Sudden unexpected infant death (SUID)

Utah report 2019–2023





Executive summary

Background

Each year in Utah, approximately 27 infants die suddenly and unexpectedly before their first birthday. Almost all of these deaths occur in the baby's sleep environment. These sudden unexpected infant deaths (SUIDs) take more lives than any other cause between the ages of 1 month and 12 months.

For the past two decades, there has been little progress in preventing these deaths. Beginning in 2019, Utah began participating in a national system of surveillance to shed light on the circumstances of these deaths and provide information that could aid in prevention. This report provides details of the findings from the sleep-related SUIDs in Utah for 2019–2023.

Findings

From 2019–2023, 137 infants died suddenly and unexpectedly. Of these, 131 were sleep-related. Specific findings from these deaths that can inform prevention include:

• 93.5% of sleep-related infant deaths with complete case information occurred in an unsafe sleep environment.

Of the 131 infants, 99 (75.6%) died with soft bedding or items in their sleeping space.

Of the 131 infants, 61 (46.6%) died while sleeping with another person or animal.

Of the 131 infants, 44 (33.6%) died of suffocation.*

- Infants died primarily in the early months of life <4 months of age.
- Different racial and ethnic groups were disproportionately impacted. The most impacted groups were Pacific Islander, American Indian, and Hispanic infants.**
- Infants living outside of urban Wasatch Front counties or who lived in areas of comparatively lower socioeconomic status were disproportionately impacted by sleep-related infant death.
- Infants exposed to secondhand smoke, who were born prematurely, or who lived in households experiencing housing instability were disproportionately impacted by sleep-related infant death.

Conclusion

The vast majority of SUIDs in Utah happen in preventable unsafe sleep situations. This information about groups disproportionately impacted and the risky behaviors being practiced can be used to raise awareness of this issue and effectively intervene to prevent future tragic deaths of this sort.

* A thorough review of these deaths in the Utah Child Fatality Review system determined they were caused by either "suffocation" or "possible suffocation."

**Throughout this report, all Hispanic races are grouped together as Hispanic. Infants in the racial groups referenced should be recognized as being non-Hispanic.

What is SUID? And what happened to SIDS?

SUID is the term used to describe **s**udden **u**nexpected **i**nfant **d**eaths. These deaths used to be called Sudden Infant Death Syndromw (SIDS). The causes of unexpected infant deaths in Utah are now more accurately described as either due to suffocation or undetermined (if no cause can be determined after a thorough investigation). Almost all SUIDs happen during sleep, and these are commonly referred to as sleep-related infant deaths.

What is the SUID Case Registry?

The Centers for Disease Control and Prevention (CDC) began the SUID Case Registry in 2009 to improve the quality and consistency of SUID data, monitor SUID rates, and advance understanding of factors that may affect SUID risk. The SUID Case Registry builds upon state and local child death review programs and uses the National Center for Fatality Review and Prevention's Case Reporting System. SUID Case Registry programs are currently supported in 32 states and jurisdictions, covering about 2 in 5 SUID cases in the U.S. Utah joined the registry in 2019. The Utah SUID Case Registry team works collaboratively with the Utah Office of the Medical Examiner and the Utah Child Fatality Review teams to collect, analyze, and disseminate detailed information regarding the circumstances of these infant deaths to bring heightened awareness to Utah SUIDs and to influence, develop, and partner with SUID prevention advocates.

This report details Utah's 2019–2023 SUID data to inform communities, providers, and families of this public health threat to infants and to encourage prevention strategies.

In Utah roughly 2 infants die each month during sleep

This report details Utah's 2019–2023 SUID data to inform communities, providers, and families of this public health threat to infants and to encourage prevention strategies.

2019-2023 Utah SUID

From 2019–2023, 137 infants died suddenly and unexpectedly. One hundred and thirty-one (95.6%) of these deaths occurred during sleep. This report details the circumstances of these 131 sleep-related infant deaths. Of the 131 sleep-related infant deaths, 30 (22.9%) occurred due to suffocation and 101 were undetermined. Nearly all sleep-related infant deaths with complete* case information had 1 or more unsafe sleep factors.



*Seven of 131 sleep-related infantdeaths (5.3%) had incomplete case information. Eight of the 131 infants were found in safe sleep environments (6.1%).

How do sleep-related infant deaths compare to other preventable causes of child death?

The greatest threat to the lives of infants ages 1 month to 1 year in Utah is sleep-related infant deaths. Between 2019 and 2023, 131 Utah infants died with sleep-related causes. By comparison, in the last 25 years (1999–2023), 31 infants died in all transportation-related incidents and 67 infants died from a combination of all types of unintentional injury death (excluding suffocation).

Between 2019 and 2023, a similar number of infants (0–1) died from sleep-related deaths as youth across all 18 years of childhood died from firearms and suicides.



93.5% of sleep-related infant deaths with complete case information occurred in an unsafe sleep environment.

The sleep environment

Safe sleep

Placing infants on their backs to sleep has been the cornerstone of preventing SUID since 1994. A greater understanding of other hazards in an infant's sleep environment has emerged over the past two decades—including sleeping with another person, sleeping with soft bedding, and sleeping on a sleep surface that is not a safety-approved mattress. All of these situations have been found to be risks associated with SUID.

An infant sleeping safely is defined as:

- On their back
- In their own crib or bassinet
- With nothing in the crib or bassinet

Unsafe sleep factors

Sleep-related infant deaths (131)





Soft bedding includes pillows, quilts, comforters, blankets, bumper pads, plush toys, or stuffed animals.

Hazard: Non-crib sleeping 66.4% 87 infants were found in places NOT approved for infant sleep.



Number of infants found in each location:

60 Adult/child beds
9 Couches/chair
6 Swing/bouncy chair
4 Carseat/stroller
2 Child carrier
6 Other

Unsafe sleep factors

Hazard: Bed-sharing 46.6% 61 infants were sleeping with another person or animal, which increases their risk of suffocation.



Hazard: Stomach sleeping 32.1%

42 infants were found on their stomachs in their sleep space.



Demographics

Sleep-related infant deaths (131)

Sleep-related infant deaths by age (months)

Though SUID may occur anytime between birth and 1 year, 113 infants (86.3%) died before the age of 7 months with peaks at 1 and 3 months.



Sleep-related infant death rates by race/ethnicity

Sleep-related infant deaths occurred at a higher rate in non-White and Hispanic infants compared to the state rate. Within the non-White population, Pacific Islander infants, American Indian/Alaska Native infants, and infants who were identified as more than 1 race had the highest rates of infant death.



*All races of Hispanics are grouped together as Hispanic. Infants in the racial groups referenced should be recognized as being non-Hispanic.

Sleep-related infant death rates by county population density

Though sleep-related infant deaths occur throughout the state of Utah, checking distribution by geography from 2019–2023 reveals a disproportionate rate of infant death in rural counties of the state. Rural counties are all Utah counties outside of the 5 urban Wasatch (Cache, Weber, Davis, Salt Lake, and Utah).





Sleep-related infant deaths by community conditions health score ranking (Healthy Places Index) geographically.

Three of 4 sleep-related infant deaths occurred in infants who were living in ZIP codes ranked lower than the state median for healthy community conditions. And nearly 1 in 2 occurred in infants living in ZIP codes ranked in the bottom quartile (least healthy conditions).

The Utah Health Places Index (HPI) is a tool that can be used to understand the conditions in which a person lives that drive health, things like poverty, education, job opportunities, access to transportation, and air quality. With the index, each geographic area receives a score ranking from 1 to 99 that shows the relative impact of conditions in a selected area compared to all other such places in the state. In the figure above, infant deaths are shown by the HPI score quartile in which their ZIP code fell to show how important the conditions in which a child develops/lives are to the outcome of sleep-related infant death.



Risk factors Sleep-related infant deaths (131)

Prematurity and tobacco smoke exposure are known risk factors for SUID.

Hazard: Smoke exposure 25.2%

33 sleep-related infant deaths occurred among infants who had prenatal and/or current smoke exposure.

Hazard: Prematurity 17.6%

23 sleep-related infant deaths occurred among infants who were born prematurely.

Hazard: Life stressors 9.9%*

12 sleep-related infant deaths occurred among infants living in households experiencing profound life stressors. Identified life stressors include poverty, housing insecurity, distrust of medical systems, incarcerated parent(s), money problems, and domestic violence. Poverty and housing security were the most commonly reported.

*Most cases do not have this type of information available, so counts are likely undercounts.



Conclusions

From 2019 to 2023, 131 Utah families lost an infant to sleep-related SUID. Almost all of those infants were found in unsafe sleep environments (75.6% with soft bedding or items in their sleeping space, 66.4% sleeping in places NOT approved for infant sleep, 46.6% sleeping with another person or animal). Sleep-related infant deaths happened in communities across the state, however certain areas and populations were disproportionately impacted. Young infants, non-white and Hispanic infants, infants living in rural counties outside of the urban Wasatch Front, infants who lived in higher HPI areas, infants exposed to secondhand smoke, infants born prematurely, and infants who lived in households experiencing housing instability were groups with the highest rates.

Now that we understad that the vast majority of these deaths may be preventable, much more needs to be done to:

- 1. Increase general awareness of the magnitude of SUID and sleep-related infant death (risk perception).
- 2. Increase awareness of the <u>American Academy of Pediatrics recommendations</u> around safe sleep.
- 3. Increase outreach and support for new parents and caregivers to make sure that they have the support that they need to provide a safe sleep environment for their infants.
- 4. Partner with communities that are disproportionately impacted to identify specific opportunities and barriers that exist to ensure a safe sleep environment for every infant.

Taking these steps and collaborating across sectors (public health, healthcare, community-based organizations, and families), can help bridge efforts to prevent infant death and community trauma.

Resources

1. US Safe to Sleep Campaign

Public education campaign by the US Department of Health and Human Services. Includes wonderful shareable resources and provider training and materials.

- 2. <u>American Academy of Pediatrics (AAP) safe sleep resources</u> Safe sleep recommendations and materials from the American Academy of Pediatrics.
- 3. The lullaby trust safe sleep resources

A UK charity focused on preventing safe sleep deaths and supporting bereaved families. Specifically, they provide great harm-reduction messaging for caregivers who are bed-sharing along with their other content and materials.



IT MIGHT NOT BE PRETTY. BUT IT CAN BE PEACEFUL.

Getting sleep with a newborn is not easy. But when babies are put to bed in their own, clutter-free space, it's safer for them and offers peace of mind for you.

Help baby sleep safely so you can sleep soundly. healthychildren.org/safesleep



Poster is taken from AAP website. Here is the link: <u>https://downloads.aap.org/DOPA/campaigns-safe-sleep-it-might-be-pretty-but-it-can-be-peaceful-african-american.pdf</u>