Volume 8, Number 1 December 2022





# Sleep-Related Deaths and the Philadelphia Response

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SUID (sudden unexplained infant death) is defined as a sudden and unexpected death in an infant <365 days old and there is no immediately obvious cause of death prior to investigation. For the purposes of this report, sleep-related death (SRD) encompasses when the cause of death was certified as SIDS (sudden infant death syndrome), unknown cause, or accidental suffocation and strangulation in bed. In 1994 the National Institute of Child Health and Human Development instituted the "Back to Sleep" campaign to educate on safe sleeping practices to reduce SIDS rates. Since 1990, nationwide sleep-related death rates have dropped from 154.58 per 100k live births to 92.9 in 2020;<sup>2</sup> however, substantial racial disparities in sleep-related deaths persist. To reduce the risk of SRD, the American Academy of Pediatrics (AAP) recommends that all infants should sleep on their back, alone, and in a crib or other infant sleep surface in the same room as their parents. Soft objects like pillows, blankets should be avoided in the infants' sleep environment. Additionally, the use of smoke and other forms of nicotine, alcohol, marijuana, and opioids during or after pregnancy increase the risk of SRDs while breastfeeding is protective. To mitigate the risks of SRDs, the Philadelphia Department of Public Health Safe Sleep Philly, provides any Philadelphia resident with a child under one year with safe sleep education and a free portable crib.

The Philadelphia Pregnancy Risk Assessment Monitoring System (PhillyPRAMS) is a survey of Philadelphians who recently gave birth which mirrors the methodology of the national Pregnancy Risk Assessment Monitoring System (PRAMS). PhillyPRAMS, initiated in 2018, includes data on safe sleep practices. Sleep-related death data was obtained from the Medical Examiner's Office who conducts investigations of deaths of persons under 1 year of age due to suspected sleep-related deaths. This issue of CHART describes the trends of sleep-related death and safe sleep practices in Philadelphia, and the impact of the Safe Sleep Philly crib program.

#### **KEY TAKEAWAYS**

Approximately 35 infants died annually between 2005-2021 in Philadelphia due to sleep-related deaths.

3 out of 4 infants who die from sleep-related deaths in Philadelphia are Black, Non-Hispanic.

Safe Sleep Philly offers free Pack n' Plays to any Philadelphia resident with a child under 1 year old.

## CHART

Between 2006-2021, there was a 32% reduction in number of sleep-related deaths.

## Sleep-Related Death Rates Philadelphia 2006-2021

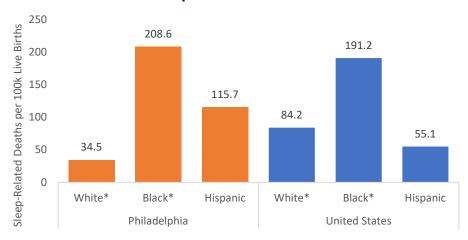


- An average of 35 infants died from sleep-related death each year in Philadelphia between 2006-2021.
- Over the past 15 years, sleep-related deaths in Philadelphia have decreased by 32%

The Black-White racial disparity in sleep-related deaths is greater in Philadelphia as compared to the rest of the country.

Sleep-related deaths are also greater among Hispanic infants in Philadelphia, which is not true nationally.

# Sleep-Related Deaths by Race: Philadelphia v U.S. 2012-2020



\*Non-Hispanic or Latina/x

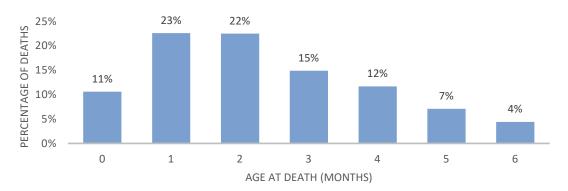
Source: Philadelphia Medical Examiner's Office, CDC (2)

- Black infants have the highest burden of sleep-related deaths in Philadelphia.
- Black infants have 6.0x higher rate of sleep-related deaths and Hispanic infants have a 3.3x higher rate compared to White infants (209 per 100k live births, 116, and 35, respectively).
- White infants in Philadelphia are the only group to have lower rates of sleep-related deaths compared to their nationwide counterparts.

## **CHART**

Burden of sleeprelated death is greatest among 0-to-3-month-old infants.

## Sleep-Related Deaths by Age in Months: 2005-2021



- 94% of Philadelphia sleep-related deaths occurred among infants 0-6 months of age.
- 71% of Philadelphia sleep-related deaths occurred at 0-3 months of age, a time before most infants are able to roll over.

### Safe Sleep Practices by Race/Ethnicity, PhillyPRAMS 2018-2020

	City-wide	White*	Black*	AAPI*	Hispanic	Other*
Placed to sleep on back (most often)	77.3%	90.2%	70.5%	70.5%	78.4%	73.5%
<b>No soft objects</b> (blankets, bumpers, and toys) <b>in sleeping area</b> (Never)	38.5%	64.2%	29.4%	29.4%	35.7%	37.3%
Placed to sleep in crib, bassinette, or pack n' play (Usually)	83.0%	93.7%	77.7%	73.1%	84.2%	82.8%
Infant room-shares with parent (Yes)	89.8%	74.6%	95.5%	95.5%	89.0%	93.3%
Infant sleeps alone in crib (Always)	60.6%	73.8%	53.1%	46.3%	62.8%	58.7%

\*Non-Hispanic or Latina/x AAPI = Asian American or Pacific Islander

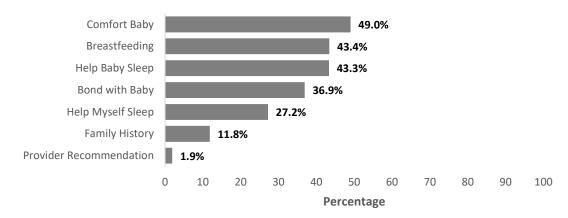
Keeping soft objects out of the sleeping area & the infant sleeping alone were the safe sleep practices that families reported following the least

- Over 3 out of 4 birthing persons in Philadelphia reported following the safe sleep practices of placing baby to sleep on their back, sleeping in a crib, bassinet, or pack n' play, and room-sharing with parents.
- There was lower adherence to the safe sleep practices of keeping soft objects out of the sleeping area and the baby sleeping alone with Black, indigenous, or people of color (BIPOC) birthing persons reporting these practices at statistically significantly lower rates than their White counterparts.
- This may be explained by differences in sociocultural beliefs and traditions, distrust of the healthcare system, and competing family demands and stressors (e.g. caregivers' need for sleep due to work schedule/limited parental leave and care for other children) that challenge adherence with safe sleep practices<sup>6,7</sup>.



## Reasons For Co-Sleeping: PhillyPRAMS 2018-2020

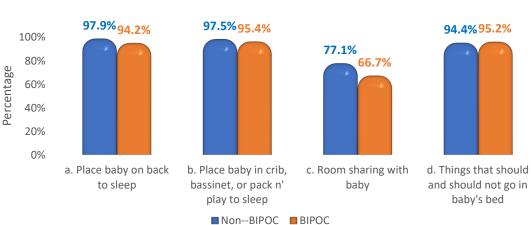
Top reported reason for co-sleeping to comfort baby.



 Common reasons given included to comfort baby (49.0%), breastfeeding (43.4%), or help baby sleep (43.3%).

BIPOC birthing persons reported their provider speaking to them about safe sleep practices at lower rates.

# Safe Sleep Practices Recommended By Provider: PRAMS 2018-2020

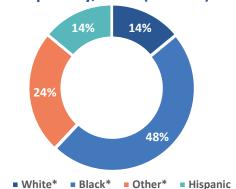


- BIPOC birthing persons reported their health care provider speaking to them about placing baby on back to sleep, placing baby in a crib, bassinet, or pack n' play to sleep, and room sharing at significantly lower rates than their White counterparts.
- Discussions with health care provider about room sharing with infant was reported at lower rates than other safe sleep practices.

## CHART

86% of the families served by Safe Sleep Philly each year are families of color.

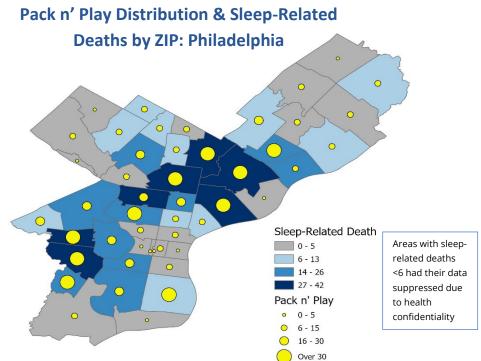
## Race/Ethnicity of Families Served by Safe Sleep Philly, 2021 (n = 822)



\*Non-Hispanic or Latina/x

- 835 Pack n' Plays were delivered, and 822 families were served by the Safe Sleep Philly program in 2021; a 26% increase from 2020.
- 86% of the families served by Safe Sleep Philly were families of color.

Pack n' Play distributions through Safe Sleep Philly have reached families in areas most affected by sleeprelated death.



- North & West Philadelphia has the highest burden of sleep-related death, areas also with high Pack n' Play distribution by Safe Sleep Philly.
- Areas highly served by Safe Sleep Philly have majority Black residents.
- Every zip code in Philadelphia with a sleep-related death has been served by Safe Sleep Philly.



### WHAT CAN BE DONE

### The Health Department is:

- Providing portable cribs and safe sleep education to any family in Philadelphia that needs one.
- Conducting safe sleep training for health care providers, community-based organizations, substance
  use disorder providers, early childhood programs, and any other providers who interact with
  families.
- Partnering with pediatricians, delivery hospitals, and social service providers to distribute the evidence-based safe sleep board book, *Sleep Baby Safe and Snug*.
- Supporting breastfeeding (a protective factor for sleep-related death) through the Breastfeeding Counselor program and Pacify tele-lactation app.
- Working with stakeholders across the city to create and implement a plan to address tobacco use during pregnancy and the first year postpartum as smoking is a risk factor for SRDs
- Tracking and conducting multidisciplinary reviews of sudden unexplained infant deaths as well as participating with the CDC for national surveillance purposes.

### **Health care providers should:**

- Model safe sleep environments in the newborn well baby nursery and neonatal intensive care units.
- Provide compassionate, culturally sensitive, and non-judgmental support and education on safe infant sleep at all infant well child visits
- Educate families on the scenarios that make bed-sharing even more risky as described in the American Academy of Pediatrics (AAP) 2022 safe sleep recommendations.<sup>4</sup>
- Assist patients with smoking cessation by prescribing nicotine replacement products and other
  medications and ensuring pregnant persons are asked about tobacco use and offered support with
  cessation/abstinence at every visit.
- Support families in breastfeeding.

#### People can:

- Follow American Academy of Pediatrics (AAP) recommendations<sup>4</sup> for safe sleep including:
  - Back to sleep for every sleep
  - Keeping soft objects such as pillows, toys, blankets, mattress toppers, fur-like materials, and loose bedding away from infant's sleep area
  - Have infants sleep in parents' room, close to parents' bed but on separate surface designed for infants, for at least the first 6 months
  - Avoid smoke, nicotine exposure, alcohol, marijuana, opioids, and illicit drug use during pregnancy and after birth
  - o Provide baby with breast milk via chest feeding or pumped breast milk



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#### **RESOURCES**

#### Safe Sleep Philly

Any Philadelphia resident with a child 1 year old or younger can request a free Pack n' Play

**Submit online form** 

Website: <a href="https://www.phillylovesfamilies.com/baby-safe-sleep">https://www.phillylovesfamilies.com/baby-safe-sleep</a>

### **Maternity Care Coalition: Cribs for Kids**

To request a portable crib (must be within 8 weeks of due date or recently postpartum)

Call Cribs for Kids Hotline: 215-989-3589 (providers press 1) **Submit online form** 

For more information on City of Philadelphia resources during pregnancy and the postpartum period, visit

www.phillylovesfamilies.com



### **Suggested citation:**

Philadelphia Department of Public Health. Sleep-Related Deaths and the Philadelphia Response. CHART 2023;8(1):1-8.



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