

Accidental Suffocation and Strangulation
in Bed Deaths
2013 – 2017



March 1, 2019

Accidental Suffocation and Strangulation in Bed (ASSB) in the City of Austin for 2013 – 2017

Background

Accidental suffocation or strangulation in bed (ASSB) is the leading cause of injury death for infants under 12 months of age nationwide, as well as in Travis County and the City of Austin. Data for this report comes primarily from Travis County Medical Examiner’s reports for sleep-related infant deaths occurring in the City of Austin over a five-year period (2013 – 2017). Location of injury includes Travis, Williamson and Bastrop counties. Location of injury and residence of the deceased may not be the City of Austin.

Sudden Infant Death Syndrome (SIDS) deaths are categorized as “undetermined” by the Travis County Medical Examiner and are not included in this report. This report contains deaths in which the cause of death was listed as “suffocation” and the baby was considered to have been in an unsafe sleep environment based on the 2016 American Academy of Pediatrics recommendations for safe sleep. Although no deaths were attributed to SIDS for this time period, the risk factors and risk reduction strategies are the same for both SIDS and ASSB.

There were 42 ASSB infant deaths in the City of Austin for 2013 – 2017. However, one death has been excluded from these analyses because the location of injury and the residence of the decedent was neither in Travis County nor in a county contiguous with Travis County. This brings the total for this report to 41.

Terminology

Contiguous counties – Williamson, Bastrop, Caldwell, Hays, Blanco, Burnet

Breastfed – Any amount of breastfeeding or breast milk was noted in the medical examiner’s report.

Gestation – Period of development that includes three trimesters. Normal gestation is 40 weeks.

Premature – Birth occurred before 37 weeks.

Smoke exposure – Evidence of tobacco smoke exposure was noted in the medical examiner’s report, such as ash trays or cigarette butts as well as self-reported tobacco use by someone living in the household or during pregnancy. No smoke exposure denotes usage was denied; unknown smoke exposure represents no evidence of usage was observed nor mentioned. Marijuana smoke or other non-tobacco products were not included in this analysis.

Non-parental supervision – Infant was not under the care of one or more parents at the time of the incident.

Bed-sharing – Infant is placed to sleep on the same surface as another person and includes couch, sofa or blankets on floor.

Data and Methodology

This report was prepared by the Austin Public Health Chronic Disease and Injury Prevention Program with support from the Epidemiology and Public Health Preparedness Division. Records from the Travis County Medical Examiner were identified by the City of Austin Office of Vital Records and used based on their main cause of death being listed as “suffocation” on the death certificate. ICD-10 codes for these deaths included W75 (accidental suffocation and strangulation in bed), W83 (other specified threats to breathing), W84 (unspecified threat to breathing), R99 (Other ill-defined and unspecified causes of mortality) and P219 (Newborn asphyxia unspecified).

Suffocation Death Data

Suffocation death data were extracted through case review of each report and then categorized through an iterative process in an Excel spreadsheet based on known risk factors from the literature or identified trends. Demographic variables included age, gender, race/ethnicity and zip code location of death. Health risk factors included gestation, breastfeeding, tobacco smoke exposure and infant illness. Sleep environment risk factors included caregiver present, location of infant, bed-sharing, sleep position and bedding. Pivot tables were used to calculate sums and frequencies by category. If data for a category were missing, the appropriate law enforcement agency provided incident reports based on the accidental death investigation when possible.

Data Sources

Travis County Medical Examiner’s Reports, The Office of Vital Records, Austin Police Department Incident Reports, Round Rock Police Department Incident Reports, Travis County Sheriff’s Office Incident Reports

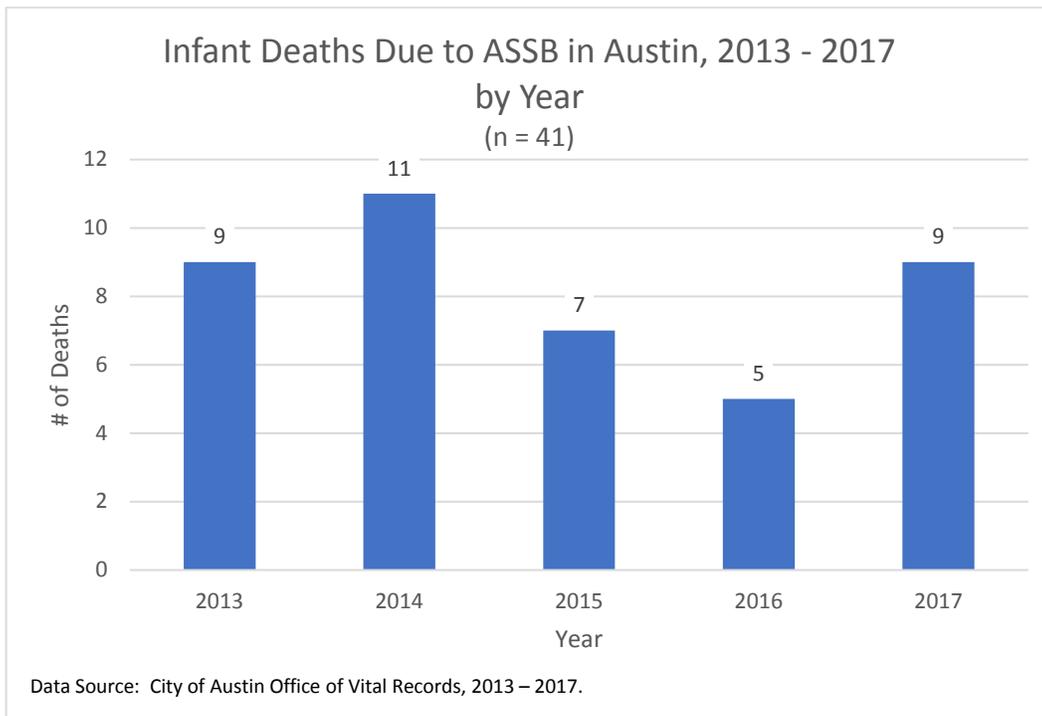
Summary of Findings

- African Americans are disproportionately represented in ASSB deaths as compared to other races.
- Ninety percent (90%) of ASSB deaths occurred within the first six months.
- A majority of babies (73%) involved in ASSB deaths were not breastfed.
- Nearly one half (46%) of ASSB deaths occurred during morning or daytime hours.
- Most infants (73%) were sleeping in an adult bed at the time of the incident.
- Sixty-six percent of babies (66%) who succumbed to ASSB were bed-sharing with another person.
- Over half (54%) were placed on their side or stomach at sleep time, and a majority (73%) were found on their side/stomach.
- Blankets were present in 71% of ASSB deaths; pillows were present in 61%.

Charts and Data

Accidental Suffocation Deaths by Year

On average, there are eight accidental suffocation and strangulation in bed (ASSB) deaths in Austin per year.



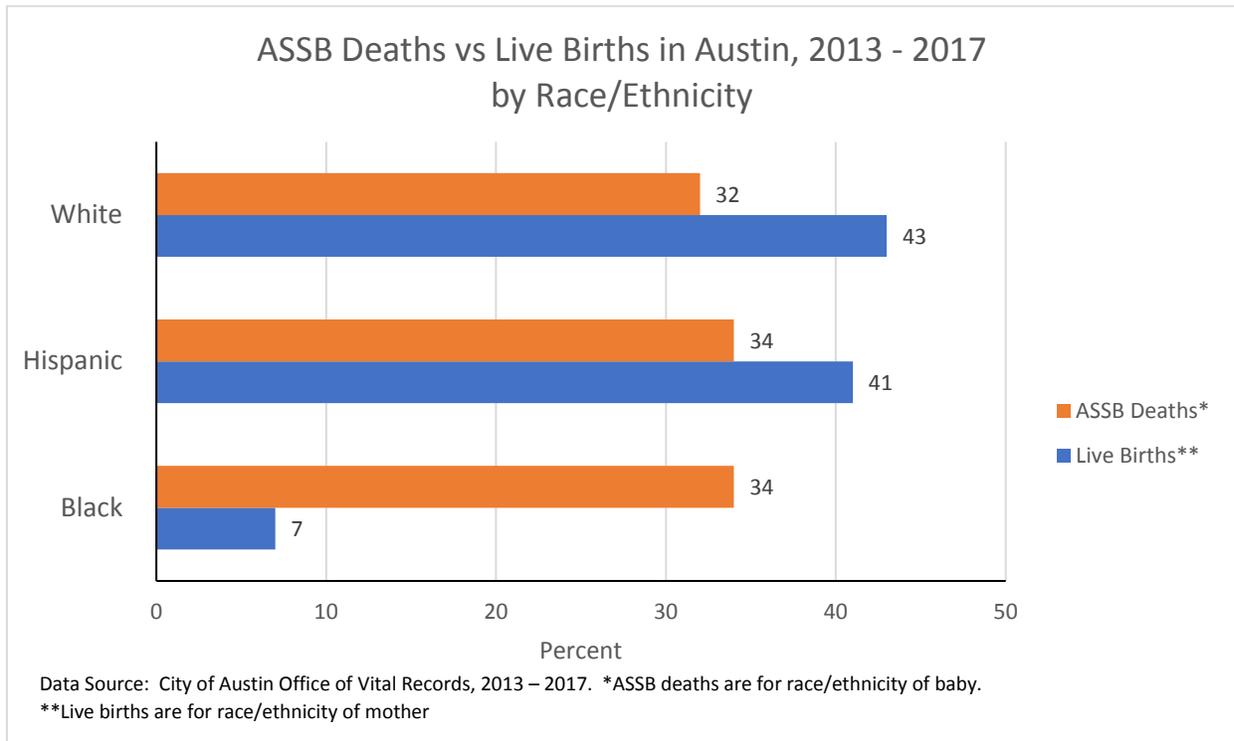
Location of Injury

Suffocation deaths are a widespread problem and can occur anywhere. Nearly one-quarter (24%) of the injuries resulting in death occurred in two Austin zip codes: 78723 and 78753.

Demographics

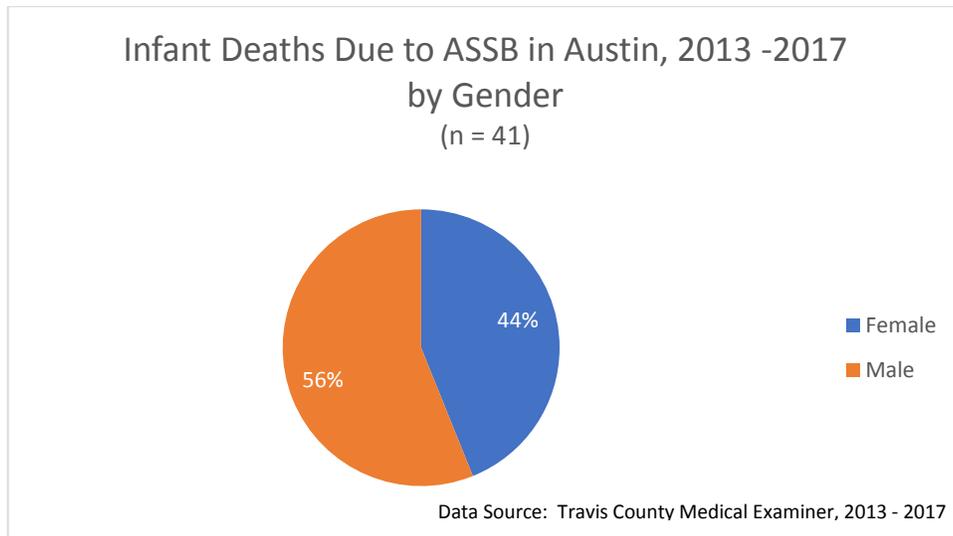
Race/Ethnicity

Nationally, ASSB death rates among African Americans are more than twice those of other races. In Austin, African Americans comprise only seven percent (7%) of live births but represent thirty-four percent (34%) of these deaths.



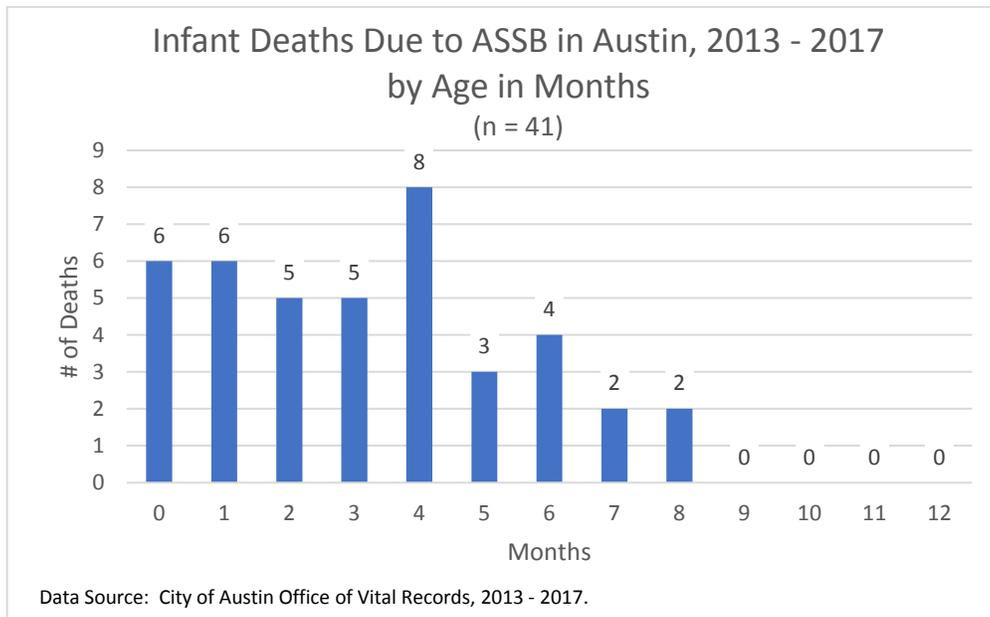
Gender

Over half (56%) involved male infants.



Age

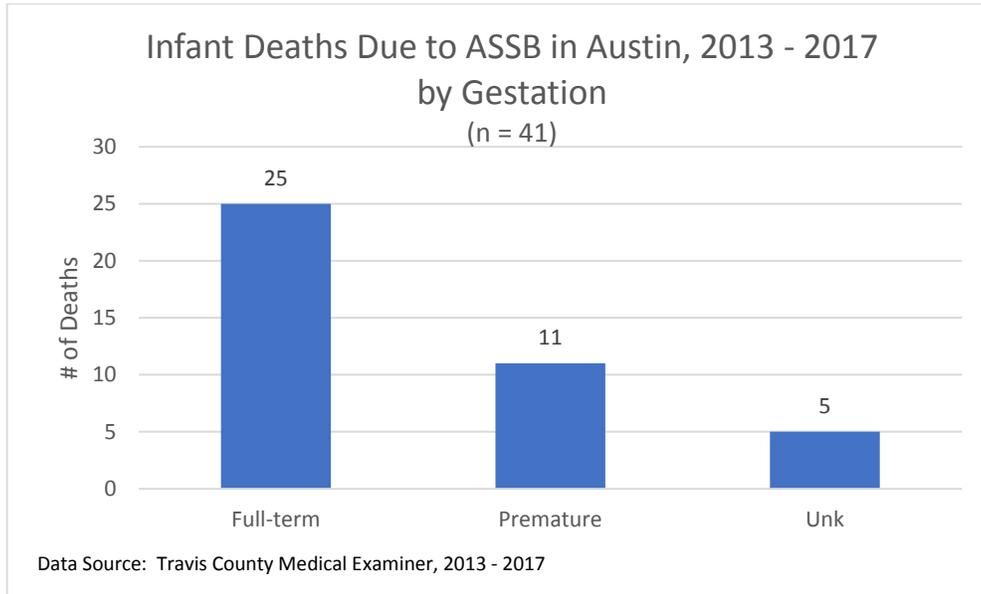
Ninety percent (90% or 37) occurred in the first six months of life. No ASSB deaths of babies over the age of eight months occurred in Austin from 2013 - 2017.



Health History

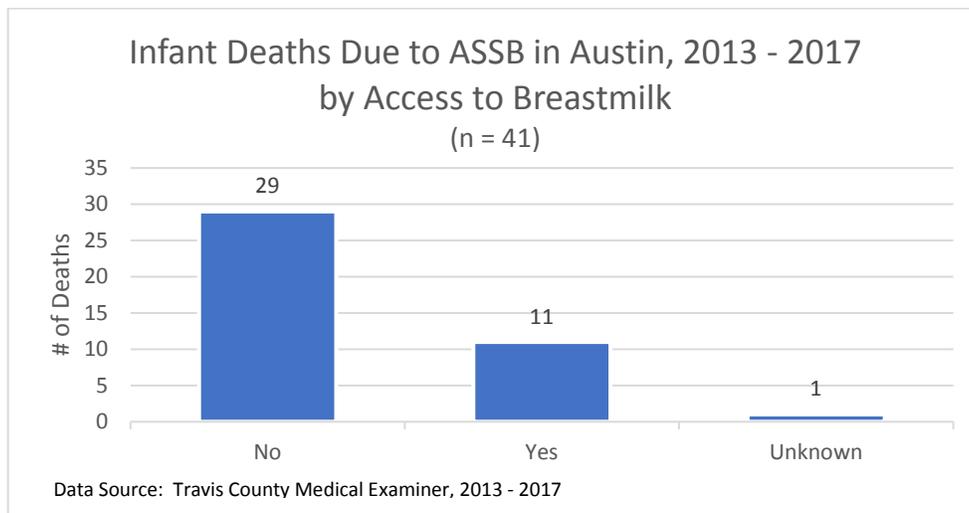
Gestation

Nearly one-third (31%) were premature. In comparison, in 2017 about ten percent (10%) of all babies born in the U.S. were born preterm according to the CDC. Premature infants have a greater risk compared to full-term babies of dying of sleep-related deaths, including SIDS, when bed-sharing.¹



Breastfeeding

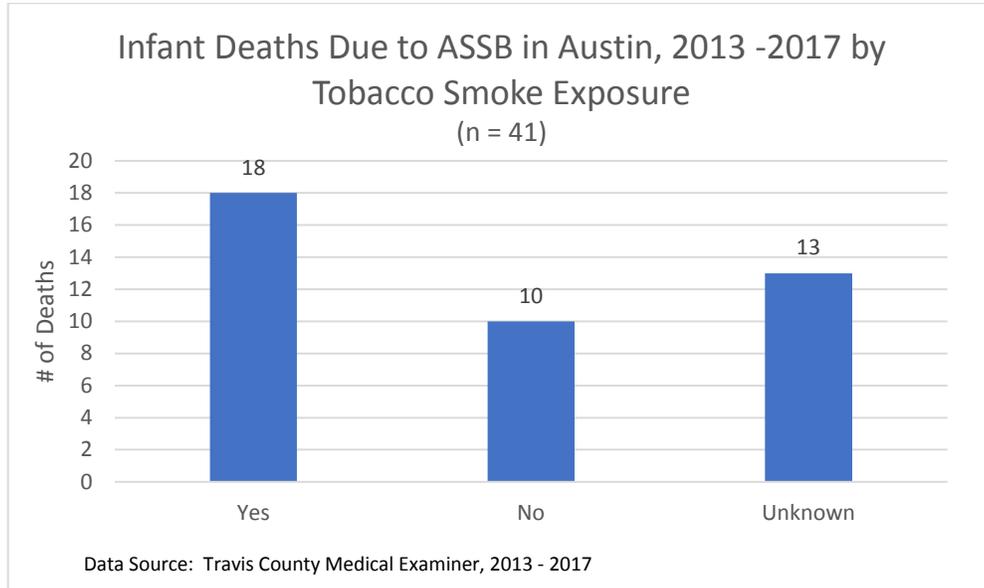
Less than one-third (28%) of the babies were breastfed. The American Academy of Pediatrics recommends breastfeeding for the first six months. Any amount of breastfeeding has been shown to be more protective against SIDS than no breastfeeding.¹



¹ The American Academy of Pediatrics. SIDS and Other Sleep-Related Infant Deaths: Updated 2016 Recommendations for a Safe Infant Sleeping Environment.

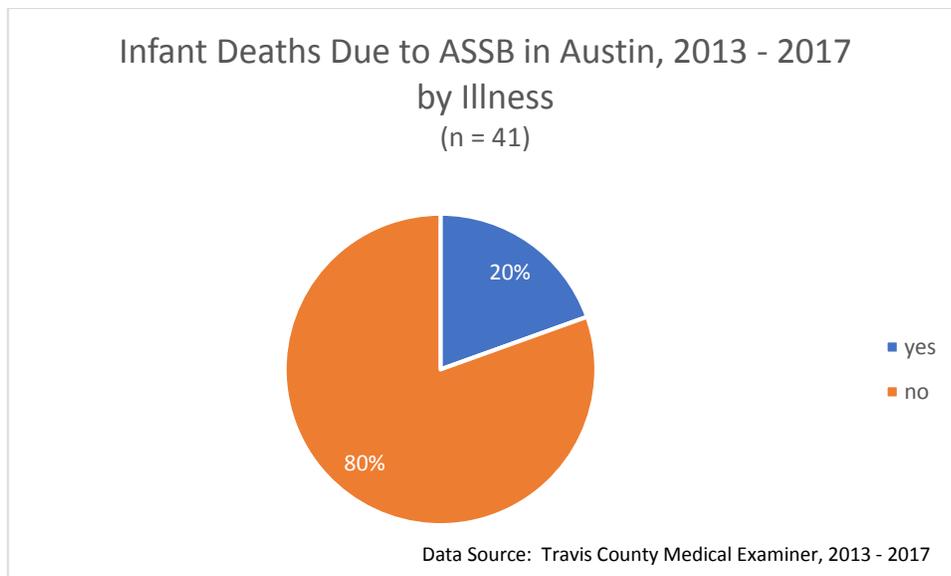
Smoke exposure

Smoking from self-reported medical history or smoking materials present in the household was known for 28 households. Of those households, smoke exposure was noted in 18 or 64%. Three moms (17%) smoked during pregnancy. Smoking has been shown to increase the risk of SIDS.¹



Illness

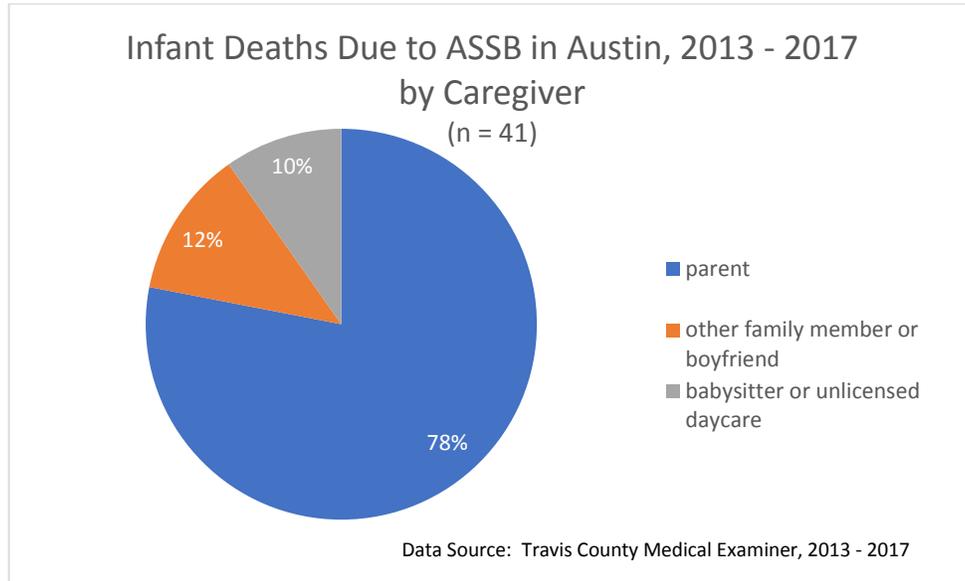
Of the 41 infants, eight (20%) were noted to have had some form of illness at the time of incident. This included congestion, fever, head cold, cough and wheezing.



Sleep Environment

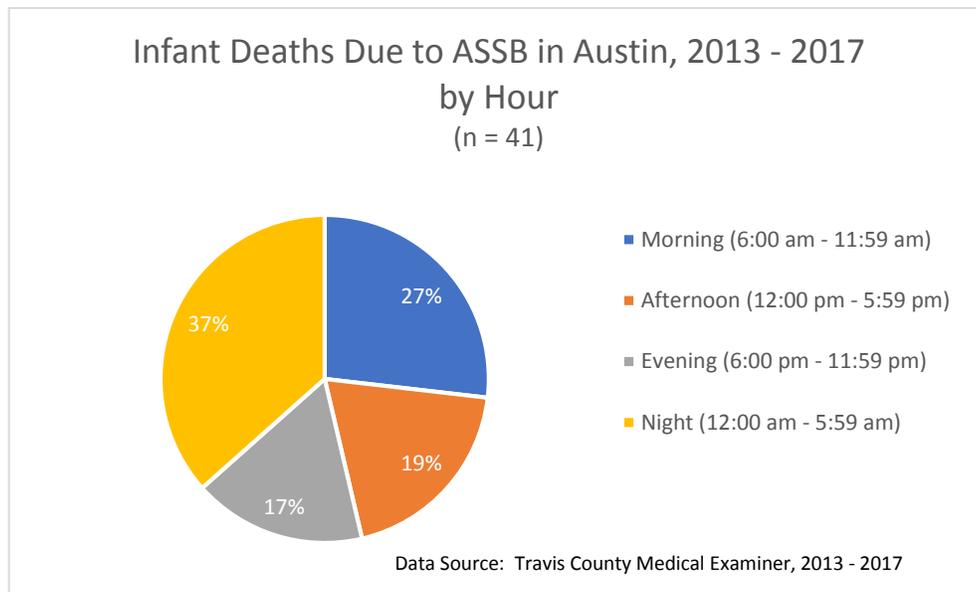
Caregiver

At the time of incident, seventy-eight percent (78%) of the infants were under the care of a parent. Twenty-two percent (22%) were under non-parental supervision, higher than the national average of 13%.²



Hour

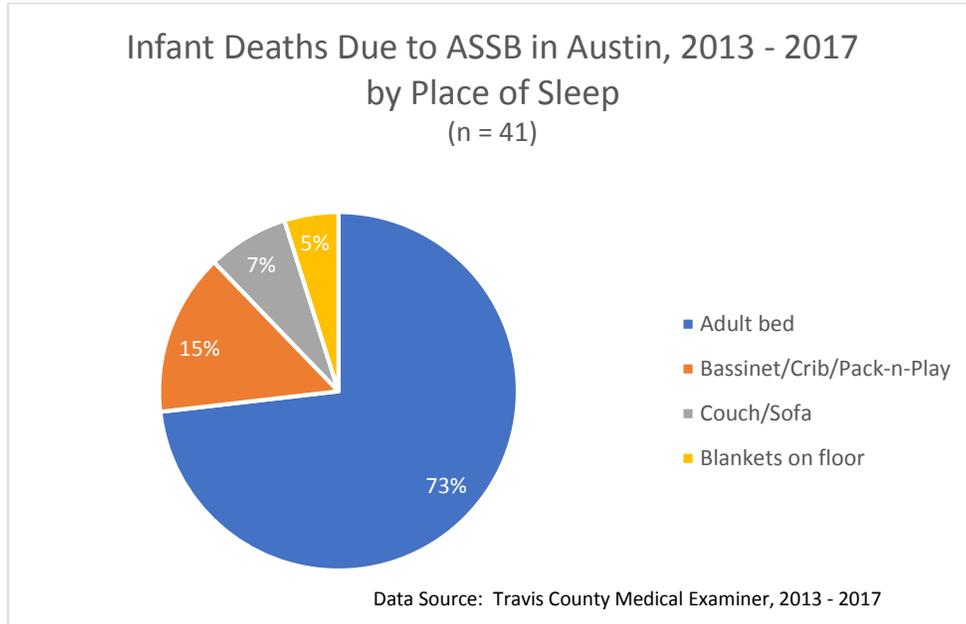
Forty-six percent (46%) were either put to sleep or last known responsive during morning or afternoon hours (6:00 am – 5:59 pm).



² Lagoon, Moon and Colvin. Characteristics of Infant Deaths during Sleep While Under Nonparental Supervision. Journal of Pediatrics. June 2018 Volume 197, Pages 57–62. e36

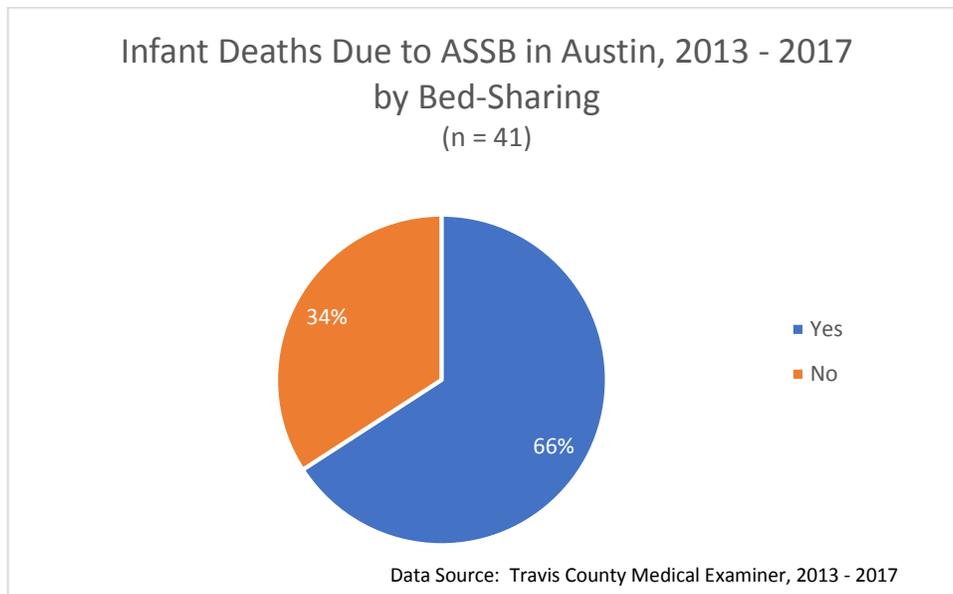
Place of Sleep

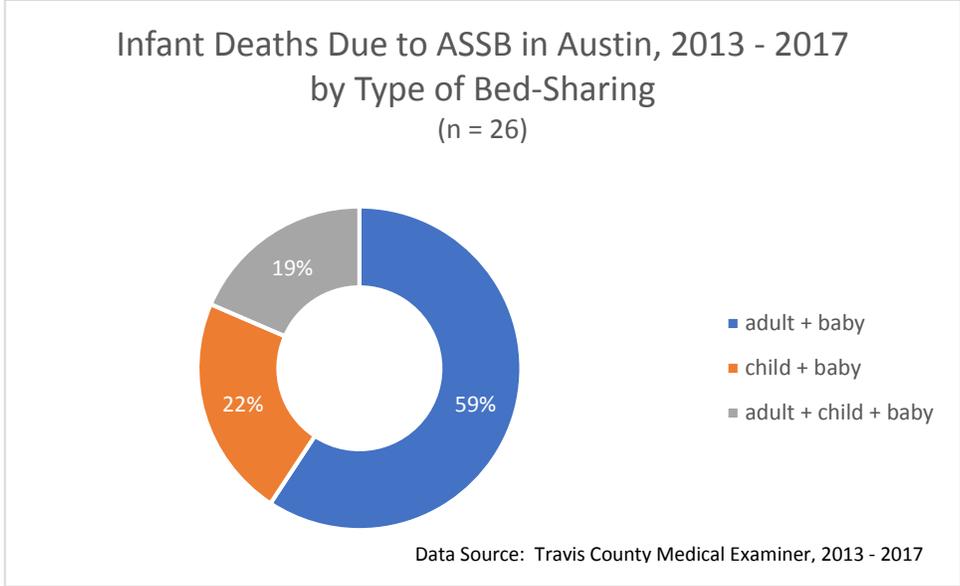
The majority (73%) were placed in an adult bed for sleep. Only cribs, bassinets, portable cribs and play yards that conform to the Consumer Product Safety Commission’s standards are recommended for sleep.¹ Five families were identified as possibly needing a crib.



Bed-Sharing

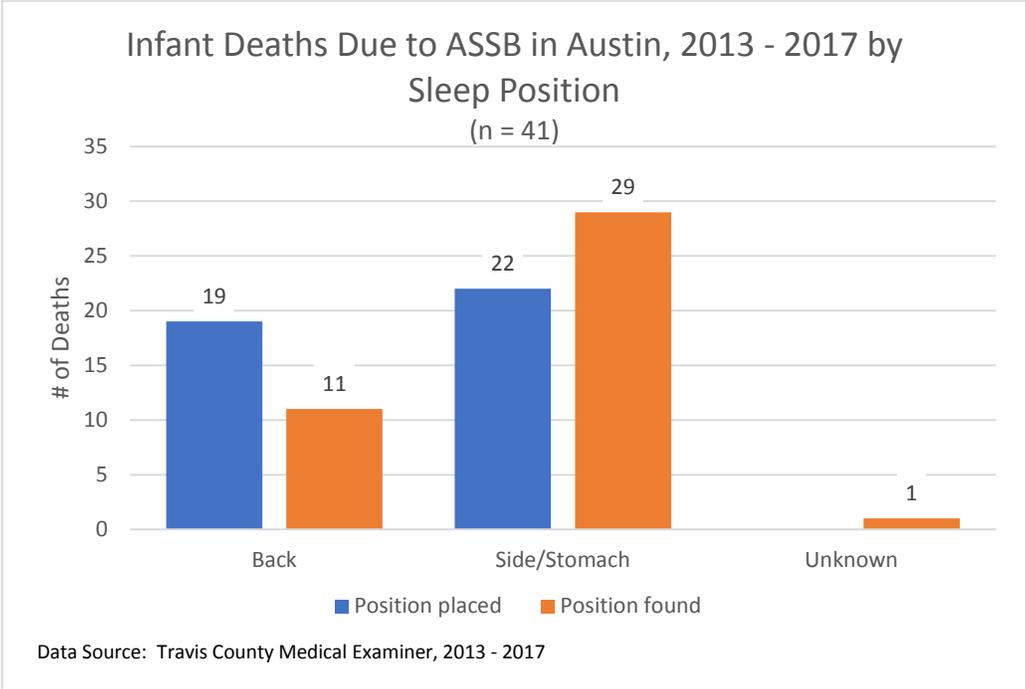
Two-thirds (66%) were bed-sharing at the time of incident. The majority were bed-sharing with an adult. The AAP recommends that infants sleep in the same room as the parents, but on a separate sleep surface for up to one year of age.¹





Position

Over half (54%) were not placed on their back as recommended,¹ and a majority were found on their side or stomach. Twenty-percent (20%) were placed with a rolled-up pillow or blanket under them.



Bedding

Most sleep areas were known to have a pillow (61%) or blanket (71%) present although recommendations state that neither be present in an infant's sleep environment.¹

