CULTIVATING COLLABORATION

The National Farm Medicine Center, and our National Children’s Center for Rural and Agricultural Health and Safety (funded by the National Institute for Occupational Safety and Health), partner with many individuals and organizations to improve the health and safety of adults and children living, working and visiting agricultural settings. Examples of this synergy in 2018 included:

- Collaborating with fire departments to organize the Farm Safety and Rescue Area at Wisconsin Farm Technology Days.
- Leveraging our partnership with the University of Wisconsin and Wisconsin Infant Study Cohort to provide unique, rural data on respiratory illnesses, allergic diseases and child health to the National Institutes of Health-funded Children’s Respiratory and Environmental Workgroup.
- Responding to concerns for farmers’ well-being by dedicating Auction of Champions dollars toward mental health first aid programs.

We’d like to say “thank you” to our funding agencies, friends, supporters and colleagues with whom we cultivate such productive collaborations.

Barbara Lee, Ph.D.
Director, National Farm Medicine Center

NATIONAL FARM MEDICINE CENTER TEAM

Barbara Lee, Ph.D.  Director, National Farm Medicine Center
Director, National Children’s Center for Rural and Agricultural Health and Safety

Barbara Marlenga, Ph.D.  Research scientist – Injury prevention

Casper Bendixsen, Ph.D.  Associate research scientist – Cultural anthropologist

Josie Rudolphi, Ph.D.  Associate research scientist – Agricultural safety and health

Bryan Weichelt, Ph.D.  Associate research scientist – Informatics

Kathrine Barnes, M.P.H.  Research specialist

Marie Fleisner  Editorial specialist

Scott Heiberger, M.S.  Communications manager

Kyle Koshalek  Associate research coordinator

Melissa Ploeckelman  Outreach specialist

Emily Redmond  Research coordinator

Marsha Salzwedel, M.S.  Agricultural youth safety specialist

Dixie Schroeder  Center research administrator

Kathleen Smith  Research specialist

Erin Teague  Administrative secretary

FINDING A COMMON PATH
We are offering workshops to provide networking opportunities to female beginning organic farmers.

Spring Valley, Wisconsin

learn more on page 6

NORTHWOODS PROJECT
We are researching substance abuse in rural areas in partnership with the HOPE Consortium.

Northern Wisconsin

learn more on page 10

TRAINING FOLKS WHOM FARMERS TRUST
We are training firefighters how to deliver agricultural safety and health throughout the U.S.

Elbridge, New York

learn more on page 4

CHILD AGRICULTURAL INJURY PREVENTION
We will provide workshops around the nation to prevent agriculture injuries to children.

Marshfield, Wisconsin; Hershey, Pennsylvania; Des Moines, Iowa; and Lexington, Kentucky

learn more on page 7

CHILDREN'S AGRICULTURE SAFETY EDUCATION
We provided a mini-grant to train 50 aspiring and limited-resource farmers on best practices to reduce safety risks to children.

Salinas, California

learn more about mini-grants on pages 8-9

FEEDLOT SAFETY
We are finding ways to make feedlots safer for all employees.

Omaha, Nebraska

learn about our other projects on page 14

MIGRANT CLINICIANS NETWORK
We work with Migrant Clinicians Network to provide safe places for children while their parents work.

Austin, Texas and Salisbury, Maryland

learn more on page 9

THE POWER OF A STORY
We conducted the first “Telling the Story” panel discussion at the Midwest Rural and Agricultural Safety and Health Conference.

Council Bluffs, Iowa, funded by the Upper Midwest Ag Safety and Health Center (UMASH) of Minneapolis, Minnesota

learn more on page 5

OUR NATIONAL REACH

BARBARA LEE, P.h.D.
Director, National Farm Medicine Center

2

3
TRAINING FOLKS WHOM FARMERS TRUST

Rural communities take pride in the agricultural work with which they are often deeply connected. This includes the men and women who respond to medical emergencies that occur on farms and ranches far too often. For me, rural emergency responders have great potential to be advocates for safer and healthier communities. They see the worst of the injuries and illness their neighbors endure, and they wholeheartedly agree that prevention is better than rescue, or worse, recovery.

Farmers and firefighters have a high level of mutual trust and respect, and we believe firefighters want to be a part of lowering injury and fatality rates in agricultural work. This year was a productive year for the “Rural Firefighters Delivering Agricultural Safety and Health” project (RF-DASH). This project educates rural emergency responders, mostly volunteer firefighters, about how they can influence farmers to make safer decisions about their agricultural operations. Farmers and firefighters have a high level of mutual trust and respect, and we believe firefighters want to be a part of lowering injury and fatality rates in agricultural work. The enthusiastic reception and collaborative efforts from the fire and EMS community this year is very encouraging.

In late 2017 and throughout 2018, more than 40 rural emergency responders were trained in the RF-DASH curriculum. This is more than twice as many as we had hoped! Our master trainers traveled from Washington state, central Wisconsin and Pennsylvania to conduct trainings in Wausau and Menomonie, Wisconsin, as well as Elbridge, New York. Each training had 12-16 participants representing rural communities in Minnesota, Wisconsin, New York and Massachusetts. Many of them were either farmers or in a farming family. A few were also firefighting and/or agricultural instructors in regional technical colleges. Elbridge Fire Department requested the training, but we did not have grant funding for travel to another region. They were very driven and helped support its funding and promotion. Departments in Ohio and Michigan have made similar requests.

Rather than inviting as many people as possible, we asked departments to send us their “aggiest” people, the one or two individuals who care a lot about the well-being of their aggie neighbors. These trainees engaged intently with our 8-hour course, driving multiple hours and braving icy roads or giving up beautiful Saturdays. They dedicated themselves to returning to their departments ready to make a difference. These departments have already started to implement their own training and programs. In 2019, our research team will be tracking and measuring how the trainings impact other fire departments and the farms in the coverage area.

-CASPER BENDIXSEN, PH.D.

THE POWER OF A STORY

“All of us learn to write in the second grade,” said former Indiana University basketball coach Bob Knight. “Most of us go on to greater things.” I made a living as a sports writer for 13 years. I used Knight’s comment as motivational “bulletin-board material,” and resolved to be more than a typist. Narratives are increasingly common in health communications, which helps explain the success of our “Telling the Story Project” — and why an ex-sportswriter is employed by the National Farm Medicine Center. In “Telling the Story,” we insert prevention messages into farmers’ first-hand stories about close calls and fatalities. We package the stories in multi-media format at www.tellingthestoryproject.org. Visitors tell us they relate to the story-tellers and settings. The story-tellers say, “We don’t want this to happen to anyone else.”

Media professionals relate to the format, too. Several years ago we surveyed 150 agricultural editors and reporters and asked them why they didn’t run more articles about safety. They told us safety ranked low in reader surveys. “It’s hard to deliver a prevention message without a scary accident,” they said. So we intertwined their feedback with theories of narrative and health behavior.

We launched “Telling the Story” last June at the International Society for Agricultural Safety and Health meeting. Media requests for interviews followed immediately. In November, we presented a panel discussion that was well-received by agriculture safety colleagues at the Midwest Rural Agricultural Safety and Health Conference.

Although rooted in the Midwest, plans call for exporting the Telling the Story model nationwide. Farm Medicine currently collaborates with three Midwest ag safety centers on the project. Funding for Telling the Story comes from the National Institute for Occupational Safety and Health (NIOSH) through the Upper Midwest Agricultural Safety and Health Center (University of Minnesota).

Written or spoken, stories can change safety behaviors. I remember my grandmother describing why the neighbor, a man named Les, had a hook instead of a hand. I never again stuck my hand near machinery.

“Telling the Story” is raising safety awareness, and hopefully providing a vehicle by which survivors can channel their sense of loss. This must be what Coach Knight meant by, “going on to greater things.”

-SCOTT HEIBERGER, M.S.
FINDING A COMMON PATH

Research often begins in the lab but ends in the community. In this sense, researchers and the communities they hope to influence travel together and set the course cooperatively. We test interventions for efficacy, but ultimately they should be interventions that are easy and well-suited to the farm community. Whether we are offering rollover protection structure (ROPS) rebates, discovering the immunological benefits of farm exposures through the Wisconsin Infant Study Cohort (WISC), or disseminating information and tactics to reduce the risk of childhood agricultural injury, National Farm Medicine Center and National Children’s Center for Rural and Agricultural Health and Safety (NCCRAHS) seeks community collaboration in almost all of our work.

In fact, NCCRAHS has partnered with the Midwest Organic and Sustainable Education Service (MOSES) for close to five years in pursuit of the latter goal. Lisa Kivirst organizes MOSES’ In Her Boots workshops that provide networking opportunities and guidance to female beginning organic farmers. Together with NCCRAHS, the MOSES in Her Boots project has provided opportunities to expose this beginning women farmer audience to safety information. In turn, we seek to identify unmet needs and explore ways materials can be adapted or discover further areas of research. This communication requires a two-way street: honesty, mutual understanding and the ability for both parties to think creatively towards solutions.

The work with MOSES is but one example of community partnerships within Farm Medicine/NCCRAHS. Partnerships between research and the target community can be similar to a bus ride. We may have different destinations, but through adaptation and the fuel of desire to help our farmers, we find a common path to travel together.

-KATHRINE BARNES, M.S., CASPER BENDIXSEN, PH.D., JOSE RUDOLPHI, PH.D., AND LISA KIVIRST

CHILD AGRICULTURAL INJURY PREVENTION

When I started at Farm Medicine, I was excited to be able to work in a career with two of my favorite things – children and agriculture. My first few months were eye opening, as I soon discovered that the injuries my family experienced on the farm, which I had thought were rare and unusual accidents, were all too common. There were injury reports coming across my desk every week – and during planting and harvesting season, they’d appear daily. I soon realized how lucky my family was; the injuries we experienced might have caused some emergency room visits and scars, but at least we still had our family. Tragically, many of the reports foreshadowed holiday celebrations without a loved one. A closer look at the reports revealed that most of the incidents could have been prevented. But, like me before I started at Farm Medicine, many farm parents are unaware of the dangers or don’t know how these “accidents” can be prevented. Worse yet, is the misconception many parents have that “these things happen to other people.” Any parent who lost a child will tell you they also thought that, until it happened to them.

How do I explain this to farm parents? Reaching them is a challenge. If they don’t know about the problem, they aren’t looking for information. What’s the best way to reach them? Who will they listen to? Do others care, and will they help? Out of these questions, the Child Agricultural Injury Prevention Workshop was born. More than 30 people attended, including insurers, FFA advisors, Extension, health care providers, safety professionals and media. These participants are reaching out to educate their customers, clients and patients. The workshop was a huge success, and I am very grateful to our participants and the workshop sponsors, John Deere and ProVision.

I am also excited that we will continue to reach out to farm parents since Westfield Insurance and John Deere are sponsoring three workshops in 2019. By working together to educate farm parents, hopefully more farm families will celebrate the holidays with everyone around the table.

-MARSHA SALZWEDEL, M.S.
Cultivating Collaboration
The National Farm Medicine Center (and National Children’s Center for Rural and Agricultural Health and Safety) work through many individuals and organizations to improve the health and safety of adults and children living, working and visiting agricultural settings across the country. Here are a few...
Nearly 64,000 Americans died from drug overdoses in 2016, which, for perspective, is roughly equivalent to the number of people lost in the wars in Vietnam, Iraq and Afghanistan combined.

Nearly 64,000 Americans died from drug overdoses in 2016

No state has been spared from this current reality and Wisconsin, particularly rural Wisconsin, is no exception. Despite improved recognition of substance abuse as a significant rural problem, most of what we know about the scope of the problem and how to address it continues to come from urban areas.

Serving five counties and three tribal communities in Wisconsin’s Northwoods, the Heroin, Opioid, Prevention and Education (HOPE) Consortium receives state funding to support substance use disorder treatment and recovery services throughout the region. Recognizing the need for research specific to substance abuse in rural areas to further inform HOPE Consortium efforts, Project Manager Rachel Stankowski (Family Health Center of Marshfield, a division of Marshfield Clinic Health System) convened anthropologists from the National Clinics Network, Maryland to contribute to growing efforts to address rural substance abuse epidemic.

This project utilizes ethnography to support services. By connecting with those directly affected by substance use, ethnography will translate their stories and voices to actionable research, policy and service delivery and help to build regional capacity around the issue.

This project has a home in Farm Medicine not just because of the ethnographic expertise within the department, but also because substance abuse and overdose is a problem with an increasing impact on farms and rural, agricultural communities. As the average age of farmers increases, farmers enter a demographic more likely to be prescribed prescription pain killers, which is a leading contributor to the current opioid epidemic.

This makes safe use, storage and prevention services an important topic for Farm Medicine to address. Similarly, ongoing and emerging issues related to alcohol or stimulant (e.g., methamphetamine) abuse arguably grows out of a nationwide problem with significant impact on the farm workforce and its susceptibility to injury.

While the Northwoods Substance Abuse and Treatment ethnographic project is in its infancy, we hope to contribute to growing efforts throughout the Health System and the state to address the rural substance abuse epidemic.

-KATHERINE BARNES, M.S.
NEW (THANKS TO YOU!) IN 2019: FARMER MENTAL HEALTH FIRST AID PROGRAM

Because of your support, the farmer mental health first aid program will kick off with three trainings in 2019. Funds raised at the 2018 Auction of Champions gala made this program possible.

The farmer mental health first aid program will educate farm communities to recognize, react to and prevent mental health emergencies. The initial three trainings will provide education for 50 individuals on risk factors and warning signs for a range of mental health issues, as well as a five-step action plan to help people in crisis connect with appropriate professional help.

1 in 5 adults experiences mental illness

Auction of Champions raised $256,000 to benefit farmer health and safety.

Support for this year’s fund-a-need reached a record $51,000.

At the 2018 Auction of Champions (from left): Casper Bendixsen, Barbara Lee, Melissa Ploeckelman, Bryan Weichelt, Barbara Marlenga, Josie Rudolph, Scott Heiberger, Marsha Salzwedel, Kathrine Barnes, Amit Acharya, Emily Redmond and Kathie Smith.
Given its location, community support, and scientific staff, the National Farm Medicine Center is the place where translational research about agricultural and rural populations thrive!

**National Farm Medicine Center (NFMC)**
- Biadasz Gas Monitor Rebate Program
- Journal of Agromedicine
- Mental Health First Aid
- Agricultural Microbiome Repository
- Skin Cancer Screening
- Understanding and Addressing the Disparity in Vaccination Coverage Among U.S. Adolescents Living in Rural Versus Urban Areas.
- Veterans to Farmers
- Wisconsin Infant Study Cohort (WISC)
- Wisconsin Rollover Protective Structure (ROPS) Rebate Program

**Upper Midwest Agricultural Safety and Health Center (UMASH)**
- Quality of Life with Robotic Milking Systems
- Rural Firefighters Delivering Agricultural Safety and Health (RF-DASH)
- Seguridad en Las Lecherias (Safety in Dairies)
- Telling the Story of Agricultural Safety
- Tickborne Disease Risk for Agricultural Workers and their Families in the Midwest

**Central States Center for Agriculture Safety and Health (CS-CASH)**
- Farm Mapping to Assist, Protect, and Prepare Emergency Responders (Farm MAPPER)
- Identifying the Sources of Stress and Prevalence of Anxiety and Depression Symptoms Among Young Farmers and Ranchers in the Midwest
- Improving Safety and Health in the Cattle Feed Yard Industry
- Wisconsin Infant Study Cohort
  - 108 farm families
  - 130 non-farm families
  - 3,000 physical samples

**Journal of Agromedicine**
- 17,158 article downloads in 2018
- 2,607 institutions worldwide with access to the journal
- 1.322 Impact Factor (best ever)

**AgInjuryNews**
- 17,714 page views from 43 countries
- 623 injury reports loaded, totaling >31,000 data points
- 4 peer-reviewed manuscripts published

**Childhood Agricultural Safety Network**
- 117 members
- 70 organizations

**Wisconsin Infant Study Cohort (WISC)**
- 108 farm families
- 130 non-farm families
- 3,000 physical samples

**Ag Youth Work Guidelines**
- 30 work guidelines available
- 20 guidelines in development
- 5 developmental guidelines for tractors

**Rural Firefighters Delivering Agricultural Safety and Health (RF-DASH)**
- 50 people trained
- 3 states
- 400 hours of training

**Advanced Knowledge Mobilization and E-Communication**
- 10 peer-reviewed publications
- 18 press releases written

**Farm Technology Days**
- 16 live demonstrations
- 4,500 people in demo audience
- 43,200 total show visitors
- 532 screened for skin cancer

**Children’s Center for Agricultural Safety and Health (CCAS)**
- 130 non-farm families
- 3,000 physical samples

**Mini-Grants**
- 34 participants
- 6 grants awarded
- Funding for 3 future workshops

**National Children’s Center for Rural and Agricultural Health and Safety (NCCRAHS)**
- Advanced Knowledge Mobilization and E-Communication (AKME)
- Childhood Agricultural Safety Network (CASN)
- Filling Gaps in Child Agricultural Injury Data
- Grain Handling Safety Coalition via CASN
- AgInjuryNews.org
- 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
- Ag Youth Work Guidelines
- Protecting Children While Parents Work
- Strengthening Organizational Capacity

**High-five icon indicates National Farm Medicine Center projects made possible by donors!**

These colors coordinate with the additional information about the projects to the right.

**Projects**
- Advanced Knowledge Mobilization
- Rural Firefighters Delivering Agricultural Safety
- Wisconsin Infant Study Cohort
- Ag Youth Work Guidelines
- Wisconsin Rollover Protective Structure (ROPS) Rebate Program
- Farm Technology Days
- Childhood Agricultural Injury Prevention Workshop
- Farm Mapping to Assist, Protect, and Prepare Emergency Responders (Farm MAPPER)
- Integrating Safety into Agritourism
- Fundraising for 3 future workshops

**Additional Resources**
- Journal of Agromedicine
- AgInjuryNews.org
- Wisconsin Rollover Protective Structure (ROPS) Rebate Program
- Wisconsin Infant Study Cohort (WISC)
- Farm Technology Days
- Childhood Agricultural Injury Prevention Workshop
- Farm Mapping to Assist, Protect, and Prepare Emergency Responders (Farm MAPPER)
- Integrating Safety into Agritourism
- Fundraising for 3 future workshops
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 2017. National Institute for Occupational Safety and Health (CDC/NIOSH) provided NCCRAHS Award U54OH009568; UMASH Award U54OH010170; CS-CASH Award U54 OH010162. National Institute of Health provided WISC 5u19A1140317/UG3 OD023282 and CREW 4U19A104317-04/UG3 OD023282