

POISONING, OVERDOSE, OR ACUTE INTOXICATION DEATHS: CONSIDERATIONS FOR REVIEW & DEATH SCENE INVESTIGATION

TELLING STORIES TO SAVE LIVES



Key Funding Partner

Federal acknowledgement

The National Center is funded in part by Cooperative Agreement Number UG7MC28482 from the U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB) as part of an award totaling \$5,149,996 annually with 0 percent financed with non-governmental sources. These contents are solely the responsibility of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.



HOUSEKEEPING

Before we get started

- This webinar is being recorded and will be available on the National Center's webpage (URL: www.ncfrp.org).
- Participants are muted. Use the question-and-answer box ask questions.
- Contact the National Center (email: <u>info@ncfrp.org</u>) for any technical problems.





EVALUATION

https://www.surveymonkey.com/r/32BRMMX

Diane Pilkey, RN, MPH

Federal Welcome and Introductions

Senior Nurse Consultant

Division of Child, Adolescent and Family Health

Maternal and Child Health Bureau

Health Resources and Service Administration





HRSA'S VISION FOR THE NATIONAL CENTER

Improving Systems of Care and Outcomes for Mothers, Infants, Children, and Families

Assist state and community programs in:

- Understanding how CDR and FIMR reviews can be used to address issues related to adverse maternal, infant, child, and adolescent outcomes.
- Improving the quality and effectiveness of CDR/FIMR processes.
- Increasing the availability and use of data to inform prevention efforts and for national dissemination.



Cause for Concern

Define what constitutes a poisoning, overdose, or acute intoxication death.



Quick-Look

Explore NFR-CRS data Quick-Look on poisoning, overdose, or acute intoxication deaths for those ages 1-17 years old.



Resources

Identify poisoning, overdose, or acute intoxication prevention resources and strategies.



Death Scene Investigation

Considerations during a poisoning, overdose, or acute intoxication fatality investigation.



National Center Guidance Document

A resource to help build capacity for the investigation and review of poisoning, overdose, or acute intoxication fatalities.



Speakers

The speakers have no financial relationships or interests to disclose



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Amber Urban Investigator in the Special Victim's Unit of Colorado's 18th Judicial District Attorney's Office (Retired)



Poison Control Prevention

Programs and Resources





Overview of Poison Control Centers Program

National Center for Fatality Review and Prevention

March 7, 2024

Jordan Tautges

Division of Child, Adolescent, and Family Health (DCAFH)

Maternal and Child Health Bureau (MCHB)

Vision: Healthy Communities, Healthy People



Poison Control Program Overview

Poison Help Line

> Poison Centers

Awareness & Education





Find a Poison Center







Poison Center Overview





Poison Help

Poison exposure and surveillance data

Toxicological expertise

Emergency preparedness

Support during public health emergencies

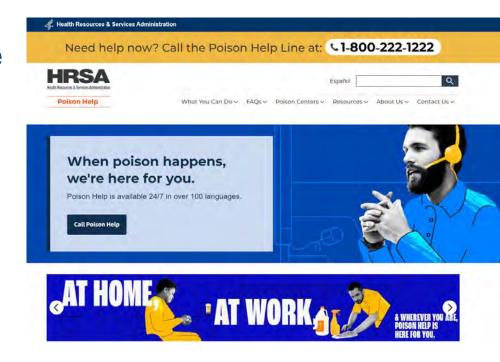
Public and professional education





Funding and Resources

- New Notice of Funding Opportunity for the Poison Control Centers Program released and is available here: grants.gov/search-results-detail/349428.
 - Applications due May 1, 2024.
- National Poison Prevention Week is March 17-23, 2024. Information and resources will be available here: https://poisonhelp.hrsa.gov/







Contact Information

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Technical Assistance and Training

On-site, virtual and/or recorded assistance, customized for each jurisdiction, is provided to CDR and FIMR teams.



National Fatality Review-Case Reporting System

Support the NFR-CRS which is used in 47 states and provides jurisdictions with real-time access to their fatality review data.



Resources

Training modules, webinars, written products, newsletters, list-serv, website and more.



Communication with Fatality Review Teams

Regular communication via listserv, newsletters and regional coalitions.



Connection with National Partners

Develop or enhance connections with national organizations, including federal and non-federal partners.





For this webinar, the term poisoning will include poisoning, overdose, or acute intoxication.

Cause for Concern

CDR Teams are Uniquely Positioned to Improve Our Understanding of Poisoning Deaths

- Unintentional poisonings from drugs and other substances, such as household chemical products, are a leading cause of death for children of all age groups. ¹
- 1 Every hour, five children are rushed to emergency rooms for medicine poisoning in the United States.²
- Most of these deaths are preventable.



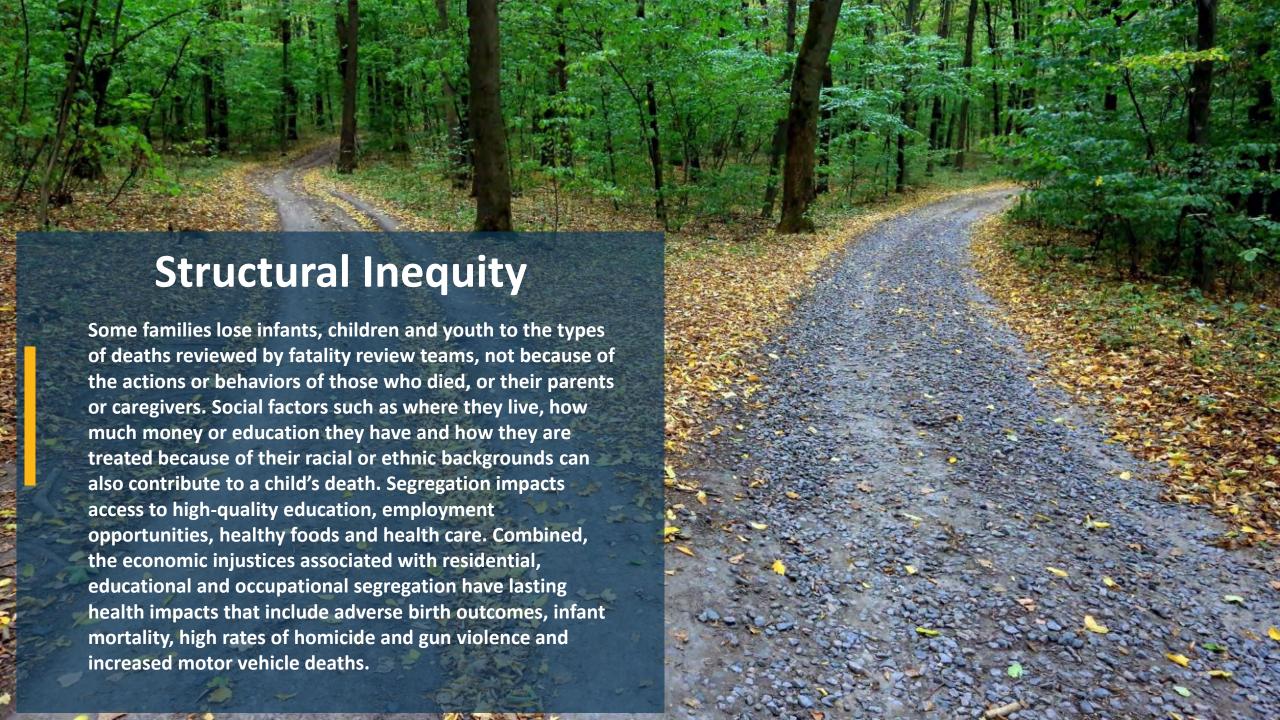
¹ National Center for Health Statistics (NCHS), National Vital Statistics System, https://www.cdc.gov/injury/wisqars/LeadingCauses.html
2 Safe Kids Worldwide, Keeping Kids Safe Around Medicine: Insights and Implications, https://www.safekids.org/press-release/five-kids-rushed-emergency-rooms-every-hour-medicine-poisoning

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



DATA QUICK-LOOK

Deaths From Poisoning For Those Ages 1-17 Years Old



NFR-CRS Utilization

There are currently 47 states using NFR-CRS

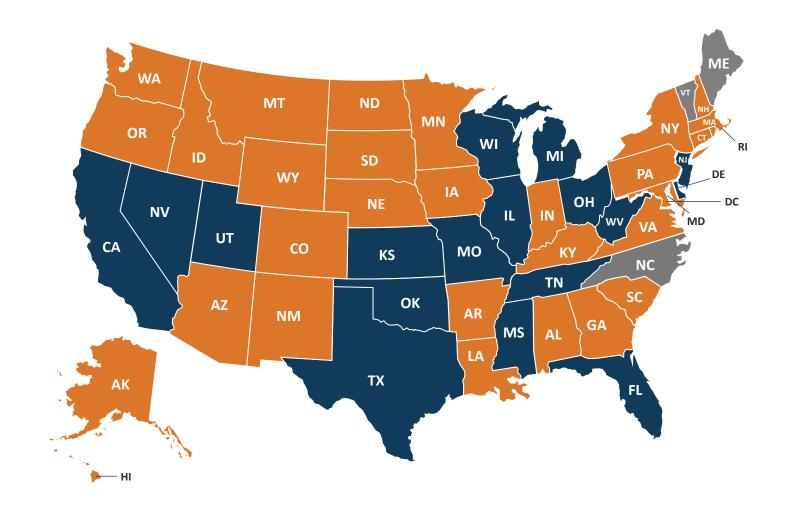
- 47 use NFR-CRS for CDR
- 17 use NFR-CRS for FIMR

Each state uses NFR-CRS differently. Some have comprehensive reviews whereas others may only use NFR-CRS in one jurisdiction.

States Using NFR-CRS for CDR

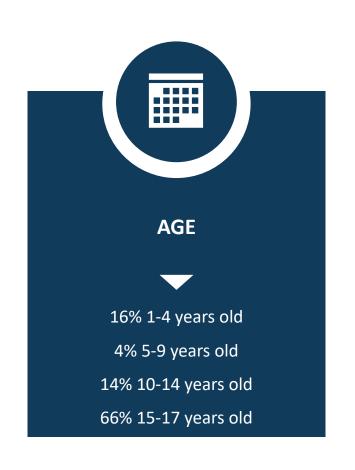
States Using NFR-CRS for CDR and FIMR

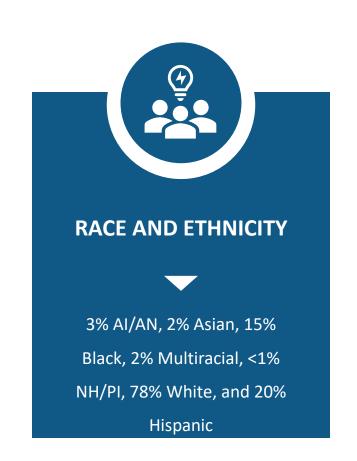
States Not Using NFR-CRS



Deaths that Occurred Due to Poisoning, Overdose, or Acute Intoxication

NFR-CRS data from 3,030 deaths, that occurred to children ages 1-17 between 2004-2020

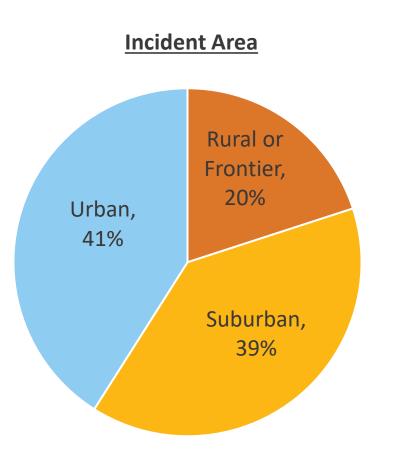






Incident and Investigation Information

NFR-CRS data from 3,030 deaths, that occurred to children ages 1-17 between 2004-2020



Place of Incident

63% occurred at the child's home.

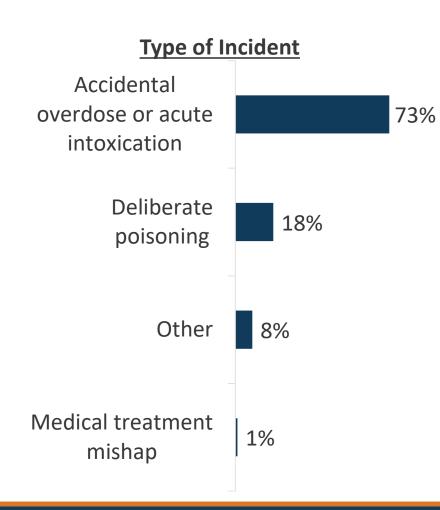
13% occurred at a friend's home.

Investigation

Toxicology testing conducted 99% of the time.

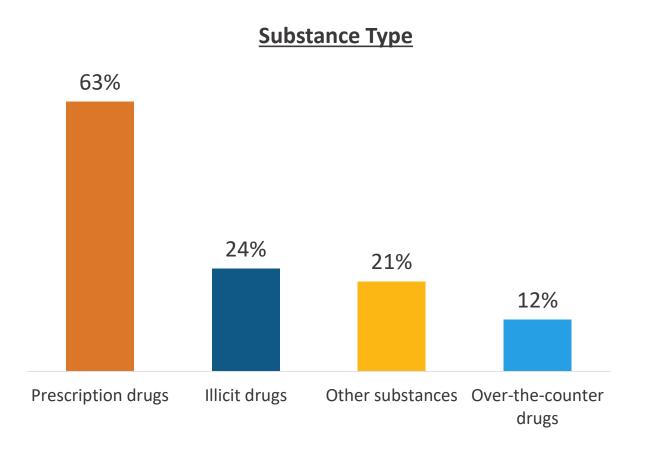
A death investigation was completed in 95% of cases.

Autopsy conducted 93% of the time.



Contributing Substances*

NFR-CRS data from 3,030 deaths, that occurred to children ages 1-17 between 2004-2020



Prescription drugs

- **63**% opioid pain medication
- 22% antidepressant/ antianxiety
- 19% medication for substance use disorder
- 10% benzodiazepine

Other substances

- 47% alcohol
- 30% carbon monoxide
- 15% other substance (e.g., other cleaners and chemicals)
- 11% other fume/gas/vapor

Illicit drugs

- 59% other illicit substance (e.g., other street drugs)
- 17% fentanyl
- 12% cocaine
- 12% heroin

Over-the-counter drugs

- 40% pain medication
- 35% antihistamine
- 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.

Polysubstance Deaths

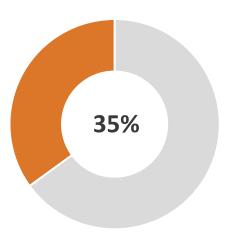
NFR-CRS data from 1,046 deaths, that occurred to children ages 1-17 between 2004-2020

35% of deaths were attributed to two or more substances. 12% involved four 63% involved two 25% involved three substances substances or more substances

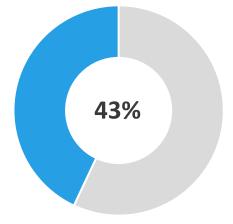
^{*} Substance categories total beyond 100%. More than one substance could have been identified at the time of investigation as contributing to the death.

Child History

NFR-CRS data from 3,030 deaths, that occurred to children ages 1-17 between 2004-2020



35% of children had a prior disability or chronic illness.



43% of children had a history as a victim of child maltreatment.

Among youth 10-17 years old...

78% had a history of substance use

66% had received prior mental health services

64% had problems in school

43% were receiving mental health services at time of death

Prevention Resources

Tools to Consider









DEATH SCENE INVESTIGATION

Considerations During a Poisoning Fatality Investigation

POISONING, OVERDOSE OR ACUTE INTOXICATION

Investigation for resolution and prevention

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

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.

PURPOSE

Discuss	Types of deaths that fall into the category of poisoning, overdose or acute intoxication.
Discuss	Age groups, substances and scene variables concerning for those age groups.
Discuss	Current statistics and why data matters.
Emphasize	Death scene investigations and prevention.





















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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.
- Substances can include prescription drugs, illicit drugs, overthe-counter drugs, or other substances such as alcohol, batteries, chemicals, carbon monoxide (CO), or other fumes/gases/vapors etc.





What are the most common substances implicated in poison exposures?

Cosmetics and personal care products continued to lead the list of the most common substances implicated in pediatric exposures in 2021. Cleaning substances and pain medications followed. These exposures are nearly always unintentional.

Substance Category	No. Cases	%
Cosmetics/Personal Care Products	95,848	10.8
Cleaning Substances (Household)	94,279	10.7
Analgesics	72,155	7.6
Dietary Supplements/Herbals/Homeopathic	61,827	7.0
Foreign Bodies/Toys/Miscellaneous	57,493	6.5
Vitamins	42,784	4.8
Antihistamines	42,480	4.8
Topical Preparations	37,362	4.2
Plants	21,400	3.6
Pesticides	28,972	3.3

EXPERIENCE IS THE HARDEST KIND OF TEACHER.

IT GIVES YOU THE TEST FIRST AND THE LESSON AFTERWARD.

- OSCAR WILDE



WHY DATA COLLECTION?

Guides accurate determination of cause & manner of death.

Contributes to resolution for loved ones of decedent.

Improves data to support change that is effective in preventing child poisoning deaths.

Details matter – evidence is not permanent.

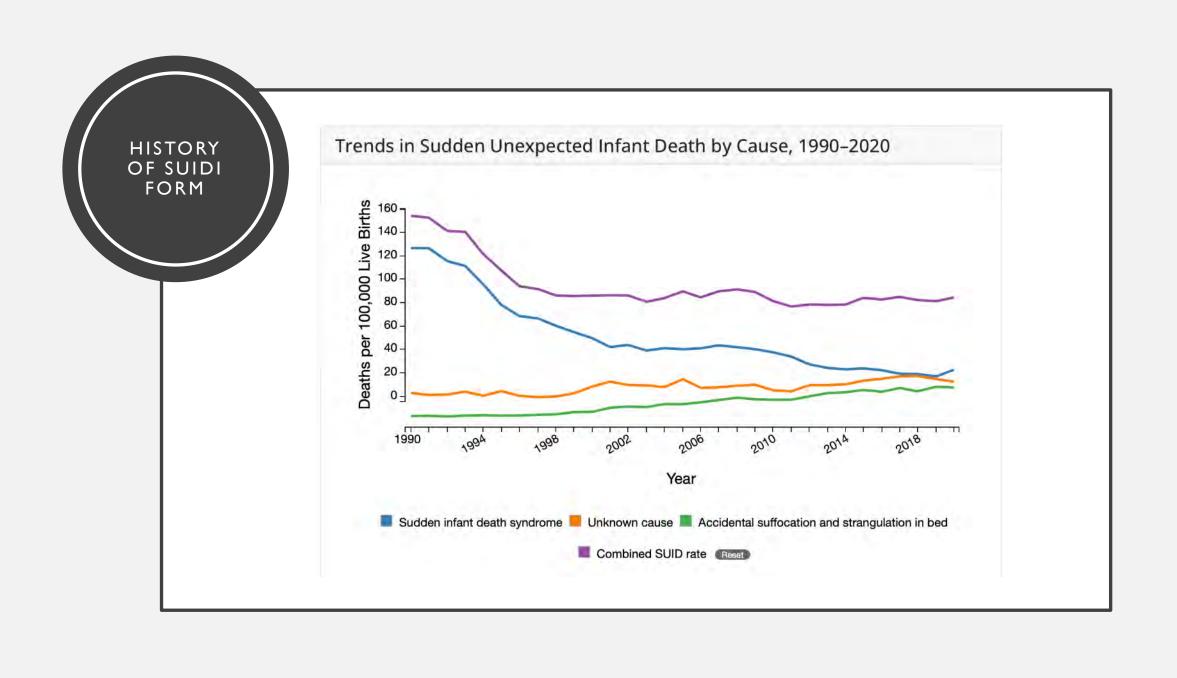
INCIDENT CIRCUMSTANCES, continued

15. Indicate the items present in the sleep environment and their positional relation to the infant when the infant was found.

Item		Present?			position	in relation	If yes, did object obstruct the infant's mouth, nose, chest, or neck?			
Adult(s) (18 years or older)	○ Yes	○No	Unknown	O0ver	OUnder	O Next to	OUnknown	○ Yes	ONo	Unknown
Other child(ren) (younger than 18 years)	○Yes	○No	OUnknown	Over	OUnder	O Next to	Unknown	○Yes	○No	Unknown
Animal(s)	○ Yes	ONo	OUnknown	O0ver	OUnder	O Next to	OUnknown	○Yes	○No	Unknown
Mattress	○Yes	ONo	Unknown	Over	OUnder	O Next to	Unknown	○Yes	○No	Unknown
Comforter, quilt or other	○ Yes	○No	OUnknown	○0ver	OUnder	O Next to	Unknown	Yes	○No	Unknown
Fitted sheet	○ Yes	ONo	OUnknown	O0ver	OUnder	O Next to	Unknown	○Yes	ONo	Unknown
Thin blanket	○ Yes	○No	OUnknown	Over	OUnder	O Next to	OUnknown	○ Yes	ONo	Unknown
Pillow(s)	○ Yes	ONo	OUnknown	○0ver	OUnder	O Next to	Unknown	○ Yes	○No	Unknown
Cushion	○ Yes	○No	Unknown	Over	OUnder	O Next to	Unknown	Yes	○No	Unknown
Nursing or u-shaped pillow	○ Yes	ONo	OUnknown	Over	OUnder	O Next to	Unknown	OYes	ONo	Unknown
Sleep positioner (wedge)	○ Yes	ONo	OUnknown	Over	OUnder	O Next to	Unknown	○ Yes	ONo	Unknown
Bumper pads	○ Yes	○ No	Unknown	Over	OUnder	O Next to	Unknown	○Yes	○No	Unknown
Clothing (not on a person)	○ Yes	ONo	OUnknown	O0ver	OUnder	O Next to	Unknown	○Yes	ONo	Unknown
Crib railing or side	○ Yes	ONo	OUnknown	○0ver	OUnder	O Next to	Unknown	○ Yes	ONo	Unknown
Wall	○Yes	ONo	OUnknown	○0ver	OUnder	O Next to	Unknown	○ Yes	○No	Unknown
Toy(s)	○Yes	○No	Unknown	Over	OUnder	O Next to	Unknown	○Yes	○No	Unknown
Other, specify:	○Yes	○ No	OUnknown	O0ver	OUnder	O Next to	OUnknown	○Yes	○No	Unknown

If yes to adult(s) or child(ren) sharing sleep surface with the infant, complete table below.

Name of individual(s) sharing sleep surface with infant	Relationship to infant	Age	Height	Weight	Impaired by drugs or alcohol?			Fell asleep feeding infant?		
					○Yes	○No	Unknown	Ves	○No	Unknown
					○ Yes	ONo	OUnknown	○Yes	ONo	Unknown
					OYes	ONo	OUnknown	○Yes	ONo	OUnknown



HOW CAN WE DUPLICATE THIS?



Understand the data we have and why we care.



What data is missing?

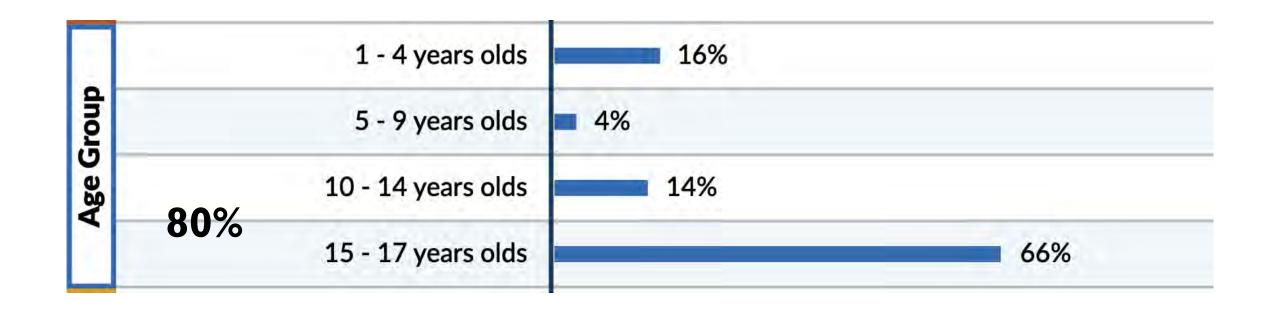


Where is the missing data likely to come from?

SOME OF WHAT WE HAVE

Ages 1-17, From 2004-2020

- 44%, almost half, were opioid related
- 65%, well over half, were accidental
- 10% undetermined
- 3% contacted poison control





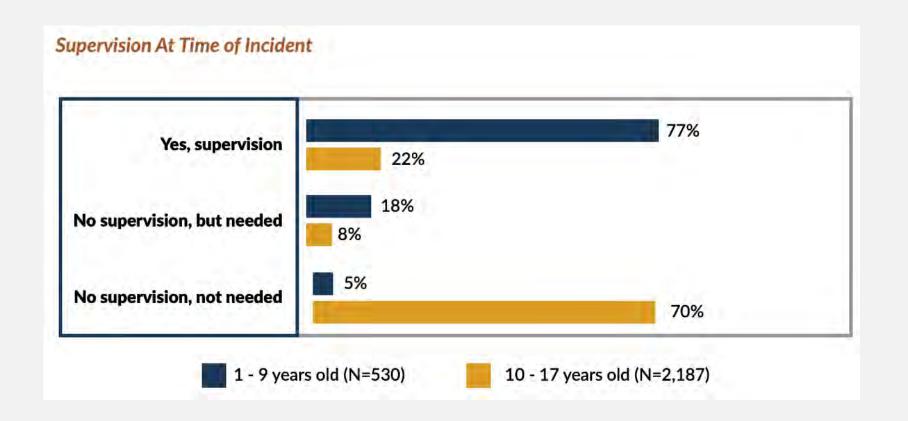
WHERE?

63% in the child's home

73% were accidental overdose

18% deliberate poisoning

KNOWING THIS, WHAT ELSE?





80% of poisoning deaths from 2004 - 2020

Among youth 10-17 years old...

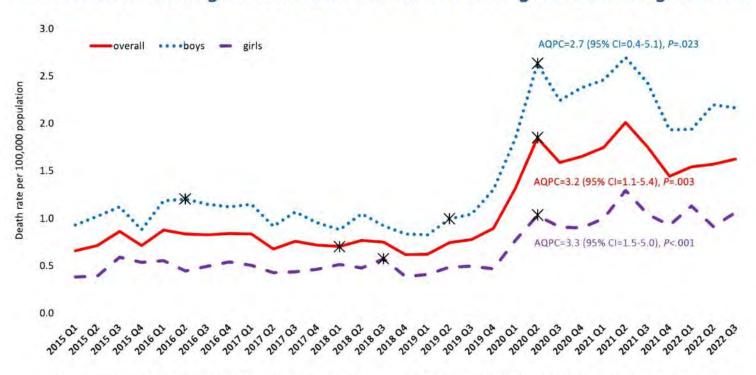
78% had a known history of substance use, most often with marijuana/THC (56%), prescription drugs (36%), and/or opiates (35%)

66% had received prior mental health services

64% had problems in school

43% were receiving mental health services at time of death

Unintentional Drug Overdose Death Rates Among US Youth Aged 15-19



Data sources: National Vital Statistics System's multiple-cause-of-death 2019-2021 final and 2022-2023 provisional data and the U.S. census monthly data. *: Joinpoints identified indicate significant changes in nonlinear trends using Bayesian Information Criterion. AQPC=average quarter percentage change during 2019 Q1-2023 Q1.

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) 						

FOCUS FOR DSI

Acute vs delayed

Does the history/story match the scene? Does it make sense?

AGE of child is relevant to focus the future of the investigation

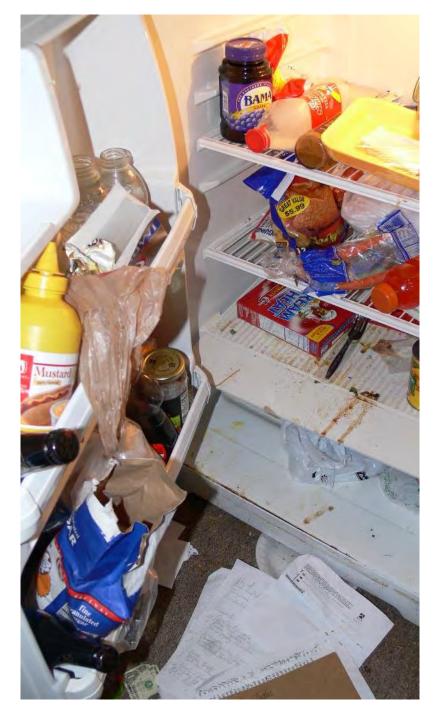
H7. POI	SONING, OVERDOSE OR ACI	JTE INTOXICATION								- 13
a. Type of	substance involved, check all that	apply and note source, stor	rage, and	route of	administ	ration of	substance:	□ U/K		
Source of	Substance	5 = Own prescription (Pres	cription o	nly)		Stored in	locked cabinet?	How substan	ice was taken	
1 = Bought	1 = Bought from dealer or stranger 6 = Bought from store/pharmacy					Yes		1 = In utero 5 = Throu		ugh skin
(Pres	scription or illicit only)	(OTC or other substan	ces only)			No		2 = Orally	9 = U/K	
2 = Bought	from friend or relative	7 = Other				U/K		3 = Nasally		
3 = From fr	riend or relative for free	9 = U/K						4 = Intraveno	ously	
4 = Took fr	om friend or relative without asking									
Pres	cription drug		Source	Stored	Taken	0	ver-the-counter d	rug So	urce Stored	Taken
□ Ar	ntidepressant/antianxiety			YNU			Antihistamine		YNU	
□ Ar	nticonvulsant			YNU			Cold medicine		YNU	
□ Ar	ntipsychotic			YNU			Pain medication		YNU	
□ Be	enzodiazepines			YNU			Other OTC, spe	clify:	YNU	
	edications for substance use disor uprenorphine, naltrexone)	der (e.g. Methadone,		YNU						
□ N	on-opioid pain medication			YNU						
	pioid pain medication (including fe	ntanyl)		YNU						
100	timulants			YNU						
100	ther Rx, specify:			YNU						
		Yes O No O U/K								
	drugs	0	Source	Stored	Taken	Oth	er substances	So	urce Stored	Taken
□ C	ocaine			YNU			Alcohol		YNU	
□ He	eroin			YNU			Battery		YNU	
	icitly manufactured fentanyl/fentan	yl analogs		YNU			Carbon monoxid	le	YNU	
□ M	anjuana/THC			YNU			Other fume/gas/	vapor	YNU	
	ethamphetamine			YNU			Other, specify:		YNU	
	ther, specify:			YNU						
b. Was the	incident the result of?	c. Did the child have a	d. Did ch	ild have	a non-fat	al	e. Was Poison (Control f. F.	or CO poisonii	ng, was a
O Accid	dental overdose/acute intoxication	prescription for a	overdo	se within	the prev	ious 12	contacted?	C	O alarm prese	ent?
O Medi	cal treatment mishap	controlled substance	months	97			O Yes	0	Yes	
O Delib	erate poisoning	within the previous	O Yes				O No	0	No	
75 19 4	r, specify:	24 months?	O No				O U/K		U/K	
O U/K	(1,000)	O Yes O No O U/K								

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

WHAT ELSE DO YOU WANT TO KNOW

- 911 call child not breathing.
- Child transported to hospital, pronounced deceased at hospital.
- Mother said unsolicited, "Am I in trouble? It's not like I poisoned her."
- Mother agreed to be interviewed for a while by investigator but then stopped answering questions and expressed concerns that police would "trash her house" if they searched it.





















WHAT ELSE DO YOU WANT TO KNOW?

- 911 call mother saying her children are dead.
- 4-year-old girl and 5-year-old boy in bed in their individual bedrooms.
- Boy on his back in bed, aspirate (bubble/foam) apparent in nose/mouth area.
- Girl prone and face turned to side no aspirate apparent but no staining on bedding either













National Center Guidance Document

Reviewing Deaths Due to Poisoning, Overdose, or Acute Intoxication

New Guidance Document

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.



September 2023



Reviewing Deaths Due to Poisoning, Overdose, or Acute Intoxication

National Center Guidance Report

QUESTIONS

What Additional Information Would Be Helpful?





USE THE QUESTION-AND-ANSWER BOX

The box is located at the bottom of the screen.



UNANSWERED QUESTIONS

All unanswered questions will be answered and posted on the National Center's website (URL: www.ncfrp.org).

Upcoming Webinars

From the National Center

Equity in Fatality Review: Child and Youth Suicide

Tuesday, March 12, 2024 1:00-2:00 PM FT

Join us to learn how certain groups of children and youth are placed at risk for dying by suicide, including young people of color, LGBTQ+ youth, young people with disabilities, and those living in rural communities.

Register here.

Improving Consistency of Child Maltreatment Identification for Sleep-Related SUID

Thursday, March 21, 2024 3:00-4:00 PM ET

This webinar will discuss guidelines that were developed to help CDR teams more consistently and equitably classify child maltreatment for sleep-related SUIDs.

Register Here.

Gender Inclusion in Fatality Review

Thursday, April 11, 2024 2:00-3:00 PM ET

This webinar will discuss why gender inclusion is important in the context of fatality review and provide action steps for implementing gender inclusive practices during your fatality review process.

Register here.

2024 National Center Office Hours

Connect, ask questions, & discuss!

Visit ncfrp.org/center-resources/office-hours/ to register and view past sessions!

Date	Topic
2/20/2024	Orientation to the National Center and 2024 Office Hours
3/19/2024	Facilitating Difficult Conversations During Reviews
4/16/2024	Writing the Narrative: Tips and Best Practices
5/21/2024	Onboarding New Coordinators and Team Members
6/18/2024	Version 6.1: Data Cleaning and Quality
7/16/2024	Tribal Participation in Fatality Review
8/20/2024	Working with Small Numbers
9/17/2024	Involving Family and Those with Lived Experience in Fatality Review
10/15/2024	Accessing Records
11/19/2024	Best Practices in Self Care
12/17/2024	Sharing Your Data: Writing Abstracts and Proposals

Upcoming topics may be subject to change.



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