



# REVIEW OF FARM-RELATED FATALITIES

## DATA AND RESOURCES

TELLING STORIES TO SAVE LIVES



# KEY FUNDING PARTNER

## Federal Acknowledgement

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The National Center is funded in part by Cooperative Agreement Number 2 UG7MC28482-08-00 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 \$2,400,997 annually with 0 percent financed with non-governmental sources. Its 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.

# Prioritizing Personal Wellbeing

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## Considerations for Fatality Review Convenings

The content of today's meeting may include information about individual or aggregate fetal, infant, or child deaths. This may evoke strong feelings or other distress. Please prioritize your own wellbeing during this meeting, even if you need to step away from the meeting. Contact the Suicide & Crisis Lifeline at 988 via phone or text for additional support.

# HOUSEKEEPING

Before we get started

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





# EVALUATION

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

# Diane Pilkey, RN, MPH

**Federal Welcome and Introductions**

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**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

What constitutes a farm-related death and why CDR teams are uniquely positioned to inform prevention.



### Farm-Related Fatalities Quick-Look

NFR-CRS data on farm-related deaths of youth younger than age 18 who died on a farm in a rural or frontier geographical area.



### Review of Farm-Related Fatalities

What teams should know, special considerations, overarching themes, and resources available.



### Success Story

Learn how the Kansas State CDR Board partners with the Kansas Farm Bureau and Safe Kids Coalition for subject matter expertise, data collection, and prevention.



### National Center Guidance Document

Building capacity for the investigation and review of farm-related fatalities.



**PRESENTATION GOALS**

# Speakers

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## Experts Joining in the Discussion



**Gretchen Martin, MSW**  
Senior Project Coordinator  
National Center



**Heather Dykstra, MPH**  
Senior Data Analyst  
National Center



**Barbara Lee, PhD**  
Director  
National Children's Center for  
Rural and Agricultural Health  
and Safety



**Andrea Swenson, PhD**  
Associate Director  
National Children's Center for  
Rural and Agricultural Health  
and Safety



**Sara Hortenstine**  
Division Chief, Youth Services  
Office of the Kansas Attorney  
General



### 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.



**ABOUT THE NATIONAL  
CENTER**

# Cause for Concern

## CDR Teams are Uniquely Positioned to Improve Our Understanding of Farm-Related Deaths

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- No one knows how many children die of farm-related incidents.
- Agricultural settings have many hazards and require age-appropriate supervision and rigorous plans for safety.
- A large majority of farms are exempt from most labor laws and safety regulations.
- Racial and socioeconomic disparities persist in farm settings.





A farm is defined as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year.



# DATA QUICK-LOOK

Youth who died on a farm in a rural or frontier geographical area

A photograph of a forest path. The path is made of gravel and is covered with fallen yellow and brown leaves. It curves through a dense forest of green trees. A dark blue semi-transparent box is overlaid on the left side of the image, containing white text. A small yellow vertical bar is on the left edge of the blue box.

# Structural Inequity

Some families lose infants, children and youth to the types of deaths reviewed by fatality review teams, not because 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.

# NFR-CRS Utilization

There are currently 47 states using NFR-CRS

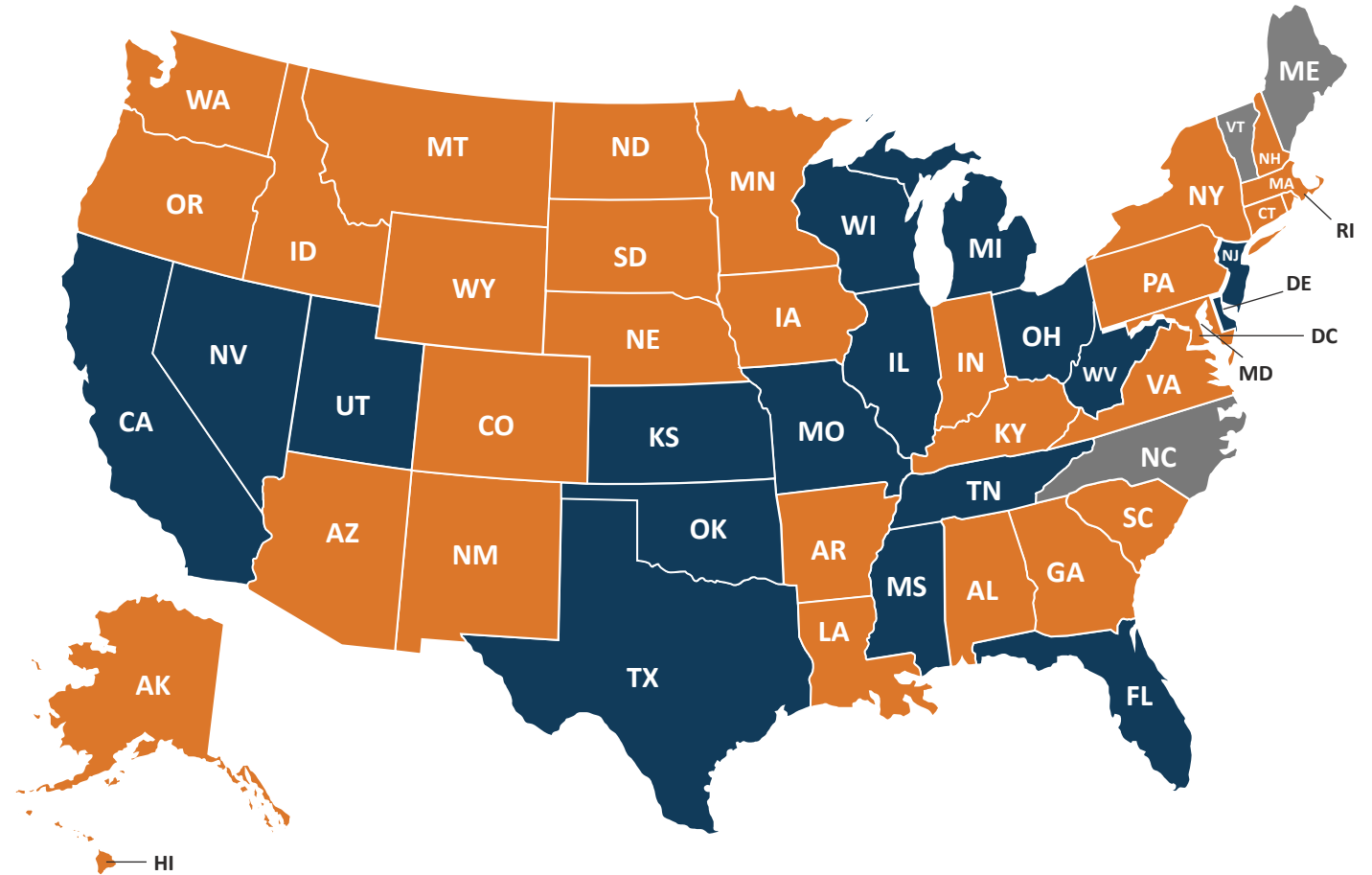
- 47 use NFR-CRS for CDR
- 17 use NFR-CRS for FIMR

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



# Farm-Related Fatalities in NFR-CRS

CDR teams reviewed deaths of 478 children ages 0-17 who died on a farm between 2004-2020



## AGE



2% infants  
22% ages 1-4  
18% ages 5-9  
29% ages 10-14  
29% ages 15-17



## RACE AND ETHNICITY



3% AI/AN, 2% Black, 95%  
White, and 9% Hispanic



## SEX



22% were female, and 78%  
were male according to death  
certificate

# Incident Characteristics

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The day of the week with the highest proportion of farm-related fatalities was Saturday

**41 percent**

of the farm-related fatalities  
occurred on the weekend



**14 percent**

of the farm-related fatalities  
occurred while the child's  
activity at the time of death was  
specified as working



# Supervision

Over one-fourth of children who were not supervised were under 10 years of age

57% of children with known supervision status (n= 416) were unsupervised at time of death, the review team noted that:



## **Needed Supervision**

38% of these children needed supervision



## **Did Not Need Supervision**

62% did not need supervision due to child age or circumstances



## **Under 10**

28% were under age 10



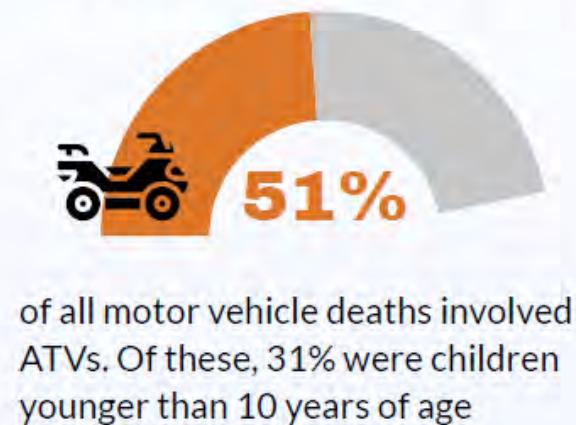
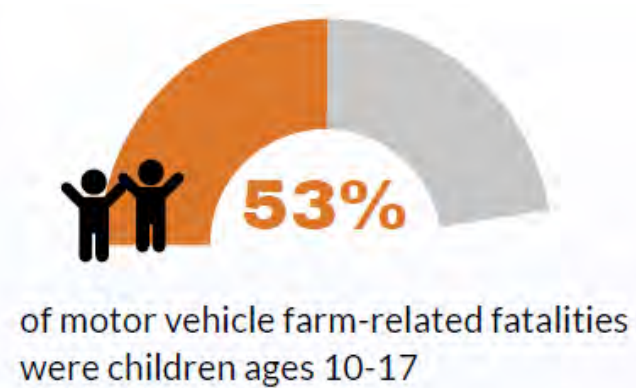
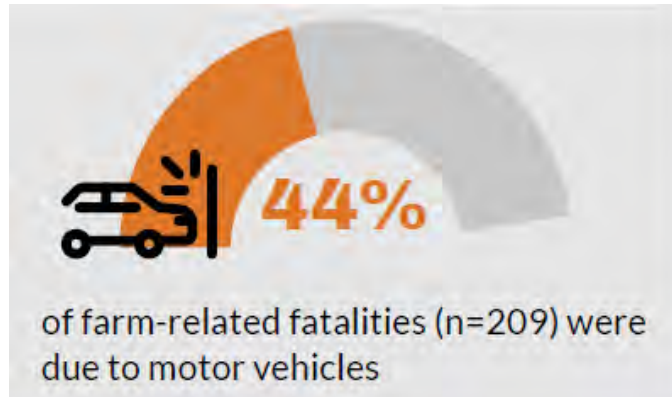
## **Ages 10-14**

32% were ages 10-14

Of the 43% who were supervised, 72% were supervised by parents

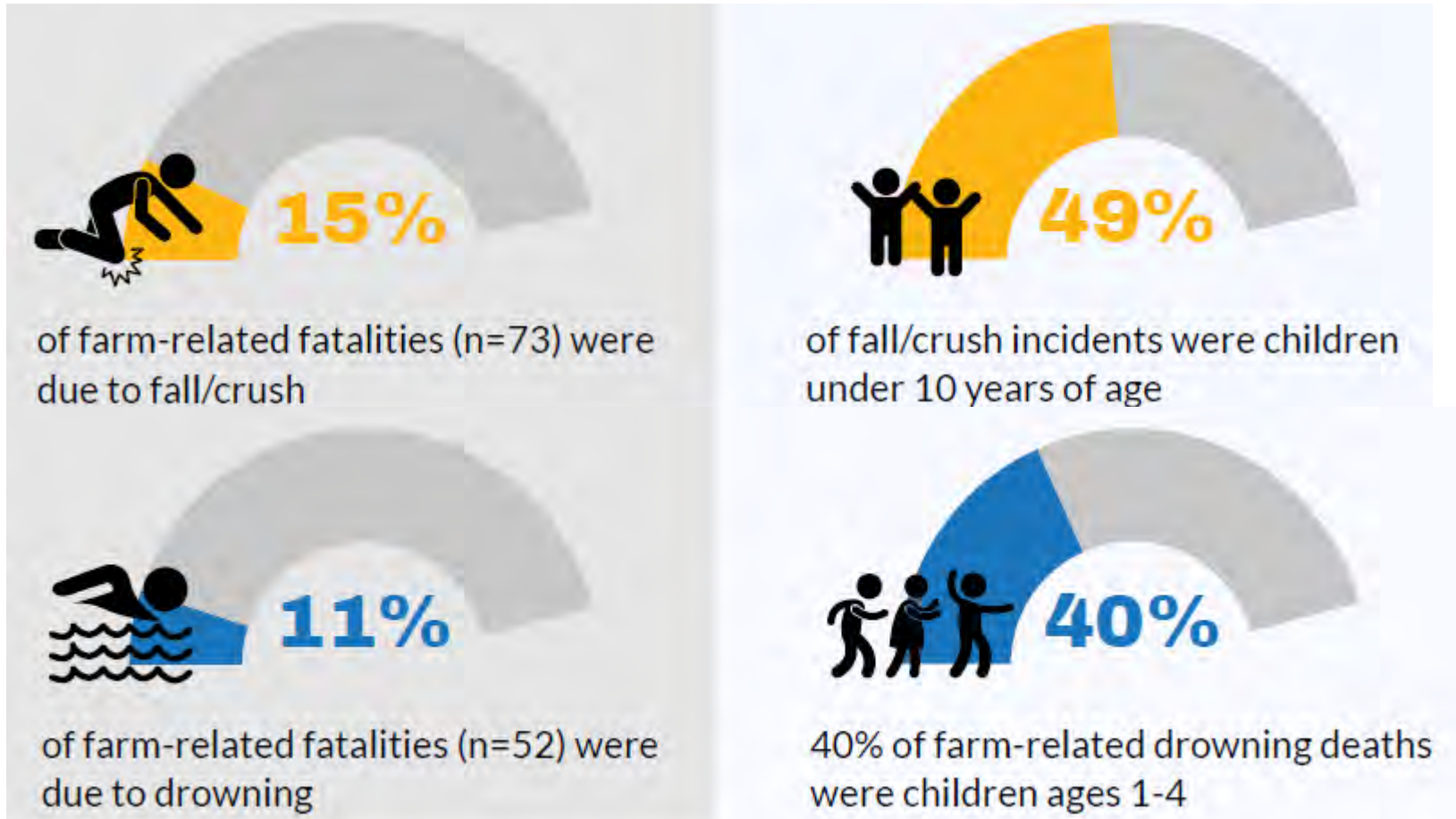
# Motor Vehicle

The most frequent cause of death of children of farm-related fatalities was motor vehicle-related (44%)



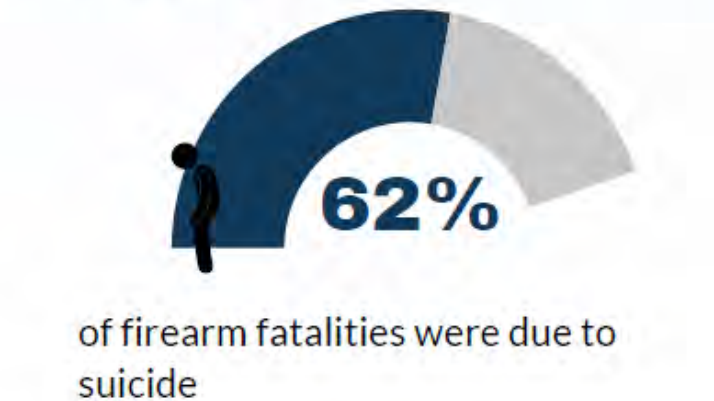
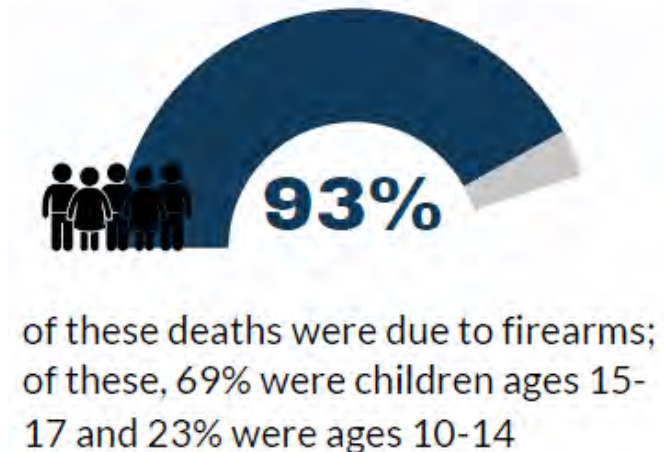
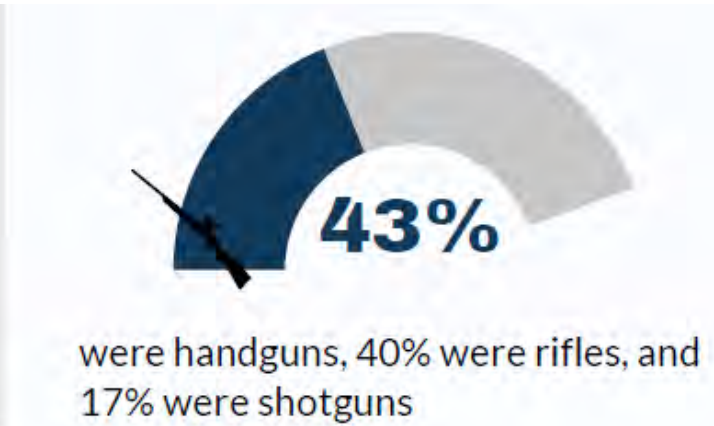
# Fall or Crush and Drowning

Children under 10 years of age accounted for the highest proportion of fall/crush and drowning deaths



# Bodily Force or Weapon

93% of the bodily force or weapon farm-related fatalities were due to firearms





# NATIONAL CHILDREN'S CENTER

For Rural and Agriculture Health and Safety



# Farm-Related Incidents: Special Considerations and Available Resources

Barbara C. Lee, PhD

Andrea Swenson, PhD

National Children's Center for Rural & Agricultural Health & Safety

Funding: National Institute for Occupational Safety and Health CDC/NIOSH U54OH009568



# Fatalities & Farming



National Children's Center  
for Rural and Agricultural Health and Safety

- 1987 Landmark article –  
“We Kill Too Many Farm Kids”
- In 1996, rough estimates  
were 300 child farm  
fatalities/year  
and > 300,000 serious  
child farm injuries/year



# Farms: Unique Environments



National Children's Center  
for Rural and Agricultural Health and Safety





- Higher poverty rate
- Higher food insecurity
- More likely to lack healthcare insurance
- Poor broadband internet and cellular connectivity
- Lack of child care services

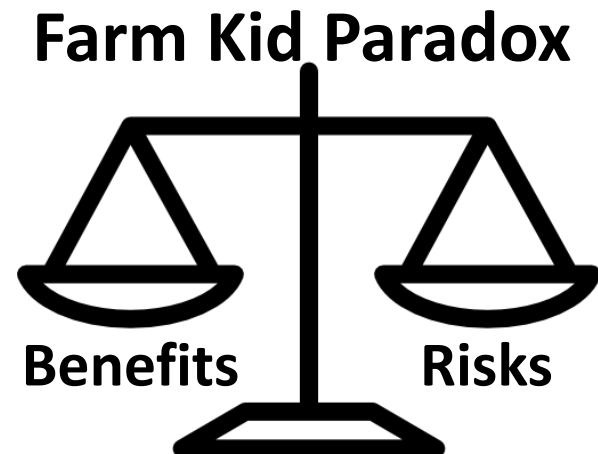


- Higher risk of injury that is more severe and costly with poorer outcomes
  - Hazards present
  - Access to reliable transportation
  - Travel further for care

# Background Issues - Farm



National Children's Center  
for Rural and Agricultural Health and Safety





National Children's Center  
for Rural and Agricultural Health and Safety

The National Children's Center for Rural and Agricultural Health and Safety strives *“to enhance the health and safety of all children exposed to hazards associated with agricultural work and rural environments.”*

# What do we do?



National Children's Center  
for Rural and Agricultural Health and Safety

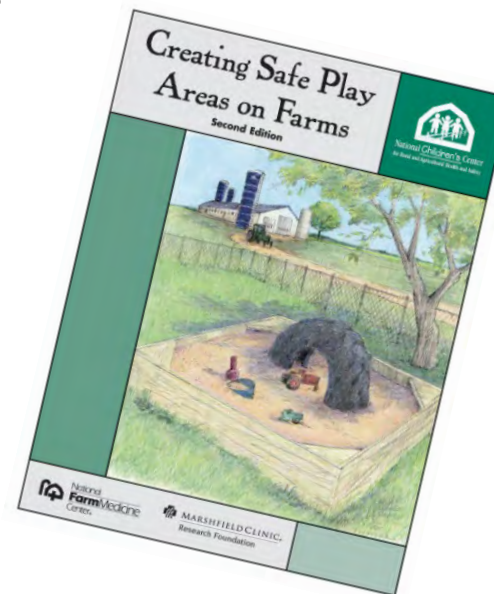
- Leadership for Child Agricultural Health and Safety
- Research
- Policy
- AgInjuryNews
- Child Ag Safety Network





## Voluntary guidelines

- Agricultural youth work guidelines
- Safe play on farms guidelines
- Model policies for employers
- Recommendations for off-farm childcare



**AGRICULTURAL  
YOUTH  
WORK GUIDELINES**

## AgInjuryNews (AIN)

- A growing collection of injury reports, primarily harvested from news media
- > 4,000 reports loaded and coded with OIICS & FAIC codes

## AIN Research, Dissemination

- Testing news: behavioral intervention
- > 1,000 subscribers from 54 countries
- > 50 user accounts within U.S. Bureau of Labor Statistics





## Campaigns to influence “culture” and behaviors



### Child Ag Safety Network

- Online community
- Annual meeting



SPENDING TIME TOGETHER ON A TRACTOR IS EXTREMELY DANGEROUS. EVERY YEAR CHILDREN ARE NEEDLESSLY INJURED OR KILLED BECAUSE ADULTS ALLOW THEM ON OR NEAR TRACTORS. GIVE CHILDREN THE QUALITY TIME AND SAFETY THEY DESERVE. A TRACTOR'S WORK IS NOT CHILD'S PLAY.



This message is developed and endorsed by the Childhood Agricultural Safety Network • www.childsafety.org • © 2006 Good and Beautiful

### MEDIA GUIDELINES

for AGRICULTURAL SAFETY

**SPECIFIC TO CHILDREN/YOUTH**

Children and teens are often at greater risk of injury than adults. They typically have less physical strength, shorter reach, and lack the coordination and balance of adults. Cognitively, it takes them longer to process information, they have shorter attention spans, and may lack the impulse control that adults have. They are also more likely to do what they see others doing, rather than what they are told.

This makes it vitally important to depict (visually and textually) children and teens in safe situations. If they're doing farm/ranch work, ensure tasks are age and ability appropriate.

Photos and videos are often used as "attention getters," but sometimes "cute" is unsafe, e.g., a cow licking a child's fingers. Other examples to avoid include a child playing in a grain bin, in close proximity to an adult animal, or riding an ATV without a helmet.



Childhood Agricultural Safety Network

Website:  
[www.childsafety.org](http://www.childsafety.org)

Email:  
[nccrabc@smithfieldresearch.edu](mailto:nccrabc@smithfieldresearch.edu)

Phone:  
1-800-662-6900

**THE AGRICULTURAL STORIES WE SHARE**

In traditional and social media, can make life safer for farm and ranch families and workers. While not intentional, what we write, say, and the images we show can perpetuate - and even create - unsafe farm practices.

To help minimize unsafe practices, the Childhood Agricultural Safety Network has compiled the do's and don'ts provided here as reminders for all of us. Following them can help each of us be confident that we are doing our part for farm safety.

**VISUAL MEDIA**

**DO** show tractors and other farm equipment being maintained and operated safely. That includes rollover protection structures (ROPS) on tractors and proper guards in place on power take off units (PTOs) and other moving parts.

**DO** show children doing age-appropriate chores under supervision.

**DO** show working individuals wearing proper fitting personal protective equipment, appropriate for the tasks they are performing. When depicting workers with machinery, make sure they are not wearing loose fitting clothing or anything (jewelry, drawstrings, bandanas) that could become entangled.

**DO** be aware of the background. Is it free of clutter? Do buildings and equipment appear to be well-maintained? A clean, well-ordered background conveys an environment of safety and attention to detail.

**DO NOT** show individuals riding on wagons, in the backs of pickup trucks, or as extra riders on tractors or ATVs.

**DO NOT** show persons climbing to heights without fall protection, stair or platform guarding.

**DO NOT** show workers leaning over or feeding materials into machines with moving parts or blades.

**DO NOT** show children under 14 driving any motorized farm vehicle.

**DO NOT** show children riding on adults' laps on ATVs or lawn tractors/riding mowers.

**DO NOT** show children in proximity to large animals, unless appropriate barriers are evident.








## I AM RAISING:

WHEAT  
ALFALFA  
HORSES  
MELONS  
BEEF CATTLE  
APPLES  
CANOLA  
POTATOES  
TURKEYS  
CORN  
MELONS  
CHICKENS  
PUMPKINS  
SWINE  
TOMATOES  
DAIRY COWS  
**KIDS**  
SHEEP  
SOYBEANS

You're a parent first, farmer second. Do all you can to make your farm safe for children. Protect the most important thing you'll ever raise. Learn more at [CultivateSafety.org](http://CultivateSafety.org).



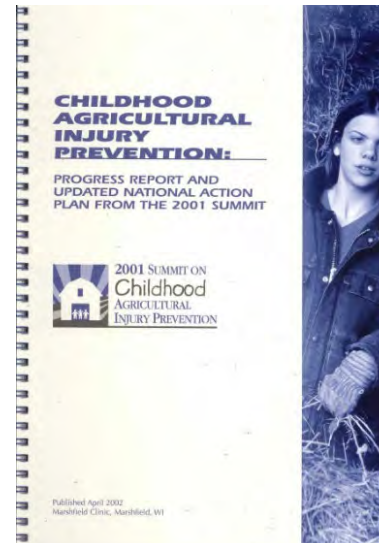
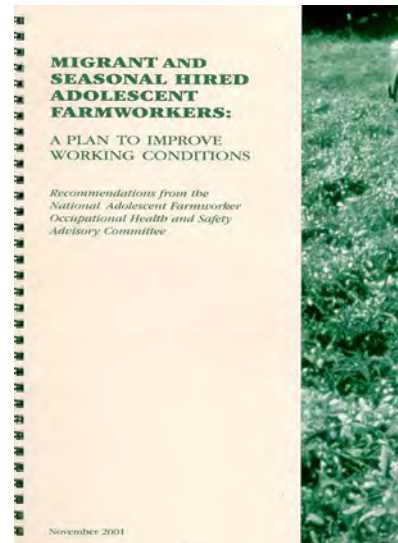
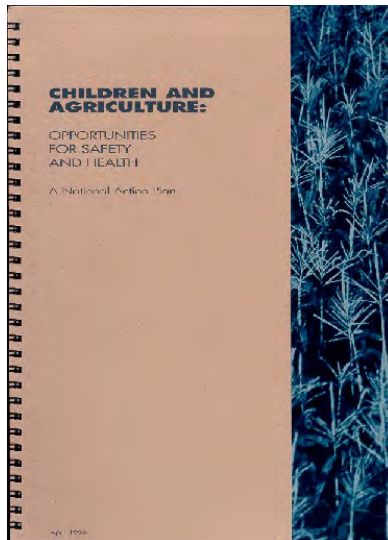
PARENT FIRST. FARMER SECOND.

# Resources: Nat'l Action Plan



National Children's Center  
for Rural and Agricultural Health and Safety

- 2012 Blueprint for Protecting Children in Agriculture
  - Currently updating for a 2025 National Action Plan



**Funding for National Children's Center for  
Rural and Agricultural Health and Safety:  
National Institute for Occupational  
Safety and Health U54OH009568**

Marshfield Clinic Research Institute  
National Farm Medicine Center, Marshfield, WI  
[www.cultivatesafety.org](http://www.cultivatesafety.org)





# SUCCESS STORY

Kansas State Child Death Review Board



# REVIEW OF FARM-RELATED FATALITIES

National Center Guidance Document

# New Guidance Document

## Questions Will Assist Teams and Team Members In:

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- Understanding the burden of farm-related fatalities.
- Identifying questions to ask while conducting a farm-related death scene investigation.
- Building capacity for improved reviews.
- Improving data collection within the NFR-CRS.
- Highlighting the risk and protective factors present.
- Promoting well-being among team members.



## Review of Farm-Related Fatalities

*National Center Guidance Report*



DURING A FARM-RELATED FATALITY INVESTIGATION OR REVIEW

## Questions to Help Standardize

- If the child was working, was the work or activity age or developmentally appropriate?
- Had the child received safety training?
- Was the child appropriately supervised?



# During a Review Meeting

## Questions for Teams to Consider

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- What layers of protection were in place?
- Was the child engaged in an age/developmentally appropriate activity?
- Are appropriate safety education opportunities available in the community?
- Does the team know how many, and the type of, fatal and non-fatal childhood farm injuries occur in the community?
- Were local/state safety regulations/ordinances/labor laws regarding agricultural work observed?
- Was exposure to hazards or lack of appropriate supervision a factor?
- Was the supervisor equipped to rescue the child?



## Crush While Using or Riding Machinery

Questions about vehicle/equipment use, storage, and whether safety items were installed.



## Machinery or Vehicle Incident

Questions about the driver and vehicle permission to use, accessibility/barriers, and if lock/tagout practices in place and were they followed.



## Chemicals

Questions about ingestion, exposure, and chemical storage.



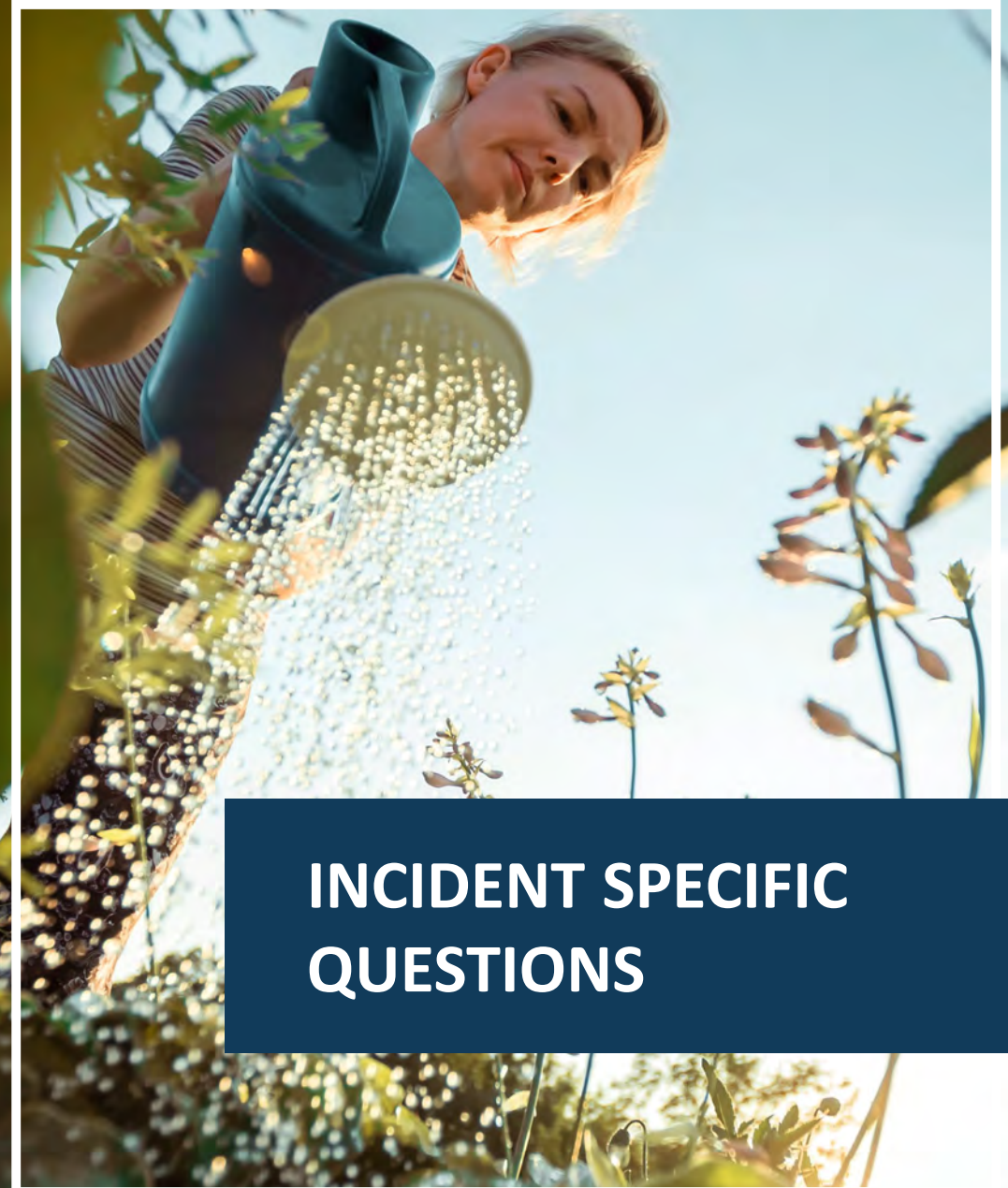
## Silo or Grain Bin

Questions about safety procedures and training.



## Death Caused by an Animal

Questions about how the animal penned, barriers, hygiene, safety equipment education.



**INCIDENT SPECIFIC  
QUESTIONS**

# Critical Documents to Consider

For Reviews Specific to Farm-Related Deaths



## CHILD LABOR LAWS



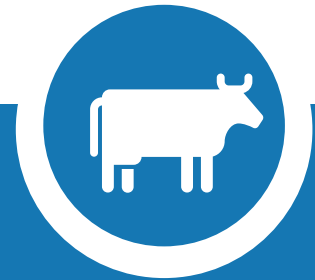
If the child was a hired worker,  
review relevant child labor  
laws.



## CODE/ZONING



Information on code or zoning  
information inspection or  
violations at the farm.



## DAIRY FARM



If the incident occurred on a  
dairy farm, include information  
about chemical storage.

# 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](http://www.ncfrp.org)).

# Upcoming Webinars

From the National Center

## ***Safe Sleep: Partnering with Treatment Providers***

Thursday, October 12, 2023  
1:00-2:00 PM ET

Join us to learn about effective strategies for engaging substance use treatment programs in discussions about infant safe sleep.

[Register here.](#)

## ***“Was it Really Pneumonia?” Challenging Sudden Unexplained Infant Death (SUID) Cases***

Wednesday, October 25, 2023  
1:00-2:00 PM ET

This webinar will focus on the unique challenges of reviewing sleep-related infant deaths when pneumonia is listed as the cause of death.

[Register here.](#)



# EVALUATION

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



## CONTACT INFORMATION



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