



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

ANNUAL REPORT

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SECTION I: Center Overview

Center's Summary

The National Children's Center for Rural and Agricultural Health and Safety (NCCRAHS) was established in 1997 and has a long history of developing, testing and sustaining projects associated with children who live on, work on, and visit farms and ranches across the U.S. Unlike the regional NIOSH Agricultural Centers, this Center has a national focus with a national network of partners and project collaborators. The Center's major emphasis is on national leadership and knowledge mobilization.

Relevance

Injury data collected by NIOSH from 1998 – 2012 revealed demographic and injury details as well as trends over time. The rate of non-fatal childhood agricultural injuries per 1,000 farms (includes youth who live on, visit, and are hired to work on farms) declined by 61% since 1998. While overall rates are declining, non-fatal farm injuries among children under 10 years are increasing, and the majority of injuries occur to non-working children. At the same time, available data indicate that the number of childhood agricultural deaths are remaining constant at about 105 each year.

The Center's work continues to be highly relevant as we build upon scientific evidence regarding the most preventable injuries and the most effective interventions. A core issue with which we deal is the "culture" of agriculture and the prevalence of injuries among hard to reach populations such as Anabaptist communities, children of immigrant workers, and beginning farmers and ranchers who were not raised on farms.

Our Center's theme is "strengthening public-private partnerships to address childhood agricultural injury prevention." With a modified Socio-Ecologic Model as our guide, our projects are striving to engage the organizations and businesses that influence the business of farming. The higher "sphere of influence" is likely to influence adults' decisions and social norms associated with children's roles and presence in agricultural settings.

Key Personnel:

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Center Web Link: <http://marshfieldclinic.org/nccrahs/>

SECTION II: Highlights of Projects with High Impact

Center: National Leadership and Continuous Improvement

Since its establishment 18 years ago, NCCRAHS has evolved and matured to become the leading program addressing childhood agricultural injury prevention in the U.S. NCCRAHS has been a catalyst for positive change leading to a notable reduction in non-fatal injuries. NCCRAHS provides direction for national initiatives and guidance for efforts undertaken by other organizations. Center leaders serve on multiple national steering committees and participate in all NIOSH Agricultural Center cross-center activities.

Our Center remains the hub for safety guidelines associated with youth working on family farms, youth employed in agricultural work, children playing on farms, safe agritourism operations, and media/journalist relations. Additionally, the Center is the home base for public awareness campaigns to Keep Kids Away from Tractors and operate ATVs safely. Furthermore, the Center has been responsive to the needs of vulnerable populations including migrant/immigrant/seasonal workers with language limitations, Anabaptists, African Americans, native Americans and Hmong populations. More recently, we are proactively involving other youth-related organizations, agricultural insurance companies, bankers and the media in promoting childhood agricultural safety.

While NCCRAHS's external reach and influence continues to expand, our internal systems are continually refined to increase efficiencies and reduce costs. The longevity of core leaders, combined with junior staff ensures we build upon past successes and focus on only the most pressing issues, while testing new approaches and mentoring future leaders. Another internal improvement addresses the financial perspective. NCCRAHS is able to access resources, services and staff expertise across other programs within and external to Marshfield Clinic Research Foundation, enabling cost-sharing from several private sector funding sources.

With many creative and cutting-edge features now underway, our robust leadership team, committed staff and solid infrastructure supports the Center's updated theme of *strengthening public-private partnerships to address childhood agricultural injury prevention*.

Administrative and Planning Core

Description: The goal for the Administrative and Planning Core of the National Children's Center for Rural and Agricultural Health and Safety is to set strategic directions and provide a framework that will support, guide, and monitor the progress of four core areas: 1) Evaluation; 2) Outreach, Education and Translation; 3) Prevention, Intervention and Translation; and 4) Research. Guidance for administrative efforts is provided at multiple levels. The Internal Advisory team includes core leaders, principal investigators, and Marshfield Clinic Research Foundation (MCRF) administrative leaders. The Center stays on track scientifically and theoretically via external scientific advisors linked with each project. Comprehensive evaluation is ensured by the UW-Madison evaluation team, while pragmatic recommendations come from colleagues in the Childhood Agricultural Safety Network, the Agricultural Safety and Health Council of America, and the NORA Agricultural, Forestry, and Fishing Sector Council. NIOSH advisors keep our activities connected with relevant NIOSH intramural and extramural endeavors. The Administrative Core is responsive, flexible, and innovative in addressing emerging issues facing agricultural communities along with priorities set forth in the 2012 Blueprint for Protecting Children in Agriculture.



Scientific Advisor's Meeting, Madison, WI – December 2014 Front Row from Left: B. Lee, J. Kilanowski, B. Marlenga, M. Keifer, A. Liebman, J. Hogle. Back Row from Left: S. Campo, T. Ellis, C. Bendixsen, P. Moberg, R. Steiner, S. Heiberger, P. Gunderson, K. Westaby, J. Ellefson, R. Leconuet, R. Rautiainen, K. Anger, D. Murphy, D. Schwebel, D. Hard, D. Rohlman, K. Silk, M. Salzwedel.

Outputs and Impacts

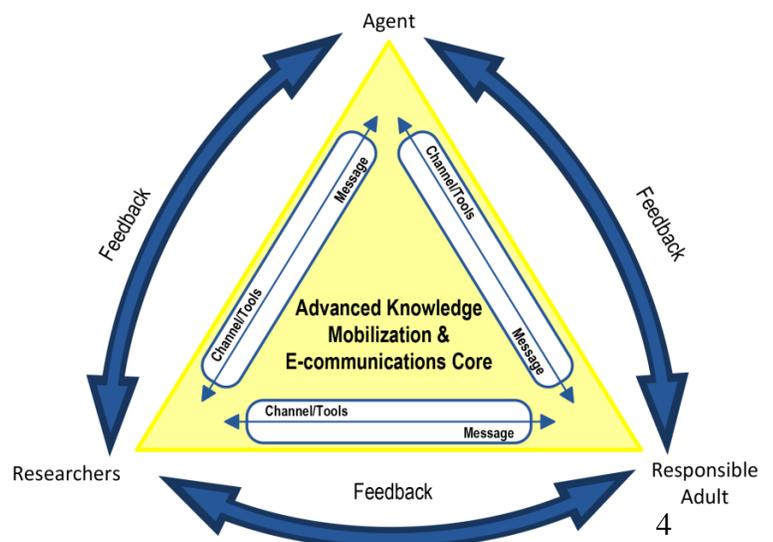
- Meetings with external advisors, other ag center directors, ASHCA/NORA meetings and participating as advisors and in coalitions helped the Center to keep abreast of new developments and emerging trends in the field, disseminate new research findings and resources, and to expand partnership opportunities, all of which impacts NCCRAHS and those with whom we interact. Examples include:
 - Barbara Lee and Matthew Keifer met with NIOSH AgFF and ERC Leaders and Ag Center Directors in March 2015. Conversations led to areas for collaboration and a visit from Dr. Max Lum, NIOSH Communications Advisor, to augment NCCRAHS' social media efforts.
 - Barbara Marlenga participated in SAY National Steering Committee in March 2015 and gained insights into contacts for other projects, e.g. USDA funded work.
 - Barbara Lee serves on the NORA AgFF, with a meeting in April 2015 to represent children's issues in the National Occupational Research Agenda.
 - Marsha Salzwedel serves as an agritourism safety advisor on one Board and two Associations; and serves on a grain safety Advisory Board.
 - Barbara Lee serves on three National Steering Committees, is the Associate Editor of the Journal of Agromedicine, and served as a NIOSH Grant Reviewer.
 - Scott Heiberger serves on the Board of Directors of the International Society for Agricultural Safety and Health (ISASH) and is Managing Editor for the Journal of Agromedicine.
 - Barbara Lee is completing a term as Administrative Director of the Agricultural Safety and Health Council of America; an agricultural industry-led non-profit organization of which NIOSH is a charter member.
 - Matt Keifer is senior editor of Journal of Agromedicine and serves on multiple national advisory boards for agriculture, environmental health and pesticide safety.

- NCCRAHS Scientific Advisors' Meeting was held in December 2014 in Madison, WI to aid in launching projects and help guide the Center-wide endeavors, including comprehensive evaluation. The meeting also provided both internal and external staff and advisors with information about each of the projects and potential opportunities to work together.
- The Childhood Agricultural Safety Network (CASN) met in-person in June 2015 with 45 attendees. "Round Robin" reports highlighted many areas of common interest, leading to shared resources to minimize duplication of effort.
- Membership of the CASN group increased to over 50 organizations, and now includes insurance providers, ag educators and others. Messages are sent to the CASN group regularly (at least weekly, often daily), which include child ag injury incident notifications.
- Project staff submitted written comments to the NIOSH docket regarding ag injury surveillance and shared with the CASN group, resulting in additional submissions.
- Administration staff convened monthly staff meetings and conducted budget reviews to ensure projects are on track for timely completion. These meetings allowed staff to work more effectively with the evaluation team to fine tune the evaluation database.
- NCCRAHS promoted innovative interventions and new partnerships, with an emphasis on underserved populations, via the Mini-Grant program. Three mini-grants were awarded in FY15 and another two in FY 2016. A tracking chart is used to document key results of all projects in one location.
- Numerous presentations were given and several publications were written and disseminated throughout the year by NCCRAHS staff to inform and educate the public. Many additional communication outputs are described in a later section of this report.
- Feedback from colleagues attending various conferences, confirms that NCCRAHS' resources are highly valued and are being used to implement safety strategies on farms.

Advanced Knowledge Mobilization and E-communication

Project Description: The "Advanced Knowledge Mobilization and E-communications (AKME)" project, directed by Matt Keifer, MD, is a centerpiece for the overall Center because the AKME health communications, marketing, and technology specialists facilitate messaging, packaging and dissemination of information into, out of, and across all projects. This team collaborates with Center-wide and external partners to identify, design, utilize and evaluate appropriate communication approaches for their multiple purposes.

With cutting-edge technologies, this project facilitates timely and culturally-appropriate communication strategies,



including social media, virtual meetings, and mobile applications. The AKME project also serves as an incubator for building capacity by mentoring the next generation of agricultural safety and health professionals.

Outputs and Impact:

Advanced E-communication into Projects

AKME worked closely this first year with all Children's Center Principal Investigators to facilitate communication within and across the projects. We started by surveying Investigators to determine their preferred communication methods with their teams, their agents of influence and how their agents might communicate with other responsible adults to protect children on farms. AKME provided 16 consultations to the 6 different projects and facilitated: 3 survey refinements with national and state organizations, 2 evaluations of presentations, a report on survey results for a national mutual insurance company organization, initial development of a geospatially grounded mobile app for the Farm/Agriculture/Rural Management – Hazard Assessment Tool (FARM–HAT), a mobile app for photo releases, a mobile app for agricultural injury news, 2 website upgrades, an agritourism health and safety content calendar, a structured photo library to share culturally relevant project photos, and new communication technology exploration.

New and Current Digital Communication Strategies

The AKME team met weekly to analyze new communication technologies to support Center projects. AKME will pursue the exploration of the uses and the mining of social media. Social media, including outlets such as Twitter, Facebook, Snapchat, Blogging, and others represent a window into the social conversation that is carried on about virtually any phenomena that impact the population. AKME recognizes the potential distributive and investigative value of new means of communication. AKME has, since its start, been using social media to distribute information about the NCCRAHS activities and achievements. We have also begun exploring the capabilities of social media mining tools that can qualitatively (and hopefully someday quantitatively) measure the impact of farm related events, information and innovations. Some of the current social media activities this grant year included:

- 77 Facebook and twitter posts
- 517 post "likes"
- 1666 YouTube video views
- 2599 YouTube minutes watched
- 1:33 minute YouTube video average watch duration
- 13 Blog features
- 24 Pinterest pins

Whether we are analyzing social media crawling to find out what agricultural health and safety issues are trending, new social media platforms, new online presentation software, ways to stream agricultural health and safety media and or new digital communications, we are continuing to be cutting edge with our knowledge mobilization and e-communication.

AKME Dissemination

AKME disseminated effective broad communication strategies, specific techniques and channels to other NIOSH-funded Agricultural Centers and the national agricultural health and safety community.

In September 2015, the Children's Center hosted a visit by Dr. Max Lum, National Institute for Occupational Safety and Health (NIOSH) senior advisor to the director on e-communication and research translation. Dr. Lum provided training on health communication theories, developing effective messaging, digital strategies, communication trends, the evolution of mobile and how to set up a Wikipedia page. Invitations were sent to all the Ag Centers and other agricultural health and safety professionals. Thirty professionals attended presentations on theories, effective messaging, digital strategies and communication trends. Sixty-five attendees watched the evolution of mobile, and 13 attendees were trained on how to set-up Wikipedia pages. In addition 90 people viewed the presentation via webinar and 5 of the 10 NIOSH Ag Centers participated.

Dr. Lum introduced the importance of Wikipedia presence and Altmetrics, (a very broad group of metrics, capturing various parts of impact a paper or work can have), both of which our agricultural center and others will be focusing on during this upcoming year to drive and measure impact of our work.

The Center as a Credible Resource

The Center continues to be a credible resource for childhood agricultural injury prevention on farms in the U.S. providing technical assistance, disseminating newsletters, public awareness through traditional media and campaigns, maintaining dynamic websites and providing professional seminars/presentations/training/resources.

Over the past year, the Children's Center has provided 86 technical assistance requests for materials, professional consultations, expert presentations and media interviews for topics such as childhood agricultural injury, general agricultural health and safety, health and safety in agritourism and our North American Guidelines for Children's Agricultural Tasks (NAGCAT).

The Children's Center publishes new and updated material every year. One staple is our *NURTURE* newsletter which shares information regarding major childhood agricultural health and safety programs occurring across North America and promotes collaborations between researchers and the farming community. Prior to each newsletter preparation, stories and announcements are solicited from all NIOSH Agricultural Centers, the CDC Injury Prevention Centers and non-government organizations addressing child safety, youth programming and farm safety. *NURTURE* was sent in print copy to 100 recipients and posted online to facilitate information dissemination. It is now disseminated almost exclusively via email list serves to 450 people and 300 agricultural communicators (e.g., media, public relations professionals).

We also published the 2014 *Year in Review* (20 pages), summarizing the major projects, publications and presentations conducted by the Children's Center core staff. The *Year in Review* is e-mailed to nearly 3,500 safety professionals, media, educators, insurers, bankers, lawmakers, funders and other potential safety influencers.

In addition, we e-mailed 11 news releases to our communicator contacts. In order to maximize the impact of our releases and better target them, we refreshed and reorganized the contacts list residing in the TA database, creating categories for mainstream and agricultural media (broadcast and non-broadcast); agricultural communications teachers at universities; and ag communications professionals.

Traditional Media

Working behind the scenes, AKME used its relationships with agricultural and mainstream traditional media to shape reporting and insert safety messaging. Examples include the Minneapolis Star Tribune's "Tragic Harvest" series published in October 2015. The reporter

spoke multiple times with team members as he elevated ag safety to a rare position on the front page. Subsequent to publication, AKME brokered a deal allowing RFD TV to post and re-broadcast video portions of the series, thus bringing the safety discussion to an entirely new audience. Another behind-the-scenes example: AKME was invited to advise on, and write content for, a special safety section in the Wisconsin State Farmer weekly newspaper published during National Farm Safety and Health Week. They even gave us an opinion column. The combined earned-media value of that space was \$2,000-plus. We continued to see positive results from the news releases we send out. One release generated a call from the Associated Press, which then used Marsha Salzwedel as the key source in an agritourism safety story picked up by the New York Times, ABC News and dozens of other outlets large and small. The NCCRAHS tradition of working with media as safety partners dates to the NIOSH-funded Journalists Workshops 2004-2008. The Workshop concept resurfaced this past summer when the Iowa Center for Agricultural Safety and Health used NCCRAHS' how-to booklet to shape its own ag safety workshop for journalists. The Iowa workshop sparked a three-center project (currently being written) that will propose using traditional and new media to "Tell the Story" of ag safety through voices of those who have survived serious injury.

Traditional media metrics

- Google Alerts and Meltwater searches are in place and 4 messages were repackaged
- 11 news releases sent out
- 9 newspaper articles referencing NCCRAHS
- 4 magazine/trade journal articles referencing NCCRAHS

Websites

The National Children's Center hosts five websites that are continuously upgraded to provide relevant information. The general site gives an overview of many program initiatives and provides downloadable public education resources and professional reports (www.marshfieldclinic.org/nccrahs). The NAGCAT site (www.nagcat.org) is the primary means for disseminating all resources related exclusively to youth working on farms. The Childhood Agricultural Safety Network (CASN) also has a dedicated website (www.childagsafety.org) that is managed by our staff to host campaigns to Keep Kids Away from Tractors and ATV safety. Our fourth website was built for agritourism operators and hosts health and safety walkthrough information, signs and resources for operators to keep visiting children safe (<http://www.safeagritourism.com/>). Cultivate Safety (<http://cultivatesafety.org/>) is our newest site, built for farm parents, with injury prevention information, work guidelines, prevention briefs and safe play area guidance for parents with children ages 0-17 years. Our websites experience continual growth in content and a steady increase in visitors from all over the world. Here's how our general Children's Center website performed over the past year:

- 4897 website visits
- 3772 unique website visitors
- 2733 resource downloads

Resources

- 7200 hardcopy resources were shared on behalf of the Children's Center.
- 84 health and safety resources were shared electronically with 500 Progressive Agriculture Foundation instructors to teach kids about farm safety

Strengthening Organizational Capacity

Project Description: "Strengthening Organization Capacity to Prevent Childhood Agricultural Injuries," led by Barbara Lee, PhD, uses marketing approaches and principles of corporate social responsibility. The project takes advantage of current relationships with organization executives to reach into networks of leaders across domains of youth serving organizations, insurance companies, agricultural media, and agricultural bankers, to increase the number and spectrum of groups that incorporate a focus on childhood farm safety into their ongoing systems, policies and communications with constituents.

Outputs and Impact:

- Interactions were held with 4 insurance companies; meetings have resulted in increasing the companies' awareness of child agricultural injury prevention (CAIP) and subsequent use of NCCRAHS resources. Rural Mutual of Madison, WI has developed a program to address CAIP, and is willing to serve as a model for other insurance companies. A representative from Rural Mutual shared Farm Safety Program with other Farm Bureau companies, and 9 states are now interested in working with us to set up a similar farm safety program. Country Financial Insurance of Illinois has been utilizing NCCRAHS resources as well.
- To identify current policies, practices and priorities of insurance companies that are members of National Association of Mutual Insurance Companies (NAMIC), websites were reviewed and discussions were held with the executives.
- A survey was conducted with NAMIC members to help us understand what, if any, policies and practices the member companies have regarding CAIP. Results from 96 completed surveys provided valuable insights and served as a framework for creating an illustrated report intended to motivate agricultural insurers to get more involved in promoting CAIP.
- Two presentations were given at the 2015 NAMIC Ag Risk Inspection School featuring NCCRAHS resources, as well as topic and contact information for the other NIOSH Ag Centers. Eighteen new contacts made at NAMIC meeting will be followed up with survey results and more safety resources and information.
- Interactions with companies and organizations have yielded:

- Rural Mutual (largest farm insurer in Wis.) added a CAIP section to their website, using NCCRAHS content. Interview time was given for their child ag safety video, and NCCRAHS staff continue to work with Rural Mutual on recommendations for next steps, including resource distribution, and coordinating conference attendance.



- Recommendations to NAMIC included utilization of suggested resources by both insurance and their clients, posting of Cultivate Safety and “Keep Kids Away from Tractors” posters in offices, and partnering with farm safety organizations to gain information and disseminate resources. Project staff are still reviewing and analyzing the data from the NAMIC survey, and once that is complete, additional recommendations will be generated.

Protecting Children While Parents Work

Project Description: This project is co-directed by Amy Liebman and Barbara Lee. It aims to increase the engagement of agribusiness leaders in facilitating availability of and access to off-farm child careservices for migrant and immigrant agricultural workers with children younger than 12 years. It is based upon the successful RCMA model in Florida and has confirmed the participation of the RCMA Executive Director, the Executive VP of National Association of Agricultural Employers and the federal Director of the National Migrant and Seasonal Head Start Program.



Outputs and Impact:

- The project team initiated contact with agribusiness organizations, and has begun building contacts within this community as demonstrated by our recognition in the Ohio Produce Growers and Marketers Association newsletter. This initial contact will be vital as we work towards our aim of identifying effective messaging strategies and ultimately raising awareness among this group.
- Staff presented information on the project to: a) agribusiness leaders at the National Council of Agricultural Employers (NCAE) national conference, b) the National Youth Farm and Ranch Safety Symposium, c) the Board of Directors of the National Migrant and Seasonal Head Start Association at their annual meeting in June 2015. Additionally, growers were reached through a description of the Protecting Children project that was circulated in the Ohio Produce Growers and Markers Association newsletter.
- Staff collaborated with Washington Growers League and their ASHCA grant to assess safe playzones for children of hired farmworkers; and are using those project results to develop a motivational report for agribusiness leaders regarding their role in supporting off-farm childcare services.
- Several site visits were conducted, allowing project staff to better understand the best practices of model childcare centers. Informational interviews and focus groups held during the site visits have helped the team to better understand barriers to childcare services from the perspective of agricultural worker parents, agribusiness leaders, and childcare providers. The site visits and interviews also helped the team gather a



compilation of best practices for overcoming these barriers as well as developing and promoting effective strategies for migrant childcare.

- Site visits were conducted at:
 - East Coast Migrant Head Start Project site in South Bay, FL in February 2015. Project staff met with direct service childcare providers as well as administrators and toured the facilities.
 - Redlands Christian Migrant Association in February 2015. Staff met with childcare providers, toured the daycare center facility, and visited multiple family daycare homes.
 - Community Action Partnership of San Luis Obispo County (CA) in April 2015. Visit included a tour of two daycare centers and multiple family daycare homes. Staff met with family care home providers, regional coordinators, and the executive director of the agency.
- The team performed telephone interviews with agencies that provide childcare and other services to agricultural worker parents. Informational interviews lasting approximately one hour were conducted with:
 - United Migrant Opportunity Services, a Wisconsin-based organization serving migrant and immigrant families.
 - Agribusiness Child Development, a New York-based organization that works with local childcare providers and growers to better serve agricultural workers and their children.
 - Together Mentoring Communities, a multi-state agency offering a range of services including childcare. Project staff spoke with a representative of the organization who is based in Texas.
 - East Coast Migrant Head Start Project, which serves agricultural worker parents and children across multiple states. Staff spoke with administrators at this agency.
- An IRB update was filed for approval of conducting focus groups with providers at childcare centers and parents who use their services. Approval was received for focus group and interview informed consent information sheets, discussion guides and question guides for parents and childcare providers. The IRB waived documentation of consent for the study (still required to obtain verbal permission).
- The project has involved the development of a number of tools that have been used to gather information from parents and industry leaders. This includes a survey targeting growers which was administered at the NCAE meeting in February 2015, and a focus group guide that was used to facilitate a discussion at the June 2015 National Migrant and Seasonal Head State Association meeting. Both meetings took place in Washington, DC.

Understanding Beginning Farmers and Ranchers

Project Description: This project, directed by Casper Bendixsen, PhD, strives to understand the attitudes of the millennial generation, non-traditional family farmers whose livelihood has been launched by USDA-funded support. The team is comparing and contrasting demographics and practices of African Americans, Native Americans, Hispanics and other unique groups in order to guide future culturally relevant interventions addressing children and farm safety.

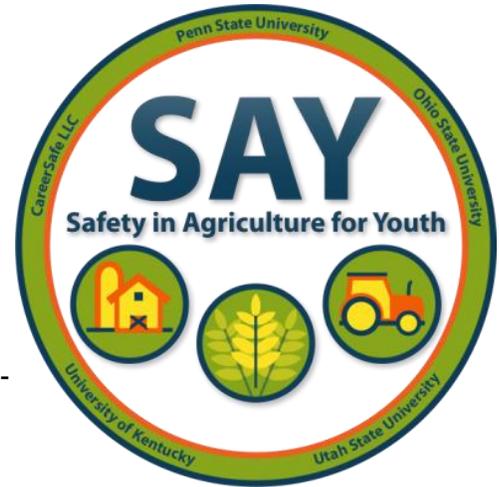
Outputs and Impacts:

- The IRB approval for the project was obtained.
- The letters of invitation have been received from three study communities, two of which have become pilot project recipients.
- The PI and colleagues attended 4 national/regional meetings
 - Midwest Organic and Sustainable Education Service (MOSES)
 - National Women in Agriculture (NWIAA) – African American women
 - Federation of Southern Cooperatives, participated twice – African American farmers
- The project team attended 5 community meetings with the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), a Native American group. More community meetings are scheduled for this year with the National Women in Agriculture Association (NWIAA) and MOSES.
- The PI attended the MOSES Conference in La Crosse, WI in February 2015. The MOSES Conference is the largest event in the U.S. about organic and sustainable farming. We were hoping to recruit farmers and MOSES as an organization to the BFR project and to submit a pilot project in 2015.
- The PI presented at the Annual Meeting of the Society for Applied Anthropology in Pittsburgh, PA, in March 2015. The title of the presentation was Agricultural Health and Safety: The Cultural Approach.
- The PI presented at a conference entitled Moral Cultures of Food: Access, Production, and Consumption from Past to Present in Denton, TX. The presentation was titled: Intervention through Inquiry: using ethnography to promote safe agricultural practices among new and beginning farmers and ranchers.
- The PI spoke to GLIFWC in a conference call in August 2015 to plan a future site visit.
- The PI attended the International Society for Agricultural Health and Safety/Childhood Agricultural Safety Network (ISASH/CASN) meeting in Bloomington, IL in June 2015, giving a presentation about beginning farmers and ranchers.
- The PI conducted participant observation at the Georgia Women in Agriculture Association (GWIAA) North American Guidelines for Children's Agricultural Tasks (NAGCAT) Workshop at the NWIAA Annual Meeting in Knoxville, TN in April 2015. The PI met with a GWIAA representative and observed their pilot project of workshopping the NAGCAT Guidelines. The PI also had the opportunity to attend NWIAA conference events.

- The PI conducted participant observation at the GLIFWC Wardens and Canoe Instructor Training in Mt. Pleasant, MI in June 2015. He completed ACA canoe instructor training level 1 with GLIFWC wardens and the ricing cultural advisor.
- Kathrine Barnes, project manager, conducted fieldwork at Monocle Lake, MI in September 2015. She visited the GLIFWC youth training on canoeing and wild ricing and observed how they meld traditional cultural beliefs with canoe safety.

Sustaining the SAY National Clearinghouse

Project Description: In 2013, in response to the agricultural community's negative response to updated regulations for child labor in agriculture, the USDA awarded funds to establish a clearinghouse for educational resources. The Safety in Agricultural Youth (SAY) clearinghouse, directed by Dennis Murphy, PhD, is now under construction. The goal of this project is to operationalize an infrastructure that ensures public access to an evidence-based and technologically appropriate safety and health curriculum for youth working in agriculture. This project is evaluating the roll-out of SAY at a regional level, then, based upon results, generate recommendations for SAY's modification, termination or long term sustainability.



Outputs and Impact:

- Meetings and conference calls were held with the National Steering Committee about the SAY National Clearinghouse. Discussions centered on identifying gaps in youth safety curriculum, strategies for instilling safety in youth training and reaching migrant populations, and recommendations to USDA-NIFA for continuation of SAY Clearinghouse and youth safety efforts.
- A listserv has been developed and promoted that serves as a distribution list to communicate new products and changes in the Clearinghouse. Quarterly newsletters have been sent through this listserv to stakeholders and other interested parties.
- The curriculum rubric and CAST (Curriculum Alignment Submission Tool) has been developed and tested with several full curriculums as well as several other supporting resources. A subcommittee of the Curriculum Alignment Stakeholder Group has met and determined that the SAY Curriculum Submission Tool is a valid instrument in aligning a curriculum with the AFNR Cluster Standards.
- A youth safety symposium was conducted where stakeholders discussed various aspects of youth safety priorities.
- Modifications to the CAST is underway to reflect changes in AFNR Standards.
- Project staff developed a working partnership with Marshfield to develop and administer the FARM-HAT app.
- Project staff developed and made available a PowerPoint presentation on the SAY Project that stakeholders and educators could use in venues where it was not practical

for us to physically attend. This presentation was used by staff at three webinar events, one face to face meeting and by three stakeholders/educators at their local events.

- A annual report was developed and is currently being distributed to stakeholders and through various conferences and other public venues (FFA Convention).

Filling Gaps in Child Ag Injury Data

Project Description: This project, directed by Barbara Marlenga, PhD, aims to explore the most promising, existing public health surveillance systems to determine their utility for assessing the health and safety of children in agricultural settings. The focus of the project is on determining how these existing surveillance systems can help to “fill in the gaps” by identifying injury events missed by other methods and/or providing more details about risks, activities, and circumstances surrounding child agricultural injury events. This information, in turn, can help to guide our prevention efforts.

Outputs and Impact:

- Staff received a mock dataset in Fall 2014 (Surveys were still being completed).
- A project meeting was held in Toronto in April 2015: reviewed issues with mock dataset, drafted analyses plan for 2 manuscripts using the HBSC data (one profiling the farm social environment and relationship with youth injury and one characterizing the mental health of farm children; journals of choice to be determined).
- The team received the HBSC dataset in July 2015 and have made good progress in understanding the strengths and limitations of the dataset and reviewing data summaries of the farm cohort within the survey.
- NEMESIS datasets for 2009-2012 were obtained; staff are working very closely with data partner to understand dataset.
- The NTDB datasets for 2009 and 2012 were purchased for review by the team.
- The decision was made to work with these 2 datasets initially, due to the complex nature of the dataset (millions of files, incompatible formats, missing variable labels, lots of missing data, trying to identify the best way to identify child farm injury cases through combinations of variables, etc.).
- “Basic elements” of a surveillance system were drafted to use as standard criteria for evaluating each dataset. The draft of the “basic elements” was sent to the co-investigators, consultant, and scientific advisors for feedback. Once finalized, these standard criteria will streamline our evaluation of each of the surveillance systems we review.

Young Workers' Employers and Supervisors

Project Description: This project is co-directed by Diane Rohlman, PhD and Shelly Campo, PhD with a goal to develop, evaluate, and disseminate an online training for supervisors of young agricultural workers. This project, which includes a randomized controlled trial, blends the elements of total worker health with agricultural safety. Content on substance abuse, fatigue and cell-phone use will augment existing safety resources and a model policy for employers. Results will inform its impact on both English- and Spanish- speaking supervisors.



Safety Guidelines **Hired Adolescent Farm Workers**

Outputs and Impact:

- Project staff have drafted the training development and the integration of the *Safety Guidelines for Hired Adolescent Farm Workers (SAGHAF)* with health behaviors and policies.
- January 2015: Incorporated Safety Guidelines for Hired Adolescent Farmworkers (SAGHAF) and North American Guidelines for Children's Agricultural Tasks (NAGCAT) guidelines as part of case study activity addressing youth working in agriculture in graduate class at the University of Iowa, Rural Health and Agricultural Medicine (OEH 6110)
- April 2015: Young worker project was described as part of a Total Worker Health presentation at the 17th Annual Occupational Health Symposium on Total Worker Health sponsored by the NIOSH funded Healthier Workforce Center for Excellence and the Heartland Occupational Health and Safety Education and Research Center and WorkSafe Iowa.
- May 2015: Academic presentation on Total Worker Health which described young worker project to faculty and researchers at Washington University.
- June 2015: Incorporated Safety Guidelines for Hired Adolescent Farmworkers (SAGHAF) and North American Guidelines for Children's Agricultural Tasks (NAGCAT) guidelines as part of case study activity addressing youth working in agriculture in graduate class through the Great Plains Center for Agricultural Health: Agricultural Medicine: The Core Course.

Evaluation Core

Project Description: The Evaluation Core, directed by Paul Moberg, PhD, guides documentation and analysis of the success of the National Children's Center for Rural and Agricultural Health and Safety and its projects in achieving objectives for research, education, and public service. Evaluation data provide empirically-driven feedback to guide decision-making, policy formulation, and improvements at the center, all of which are dedicated to improving the safety and health of children who live on, work for, or visit agricultural settings.

Outputs and Impact:

- At the Center-wide meeting in December 2014, the Evaluation group presented details on the Center-wide evaluation plan. Project PIs also discussed evaluation questions and were encouraged to review logic models.
- The Evaluation group completed hiring in January 2015 to develop a team of five evaluators providing a total of 0.85 full-time equivalent effort.

- In collaboration with the Biomedical Informatics Research Center at MCRF, the Evaluation group adapted a FileMaker Pro database from the Pacific Northwest Agricultural Safety and Health Center to capture quantitative and qualitative evaluative data from all Center projects. The new NCCRAHS Evaluation Database collects information about progress on specific aims, activities, products, outcomes, and impacts.
- Between April and May 2015, Evaluation staff reviewed all projects for potential process and outcomes indicators and met at least once with each project PI to review indicators and ensure usefulness of data requested and buy-in to ensure timely submission of data for the Evaluation Database. Based on those meetings, some changes to the database were subsequently made, and instructions on the use of the database were written. Evaluation staff provided feedback to each PI and their staff regarding database entry in order to better document evaluation indicators. In August 2015, data were pulled from the database and an initial report was drafted. Overall, database development and refinement efforts are leading to better collection and reporting of impact.
- The Evaluation team is assessing the various uses of the database with an eye to determining what important information may still be missing from the database and how best to capture and utilize that information. The team used the database information to provide PIs with draft reports for federal reporting purposes.
- The Evaluation team has used the meetings with NCCRAHS managers and PIs to begin discussion of additional methodologies needed to answer evaluation questions not captured by the database. We meet with the Administrative Core to talk about our work and have regular calls with the PIs and staff to keep abreast of developments.
- The PI participated in the 'ECO' calls that bring together evaluators from all the Centers.
- In September a formal request was submitted to NIOSH to transfer PI status from Paul Moberg to Sara Lindberg, PhD because Dr. Moberg is transitioning toward retirement and Dr. Lindberg has assumed some of his duties. Dr. Moberg will be available to assist with this transition for the next year.

Summary

As we conclude the first year of this five-year Center cycle, most projects are right on schedule and strategies are consistent with those approved in the original proposal. Spending was within budgets with a modest amount of funds likely to be requested for carryover. The only significant personnel change is the current transition of Evaluation leader and team member. We are grateful to NIOSH for their continued support of the National Children's Center.