

FRANKLIN COUNTY HEALTH INDICATOR BRIEF: 2015-2016

SLEEP-RELATED INFANT DEATHS

INTRODUCTION

This health indicator brief is a summary of sleep-related Franklin County infant deaths occurring from 2015-2016. These deaths happen when babies, under one year of age, die during sleep. Data for this report come from the Franklin County Child Fatality Review (CFR), an ongoing community planning process in which a team of community experts from various systems and agencies convenes to review the circumstances around the deaths of children residing in Franklin County, Ohio. The information in this data brief provides an overview of key points on the circumstances surrounding these deaths over the two-year period.

From 2015 to 2016, there were 45 sleep-related infant deaths, many of which could have been prevented. These 45 deaths accounted for 14.5% of all infant deaths occurring during the same time period. From 2007 to 2016, the 10-year trend lines show virtually no change in the number and percentage of sleep-related infant deaths.

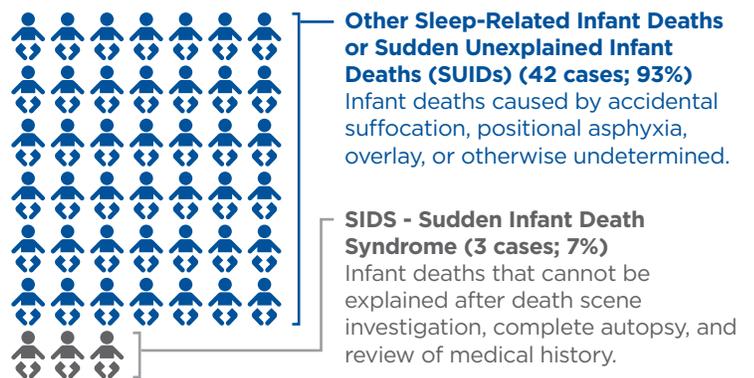
DEFINING SLEEP-RELATED INFANT DEATHS

There are two main categories of sleep-related infant deaths:

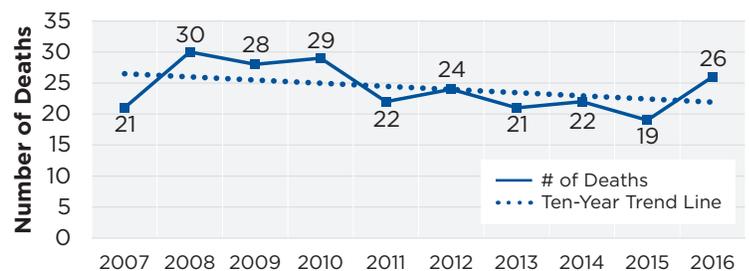
- SIDS or sudden infant death syndrome, and
- Other sleep-related infant deaths, also referred to as sudden unexplained infant deaths (SUIDs).

In Franklin County over the past decade, SIDS has become more rare as a cause of infant death. The graphic on the top right illustrates the relationship between SIDS and sleep-related infant deaths.

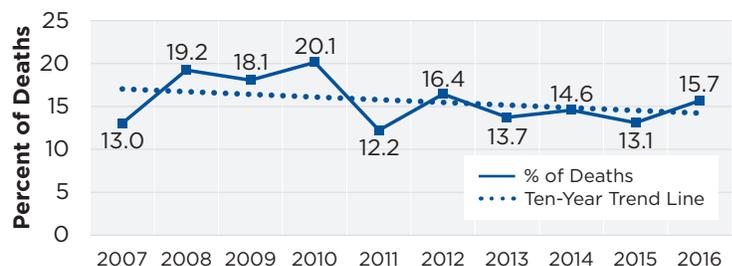
SLEEP-RELATED INFANT DEATHS BY CAUSE, FRANKLIN COUNTY, 2015-2016 (N=45)



NUMBER OF SLEEP-RELATED INFANT DEATHS, FRANKLIN COUNTY, 2007-2016



SLEEP-RELATED INFANT DEATHS AS A PERCENT OF ALL INFANT DEATHS, FRANKLIN COUNTY, 2007-2016



UNSAFE SLEEP ENVIRONMENTS

The American Academy of Pediatrics' (AAP) guidelines¹ for creating a safe sleep environment for infants state that babies should sleep Alone, on their Backs, and in an empty, safety-approved Crib (ABCs of Safe Sleep). Babies can share a bedroom with parents, but never the same sleep surface. Other best practices include avoiding smoke exposure during pregnancy and after birth, keeping soft objects and loose bedding out of the crib, and breastfeeding. Columbus Public Health promotes these standards to parents, caregivers and health care professionals.

How many infants did NOT sleep ALONE?

Half were put to sleep sharing a sleeping surface with another child, adult and/or pet.

How many infants did NOT sleep on their BACK?

39% were placed to sleep on their side or stomach. For the 61% placed to sleep on their backs, 68% (17/25) were not in a crib or bassinet.

How many infants did NOT sleep in a CRIB?

Nearly three-quarters (74%) were found sleeping in an adult bed, couch or other surfaces that were not cribs or bassinets. Availability of a crib or bassinet was known for 27 of the households, where these sleep-related infant deaths occurred; 81% of these households had a crib or bassinet.

How many infants did NOT sleep ALONE, on their BACK, and in a CRIB or bassinet?

Of the 39 sleep-related infant deaths in Franklin County during 2015-2016 with complete information regarding the ABCs of safe sleep, 31 or 79.5% of deaths occurred among infants who were not put to sleep safely. (Only 8 were put to bed following the ABCs of safe sleep.)

What about the other 21%?

While 21% of the infants who died had been sleeping ALONE, on their BACK, and in a CRIB or bassinet, other risk factors were present that put them at an increased risk for sleep-related deaths. For example, of the 8 sleep-related deaths among infants sleeping alone, on their back, and in a crib, 6 were exposed to maternal smoking or secondhand smoke. Additionally, information was recorded for whether the crib was empty for these 8 infants. All 8 infants were in a crib with potential suffocation hazards such as blankets, pillows, soft toys, or bumper pads. Infants' cribs should be completely empty except for a tight fitted sheet.

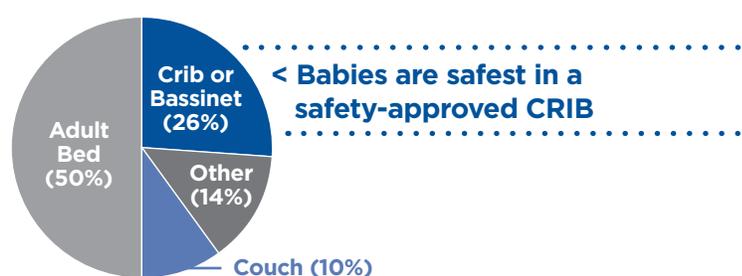
SLEEP-RELATED INFANT DEATHS AND BED SHARING², FRANKLIN COUNTY, 2015-2016 (N=42)



SLEEP-RELATED INFANT DEATHS AND SLEEP POSITION, FRANKLIN COUNTY, 2015-2016 (N=35)



SLEEP-RELATED INFANT DEATHS AND PLACE FOUND, FRANKLIN COUNTY, 2015-2016 (N=42)



SLEEP-RELATED INFANT DEATHS AND ABCs (ALONE, BACK, CRIB), FRANKLIN COUNTY, 2015-2016 (N=39)



ABOUT THE BABIES

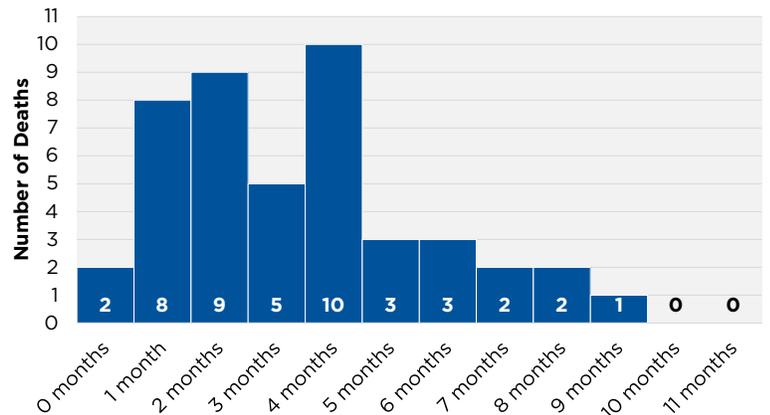
Age at Death: Three-fourths (34 of 45) of sleep-related infant deaths that occurred were among infants who were 4 months old or younger.

Gestational Age: Almost all (93%) cases of sleep-related infant deaths were among infants who were born full-term. Three cases, were preterm and 1 of these cases was very preterm (< 32 weeks). Though it is commonly perceived that preterm babies are most at risk for sleep-related infant deaths, this is not reflected in local data. Typically, these are not preterm babies. These are mostly full-term babies of birth weight who are vulnerable to the environments in which they are put to sleep. More information about creating safe sleep environments is available in this report.

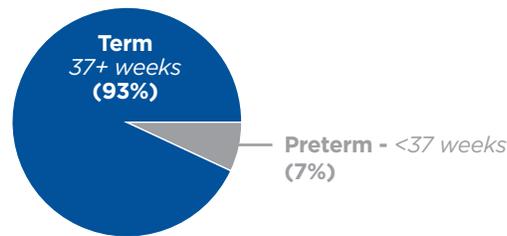
Sex: Nearly 60% (26 of 45) of sleep-related infant deaths were among infants who were male, though males babies only make up 51% of all births.

Race & Ethnicity: About half (23 of 45) of sleep-related infant deaths that occurred during 2015-2016 were among infants identified as Black, non-Hispanic, though these babies only make up 29% of all births in Franklin County.

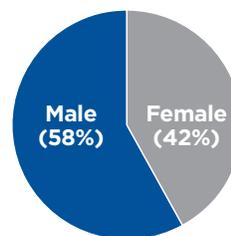
SLEEP-RELATED INFANT DEATHS BY AGE AT DEATH, FRANKLIN COUNTY, 2015-2016 (N=45)



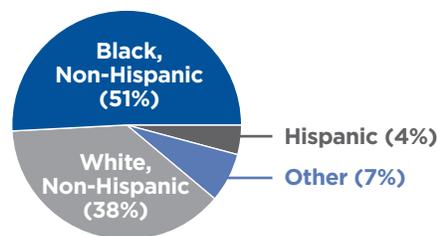
SLEEP-RELATED INFANT DEATHS BY GESTATIONAL AGE, FRANKLIN COUNTY, 2015-2016 (N=45)



SLEEP-RELATED INFANT DEATHS BY SEX, FRANKLIN COUNTY, 2015-2016 (N=45)



SLEEP-RELATED INFANT DEATHS BY RACE AND ETHNICITY, FRANKLIN COUNTY, 2015-2016 (N=45)

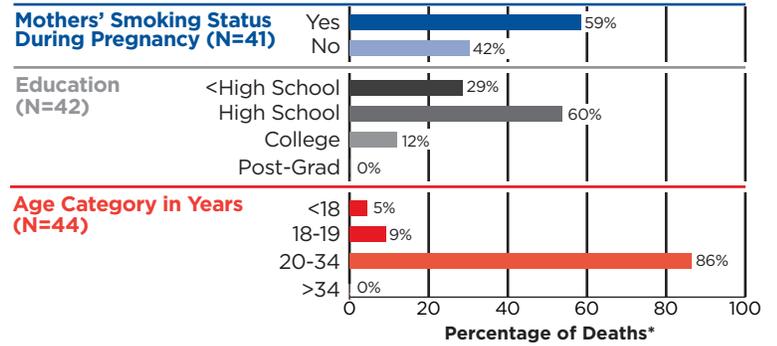


ABOUT THE CAREGIVERS

Smoking Status: 11% of births in Franklin County were to mothers who smoked during pregnancy, yet among all sleep-related infant deaths, 59% of infants' mothers smoked during pregnancy.

Education and Age: During 2015-2016, a majority (86%) of infants' caregivers were ages 20-34 years and 71% had a high school degree or higher level of education.

SLEEP-RELATED INFANT DEATHS BY CHARACTERISTICS OF CAREGIVERS, FRANKLIN COUNTY, 2015-2016



*Due to rounding, some totals add up to 101%.

WHERE THE BABIES LIVED

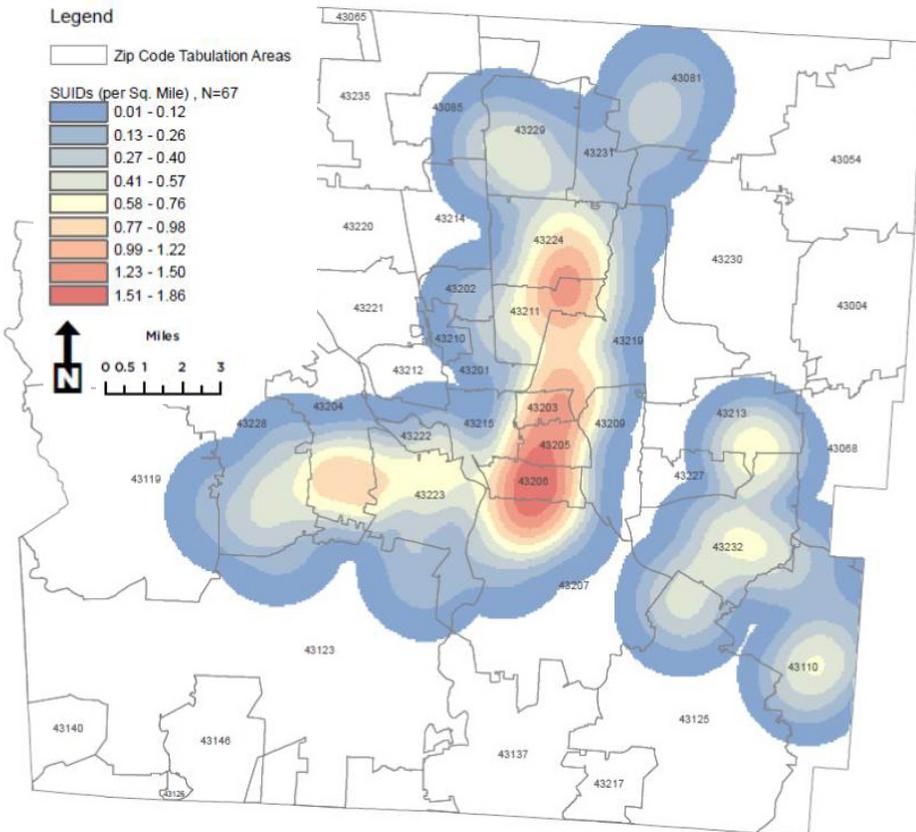
Some areas in Franklin County have more sleep-related infant deaths than others. As shown in the map below, the density of sleep-related infant deaths, which is the number of sleep-related infant deaths per square mile, ranges from 0 to 2. Areas along interstates 70 and 71, considered the urban core, have a higher density of sleep-related infant deaths when compared to the rest of Franklin County.

SLEEP-RELATED INFANT DEATHS BY ZIP CODE OF RESIDENCE, FRANKLIN COUNTY, 2014-2016

ZIP CODES WITH 10 OR MORE SLEEP-RELATED INFANT DEATHS, FRANKLIN COUNTY, 2007-2016

ZIP Code	Sleep-Related Infant Deaths	CelebrateOne ³ Neighborhood
43204	21	Hilltop
43207	19	--
43223	18	Franklinton
43211	18	Linden
43232	17	Southeast
43224	15	Morse/161
43228	12	--
43219	12	Northeast
43229	10	Morse/161

During the 10-year period of 2007 through 2016, there were 242 sleep-related infant deaths in Franklin County. Nearly 60% (144) of these deaths occurred among residents of a CelebrateOne³ priority area ZIP code, though the same geographic area only makes up 32% of all Franklin County births. The table above presents ZIP codes with 10 or more sleep-related infant deaths, as well as their designation as a CelebrateOne³ priority area.



RECOMMENDATIONS

Recommendations from the CFR process are used to plan public health interventions and to prioritize resources. The most frequently made recommendations to prevent sleep-related infant deaths include:

- Provide infant safe sleep education and resources.
- Encourage pregnant women to get early and regular prenatal care.
- Provide counseling and services to help pregnant and parenting women to stop smoking (during pregnancy & around the baby).
- Provide education regarding use of family planning services.

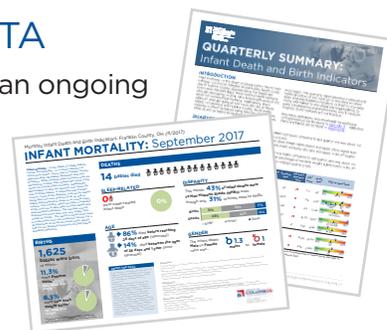
WHAT WE ARE DOING

Columbus Public Health (CPH) is charged by the CelebrateOne³ initiative to establish infant safe sleep practices as a community social norm and to develop a coordinated community process for ensuring high-risk families have a crib. CPH regularly provides portable cribs to community partners and residents who need them. In 2016, a total of 1,135 portable cribs were distributed in Franklin County by CPH and over 30 partner agencies. CPH also works collaboratively with CelebrateOne and conducts Safe Sleep Ambassador trainings in the community. The Ambassador training emphasizes the *2016 American Academy of Pediatrics Recommendations for a Safe Infant Sleeping Environment*. In 2016, a total of 374 new Ambassadors were trained, and over 500 Ambassadors have been trained in 2017. Additionally, CPH and CelebrateOne are implementing an infant safe sleep advertising/marketing campaign to educate and inform parents and caregivers.



MORE INFANT MORTALITY DATA

CPH analyzes local vital statistics data on an ongoing basis in order to actively monitor infant mortality. Monthly and quarterly reports of births and infant death, including sleep-related deaths, are published and made available online at www.columbus.gov/publichealth.



REFERENCES:

1. <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/american-academy-of-pediatrics-announces-new-safe-sleep-recommendations-to-protect-against-sids.aspx>; Accessed 10/31/17
2. Bed sharing, in the context of this report, is defined as sharing a surface for sleep such as an adult bed, couch or chair, or other surfaces that were not cribs or bassinets.
3. CelebrateOne is a collective impact initiative led by Mayor Andrew Ginther aimed at reducing infant mortality throughout Columbus and Franklin County.

TECHNICAL NOTES:

- Some of the deaths were missing information, therefore the number of records used varies by indicator.

SOURCES:

- Franklin County Child Fatality Review Data, Analysis by Columbus Public Health
- Ohio Department of Health Vital Statistics Data, Analysis by Columbus Public Health