Understanding Sudden Unexpected Infant Death

Sudden unexpected infant death (SUID) is the death of an infant less than 1 year of age that occurs suddenly and unexpectedly, and whose cause of death is not immediately obvious before investigation.

Most SUIDs are reported as one of three types:
- Sudden Infant Death Syndrome (SIDS)
- Unknown Cause
- Accidental Suffocation and Strangulation in Bed (ASSB)

Problem

Different practices in the investigation and reporting of SUIDs affect the ability to consistently and accurately monitor SUID trends and characteristics. The graph below shows how the proportion of SUID deaths attributed to SIDS, unknown cause and ASSB have changed over time by type in the United States.

SUID Rate Over Time by Type, United States, 1990–2015

- SUIDs (SIDS, unknown causes, and ASSB) declined during the 1990s and decreased again slightly beginning in 2009. However, the SUID rate increased slightly from 87.5 deaths per 100,000 live births in 2014 to 92.6 deaths per 100,000 live births in 2015.
- Since about 2000, there has been a shift in the types of SUID reported. Deaths reported as unknown cause and ASSB have increased and deaths reported as SIDS have decreased. The cause for the shift is unknown, but could be due to stricter adherence to SIDS definitions by death certifiers, more complete death scene investigation and autopsy data, or more detailed information on the circumstances surrounding each death resulting from child death reviews.

Source: CDC, NCHS, Compressed Mortality File, cause of death is determined using the following ICD-9 Codes: SIDS (798.0), unknown cause (799.9) and ASSB (E913.0). For 1999 to 2014, cause of death is determined using the following ICD-10 codes: SIDS (R95), unknown cause (R99) and ASSB (W75).
Sudden Unexpected Infant Death (SUID) Case Registry

Purpose of the SUID Case Registry
CDC developed the SUID Case registry to:
- Bring together detailed, population-based data about the circumstances for all SUID cases.
- Improve the completeness and quality of SUID investigations.
- Monitor SUID trends and inform strategies to reduce future deaths.

CDC supports SUID monitoring programs in 16 states and 2 jurisdictions, covering 30% of all SUID cases in the United States. States and jurisdictions participating in the SUID Case Registry use data about SUID trends and characteristics to inform strategies to reduce future deaths. The SUID Case Registry builds on the National Center for Fatality Review and Prevention’s System and brings together information about the circumstances associated with SUID cases, as well as information about investigations into these deaths.

SUID Case Registry Process
Through a cooperative agreement with CDC, grantees receive technical assistance and resources to improve data quality on all resident SUID cases. SUID Case Registry grantees (i.e., state health departments or their representatives) complete the process below for all SUID cases.

- Identify SUID cases from medical examiner, coroner, or state vital statistics office.
- Review information from death scene investigations, autopsies, medical records and other medicolegal reports.
- Identify actionable strategies that may reduce SUID and improve case investigations.
- Record findings into a web-based reporting system.
- Analyze the data to monitor SUID trends and characteristics.
- Use data about SUID trends and characteristics to inform strategies and recommendations to reduce future deaths.

SUID Case Registry Activities
CDC and state grantees use the SUID Case Registry surveillance data to:
- Monitor SUID trends and characteristics
- Modify public health practice for state maternal and child health programs
- Encourage more consistent medicolegal investigation and reporting practices
- Improve systems of care for families and develop targeted prevention strategies, such as safe sleep education and promotion

Funded Grantees, 2017
Light purple — CDC’s Division of Reproductive Health funds the following states: Arizona, Colorado, Louisiana, Michigan, Minnesota, New Jersey, New Mexico, New Hampshire, Wisconsin, Alaska, Kentucky, and Pennsylvania.

Dark purple — The National Institutes of Health and CDC Epilepsy fund the following states and jurisdictions (noted by circles): Delaware, Georgia, Tennessee, Nevada, the city and county of San Francisco, and the Tidewater Region of Virginia.

Learn more about the SUID Case Registry from CDC’s Division of Reproductive Health.