Arkansas Infant and Child Death Review Program

FY 19 report on deaths occurring in 2017

Compiled by:

Arkansas Infant and Child Death Review Program

Arkansas Children's Hospital Injury Prevention Center

Funding provided by:

The Family Health Branch of the Arkansas Department of Health (ADH)

Key notes about this Report

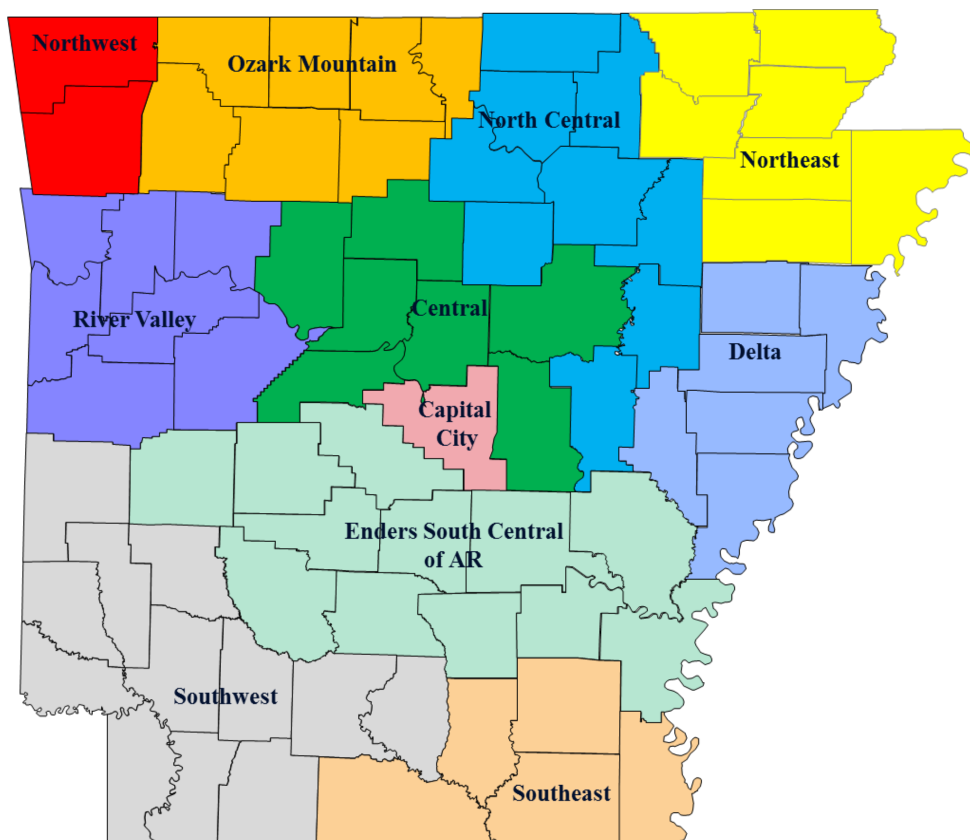
Arkansas Infant and Child Death Review Program Vision and Mission Statement

Vision Statement: Eliminate all preventable infant and child deaths in Arkansas.

Mission Statement: To review all unexpected infant and child deaths in the state of Arkansas. These reviews result in the development of interventions and recommendations through multidisciplinary team collaboration, community education and policy.

- Previous annual reports were compiled on a calendar year, rather than fiscal year, resulting in duplicate death data being reported. For clarity, this annual report is being reported on a fiscal year, matching the funding stream, and is only covering cases in which the child death occurred in 2017.

- Although coding guides (ICD-10) use the term "accident" as a manner of death experts in the field refer to injuries as unintentional. The word accident imparts a sense that nothing can be done when in reality injuries are predictable and preventable. This report will utilize accident as appropriate for this report.



Introduction
The Infant and Child Death Review Process: Purpose and Data

KEY FINDINGS

- In 2017, there were 457 child deaths between the 0-17 years of age
- Among the 457 all-cause deaths, 188 (41%) cases were eligible for review by local ICDR teams.
- In 2016, 78% of eligible cases were reviewed. In 2017, 79% of eligible cases were reviewed.

OF 2017 CASES REVIEWED (N=149)

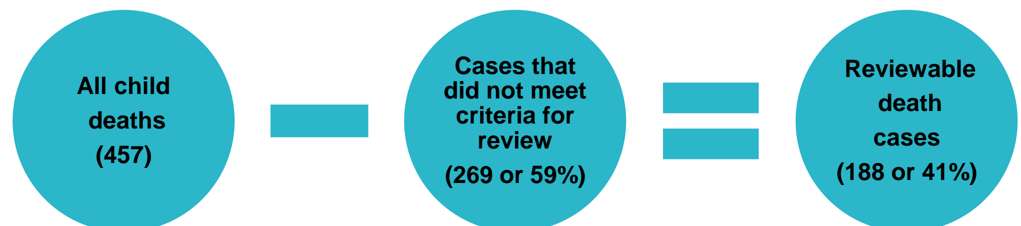
- Fifty-four percent were accidents, with motor-vehicle crashes and asphyxia being the leading causes of accidental death.
- Forty-six percent of all preventable deaths were among children $\leq$ 1 years of age, followed by 15-17 years of age at 26%.

Overview: Established in 2010, the Arkansas (AR) Infant and Child Death Review (ICDR) Program has expanded to 11 regional teams that review unexpected deaths of Arkansas children under the age of 18. The teams cover all 75 Arkansas counties, giving the ICDR Program the potential to evaluate 100% of reviewable pediatric deaths, as required by ACT 1818 of 2005. All local team members work and/or reside in the area of the team they serve, which allows firsthand insight into the local environment and needs of the community.

Case Selection: Under ACT 1818 of 2005, cases that are reviewable meet the following criteria:

1. Child was not under the care of a licensed physician for treatment of an illness/condition that contributes to the cause of death (IE cancer, prematurity, congenital abnormalities etc.).
2. Death was due to Sudden Infant Death Syndrome (SIDS)
3. Death was due to an unknown cause
4. Death is not under criminal investigation or being prosecuted

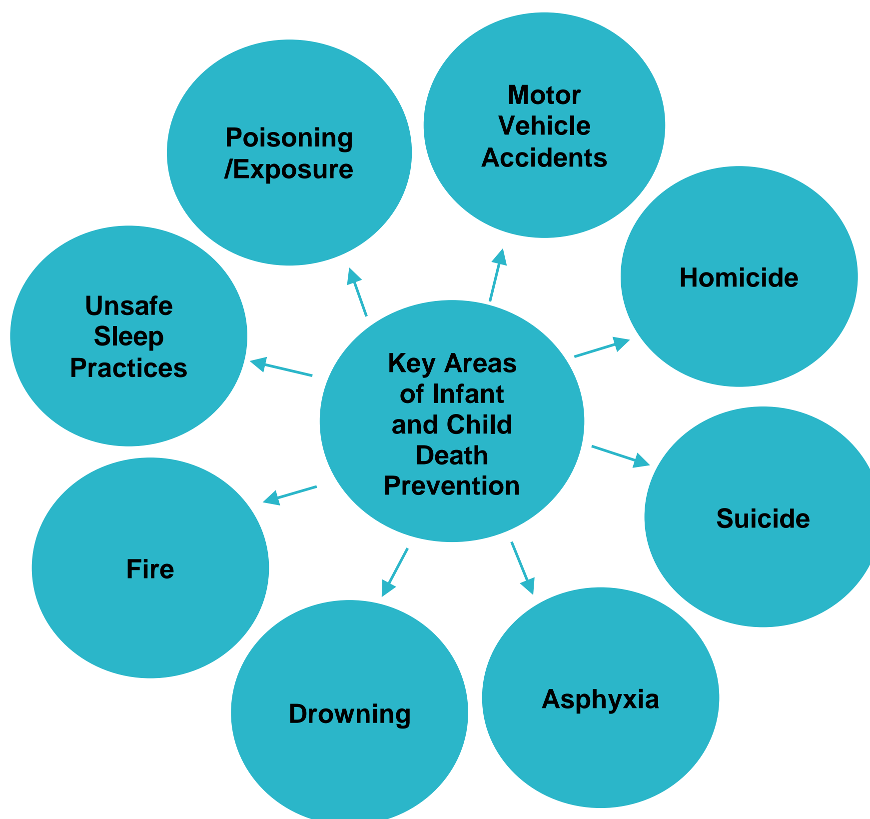
CDR Data: Information collected from multiple disciplines at a case review are entered into the National Center for Fatality Review and Prevention (NCFRP) data base. The data is analyzed to generate an overview and in-depth annual report on the cases reviewed by the local ICDR teams. Key data entered into the NCFRP database are derived from death/birth certificates, child health records, autopsy reports, coroner's reports, sudden unexplained infant death investigation (SUIDI) forms, toxicology reports, witness interviews, on-scene investigation reports and any other documentation that teams identify as helpful in a review in order to make effective prevention recommendations.



Goal of the Infant and Child Death Review Program

The ICDR Program remains committed to the goal of reducing preventable child death in Arkansas. This effort requires the steadfast commitment of all local team members, ICDR Program staff staying abreast of best practices regarding child death reviews, and the assistance of partner organizations for expertise in prevention strategies. Specific goals for the ICDR Program include:

- Monitor and train all local teams and members.
- Provide resources for specific team recommendations and monitoring of teams carrying out recommendations.
- Identify and implement additional targeted prevention campaigns with local team support.



Annual Report Executive Summary

The total infant and child deaths (ages 0-17) in Arkansas for 2017 was 457 deaths, of those 188 (41%) were eligible for review and 149 (79%) of the eligible cases were reviewed.

General statistics for 2017 deaths:

- Accidental deaths increased while undetermined death decreased: This is due to the improved quality of death investigations and reporting system across the state.
- Between 2015-2017 there is a decrease trend in deaths among children 5-9 years old and an increase trend in deaths among children 10-14 years old.

Death statistics by manner of death for 2017:

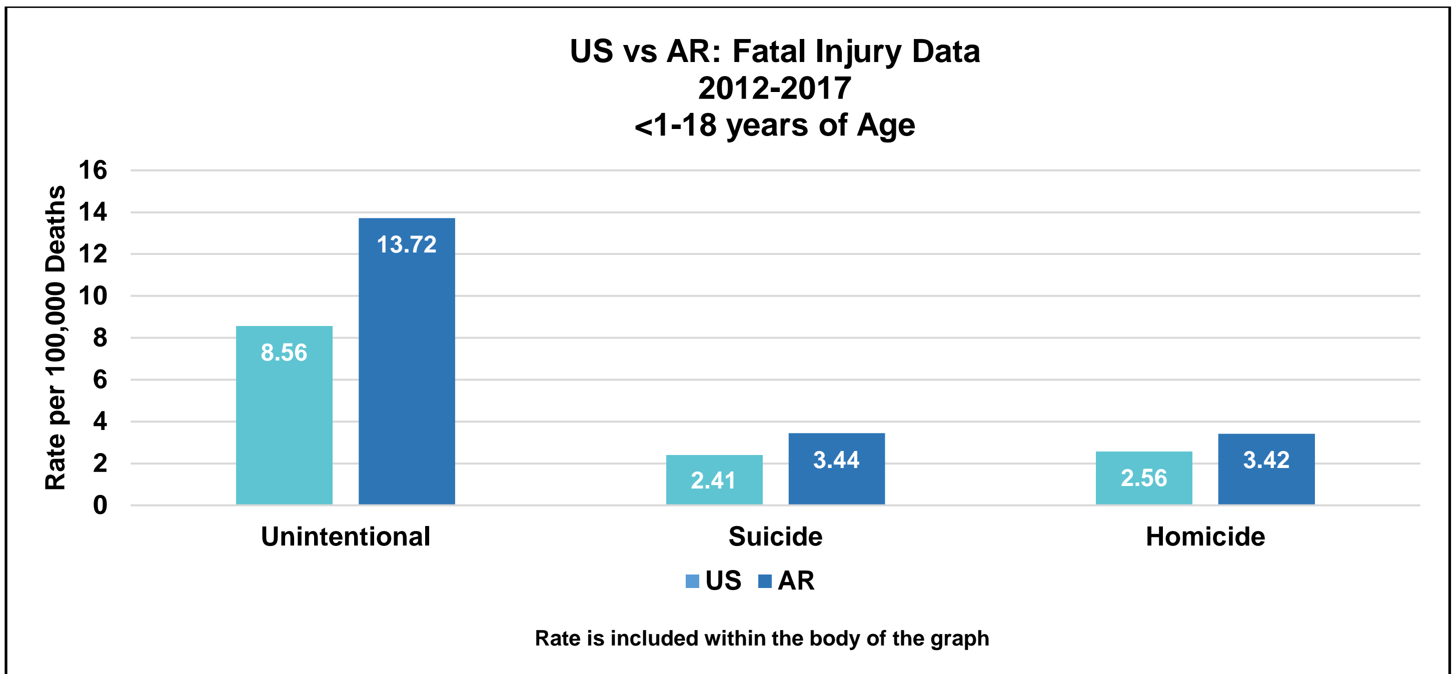
1) **Accidental Deaths (N=81):**
    - **Motor Vehicle Accidents (N=28)**:
        - Increased by 35% compared to 2016
        - 18% increase in motor vehicle crashes among males and children 10-14 years old.
        - 14% increase in motor vehicle deaths where a teen was the driver.
        - 11% increase in motor vehicle where no seatbelt was used.
    - **Asphyxia (N=28):**
        - 40% increase in asphyxia deaths among children <1 year of age.
        - The rate of African American children who died of asphyxia was significantly higher than among Caucasian children.
        - All asphyxia related deaths were sleep related
        - Adult beds were the leading location where infant deaths occurred and it was also the usual sleep location for infants who died from asphyxia.
    - **Drowning (N=13):**
        - Between 2016-2017 drowning deaths among 1-4 year olds showed a 24% decrease
        - 77% of drownings were in open water.
    - **Fire (N=5):**
        - Fire deaths among children 10-14 years old increased by 30%.

2) **Undetermined Deaths (N=32):**
    - 100% of undetermined deaths were sleep related.
    - African American children had a higher rate of undetermined deaths than Caucasian children and children of all other races.
    - Undetermined deaths predominately occurred in adult beds.

3) **Suicide (N=21):**
    - Suicide rate is still the highest among children age 15-17 years old.
    - Suicide deaths by firearm decreased by a 23%.
    - Family and school issues were the highest contributing factors in suicide deaths.

4) **Homicide (N=10):**
    - Homicide deaths among children <1 year of age increased by 40%.
    - Homicide deaths among children15-17 years old decreased by 48%.

US vs AR: Fatal Injury Data

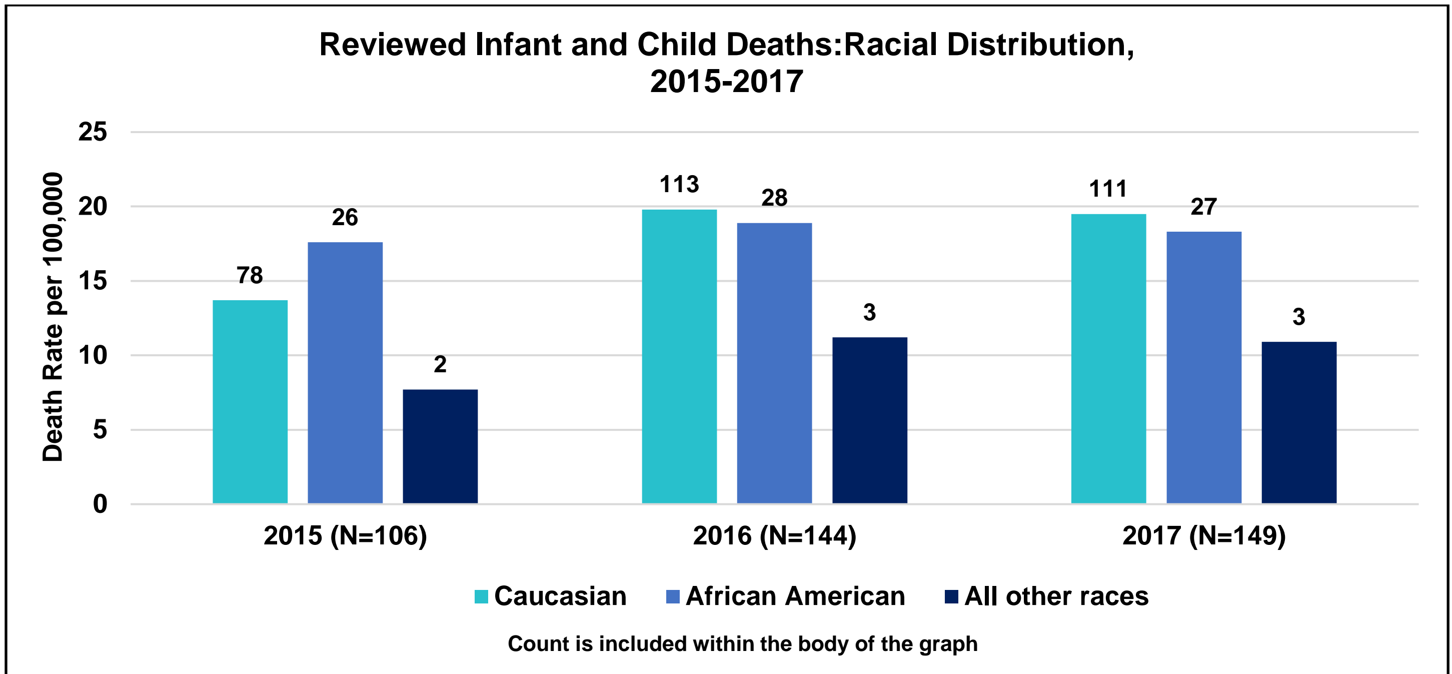


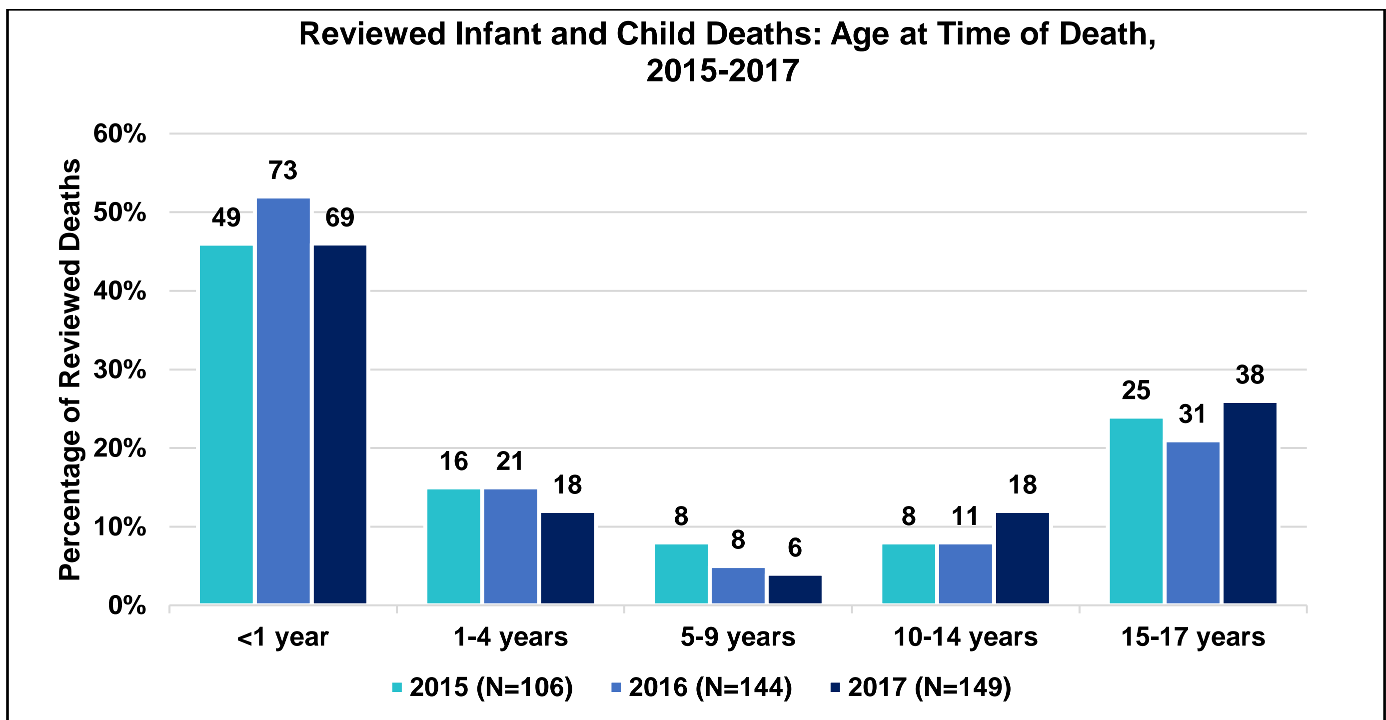
Arkansas ranks 8th in the nation for Unintentional deaths in children under 18 years of age, between 2012-2017 (WISQARS, 2019).

Arkansas ranks 13th in the nation for Suicide deaths in children under 18 years of age, between 2012-2017 (WISQARS, 2019).

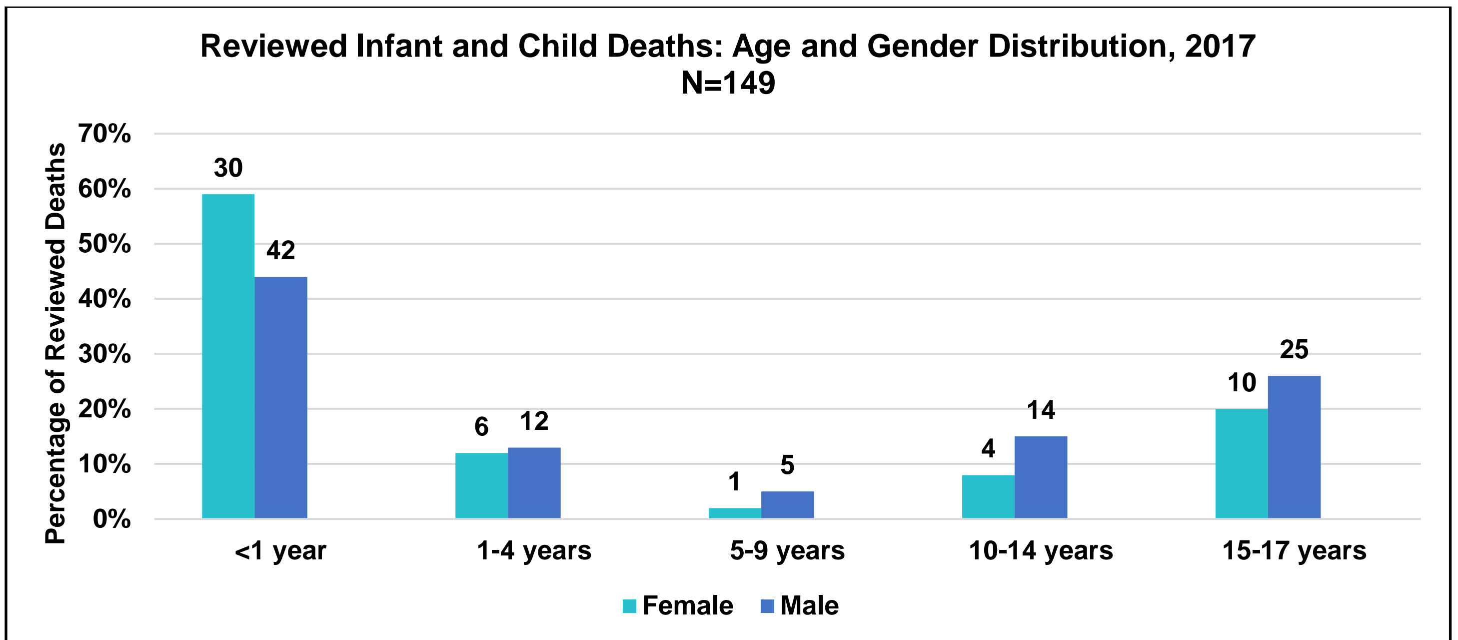
Arkansas ranks 10th in the nation for Homicide deaths in children under 18 years of age, between 2012-2017 (WISQARS, 2019).

Reviewed Infant and Child Deaths: Demographic Characteristics



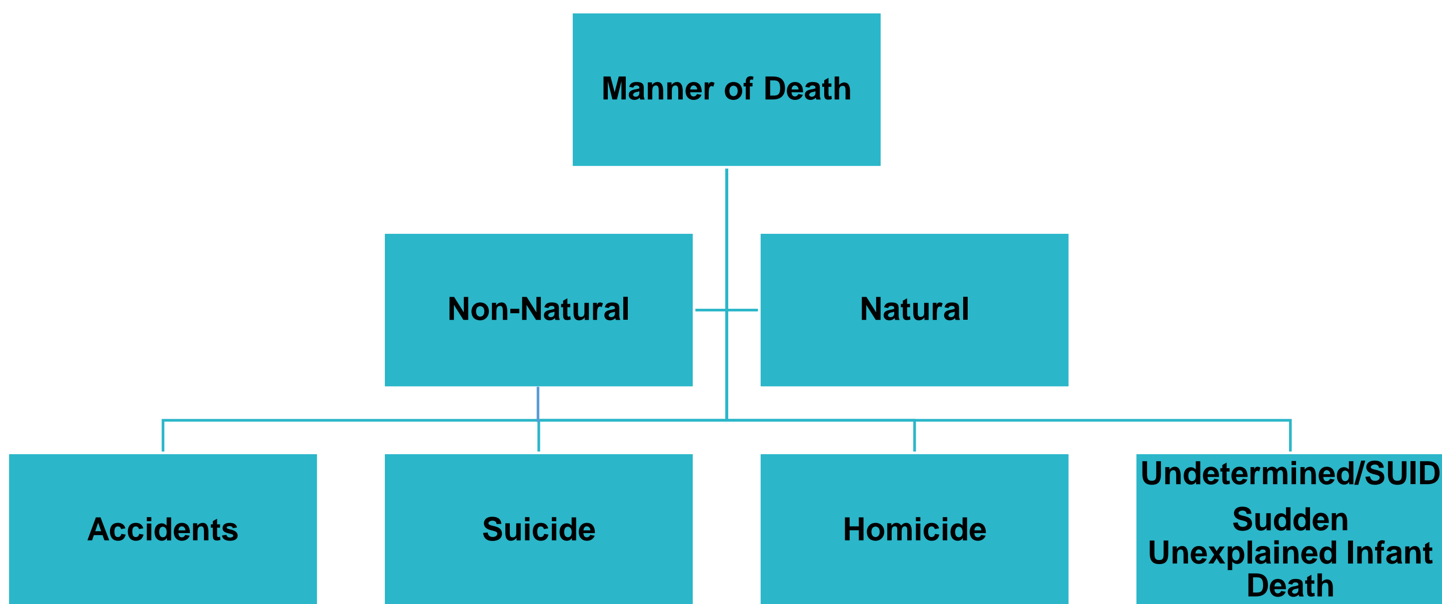


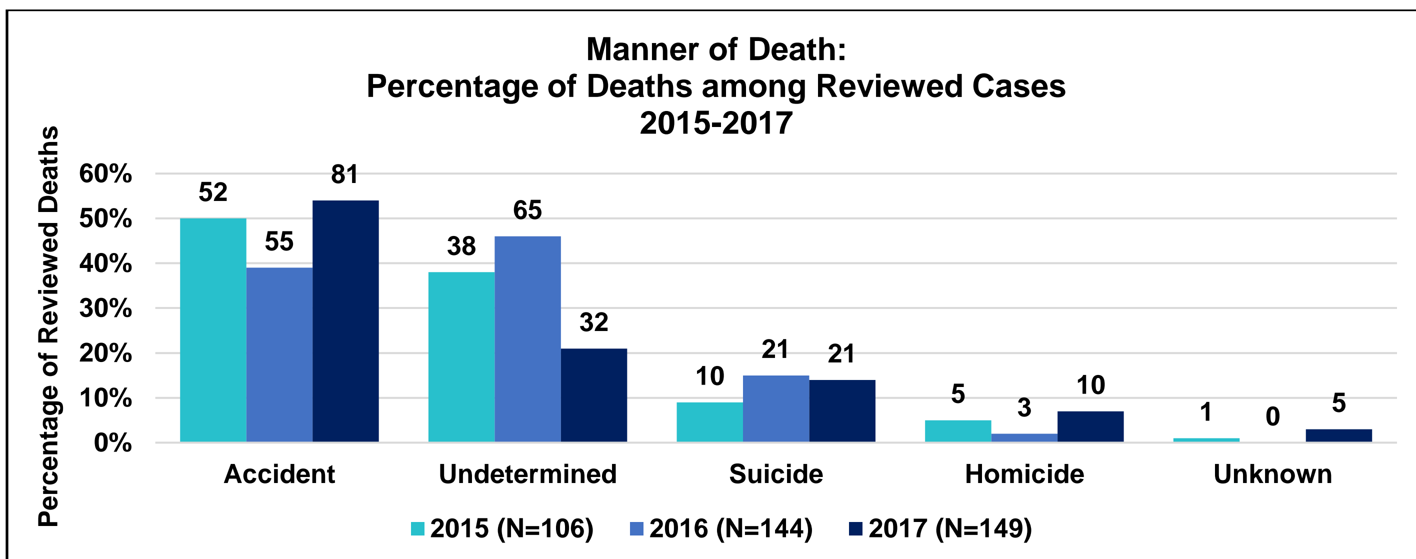
Reviewed Infant and Child Deaths: Demographic Characteristics



Reviewed Infant and Child Deaths: Manner of Death

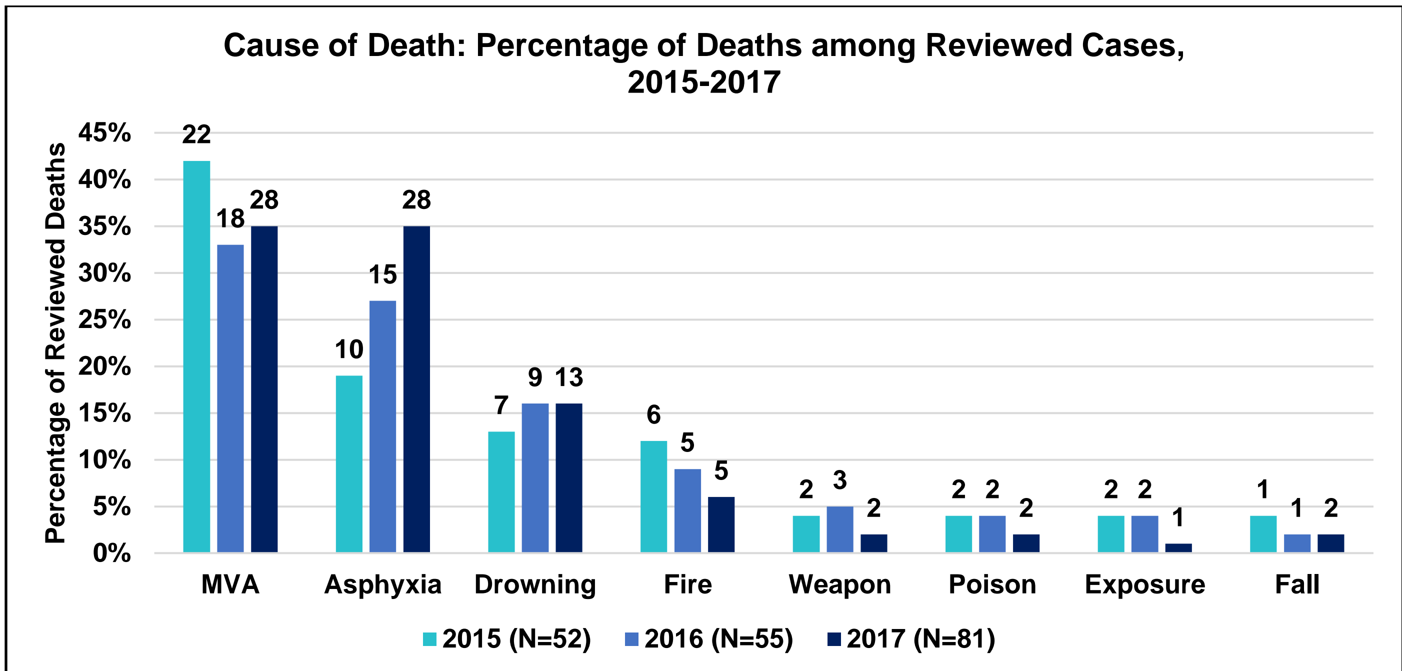
Manner of Death describes how the infant or child died and explains the cause of death. Deaths are categorized as natural or non-natural based on the manner of death. Natural deaths result from a disease process and non-natural deaths are attributed to injuries. Non-natural deaths are further classified into the following groups: accident, homicide, suicide, and undetermined.



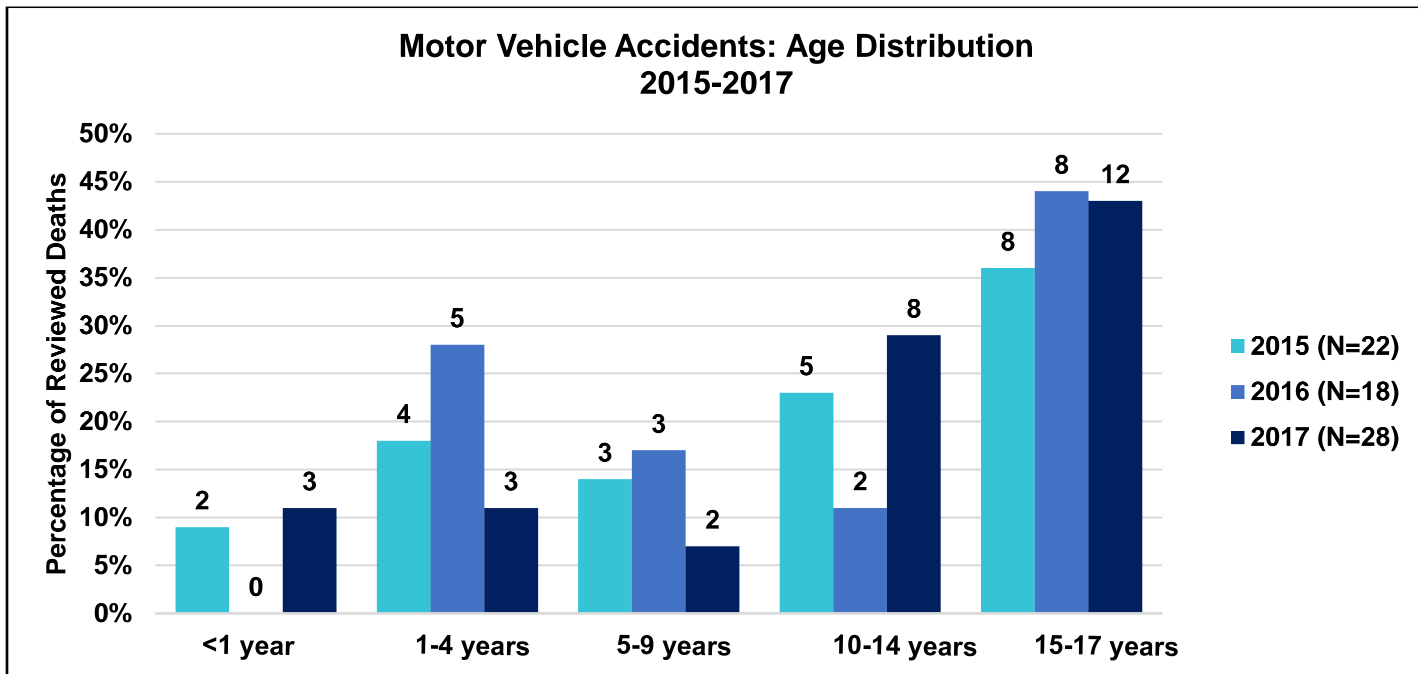


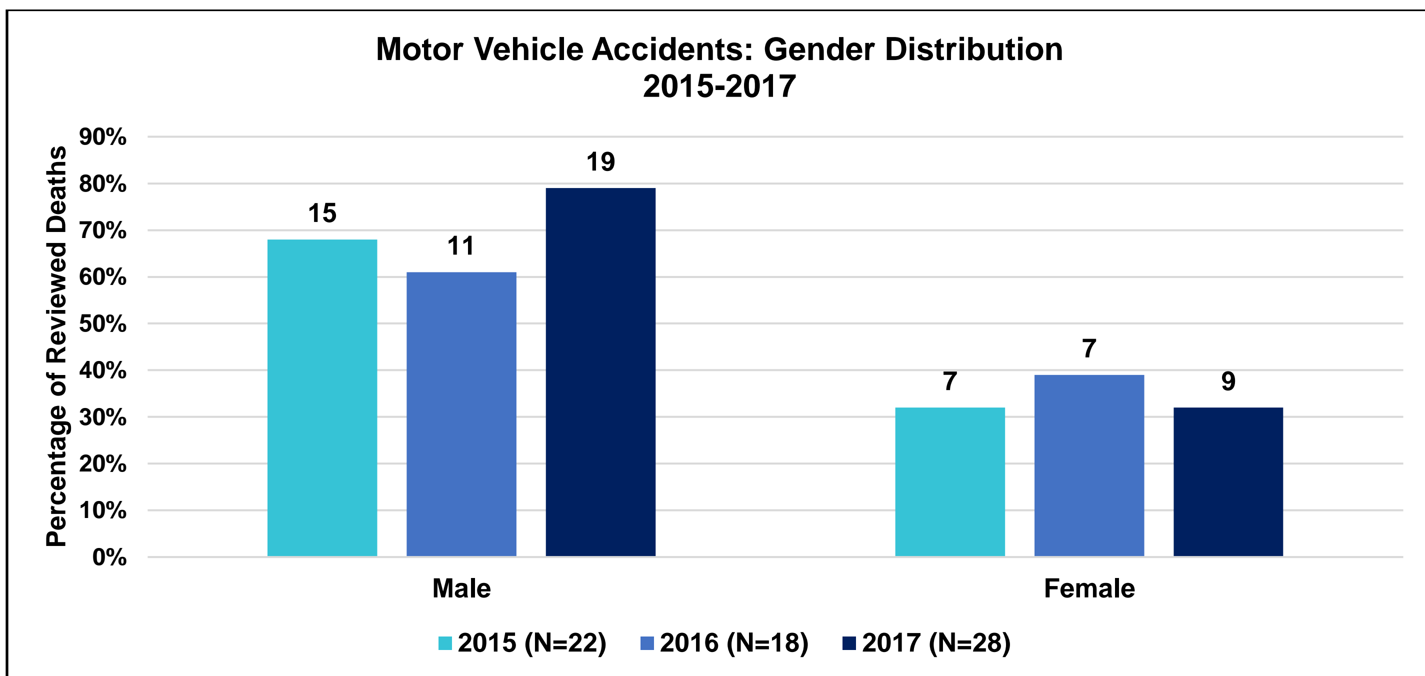
1. Reviewed Infant and Child Accidental Deaths

Cause of Death is the reason a child died. A few examples of accidental death include motor vehicle accident, drowning, poisoning, or fire related. The cause of death may be further classified as underlying (injury that initiated the events resulting in death) or immediate (final condition resulting in death).



1a. Motor Vehicle Deaths





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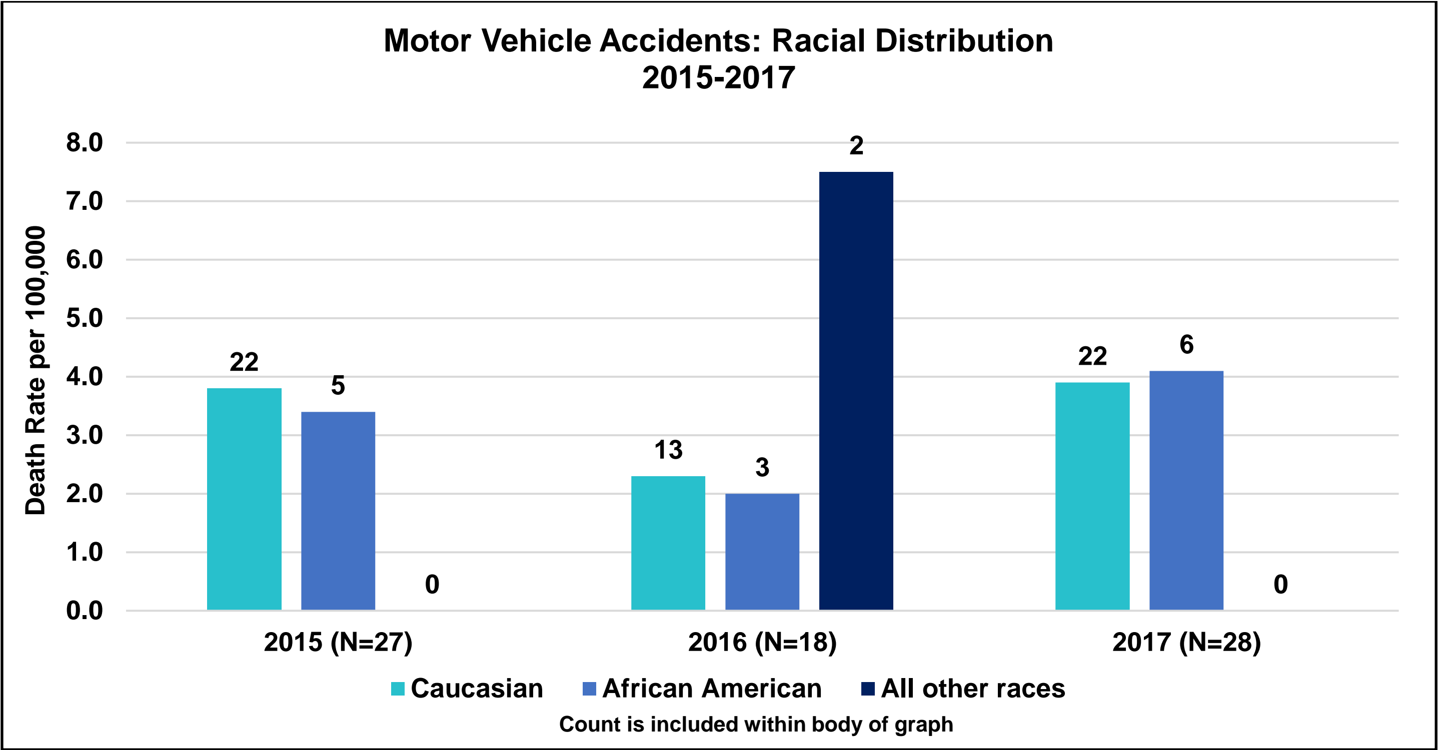

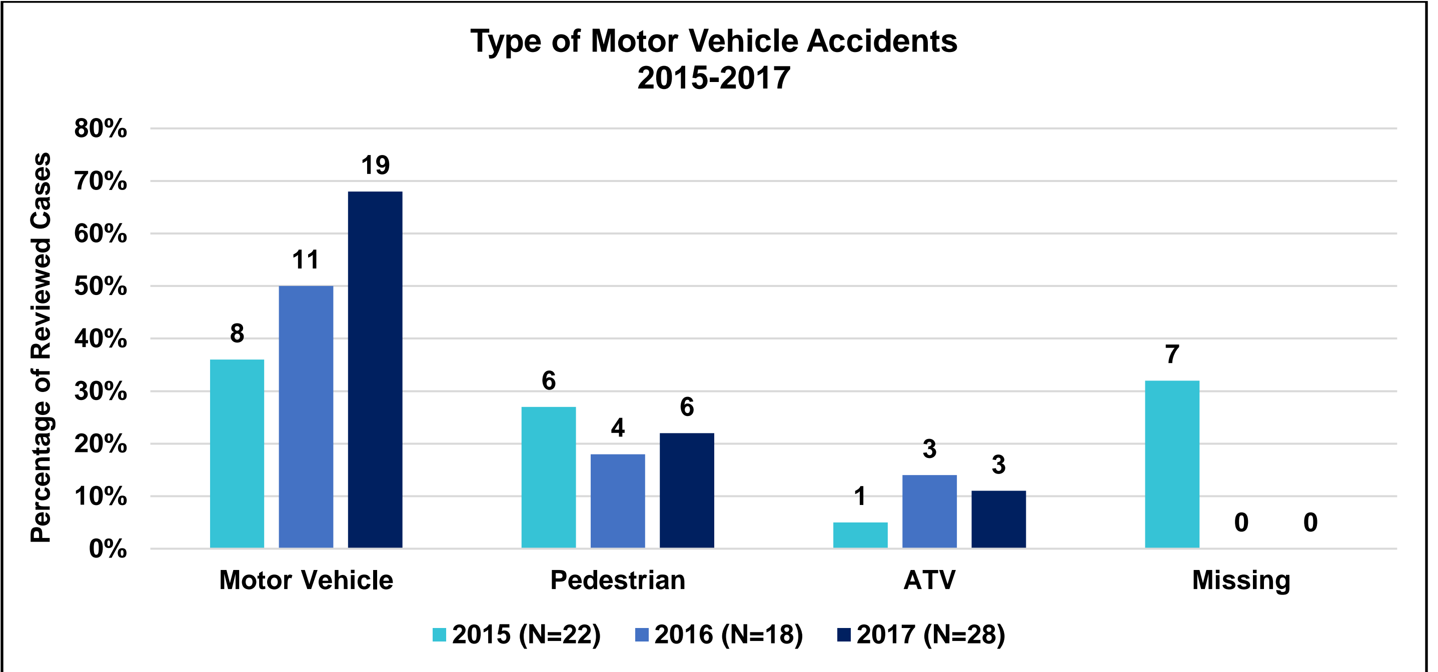

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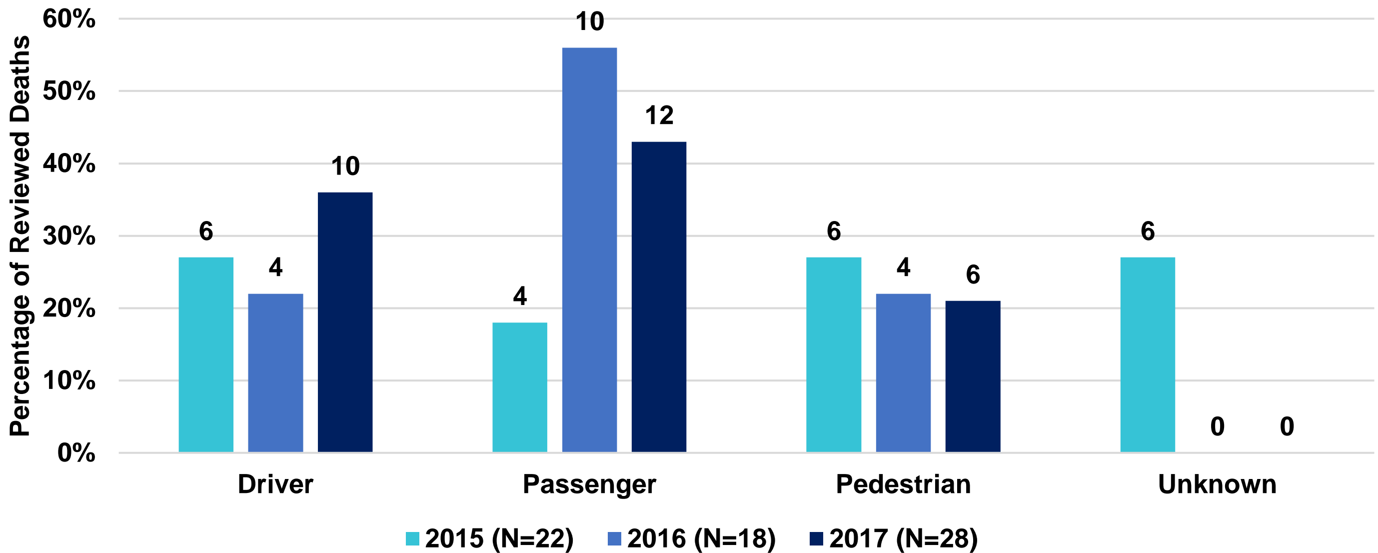
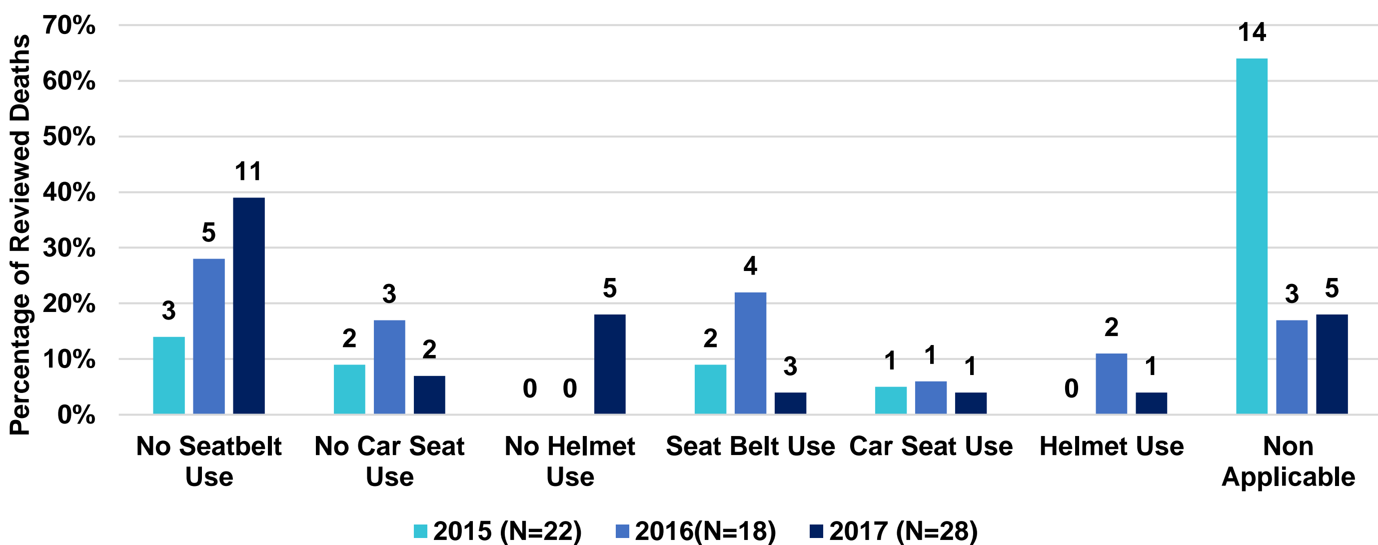
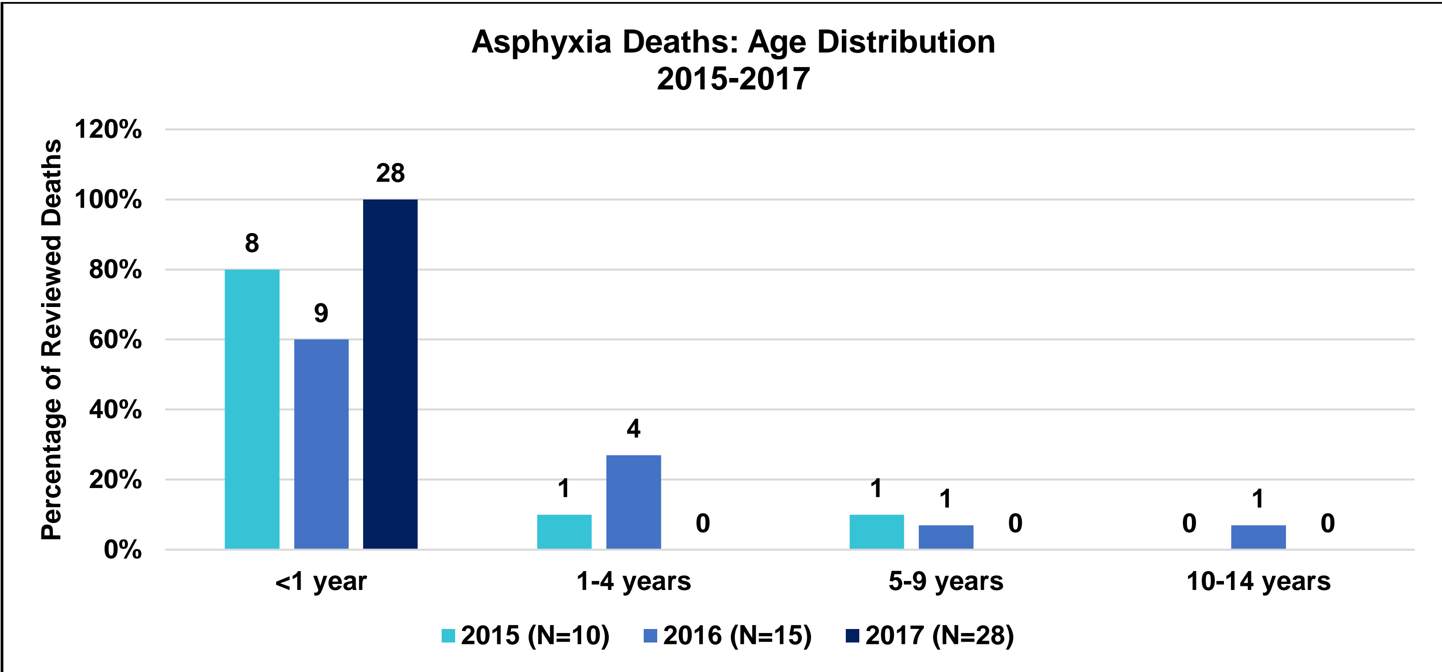
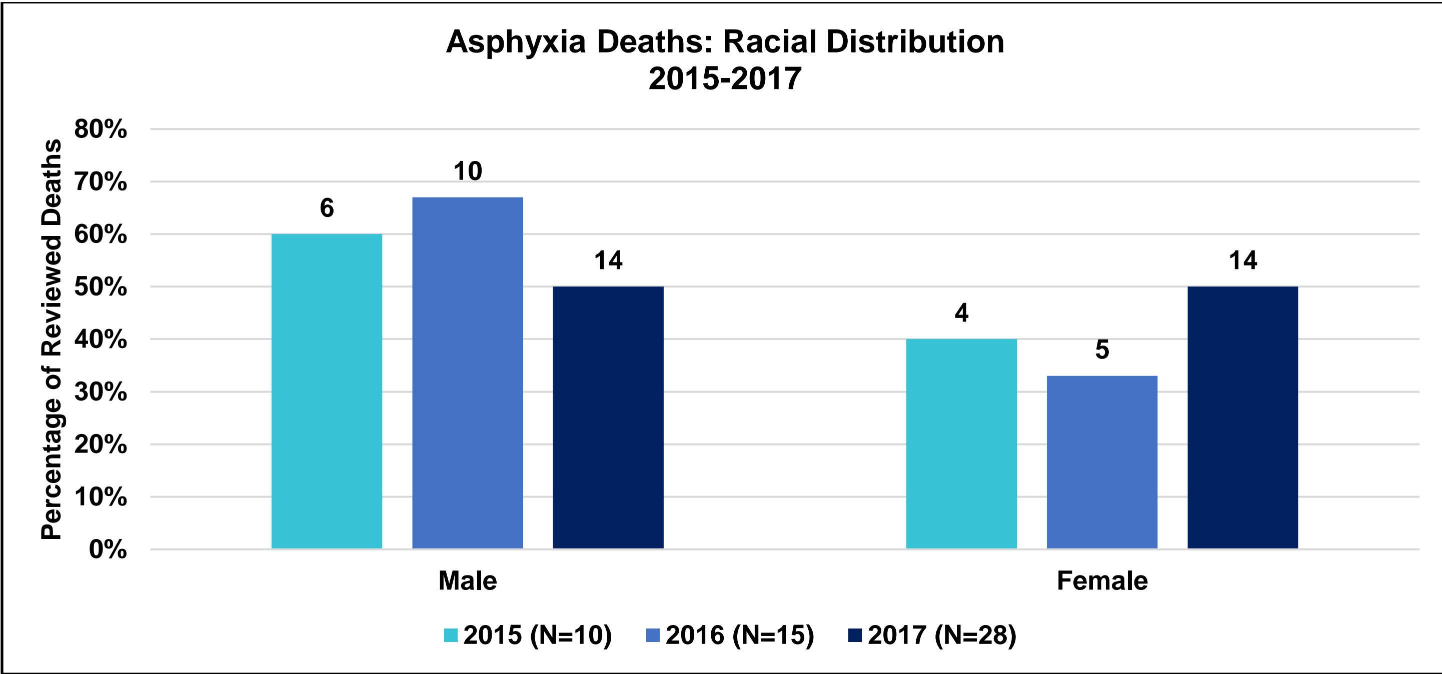




1b. Asphyxia Deaths





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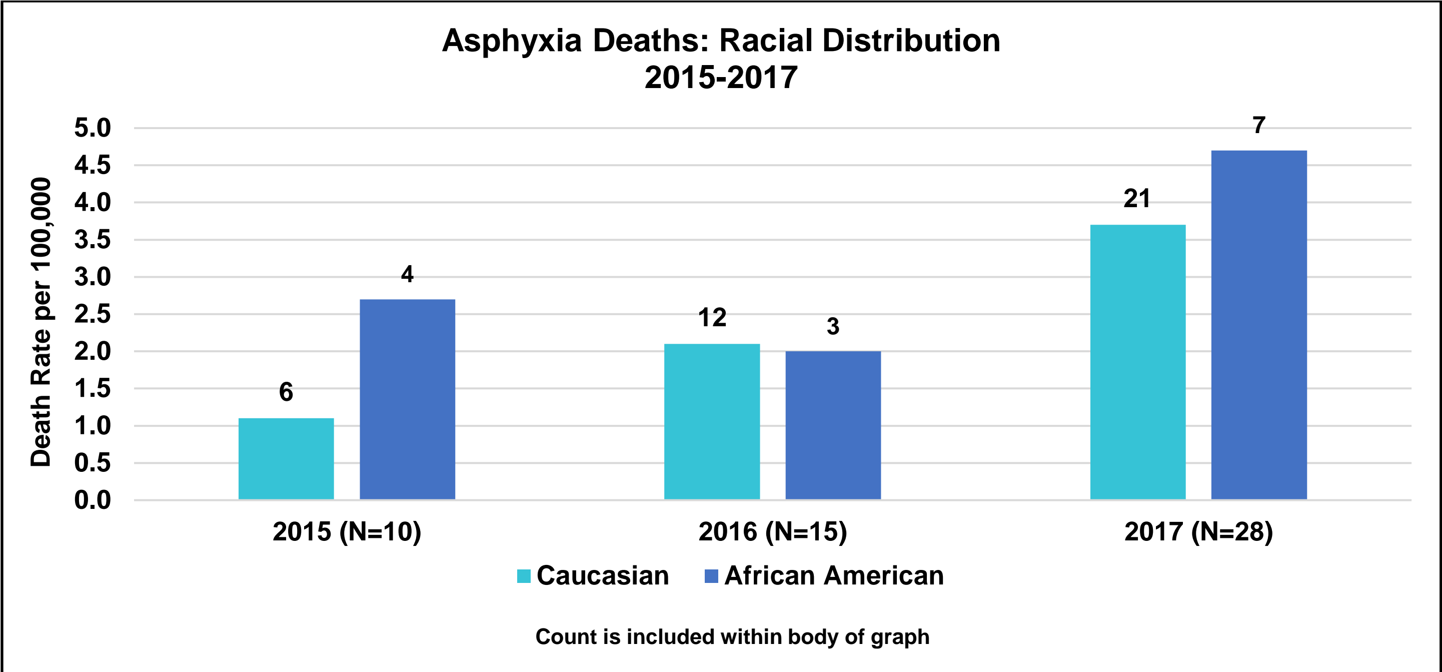

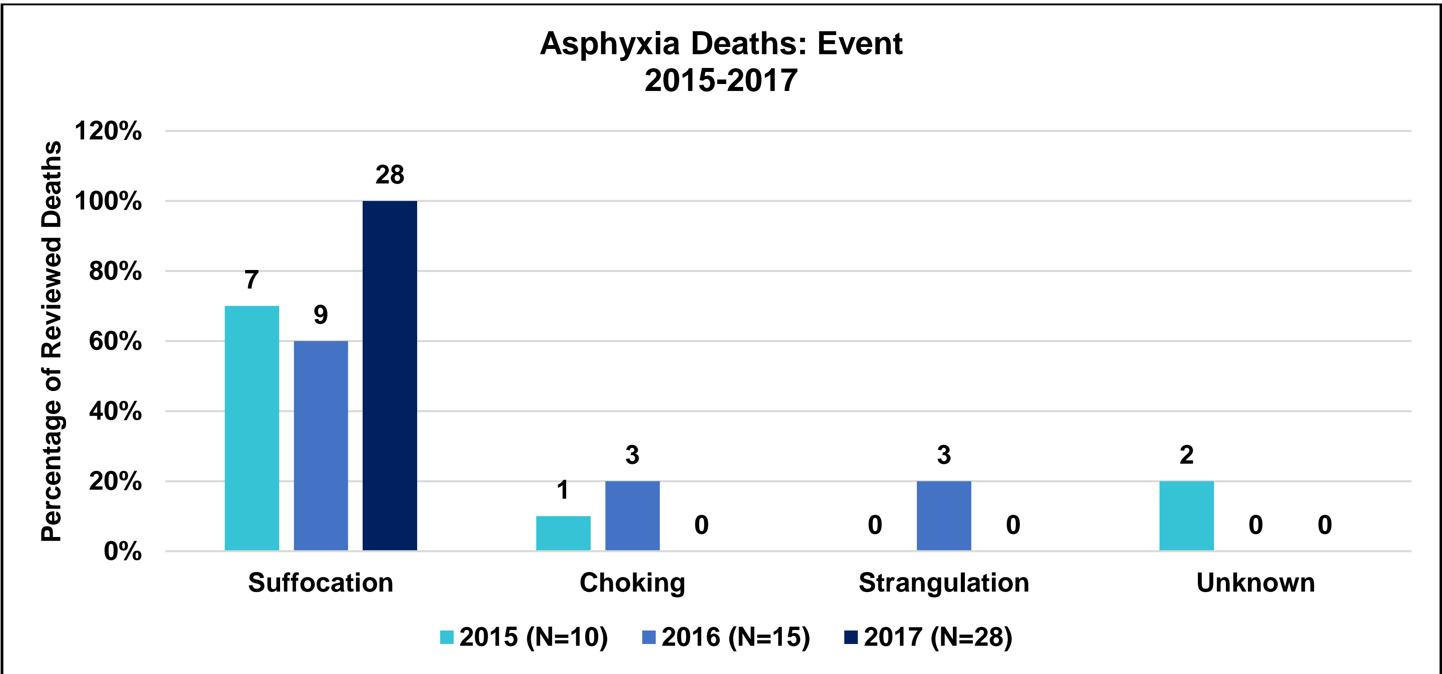

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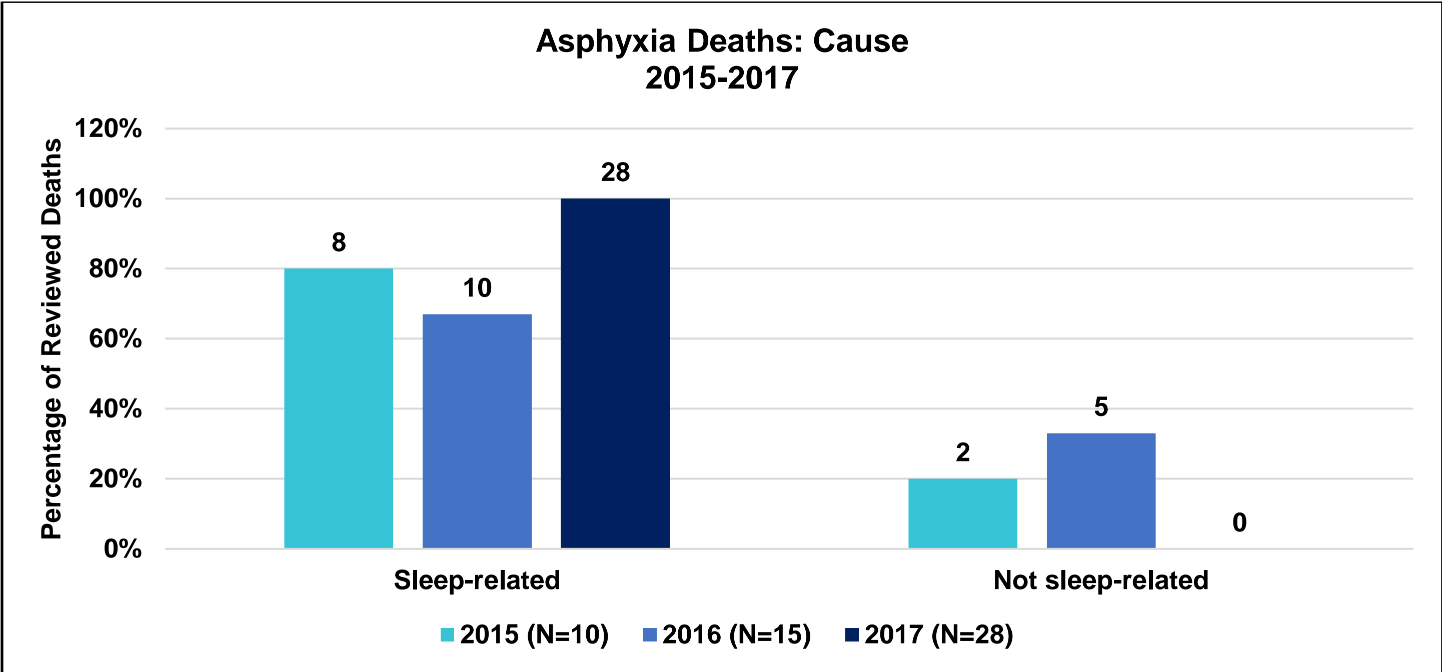

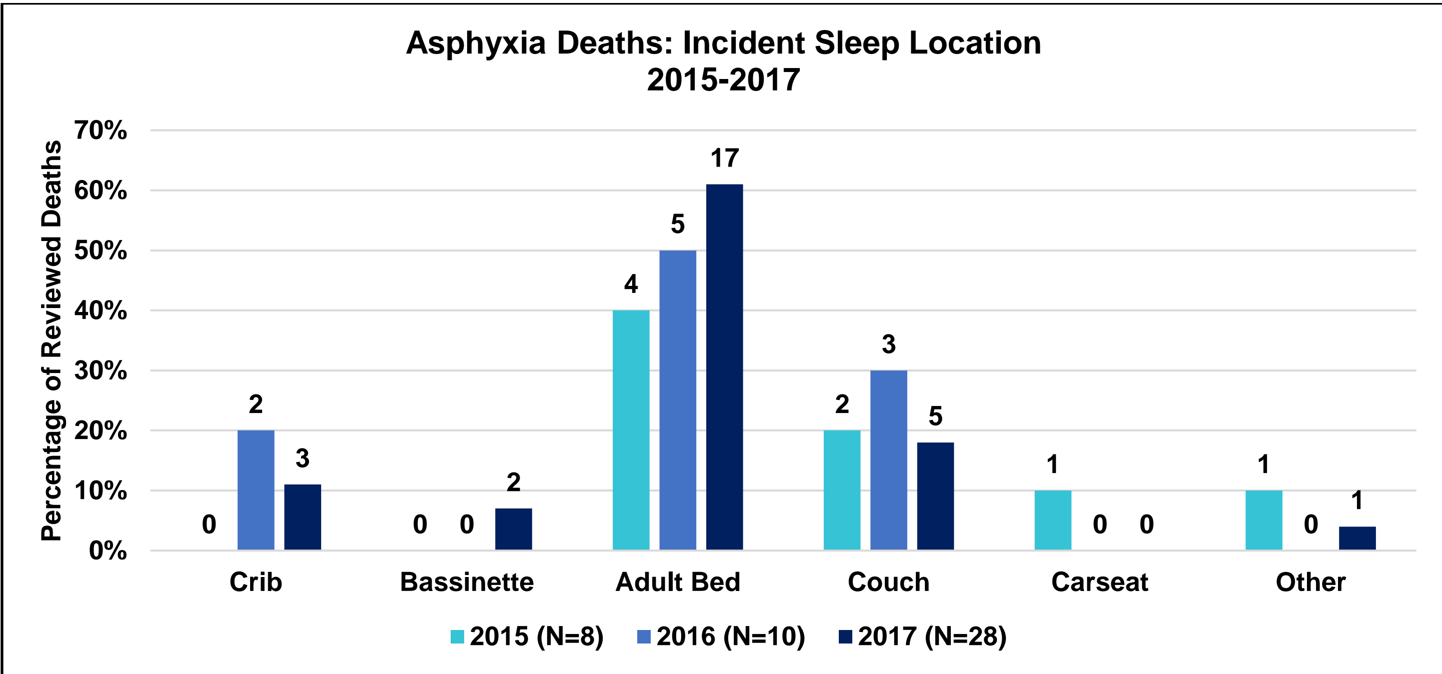

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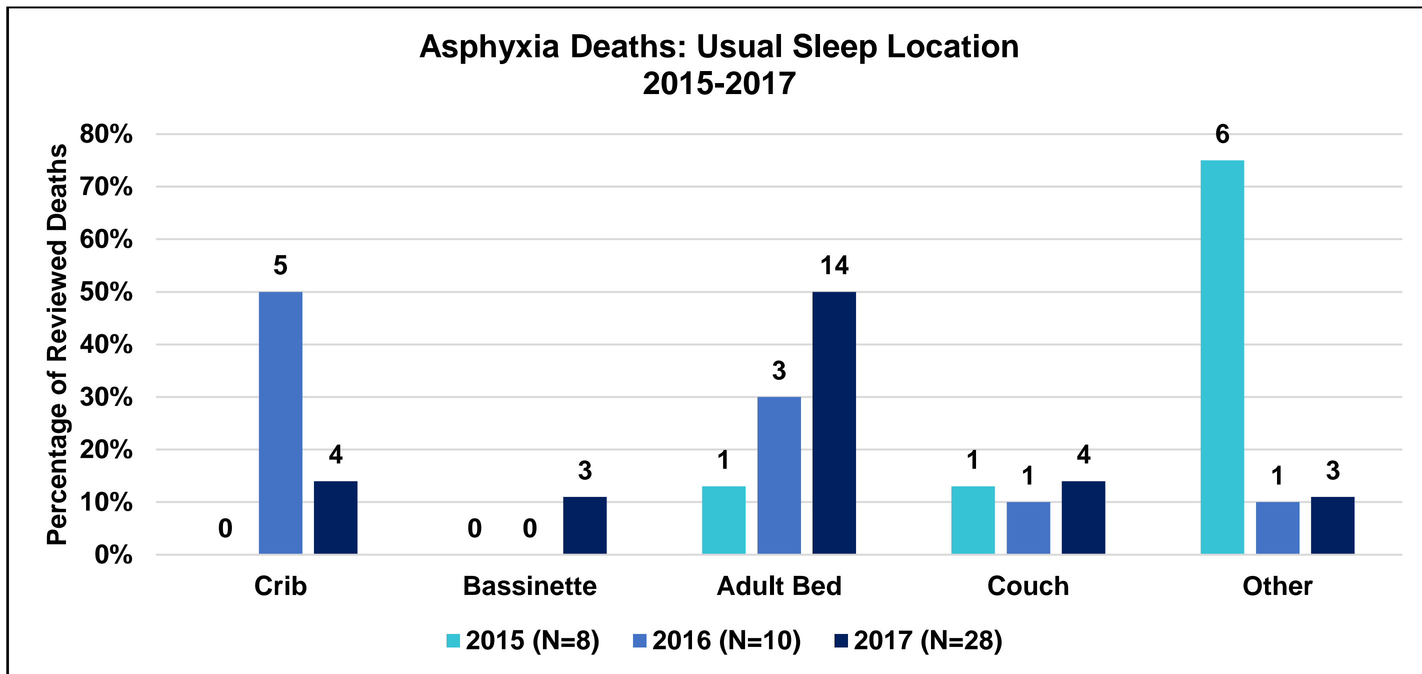
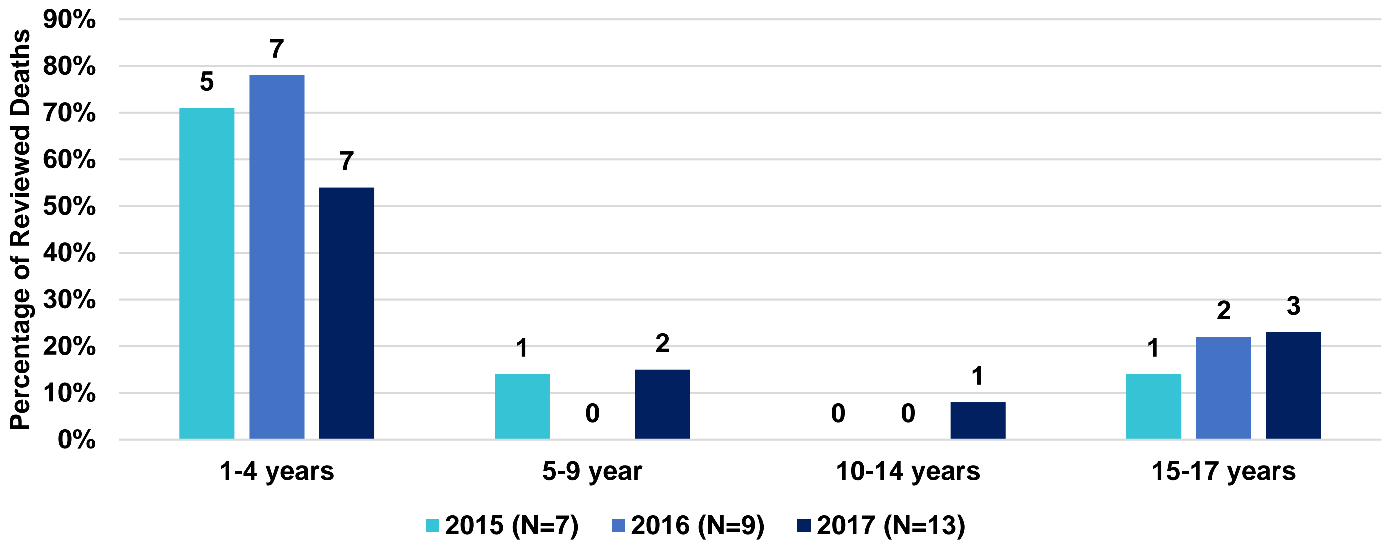
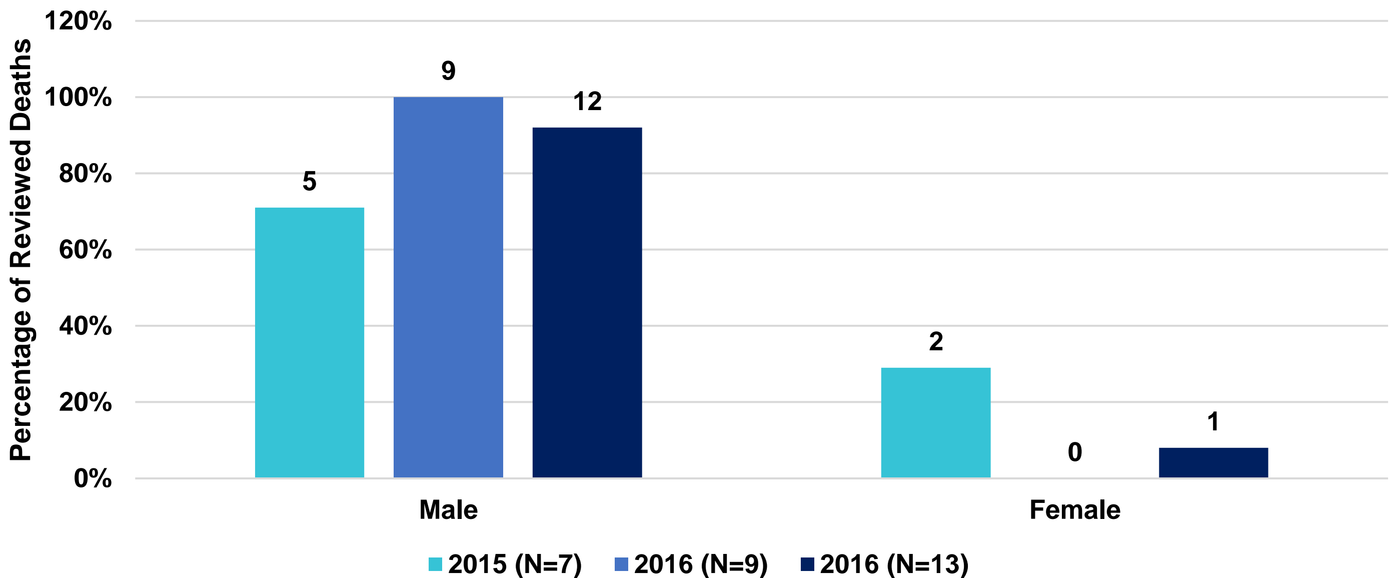


1c. Drowning Deaths





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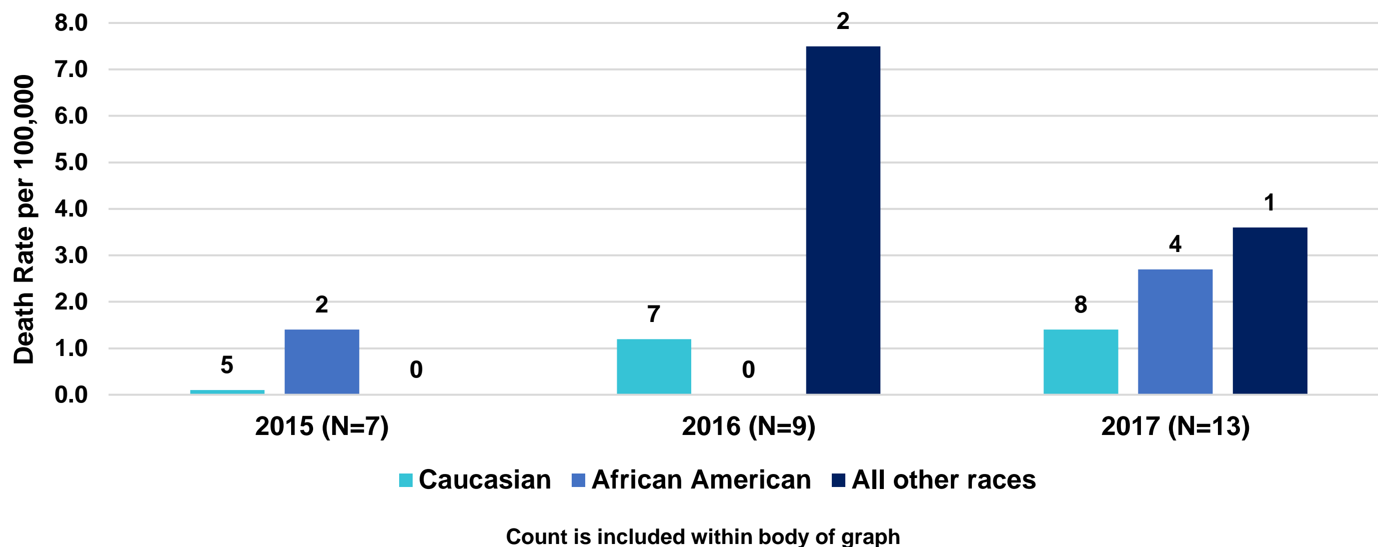

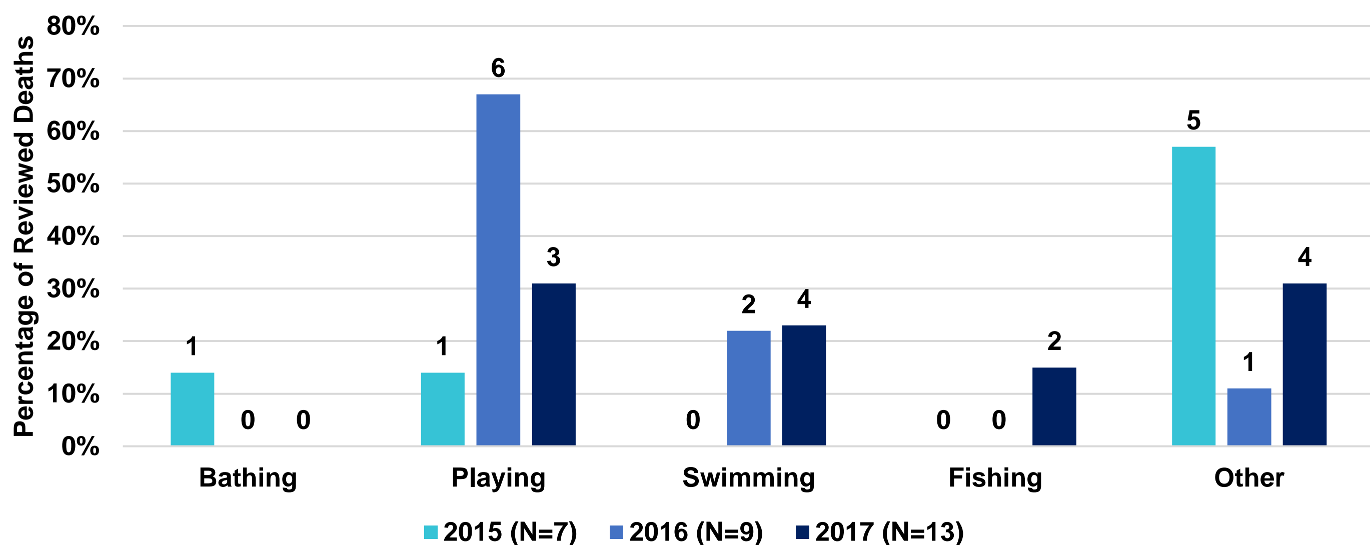

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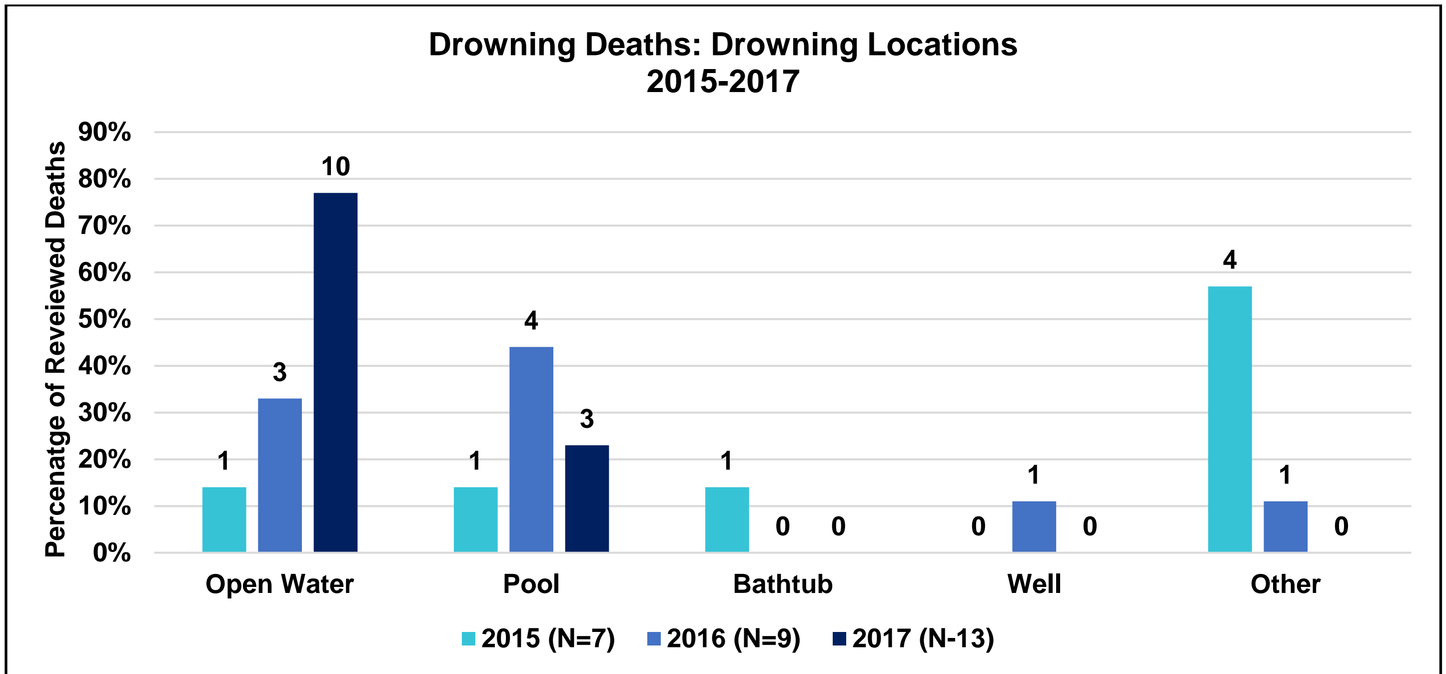
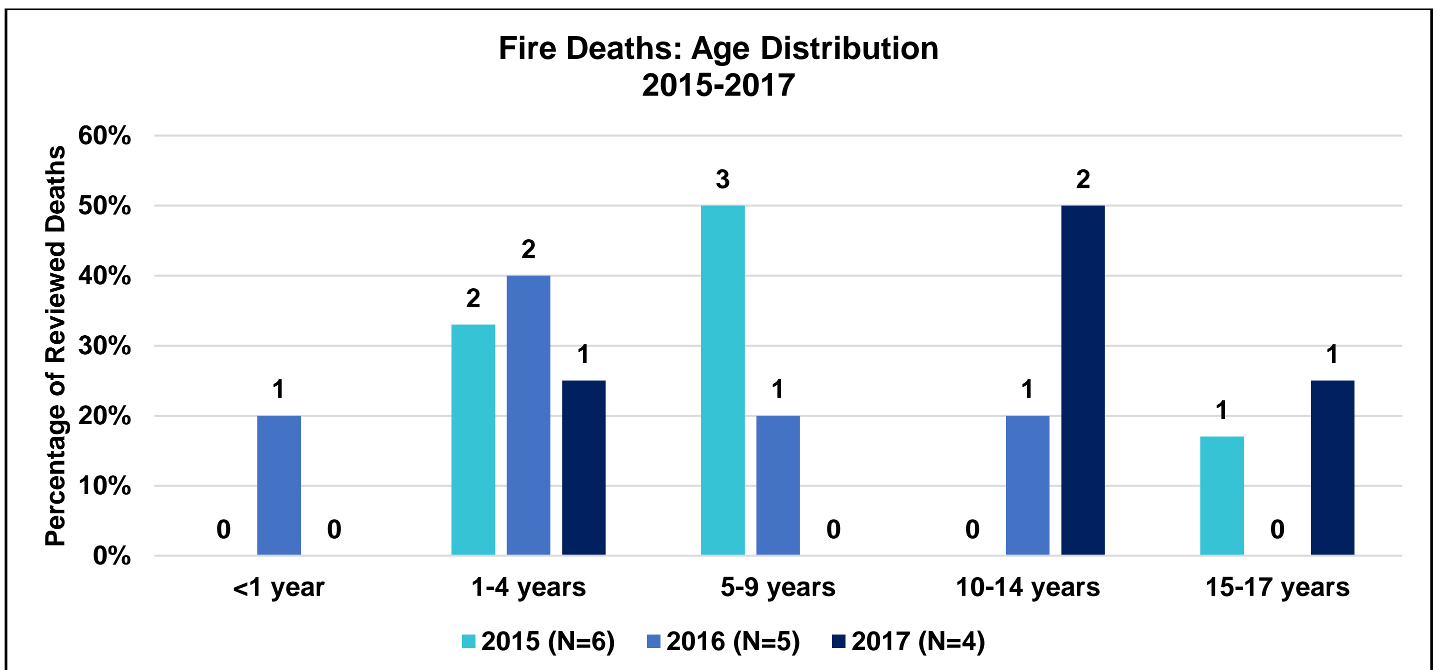


1d. Fire Deaths



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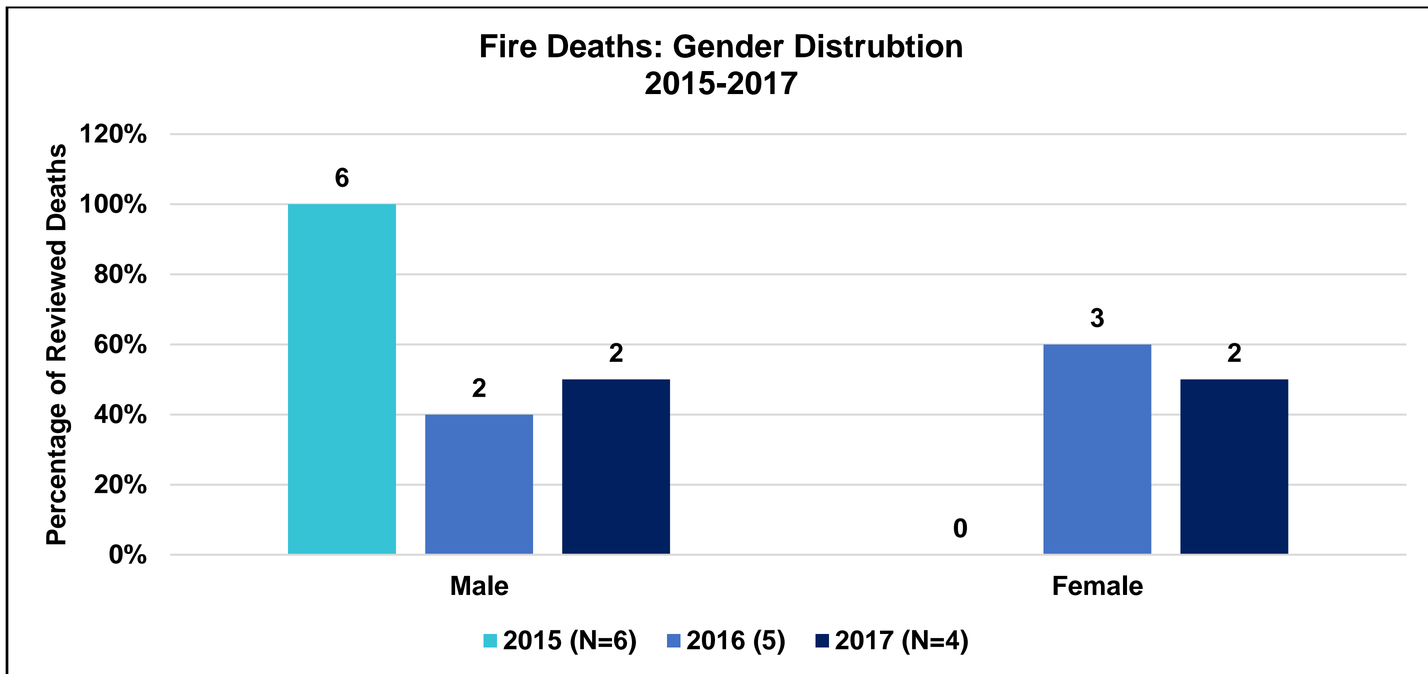
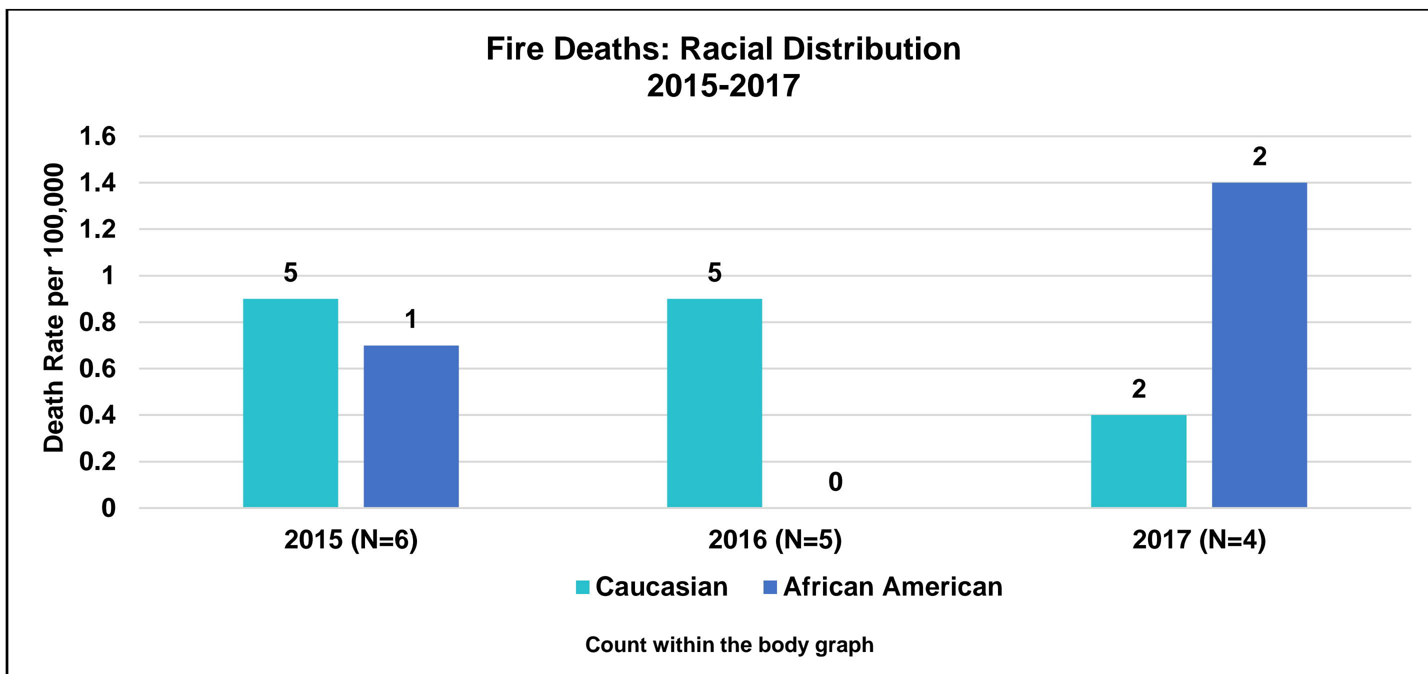
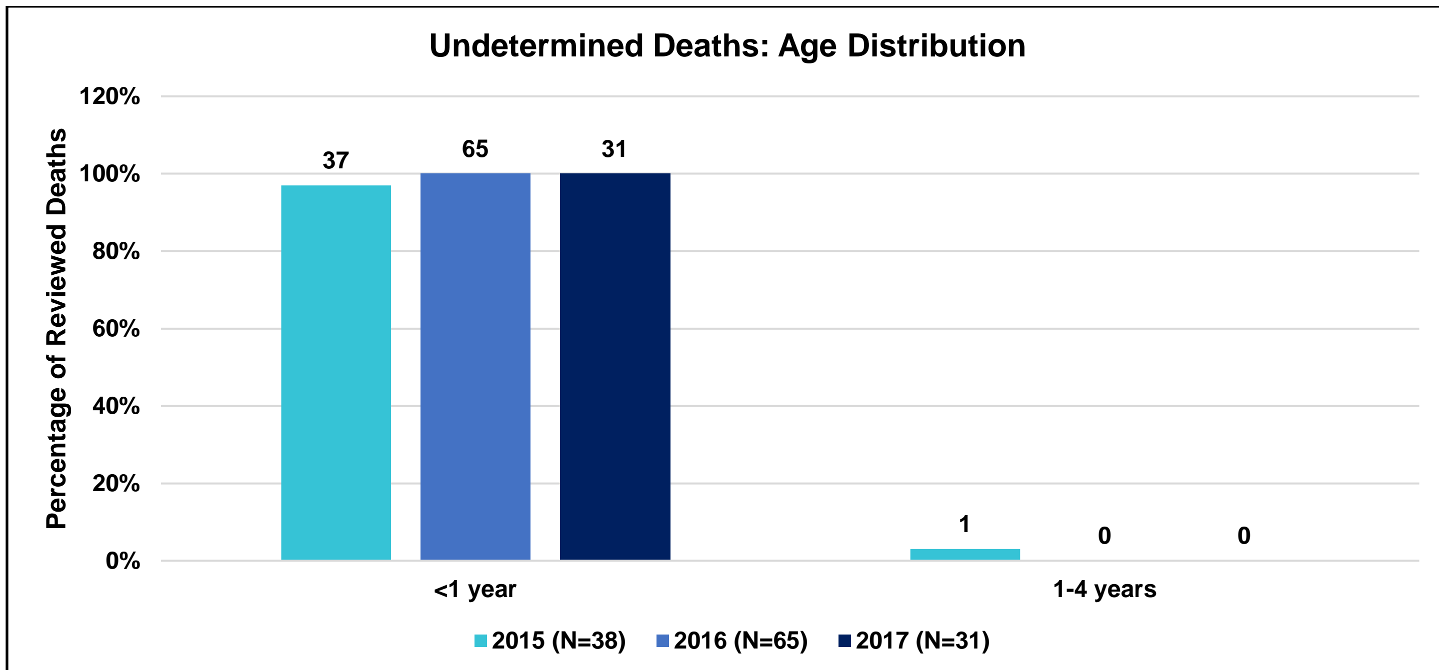
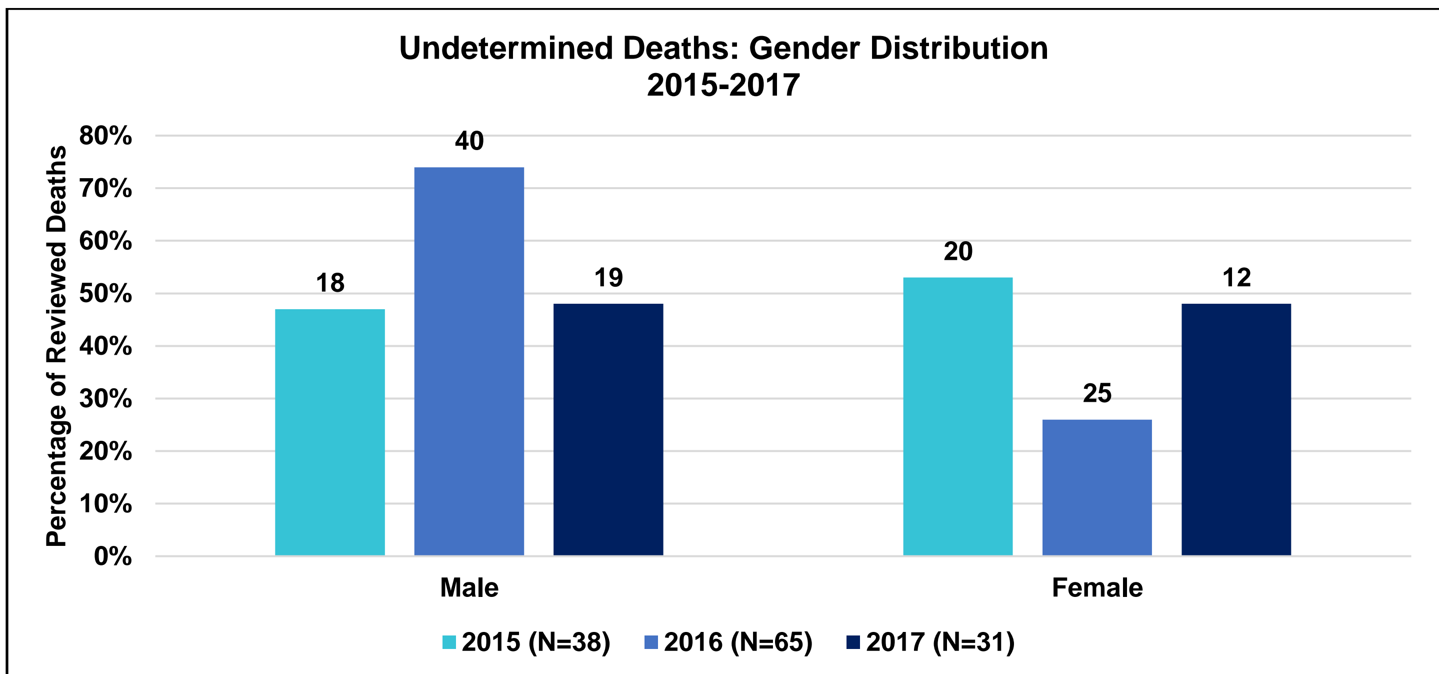




2. Undetermined Deaths





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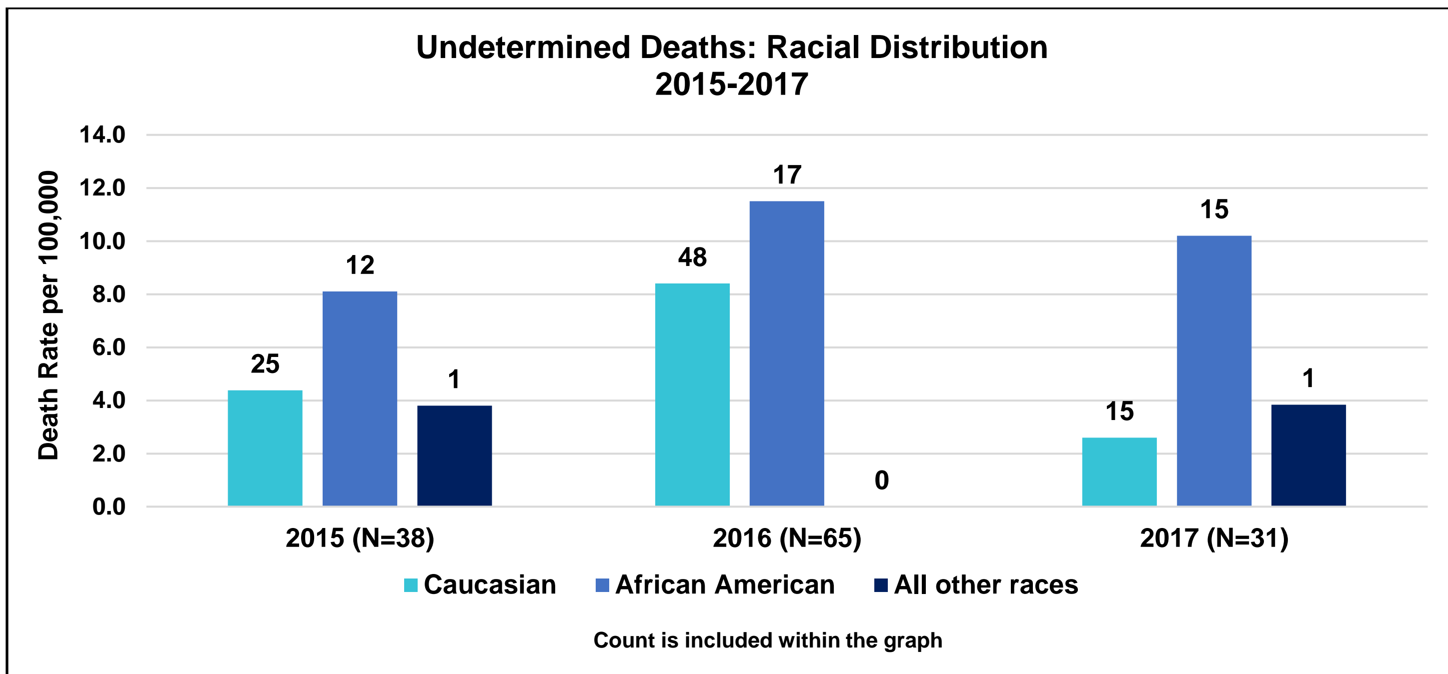

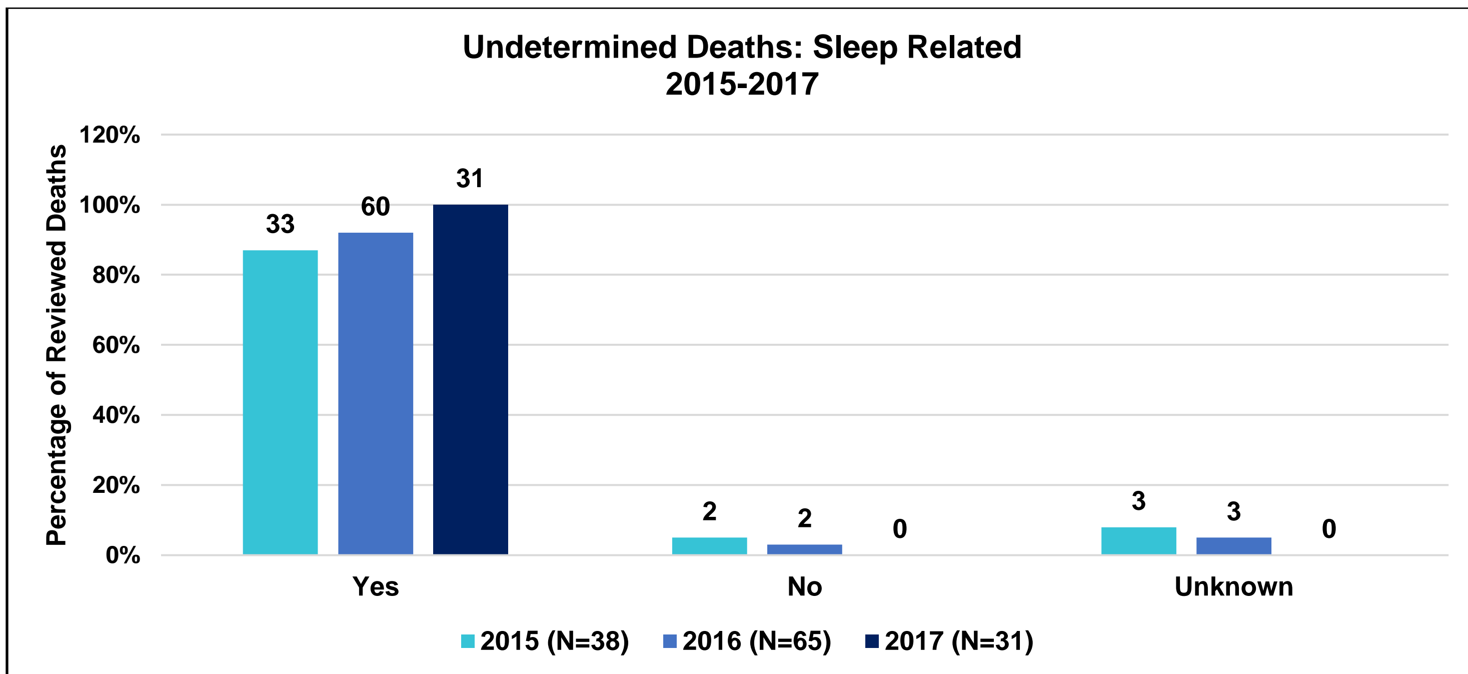

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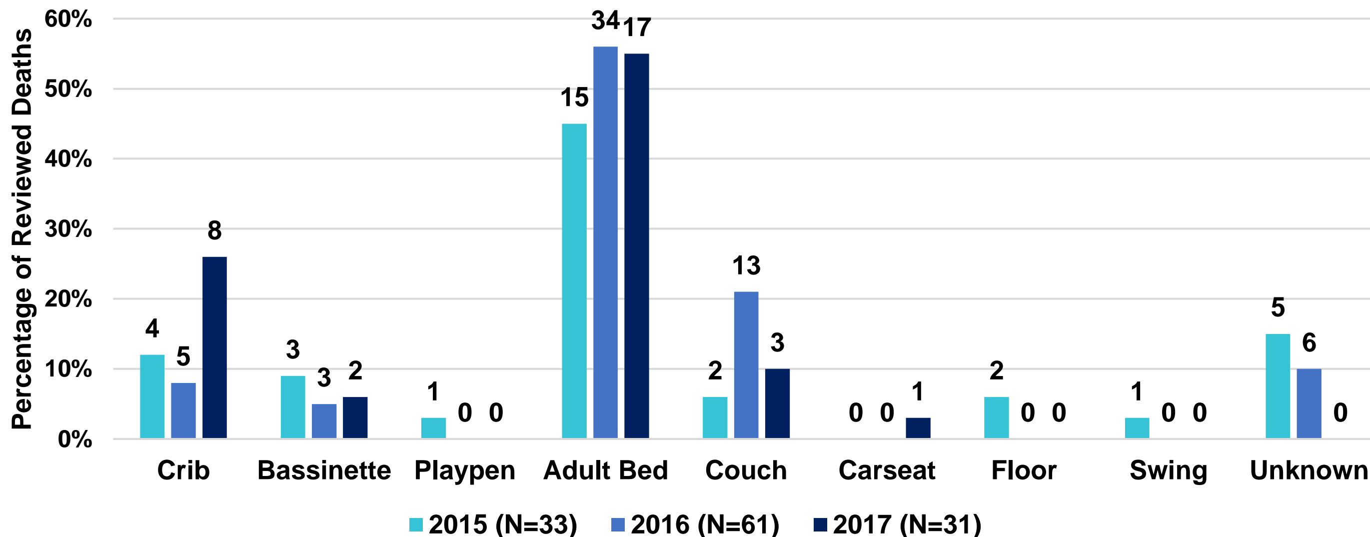
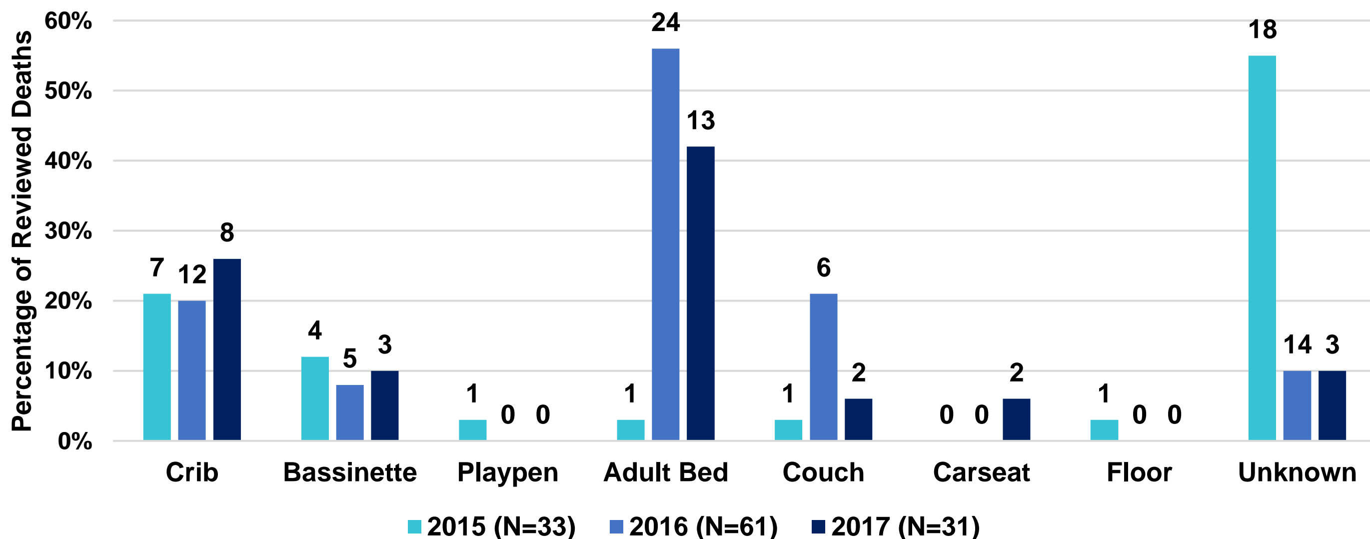
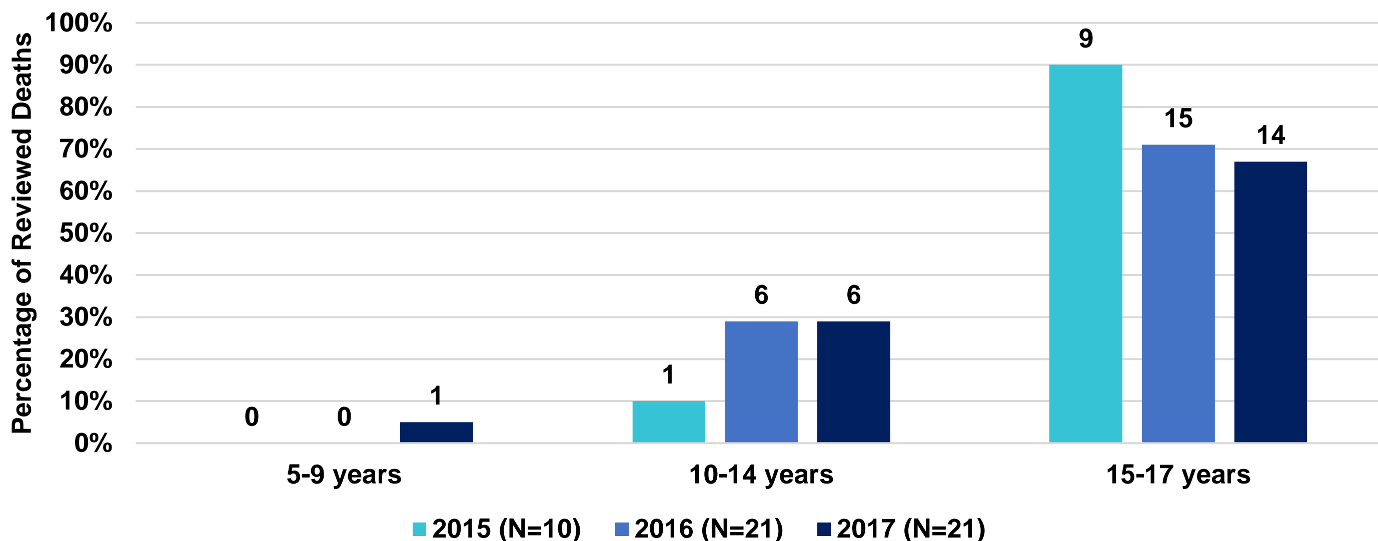
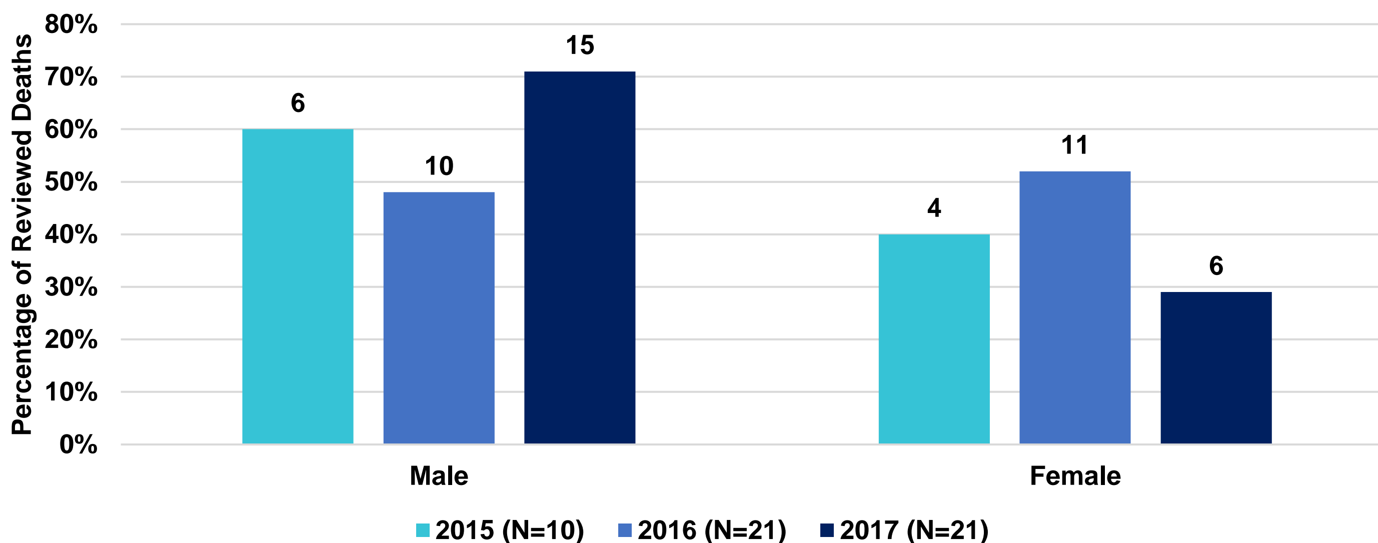




3. Suicide Deaths





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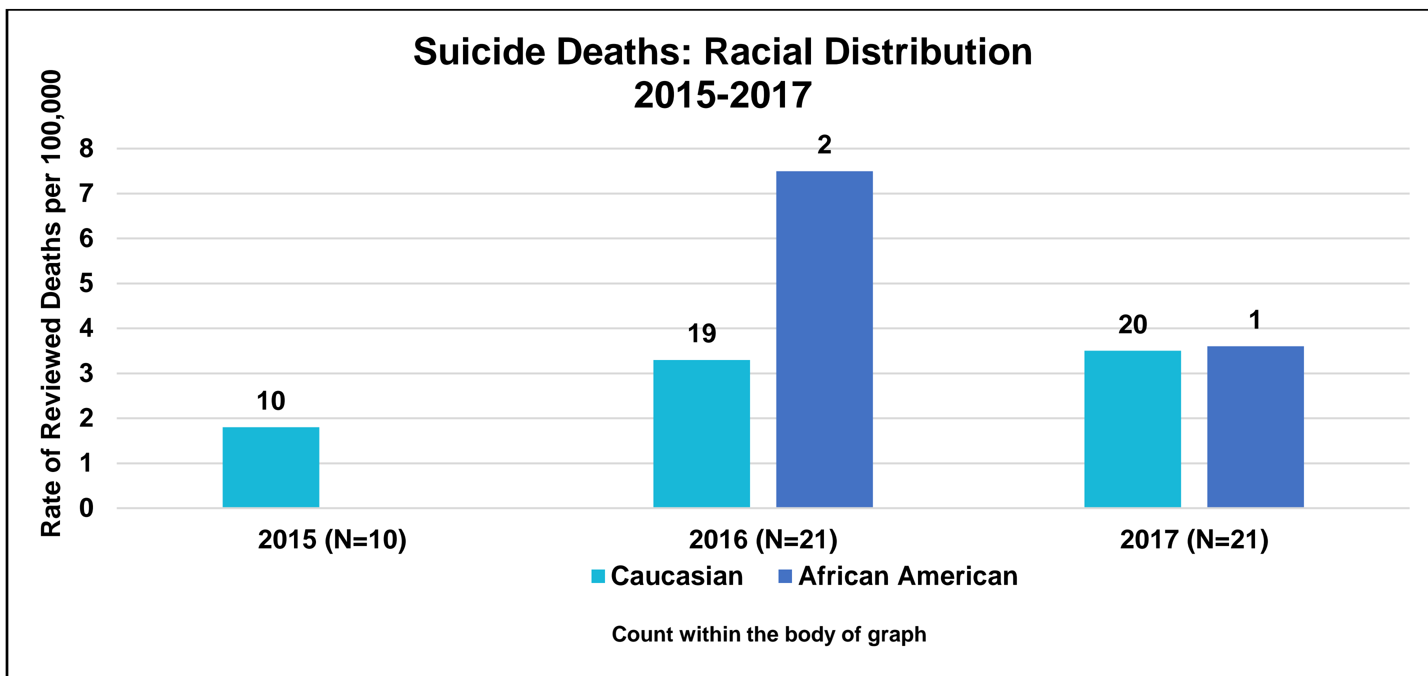

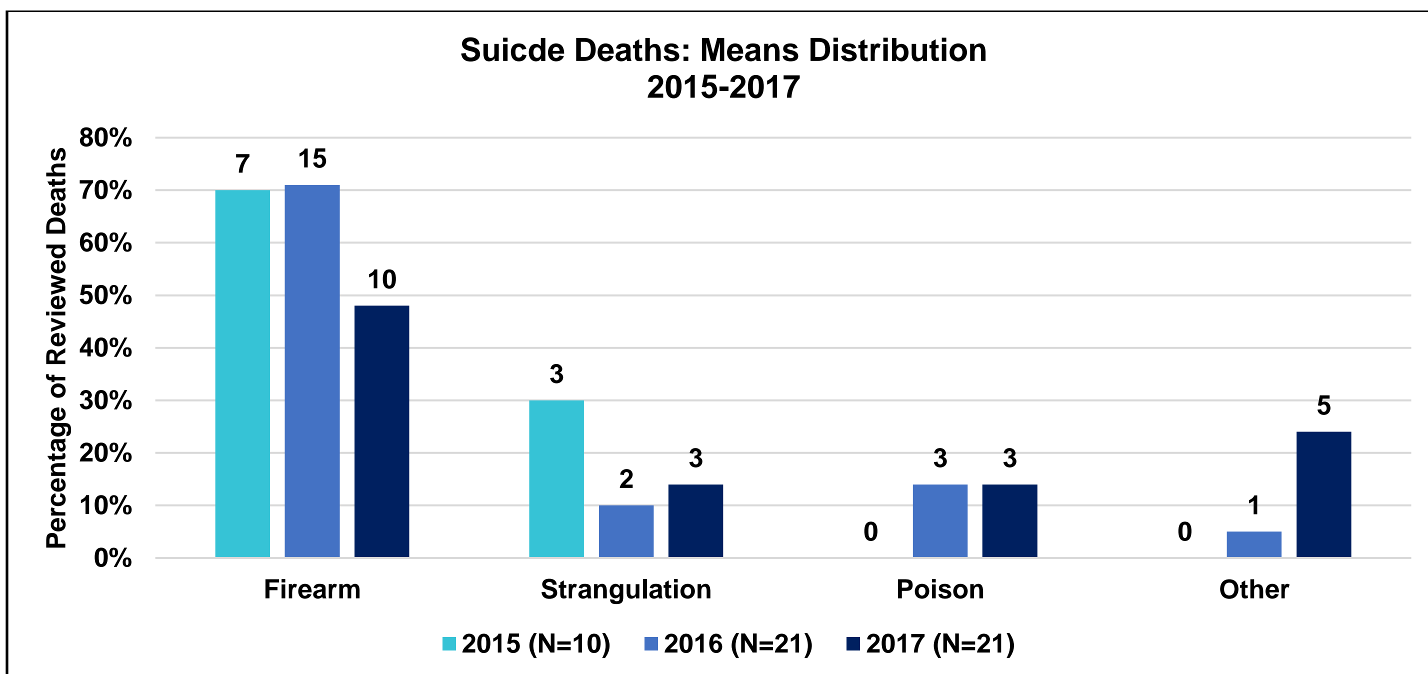

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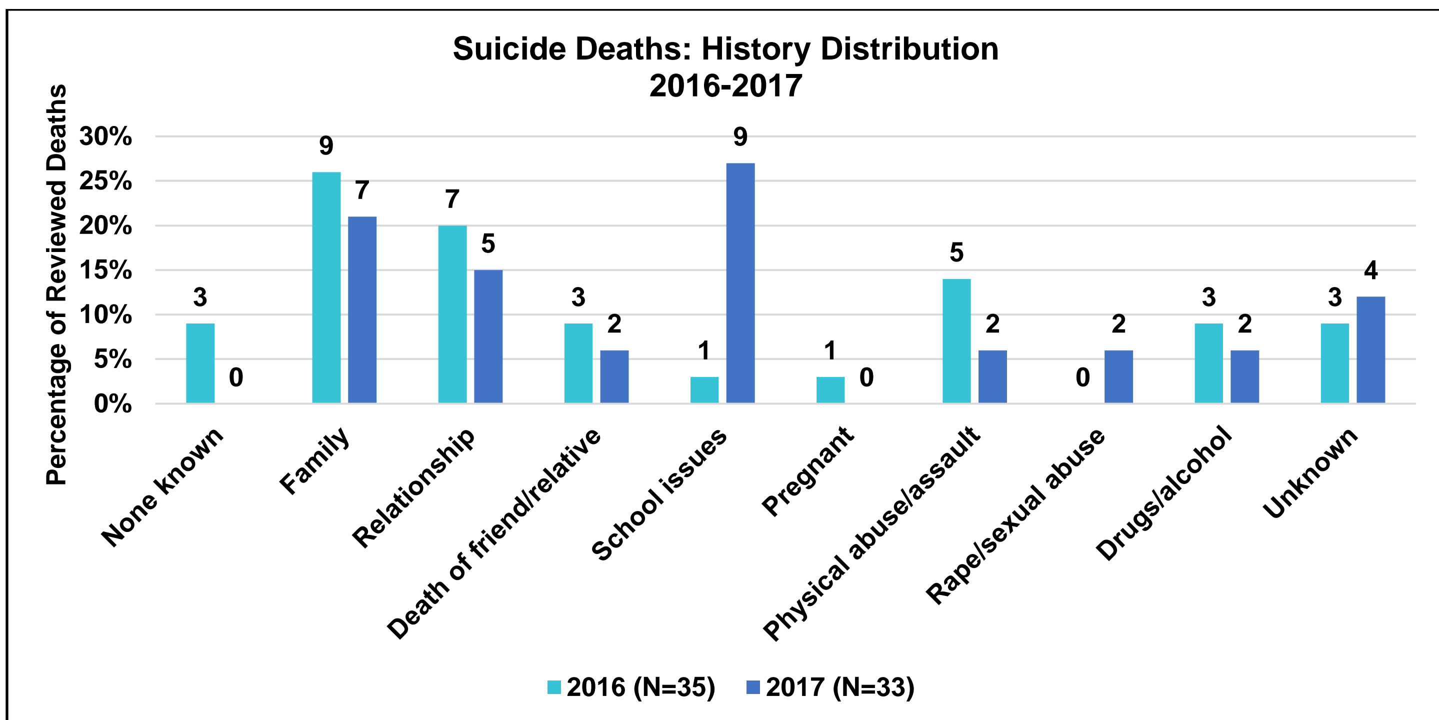
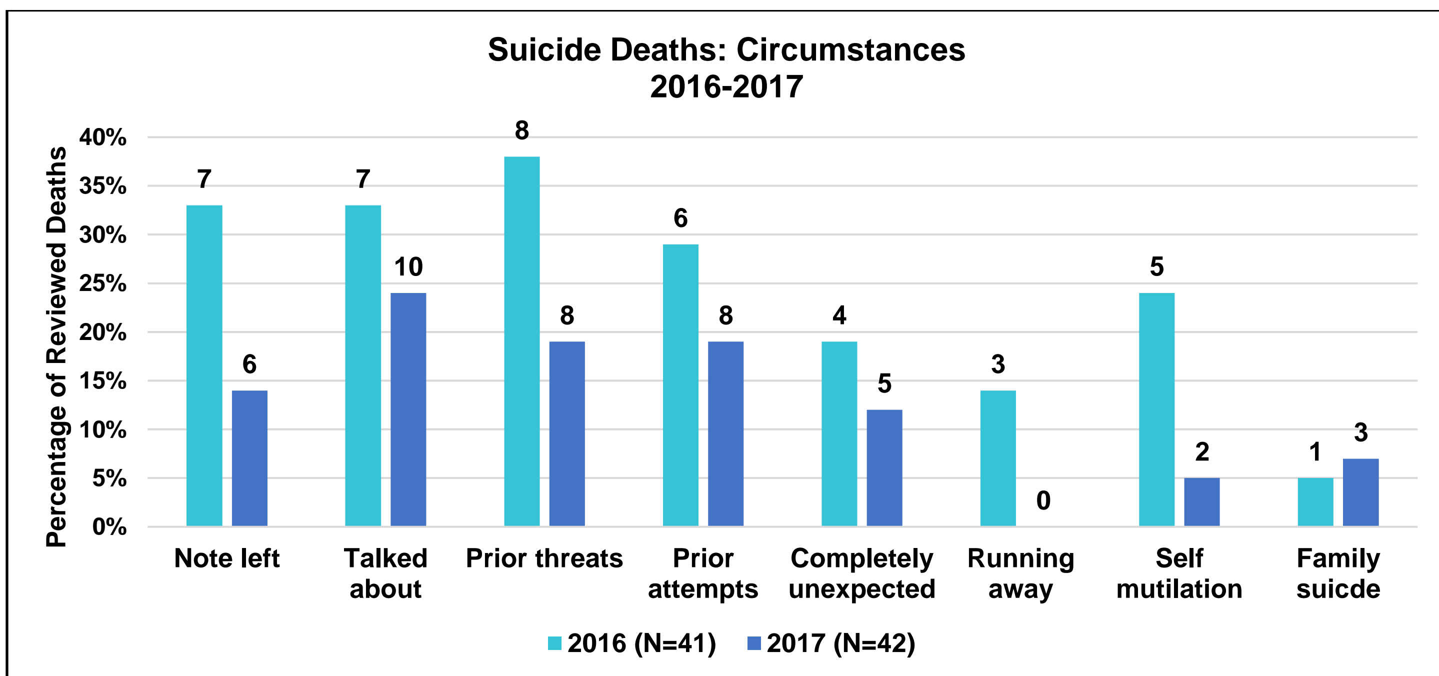
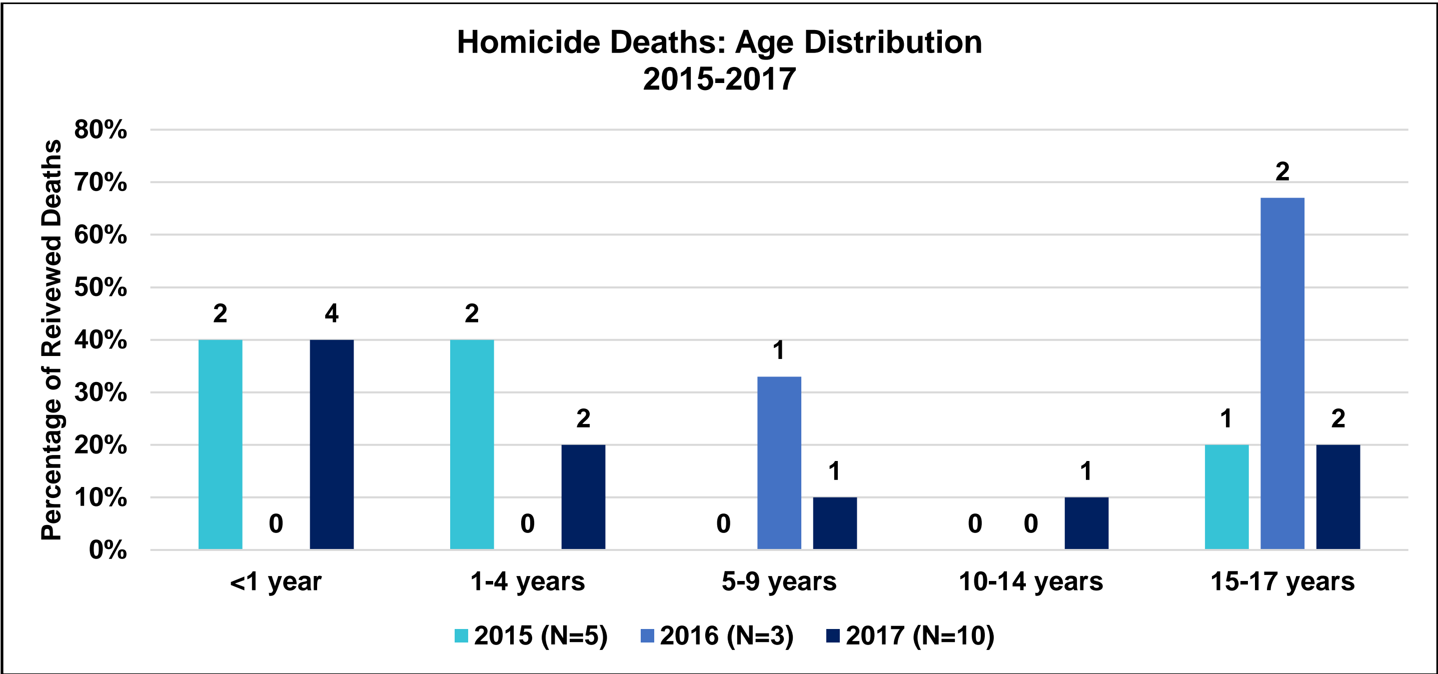


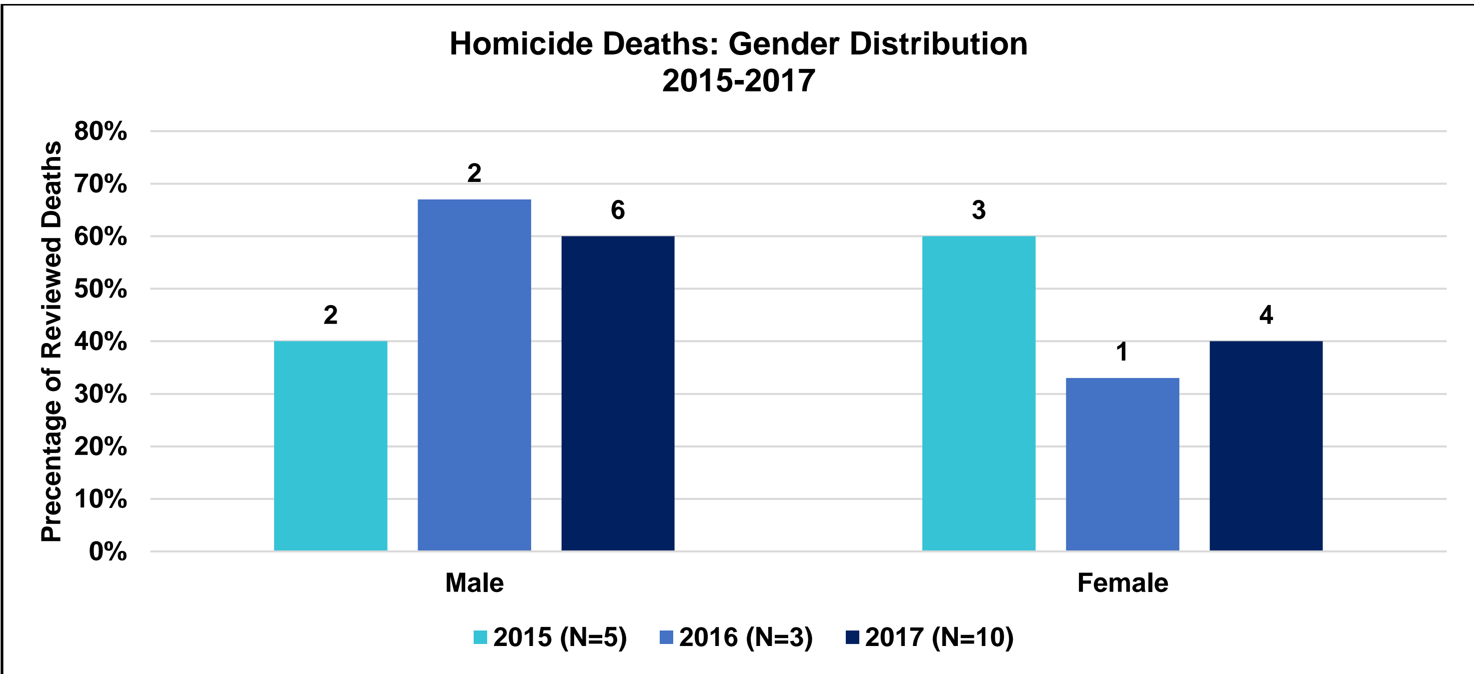


***In 2015 the history and circumstances data for suicide deaths were not collected.**

***Each death can have multiple History/Circumstance factors. The results will equal more than (n).**

4. Homicide Deaths





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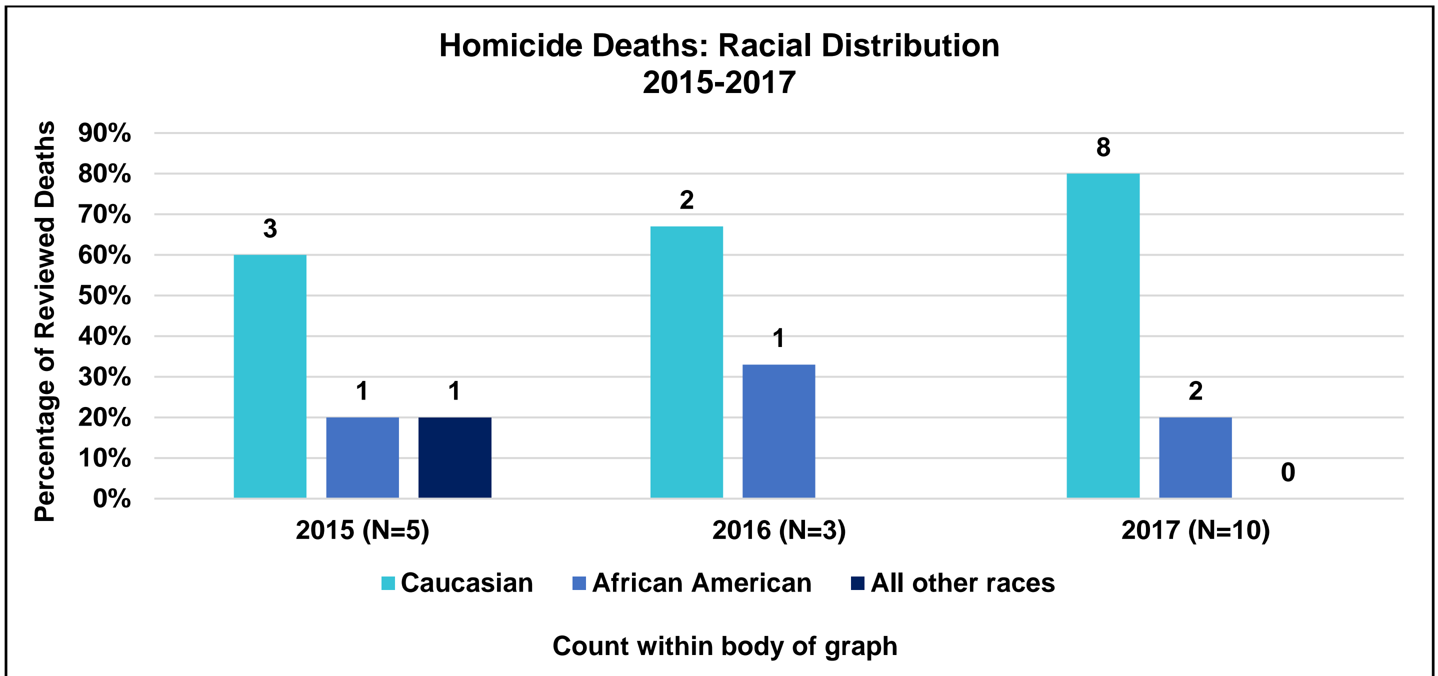
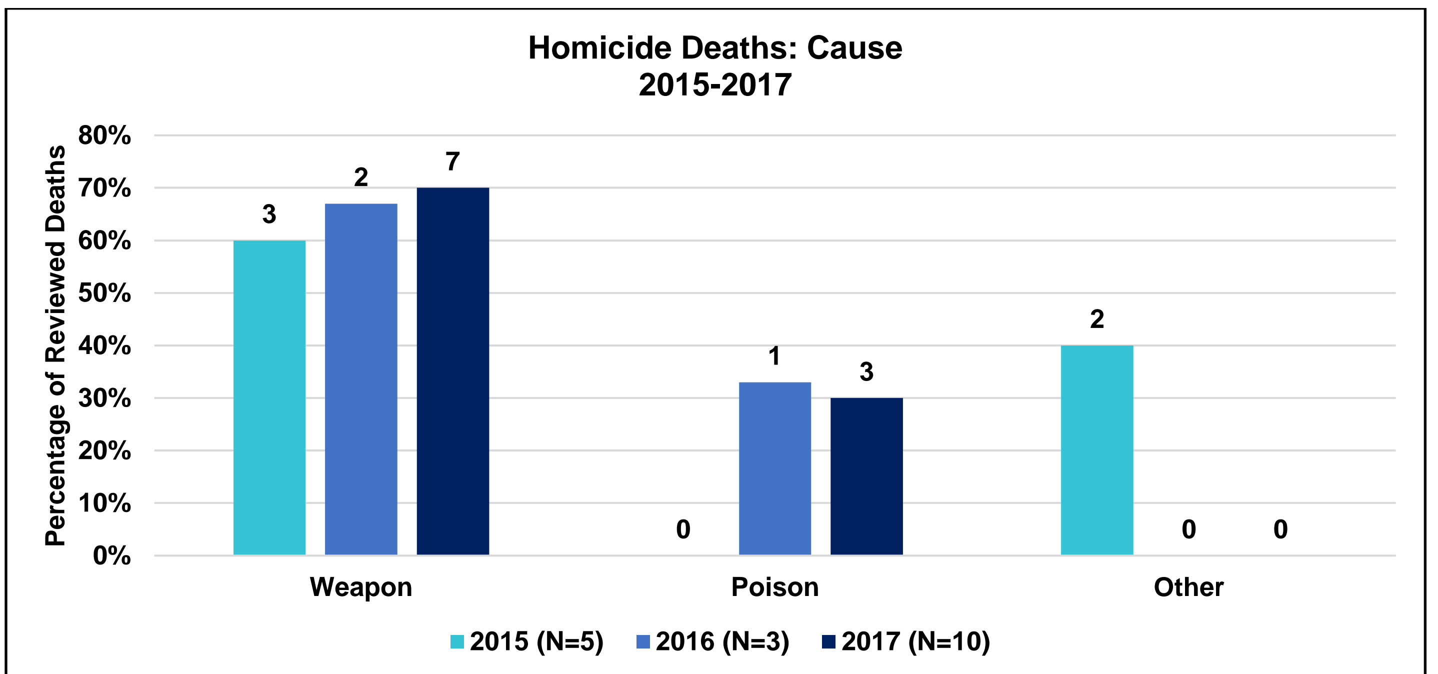
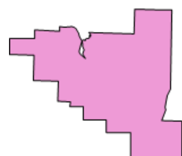


*Racial numbers are too small for valid rates in Homicide Deaths.

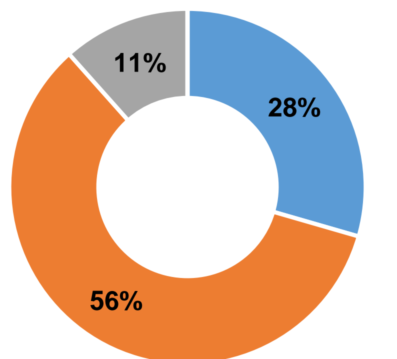


ICDR Team Data



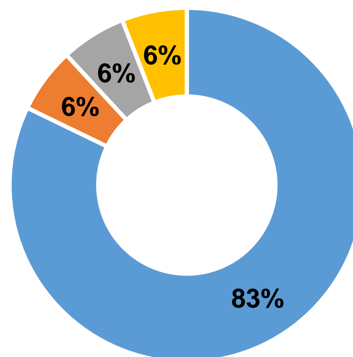
Capital City Team: Pulaski County

2017 Reviewed Deaths: Manner of Death N=18



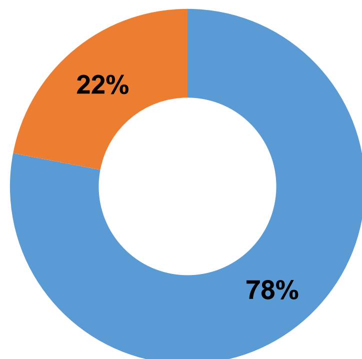
Accidents
Undetermined
Suicide
Homicide
Unknown

2017 Reviewed Deaths: Age Distribution N=18)



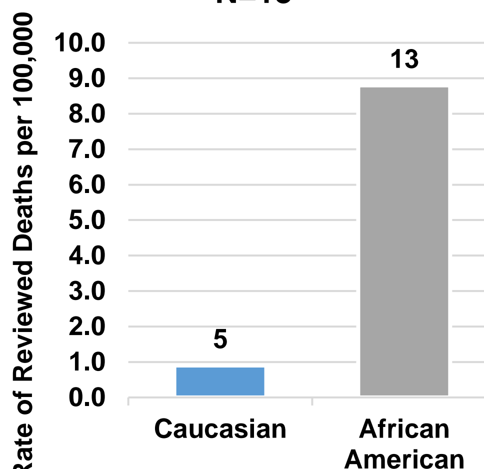
<1 year
1-4 years
10-14 years
15-17 years

2017 Reviewed Deaths: Gender Distribution N=18



Male
Female

2017 Reviewed Deaths: Racial Distribution N=18



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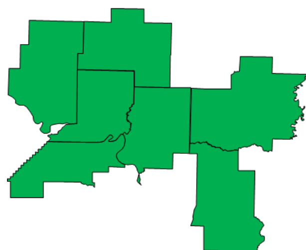
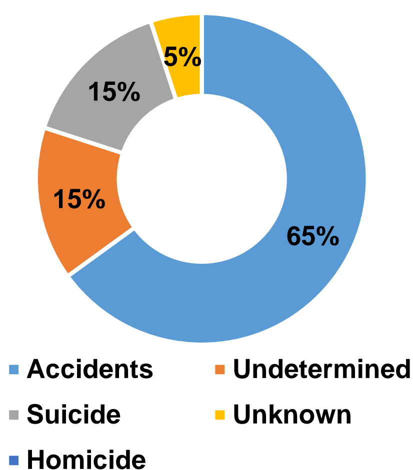
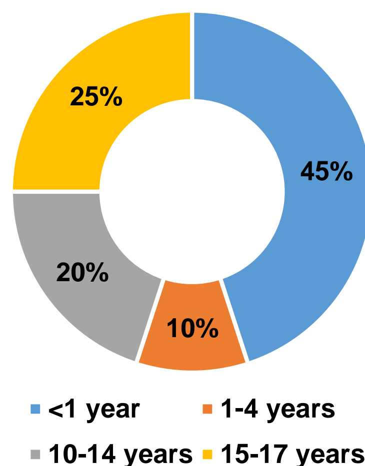
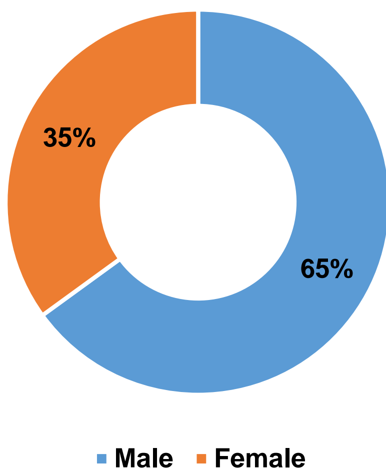
ICDR Team Data

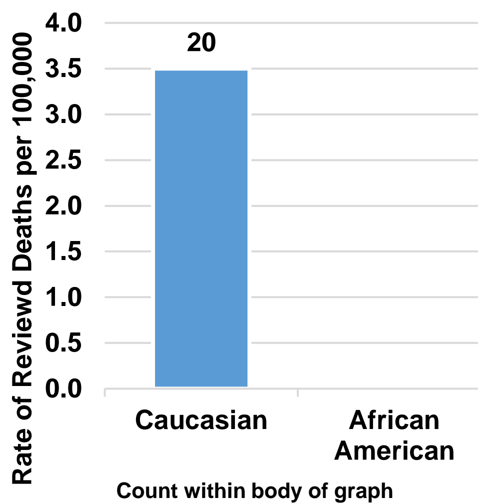


Central Team: Conway, Faulkner, Lonoke, Perry, Pope, Van Buren and White Counties

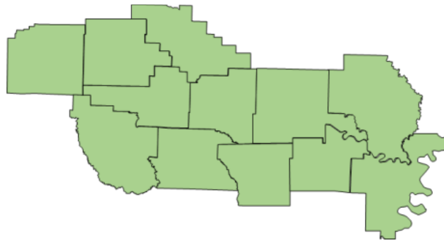




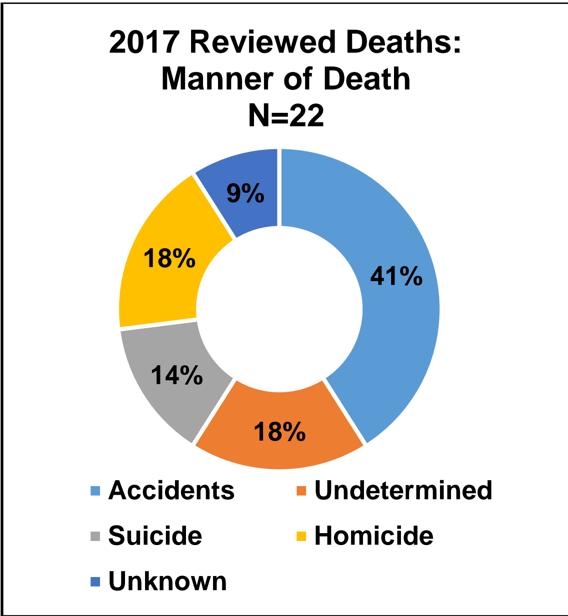


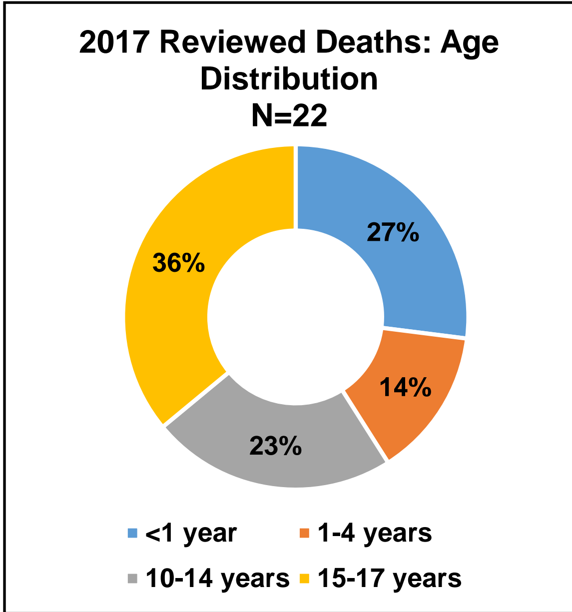


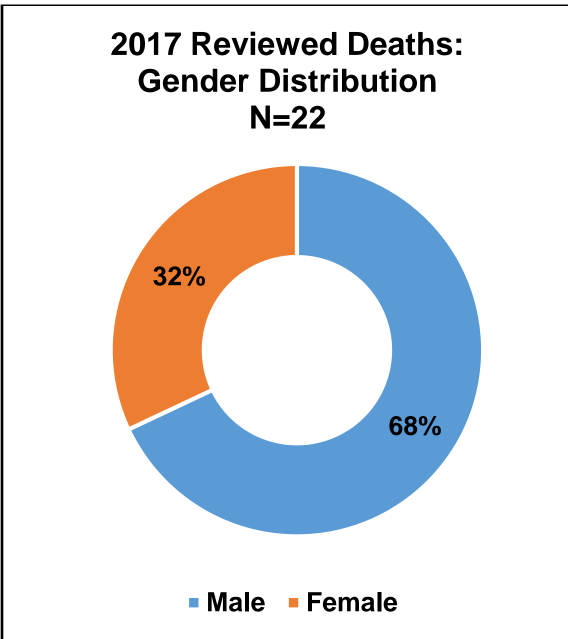
ICDR Team Data

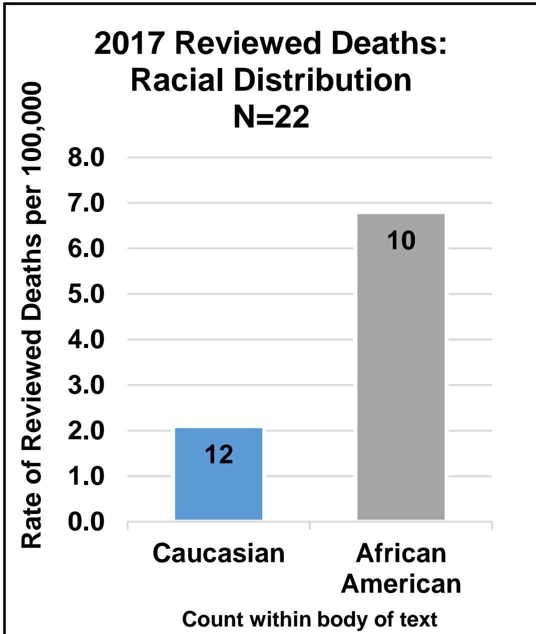


Endres South Central Team: Arkansas, Clark, Cleveland, Dallas, Desha, Garland, Grant, Hot Spring, Jefferson, Lincoln, Montgomery and Saline Counties



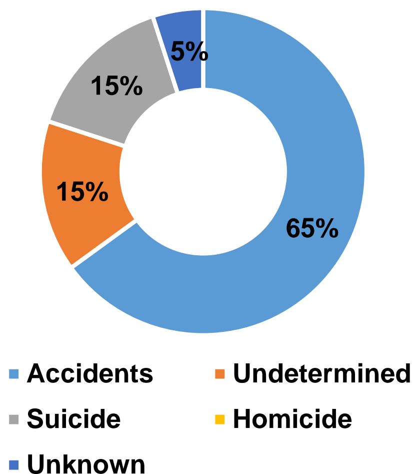


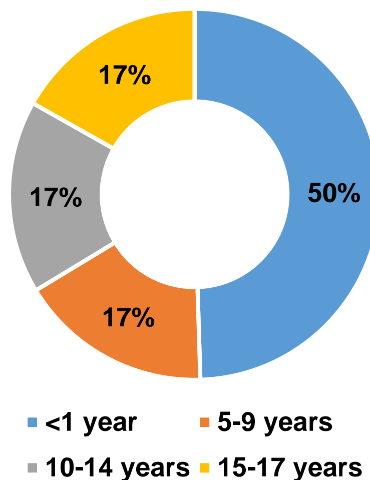


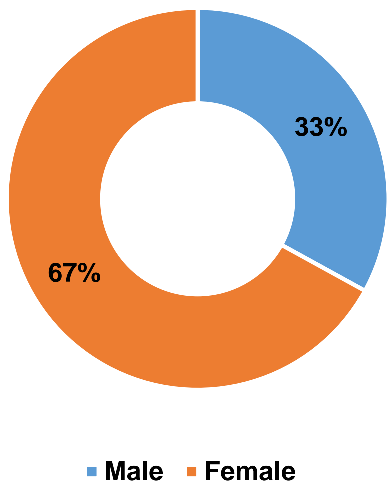


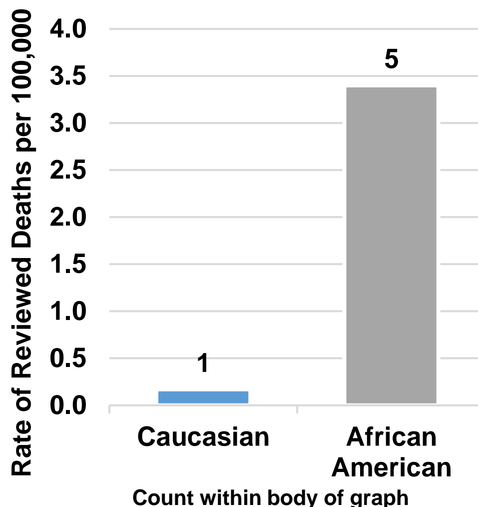
ICDR Team Data

Delta Team: Crittenden, Cross, Lee, Monroe, Phillips, an St. Francis Counties









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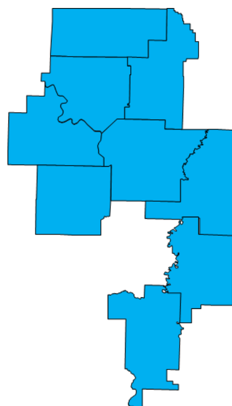
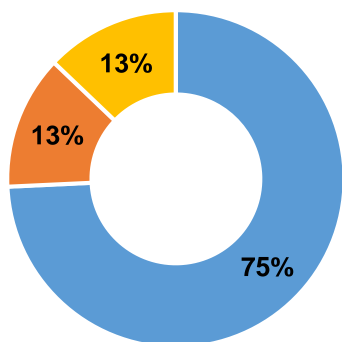
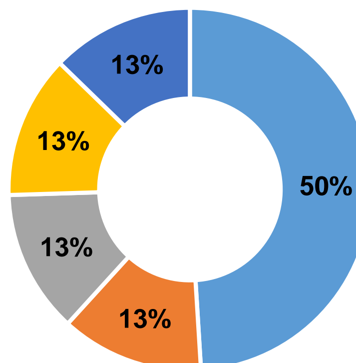
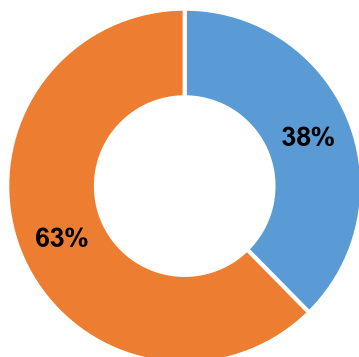
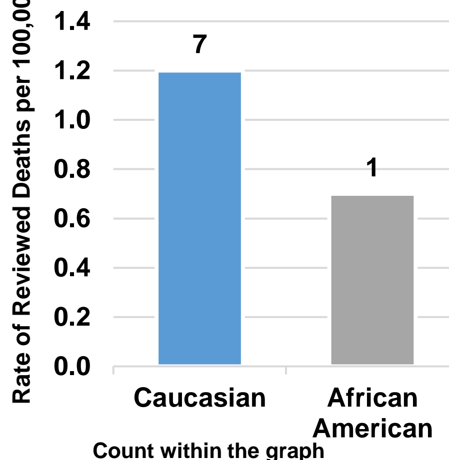


North Central Team: Cleburne, Fulton, Independence, Izard, Jackson, Prairie, Sharp, Stone and Woodruff Counties









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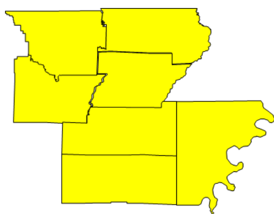
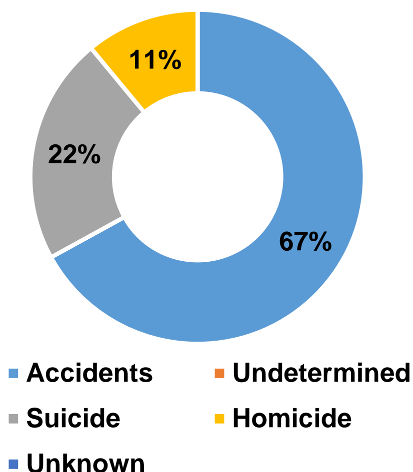
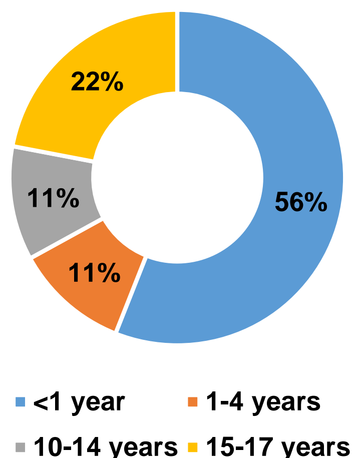
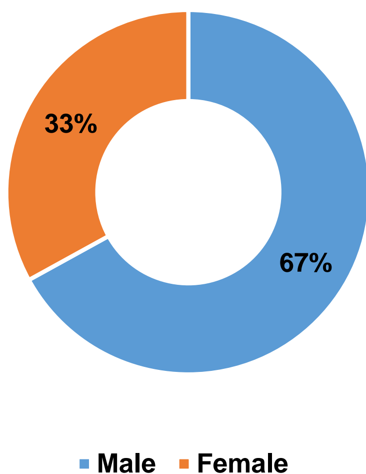
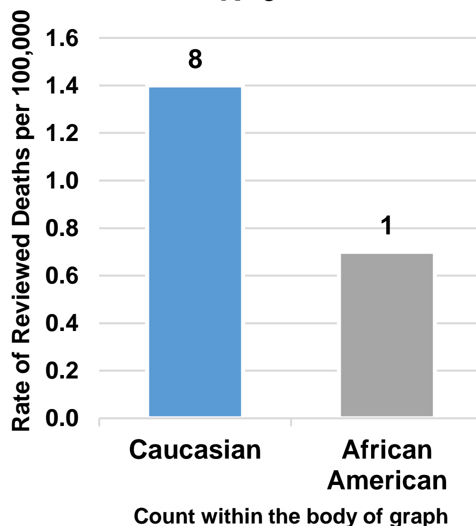


Northeast Team: Clay, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph Counties









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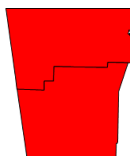
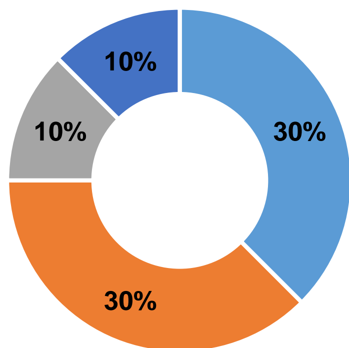


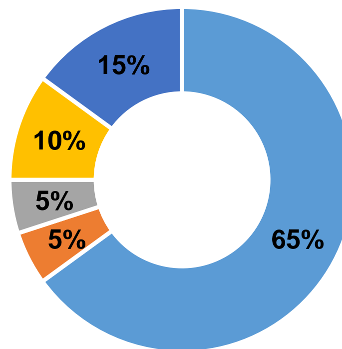
Northwest Team: Benton and Washington Counties

2017 Reviewed Deaths: Manner of Death N=20



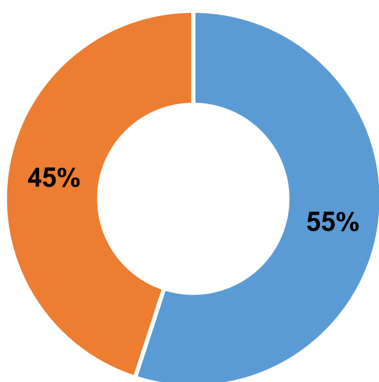
Accidents, Undetermined, Suicide, Homicide, Unknown

2017 Reviewed Deaths: Age Distribution N=20



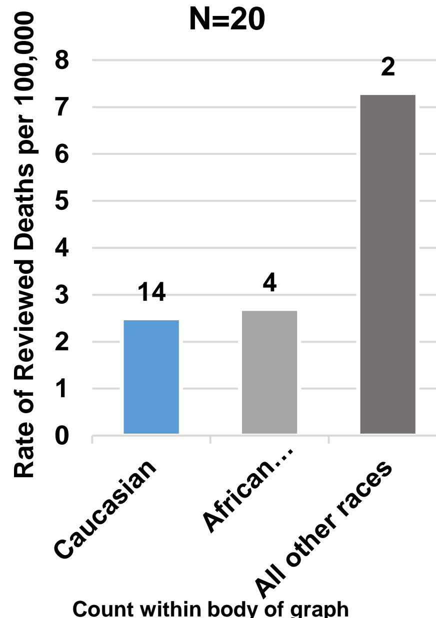
<1 year, 1-4 years, 5-9 years, 10-14 years, 15-17 years

2017 Reviewed Deaths: Gender Distribution N=20

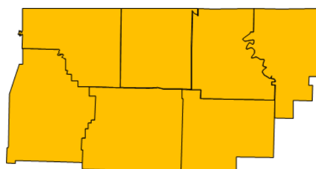


Male, Female

2017 Reviewed Deaths: Racial Distribution N=20

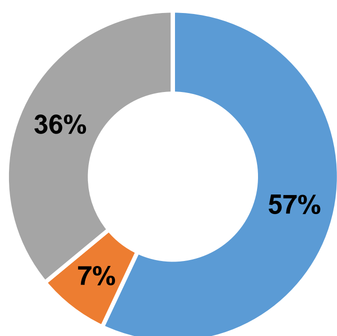


ICDR Team Data



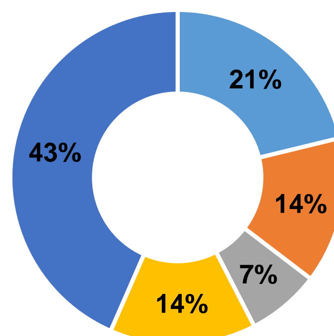
ICDR Ozark Mountain Team: Baxter, Boone, Carroll, Madison, Marion, Newton and Searcy Counties

2017 Reviewed Deaths: Manner of Death N=14



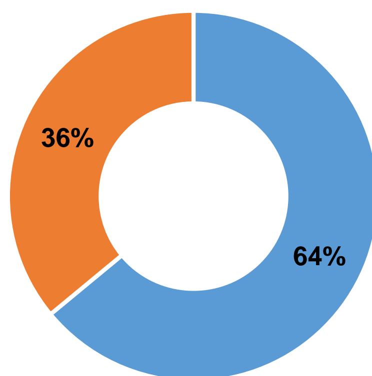
Accidents | Undetermined | Suicide | Homicide | Unknown

2017 Reviewd Deaths: Age Distribution N=14



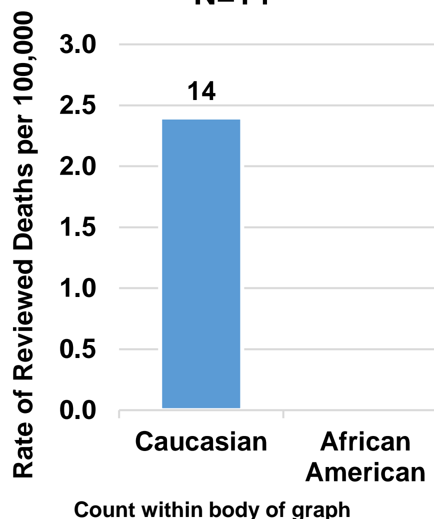
<1 year | 1-4 years | 5-9 years | 10-14 years | 15-17 years

2017 Reviewed Deaths: Gender Distribution N=14

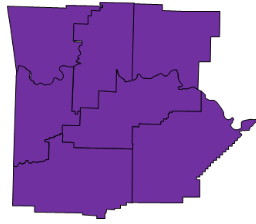


Male | Female

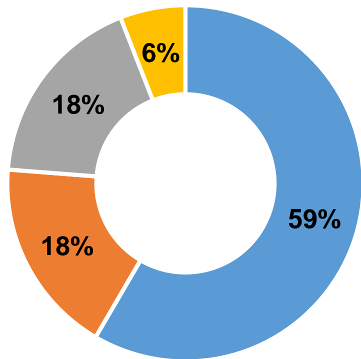
2017 Reviewed Deaths: Racial Distribution N=14

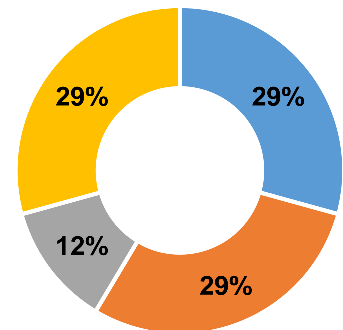


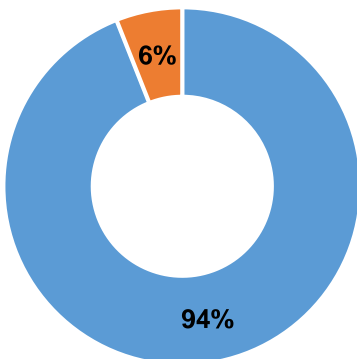
ICDR Team Data

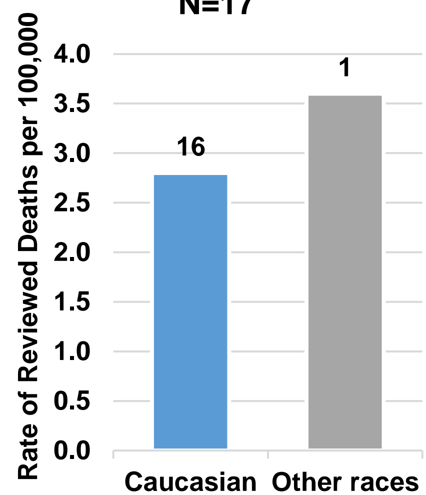


River Valley Team: Crawford, Franklin, Johnson, Logan, Scott, Sebastian and Yell Counties

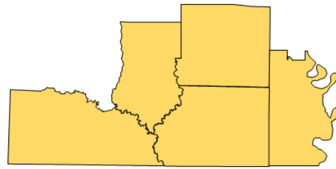






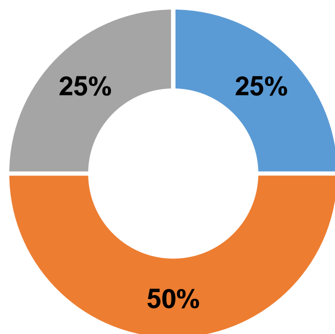


ICDR Team Data

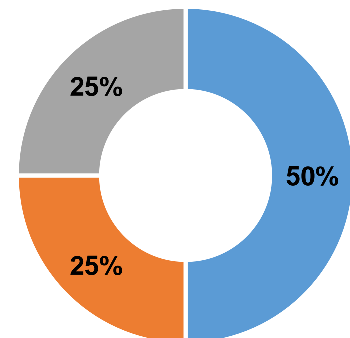


Southeast Team: Ashley, Bradley, Chicot, Drew and Union Counties

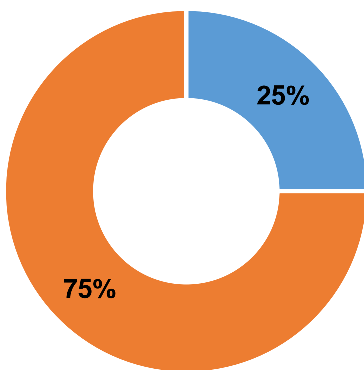
2017 Reviewed Deaths: Manner of Death N=4



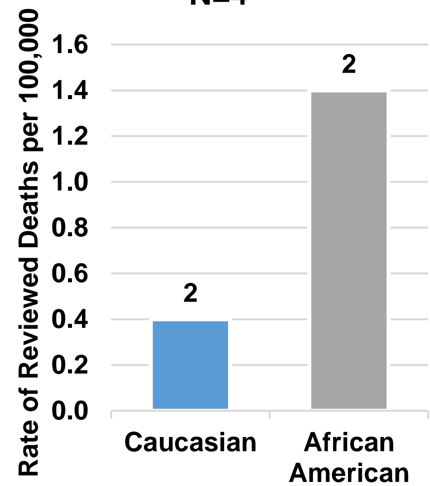
2017 Reviewed Deaths: Age Distribution N=4



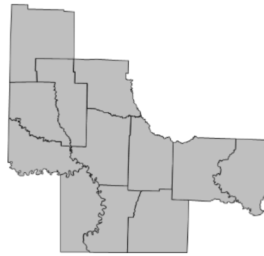
2017 Reviewed Deaths: Gender Distribution N=4



2017 Reviewed Deaths: Gener Distribution N=4

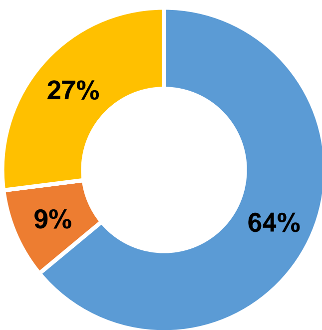


ICDR Team Data

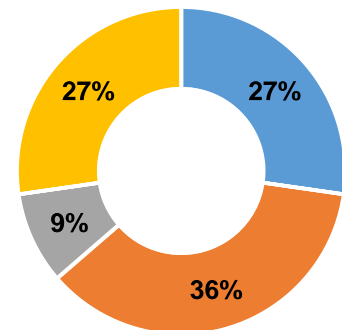


Southwest Team: Calhoun, Columbia, Hempstead, Howard, Lafayette, Little River, Miller, Nevada, Ouachita, Pike, Polk, and Sevier Counties

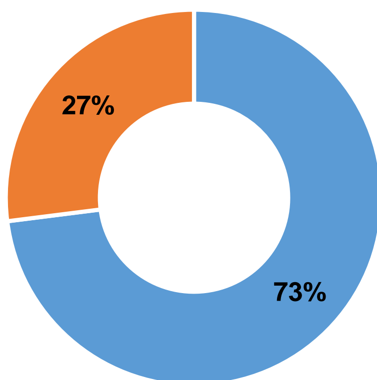
2017 Reviewed Deaths: Manner of Death N=11



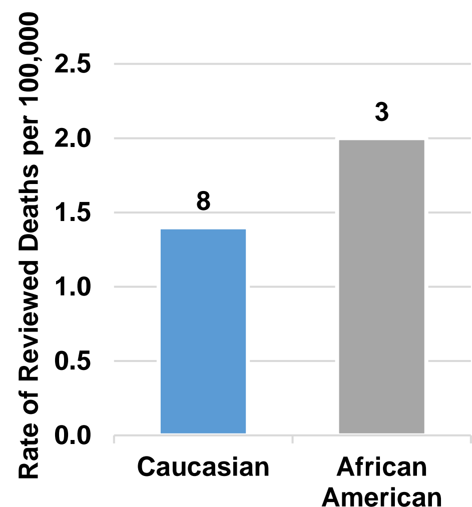
2017 Reviewed Deaths: Age Distribution N=11



2017 Reviewed Deaths: Gender Distribution N=11



2017 Reviewed Deaths: Racial Distribution N=11



Count within body of graph

ICDR Team Discretionary Projects

The ICDR Discretionary Projects was created by the ICDR Strategic Planning Committee to assist local teams with addressing gaps and needs within their communities. Those gaps or needs could be providing training for local agencies, assisting with policy implementation or creating and implementing education.

FY18

Capital City Team: Hosting SUIDI training for all law enforcement agencies in Pulaski County.
Gap Identified: SUID Investigations, vital to determining correct manner of death, were not being conducted by the county coroner's office

Southeast Team: Water safety and life jacket distribution
Gap Identified: Team wanted to address water safety and life jacket safety to all middle school students in Drew County.

FY19

Capital City Team: Gap Identified: Families whose children have died in the home do not receive information grief resources within their area of residence.
Recommendation: Creation and distribution of Grief Resource Packets (distribution by coroners, CACD, and chaplains).

Central Team: Gap Identified: Teenagers are not receiving education on motor vehicle safety within their community.
Recommendation: Host community based Teen Driving Roadeo Event.

Delta Team: Gap Identified: Local agencies are not trained in safe sleep education or SUID Investigations. There are very few if any car seat technicians in Crittenden, Cross, and St. Francis counties.
Recommendation: Conduct Safety Baby Shower and Carseat Technician Trainings, host SUIDI investigation training.

Endres South Central Team: Gap Identified: Crimes Against Children Division has new investigators who are needing to be trained in SUID investigations, to help them understand the logistics of the investigation and how they can assist in the SUID investigation.
Recommendation: Host SUIDI Training for CACD staff.

Northeast Team: Gap Identified: Mothers who birthed babies at St. Bernard's Hospital were not receiving safe sleep education. Inability to purchase cribettes was a barrier to St. Bernard's Hospital becoming safe sleep certified.
Recommendation: Assist St. Bernard's Hospital to become safe sleep certified, gold status.

Northwest Team: Gap Identified: Marshallese Mothers were not receiving safe sleep education due to language barriers.
Recommendation: Translate Safe Sleep Brochure for Marshallese population.

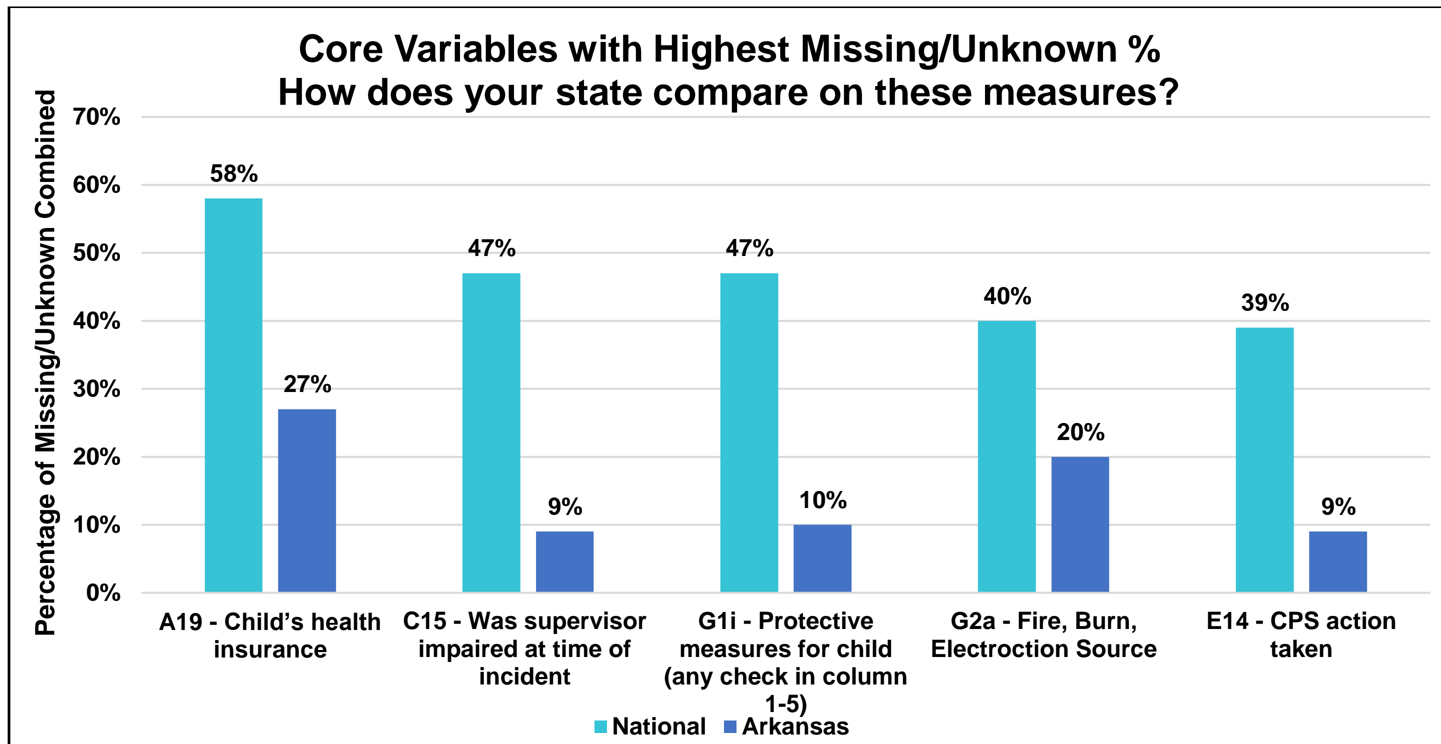
Ozark Mountain Team: Gap Identified: Lack of training for local school staff to recognize and support students who may be suicidal.
Recommendation: Host ASIST and Safe Talk training for students.

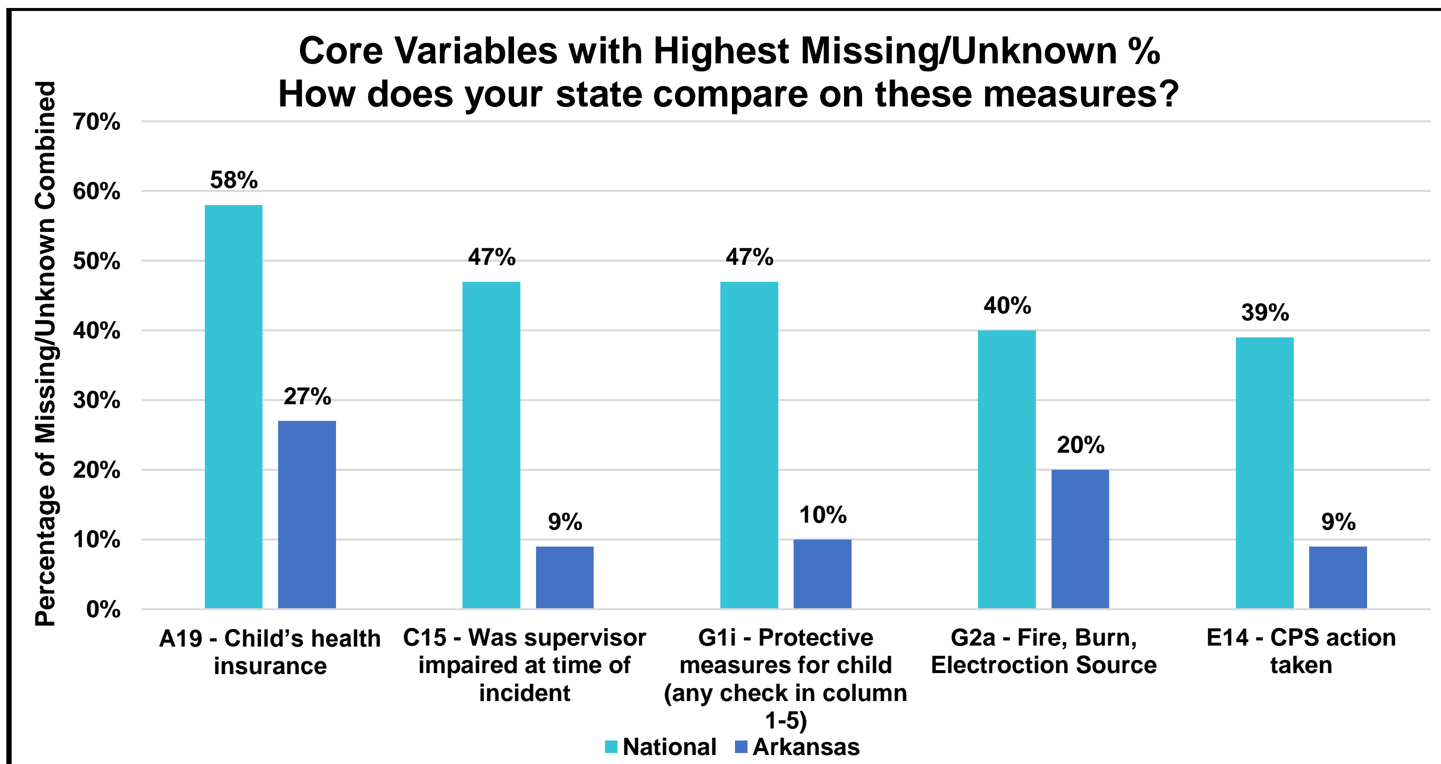
River Valley Team: Gap Identified: Lack of training for local school staff to recognize and support students who may be suicidal.
Recommendation: Host ASIST and Safe Talk training for students.

Southeast Team: Gap Identified: Infant deaths, due to unsafe sleep environments are being classified as undetermined because a SUID investigation is not being conducted.
Recommendation: Host SUIDI training for law enforcement, coroners/deputy coroners and CACD.

Data Analysis: National vs. Arkansas

The data quality summary report identifies the "missing" and "unknown" data variables that are identified by the National Child Fatality Review Program (NCFRP) as CORE variables.





Data Analysis: National Child Fatality Review Program September 2019 Newsletter

Arkansas was featured in the September National Child Fatality Review Program Newsletter for data quality improvement

(https://www.ncfrp.org/wp-content/uploads/NCRPCD-Docs/NCFRP_Newsletter_Sept2019.pdf).