



National Farm
Medicine Center

2016 YEAR IN

REVIEW

RESEARCH

SERVICE

TRANSLATION



OUR MISSION

“The National Farm Medicine Center will be a national resource, conducting high quality research, developing and delivering health and safety information, exploring innovative service models and effecting broad change to improve human health and safety associated with rural and agricultural work, life and environments.”

35 YEARS IN
EXISTENCE

\$3.02 MILLION
FUNDING
IN 2016



Located in
Marshfield, WI

14
on-site
staff

2 agricultural centers funded
by National Institute for
Occupational Safety and Health



SIX EXTERNAL
COLLABORATORS

30 PROJECTS

OUR TEAM

Matthew Keifer, M.D.
Director (through June)

Barbara Lee, Ph.D.
Interim Director,
Senior Research Scientist

Barbara Marlunga, Ph.D.
Research Scientist - Injury
Prevention

Casper Bendixsen, Ph.D.
Associate Research Scientist -
Cultural Anthropologist

Bryan Weichelt, Ph.D.
Project Scientist

Kate Barnes, M.P.H.
Research Specialist

Lori Breitzke
Administrative Secretary

Tammy Ellis
Education Outreach Specialist

Scott Heiberger
Communications Specialist

Emily Redmond
Research Coordinator

Iris Reyes, M.P.H.
Epidemiologist

Yurany Ninco Sanchez, R.N.
Community Outreach Specialist

Marsha Salzwedel, M.S.
Agricultural Youth Safety
Specialist

Marlene Stueland
Center Research Administrator



PROJECTS

NATIONAL CHILDREN'S CENTER FOR RURAL AND AGRICULTURAL HEALTH AND SAFETY (NCCRAHS)

- AgInjuryNews.org
- Childhood Agricultural Safety Network (CASN)
- Farm/Agriculture/Rural Management-Hazard Analysis Tool (FARM-HAT)
- Filling Gaps in Child Agricultural Injury Data
- Grain Handling Safety Coalition via CASN
- Enhancing Supervisors' Skills and Employer Policies to Promote and Protect the Health of Young Agricultural Workers
- Integrating Safety into Agritourism
- Intervention through Inquiry: Understanding Beginning Farmers and Ranchers
- Mini-Grants
- Next Generation of Agricultural Work Guidelines for Youth
- Protecting Children While Parents Work
- Safety in Agriculture for Youth (SAY) (Penn State)
- Farm Injury Cohort Study (U Saskatchewan)
- Strengthening Organizational Capacity

NATIONAL FARM MEDICINE CENTER (NFMC)

- Farm Mapping to Assist, Protect and Prepare Emergency Responders (Farm MAPPER) - Augmented Reality
- Integrated Pediatric Primary Care and Child Farm Safety
- Journal of Agromedicine
- Microbiome of Farm Environment
- Skin Cancer Screening
- Spheres of Influence
- Veterans to Farmers
- Wisconsin Infant Study Cohort (WISC)
- Wisconsin Rollover Protective Structure (ROPS) Rebate Program

UPPER MIDWEST AGRICULTURAL SAFETY AND HEALTH CENTER (UMASH)

- Facilitating Return to Work for Injured and Ill Animal Agriculture Workers
- Quality of Life with Robotic Milking Systems
- Rural Firefighters Delivering Agricultural Safety and Health (RF-DASH)
- Seguridad en Las Lecherias (Safety in Dairies)
- Surveillance of Disease and Injury in Wisconsin Dairy Farmers and Workers
- Telling the Story of Agricultural Safety
- Tickborne Disease Risk for Agricultural Workers and their Families in the Midwest

IN HER BOOTS: BEGINNING FARMERS AND RANCHERS

The stories of many young, beginning farmers begin in cities. Cities are full of demarcated spaces. Walls, chain link fences and doors used to delineate where one space ends and another begins. These city-dwellers-turned-farmers are more likely to be women and minorities, and they are more likely to be operating organic farms. Such farms proffer the idea of sustainability and often involve diversity in crop, small animals, and outputs, including community supported agriculture (CSAs), pasture grazing, and agritourism just to name a few.

I often play the role of a kind of agritourist. As an anthropologist, I go on farms and learn from farmers using the principles of participant-observation. Basically, I do a little of what farmers do, I watch them do it, I talk to them, if only for a little while and I try to understand how farmers actually farm with the goal of keeping them safe. I have been doing this work at various events aimed at female beginning farmers and ranchers to try to assess their attitudes, knowledge, and beliefs about safety. Since many young farmers are at a reproductive age, I am particularly interested in their attitudes regarding safety for children on farms.

Between two such events, I had the honor of meeting close to 100 women, but one woman has stood out in my memory. I met her in conversation late in the afternoon. As the sun glared in from the large barn windows, she described how, after years of working a professional job, she was in the early stages of beginning a farm. She had bought the property and was building a house. She described the site now littered with building materials, construction crews, and their refuse in stark contrast to the picturesque prairie that greeted her when she viewed the property months before. 'It was obvious what I needed to do,' she said. I rack my brain for what could have been so obvious to her. 'What?' I inquire. 'I needed a separate area for my children with all their toys, away from the construction. It's just what makes sense. It will be useful when I have the farm to keep the kids away from the farm equipment.' I told her tractors are a huge hazard to children on farms, responsible for many deaths and injuries. Her eyes widen and her mouth drops open, just a bit. I can read the shock on her sun-warmed face. 'I had no idea. But it makes sense.'

Although new to farming, many women from urban centers enter into the profession with

the logic of city geography and a predilection towards their demarcated spaces. Safe play areas are "just something that makes sense." The woman's words provide hope that the new brand of farming with continued education and awareness will be one that's safer for their children.

BY KATE BARNES



Research Specialist

AGRITOURISM SAFETY

The redesigned "Integrating Safety into Agritourism" website, with mobile-friendly checklists and virtual walkthroughs, was officially unveiled in February. The initiative reflects how farmers prefer to get their information, said Marsha Salzwedel, M.S., Project Manager. Virtual walkthroughs cover 15 key areas including petting zoos, hand washing/restrooms, large animal safety, farmers' markets, food safety and more. Farmers can access the mobile-friendly

checklists on their tablets, fill them out while walking their property, and then save the information for their records. The website also contains information about insurance, along with numerous print-ready resources such as signs, policies, logs and information handouts – all available at no cost. Central Wisconsin developer Matt Pilz was hired to do the redesign. Pilz brought special app development expertise to the project.



RESEARCH PARTICIPANTS – MORE THAN A SUBJECT ID

I had the privilege to organize an event acknowledging the efforts of participants in our Hispanic worker training research project (Seguridad en las lecherías.)

We had asked farmers and workers to perform a year's worth of activities that we think may increase the health and safety on their farms. We're almost done collecting data, and the preliminary results are promising.

As the five-year project comes to an end, my heart is bittersweet. We had our ups — winning an award for our collaborations, deliverables met — and our downs — staff turnover, hours of driving to distant farms and funding uncertainties. Through it all, we forged lasting friendships among staff and participants.

As I do most of my work in the office, it was refreshing to meet some participants in-person for the first time after knowing them only by their subject ID. Then a colleague reminded me that that was likely also the last time I'll see them. And she's right.

It hit me ... is this really it? I pondered this and realized that the project doesn't end just because the grant does. Publishing our results is just the beginning of our responsibility as researchers to give back. Beyond

satisfying funders with our data, beyond the self-gratification of seeing our names in reputable journals, beyond the recognition of colleagues, our main objective is to use our skills to make a positive difference in the lives of those we serve. It's our duty to continue to be the voice of our participants, especially of those who are vulnerable and can only speak in the shadows of anonymity.

I am reminded of the Hispanic farm workers we interviewed in 2012, the results of which we were not able to publish until this year. In order to protect their confidentiality and privacy, we did not keep their identifying information. Our findings showed that their immigrant status is itself a work hazard. They get injured at work but do not report it because they are afraid that their boss will deport them. They live in silent fear every day yet for one afternoon, they had the courage to tell us their stories. (For the full paper, [click here](#).)

I like to think that this paper will someday help improve immigration policies. On an individual level, I hope this moves us to be kinder to our neighbors as it has for me. So to those research participants with which I have had the privilege of working:

Thank you for allowing me to glimpse your world. I am sorry that it took me so long to write your story. You may not know anything about me but you trusted me. We probably won't even know it if we cross paths again in person. You made a difference in my life; I strive to be a better researcher because of you. I hope you know that I did my best to paint the world a picture of what it's like to be in your shoes. At the very least, please know that I heard your voice. May others hear it too and may our combined efforts bring us closer to a bright future.

BY IRIS REYES



Epidemiologist

CHILD AG INJURY FACTS

Among household youth on farms, injury rates increased in the 10-19 age group during the latest reporting period, despite a continued overall decline in the rate of childhood agricultural injuries in the U.S. These trend and others are highlighted in the 2016 Childhood Agricultural Injuries Fact Sheet compiled by the National Children's Center. On average, a child dies in an agriculture-related incident every three days, and 33 children

are injured each day. "There is no central database on childhood agricultural injuries," said Barbara Lee, Ph.D., director of the National Children's Center. "In putting together this fact sheet we draw upon the best available data from a variety of sources."



LITTLE LIVES, BIG PROBLEMS: TOO MANY KIDS DIE ON FARMS

Approximately every three days a child dies on a farm. Hard to imagine, isn't it?

One of my first assignments with the National Farm Medicine Center (NFMC) was to plan the development of an electronic system that would house news clippings data. These were news clippings about children who were injured or killed in farm-related incidents. And we all know that reporters don't publish stories about children that rolled an ankle or broke an arm; they publish the horrific, the unimaginable, and the memorable.

The NFMC has been collecting news reports since the late 1990s. When this project started, binders of paper clippings lined the cabinet shelves and folders of PDFs and scanned clippings saved as images were stored on network drives. The details on how we developed the system (www.AgInjuryNews.org) and established a rules-based approach to classifying and categorizing clippings is a story for another time. What I want to share here is my experience with the project and how it has shaped my knowledge, attitudes, and beliefs about farm safety.

I grew up on a small dairy farm, not far from our offices here in Marshfield, WI. I remember the late afternoons green-chopping

hay and riding along on the tractor with my dad. He would often point to the southwest saying, "We can see the clinic again today." A lot has changed for me and for agriculture since then. Years later, I can climb to the fourth floor of the Melvin Laird Research Center, look to the Northeast, and see our farm's silos standing tall. I can only hope that the lineage of Weichelt farmers that came before me will be proud of the Weichelt name and its contribution to agriculture.

Many news articles offer only a summary of the incident - fatal/non-fatal, time of day, maybe a location. Some articles however, offer a rich description of the circumstances leading up to, and following the event. One article in particular stuck with me. It was lined with vivid details, putting the reader on the scene - details about a young girl whose mother was screaming hysterically as EMTs held her back so that she could not look upon the mangled and bloodied body of her only child. The child would never again help feed the chickens, carry a pale, or dream of her wedding day on the farm. Those parents' lives were forever changed when their daughter's life was forever lost. Every day, every event, every holiday would be a bitter reminder of what could have been.

This story and the many others like it are a reminder that there are dangers in this world, and while we may do everything that we can to protect our children from them, in a moment everything can change. This project and its collection of stories continue to keep me focused on what matters. It has changed the way that I view our farm and my children's role on it.

In closing, I want to thank Dr. Barbara Lee for assigning this project to me. Not only has AgInjuryNews.org become a resource for safety stakeholders nationally and internationally, it has helped shape my research interests and fueled my passion for protecting children in agriculture.

BY BRYAN WEICHELT



Project Scientist

CHILDHOOD AGRICULTURAL SAFETY NETWORK (CASN)

Membership has increased to more than 50 organizations, and now includes insurance professionals, agricultural educators and others. E-mail messages are sent to the CASN group regularly (at least weekly) containing child ag injury incident notifications. The annual in-person meeting has become a tradition at the International Society for Agricultural Safety and Health conference held each June, a time when members can share

reports, identify areas of common interest and coordinate efforts. To join, contact CASN leader Marsha Salzwedel, M.S., salzwedel.marsha@mcrf.mfldclin.edu.

CONGRATULATIONS, DR. WEICHELT

Dr. Bryan Weichelt "walked across the stage" on May 22 at UW-Milwaukee Panther Arena with his doctorate in Biomedical and Health Informatics. The Iraq War veteran served eight years in the Wisconsin Army National Guard, leaving the service as a Captain in 2012. He was one of just three graduates whose inspirational stories were featured on video at the commencement ceremonies.

DR. LEE RECEIVES HERITAGE AWARD

Barbara Lee, Ph.D., interim director of the National Farm Medicine Center and 20-year director of the National Children's Center was honored Dec. 13 with the Marshfield Clinic Heritage Award. "Barb's compassion, dedication and commitment to challenge unsafe conditions and make farms safer have made a true difference for adults and children around the world," said Dr. Narayana Murali, executive director of Marshfield Clinic. Lee joined a prestigious group of previous Heritage Award winners that include former Congressman and Secretary of Defense Melvin Laird; former Wisconsin governors Tommy Thompson and Lee Sherman Dreyfus; and Clinic physicians and researchers George Magnin, M.D., Russell Lewis, M.D., Dean Emanuel, M.D., and James Weber, Ph.D.

Dr. Lee is best known for her work in childhood farm safety. Highlights include hosting the first National Symposium on Childhood Agricultural Safety in Marshfield



(1992); directing development of a national action plan and launching of the National Initiative on Childhood Agricultural Injury Prevention (1996); and establishing the National Children's Center for Rural and Agricultural Health and Safety (1997). Lee also was a leader in the establishment of Agricultural Safety and Health Council of America (ASHCA) in 2007.

DATA MINING THE NEWS

News clippings have long been used to monitor trends of injuries and fatalities in agriculture. Under the direction of Bryan Weichelt, Ph.D., M.B.A., this project has morphed into a mobile responsive online system available at [www. AgInjuryNews.org](http://www.AgInjuryNews.org). With nearly 2,500 articles to query, the system features familiar search and filter options for users interested

in U.S. injury and fatality data. International users and other U.S. Ag Centers have shown interest in future collaborations, and the AgInjuryNews system was listed as an official resource for the National Bureau of Labor Statistics, whose state data analysts use the data to validate labor-related injuries and fatalities in their regions.



Building a searchable news clippings database. Includes injury stories from across U.S. The project serves a surveillance function as well as being a research and education tool.

Seguridad en las Lecharias

A five-year Hispanic worker training research project conducted in Wisconsin, concluding in 2016.

3,211 injuries



570 involve children

14 subscribers from US Bureau of Labor Statistics

46 child fatalities in 2016

67

FARMS TRAINED



86%



89%

41 organizations have requested curriculum

57,964 miles

+ 1,021 hours

+ visited 275 farms

Skin cancer screenings

Taking screening to the farmers.

189

persons screened in 2016

11 presumed cancer cases discovered

3 different locations

Wisconsin ROPS Rebate Program

Making it easy to retrofit tractors with life-saving rollbars.

180 ROLLBARS ON TRACTORS IN 33 COUNTIES



National Medical

263 survey participants



570 w/ attendees

Strengthening Organizational Capacity to Prevent Childhood Agricultural Injuries

Leveraging relationships with youth serving organizations, insurance companies, agricultural media, and agricultural bankers.

122 FARMWORKER PARENTS SURVEYED

10,900 SAMPLES COLLECTED

employers surveyed 99



Protecting Children while Parents Work

Increasing the engagement of agribusiness leaders in facilitating availability of off-farm childcare services for migrant and immigrant agricultural workers with children younger than 12 years.

133 families

Wisconsin Infant Study Cohort (WISC)

Partnering with the University of Wisconsin to learn how farm environments stimulate stronger immune systems in children.

Mini-Gra

Surveillance

Identifying high risk activities and conditions associated with production farming; establishing population-based estimates of incidence and prevalence of work-related injuries and illnesses in Wisconsin dairies.

935 FARMERS RESPONDED

48% SPRAY PESTICIDES ON FARM

86% DON'T PROVIDE TRAINING

HAVE ROLLBARS ON ALL TRACTORS

17% UNINSURED

1/4 DAIRY FARMERS

3,840 DATA POINTS

47 HOURS INTERVIEWING

11 BANKERS

10 INSURANCE AGENTS

10 DAIRY FARMERS

10,460 MILES TRAVELED

3 CONFERENCES

24 INTERVIEWS

6 FARM VISITS

4,000 WEBSITE VIEWERS

15,000 PAGE VIEWS

6 Presentations

95 PAPERS SUBMITTED FROM **27** COUNTRIES



5 "IN HER BOOTS" EVENTS ATTENDED

4 STATES VISITED

2265 MILES DRIVEN

250+ NEW WOMEN FARMERS REACHED

Spheres of Influence

Studying the relationship between key players in the agriculture industry and their potential to influence farmers' safety decisions.

Veterans to Farmers

Studying the risks and benefits of agricultural work for veterans.

Integrating Safety into Agritourism

70 million people visit farms each year, we provide guidelines to keep them safe.

Journal of Agromedicine

The world's leading source of agricultural safety and health research, edited by the NFMC since 2004.

Next Generation of Youth Agricultural Work Safety Guidelines

Updating the North American Guidelines for Children's Agricultural Tasks.

Beginning Farmers and Ranchers

Seeks to increase beginning farmers' and ranchers' knowledge of safety and injury prevention, especially with respect to the children they raise, hire, and host on their farms and ranches.



ational Farm
ne Center

55 MINI-RANTS AWARDED SINCE 2002

nt program

SUPPORT

PHILANTHROPY



Dean Emanuel, M.D., the founding physician of the National Farm Medicine Center, passed away in March at the age of 92. The spirit of his work lives on through philanthropic support.

MAKE A GIFT

For information regarding how to support the important work of the National Farm Medicine Center does, please contact Matt Faber at 715.387.5901 or faber.matt@marshfieldclinic.org.

DEAN EMANUEL ENDOWED RESEARCH CHAIR

The Dean Emanuel Endowment was established in 1999. Revenue from this endowment fund supports the research chair within the Farm Center and a research program for renewable three-year cycles. Initiatives receiving endowment support this past year included: Dr. Matthew Keifer's time as editor-in-chief of the *Journal of Agromedicine*, a peer-reviewed research publication edited by the Farm Center since 2004; several on-farm safety audits via the Agricultural Safety Consulting program; a preliminary study of safety in cranberry operations; refinement of the Farm Cohort within the Marshfield Epidemiologic Study Area (MESA); and a published study of deer hunters and tree stand falls in Wisconsin.

STEVEN J. MILLER ENDOWMENT

Generous support from the Steven J. Miller Endowment has allowed Dr. Thomas R. Fritsche and his team to conduct important research related to the One Health Initiative. The One Health concept involves the interplay between humans and domestic and food-producing animals, and the idea that good health in one supports good health in the other. One Health is particularly important to rural and agricultural communities. The Division

of Laboratory Medicine in partnership with the National Farm Medicine Center are in a unique position to study in practical ways this concept due to parallel service lines in human and veterinary laboratory medicine with overarching goals supporting rural and agricultural health and safety. Dr. Fritsche and colleagues have leveraged these resources into several avenues of research focusing on the discovery of novel pathogens in humans and animals, and on the characterization of antibiotic resistant bacteria found in both populations. Once the reservoirs of antibiotic resistance can be elucidated, risks posed by transmission of resistant bacteria between humans and animals can be better understood and control strategies developed. One manuscript has been published, another is in review and Dr. Fritsche and his colleagues have presented three posters at national meetings.



Dr. Thomas R. Fritsche



*Dr. Matthew Keifer enters his sixth year as editor-in-chief, *Journal of Agromedicine*.*

JOURNAL OF AGROMEDICINE

A special *Journal of Agromedicine* edition dedicated to the work of anthropologists in agricultural safety and health was published online in December. "Agri-CULTURAL Health and Safety: Anthropologists in the Field," features five research articles addressing the critical need to understand the communities at risk in agricultural work. Three commentaries contextualize the history and future of anthropological research in the field, as well as how those experiences are useful to

other disciplines. Casper Bendixsen, Ph.D., served as guest editor for this groundbreaking effort. The *Journal* continues to gather papers for an issue dedicated to the Socio-Ecological Model (SEM) modified for agricultural safety. The model is used to depict ways in which multiple dimensions and complex human interactions influence an individual. Dr. Barbara Lee is serving as lead associate editor for the issue, scheduled for publication July 2017.

AUCTION OF CHAMPIONS

Champions past, present and future were celebrated at the 2016 Auction of Champions, benefitting the National Farm Medicine Center with a night of glitz, glamor and fun at RiverEdge Golf Course, Marshfield, Wis. The theme, "Celebrating Champions," spotlighted the origins of the Auction and its support of youth agricultural projects in rural communities, as well as the work of Dr. Dean Emanuel and the endowment that bears his name. Since the first Auction in 1982, the event has raised just over \$3.6 million for the safety and health work of NFMCC.



MINI-GRANTS AWARDED

The National Children's Center federal award continues annual funding for mini-grants that support small scale projects and pilot studies addressing prevention of childhood agricultural disease and injury. Since 2002, 55 projects have been funded in amounts up to \$20,000. Grants awarded for fiscal 2017 include an intervention to prevent child runovers on Anabaptist worksites in Pennsylvania, a study of

technology-based distractions among farming youth, and a project aimed at reducing child injuries by training farm owners, families and children on appropriate safe practices (including non-English speaking and Mennonites) in Yates County, New York.

NATIONAL MEDIA COVERAGE

Child ag safety was featured prominently in an article posted Aug. 11 by USA Today. The article cited a National Children's Center fact sheet showing a long-term decline in rate of non-fatal injuries to children on farms, but a steady occurrence of fatal injuries. It quoted Dr. Bryan Weichelt and Marsha Salzwedel, highlighting their agricultural backgrounds and current safety work.

ON THE SHOULDERS OF CHAMPIONS

The Auction of Champions (AOC) is an amazing evening; an outpouring of support from the local community for the vision and work of the National Farm Medicine Center. As a research scientist at the Farm Center, my research program greatly benefits from this support, which I receive with sincere humility and gratitude. Dr. Dean Emanuel set forth an amazing path when helped found the Farm Center and the Auction. I am very fortunate to be a part of both.

Each year, exciting packages go up for bid: weekend getaways, golf outings to faraway destinations, jewelry, luxury suite seats to Packers games. Donors of these packages often include a personal touch, and Auction-goers always look forward to seeing what's new. But I confess, I feel closest to the Auction's spirit when I join volunteers in assembling the meat packages at Tom and Barbara Tasse's Hewitt's Meats in Lindsay. We'll be standing amongst dozens of cardboard boxes, packing lists, and, of course, the best beef, lamb, pork, and chicken our local farm youth can raise. The names on the top of those packing lists are the generous donors whose support moves farm health and safety research forward. Some are familiar and receive many boxes, and some are new and exciting

people we're happy to have on the delivery lists. This year, some boxes are destined for community food pantries. To those generous folks that bid on these double-donor meat packages, a special thank you is due!

From the sweet grass to the packing house, life is a journey. For the National Farm Medicine Center, the journey has been adventurous. In many ways, Dean Emanuel's passing this past spring marked the end of the first chapter for many of us. His passion for improving the health of farm families and farm workers was perhaps only matched by his enthusiasm for support of regional farm kids and their agricultural education. The combination of the 4H livestock auction and the Auction of Champions is a wondrous mix of what Dean had in his heart. Looking into the future, I think Dean would be proud of the Farm Center, the Foundation, and, most of all, his community. In that spirit, I would like to especially thank those Auction of Champions bidders who supported further investment into the Dean Emanuel Endowment. It is a fixture in the Marshfield Clinic and secures a future where fortunate (and talented) researchers continue to find ways keep our farmers and ranchers healthy, happy, and whole.

BY CASPER BENDIXSEN



Associate Research Scientist
Cultural Anthropologist

HIGHLIGHTS

NEXT GEN IN CHILD AG SAFETY

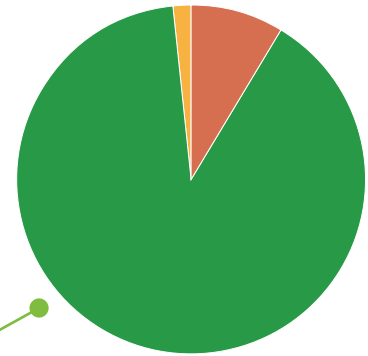
The Next Generation of Youth Agricultural Work Guidelines are built upon the 1999 North American Guidelines for Children's Agricultural Tasks (NAGCAT). Next Gen Guidelines are designed to assist parents and others in assigning age-appropriate tasks for youth ages 7-16 who live or work on farms and ranches. These updated guidelines are based on the latest scientific

research, including child growth and development, agricultural practices, child injury prevention and agricultural safety. Support for Next Gen Guidelines came from **CHS Foundation** (\$25,000) and generous donors to the National Children's Center.



FUNDING

Funding for NFMC projects comes primarily from the National Institute for Occupational Safety and Health (NIOSH) and generous private donors, with additional support from the Central States Center for Agricultural Safety and Health, Institute for Clinical and Translational Research, University of Wisconsin and Marshfield Clinic. About 15% of federal grant income is sub-contracted to external scientists.



PROJECT EXPENSE SUPPORT FY 2016

Donation Project Support	\$260,409.44	■
Grant/Contract Project Support	\$2,707,298.29	■
Marshfield Clinic Project Support	\$50,000.00	■
Total Project Support	\$3,017,707.73	

2016 DONORS

(\$5000 & above)

August Winter & Sons, Inc.
BMO Harris Bank
Boldt Company
CliftonLarsonAllen
Mildred M. Graham Estate
H&S Manufacturing Company, Inc.
Tom Hebert
Kenneth & Joellen Heiman
Greg Loescher
Nasonville Dairy, Inc.
Power Pac, Inc.
Schalow's Nursery Inc.
Dr. Steven & Purvie Ziemba

Dan O'Connell
Doine Excavating, Inc.
Dr. Amit Acharya & Mrs. Rohini
Hebbar Balakrishna
Dr. Barbara & James Lee
Drs. Joshua & Alison Sampson
Drs. Matthew Keifer & Susan Kline
Enbridge Energy
Floyd & Patricia Hamus
Forward Financial Bank, SSB
Frederick J. "Fritz" &
Mary Ann Wenzel
Gardner Trucking
Heritage Bank
Jeffrey & Michelle Hamus
Jerry & Diane Meissner
John Baltus & Cherie Baltus
Kim & Cheryl Heiman
Kuhl Implement, Inc.
Kulp's of Stratford

Marlene Stueland
Marshfield Veterinary Service, S.C.
Michael Lindquist
Mike & Cheryl Trulen
Mr. & Mrs. Kelvin Heiman, Sr.
Mr. Trevor Heiman
Nelson-Jameson, Inc.
Northside Elevator
Oregon Health & Science University
Physician Wealth Strategies
Ralph & Sharon Bredl
Retirement Wealth Solutions, LLC
RiverEdge Golf Course
Ronald & Diane Doine
Solarus
Terry & Allean Frankland
Total Electric Service, Inc.
V & H Trucks, Inc.
Wickersham Jewelry
Wipfli LLP

(\$1000 to \$4,999)

Alan & Amy Nystrom
Ann & Fergus McKiernan
Associated Bank
Bill & Sue Heiting

SAFE RETURN TO WORK

The project collected farm task ergonomic data from agricultural operations and implement dealers in Wisconsin and Minnesota. This first-of-its-kind dataset will be made publicly available and contains structured and unstructured data for nearly 200 farm tasks including heights of steps, weights of hitches, and suggested personal protective equipment. These data provide the backend of an engine that clinicians can use to prescribe farm tasks

that an injured worker can perform -- but within the limitations of their injury. The prototype is available at www.SafeReturnToWork.org and is available in English and Spanish. Bryan Weichelt, project PI, is planning to submit a 2017 proposal for federal funding to expand the project into non-clinical sectors and work with regional and national agricultural producers and workers' compensation insurers.



VISITORS



The Agricultural Safety and Health Council of America (ASHCA) returned to its roots Aug. 29-30, meeting at Marshfield Clinic Research Foundation and honoring its founding executive director, Barbara Lee, Ph.D.



The National Children's Center's Scientific Advisors convened April 20-21 to take a closer look at the center grant. Discussion focused on how to guide next steps of individual projects and evaluation processes.



Julie Sorensen, Ph.D., New York Center for Agricultural Medicine and Health. "Our self-identity affects how we respond to safety messages" said Dr. Sorensen during a National Farm Safety and Health Week presentation.



Bill Boehm, retired Senior Vice President of The Kroger Co., shared "Lessons Learned from a Safety Program with 400,000 Associates."

HIGHLIGHTS

QUALITY OF LIFE WITH ROBOTIC MILKING SYSTEMS

Nearly 170 farmers from the Upper Midwest representing ownership of approximately 96,775 dairy cows responded to a survey assessing variation in farmer quality of life between different types of milking systems. Bryan Weichelt, PI, and Casper Bendixsen, Co-PI, through a UMASH pilot study grant, are leading these efforts to better understand the short- and long-term effects ownership of robotic milking systems have on farmers

and their families. "My dad would milk twice a day, 365. Even the few times that he visited the Emergency Department with kidney stones, he still made it home to be in the barn and never missed a milking," Weichelt said. "These experiences are what drove my interest in robotic milkers. I had always told my dad that the only way I was going to be milking cows someday was with a robot."

SETTING THE STATE AND NATIONAL AGENDA

NFMC/NCCRAHS staff members participate as advisors and board members in the following organizations, keeping abreast of emerging trends, disseminating new research findings and resources, expanding partnership opportunities, and helping to frame the national discussion of agricultural safety and health.

Certified Safe Farm

Childhood Agricultural Safety Network

Grain Handling Safety Coalition

International Society for Agricultural Safety and Health (ISASH)

National Occupational Research Agenda (NORA)

National Institute for Occupational Safety and Health (NIOSH) Agriculture, Fishing and Forestry Program

National Tractor Safety Coalition

North American Farm Direct Marketing Association

Safety in Agriculture for Youth (SAY)

Wisconsin AgrAbility

Wisconsin Agricultural Tourism Association

Wisconsin's Department of Health Services' Occupational Surveillance

Wisconsin Farm Technology Days



PUBLICATIONS AND PRESENTATIONS

For a complete listing of NFMC staff publications and presentations email: nfmcsh@mfrd.mfldclin.edu



Phone: 1-800-662-6900

Fax: 715-389-4996

E-mail: nfmcsh@mcrf.mfldclin.edu

Website: www.marshfieldclinic.org/nfmc

ACKNOWLEDGMENTS

The National Farm Medicine Center expresses its appreciation to the organizations and individuals that enable NFMC to stay ahead of evolving health and safety concerns in agriculture.

The following federal grants provided programmatic support in 2016: National Institute for Occupational Safety and Health (CDC/NIOSH) Award 5U54OH009568-07; UMASH Award 5U54OH010170-05; WISC 4U19A1104317-04

