



National Survey of Medical Examiners and Coroners

Conducted for
Centers for Disease Control and Prevention
Atlanta, GA

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National Survey of Medical Examiners and Coroners

The Centers for Disease Control and Prevention (CDC) is inviting you to participate in a national survey of medical examiners and coroners conducted for CDC by the Battelle Center for Analytics and Public Health.

If you choose to participate, you will first be asked questions about the characteristics of your jurisdiction for investigating and reporting on infant deaths. You will next be asked to review infant death case descriptions and indicate how you would classify those cases. Lastly, you will respond to questions about your jurisdiction practices and training, your knowledge and opinion about topics related to sudden unexpected and unexplained infant deaths, and your demographic characteristics. There is no need for you to consult your records to respond to any of the questions; approximations are fine. There are no right or wrong answers.

- This CDC survey aims to 1) understand how medical examiners and coroners report sudden unexpected and unexplained infant deaths and 2) identify additional needs for resources and training. CDC will use information gathered from this survey to plan future educational activities to improve infant death investigation reporting practices.
- 800 randomly selected medical examiners and coroners have been sent this survey. We need the response of every individual selected to make this important study valid and representative of the diverse experiences of U.S. medical examiners and coroners.
- Your responses will be treated in a **secure** manner.
- Battelle must maintain the link between names and participant ID numbers for tracking survey mailings. While Battelle will have the capability to link responses to individual participants, this capability will only be present until data collection is completed. At that point, the tracking file will be destroyed and there will be no way to link responses to you.
- Survey reports will present all findings in the aggregate so individual responses cannot be identified.
- The survey will take about 30 minutes to complete.
- Responses about your practices that differ from published protocols for conducting infant death investigations may cause you discomfort, but remember that there are no right or wrong answers.
- Your participation in this survey is **voluntary**. You may choose to withdraw from the study or to skip any questions that you do not want to answer.

***These questions will confirm whether you are eligible to complete the rest of this survey.
Please check (✓) the best answer and follow the instructions appropriate to your response.***

1. Is determining the cause and manner of death reported on death certificates part of your job description?

Yes → You are eligible to complete the survey. Please continue to Question 2 (below).

No → You are not eligible to complete the survey. Please return your blank survey in the envelope provided. Thank you.

2. Are you willing to complete the survey?

Yes → Thank you for your willingness to participate. Please continue to Section A of the survey on Page 2.

No → Please return your blank survey in the envelope provided. Thank you.

SECTION A: Organization Characteristics

This section of the survey contains questions that will help us describe survey respondents' offices or organizations. Please write in or check (✓) the best answer.

A1. Which of the following best describes your office?
Please check all that apply.

- State medical examiner office
- District/regional medical examiner office
- County medical examiner office
- City medical examiner office
- District/regional coroner office
- County coroner office
- Private pathology office
- Other → Please specify: _____

A2. What is the aggregate population of the jurisdiction(s) your office serves?

- 1,000,000 or more
- 500,000 to 999,999
- 250,000 to 499,999
- 100,000 to 249,999
- 50,000 to 99,999
- 25,000 to 49,999
- 10,000 to 24,999
- 2,500 to 9,999
- Less than 2,500
- Not sure

SECTION B: Case Studies

For each of the following, please review the case description and determine the cause and manner of death and how the injury occurred. These are meant to be real life scenarios where you may or may not have complete information. Please complete the form as you would as part of a routine infant death investigation.

Note: For the purposes of this survey, “infants” are defined as live human births less than 1 year of age.

Scenario 1: A 4 month old white non-Hispanic male born at 38 weeks gestation with no complications. Infant placed to sleep on his back on an adult full bed with mother and boyfriend. Mother reports awaking at 4am and finding infant under boyfriend’s chest and arm with the infant’s chest and abdomen being compressed. The death investigator arrived at the scene quickly and noted that there was lack of lividity (blanching; sparing) on the anterior and posterior thorax where the compression had reportedly occurred, although lividity was present in other areas. No history of illness since birth. No history of chronic illness or disability. Negative metabolic newborn screening results. No history of previous CPS involvement.

Autopsy results: Negative histology, x-ray, microbiology, and pathology findings.

B1. Cause of death determination (please complete)

Part I		
	A.	
	Due to, or as a consequence of:	
	B.	
	Due to, or as a consequence of:	
	C.	
Part II	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	
Manner of Death	Describe how injury occurred	

B2. Under ideal circumstances, what else would you want to know in order to determine the cause and manner of death for this case?

Scenario 2: Two month old black non-Hispanic male born at 39 weeks gestation weighing 3118.5 grams. Infant placed to sleep on his back on an adult queen bed with an adult. Found on stomach with face down pressed into a pillow with nose and mouth reported as fully obstructed. Child’s weight at death was 10 pounds. No history of chronic illness or disability. No abnormal newborn screening results. No previous CPS involvement. No reported illness or injury in last 72 hours.

Autopsy results: Negative toxicology. Negative histology. Negative x-rays. No findings consistent with abuse.

B3. Cause of death determination (please complete)

Part I	A.	
	Due to, or as a consequence of: B.	
	Due to, or as a consequence of: C.	
Part II	OTHER SIGNIFICANT CONDITIONS: <small>Conditions contributing to death but not resulting in the underlying cause of death in Part I</small>	
Manner of Death	Describe how injury occurred	

B4. Under ideal circumstances, what else would you want to know in order to determine the cause and manner of death for this case?

Scenario 3: June. One-month-old white female found dead on couch shared with mother. Mother lay on the couch supine with baby prone on her chest, sleeping. Mother fell asleep watching the late news. A little after 4am the mother awoke to find the baby on her right side between herself and the back of the couch, prone. Baby's feet were turned around near the mother's chest and head was close to the mother's hip. Baby was lying left cheek down with her face against the back of the couch. Seating area from front to back is 27 in. Length of the couch is 71 in. Five 5½-inch cushions were against the back of the couch. Mother is 5'5" tall and weighs approximately 130 lbs. Examination at the scene showed lack of lividity on the left cheek as well as pallor (lack of lividity) on the nose, and around the nose and mouth. Infant lived in apartment with mother and healthy three-year-old sibling. Siblings have different fathers. Infant born by repeat c-section at term, 7 lbs. 5 oz. Postnatal course unremarkable. Mother smokes approximately 1-1½ packs per day but states she does not smoke in the apartment. Significant time is spent at her parents' home and both maternal grandparents smoke a great deal.

Autopsy findings: 20th percentile for length, 50th percentile for weight and 50th percentile for head circumference. A needle puncture wound is over the left tibia. Brain weighs 472 gm and shows no gross abnormalities. Neuropathologist's opinion, "Immature central nervous system with no significant neuropathologic abnormalities." Faint intraparenchymal petechiae of thymus gland. Heart weighs 22 gm with no structural abnormalities. Lungs weigh 60 and 50 gm, respectively. Grossly described as mottled and congested. Remainder of gross examination unremarkable. Microscopical examination is non-diagnostic. All five lung sections show marked interstitial congestion and confluent atelectasis, more prominent on the right. Toxicology, screen for inborn errors of metabolism, and skeletal survey are negative. Cerebrospinal fluid culture yields no growth. Culture of blood yields *Viridans Strep* and coagulase/agglutination negative *Staph*.

B5. Cause of death determination (please complete)

Part I		
	A.	
	Due to, or as a consequence of:	
	B.	
	Due to, or as a consequence of:	
	C.	
Part II	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	
Manner of Death	Describe how injury occurred	

B6. Under ideal circumstances, what else would you want to know in order to determine the cause and manner of death for this case?

Scenario 4: A 3 month old male infant was found dead in its crib, face up (supine). He was clad in a dry diaper and a thin blanket covered the body but not the head or face. The infant was born at full term and there were no prenatal or postnatal medical conditions. The home was well cared for. There was nothing in the crib or at the scene which suggested a possible external cause of death or contributing factor. This was the parents' first child. A complete autopsy was performed which showed no abnormalities, histology showed normal organs, and toxicology tests for alcohol, drugs of abuse, and therapeutic drugs were negative. The office could not afford to have testing performed for genetic cardiac abnormalities. A routine metabolic screen was negative.

B7. Cause of death determination (please complete)

Part I	A.	
	Due to, or as a consequence of:	
	B.	
	Due to, or as a consequence of:	
	C.	
Part II	OTHER SIGNIFICANT CONDITIONS: Conditions contributing to death but not resulting in the underlying cause of death in Part I	
Manner of Death	Describe how injury occurred	

B8. Under ideal circumstances, what else would you want to know in order to determine the cause and manner of death for this case?

B9. Did you consult with a pathologist while completing Section B of this survey? Yes No

SECTION C: Knowledge and Opinion

This part of the survey asks about your knowledge and opinion as a medical examiner or coroner. Please write in or check the best answer(s).

As a Medical Examiner/Coroner . . .

C1. ...how do you define *Sudden Infant Death Syndrome (SIDS)*?

C2. ...do you use *SIDS* as a cause of death determination?
 Yes
 No
Why or why not? _____

C3. ...how do you define *Sudden Unexplained Infant Death (SUID)*?

C4. ...do you use *SUID* as a cause of death determination?
 Yes
 No
Why or why not? _____

C5. ...do you use *suffocation* as a cause of death determination?
 Yes
 No
Why or why not? _____

...which evidence or factors might cause you to make a cause of death determination of...

C6a. ... overlay?

- Sharing a sleep surface
 - Statement from bed-sharer that overlay occurred
 - Lividity pattern consistent with reported circumstances
 - Doll re-enactment that shows overlay position
 - Overweight adult or older child bed-sharer
 - Intoxicated bed-sharer
 - Positive signs of asphyxia (e.g., ocular petechiae)
 - No other competent cause of death
 - Other → Please specify: _____
-
-

C6b.neck compression/
hanging?

- Infant body still in compressed/hanged position
 - Doll re-enactment that indicates probable neck compression/hanging
 - Lividity pattern consistent with reported circumstances
 - Positive signs of asphyxia
 - Ligature or other compression marks on neck
 - No other competent cause of death
 - Other → Please specify: _____
-
-

C6c. ...wedging?

- Infant body still in wedged position
 - Doll re-enactment that indicates probable wedging
 - Lividity pattern consistent with reported circumstances
 - Positive signs of asphyxia
 - No other competent cause of death
 - Inebriation of adults
 - Other → Please specify: _____
-
-

C6d. ...suffocation (obstruction of
the mouth and nose)?

- Blanched lividity consistent with nose and mouth obstruction
 - Doll re-enactment showing that nose and mouth were obstructed
 - Statement that infant's nose and mouth were obstructed
 - Infant laying on pillows or soft bedding
 - Positive signs of asphyxia
 - Foamy or bloody fluid on object that obstructed nose and mouth
 - No other competent cause of death
 - Other → Please specify: _____
-
-

SECTION D: Reporting Jurisdiction Practices and Training

Investigation Practices

D1. What protocol does your office use for conducting unexpected and unexplained infant death investigations?

Check all that apply.

- Sudden Unexpected Infant Death Investigation Reporting Form (SUIDRF) recommended by CDC
- Protocol based on or equivalent to Sudden Unexpected Infant Death Investigation Reporting Form (SUIDRF) recommended by CDC
- State or jurisdiction-specific protocol
- Other → Please specify: _____
- No protocol

D2. As part of a sudden unexpected infant death investigation in your jurisdiction(s), which of the following procedures are completed? **For each procedure, please check the box to indicate whether it is completed routinely; is completed on a case-by-case basis; is never completed; or whether you are not sure.**

	Completed routinely	Completed on a case-by-case basis	Never completed	Not sure
Autopsy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Witness interview(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infant's medical history	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infant's dietary history	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pregnancy history for infant's birth mother	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family's social history (i.e., involvement of social services)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Photos or videos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scene diagram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Body diagram(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collected materials (e.g., medications, baby bottle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incident scene investigation at the site where the death occurred	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scene re-creation with doll	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scene re-creation without doll	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review of 911 tape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X-rays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review of First Responder Record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Interpretation and reporting practices

D3. To make a determination of cause of death for sudden unexpected and unexplained infant deaths in your jurisdiction(s), how frequently are each of the following procedures used? **For each procedure, please check the box to indicate whether the procedure is completed routinely; is completed on a case-by-case basis; is never completed; or whether you are not sure.**

	Completed routinely	Completed on a case-by-case basis	Never completed	Not sure
Death scene investigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review of medical records from a health care provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete autopsy (defined as removal and examination of the brain, thoracic, and abdominal organs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Partial autopsy (i.e., opening of the body but anything less than removal and examination of the brain, thoracic organs, and abdomino-pelvic organs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toxicology analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiology (one or more x-rays)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metabolic screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genetic testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Microbiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vitreous Electrolytes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Histology (i.e., examination of tissue sections microscopically after fixation and staining)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genetic tests for cardiac channelopathies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bacterial cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Viral cultures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other → Please specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training

D4. What training relevant to infant death scene investigation are the staff in your office required to complete?

Please check all that apply.

- No specific training required
- Course using CDC training materials on Sudden Unexpected Infant Death (SUID)
- One-on-one training from staff who received CDC SUID investigation training
- State-based training(s)
- National Institute of Justice-sponsored Webinar
- American Board of Medicolegal Death Investigators (ABMDI) certification training
- Forensic pathology fellowship
- Continuing education courses
- On the job training
- Other → Please specify training(s):

- Not sure

Reimbursement

D5. Is your office reimbursed for death scene investigations?

- Yes
- No

SECTION E: Respondent Characteristics

Responses to the next set of questions will help us describe the survey respondents. Please write in or check the best answer.

E1. What is your job title or position (e.g., Chief Medical Examiner, Coroner)?

- Medical Examiner
- Coroner
- Other, please specify:

E2. What is the highest level of education you have completed?

- Some high school or less
- High school graduate
- Some college
- 2-year college graduate
- 4-year college graduate → Specify degree(s) (B.A., B.S., M.A., M.S., etc.):

- Post graduate study → Specify degree(s) (M.D., Ph.D. J.D., etc.):

E3. In what area(s) are you Board Certified?

- Not applicable
- Specify area(s) of certification:

E4. What training(s) have you completed related to infant death investigation?

Please check all that apply.

- Course using CDC training materials on sudden unexpected infant death (SUID) investigation
- One-on-one training from staff person who received CDC SUID training
- State-based training
- National Institute of Justice-sponsored Webinar
- American Board of Medicolegal Death Investigators (ABMDI) certification
- Forensic Pathologist Fellowship Training
- Continuing education courses
- Other → Please specify training(s):

- E5. How many years of experience do you have as a medical examiner or coroner? (*If less than one year, please respond "<1"*). YEARS
- E6. Approximately how many infant death cases have you investigated or consulted on during the past year? CASES
- E7. Approximately how many infant death cases have you investigated or consulted on during your career? CASES

SECTION F: Respondent Demographics

Responses to the next set of questions will help us describe the survey respondents. We are collecting these data for informational purposes only. Please write in or check the best answer.

- F1. What is your age? AGE
- F2. What is your sex?
 Male
 Female
- F3. Are you of Hispanic or Latino origin?
 Yes
 No
- F4. What is your race or racial heritage?
Please check all that apply.
 White
 Black or African American
 Asian
 Native Hawaiian or Other Pacific Islander
 American Indian or Alaska Native

SECTION G: Wrap-up and Comments

G1. Are there additional step(s) you or your colleagues would ideally like to do as part of a sudden unexpected and unexplained infant death investigation but cannot due to lack of resources or time?

- No
- Yes → Please describe:

G2. Are there additional autopsy components you or your colleagues would like to complete for sudden unexpected and unexplained infant death cases but cannot due to lack of resources or time?

- No
- Yes → Please describe:

G3. Would additional infant death-related training be beneficial to the staff in your office?

- No
- Yes → Please describe topics that would be of greatest interest:

G4. Are there additional resources you and your colleagues would ideally like to have available to assist with the processes of infant death investigations and reporting?

- No
- Yes → Please describe:

G5. Is there anything else you would like to tell us about the processes of infant death investigation and reporting practices?

**Thank you for your participation in this study.
Please put this questionnaire into the postage paid envelope and put it in the mail.**