

June 2023



Review of Farm-Related Fatalities

National Center Guidance Report

ACKNOWLEDGMENTS:

The National Center is funded in part by Cooperative Agreement Number UG728482 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.

The National Center gratefully acknowledges the input of the Kansas Child Death Review Board and its Executive Director, Sara Hortenstine.



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Review of Farm-Related Fatalities

Cause for Concern

No one knows how many children die of farm-related incidents. Public health surveillance data does not consistently capture where an incident occurred, and there is limited research available to examine the frequency of these events. Without establishing the incidence of farm-related deaths, it is challenging to identify prevention opportunities. For this reason, child death review (CDR) teams are uniquely positioned to help improve the understanding of these preventable deaths.

This guidance will assist CDR teams and team members in:

- Understanding the burden of farm-related fatalities
- Identifying key questions to ask while conducting a farm-related death scene investigation
- Building capacity for improved reviews of farm-related deaths
- Improving data collection within the National Fatality Review-Case Reporting System (NFR-CRS)
- Highlighting the risk and protective factors present during the review of farm-related deaths
- Promoting well-being among CDR team members



Agricultural settings have many hazards and require age-appropriate supervision and rigorous plans for safety. Farms are unlike most occupational settings because children of all ages are often present, and there is an intermingling of work and play.

While labor laws restrict what work children may do in agricultural settings, a large majority of farms are exempt from most labor laws and safety regulations. Thus, farms are one of the few occupational settings that allow children to be on the worksite and perform tasks typically delegated to adults.

Racial and socioeconomic disparities persist in farm settings. Approximately 20% of the U.S. population live in rural or frontier, agricultural communities.³ These communities often have disproportionate levels of financial, housing, and food insecurity, along with social isolation and compromised access to health care and services such as translation and broadband internet. The agricultural workforce is also increasingly diverse.⁴ Many farm workers are immigrants, often with limited English language skills and education. There is limited data on the size and composition of the immigrant and migrant workforce, and almost no epidemiological data for the incidence and types of injuries experienced by agricultural workers. 5 This lack of data creates barriers to designing and evaluating successful health and safety education that considers language and cultural needs and literacy levels for this culturally diverse workforce. It also highlights the importance of CDR in collecting information and data to better inform prevention efforts.

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.



"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."

There are many hazards present in agricultural settings. The leading cause of death for farm-related fatalities are injuries from tractors and all-terrain vehicles (ATV) or utility terrain vehicles (UTV).⁷ Aside from machinery and vehicles, other common causes of death on farms are drowning and falls. Other hazards include acute and long-term exposure to chemicals such as pesticides, electrocution, injuries from livestock, or becoming trapped in confined spaces such as silos.

Data

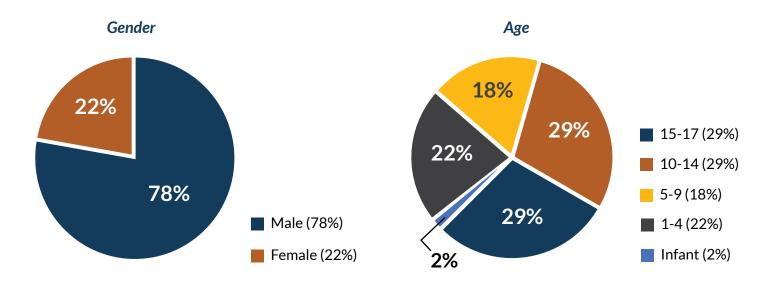
The NFR-CRS collects case specific review data from CDR teams in forty-seven states. These data are not population-level statistics, as different states have different criteria for including deaths in a fatality review. Nonetheless, CDR data from multidisciplinary reviews provide information on the circumstances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

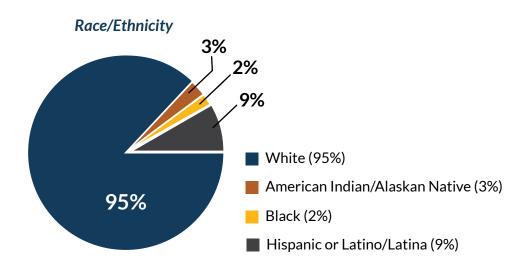
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Deaths of youth younger than age 18 who died on a farm in a rural or frontier geographical area between 2004-2020 were reviewed by CDR teams



Demographics

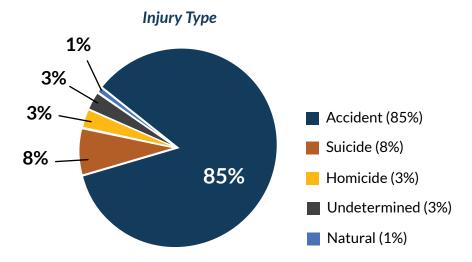




Incident Characteristics

- 41% occurred on the weekend
- 14% of the farm-related fatalities occurred while the child's activity at the time of death was specified as working

Mechanism of Injury



80% of all fatalities on farms were due to motor vehicle, fall/crush, drowning, and bodily force/weapon

- Motor vehicle (n=209)
 - 44% of farm-related fatalities were due to motor vehicles
 - 53% of motor vehicle farm-related fatalities were children ages 10-17
 - 48% where the child was identified as a driver, 38% where the child was a passenger, and 13% where the child was a pedestrian
 - 51% of all motor vehicle deaths involved ATVs; of these, 31% were children younger than 10 years of age
- Fall/Crush (n=73)
 - 15% of farm-related fatalities were due to fall/crush
 - 49% of fall/crush incidents were children under 10 years of age
- Drowning (n=52)
 - 11% of farm-related fatalities were due to drowning
 - 40% of farm-related drowning deaths were children ages 1-4
- Bodily Force or Weapon (n=42)
 - 9% of farm-related fatalities were due to bodily force or weapon
 - 93% of these deaths were due to firearms; of these, 69% were children ages
 - 15-17 and 23% were ages 10-14
 - 43% were handguns, 40% were rifles and 17% were shotguns when the weapon was known
 - 62% percent of firearm fatalities were due to suicide

Supervision

Supervision is critical for ensuring safety and reducing the risk of childhood injury. The NFR-CRS Data Dictionary defines supervision as the parent or other assigned supervisor being close enough to see or hear the child. Children less than 6 years of age require constant or close supervision most of the time. As children age, less direct supervision is typically required, and supervision is not typically expected for older teens.

- Among cases where supervision was known at the time of the incident, 43% of the children were supervised. Of those, a parent was the supervisor in 72% of the deaths.
- 57% of children with known supervision status were unsupervised at the time of death. Review teams determined that of these unsupervised children:
 - 38% needed supervision
 - 62% did not need supervision due to child age or circumstances
 - 28% were under age 10, and 32% were ages 10-14





Key Questions to Ask

To help answer key questions related to farm or agricultural fatalities, or guidance on pediatric developmental level and abilities that impact farm related work, death scene investigators and teams might consult with subject matter experts specializing in agricultural work and safety, including:

- The National Children's Center for Rural and Agricultural Health and Safety and the National Farm Medicine Center at 800-662-6900, nccrahs@marshfieldresearch.org, or the <u>Cultivate Safety</u> (URL: https://cultivatesafety.org/work/) website.
- United States Department of Labor, <u>Youth in Agriculture eTool</u> (URL: https://www.osha.gov/etools/youth-agriculture).
- National Institute for Occupational Safety and Health, <u>Childhood Agricultural Injury Prevention Initiative</u> (URL: https://www.cdc.gov/niosh/topics/childag/default.html).
- The American Academy of Pediatrics Policy Statements (URL: https://publications.aap.org/pediatrics/collection/519/Policy-Statements?autologincheck=redirected) on topics such as ATV safety, drowning, and pesticide exposure in children.
- The American Academy of Pediatrics parenting website healthychildren.org/English/Pages/default.aspx).
- County extension office or extension services.

During a Farm-Related Fatality Investigation

The following questions will help standardize all aspects of the investigation, which will result in a more effective CDR review.

- If the child was working, was the work age or activity developmentally appropriate? Had the child received safety training? Was the child appropriately supervised?
- If the child was crushed or died while using or riding machinery e.g., tractor, ATV or UTV, or vehicles), was the equipment/vehicle safely stored? Was it being used safely? Was the child riding? Was there a separate seat for the child? Was the child using a seatbelt? Did the vehicle have safety items installed?
- If the child died due to a machinery or vehicle incident, was the driver of the machinery/vehicle also a child? If the child was older, had they received safety training? Were they driving with or without permission? If without, was the key left in the vehicle or otherwise easily available? Was there a fenced play area with a barrier to keep the child away from the vehicle? Were lockout/tagout (de-energizing and securing of equipment, machinery, or processes during service or repair) practices and procedures in place? If so, were they followed?
- If the child died from drowning, did the water hazard have physical barriers present to keep people safe? Did the child know how to swim? Had the child participated in swimming lessons? (See <u>National Center Review of</u> <u>Drowning Deaths: National Center Guidance Report</u> (URL: https://ncfrp.org/wp-content/uploads/Drowning_Guidance.pdf) for further information on investigation and review of drowning deaths.)
- If the child ingested, or was exposed to, chemicals, were the chemicals stored locked? If so, were the keys or lock device readily available to the child?
- If the child died in a silo or grain bin, did the farm have safety procedures such as supervision, harnesses, ladders, and training in rescue procedures in place? Had the workers been trained on the safety procedures? Was safety equipment present as advised? If procedures and equipment were in place, were they readily available and utilized properly?
- If the child's death was caused by an animal, was the animal penned adequately to keep out children? If so, how did the child breach the barrier? Was hygiene for the animal adequate? Did human caretakers practice adequate hygiene after leaving the animal? If the death occurred from horse riding, did the child have a helmet? Did child know how to ride?

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.

☐ What layers of protection were in place to prevent the child from being injured?

Layers of protection include supervision, physical barriers, helmets, personal protective equipment, safety education, machinery equipped with safety features, and safety/rescue equipment.

☐ Was the child engaged in an age/developmentally appropriate activity?

Teams may need to think creatively about how best to get this information (e.g., looking at your <u>state's labor laws</u> (URL: <u>https://www.dol.gov/agencies/whd/state</u>) or the <u>National Children's Center for Rural and Agricultural Health and Safety</u> (URL: <u>https://cultivatesafety.org/work/</u>). An even closer examination should evaluate if the child had been appropriately trained on safety features, had appropriate supervision, or if the equipment/machinery was safely stored and/or used.

☐ Are age/developmentally appropriate safety education opportunities available in the community?

Were there barriers for the family to participating in safety education or accessing the resources? Was the family unable to afford or access the education? Was transportation a challenge? Were the resources available in linguistically/culturally appropriate ways?

☐ Is the available safety education focused solely on children?

Parents and supervisors who are aware of safety precautions and guidelines can help ensure the farm is a safe place for work and play and pass that knowledge to the children by example and instruction. Most education programs are directed to the child and not the responsible parent/adult who controls the environment. Farm safety programs directed at children have shown some knowledge gain and decrease in risky behaviors, but there is no definitive research to demonstrate that education focused solely on the child will reduce the toll of childhood farm injuries, so prevention strategies should ensure the responsible adult is fully engaged in the process.

Does the team know how many, and the type of, fatal and non-fatal
childhood farm injuries occur in the community?

This will provide the team with the scope of the problem, in addition to the potential for prevention impact. Working with your local/regional hospital/trauma center and/or Emergency Medical Services (EMS) provider may offer greater insight and data into the burden of non-fatal injuries.

☐ Were local/state safety regulations/ordinances/labor laws regarding agricultural work observed in this case?

If local laws or ordinances were in place, were they adequate to offer protection? Should the team consider advocating for passage or enforcement of codes/regulations such as requiring fencing or other barriers for water safety, safety procedures and equipment in place for silos/grain bins, and/or age limits or safety equipment requirements for machinery/off highway/all-terrain vehicles. State labor laws can be found on the Department of Labor, State Labor Laws webpage (URL: https://www.dol.gov/agencies/whd/state).

☐ Was there warning signage related to drowning, electrocution, chemicals, machinery or falls risks at the location?

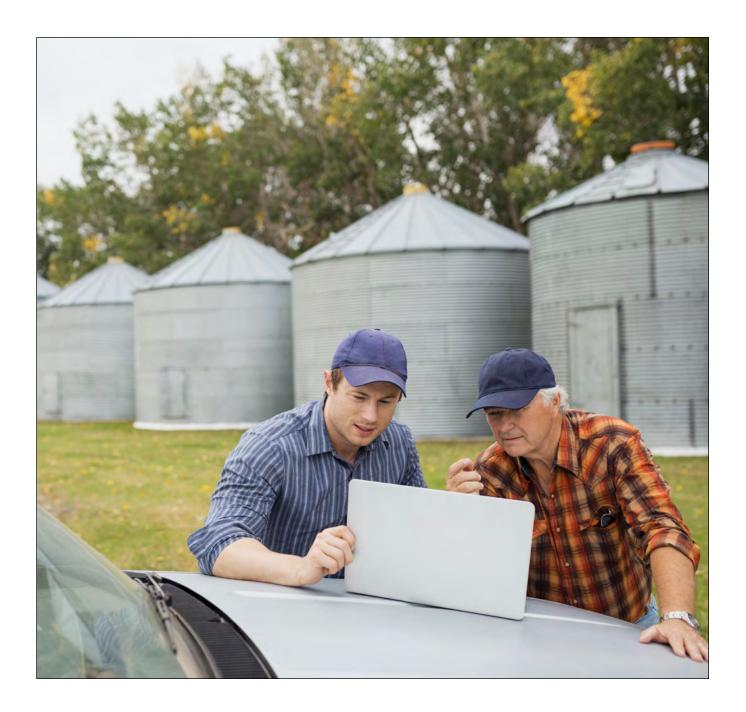
If there was signage present, was it Occupational Safety and Health Administration (OSHA) compliant? Was it easily read and concise? Was there a picture included? Was the signage affixed close to the hazard? OSHA injury prevention signs and tags specifications can be found on the Specifications for accident prevention signs and tags webpage (URL: https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.145).

☐ Was exposure to hazards or lack of appropriate supervision a factor in this death?

Was the child supervised at the time of the incident? Did the child's age or developmental level require supervision? How close was the parent/caregiver/supervisor to the child? Was the parent/caregiver/supervisor within proximity to the child (i.e., could the supervisor see and/or hear the child)? Was the supervisor within proximity of the child but attending to other tasks? Did the behavior on the part of the parent/caregiver/supervisor expose the child to hazard(s) (e.g., access to matches, unlocked firearm, pond without fencing and locking gate, improperly stored chemicals, etc.) that posed a threat of harm to the child, but the team does not feel the circumstances meet the criteria be classified as child neglect?

☐ Was the supervisor equipped to rescue the child?

Did the supervisor have the needed skills and resources to rescue the child? Some examples may include knowing what to do if equipment comes into contact with overhead power lines, having education and a plan in place for exposure to or spills related to chemicals, having safety procedures in place for all silo/bin grain work including harnesses and self-contained breathing apparatus, and/or proper training in equipment operation/safety.



Critical Documents to Consider for Review

Engaging subject matter experts who specialize in agricultural work and safety can improve access to the information needed for the review meeting. Critical documents needed for a comprehensive review include:



If child was a hired worker, relevant child labor laws



Autopsy Reports



Scene investigation reports and photos



Interviews with witnesses



EMS reports



Emergency Department reports



Death certificate



Any information on prior deaths or serious injury of children in the family, family members, or workers at the site



Information on code or zoning inspection and violations at the farm



If the incident occurred on a dairy farm, include information about storage of chemicals



News clipping(s) about event

The National Fatality Review-Case Reporting System (NFR-CRS)

Questions

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 death scene investigation, 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.

- Did the child have supervision at time of incident leading to death (D1)?
- How long before the incident did supervisor last see child (D2)?
 - Document the child was supervised if the supervisor was close enough to see or hear the child at the time of the incident leading to death.
 - Also document the child was supervised if the supervisor was close enough to see or hear the child, but was attending to other tasks (e.g., doing farm work, talking on the phone). In this situation, also document in D16 that the supervisor was distracted.
 - Document "No, but needed" if the supervisor of a child less than age 6 could not see or hear the child at the time of the incident. This may also be marked for children 6 or older if the supervisor was not in close enough proximity to see or hear the child and circumstances indicate supervision was needed at the time of incident.
- Place of Incident (check all that apply (E3)?
 - This question captures the farm-relatedness of the incident
 - The NCR-CRS is the only central repository for capturing the true burden of farm-related childhood fatalities, so be sure to check all that apply (child's home, farm or ranch, roadway, etc.).
- Child's activity at time of incident (E12)?
 - · Check all that apply (e.g., working, driving vehicle/occupant, playing, etc.).
- Vehicles involved in the incident (H1, a)?
- Position of child (H1, b)?
- Ignition, heat, or electrocution source (H2, a)?

- Drowning location (H3, b)?
- If suffocation, was the child covered or fell into object, confined in a tight space, etc. (H4, c).?
- For fall, child fell from moving object, animal, etc. (H6, c)?
- For crush, object causing the crush (H6, h)?
- For poisoning, type of substance involved (H7, a)
 - Check all that apply.
- Did child abuse, neglect, poor or absent supervision or exposure to hazards cause or contribute to the child's death (I5a)?
 - This question captures not only abuse and neglect but poor supervision and exposure to hazards as these responses may be particularly relevant to farmrelated deaths, especially of younger children.
- Life stressors that were present for this child and family around the time of death (I7)?
 - These questions capture the conditions and environments where people are born, live, learn, work, play, and worship. Capturing these life stressors help teams focus prevention upstream to address the social determinants of health that contribute to health disparities and inequities.



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, providing answers to the Key Questions to Ask During the Investigation can maximize the impact of the qualitative data in the narrative.

Do not include any personally identifiable information in the narrative, such as names, dates, or specific locations. You can do this by referring to the child as "the decedent" or "the child;" by referring to local hospitals as "the hospital," and not by its specific name; and by referring to individuals around the child in general terms like, "their sister," "the child's babysitter," or "their mother."

Example Narratives:



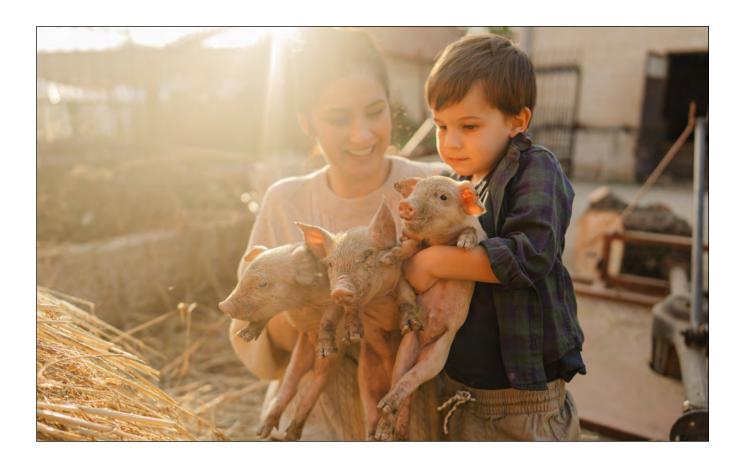
Asphyxia Death

A 16-year-old male was working a summer job with two friends at a local farm. The three boys were working unsupervised in a grain silo to separate grain that was clumping. While working in the silo, the deceased child began to sink into the grain and was unable to get out. The two friends tried to pull him to safety but were unable. They stated the more the deceased child struggled, the further into the grain he sank. One of the friends climbed out of the silo and went to get help. 911 was called and it took rescuers several hours to remove the grain and locate the deceased child. The cause of death was ruled asphyxia/suffocation due to being buried under/covered by the grain.



Motor Vehicle Death

The 2-year-old female child was riding as an unrestrained, front seat passenger in the family's side-by-side utility vehicle on the afternoon of the incident. The 2-year-old was sitting in the front seat between the mother and 5-year-old sibling. Mother and children were riding in the vehicle on the family farm to play in the creek located on the property. While going down a hill, the mother lost control of the vehicle. The vehicle rolled over on the 2-year-old and the 5-year-old and mother were ejected. The 2-year-old died of blunt force injuries to the head. The mother and 5-year-old were not injured.



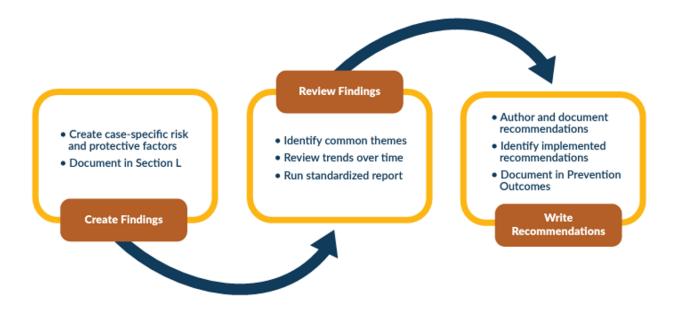
Focus on Prevention

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. In order 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.

Figure 1. Moving from Case-Specific Findings to Formal CDR Recommendations



The National Farm Medicine Center and National Children's Center for Rural and Agricultural Health and Safety, <u>Cultivate Safety website</u> (URL: https://cultivatesafety.org/) is a good source for any team generating findings and prevention strategies as the result of a farm-related death. It contains guidelines on ensuring farm-related work activities for children matches their age or developmental abilities. There are also "prevention briefs" on different farm-related topics that might provide further assistance to CDR teams developing prevention strategies.



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 "VT" (vicarious trauma). 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 a number of ways including but not limited to physical and psychosocial manifestations. This may look like new or increased fatigue, irritability, depression, anxiety, or other changes. Recognizing these manifestations is crucial so the person can be supported and helped, not only for the individual's sake, but because VT can affect the rest of the team and the individual's family, friends, and co-workers (and if you doubt that, just ask them).

For more information and guidance on addressing self-care for teams, the National Center has created <u>Guidance for CDR and Fetal and Infant Mortality Review (FIMR) Teams on Addressing Vicarious Trauma</u> (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 think it is not needed, etc.

VT is a common professional experience. More likely than not, CDR team members will experience VT, but it does not have to overwhelm them or take over their lives. 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.



Stories from the Field

KANSAS

After a farm-related death in Kansas, the CDR team realized that they did not have the experience or subject matter expertise to answer a lot of the questions raised during a farm-related fatality review. This led to a collaboration with the Kansas Farm Bureau.

The <u>American Farm Bureau Federation (AFBF)</u> (URL: https://www.fb.org/) is the grassroots-led national advocate for farmers, ranchers, and rural communities. ¹⁰ There are 2,800 county, and 50 state farm bureaus, made of nearly six-million-member families who vote on policies affecting their farms and develop programs and tools to help ensure members succeed as farmers, ranchers, and leaders in agriculture. ¹¹ The AFBF also supports the American Farm Bureau Foundation for Agriculture (URL: https://www.agfoundation.org/) whose mission is to provide awareness and understanding of agriculture through education. ¹²



Once this partnership was created, the CDR team had access to an "ally in safety" with the means and resources to provide education for children and families in all 105 Kansas counties and serve as subject matter experts to help the team better understand farm-related incidents. Kansas Farm Bureau staff have proven to be an invaluable resource when questions arise about farm equipment, mechanism of injury, safety equipment, and/or human vs. equipment failure. The Kansas Farm Bureau also conducts its own death investigations for all farm-related fatalities and is willing to share information with the CDR team to help better inform prevention.

Recently, the partnership was expanded and strengthened by connecting the Kansas Farm Bureau youth educator with the Safe Kids Kansas Coalition. This has increased the capacity for providing age-appropriate farm-related education to children, youth, and adults regarding safety on the farm and use of agricultural equipment across the state.



Conclusion

Farms have many hazards and require rigorous plans for safety. Labor laws mandate what children can and cannot do while working, but many farms are exempt from these regulations. In addition, the agricultural workforce is increasingly diverse and the research that would help improve our understanding of the risk and protective factors involved in these deaths is limited. The lack of data and research available on farm-related fatalities highlights the importance of CDR teams collecting information about these deaths to better understand the context and improve the health and safety for children who live, work, and play in agricultural settings.

Resources

Policy

- Agricultural Operations, Occupational Safety and Health Administration, https://www.osha.gov/agricultural-operations.
- American Academy of Pediatrics Policy Statements, https://publications.aap.org/pediatrics/collection/519/Policy-Statements.
- Child Labor Requirements in Agricultural Occupations Under the Fair Labor Standards Act (Child Labor Bulletin 102) June 2007. http://www.dol.gov/whd/regs/compliance/childlabor102.pdf.
- United States Department of Labor, Occupational Safety and Health Administration, Specifications for Accident Prevention Signs and Tags, https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.145.
- United States Department of Labor, https://www.dol.gov/general/topic/youthlabor.
- United States Department of Labor State Labor Laws, https://www.dol.gov/agencies/whd/state.
- United States Department of Labor Occupational Safety and Health Administration's Youth in Agriculture eTool https://www.osha.gov/etools/youth-agriculture.

Education

- American Academy of Pediatrics Parenting Website, https://healthychildren.org/
 English/Pages/default.aspx.
- American Farm Bureau Federation, https://www.fb.org.
- American Farm Bureau Foundation for Agriculture, http://www.agfoundation.org/ index.php?action=farmsafety.home.
- Can my child do this job safely, YouTube, https://www.youtube.com/results?search_query=can+my+child+do+this+job+safely.
- Childhood Agricultural Safety Network, http://www.childagsafety.org.
- Cultivatesafety.org, https://cultivatesafety.org.
- National Children's Center for Rural and Agricultural Health and Safety, https://www.marshfieldresearch.org/nccrahs.
- National Child Safety Council, Farm Safety, https://nationalchildsafetycouncil.org/.

- National Institute of Food and Agriculture, Cooperative Extension Resources, https://www.nifa.usda.gov/about-nifa/blogs/cooperative-extension-grows-people-communities.
- Progressive Agriculture Safety Day Program, https://www.progressiveag.org.
- Stop the Bleed, https://www.stopthebleed.org.
- United States Department of Labor, Occupational Safety and Health Administration, Control of Hazardous Energy (Lockout/Tagout), https://www.osha.gov/control-hazardous-energy.

National Center for Fatality Review and Prevention Guidance Documents

- Guidance for CDR and FIMR Teams on Addressing Vicarious Trauma, National Center for Fatality Review and Prevention, https://ncfrp.org/wp-content/uploads/NCRPCD-Docs/GuidanceVicariousTrauma.pdf.
- Review of Drowning Fatalities: National Center for Fatality Review and Prevention Guidance Report, https://ncfrp.org/wp-content/uploads/Drowning_Guidance.pdf.
- NFR-CRS Case Report Tool https://www.ncfrp.org/wp-content/uploads/ NCRPCD-Docs/CDR_CRS_v5-1.pdf.
- Findings Guidance: National Center Guidance Report, https://ncfrp.org/wp-content/uploads/NCRPCD-Docs/Findings_Guidance.pdf.

Prevention Initiatives

- National Institute for Occupational Safety and Health, Childhood Agricultural Injury Prevention Initiative, https://www.cdc.gov/niosh/topics/childag/default.html.
- Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health (NIOSH) Childhood Agricultural Injury Prevention Initiative, https://www.cdc.gov/niosh/docs/2005-147.
- Children and Agriculture: Opportunities for Safety and Health, A National Action Plan, https://stacks.cdc.gov/view/cdc/6296.

Endnotes

- 1 U.S. Department of Labor, Youth and Labor, Agricultural Employment. https://www.dol.gov/general/topic/youthlabor/agriculturalemployment#:~:text=Parental%20exemption%3A%20 Minors%20of%20any,enacted%20by%20the%20U.S.%20Congress.
- 2 Children and Agriculture: Opportunities for Safety and Health, A National Action Plan. http://marshfieldresearch.org/Media/Default/NFMC/MCRF-Centers-NFMC-nccrahs-reports-NationalActionPlan.1.pdf.
- 3 United States Census Bureau, Urban and Rural Classification. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html.
- 4 Overcoming Language and Literacy Barriers in Safety and Health Training of Agricultural Workers, Journal of Agromedicine. https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC2914347.
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