Barbara Lee distinctly remembers her visit to the 3-year-old boy with no arms on an impoverished family farm near Barron. “He was playing out in the field and lost both of his arms in the rotating shaft of an irrigation system. His brother saw it happen. When I visited him in his home, he was learning to use his feet for everything,” Lee says.

Lee, director of the Marshfield-based National Farm Medicine Center (NFMC) and the National Children’s Center for Rural and Agricultural Health and Safety, says it was early experiences such as these that resulted in her dedicating her life to agricultural injury prevention.

“When I first started this job, each time I heard about a childhood agricultural injury, I would visit the parents in the hospital or at their home. What struck me is that if you understand the principles of injury prevention, it’s so clear why these injuries occurred. But some of these farm parents were unaware of the potential for a serious injury or fatality,” she says.

Lee, a registered nurse who also holds a Ph.D. in nursing and behavioral science, was NFMC’s first full-time employee. Today, 27 years after NFMC was founded, she heads the non-profit organization that has grown from one employee to 22 and manages its $2.4 million annual budget. And in 1997, one of Lee’s dreams came true: the establishment of the National Children’s Center for Rural and Agricultural Health and Safety, which operates on a current annual budget of about $700,000.
The National Farm Medicine Center is part of the sprawling Marshfield Clinic complex. It was founded more than two decades after retired clinic cardiologist Dr. Dean Emanuel and other physicians repeatedly treated farmers with symptoms of the same illnesses. One of those illnesses subsequently became known as Farmer’s Lung Disease, an allergic disease usually caused by breathing in dust from moldy hay, corn, silage, grain or other crops. Another is Organic Dust Toxic Syndrome (ODTS), a pulmonary disease caused by exposure to high levels of organic dust, such as that found in animal confinement buildings.

Other conditions the Marshfield physicians continued to see in many farmers were skin cancer, various ergonomic injuries, and the loss of limbs resulting from getting caught in power takeoff unit shafts, augers or other moving farm machinery.

The NFMC – formed as an outgrowth of these physicians’ work – has as its primary mission conducting high quality research on health and safety issues affecting farmers and other rural residents. However, it is also involved in outreach, and in education and training.

The reason outreach is so critical is because farmers are traditionally “reluctant to seek medical care,” NFMC Medical Director Dr. Steve Kirkhorn explains. This reluctance is often related to cost and to the lack of affordable health insurance. “I believe this is as important as the farm culture of continuing to work through pain and downplaying what is considered ‘minor.’ The problem is that this can lead to more expensive treatment later on,” he says. The NFMC is funded primarily by federal grants from the National Institute for Occupational Safety and Health (NIOSH) and the U.S. Environmental Protection Agency. Additional funding comes from Marshfield Clinic support, private donations, and contracts. The National Children’s Center is funded by a NIOSH grant.

REDUCING HAZARDS

Although Lee did not grow up on a farm (she grew up in Fond du Lac), all of her aunts, uncles and cousins on her mother’s side of the family were farmers. Lee was one of seven children, and both her father and all of her brothers worked in construction. “I learned a lot about hazardous working conditions from them,” she says. Her first exposure to a farm injury was when she was a teenager and her uncle lost his hand in a corn picker.

Lee had no intention early on of planning a career around agricultural injury prevention. When she was working in nursing administration, a position opened up administering NFMC, which at that time (in 1987) had no employees. “In my first six months on the job, two farm couples I met came to me and asked how they could make their farms safer. I realized then that there was no information out there. We held our first Farm Safety Day Camp in 1988. After that, I pulled together some people who had the same common interests, and in 1992, we held our first national symposium on the topic,” Lee says.

Lee – who has a talent for pulling together diverse groups of people – says she was shocked when people started calling her the “expert” on childhood farm safety. “I said: ‘I’m not,’ but it really struck me then that people were searching for someone who had the answers,” she says.

While the focus of some of NFMC’s research has changed over the years, a number of issues remain the same. These include reducing tractor-related injuries and deaths (most deaths on farms nationwide are tractor-related) and reducing the incidence of skin cancer among farmers.

One of the ways NFMC conducts outreach to farmers is by participating in such events as Wisconsin Farm Technology Days, where it has in the past provided earplugs, skin cancer screening and wide-brimmed hats.

Among the many other current issues NFMC is involved in are researching the human health effects of dairy manure; the effects of early farm exposure and asthma; the risks of musculoskeletal disorders among dairy workers; and such environmental issues as how air, water and soil affect human health.

PASSION FOR CHILDREN

Lee is a woman who is clearly passionate about children. She and her husband Jim have two adult children, three grandchildren, and 10 “adopted” grandchildren (a family the Lees sponsored and brought to the United States
One of Lee’s greatest non-work-related accomplishments was working with family and friends to build a park and playground for children at a village in Romania.

That passion for children led Lee to become a pediatric nurse and later to develop the National Children’s Center for Rural and Agricultural Health and Safety. But getting Congressional funding for a collaborative initiative that preceded the founding of the National Children’s Center was no easy task.

“A group of people I had brought together called the National Committee for Childhood Agricultural Injury Prevention worked 18 months to develop a national action plan. We had 80 organizations that signed onto it,” Lee says. But while Congress “endorsed” the plan in the summer of 1996, Lee was told it would never be funded.

“(U.S. Rep.) David Obey (D-Wausau) kept saying that there’s no money and that this won’t work,” Lee says. “I remember being in his office by myself. I was petrified. He was barking at me. He said: ‘What do you want me to do?’ I said: ‘I don’t know – we want money.’ Suddenly, he started barking out orders to his assistant and told her: ‘We’re going to help her.’”

Lee soon found out just as the federal budget passed that Congress had appropriated $5 million to implement the national action plan, and, in 1997, NIOSH awarded her a large grant to develop and direct the new National Children’s Center.

The National Children’s Center for Rural and Agricultural Health and Safety has taken on many high visibility projects. Those projects have included training parents how to build “safe play areas” on farms; developing the North American Guidelines for Children’s Agricultural Tasks; holding workshops for journalists who cover childhood agricultural safety and health issues; and developing new Safety Guidelines for Hired Adolescent Farmworkers (a project still in progress which will include large, colorful task-specific posters that can be used by farm supervisors to train adolescent workers).

A current project that has received significant attention throughout North America is the “Bury a Tradition” campaign, sponsored by the Childhood Agricultural Safety Network (www.childagsafety.org), a coalition of organizations Lee helped found that the National Children’s Center staff assists.

“We agreed that we should be bold – that we should push the envelope and make the statement that children under 12 years old should never be around or near tractors,” Lee says. T-shirts, a campaign poster and other resources were developed that show a photo of an older farmer operating a tractor with a young child on his lap. The wording on the poster and other resources states: “It’s Easier to Bury a Tradition Than a Child.”

Lee says she is encouraged by recently released NIOSH data showing that the rate of agriculture-related injuries per 1,000 youths living on farms declined from 18.8 in 1998 to 10.5 in 2006. “This is quite remarkable and indicates that our national initiative is clearly having an impact,” she says.

Yet, she believes, work remains to be done. “I believe that there will be much less of a need to focus on children, but a continuing need to focus on worker health and safety,” she says. Issues such as musculoskeletal disorders, air quality in large animal confinement facilities, and injuries and deaths resulting from the use of all-terrain vehicles are among those she cites.

One of the issues Kirkhorn will be working on is “getting USDA (the U.S. Department of Agriculture) and agricultural organizations to address the fact that the overall health of the farm community is at risk because of lack of health care access and lack of an adequate preventive health program that is affordable to farmers.”

As for Lee, don’t expect her passion for what she does – particularly her passion for children – to disappear any time soon. “Last year, I went to Thailand to visit my cousin’s orphanage which has more than 120 kids with AIDS,” she says. “That’s where I want to build my next playground project.”

Barbara Lee: An Inside Look

First Job: At age 16, a nurse’s aide at St. Agnes Hospital in Fond du Lac

Best Work Moment: Leading the National Childhood Agricultural Injury Prevention initiative and getting it funded by Congress

Most Admired Person: A friend and colleague, Dr. Joseph Mazza, who has inspired me for more than 25 years and has helped me have the courage of my convictions

Interests: Quiet time at our family’s Northwoods (Wisconsin) cabin on a lake

Biggest Current Challenge: Starting up the Agricultural Safety & Health Council of America, which will give agricultural industry leaders a leadership role in worker health and safety