

# 2003 YEAR IN REVIEW



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



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## **Mission Statement**

***The National Children's Center for Rural and Agricultural Health and Safety strives to enhance the health and safety of all children exposed to hazards associated with agricultural work and rural environments.***


## **Guiding Principles**

**As child safety advocates and staff members of the National Children's Center for Rural and Agricultural Health and Safety, our work is based on the following principles:**

- All children deserve equal protection from preventable disease and injury.
- When in doubt about children's welfare versus parents' rights, our role is to advocate on behalf of children.
- We are sensitive to the fact that our position may challenge cultural and social norms, as well as traditional practices that put children at risk.
- We maintain that adults hold full responsibility for ensuring safe environments for children under their care.
- We believe there are benefits as well as risks associated with children living and/or working in rural and agricultural areas.
- Our recommendations for the safety and well-being of children will be based upon the best available scientific evidence and child development principles
- We must, by example in our own personal and professional lives, model behaviors that promote health and safety.

## 2003 Year in Review

"Preparing the annual Year in Review is an opportunity for our staff to reflect back on outcomes of their work – challenging, creative, committed, and sometimes tedious – over the past 12 months. It is my pleasure to share the highlights of their efforts in 2003. We look forward to continued success in building partnerships to protect children at work and children at play on our nation's farms and ranches."



Barbara Lee, Ph.D.  
Center Director



### Mini-grants

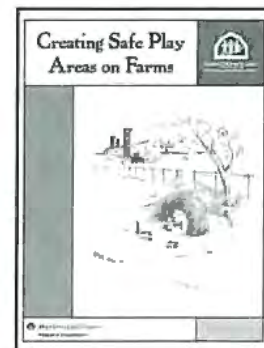
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Four applicants received NCCRAHS mini-grant funds ranging from \$1,500 to \$15,000. Awards were granted to those applicants working to build capacity in childhood agricultural health and safety. Proposals awarded included development of patient and physician literature to increase awareness about children's health and safety issues in agriculture (University of Wisconsin School of Medicine), a project endeavoring to evaluate the facilitators and barriers of rural day care for farm parents (North Dakota Farm Bureau), an analysis of power take-off related injuries to youth (Purdue University), and support for regional meeting of state injury programs on child agricultural injuries in the Southeastern United States (University of North Carolina).

### Safe Play Areas on Farms

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The guidance document, "Creating Safe Play Areas on Farms," was published in April, finalizing a 1 1/2-year development process in which specialists in playground safety, farm safety, environmental safety and child development mutually determined how to keep young children safe in agricultural environments. These experts served as primary and secondary reviewers of content. Additional feedback was gathered from farm parent focus groups in Iowa, Wisconsin and New York. "Creating Safe Play Areas on Farms" was featured in *Successful Farming* magazine, as well as in other print and electronic media outlets. Presentations were made to key audiences including the American Farm Bureau, National Institute for Farm Safety, National Institute for Occupational Safety and Health Agricultural Centers, and Wisconsin Emergency Medical Services for Children. Dissemination efforts will be increased in 2004. Information on the Safe Play project is available through <http://www.marshfieldclinic.org/research/children/safePlay/>.





## New staff

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Steve Kirkhorn, M.D., M.P.H., FACOEM, joined the National Farm Medicine Center (NFMC) in May as medical director of both the Marshfield Clinic Occupational Health Department and the NFMC. Steve, who is also president of the North American Agromedicine Consortium, is developing professional education initiatives for pediatricians and rural health care providers and their affiliates. He is a member of the National Pork Board Technical Advisory Panel for Public Health and Worker Safety, and is on the editorial board of the Gempler's Alert newsletter.

Mark Purschwitz, Ph.D., joined the (NFMC) in September as a research scientist after a decade as the agricultural safety and health specialist for the state of Wisconsin. His research program focuses on public policies that affect the health and safety of agricultural workers.

## Policy-relevant research

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Barbara Marlenga, Ph.D., was awarded a three-year, \$622,000 grant from the National Institute for Occupational Safety and Health (NIOSH) in November to study whether a change in labor policy can reduce injuries to children on farms. This project will examine the potential impact of removing the family farm exemption from the Hazardous Occupations Order for Agriculture (HOOA). The study will systematically apply HOOA to case descriptions of fatal and non-fatal injuries experienced by farm children in order to determine if HOOA – if implemented and enforced – might have prevented the injuries. Barb's co-investigators are William Pickett, Ph.D., and Robert Brison, M.D., both of Queen's University in Kingston, Ont., Canada.

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## Center grant

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In September, the National Children's Center for Rural and Agricultural Health and Safety was notified of its success in obtaining federal funding to continue its childhood rural and agricultural injury prevention program. The five-year, \$3.3 million award was announced by the National Institute for Occupational Safety and Health (NIOSH), to extend efforts initiated in 1997. The new award encompasses eight projects, in addition to several external pilot projects. Projects include safety training for employers and supervisors of adolescent farm workers (STESAF); an upgrade of the National Ag Safety Database child safety resources; a series of journalists' workshops; expansion of the Creating Safe Play Areas on Farms initiative; "best practices" recommendations regarding agri-tourism, suicide prevention among rural youth and rural daycare programs, and research on public policy regarding youth operating tractors on public roads.

A broad-based group of external advisors will provide input to NCCRAHS in this grant period. They are: Marilyn Adams, founder, Farm Safety 4 Just Kids; Steve Burdette, Case New Holland, Inc.; Larry Duphainis, Indian Health Service; Dan Hair, Zenith Insurance Company; Sharon Hughes, National Council of Agricultural Employers; Gene Johnston, *Successful Farming* Magazine; Linda McCauley, Ph.D., University of Pennsylvania; Karen Mountain, M.B.A., Migrant Clinicians Network; Dennis Murphy, Ph.D., Penn State University; and Deborah Reed, Ph.D., University of Kentucky.

## Children's Safety Network (CSN)

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After a decade of direct support from the federal Maternal and Child Health Bureau (MCHB), NCCRAHS established a subcontract with the Education Development Center's MCHB contract for services of CSN. CSN Marshfield staff continue to address the unique needs of rural children and adolescent injury prevention in support of state health departments and others as part of the CSN. Specific projects include outreach to national rural safety organizations; provision of technical assistance on rural recreation, agriculture, and suicide; support of regional network development; and special projects related to suicide prevention. The continuing support of the EDC and MCHB allows the Center to promote the prevention of injury, the leading cause of death and disability of children and adolescents living in rural environments.



## Professional training

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In March, NCCRAHS hosted a telemeeting with 12 agricultural safety professionals to increase participants' knowledge about the Hazardous Occupations Order in Agriculture (HOOA) and proposed revisions suggested by NIOSH. The meeting was an open forum where participants heard a variety of perspectives from extension safety specialists, federal and state labor department employees, and NCCRAHS staff. Based on information and perspectives shared in the meeting, NCCRAHS formulated and submitted a position statement for stakeholder meetings held by the Department of Labor later in March.

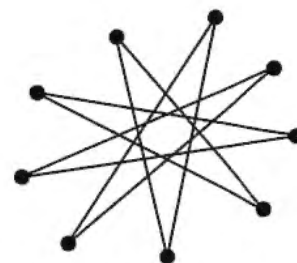
In October, NCCRAHS conducted two roundtable panel discussions at the Future of Rural Peoples symposium held in Saskatoon, Sask., Canada, to give participants insights on global childhood agricultural injury issues. A morning panel was dedicated to current and future activities in several countries and regions designed to keep non-working children healthy in agricultural settings. An afternoon panel discussed current and future practices regarding children working in agriculture. Countries and regions represented on the panels included Australia, Canada, Central America, Romania, Sweden and the United States.

## Childhood Agricultural Safety Network (CASN)

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The Childhood Agricultural Safety Network (CASN) continues to work as a collaborative team to explore methods to reduce childhood agricultural injuries. Network members continue to share recent activities and explore new ideas with each other. Specific CASN activities for 2003 included exhibiting as a group in a "safety island" at the National FFA Convention, convening an in-person meeting in November, and conducting various communications amongst network members. The CASN is comprised of members from the following organizations:

- Migrant Clinicians Network
- National Center for Farmworker Health
- National FFA
- National 4-H Foundation
- Farm Safety 4 Just Kids
- Progressive Agriculture Foundation
- National SAFE KIDS Campaign
- The National Safety Council and the National Education Center for Agricultural Safety



## Staff Summaries



### **Nancy Esser**

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Nancy helped finalize publication of "Creating Safe Play Areas on Farms" and took the lead role in disseminating the document. Nancy continues to field technical assistance requests related to childhood agricultural injury prevention and oversees ongoing improvement of the North American Guidelines for Children's Agricultural Tasks (NAGCAT) Web site.



### **Anne Greenlee, Ph.D.**

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Anne is the environmental consultant for the National Children's Center. In 2003, she led the Reproductive Toxicology Laboratory of the National Farm Medicine Center and served as director for the Midwest Center for Agricultural Disease and Injury Research, Education and Prevention. She published a study in the journal *Epidemiology* suggesting that women may increase their risk of infertility when they mix and apply herbicides, or apply fungicides, during the two years before trying to conceive. Anne presented those findings at the 5th International Symposium on the Future of Rural Peoples held in Saskatoon, Sask., Canada. She continued a study on occupational exposures, lifestyle choices and host susceptibility factors (genetics and age) on risk of Parkinson's disease. She completed studies to determine the effects of pesticide exposure on gene expression during early development and on pregnancy outcomes.



### **Christian Hanna, M.P.H.**

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Christian Hanna serves as the site director of the Children's Safety Network under subcontract to the Education Development Center, Inc., with funding from the federal Maternal and Child Health Bureau. During 2003, Christian served the Network and state health departments with expertise in rural youth injury prevention and adolescent suicide prevention. He made eight formal presentations to professional audiences at conferences and meetings, including the XXII World Congress of the International Association of Suicide Prevention World Injury Conference in Stockholm, Sweden, and Center for Disease Control and Prevention "Safety In Numbers" National Injury Prevention Conference in Atlanta. Additionally, in conjunction with the Wisconsin Department of Family and Health Services and others, conducted the Center for America Regional Emergency Services for Children (CARE) Symposium that involved representatives from seven states in the Midwest. The symposium was held in conjunction with the fourth annual Wisconsin Emergency Medical Services for Children (EMSC), Child Passenger Safety and Injury Prevention Conference for 300 participants from around the state. Special projects included serving as a team trainer at the Suicide Prevention Resource Center regional training in Denver, an expert panel reviewer for "The Essentials of Injury Prevention: Core Competencies for the Field Review," and facilitator at the National Child Death Review Team Training in Chicago. Christian also received advanced training in suicide prevention from the Karolinska Institute in Sweden.

### **Scott Heiberger**

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Scott, communications specialist, coordinated the first comprehensive redesigns of both the National Farm Medicine Center Web site and the quarterly National Children's Center newsletter. He led the launch of a newsletter devoted to the National Farm Medicine Center and was a member of the "Creating Safe Play Areas on Farms" core team. He represented the National Children's Center at several state and national events.



### **Steve Kirkhorn, M.D., M.P.H.**

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Steve became medical director of the National Farm Medicine Center in May, at the same time assuming the role of medical director of the Marshfield Clinic Occupational Health Department. He is president of the North American Agromedicine Consortium and is a nationally-recognized authority on rural family and occupational medicine. Steve is involved with initiatives at Marshfield Clinic, University of Wisconsin-Madison, and University of Minnesota in providing agromedicine education, as well as nationally in developing agromedicine education strategies for pediatricians and rural health care providers. He received the 2003 Stueland Scholar award for his leadership and research in the field of agromedicine. Steve came to Marshfield from the Mayo Health System.



### **Barbara Lee, Ph.D.**

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Barbara guided completion of "Creating Safe Play Areas on Farms," the first such comprehensive guidelines. She provided written comments to the U.S. Department of Labor regarding proposed changes in child labor regulations that affect young workers in agriculture. She submitted an application for the Center's continuation to NIOSH with approval granted for a five-year expansion of activities. Barbara served on the planning committee for the 5th International Symposium in Saskatoon, Saskatchewan, where she coordinated sessions and panels related to children and agriculture, and served on the symposium's international Think Tank Team. Barbara also served on the NIOSH Agricultural Centers Tractor Initiative team. She continued to serve as an advisor for several external programs. She completed her third year as director of the National Farm Medicine Center, a program of Marshfield Clinic Research Foundation. She received the annual Gwen Sebold Research Fellowship Award from Marshfield Clinic for her leadership and research in childhood agricultural injury prevention.



### **Amy Liebman, M.P.A.**

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As the National Children's Center's formal consultant through the Migrant Clinicians Network, Amy works as a "virtual" staff member from her home base in Salisbury, Md. She handles most technical assistance inquiries related to migrant children and provides weekly updates to NCCRAHS staff regarding relevant research, education and policy activities at regional and national levels. Amy also brings unique perspective to the Childhood Agricultural Safety Network as the Migrant Clinicians Network representative.





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**Barbara Marlena, Ph.D.**

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Barbara completed an evaluation of NAGCAT using a case series of injuries, and presented the results at American Public Health Association (APHA). She continued work on a farm health surveillance study comparing the incidence and prevalence of selected health conditions of farm and non-farm residents using the Marshfield Epidemiologic Study Area (MESA), and presented preliminary results at the 5th International Symposium in Saskatoon, Sask., Canada. Barbara was awarded a \$622,000 R01 grant from NIOSH to study the effect of removing the family farm exemption from the Hazardous Occupations Order for Agriculture. Barbara published several studies, including one in the journal *Pediatrics* showing that parents often assign developmentally inappropriate tractor jobs to their children, even when the parents possess a high knowledge of child development and a copy of NAGCAT. She was funded as a co-investigator to evaluate the most common tractors operated by children with respect to dimensional and operational characteristics to identify potential strength and anthropometric mismatches between the physical characteristics of children and adolescents age 12-16 years (as recommended by NAGCAT) and the tractors they are operating. Barbara also received funding from NIOSH for a two-year pilot study titled, "Youth Tractor Crashes on Public Roads: Impact of Wisconsin Law."



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**Mary Oertel**

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Mary, an administrative secretary, provides support in basic and complex clerical tasks and assists with special projects for the staff.



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**Michael Peters, M.S.**

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Mike was promoted to center coordinator, assisting with administrative and planning activities of the National Children's Center. One of Mike's main functions is oversight of the annual NCCRAHS mini-grant program which awards feasibility research funds to up to four external organizations. He also coordinates efforts of The Childhood Agricultural Safety Network.



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**Mark Purschwitz, Ph.D.**

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Mark joined the National Farm Medicine Center (NFMC) in September. His research program focuses on public policies that affect the health and safety of agricultural workers. Current projects include safety training for employers of adolescent farmworkers and an upgrade of the National Agricultural Safety Database child safety resources section. Mark previously spent a decade as the agricultural safety and health specialist for the state of Wisconsin. He was on the faculty at the University of Wisconsin-Madison where he was associate professor of Biological Systems Engineering; director of the UW Center for Agricultural Safety and Health; and Extension Agricultural Safety and Health specialist.

## Marlene Stueland

Marlene completed her first full year as National Farm Medicine Center Manager. Marlene handles all aspects of personnel and budget management, including external contracts.



## Jamie Zentner, M.P.H.

Jamie is a research specialist and has worked with Barbara Marlena on a variety of projects including an evaluation of NAGCAT using a retrospective case series design and a feasibility study comparing the incidence and prevalence of selected health conditions of farm and non-farm residents using the Marshfield Epidemiologic Study Area (MESA). Jamie is also involved in Dr. Marlena's most recently funded research, examining the impact of removing the family farm exemption from the Hazardous Occupations Order for Agriculture (HOOA) and a pilot project looking at the effect of a Wisconsin law on youth tractor crashes on public roads. Jamie presented a technical paper, "A Critical Review of NAGCAT in the Peer-Reviewed Literature" and "Children Engaged in Farm Work and Parents' Perceptions of Risk" at the National Institute for Farm Safety and American Public Health Association conferences, respectively.



Please refer to the NCCRAHS Web site for updates on staff activities,  
<http://research.marshfieldclinic.org/children/staff.htm>



The National Children's Center was well represented at the Fifth International Symposium, Future of Rural Peoples, October 19-23, in Saskatoon, Sask., Canada. From left: Barbara Marlena, Ph.D.; Dean Emanuel, M.D., founder of the National Farm Medicine Center; Steve Kirkhorn, M.D., M.P.H.; Anne Greenlee, Ph.D.; Barbara Lee, Ph.D.; Mike Peters, M.S.

## Publications

**Esser N, and Lee B.** (2003, June). Safe Play Areas on Farms Project. Proceedings: National Institute for Farm Safety, Windsor, Ont., Canada.

**Greenlee AR, Arbuckle TE, Chyou PH.** (2003). Risk factors for female infertility in an agricultural region, *Epidemiology*, 14:429-436.

Greenlee RT, **Marlenga B, Zentner J, Kieke B, Elliott J.** (2003). Disease surveillance in the Marshfield Epidemiologic Study Area: focus on farm families, *Annals of Epidemiology*, 13(8):568.

**Kirkhorn S, Greenlee RT, Reeser JC.** (2003). Epidemiology of Agriculture-related osteoarthritis and its impact upon occupational disability, *Wisconsin Medical Journal*, 102(7):38-45.

**Lee B.** (2003). Book Review. Looking beneath the surface of agricultural safety and health, *Injury Prevention*, 9(3):286.

**Pickett W, Marlenga B, Berg RL, and Brison R.** (2003). Growing up on the farm: some kids don't (guest editorial), *Journal of Agricultural Safety and Health*, 9(3):183-184.

**Pickett W, Marlenga B, and Berg RL.** (2003). Parental knowledge of child development and the assignment of tractor work to children, *Pediatrics*, 112(1 pt1):e11-16.

**Purschwitz, MA.** (2003). Health and Safety of Personnel in Agriculture. In *Mechanization and Automation*, edited by P. McNulty and P. Grace, in *Encyclopedia of Life Support Systems (EOLSS)*, Eolss Publishers Co. Ltd., Oxford, UK [http://www.eolss.net]

**Purschwitz, MA, Skjolaas, A. and Chang Y.** (2003). 2002 Wisconsin Farm-Related Fatalities. Dept. of Biological Systems Engineering, University of Wisconsin-Madison.

Westaby J, and **Lee B.** (2003). Antecedents of injury among adolescents in agricultural settings: A longitudinal examination of safety consciousness and dangerous risk taking constructs, *Journal of Safety Research*, 34(3):227-240.

**Zentner J, and Marlenga B.** (2003). A Critical Review of NAGCAT in the peer-reviewed literature. National Institute for Farm Safety, Paper No. 03-5.

## Published Abstracts with Oral Presentations or Poster Sessions

Brison R, Pickett W, **Marlenga B, and Berg R.** (2003). Fatal farm injuries among Canadian children: There is no "Golden Hour" for Young Farm Children. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 102 T-46. Oral presentation.

Brison R, Pickett W, **Marlenga B, and Berg R.** (2003). Fatal farm injuries among Canadian children: There is no "Golden Hour" for young farm kids. Ontario Injury Prevention Conference, Toronto, Ont., Canada. Poster.

Carl WR, Chyou P-H, Herr J, Kempf DL, and **Greenlee AR.** (2003). Potential sources of bias in a study of infertility and environmental exposures. Annual Meeting of the American College of Epidemiology, Chicago.

Ellis TM, Berg RL, Mercieca MD, **Greenlee AR.** (2003). Pregnancy outcomes for murine embryos exposed in vitro to an estrogenic pesticide. Midwest Regional Chapter of the Society of Toxicology, Lincolnshire, Ill.

**Esser NM, Lee BC, and Heiberger SW.** (2003). Development of Guidelines for Play Areas on Farms. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 182 W-45. Poster.

**Greenlee AR, Arbuckle TE, Chyou P-H.** (2003). Risk factors for female infertility in an agricultural region. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 125 T-12. Oral presentation.

Greenlee RT, **Marlenga B, Zentner J, Kieke B, Elliott J.** (2003). Disease surveillance in the Marshfield Epidemiologic Study Area: Focus on farm families. Annual Meeting of the American College of Epidemiology, Chicago. Poster.

Greenlee RT, **Marlenga B, Zentner J, Kieke B, Elliott J.** (2003). Farm Health Surveillance in the Marshfield Epidemiologic Study Area: A Pilot Study. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 141 T-13. Oral presentation.

**Hanna CL.** (2003). Paradise Lost: Suicide Behaviors of Adolescents and Young Adults in Hawaii Compared to the Mainland U.S., 1994-1998. Centers for Disease Control and Prevention, Safety In Numbers: National Injury Prevention Conference, Atlanta. Book of Abstracts, page 26. Poster.

**Hanna CL.** (2003). Stressors in Agricultural Workers. American Association of Suicidology Annual Conference, Santa Fe, N.M. Book of Abstracts, page 77. Poster.

**Hanna CL.** (2003). Youth and Suicide in U.S. Agriculture. XXII World Congress of the International Association of Suicide Prevention, Stockholm, Sweden. Book of Abstracts, P2:10. Poster.

**Kirkhorn, SR,** Young N. (2003). Effectiveness of a Web-Based Agricultural Respiratory Disease Module for Rural Practitioners. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 107 W-49. Oral presentation.

**Kirkhorn SR,** Rydholm LR, Miller AB. (2003). The Effectiveness of Farm Health Fairs to Assess Rural Agricultural Health and Safety Practices. Fifth International Symposium, Saskatoon, Sask., Canada. Book of Abstracts, 69 T-17. Oral presentation.

**Lee BC, Marlenga BL,** Gallagher SS, Hard DL, and Phelan CH. (2003) Lessons learned from the process and outcome of a summit on childhood agricultural injury prevention. The 3rd National Occupational Injury Research Symposium, Pittsburgh. NOIRS Book of Abstracts C1.4 page 75.

**Lee BC.** (2003). Bridging the gap between research and practice: Value of the national center for childhood agricultural injury prevention. The 3rd National Occupational Injury Research Symposium, Pittsburgh. NOIRS Book of Abstracts C1.5 page 76.

**Marlenga B,** Brison R, Berg RL, **Zentner J,** Linneman J, and Pickett W. (2003). Evaluation of the North American Guidelines for Children's Agricultural Tasks using a case series of injuries: Interim Results. American Public Health Association 131st Annual Meeting and Exposition, San Francisco. [http://apha.confex.com/apha/131am/techprogram/meeting\\_131am.htm](http://apha.confex.com/apha/131am/techprogram/meeting_131am.htm), abstract #68453. Oral presentation.

**Marlenga B,** Pickett W, Berg RL. (2003). Parents' Knowledge of Child Development and Assignment of Tractor Work to Children. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 95 T-16. Oral presentation.

**Marlenga B,** Pickett W, Brison RJ, Berg RL, **Zentner J.** (2003). Evaluation of the NAGCAT Using a Case Series of Injuries: Interim Results. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 103 M-18. Oral presentation.

**Marlenga B,** Pickett W, and Berg RL. (2003). Relationship between parents' knowledge of child development and their assignment of tractor work to children. Ontario Injury Prevention Conference, Toronto, Ont., Canada. Poster.

**Mazza JJ, Lee BC, Kirkhorn SR,** and **Reding DJ.** (2003). Incidence of hematologic malignancies in farmers. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 147 T-42. Poster.

**Peters MW, Lee BC,** and Murphy DJ. (2003). Proposed Revisions in U.S. Regulations Affecting Hired Youth in Agriculture. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 213 T-43. Oral presentation.

Pickett W, **Marlenga B,** Berg RL. (2003). Multi-Site Randomized Controlled Trial to Evaluate Dissemination Methods of NAGCAT. Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Book of Abstracts, 101 T-5. Oral presentation.

Pickett W, **Marlenga B,** Brison R, and Berg R. (2003). Protecting very young children from farm work hazards: Building evidence from a national case series of pediatric deaths. Ontario Injury Prevention Conference, Toronto, Ont., Canada. Poster.

**Purschwitz M.** (2003). Creating a Safer and Healthier Agriculture – Are We Asking the Right Questions? Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities, Saskatoon, Sask., Canada. Oral presentation. Book of Abstracts, 184 T-17.

**Zentner J,** and **Marlenga B.** (2003). A Critical Review of NAGCAT in the peer-reviewed literature. National Institute for Farm Safety, Windsor, Ont., Canada. Oral presentation.

**Zentner J, Marlenga B,** Berg RL, Pickett W. (2003). Farm Parents' Perception of Risk on their Farm and Implications for Child Safety. American Public Health Association 131st Annual Meeting and Exposition, San Francisco. [http://apha.confex.com/apha/131am/techprogram/meeting\\_131am.htm](http://apha.confex.com/apha/131am/techprogram/meeting_131am.htm), abstract #68814. Oral presentation.

## Invited Presentations

### Wisconsin Turfgrass and Greenscape Expo 2003

January 7, Madison, Wis.

"Safety – It's More Than Just Being Careful," Mark Purschwitz

### Wisconsin Injury Prevention Advisory Committee

January 9, Madison, Wis.

"Providing Injury Prevention Services," Chris Hanna

**Wisconsin State Cranberry Growers Association**

January 14, Wisconsin Rapids, Wis.  
"Protecting Yourself Against Farm Injury," Mark Purschwitz

**Scientific Seminar, Marshfield Clinic Research Foundation**

January 27, Marshfield, Wis.  
"Confined Animal Feeding Operations: Are they bad for your health or do they just smell bad?" Steve Kirkhorn

**UW Family Practice Rural Training Tracks Annual Meeting**

February, Madison, Wis.  
"Rural Occupational Health Issues," Steve Kirkhorn

**Farm Bureau Young Farmers and Ranchers Leadership Conference**

February 15-17, Hershey, Pa.  
"Children on Farms: Safe Work and Safe Play," Nancy Esser

**Scientific Seminar, Marshfield Clinic Research Foundation**

March 18, Marshfield, Wis.  
"Creating a Safer and Healthier Agriculture - Are We Asking the Right Questions?" Mark Purschwitz

**Partners in Agricultural Health: Wisconsin Women's Spring Fling**

March 22, Wisconsin Dells, Wis.  
"Safe Play for Children on Farms," Nancy Esser

**The Clock is Ticking for Rural America: A Behavioral Health and Safety Conference**

May 29, Kansas City, Mo.  
"Suicide in Agricultural Populations," Chris Hanna

**National Association of County Agricultural Agents**

July 14, Green Bay, Wis.  
"Safety Technologies for Agriculture," Mark Purschwitz

**Wisconsin Farm Technology Days**

July 15, Waupaca County, Wis.  
"Creating Safe Play Areas on Farms," Nancy Esser

**Wisconsin Farm Technology Days**

July 16, Waupaca County, Wis.  
"Arthritis: Evaluation, Treatment and the Effect upon Agricultural Work," Steve Kirkhorn

**Childhood Death Review Teams National Training**

September 6, Chicago  
"Child Death Review: Considerations for Rural Child Deaths," Chris Hanna

**Challenges in Agricultural Health and Safety, Western Agriculture Conference**

September 8, San Francisco  
"Dealing with 'Safe' Play Issues in Agricultural Settings," Barbara Lee

**Challenges in Agricultural Health and Safety, Western Agriculture Conference**

September 8, San Francisco  
"Monkeypox: An emerging zoonotic disease in rural areas," Steve Kirkhorn

**NIOSH Childhood Agricultural Grantee Meeting**

September 25, Morgantown, W.Va.  
"National Children's Center Current and Future Activities," Barbara Lee

**NIOSH Childhood Agricultural Grantee Meeting**

September 25, Morgantown, W.Va.  
"Evaluation of the North American Guidelines for Children's Agricultural Tasks using a case series of injuries," Barbara Marlenga

**Crisis Intervention Conference**

September 25-26, Baraboo, Wis.  
"Self Inflicted Injury Behavior Contributing to Youth Suicide in Wisconsin," Chris Hanna

**Wisconsin Emergency Medical Services for Children-Childhood Emergencies Conference**

October 17, Wisconsin Dells, Wis.  
"Application and Answers to Community Program Evaluation," Chris Hanna

**Wisconsin Emergency Medical Services for Children-Childhood Emergencies Conference**

October 17, Wisconsin Dells, Wis.  
"Creating Safe Play Areas on Farms," Scott Heiberger

**Wisconsin Emergency Medical Services for Children-Childhood Emergencies Conference**

October 17, Wisconsin Dells, Wis.  
"Telling the Story: Children and Trauma," Chris Hanna

**Wisconsin Bureau of Environmental Health**

November 17, Madison, Wis.  
"Children on Farms: Safe Work and Safe Play," Nancy Esser

**Wisconsin Bureau of Environmental Health**

November 17, Madison, Wis.  
"Kids in the Country: Risks, Hazards, and Injury," Chris Hanna and Nancy Esser

**Injury Research Center, Medical College of Wisconsin**

December 11, Milwaukee, Wis.  
"Evaluation of a National Rural Youth Safety Initiative: Did a \$1 Million Corporate Investment Deliver on its Promise?" Barbara Lee

## 2003 Exhibits and Conferences Attended

**National Organization for Youth Safety**

January 17-18, Washington, D.C.

**American Farm Bureau Federation convention**

January 19-23, Tampa, Fla.

**Basic Emergency Lifesaving Skills for School Training of Trainers**

January 31-Feb. 1, Marshfield, Wis.

**National Institute for Occupational Safety and Health Tractor Workshop**  
February 13-14, Pittsburgh

**American Farm Bureau Federation Young Farmers & Ranchers Leadership Conference**  
February 15-17, Hershey, Pa.

**UW Extension meeting: Farmowners and Hispanic Farmworkers**  
March 25, Kaukauna, Wis.

**American Association of Suicidology**  
April 23-26, Santa Fe, N.M.

**Centers for Disease Control & Prevention Injury Conference**  
April 28-29, Atlanta

**National Pork Board - Public Health and Worker Safety Technical Advisory Panel meeting**  
June 17, Des Moines, Iowa

**National Institute for Farm Safety annual meeting**  
June 22-25, Windsor, Ont., Canada

**Wisconsin Farm Technology Days**  
July 15-17, Waupaca County, Wis.

**Western Agriculture Conference**  
September 7-10, San Francisco

**XXII World Congress of the International Association of Suicide Prevention**  
September 10-14, Stockholm, Sweden

**National Institute for Occupational Safety Health - Child Agricultural Grantees Meeting**  
September 24-25, Morgantown, W.Va.

**World Dairy Expo**  
September 30-October 4, Madison, Wis.

**American College of Occupational & Environmental Medicine - State of the Art Conference**  
October 13-14, Toronto, Ont., Canada

**Wisconsin Emergency Medical Services for Children Childhood Emergencies Conference**  
October 15-17, Wisconsin Dells, Wis.

**Suicide Prevention Resources Center Regional Training**  
October 27-30, Westminster, Colo.

**Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities**  
October 19-23, Saskatoon, Sask., Canada

**National Association of Farm Broadcasters**  
November 11-13, Kansas City, Mo.

**American Public Health Association**  
November 15-19, San Francisco

**Wisconsin Bureau of Environmental Health**  
November 17-18, Madison, Wis.

## Federal Agency Representatives

**Stephanie Bryn, M.P.H.**  
Maternal & Child Health Bureau

**David Hard, Ph.D.**  
National Institute for Occupational Safety and Health

**Art Kerschner, Jr.**  
U. S. Department of Labor

**Brad Rein, P.E.**  
U.S. Department of Agriculture/  
Cooperative State Research, Education,  
and Extension Service

## Childhood Agricultural Safety Network Members

**Farm Safety 4 Just Kids**  
Earlham, Iowa  
Contact: Shari Burgus, M.Ed.

**Migrant Clinicians Network, Inc.**  
Austin, Texas  
Contact: Amy Liebman, M.P.A.

**National Center for Farmworker Health**  
Buda, Texas  
Contact: Sylvia Partida

**National 4-H Council**  
Chevy Chase, Md.  
Contact: Summer Sedlacek

**National FFA**  
Alexandria, Va.  
Contact: Jim Armbruster

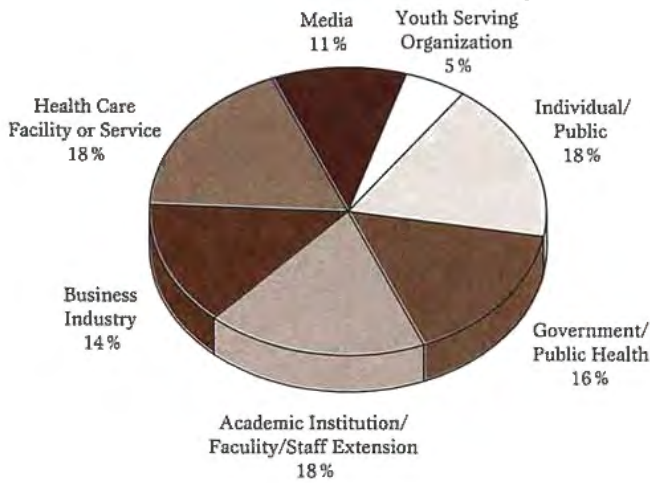
**National SAFE KIDS Campaign**  
Washington, D.C.  
Contact: Alan Korn, J.D.

**Progressive Agriculture Foundation**  
Birmingham, Ala.  
Contact: Susan Reynolds, M.S.

# Technical Assistance Requests

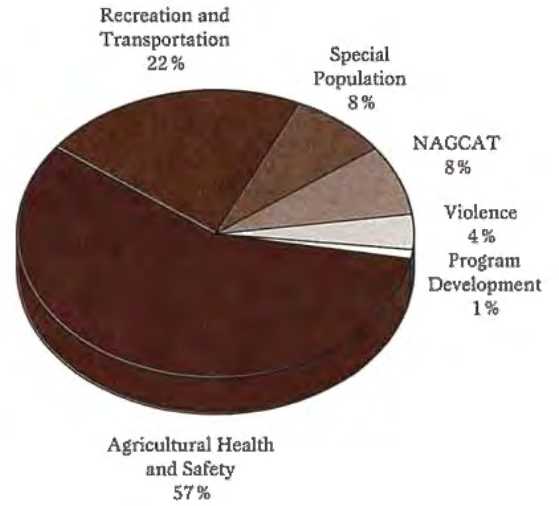
## Technical Assistance Requests by Customers

January through December 2003  
(n = 532)



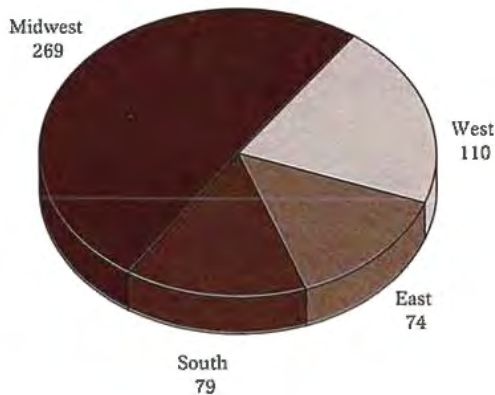
## Technical Assistance Requests by Topic

January through December 2003  
(n = 532)



## Technical Assistance Requests by Region

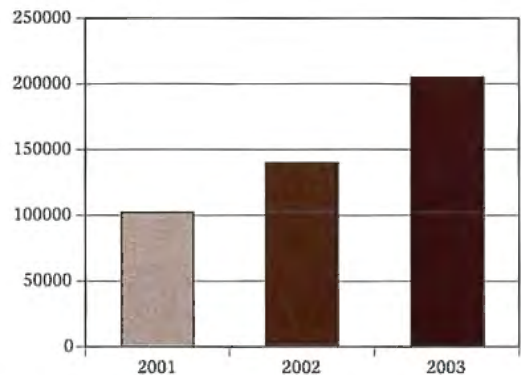
January through December 2003  
(n = 532)



## Web Site Use

### NCCRAHS/NAGCAT External Web site Visits

<http://research.marshfieldclinic.org/children/>  
[www.nagcat.org](http://www.nagcat.org)





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

1-800-662-6900 or 715-389-4999  
email: [nccrahs@mcrf.mfldclin.edu](mailto:nccrahs@mcrf.mfldclin.edu)  
<http://research.marshfieldclinic.org/children>  
[www.nagcat.org](http://www.nagcat.org)

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MARSHFIELD CLINIC RESEARCH FOUNDATION  
NATIONAL FARM MEDICINE CENTER  
1000 N OAK AVE  
MARSHFIELD WI 54449-5777



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