Angual Report

October 2023 - September 2024





CDC/NIOSH Cooperative Agreement 6 U54OH009568-14-03

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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.



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Welcome From the Directors

This has been a year of transitions for our NIOSH-funded National Children's Center for Rural and Agricultural Health and Safety (NCCRAHS). In June 2024, the Director of 27 years, Barbara Lee, became the Associate Director and the Associate Director, Andrea Swenson, became the Director! We are mentoring each other in our new roles as we facilitate a smooth succession of leadership. As always, NCCRAHS provides national-level leadership, research, and outreach activities to enhance the health and safety of all children exposed to hazards associated with agricultural work and rural environments. Highlights of this Year 4 of our cycle included:

- Publication of 10 articles in peer-reviewed journals.
- Dissemination of research findings and safety recommendations via publications, presentations, abstracts, posters, webinars, media interviews, and press releases by Center scientists and staff.
- Refinement of our Policy Working Group that reviews policy-relevant activities including state and national attention to child

labor violations and strategies to include childcare support into the 2025 Farm Bill.

- Promotion and presentations related to the 2023 special issue of Frontiers in Public Health, titled "Safeguarding Youth from Agricultural Injury and Illness: International Perspectives".
- Staffing adjustments following several departures, including leadership of the Outreach Core, now held by Cap Bendixsen, PhD.
- Added two PhD Research Specialists, Somi Pandy and Roger Aby
- Funding for three Emerging Issues Program external projects.
- Continued development of the 2025
 National Action Plan for Childhood
 Agricultural Safety and Health.
- Participated in NIOSH, NORA and many professional groups such as ISASH, ASHCA, and APHA.

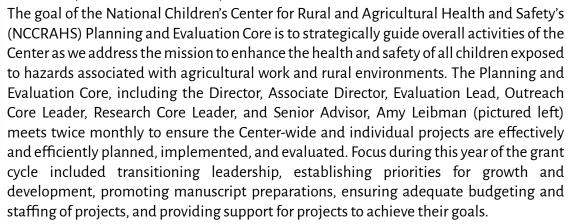
Best regards,

Barbara Lee Indrea Swenson



Section 1: Planning and Evaluation Core

Barbara Lee, PhD & Andrea Swenson, PhD





Amy Leibman Senior Advisor

Evaluation

David Puthoff, PhD, Marshfield Clinic Research Institute

The Evaluation team provides infrastructure, personnel, and support to effectively monitor and evaluate NCCRAHS to continually improve the quality of the Center. In 2024, we transitioned leadership of the Evaluation Core from Andrea Swenson to David Puthoff. The evaluation core continued to monitor and gather evidence for the contribution analysis as well as conducted a Strengths, Opportunities, Aspirations, and Results (SOAR) analysis to evaluate the Center's position and assess direction. Project teams submitted Quarterly Reports based on their established metrics, and Evaluation continued to update and share the dashboard of key metric progress.



Stakeholder Advisory Board (SAB)

The NCCRAHS SAB is composed of eight advisors knowledgeable about agricultural health and safety, influential within agricultural communities, and with a vested interest in promoting childhood safety and well-being as well as mitigating childhood injuries and disease. The SAB provides input to NCCRAHS leadership regarding the Center-wide goals and objectives, especially the primary objectives to 1) increase the number of individuals and organizations engaged in agricultural childhood injury prevention as well as increase their knowledge of the field and 2) ensure research is being translated effectively and disseminated to the wider field of professionals and to agricultural communities.

The SAB convened virtually with Center leadership, Pls, and project staff on November 16, 2023. The Planning and Evaluation Core and Principal Investigators provided updates and solicited feedback from SAB members. A hybrid in-person/virtual meeting was held May 15, 2024. The agenda addressed progress on Center goals and individual research objectives, next steps for Emerging Issues, Outreach and Engagement strategies, and progress on updating the 2012 National Action Plan. Advisors held a closed executive session, then reported back on their perspectives of Center progress and recommendations.

SAB members include:

Name	Affiliation
Dee Jepsen, PhD, Chair	Ohio State University
Joseph Grzywacz, PhD	San Jose State University
Matthew Keifer, MD, MPH	Emeritus NFMC Director
Brian Kuhl, MBA	Progressive Agriculture Foundation
Jenny Stern-Carusone, MSW	Children's Safety Network
Athena Ramos, PhD	University of Nebraska Medical Center
David Schwebel, PhD	University of Alabama at Birmingham
Suzanne Wright, MD	Marshfield Clinic Health System



NCCRAHS Staff and Stakeholder Advisory Board, May 15, 2024. Pictured: Bottom row (left to right): David Schwebel, David Puthoff, Suzanne Wright, Athena Ramos, Dee Jepsen, Florence Becot, Barbara Lee. Middle row (left to right): Jenny Stern-Carusone, Andrea Swenson, Joe Grzywacz, Brian Kuhl, Marsha Salzwedel, Jakob Hanschu. Top row (left to right): Bryan Weichelt, Josie Rudolphi, Jeff VanWormer, Casper Bendixsen, Amy Liebman, Matthew Keifer, Cassandra Peltier.



Cassandra Peltier Center Coordinator

Policy Working Group

The NCCRAHS Policy Working Group (PWG) was established to identify, develop, and promote potential policy-based safety and health solutions by leveraging knowledge gained through research and outreach activities associated with NCCRAHS priorities. The PWG monitors industry and policy activities for potential policy relevant strategies connected to NCCRAHS' priorities and proposes policy-relevant solutions emanating from research findings, outreach activities, and public input. Our center maintains an ongoing list of its policy-related activities and continues to work on establishing systems to communicate policy implications to multiple audiences.

Diversity, Equity, Inclusion, and Accessibility Working Group

The Center continues to assess diversity, equity, inclusion, and accessibility (DEIA) efforts through a dedicated working group. In 2024, this group identified gaps in knowledge areas and engaged with accessibility experts. The working group identified priorities for accessibility improvements and established evaluation criteria. The committee plans to monitor the effects of this work in 2025, expand the effort in terms of resources and improvements, and continue advocating for DEIA best practices in all the work done in the Center.

Developing the 2025 National Action Plan

Members of the National Children's Center and key external advisors are leading the development of a 2025 National Action Plan for Protecting Children in Agriculture. The team has made significant progress over the past year, including hosting an in-person meeting with members of the Stakeholder Advisory Board to review content in May 16, 2024. Additional input on drafts of the full document will be sought from stakeholders around the country. The plan is scheduled for publication in 2025.

Emerging Issues Program

The Emerging Issues Program (EIP) of the National Children's Center for Rural and Agricultural Health and Safety (NCCRAHS) supports emerging health and safety concerns of children working on, living in, or visiting agricultural environments. In particular, the program strives for a rapid response to explore, test, implement, or recommend strategies that are likely to identify causes, effects, and prevention interventions in response to new or unresolved/complex problems. In addition to funded projects, Bryan Weichelt leads an initiative to connect Emerging Issues and Pilot Programs across the NIOSH Agriculture, Fishing, and Forestry Centers. Three projects were funded for this fiscal year and are summarized on the following page:





Understanding Barriers to Healthcare Access for Children in Latina/o Farmworkers Households

Principal Investigator: Hazel Velasco Palacios, Pennsylvania State University

This project focused on understanding and addressing the healthcare access challenges for children in Latina/o farmworker households, particularly in mushroom farms in rural Pennsylvania. Objectives included: (a) identify healthcare access barriers; (b) understanding intergenerational dynamics; (c) uncover coping strategies; and collaborate with community organizations. This project has revealed the struggles mushroom farmworker families face, such as limited healthcare options and challenges associated with precarious work. Findings from this project offer a holistic view of the structural and cultural barriers affecting children's health.



A Mother's Game Plan for Safety & Health

Principal Investigator: Danna Williamson, Carle Health

This project worked to create a safety-first mindset and culture in the home and around the farm by providing a podcast that targeted women as the most common home and farm influencers. The podcast, which brought in experts in such fields as ATV safety and grain handling, encouraged women to develop safe and healthy habits early in life for maintenance across the rest of the life. This project was designed to shift the mindset of behaviors of parents and grandparents, leading to safer and healthier lives for our farm youth and those who visit and work on farms. Eight podcasts were produced and seven webinars conducted and archived online.



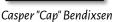
Emerging Science on Agricultural Use of Respiratory Protection Devices by Farm Youth

Principal Investigator: Jenna Gibbs, Agricultural Health and Safety Alliance

The goal of this study is to identify gaps in knowledge and provide recommendations for the use of pediatric N95s in agriculture. The project conducted a comprehensive scoping review of literature concerning the use of filtering facepiece respirators (N95s) by children, particularly those involved in agricultural activities. The research team examined various work and environmental studies, excluding studies specific to cloth face coverings and surgical masks. Utilizing multiple search systems,678 studies focusing on the design, effectiveness, and fit testing of pediatric N95s, as well as circumstances warranting their use, were located. A screening process resulted in 34 papers. The extracted articles were analyzed by a panel of 7 academic professionals, who included specialists in child health, respirator fit, and farm safety, to assess scientific evidence. The panelist ranked the articles based on methodological rigor, generalizability to young people working in agriculture, feedback on areas for future research on pediatric respirator use, additional references to examine, and direct recommendations that can be made for youth use of respirators.









Scott Heiberger



Matt Pilz



Melissa Ploeckelman



Marsha Salzwedel

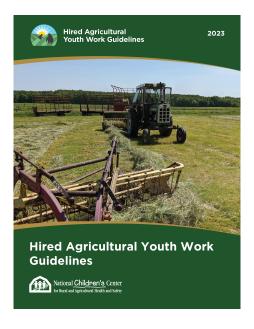


Christopher Wanat

The National Children's Center Outreach Core (NOC) mobilizes child agricultural health and safety knowledge, ensuring that safety resources and information are promoted and disseminated to farm families, young workers and associated agriculture industry members.

Communications: NOC works with partners to ensure that the right safety messages get to the right audiences. Channels include traditional and social media, presentations, exhibits, newsletters and peer-reviewed publications. NOC facilitated more than 30 interviews with influential agriculture and mainstream media outlets, including a Pro-Publica <u>investigative series</u> precipitated by the farm death of an 8-year-old Nicaraguan boy. The series led to policy changes such as Dane County (Wis.) officials approving an \$8 million fund for farmworker housing and measures to improve access to government services for people who don't speak English. NOC team members annually attend the conferences of the National Association of Farm Broadcasters and the American Agricultural Editors Association. In addition, NOC exhibited at the Farm Progress Show in Boone, Iowa, the nation's largest outdoor agricultural show, and the National FFA Convention.

Telling the Story: When a farm injury or fatality occurs, sharing stories of those incidents can help others avoid similar hazards. An analysis of stories told by injury survivors on the <u>Telling the Story Project</u> website identified themes that can be used to shape more effective injury-prevention messages. Results were published in the peer-reviewed <u>Journal of Agromedicine</u>. We are working with university agricultural communications professors to use products from the Telling the Story Project in their writing classes. The project is a collaboration of the National Children's Center and two other agricultural safety and health centers funded by the National Institute for Occupational Safety and Health (NIOSH): the Upper Midwest Agricultural Safety and Health Center (UMASH); and the Central States Center for Agricultural Safety and Health (CS-CASH).



Hired Agricultural Youth Work Guidelines: A key resource launched this year was the Hired Agricultural Youth Work Guidelines (HAYWG), previously known as the Safety Guidelines for Hired Adolescent Farm Workers. These guidelines, designed for employers and supervisors of hired youth, were updated based on the latest scientific evidence and best practices. Supervisors can use this resource in tandem with the Agricultural Youth Work Guidelines (AYWG), which are designed to help adults assign age- and ability-appropriate tasks to youth working in agriculture. The design was updated with modifiable skin tones and equipment colors to encourage use among various populations. The guidelines include background and child development information, training tips, supervisor information and information and links to child labor regulations.

Childhood Agricultural Safety Network: CASN is an international coalition dedicated to the safety and health of children on farms and ranches. Members include agricultural safety and youth-serving organizations, groups representing underserved populations and agribusiness. This past summer CASN launched its latest safety campaign, dedicated to lawnmower safety, asking if youth are 'Mow Ready'? Posters and flyers were created in two formats, one for supervisors and another designed to be used with youth.



Media Guidelines have also been updated in English, Spanish, and French. The previous year's survey has been analyzed and a manuscript is being written about the findings. Collaboration and networking were facilitated through the online community. A virtual meeting was held on January 24, 2024 and an in-person meeting was held at the International Society for Agricultural Safety and Health Annual Conference on June 19, 2024. CASN also led webinars on Child Labor in Agriculture on June 6, 2024 and Child Migrant & Seasonal Farmworker Children on August 6, 2024.

CASN Leadership Team:

Name	Affiliation
Cheryl Beseler	Associate Professor, University of Nebraska Medical Center - Nebraska
Marsha Cheyney	Evaluator and Outreach Specialist, Great Plains Center for Agricultural Health - Iowa
Jana Davidson	Program Manager, Progressive Agriculture Foundation - Pennsylvania
Melanie Forti	Health & Safety Programs Director, Association of Farmworker Opportunity Programs - Washington D.C.
Marcos Grigioni	Surgeon, Agricultural Health and Safety Trainer, Researcher - Argentina
Alma Jordan	Author and Founder of AgriKids - Ireland
Whitney Pennington	Outreach Core Lead, High Plains Intermountain Center for Agricultural Health and Safety - Colorado



CASN in-person meeting, June 19th 2024, Portland, OR.



Assessing Impact of Traumatic Injury News



Bryan Weichelt, PhD, Marshfield Clinic Research Institute

This project assesses change in farm parents and farm educators' knowledge, attitudes, and behavioral intentions towards agricultural safety after exposing parents and educators to news reports of childhood agricultural injury. This project targets two primary groups: (1) farm parents and (2) farm educators. A new co-investigator and research specialist, Dr. Roger Aby, was added to the project in spring of 2024. The farm parent data collection is complete and we continue to analyze data and work on manuscripts. This study demonstrated that reading about childhood agricultural injury news can change the way parents perceive the risk of children's work on their farm. In turn, risk perception can enhance parents' willingness to adopt safe farm practices, especially when they have lower levels of self and response efficacy about the safety practices.



Kang Namkoong, PhD

For the educators group, we initially distributed survey questionnaires to approximately 222 participants last year. However, only 24 educators fully completed the survey series. In the last week of September 2024, we followed up by sending a one-year follow-up survey to these 24 participants, of which 17 have already responded in full. Given that only 24 out of the original 222 educators completed the initial survey, we re-sent the questionnaire to the remaining 198 educators who had previously enrolled, but did not complete the survey series.



Roger Aby, PhD

Capabilities of Youth Operating ATVs

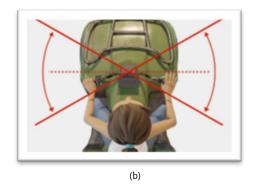
Farzaneh Khorsandi, PhD, University of California, Davis

All-terrain vehicle (ATV) crashes are one of the leading causes of injury and death among youth in the agriculture industry. The long-term goal of this project is to provide empirical evidence of physical and ergonomic factors that may put youth at risk of injury or death while operating utility ATVs on farms. This study will provide critical evidence to encourage, facilitate, and guide recommendations and public policies regarding youth operating ATVs for agricultural work. These goals will be achieved by a) identifying potential strengths and anthropometric discrepancies between the requirements for operating utility ATVs and the physical characteristics and strength of youths of varying ages and height percentiles; b) updating existing guidelines and future resources regarding the required physical capabilities of youth to safely operate utility ATVs; and c) encouraging, facilitating, and guiding industry and organizational recommendations and public policies regarding youth operating ATVs for agricultural work by developing an "Action Plan for Guidelines on Youth Operating ATVs".



We had numerous output accomplishments in 2024. We published four scholarly articles in Ergonomics, the Journal of Safety Research, and the Journal of Agromedicine. We gave 18 presentations in ASABE, ISASH, NORA, and other events. One workshop in ISAHD 2024 included 4 panelists to discuss youth and ATV safety. We also developed and finalized a checklist to evaluate youth physical readiness to ride utility ATVs on the farm. Finally, we have begun development of two more manuscripts, one of which is the final recommendation regarding capabilities of youth riding utility ATVs. The other is entitled "Is It Safe for Children to Ride Youth-Sized All-Terrain Vehicles?"





a) Session and panel discussion regarding ATV safety at ISASH 2024. Two presentations focused on youth and ATV safety. b) one example of ATV fitting criteria, Control grip: Riders must keep a grip on the handlebar and maintain throttle and brake control when turning the handlebar from lock-to-lock position. This is especially important while performing a sharp turn or a swerve.

Farm Adolescent and Adult Mental Health

Josie Rudolphi, PhD, University of Illinois Urbana-Champaign

There is converging evidence agricultural work contributes to poor mental health; however, the mental health experience of youth on farms is unknown. The results from this study will inform targeted programming and policies that improve the mental health of farm youth. This project uses a multi-modality, innovative series of studies to examine the mental health of youth on farms, including identifying the prevalence of common mental health conditions and stressors among farm adolescents and their parents and consider the association between family members. This study will test a novel method to surveil farm youth mental health and provide insight into the shared experiences of farm families to identify vulnerable members to provide new knowledge about the mental health status of farm youth and inform the needs for continued surveillance and future intervention.



The project team published, "Stress, Mental Health, and Risk-Taking: Associations among a Sample of Agricultural Adolescents", in the Journal of International Research and Public Health. Results were presented at the Midwest Rural Agricultural Safety and Health Conference and the International Society for Agricultural Safety and Health's Annual Meeting. The project has garnered interest from agricultural and public health organizations. Dr. Rudolphi was invited to share results and implications of the project on four webinars hosted by the International Society for Agricultural Safety and Health, National AgrAbility Program, Farmdoc, and Carle Health System. In addition, Dr. Rudolphi served on a panel at the 2024 Commodity Classic, a large agricultural educational conference, that was hosted by Successful Farming.

In the final year of the project, the team intends to collect one additional year of data and will survey farm parents and adolescents from April – June 2025. Data from year 5 will be added to previously collected data (years 1 – 4). Planned analyses include structural equation modeling to test the Family Stress Model among farm families.

In the final year of the project, the team intends to collect one additional year of data and will survey farm parents and adolescents from April – June 2025. Data from year 5 will be added to previously collected data (years 1 – 4). Planned analyses include structural equation modeling to test the Family Stress Model among farm families.

Adoption of Agricultural Youth Work Guidelines: Identifying Motivators and Barriers for Use



Andrea Swenson, PhD, Marshfield Clinic Research Institute

A prominent risk factor for youth injuries and fatalities is performing work that does not match their developmental capabilities. Agricultural Youth Work Guidelines (AYWG) are a set of voluntary, evidence-based decision-making tools for supervisors and parents to use to reduce the mismatch between youth developmental capabilities and agricultural task requirements. Guided by principles of The Reasoned Action Approach, this study aims to understand how different motivators and barriers relate to the uptake of AYWG in agricultural populations to increase adoption of safety practices by supervisors and parents, thereby reducing agricultural-related injuries and fatalities in youth.



Somi Panday, PhD

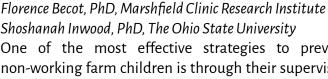
We welcomed Somi Panday, PhD, to the project in April 2024. Qualitative analysis of organizational interviews led to the development of a survey for adults supervising youth in agricultural settings. Survey collection has been ongoing throughout the year. We attended many events to recruit survey participants and disseminate project data and materials, including the International Society for Agricultural Safety and Health Annual Conference, the 4-H Kentucky Volunteer Forum, Wisconsin Association of Agricultural Educators Professional Development Conference, Minnesota Farmfest, Iowa Farm Progress Show, and National Association of Extension 4-H Youth Development Professionals Annual Conference.

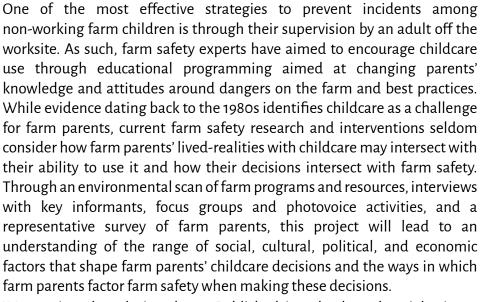
This project resulted in funding from two additional support the grants to development of Agricultural Youth Work Guideline curriculum and supplemental safety kits for use with the Agricultural Youth Work Guideline Curriculum. The draft curriculum was presented at a workshop with Wisconsin Agricultural Educators at the Wisconsin Association of Agricultural Educators Professional Development Conference where it garnered feedback and safety kits were distributed

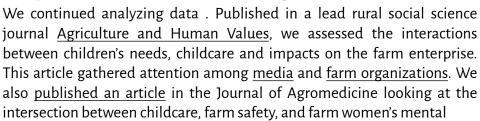


Linking Childcare to Farm Safety









health. Worries that children could get hurt and inadequate childcare support were major stressors. Another key activity was the planning of the picture exhibit with 14 women who participated in the photovoice activity in year 2 with additional funding from The Ohio State University. We have shown the picture exhibit with five panels at farm shows, a research conference, and were invited to show it at the USDA in DC as part of a forum on rural childcare and as part of a listening session for one of Pennsylvania's Governor Advisory committee on the childcare crisis.



Picture exhibit in the USDA Whittman building during the USDA-HHS Summit on Rural Childcare (Photo credit: USDA)

In year 5, data analysis will be focused on solutions that would make it easier for farm parents to raise children on farms. In addition. we will deepen the analysis on the interactions between childcare arrangements and farm children risk exposure. We will also leverage the findings to start the development of practical recommendations.

Surveillance of Medically Attended Injuries

Jeff VanWormer, PhD, Marshfield Clinic Research Institute

There is no deadlier work for children and adolescents in the United Sates than farming, yet little is known about recent trends in agricultural risks because there is no comprehensive surveillance system of agricultural injuries. The purpose of this project is to establish a surveillance system of medically attended agricultural injuries among children and adolescents who reside on farms in north-central Wisconsin. Multi-year epidemiologic trends in medically attended agricultural injuries, as well as population subgroups at highest risk for agricultural injury, will be estimated.



We have made several accomplishments in the WINS (Wisconsin National Children's Center for Rural and Agricultural Health and Safety) surveillance system during study year 4 (Oct 2023–Sep 2024). We completed a DEI analysis examining the intersectionality between race/ethnicity and rural residency, and its impact on suicidality in youth. This was recently published in a high impact journal and was presented at the Annual Midwest Nursing Research Society regional conference. We presented a prior analysis on the health risks and benefits of growing up on a farm at the national conference of the Annual American Public Health Association. In June, we presented a series of related WINS analyses on the health risks and benefits of growing up on a farm at an international conference for the International Society for Agricultural Safety and Health held in Portland this year.

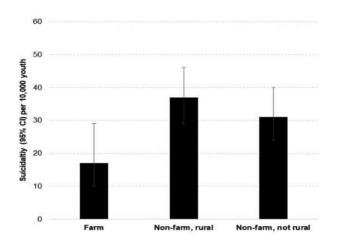


Figure 1. Estimated period prevalence (2017–2022) of medically attended suicidality in north-central Wisconsin youth age 5–17 years who live on farms, as well non-farm youth who live in rural and non-rural areas.

Our team was awarded a 1-year pilot grant from UMASH to expand analyses on the burden of diseases of despair in farm and rural populations and completed a summer student intern project that examined adverse childhood experiences in farm and rural youth. (Manuscript under development.) The main foci in year 5 will be on updated analyses (and a corresponding manuscript) of trends in agricultural injuries in the WINS population.

Farm Kid Paradox



Casper Bendixsen, PhD, Marshfield Clinic Research Institute

Though raising children on farms is thought to improve work ethic, enhance problem-solving skills, and is known to strengthen a child's immune system, farming is one of the most hazardous industries in the U.S., with about 33 children seriously injured on farms and ranches each day. Referred to as the "Farm Kid Paradox," researchers have explored these risks and benefits separately, creating a gap between farm parents and safety training/information. In this project, researchers at Marshfield and Kansas State University are working with both farm parents and professionals who deal in safety to bridge this gap and combine safety information with messaging that includes the benefits of farm life.



Jakob Hanschu, MA

During the past year, the Farm Kid Paradox research team completed 89 modified pile sort interviews (30 agricultural safety personnel; 25 dairy farm parents; and 34 beef farm parents). Ten additional farm parents (5 dairy; 5 beef) are scheduled for early in year 5.

Alongside recruitment and data collection efforts, the project team also advanced several data analysis components of the project. A thematic analysis of initial interviews with agricultural safety personnel is nearly complete. The question "What constitutes an ideal childhood" prompted a quantitative text analysis paired with thematic analysis of beef farm parent, dairy farm parent, and safety person responses. We undertook a quantitative content analysis of interview data. This analysis related sources of safety information used by parents to those sources of safety information which safety persons think farm parents are using.

The Farm Kid Paradox team published a qualitative analysis of initial interviews with dairy farm parents. One of the primary findings of the paper was that dairy farm parents understood the intertwined risks and benefits of livestock-related work. Furthermore, they perceived the benefits of livestock-related activities to be nonfungible whereas risk exposure was independent of farm life and tasks. Two academic conference presentations based on the Farm Kid Paradox project were given during the last year. The first, at the Midwest Rural and Agricultural Safety and Health (MRASH) conference discussed the results of the free-listing activities completed as a part of the initial interviews with dairy farm parents. The second presentation was given at the Society for Applied Anthropology (SfAA) annual meeting and involved preliminary results of the pile sort activity.

Next year, Farm Kid Paradox will complete all pile sort interview activities. Upon completion of pile sort activities, the project team will develop safety messaging recommendations to present to farm parent focus groups and agricultural safety personnel for feedback.

Child Farm Injuries are Never "Accidents"



Barbara Lee, PhD, Marshfield Clinic Research Institute. Christopher Benny , Co-PI

This year our staff made a major commitment to push for a terminology shift away from "accidents" when describing childhood agricultural injuries and deaths. We know nearly all traumatic injuries are predictable and preventable. In contrast, the word "accident" suggests a random, unforeseen "act of God." Our goal is to be a lead organization that influences national awareness about the impact of NOT referring to events as "accidents." We have ensured our printed resources, website, social media, and presentations use descriptive terms such as tractor rollover, grain suffocation, farm-related drowning, and other words explaining what occurred.



In addition to monthly staff discussions and project planning, we had several tangible outputs this year: 1) published editorial in Journal of Agromedicine (https://www.tandfonline.com/doi/full/10.1080/1059924X.2024.2311050); 2) survey of agricultural journalists' perspectives on terminology shift; 3) posters at the 2024 ISASH conference and MRASH convention; and 4) presentation for the NORA AgFF Sector Council.

Our expectation, based on a terminology shift in other industries, is that adults will recognize and adopt measures to protect working and non-working children from known hazards and dangerous environments. Further, we hope that in cases of neglect or reckless endangerment, formal investigations and follow-up will hold adults accountable for changing their unsafe practices that put children at risk.



2024 Peer-Reviewed Publications

Becot FA, Inwood SM. Children needs and childcare: an illustration of how underappreciated social and economic needs shape the farm enterprise. Agric Hum Values. 2024. https://doi.org/10.1007/s10460-024-10594-z

Becot, F. and Inwood, S. Farm families' challenges meeting their social and economic needs and the consequences on the farm business: the example of childcare. Agriculture, Food, and Human Values. https://doi.org/10.1007/s10460-024-10594-z

Becot F, Inwood S, Budge H. "The Source of All My Joy and All My Stress": Children and Childcare as Underappreciated Sources of Stress that Affect Farm Women. J Agromedicine 2024.doi.org/10.1080/1059924X.2024.2427800

De Moura Araujo G, Khorsandi F, Fathallah FA. Limitations in the field of vision of young operators of utility all-terrain vehicles. Journal of Safety Research. 2024; 88:303-312. doi:10.1016/j.jsr.2023.11.017

Hanschu JA, Bendixsen CG, Koshalek K, Klataske RT, Durbin TJ. Risk evaluations of child-livestock interactions by dairy farm parents. Journal of Rural Studies. 2024. 108. doi:10.1016/j.jrurstud.2024.103285.

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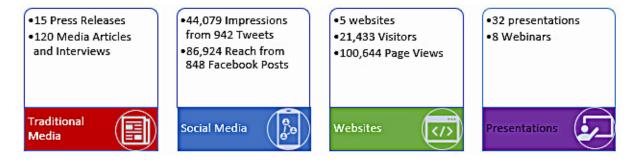
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Addtional Outputs:



NCCRAHS personnel would like to express gratitude for the people and organizations who continue to collaborate, participate, share, use, and fund our work and resources to keep children safe in rural and agricultural environments. NCCRAHS is housed within the National Farm Medicine Center, a department of the Marshfield Clinic Research Institute, part of the Marshfield Clinic Health System located in Marshfield, WI.

Graphic illustrations are copyright protected as part of the Hired Agricultural Youth Work Guidelines. A special thanks to Ben Hackney and his team at Hackney Design for creating the images.

NCCRAHS is funded through a cooperative agreement with CDC/NIOSH, with additional support provided by the Marshfield Clinic Health System, private foundation grants, and donors.



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