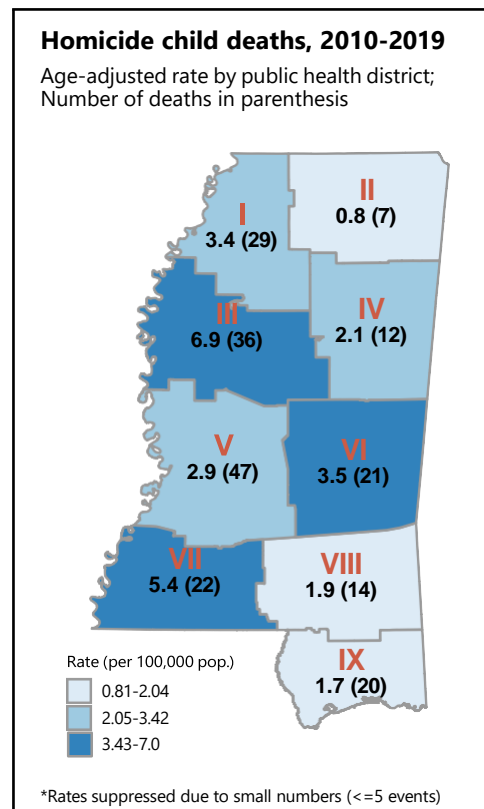
Note:  
Rates calculated as per 100,000 population

**Figure 17:** Child homicide deaths by Public Health District, 2010-2019

A total of 8 child homicide cases were extensively reviewed by the CDRP, but records were collected for internal review on 27 cases. Of the 27 homicides reviewed, 23 cases included bodily force or a weapon, 1 case was due to drowning, and 3 cases were homicides of either unknown or undetermined cause.

Between 2010 and 2019, a total of 208 child deaths were classified as homicides (Table 8). The child death rate for homicide has increased from 2.8 in 2010 to 3.9 in 2019 (Figure 16a). The child homicide rate for males has remained higher than females, and the rate for Black, non-Hispanic children was over 6 times the rate of White, non-Hispanic children in 2019 (Figure 16c).

By Public Health District for 2010-2019 (Figure 17), the highest number of child homicide deaths occurred in District 5 with 47 cases, but the highest rates occurred in District 3 (6.9), District 7 (5.4), and District 6 (3.5).



## Fire-related Child Deaths

In 2019, there were 19 child fire-related deaths. Of the 19, 16 cases (84.2%) were male and 3 cases (15.8%) were female; 1 case (5.3%) was Black, non-Hispanic, 17 cases (89.5%) were White, non-Hispanic, 1 case (5.3%) was Other, non-Hispanic, and 0 cases were Hispanic (Table 9). Children ages 14-17 accounted for 15 cases (78.9%), ages 5-13 accounted for 4 cases (21.1%), and children 0-4 accounted for 0 cases.

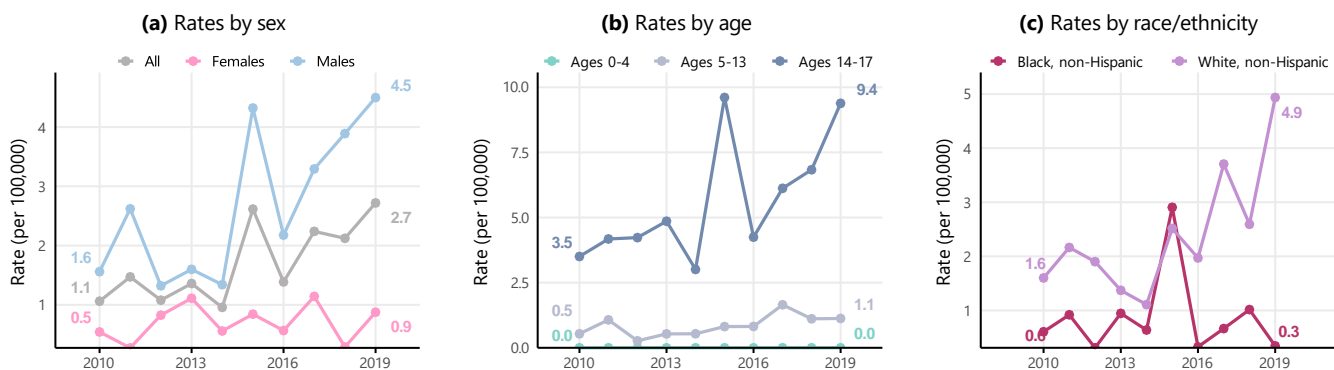
**Table 9:** Child fire-related deaths by age, sex, and race/ethnicity, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	19	2.7	100.0	123	1.7	100.0
<b>Age (years)</b>						
0-4 years	0	0.0	0.0	0	0.0	0.0
5-13 years	4	1.1	21.1	31	0.8	25.2
14-17 years	15	9.4	78.9	92	5.6	74.8
<b>Sex</b>						
Female	3	0.9	15.8	25	0.7	20.3
Male	16	4.5	84.2	98	2.6	79.7
<b>Race/ethnicity</b>						
Black, non-Hispanic	1	0.3	5.3	27	0.9	22.0
White, non-Hispanic	17	4.9	89.5	85	2.4	69.1
Other, non-Hispanic	1	3.4	5.3	6	2.2	4.9
Hispanic	0	0.0	0.0	5	1.6	4.1

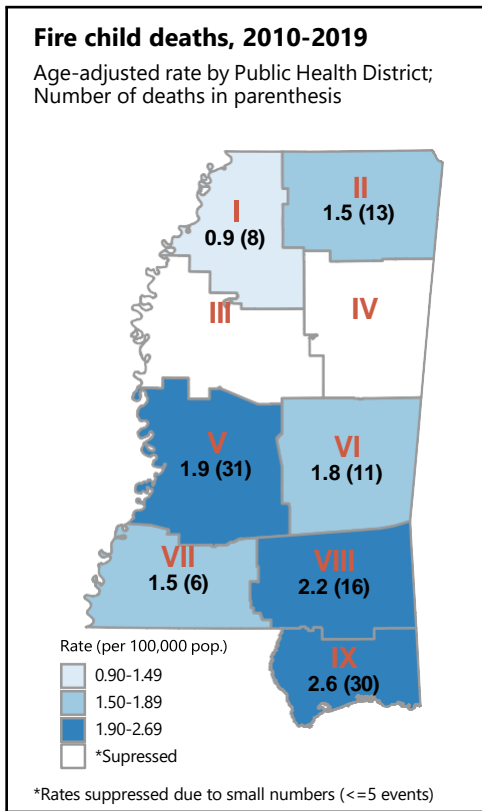
Note:

Rates calculated as per 100,000 population

**Figure 18:** Child fire deaths by sex, age, and race/ethnicity, 2010-2019



**Figure 19:** Child fire deaths by Public Health District, 2010-2019



A total of 4 child fire cases were reviewed by the CDRP. Of the deaths reviewed, 3 cases (75%) occurred inside a mobile home and 1 case (25%) occurred inside a single home building.

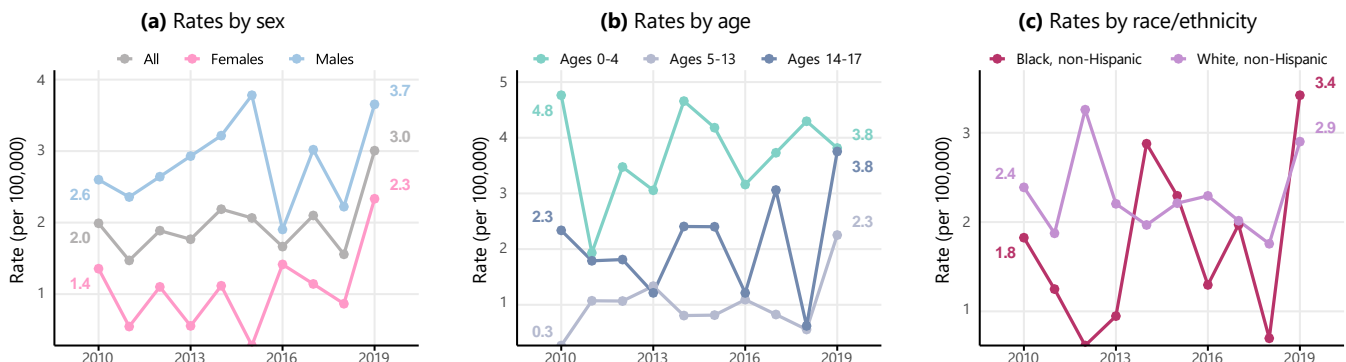
A total of 123 child fire-related deaths occurred between 2010 and 2019 (Table 9). The child death rate due to fire increased from 1.1 in 2010 to 2.7 in 2019 (Figure 18a). The rate for males remained higher than females over the ten-year period with a rate of 4.5 in 2019 compared to the female rate of 0.9. The rate for White, non-Hispanic children (4.9 in 2019) also remained higher than the rate of Black, non-Hispanic children in 2019 (0.3) (Figure 18c).

By Public Health District for 2010-2019 (Figure 19), the highest number of child fire-related deaths occurred in District 5 with 31 cases, but the highest rates occurred in District 9 (2.6), District 8 (2.2), and District 5 (1.9).

## Drowning Child Deaths

In 2019, there were 21 child drowning deaths. Of the 21 drowning deaths, 13 cases (61.9%) were male and 8 cases (38.1%) were female; 10 cases (47.6%) were Black, non-Hispanic, 10 cases (47.6%) were White, non-Hispanic, 0 cases were Other, non-Hispanic, and 1 case was Hispanic (4.8%) (Table 10). Children ages 14-17 accounted for 6 cases (28.6%), ages 5-13 accounted for 8 cases (38.1%), and children (0-4) accounted for 7 cases (33.3%).

**Figure 20:** Child drowning deaths by sex, age, and race/ethnicity, 2010-2019



**Table 10:** Child drowning deaths by age, sex, and race/ethnicity, 2010-2019 Mississippi resident deaths

	2019			2010-2019 Total		
	Count	Rate	%	Count	Rate	%
<b>Total</b>	21	3.0	100.0	143	2.0	100.0
<b>Age (years)</b>						
0-4 years	7	3.8	33.3	72	3.7	50.3
5-13 years	8	2.3	38.1	37	1.0	25.9
14-17 years	6	3.8	28.6	34	2.1	23.8
<b>Sex</b>						
Female	8	2.3	38.1	38	1.1	26.6
Male	13	3.7	61.9	105	2.8	73.4
<b>Race/ethnicity</b>						
Black, non-Hispanic	10	3.4	47.6	53	1.7	37.1
White, non-Hispanic	10	2.9	47.6	82	2.3	57.3
Other, non-Hispanic	0	0.0	0.0	4	1.5	2.8
Hispanic	1	2.9	4.8	4	1.3	2.8

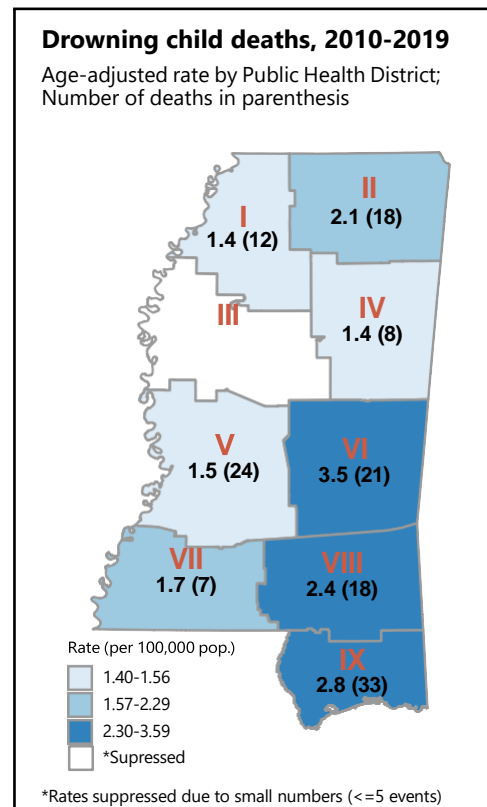
Note:  
Rates calculated as per 100,000 population

**Figure 21:** Child drowning deaths by Public Health District, 2010-2019

A total of 11 child drowning cases were reviewed. Eight cases (72.7%) occurred at a lake, river, pond, or creek, and 3 cases (27.3%) occurred inside a bathtub. Case reviews determined that children could not swim in 3 of the deaths (27.3%). There were no barriers to the water in 3 cases (27.3%), children were not supervised in 4 cases (36.4%), and alcohol/drugs were involved in 2 cases (18.2%).

Between 2010 and 2019, a total of 143 child deaths were classified as drownings (Table 10). The death rate has increased from 2.0 in 2010 to 3.0 in 2019 (Figure 20a). The rate for males has remained higher than females, the rate for ages 0-4 has steadily been the highest age group over the ten year period (Table 20b), and the rate for Black, non-Hispanic children (3.4) was higher in 2019 than the rate for White, non-Hispanic children (2.9) (Figure 20c).

By Public Health District for 2010-2019 (Figure 21), the highest number of child drowning deaths occurred in District 9 with 33 cases, but the highest rates occurred in District 6 (3.5), District 9 (2.8), and District 8 (2.4).



## Recommendations and Prevention Efforts

The Mississippi 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.

### State Leaders:

- Engage with legislators about CDRP recommendations beyond the annual report.
- Representatives from the Mississippi Department of Mental Health should continue suicide prevention efforts in school systems.
- Improve communication with the Medical Examiner's Office about adherence to Miss. Code Ann. § 63-11-8.
- Develop partnerships to address the issue of delayed toxicology and how the delay impacts other systems (i.e., Vital Records, CPS, judicial system, etc.).
- Create 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.

### Healthcare System and Providers:

- Create protocols for drug screening during prenatal visits and admission to labor and delivery and how to handle false positives.
- Provide drowning education at well child visit for older children.
- Advocate that supervision is the main protective factor against drowning deaths.

### Local Leaders, Communities, and Families:

- Establish a consistent "ABCs of Safe Sleep" campaign to address co-bedding and misinformation about sleep products for babies.
- Create an awareness campaign to address child abuse and neglect among 1-4 years old.
- Change the "normal" for communities that experience high numbers of infant and child deaths.
- Incorporate family or community representatives from counties with the highest number of infant and child deaths to learn about what resources are currently available, what additional support is needed, and to guide recommendations for next steps.