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Reviewing Deaths Due to Poisoning, Overdose, or Acute Intoxication

National Center Guidance Report

Reviewing Deaths Due to Poisoning, Overdose, or Acute Intoxication

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Reviewing Deaths Due to Poisoning, Overdose, or Acute Intoxication

Cause for Concern

Unintentional poisonings from drugs and other substances, such as common household chemical products, are a leading cause of death for children of all age groups.[1] Every hour, five children are rushed to emergency rooms for medicine poisoning in the United States.[2] Most of these deaths are preventable.[3] Fatality review teams are diverse, multidisciplinary groups of professionals who come together to understand the complex, multifaceted factors surrounding the death of a child. For this reason, Child Death Review (CDR) teams are uniquely positioned to help improve the understanding of these preventable deaths.

Every hour, five children are rushed to emergency rooms for medicine poisoning in the United States.[2]

For the purposes of this guidance, the term poisoning will include poisoning, overdose, or acute intoxication.

This guidance will assist CDR teams in:

- Understanding the burden of poisoning, overdose, or acute intoxication fatalities
- Identifying key components of a poisoning death scene investigation (DSI)
- Improving reviews of poisoning deaths
- Collaborating with Overdose Fatality Review (OFR) programs
- Improving data collection in the National Fatality Review-Case Reporting System (NFR-CRS)
- Highlighting the risk and protective factors present
- Promoting well-being among CDR teams

Statement of Structural Inequity

Some families lose infants, children, and youth to the types of deaths reviewed by fatality review teams not as the result of the actions or behaviors of those who died, or their parents or caregivers. Social factors such as where they live, how much money or education they have and how they are treated because of their racial or ethnic backgrounds can also contribute to a child's death. Segregation impacts access to high-quality education, employment opportunities, healthy foods, and health care. Combined, the economic injustices associated with residential, educational, and occupational segregation have lasting health impacts that include adverse birth outcomes, infant mortality, high rates of homicide and gun violence, and increased motor vehicle deaths.

Defining Poisoning

Poisoning deaths occur when the primary cause of death is due to a substance being consumed or ingested in utero, orally, nasally, intravenously, or through the skin.[4] Substances can include prescription drugs, illicit drugs, over-the-counter drugs, or other substances such as alcohol, batteries, chemicals, carbon monoxide (CO), or other fumes/gases/vapors, etc.[5] For a list of common substances involved in poisoning deaths, see the National Center's Common Substances in Poisoning Events (URL: https://ncfrp.org/wp-content/uploads/Poisoning-Labels.pdf).

Data

The NFR-CRS collects case specific review data from CDR teams in 47 states. These data are not population-level statistics, as different states have different criteria for including deaths in a fatality review. Nonetheless, CDR data from multidisciplinary reviews provide information on the circumstances of death that are not available elsewhere.

Infants die from poisoning and should be considered during review, but due to the unique circumstances of infant poisoning deaths and issues with data quality, infant deaths were not included in these data. This guidance will focus specifically on poisonings among 1–17 years old.

3,030 deaths of children ages 1–17 from poisoning were entered into the NFR-CRS from 2004-2020

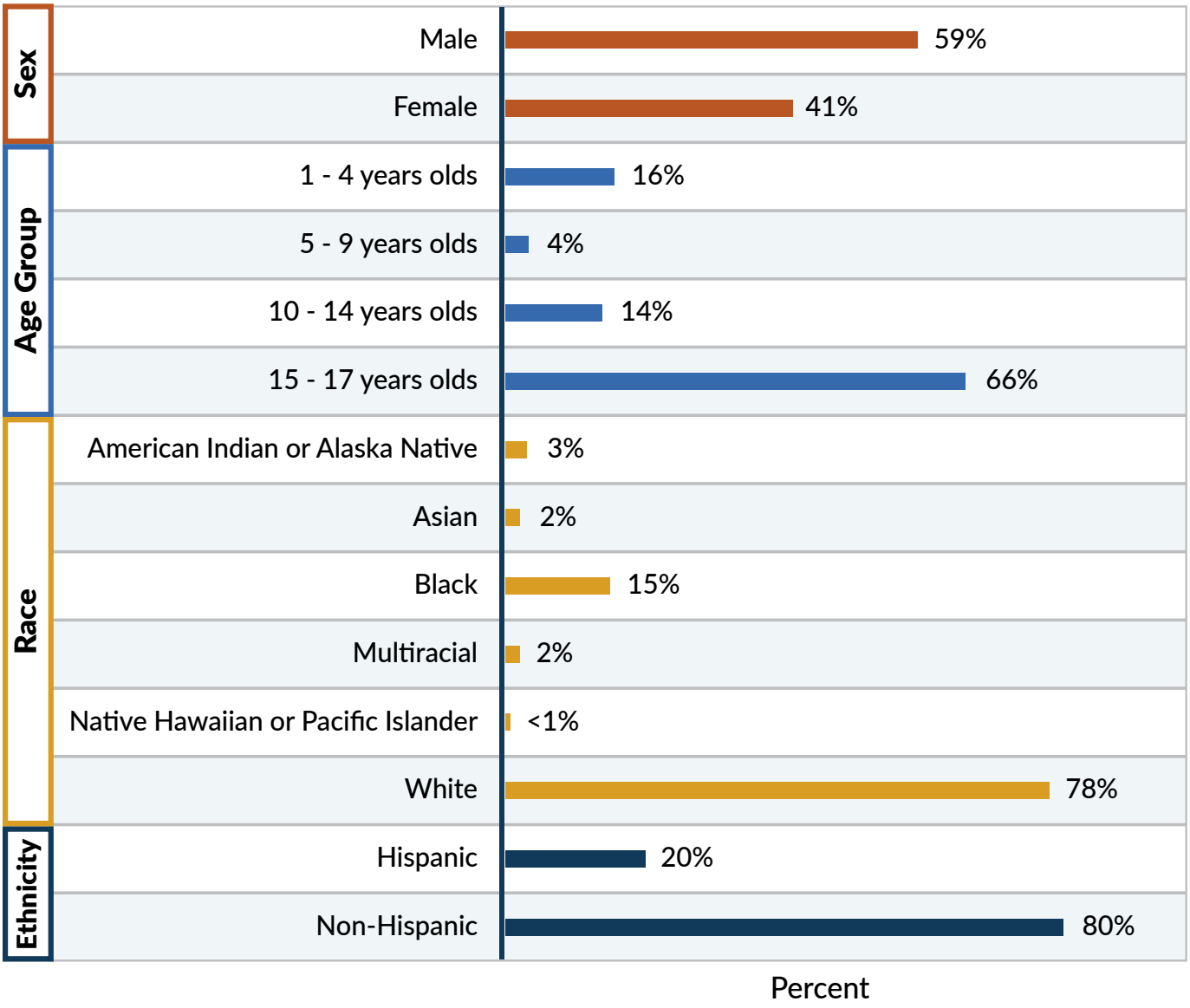
44% of all poisoning deaths were opioid-related

65% were accidental manner, while 18% were suicide, 10% undetermined, and 6% homicide

35% were attributed to two or more substances (i.e., polysubstance)

3% contacted Poison Control

Demographics



43% **of Black young people who died from poisoning were 1-4 years old,** compared to 21% for multiracial, 14% for American Indian or Alaska Native, and 11% for white.

31% **of Black young people who died from poisoning were 15-17 years old,** compared to 59% for multiracial, 63% for American Indian or Alaska Native, 72% for white, and 74% for Asian.

Incident Characteristics

Incident Area

41% urban

39% suburban

20% rural/frontier

Incident Place

63% child's home

13% friend's house

Incident Type

73% accidental overdose

18% deliberate poisoning

8% other

1% due to medical treatment mishap

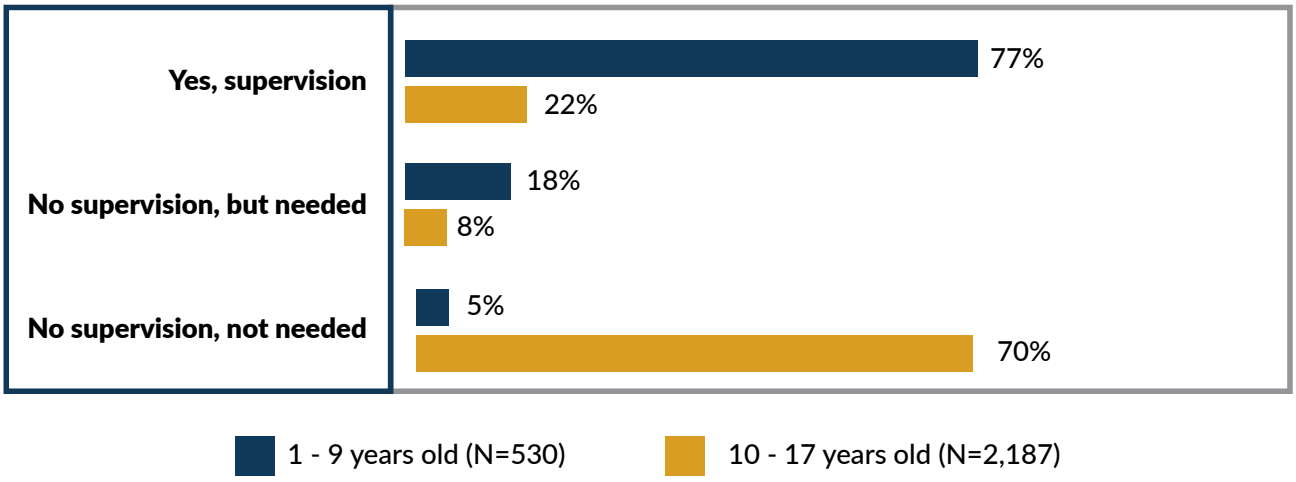
Substance Category*	Top Subtypes*
63% prescription drugs	• 63% opioid pain medication • 22% antidepressants • 19% medication for substance use disorder • 10% benzodiazepines
24% illicit drugs	• 59% other illicit substance (e.g., other street drugs) • 17% fentanyl • 12% cocaine • 12% heroin
21% other substances	• 47% alcohol • 30% carbon monoxide, • 15% other substance (e.g., other cleaners and chemicals) • 11% other fume
12% over-the-counter drugs	• 40% pain medication • 35% antihistamines • 23% cough medicine • 12% other over-the-counter drug (e.g., sleep aids)

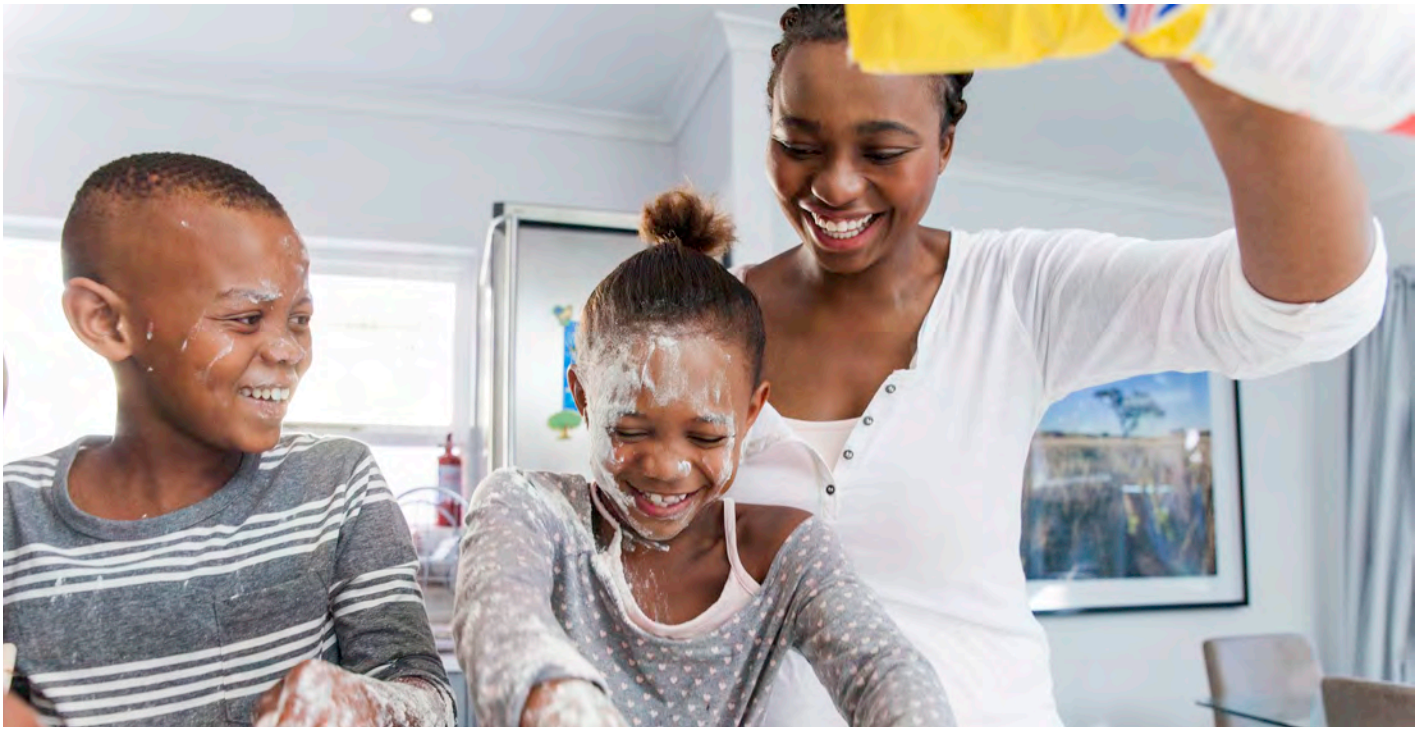
*Substance categories total beyond 100%. More than one substance could have been identified at the time of investigation as contributing to the death.

6%

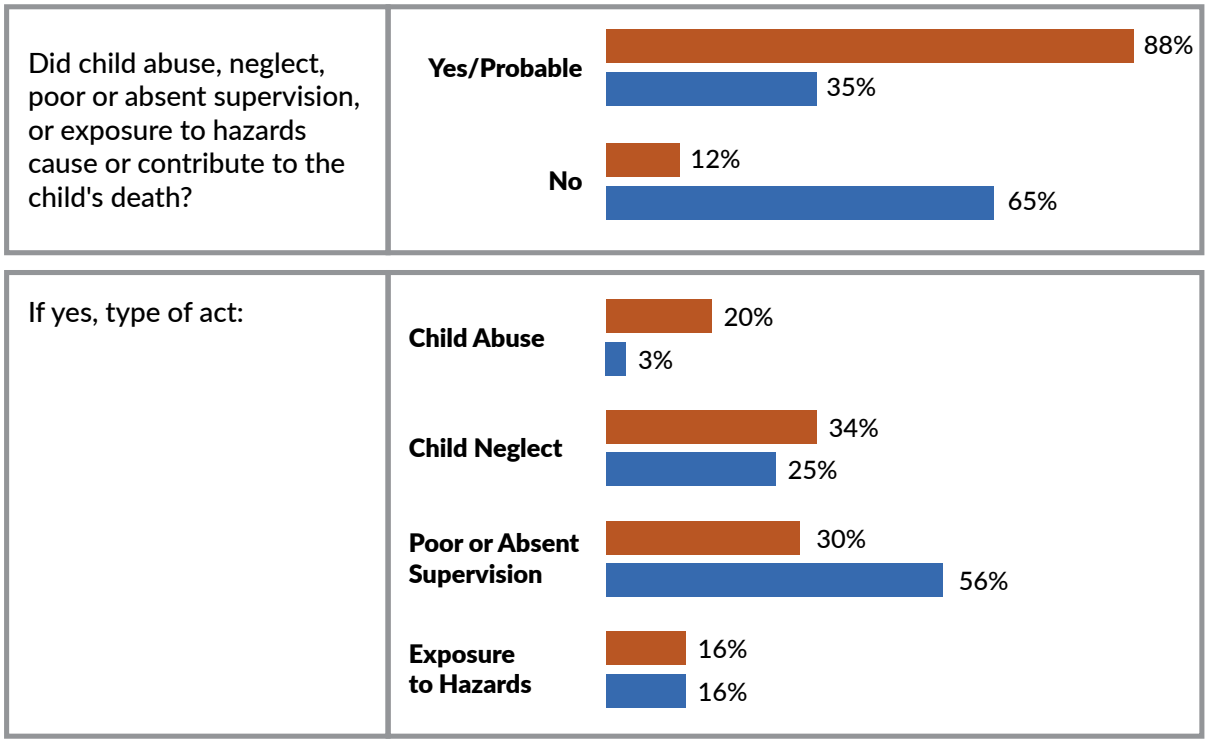
Six percent of poisoning deaths were attributed to substance(s) that were not specified in the NFR-CRS. Many of these deaths had NFR-CRS selections in toxicology results and/or specific substances noted in the cause of death fields of the death certificate. **This highlights the importance of focusing on data quality and the completion of NFR-CRS question H7a.**

Supervision At Time of Incident



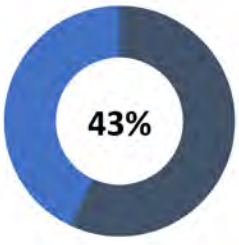


Child Maltreatment as a Cause or Contributing Factor

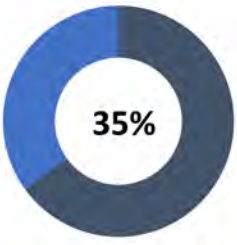


Child maltreatment classification in I5a was 30% missing/unknown for children 1-9 years old and 50% missing/unknown for children 10-17 years old. **This highlights the importance of focusing on data quality and the completion of NFR-CRS section I5.**

History



Indicated the decedent had a history of child maltreatment as a victim



Indicated the child had a prior disability or chronic illness

Among youth 10-17 years old…
78% had a known history of substance use, most often with marijuana/THC (56%), prescription drugs (36%), and/or opiates (35%)
66% had received prior mental health services
64% had problems in school
43% were receiving mental health services at time of death

Considerations During a Poisoning Fatality Investigation

All agencies investigating the death should collect information on life stressors that may have impacted the child's life. The National Center has created a resource for Completing the Life Stressors Section (URL: https://ncfrp.org/wp-content/uploads/Completing-the-Life-Stressors-Section.pdf).

Consider the Following Life Stressors Categories

Death scene investigators should consider the following Life Stressors categories as questions to ask during the investigation of any child death. Documenting the Life Stressors that were present for the child and family around the time of death helps CDR teams identify the findings that are crucial to informing upstream prevention.

- Social/economic: The decedent's/family's experience of racism, discrimination, poverty, neighborhood discord, job problems, money problems, food insecurity, no phone, housing instability, witnessing violence, lack of transportation, cultural differences, language barriers, lack of childcare, pregnancy, or pregnancy scare
- Medical: Lack of family or social support for care, caregiver distrust of the healthcare system, caregiver unskilled in providing care, lack of money for care, services not available, multiple providers or providers not coordinated, limitations of health insurance, provider bias, felt dismissed by provider, lack of provider-family compatibility
- Relationships: Family discord, argument with parents/caregivers, parents' divorce/ separation, parents' incarceration, argument with significant other, breakup with significant other, social discord, argument with friends, bullying as a victim, bullying as a perpetrator, cyberbullying as a victim, cyberbullying as a perpetrator, peer violence as a victim, peer violence as a perpetrator, isolation, stress due to sexual orientation, or stress due to gender identity
- School (age 5 and over): Failure, pressure to succeed, extracurricular activities, new school, or other school problems
- Technology (age 5 and over): Negative impacts due to electronic gaming, texting, restriction of technology, or social media

- Transitions (age 5 and over): Release from hospital, transition from one level of mental health care to another (e.g., outpatient to inpatient), release from juvenile justice facility, end of school year/school break, to/from child welfare system, or release from immigrant detention
- Trauma (age 5 and over): Rape/sexual assault, previous abuse (emotional/physical), or family/domestic violence
- Other: Any other factor that may have increased risk that is not captured in these categories

These life stressors should be documented in Section I7 in the NFR-CRS.

Thorough DSI

Although the death may be easy to identify as a poisoning, a thorough DSI, including an autopsy and toxicology testing, should be completed. These are necessary to increase the community's understanding of the associated risk and protective factors and ensure the accurate identification and classification of cause and manner of death.[6]

A thorough DSI includes, but is not limited to, the following:

- Information about events leading up to and the circumstances of the death (e.g., how the decedent accessed the substance(s))
- Comprehensive documentation of the death scene (e.g., medications including pill counts and over-the-counter drugs present and detailed notes and photographs about how and where the body was found)
- The decedent's past medical history, including prescription history
- Any diagnosis, underlying medical histories, and/or prescription histories of household members
- Information about the child's mental health history (e.g., treatment and/or medications)
- Any history of substance use by the child, family, or anyone else staying in the home
- Comprehensive social history (e.g., life stressors such as child maltreatment, school issues, stress due to gender identity or sexual orientation, social/family support, and relationships)
- Witness interviews (e.g., family, friends, school personnel)
- Review of the child's social media

Health equity considerations for the investigation of poisoning deaths: Completing a comprehensive autopsy, including toxicology testing, and use of standardized investigation forms ensure all relevant information is collected in a standardized way for all deaths. Sample standardized forms are available on the National Center's website (URL: https://ncfrp.org/resource-tag/dsi-tools).

For more information on policies and protocols for proper poisoning DSIs and scene safety for first responders, you may want to consult the following:

- Centers for Disease Control and Prevention, Investigation and Certification of Drug Toxicity Deaths (Web Based) (URL: https://tceols.cdc.gov/Course/Detail2/7867?previousPage=search)
- National Association of Medical Examiners (NAME) (URL: https://www.thename.org)
- International Association of Coroners & Medical Examiners (IACME) (URL: https://theiacme.com)
- National Institute of Justice, Death Investigation: A Guide for the Scene Investigator (URL: https://nij.ojp.gov/library/publications/death-investigation-guide-scene-investigator-technical-update)

View the National Center's DSI Learning Series for additional information on conducting DSIs. This learning series contains training modules that focus on all aspects of the DSI process. Participants will have access to no-cost continuing education credits for completing at least one hour of the learning series (URL: https://courses.mihealth.org/PUBLIC).

Critical Documents to Consider for Review

Consider interagency data sharing agreements and community agreements to help standardize team processes and procedures and ensure team member/member agencies feel comfortable sharing the data and information critical to the review process. These potential data sources include, but are not limited to:

- Medical records, including primary care and emergency treatment
- Mental health records
- Substance use treatment records
- Family and peer interviews
- Child welfare records
- School records
- Law enforcement records
- Job/occupational records
- Social connections, including social media records, email records, texts, and other personal correspondence
- State prescription drug monitoring program (PDMP) for reconciliation of prescription information and medication counts
- Information from Poison Control

Key Questions to Ask During the Review Meeting

These are questions to consider during the review discussion. Some are not included in the NFR-CRS but will equip CDR teams to better understand the context of the incident and better inform prevention recommendations. These questions should be answered for each substance.

- What type of substance was involved?
- What was the source of the substance (bought from, provided for free, or stolen from a dealer, stranger, friend or relative, decedents own prescription, bought from a store or pharmacy, unknown, or other)?
- Was the substance stored up and away and out of sight?
- Was the substance stored in a locked cabinet?
- How was the substance taken (in utero, orally, nasally, intravenously, through the skin, or unknown)?
- Was the incident the result of accidental overdose/acute intoxication, medical treatment mishap, deliberate poisoning, unknown, or other?
- Did the child have a prescription for a controlled substance within the previous 24 months?
- Did the child have a non-fatal overdose within the previous 12 months (check Emergency Medical Services and hospital records)?
- Was Poison Control contacted?
- For carbon monoxide poisoning, was a carbon monoxide alarm present?
- Did the family receive education about safe storage of substances either before or after the death?
- What life stressors were present for the child and family around the time of death? These could be social/economic, medical, relationships, school, technology, transitions, and/or trauma.
- What went well? Describe any notable positive elements (protective factors) related to this death. They could be demographic, behavioral, or environmental characteristics that may have promoted resiliency in the child or family, the systems with which they interacted, or the response to the incident. See the NFR-CRS Data Dictionary for examples (URL: https:/ncfrp.org/wp-content/uploads/DataDictionary_CRS_v6-0.pdf).

Life stressors should be documented in Section I7 of the NFR-CRS. Protective factors should be documented in Section L2 in the NFR-CRS.

For more information on deaths due to suicide, you can access the Best Practices in Reviewing Suicides National Center Guidance Report on the National Center's website (URL: https://ncfrp.org/wp-content/uploads/Suicide_Guidance.pdf.)

Reporting Regulated Products

Reporting infant and child deaths that involve consumer products can have live-saving implications, as it helps ensure that appropriate recalls and improved safety measures can be put in place. CDR teams have a unique opportunity to identify potentially hazardous products such as prescription drugs, over-the-counter drugs, alcohol and tobacco products, and poisonings from carbon monoxide or batteries.

While most consumer products are regulated, some are not. Fatality review teams are encouraged to report deaths related to consumer products to the appropriate regulatory agency as a primary prevention strategy. The most common regulatory agencies include the Food and Drug Administration (FDA), The Consumer Product Safety Commission (CPSC), and the National Highway Traffic Safety Administration (NHTSA).

Fatality Review teams are encouraged to use the National Center's Deaths Related to Consumer Products Quick Reference to learn more about the consumer product regulatory agencies, data collection on consumer-related deaths, and how to report consumer-related product deaths (URL: https://ncfrp.org/wp-content/uploads/Deaths_Related_to_Consumer_Products.pdf).

- To report an issue related to an FDA-regulated product, visit the CFSAN Assistance webpage (URL: https://www.fda.gov/food/resources-you-food/industry-and-consumer-assistance-cfsan)
- To report a death or injury related to a CPSC product, visit the CPSC Reporting webpage (URL: https://saferproducts.gov/IncidentReporting)
- To report an issue related to an NHTSA-regulated product, visit the NHTSA Reporting webpage (URL: https://nhtsa.gov/report-a-safety-problem#index)

Incorporating Equity in the Review Process

There are many ways that equity can be incorporated into the fatality review process. As stated previously, a majority of the deaths due to poisoning documented in the NFR-CRS are opioid-related. Engaging persons with substance use disorder (SUD) in treatment, and preventing poisoning deaths, is a major barrier to addressing the opioid epidemic. This is largely due to the stigma associated with substance use. This stigma is often rooted in a lack of understanding about mental illness, and the belief that substance use is a personal choice, reflecting a lack of willpower or moral failing, and not an understanding that SUD is a disease that requires treatment and support.

When conducting fatality reviews involving substance use, it is important to acknowledge this stigma as an individual and team. This type of bias, when unacknowledged, can impact the outcome of the review. This includes taking a deficit-based approach, focusing only on individual factors, victim or family blaming, or making only individual level recommendations. Fatality review recommendations should focus on the systemic issues that perpetuate the inequities for children and families living with SUD.

One way a CDR team can incorporate equity is to utilize person-first language as part of the team's shared expectations about how the group will work together. Person-first language focuses on the person first and not their condition or diagnosis. Below are some alternatives to stigmatizing language.

Instead of these stigmatizing words and phrases…	Try these preferred alternatives
Substance abuse or drug abuse	Substance use disorder
Addict, junkie, or user	Person with a substance use disorder
Addicted baby	Infant exposed to opioids
Clean (person)	In recovery
Clean (or dirty) toxicology results	Negative (or positive) toxicology results

It is likely that, during a review meeting, stigmatizing, disparaging, or judgmental terms may be used when referring to a person with SUD. Setting community agreements to outline how to navigate stigmatizing language can provide the team with a roadmap for addressing these challenges. Learn more about community agreements on pages 10-11 of the Health Equity: Diversity, Equity and Inclusion Assessment Guide for Multidisciplinary Teams Facilitator's Manual (URL: https://ncfrp.org/wp-content/uploads/FacilitatorsManual_HealthEquity.pdf)

Collaboration with Overdose Fatality Review Programs

Collaborating between fatality review systems is vital to maximizing resources, reducing duplication, and magnifying prevention messages. While CDR and OFR programs may focus on separate populations, there are many reasons why these programs may seek enhanced collaboration or alignment. The populations of focus for CDR and OFR teams are often seen as parts of a whole population of interest to prevention partners, and the processes often result in similar system or community-level recommendations.

When different fatality review programs align or collaborate, it is important to do so in ways that allow fidelity to each programmatic model and jurisdictional authority. But, together, CDR and OFR teams can identify ways in which the social determinants of health drive outcomes and create recommendations across programs that are able to focus on the systems-level risks that affect populations across the life course.

Learn more about OFR at the Bureau of Justice Assistance's Comprehensive Opioid, Stimulant, and Substance Use Program (COSSUP) webpage (URL: https://bja.ojp.gov/program/cossup/about).

Opportunities for Collaboration

The following are ways in which CDR and OFR fatality review programs may effectively coordinate efforts to support progress across the life course.

Improve communication throughout the case preparation process, as policy permits

- Share records requests
- Share abstractors or death-specific documents or summaries
- Share case-specific data if a death is under review by more than one review program
- Coordinate family and informant interviews

Share partners

Similar external partners may be asked to provide records for, participate in, or advance recommendations for multiple fatality review programs. To maximize efficiency, and minimize the burden placed on these partners, collaboration between fatality review programs is crucial. Some of these shared partners may include:

- Medical examiners/coroners
- Public health
- Law enforcement/investigators
- Child welfare
- Mental health providers/professionals

Formalize coordination of different review programs within states or locales

CDR and OFR programs are often coordinated by state or local health departments. They may share leadership within the same agency, or division. Even when program leadership is not adjacent within an organization, it is important to structure collaboration to maximize resources, effort, and communication to advance a collective impact approach. Some of the ways to structure coordination may include:

- Actively coordinate and communicate learning, actions, and goals among leadership
- Share membership
- Share funding

Share data collected from different reviews to support planning objectives

- Share data entry staff or protocols
- Share aggregate data for internal program planning and prioritization strategies, identifying shared risk or protective factors and priority recommendations for prevention

Amplify shared messages

- Jointly disseminate reports
- Elevate coordinated recommendations or findings
- Collaborate on summarizing shared community resources
- Collaborate around acting on findings or recommendations

For more information on enhancing collaboration with OFR, Maternal and Child, and other types of fatality review teams, visit the National Center website (URL: https://ncfrp.org/center-resources/written-products). For more information on OFR teams in your jurisdiction, contact the Bureau of Justice Assistance Comprehensive Opioid, Stimulant, and Substance Abuse Program: Training and Technical Assistance Request (URL: https://www.cossapresources.org/Program/TTA/Request/OFR).

Documenting in the NFR-CRS

Questions

The NFR-CRS provides an overview of demographics of the child, caregivers, supervisor, and information specific to the death-causing event. Additionally, NFR-CRS captures contextual information about the community and systems where the child lived, worked, and played.

The following questions are included in the NFR-CRS to support CDR teams' data collection and discussion. The questions will likely be addressed in a thorough DSI, though not every detail may be included in a report. It is helpful to invite the investigator(s) to the review meeting to share insights if your state statutes allow ad-hoc members.

Section H: Detailed Information by Cause of Death, Poisoning

- What type of substance was involved, check all that apply and note source, storage, and route of administration (H7, a)? This question captures:
  - Whether the substance was prescribed, sold, stolen, or given freely and from whom or where the substance was procured.
  - If the substance was stored in a locked cabinet.
  - How was the substance taken (in utero, orally, nasally, intravenously, through the skin, or unknown)?
- Was the incident a result of an accidental overdose/acute intoxication, medical treatment mishap, deliberate poisoning, unknown, or other (H7, b)?
- Did the child have a prescription for a controlled substance within the previous 24 months (H7, c)?
- Did the child have a non-fatal overdose within the previous 12 months (H7, d)?
- Was Poison Control contacted (H7, e)?
- For CO poisoning, was a CO alarm present (H7, f)?

Points to Include in the Narrative

The narrative section allows teams to share summaries of salient points that can inform prevention efforts. In addition to the variables outlined above, it is helpful to include more detail in the narrative. Specifically, collecting the information outlined in the **Considerations During the Poisoning DSI (see page 11)** section can maximize the impact of the qualitative data in the narrative.

Note: Do not include any personally identifiable information in the narrative, such as names, dates, or specific locations. This can be accomplished by using words like "the decedent" or "child" instead of the child's name or "hospital" instead of the hospital name.

Examples:

A 15-year-old female died by overdose.

The 15-year-old female was found unresponsive in her basement bedroom. The decedent's 15-year-old female friend had spent the night and was also present. The friend said that she and the decedent had been "partying" with friends earlier in the day and had taken some oxycodone pills that they purchased from a "guy at school". The friend also stated that when they returned to the decedent's house, they ingested some "K" (Klonopin) that she and the decedent had stolen from the friend's house. The friend stated that her mother has chronic anxiety and has a prescription for Klonopin. The friend stated that her mother kept the Klonopin unlocked in the bathroom medicine cabinet and that she had never taken any of her mother's medication in the past. The decedent, per her mother, had a history of marijuana use but had not received any mental health treatment or diagnosis. There was no substantiated history of abuse or neglect with child protective services, but there had been an unsubstantiated report of neglect that was filed when the child was 9 years old. The child did not have any disciplinary or behavioral issues at school, but her grades were considerably lower than they had been the previous year. An autopsy was completed along with toxicology. The toxicology results were positive for oxymorphone and clonazepam. Cause of death was determined to be acute combined drug intoxication (oxycodone and clonazepam) and the manner of death was listed as accident.

An 8-year-old female died by carbon monoxide poisoning.

The decedent, her father, mother, and 12-year-old sister were boating on the local reservoir. The decedent's father stated his 8-year-old had been laying on the back seating area near the swim deck while the boat idled so he could fix an issue with the throttle. He stated his wife, and 12-year-old child were laying on the seats at the front of the boat. He said after about 15 minutes of working on the throttle, they were ready to resume boating. At that time, he noticed his 8-year-old daughter was unresponsive. The family had no previous history with child protective services. It was determined that the boat was maintained properly, and that CO had built up near the swim deck while the motor idled. An autopsy revealed that the child died from CO poisoning and the manner of death was listed as accident.

Focus on Findings

The key purpose of fatality review is to identify prevention opportunities. To do this, fatality review teams need to identify and aggregate findings from the review meeting(s). By focusing on findings, review teams will be able to efficiently identify common system gaps and successes across many deaths to guide the development of recommendations for prevention.

Based on annual surveys from CDR teams, identifying prevention opportunities and sharing recommendations is a common barrier and one of the most challenging aspects of the fatality review process. To support fatality review teams in writing strong, evidence-based prevention recommendations, the National Center created a Findings Guidance: National Center Guidance Report (URL: https://ncfrp.org/wp-content/uploads/NCRPCD-Docs/Findings_Guidance.pdf), and modified the NFR-CRS so that fatality review teams can easily document findings, run standardized reports, and document prevention activities. The graphic below describes each step in the process along with the corresponding place in the NFR-CRS where the crucial work of the fatality review team is captured.

Self-Care: Addressing Vicarious Trauma

All partners engaged in the CDR process, either individually or on a team, can be adversely affected by the repeated exposure to traumatic information, a condition referred to in this document as "vicarious trauma" (VT).

VT is defined as experiencing or feeling something by hearing the details of someone else's trauma, as opposed to experiencing it firsthand. VT occurs because of elevated levels of exhaustion from the cumulative, repeated, pervasive, long-term stress of exposure to others' traumatic experiences. Thus, VT is a type of empathetic engagement that can be an occupational concern of serving on a CDR team.

Signs and symptoms of VT may occur in many ways, including physical and psychosocial (e.g., fatigue, irritability, depression, anxiety, etc.). Recognizing these manifestations is crucial so the person can be supported and helped.

For more information and guidance on addressing self-care for teams, the National Center has created Guidance for CDR and Fetal and Infant Mortality Review (FIMR) Teams on Addressing Vicarious Trauma (URL: https://ncfrp.org/wp-content/uploads/NCRPCD-Docs/GuidanceVicariousTrauma.pdf). The guidance document contains a toolkit and information on risk factors, ways to mitigate and respond to VT, what teams can do, and what coordinators can do if the team resists or thinks it is not needed, etc.

VT is a common professional experience. More often than not, fatality review professionals will experience VT, but it does not have to be overwhelming! Addressing it as a team, supporting team members in their stress and trauma, and taking steps to reduce VT will result in healthier, more productive teams and members.

Stories from the Field

Nevada Encourages Hospitals to Add Fentanyl to Standardized Drug Panels

The Washoe County, Nevada Regional CDR team identified an increase in the recreational use of fentanyl in their community that resulted in accidental ingestions by young children and overdoses in the teenage population. This finding catalyzed the Washoe County team to create a recommendation that hospitals begin testing incoming overdose patients for fentanyl as a part of their standard drug screen panel. The finding was also elevated to the Nevada State Executive Committee to Review the Death of Children (Committee).

The Committee discussed the recommendation, heard from representatives from the Nevada Opioid to Data Action team, the Department of Behavioral Health, and the Bureau of Healthcare Quality and Compliance, and learned that fentanyl was not part of a standard hospital toxicology panel. To include a test for fentanyl in the emergency room, a separate request had to be made to the hospital lab. This resulted in delayed testing, delayed toxicology results, and delayed identification of proper treatment or services to the child and family.

When children present to the hospital with an apparent opioid overdose, but an unknown substance, not being able to correctly identify treatment, services, or the best course of safety action immediately, can pose unintended adverse effects. The Committee determined that if hospitals were to include fentanyl on their standard toxicology panel, results would be much quicker, and thus treatment and services could be timelier and appropriately tailored.

The Committee approved sending a letter to licensed hospitals throughout Nevada that encouraged them to add fentanyl to their standard drug panels. The letter also included helpful links to educational material for providers, patients, and families. The Committee has already seen success with at least one hospital confirming that every drug screen run through the adult or children's emergency room where a patient is seen will now include standard fentanyl testing with immediate results of the screen. This recommendation will increase the Narcan distribution to vulnerable teens who may be engaging in drug use and help quickly identify what substances are ingested by children. A huge win!

The Committee continues to advocate for agencies to add recommendations to their 2025 legislative proposals mandating fentanyl be added to standard hospital drug panels. The Committee will continue to monitor this recommendation to see what additional steps can be taken regarding collaboration with other state agencies; enhancing public awareness and education; and assisting hospitals in addressing barriers to adding fentanyl to their drug testing panels.

Delaware's Accidental Ingestion Workgroup

The Delaware Child Abuse and Neglect (CAN) Panel and the Child Death Review/Sudden Death in the Young (CDR/SDY) Panel conducted a joint analysis of pediatric drug ingestions reviewed by one or both panels between 2013 and 2021 to identify risk factors that may present actionable opportunities for education and prevention.

All pediatric drug ingestion cases that underwent a full review by either the CAN Panel or the CDR/SDY Panel involving children under ten were included. Key demographic and circumstantial factors were abstracted into an analytic Excel database. Variables related to the child's age, incident location, implicated substance, and storage details were summarized.

Through this dynamic partnership and intentional data sharing, it was found that the number of pediatric drug ingestions reported to the Delaware Division of Family Services increased over time. The panels reviewed 91 pediatric drug ingestions from 2013 to 2021, including four deaths. Forty percent of the incidents occurred in 2021 alone. Compared to the baseline rate in 2013-2015, the number of drug ingestion incidents reviewed increased eightfold in 2019-2021.

Over the nine years from 2013-2021, 65% of pediatric drug ingestions involved children two years old or younger. Forty-two percent of the incidents occurred with a caregiver who was impaired by a substance or medication or was asleep, and 98% occurred when a substance was left in an open or unlocked place where the child had access. These reviews have also shed light on poor or absent supervision as a factor in incidents involving prescription and non-prescription drugs, and that Poison Control was more likely to be called in cases involving prescription drugs. These findings indicated that Poison Control is a potentially underutilized resource, especially when an illegal substance is involved, and caregivers should be educated to contact Poison Control for all serious pediatric ingestions.

In 2022, to address the alarming findings, risk factors, and trends identified by the reviews, the Delaware Child Protection Accountability Commission (CPAC) convened a workgroup to inform the rollout of a public education campaign. The workgroup is charged with reducing and preventing accidental and toxic drug ingestions by children and promoting safe drug storage by caregivers and parents and increasing awareness and education for parents, caregivers, first responders, and medical providers on early signs and symptoms of drug ingestions. The campaign will focus on key storage tips and consistent messaging in various formats. CPAC recently applied for and was awarded grant funding to allow for the expansion and marketing of this campaign. The workgroup continues to study pediatric drug ingestion trends in Delaware to evaluate the education campaign's impact and ongoing efforts for system improvements.

Conclusion

Unintentional poisoning is a leading cause of death for children in all age groups, and most of the deaths are preventable. CDR teams are uniquely positioned to identify and collect the life stressors, risk, and protective factors surrounding these deaths. This information is crucial to creating successful prevention recommendations that focus on systems' change and address the social determinants of health that lead to poor health outcomes for children.

Resources

DSI

Centers for Disease Control and Prevention and RTI International, Investigation & Certification of Drug Toxicity Deaths, Guidance for thorough death investigation and appropriate reporting on the death certificate (URL: http://assets.cfsecosystem.com.s3-website-us-east-1.amazonaws.com/CDC-Death-Reporting-webpage-menu/index.html)

National Association of Medical Examiners (NAME) (URL: https://www.thename.org)

National Institute of Justice, Death Investigation: A Guide for the Scene Investigator (URL: https://nij.ojp.gov/library/publications/death-investigation-guide-scene-investigator-technical-update

National Center

National Center for Fatality Review and Prevention, Common Substances in Poisoning Events (URL: https://ncfrp.org/wp-content/uploads/Poisoning-Labels.pdf)

National Center for Fatality Review and Prevention. Best Practices in Reviewing Suicides National Center Guidance Report, (URL: https:/ncfrp.org/wp-content/uploads/Suicide_Guidance.pdf)

National Center for Fatality Review and Prevention, Resources for Completing the Life Stressors Section, (URL: https://ncfrp.org/wp-content/uploads/Completing-the-Life-Stressors-Section.pdf)

National Center for Fatality Review and Prevention, Sample Standardized Death Scene Forms, (URL: https://ncfrp.org/community-resources)

National Center for Fatality Review and Prevention, Death Scene Investigation (DSI) Learning Series, (URL: https://courses.mihealth.org/PUBLIC)

National Center for Fatality Review and Prevention, Guidance for CDR and Fetal and Infant Mortality Review (FIMR) Teams on Addressing Vicarious Trauma (URL: https://ncfrp.org/wp-content/uploads/NCRPCD-Docs/GuidanceVicariousTrauma.pdf)

National Center for Fatality Review and Prevention, NFR-CRS Data Dictionary (URL: https:/ncfrp.org/wp-content/uploads/DataDictionary_CRS_v6-0.pdf)

National Center for Fatality Review and Prevention, Findings Guidance: National Center Guidance Report (URL: https://ncfrp.org/wp-content/uploads/NCRPCD-Docs/Findings_Guidance.pdf)

OFR Teams

Bureau of Justice Assistance Comprehensive Opioid, Stimulant, and Substance Abuse Program: (URL: https://bja.ojp.gov/program/cossup/about)

Prevention

Centers for Disease Control and Prevention, Evidence-Based Strategies for Preventing Opioid Overdose, (URL: https://www.cdc.gov/drugoverdose/featured-topics/evidence-based-strategies.html)

Children's Safety Network, Prescription Drug Misuse Prevention, (URL: https://www.childrenssafetynetwork.org/child-safety-topics/prescription-drug-misuse-abuse)

Children's Safety Network, Poisoning Prevention, (URL: https://www.childrenssafetynetwork.org/child-safety-topics/poison-prevention)

Health Resources & Services Administration, Poison Centers, (URL: https://poisonhelp.hrsa.gov/poison-centers)

National Highway Transportation Safety Administration, NHTSA Reporting webpage (URL: https://nhtsa.gov/report-a-safety-problem#index)

National Institute for Children's Health Quality, Implicit Bias Resource Guide, https:/nichq.org/sites/default/files/resource-file/Implicit%20Bias%20Resource_Final_0.pdf

Safe Kids Worldwide, Keeping Kids Safe Around Medicine: Insights and Implications, https:/www.safekids.org/sites/default/files/medicine_safety_study_2020-v14.pdf

Substance Abuse and Mental Health Services Administration, Opioid Overdose Prevention Toolkit, (URL: https://store.samhsa.gov/sites/default/files/d7/priv/sma18-4742.pdf)

United States Consumer Product Safety Commission, CPSC Reporting webpage (URL: https://saferproducts.gov/IncidentReporting)

United States Department of Health and Human Services, Overdose Prevention Strategy, (URL: https://www.hhs.gov/overdose-prevention)

United States Food and Drug Administration, CFSAN Assistance webpage (URL: https://www.fda.gov/food/resources-you-food/industry-and-consumer-assistance-cfsan)

Endnotes

1 National Center for Health Statistics (NCHS), National Vital Statistics System, https://www.cdc.gov/injury/wisqars/LeadingCauses.html

2 Safe Kids Worldwide, Keeping Kids Safe Around Medicine: Insights and Implications, https://www.safekids.org/press-release/five-kids-rushed-emergency-rooms-every-hour-medicine-poisoning

3 National Center for Fatality Review and Prevention Data Dictionary, https://ncfrp.org/wp-content/uploads/DataDictionary_CRS_v6-0.pdf

4 National Center for Fatality Review and Prevention Case Reporting Form, https:/ncfrp.org/wp-content/uploads/CDR_CRS_v6-0.pdf

5 National Center for Fatality Review and Prevention Case Reporting Form, https:/ncfrp.org/wp-content/uploads/CDR_CRS_v6-0.pdf

6 Centers for Disease Control and Prevention and RTI International, Investigation & Certification of Drug Toxicity Deaths, Guidance for Thorough Death Investigation and Appropriate Reporting on the Death Certificate, http://assets.cfsecosystem.com.s3.amazonaws.com/CDC-Death-Reporting-webpage-menu/2-SceneInvestigation/story.html

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