

The National Committee for Childhood Agricultural Injury Prevention: A Plan for the United States of America



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The U.S.– Nordic Conference on Rural Childhood Injury Prevention provides a wonderful opportunity to compare and contrast production agriculture and injury prevention programs among our countries. For example, our National Farm Medicine Center is located in

the State of Wisconsin situated in the north central area of the U.S. Wisconsin encompasses 14.4 million hectare (35.7 million acres), 4.9 million people, and about 80,000 farms (see Table 1). The majority of these farms are family-owned operations, but this is gradually

Table 1. Characteristics of Farms in USA* and State of Wisconsin**, USA

	USA	WI
Total population	266,146,834	5,061,451
Number of farms	1,925,300	80,000
Average size of farm in hectares	199	85
Major enterprises	livestock, poultry, crops (food and fiber), horticulture	dairy, vegetables, beef, crops
Number of farm owners/operators	1,053,150	68,000
Number of hired laborers	3,801,878	109,400

* Census of Agriculture. US Department of Commerce. Report No. AC92-A-51, 1994:1.

** U.S. Department of Agriculture, Wisconsin Agricultural Statistics Service. Wisconsin Agricultural Statistics 1996.

changing to corporate enterprises. In Wisconsin, between 5 and 8 children younger than 15 years of age are the victims of fatal farm injuries each year. These facts regarding population, farms, and childhood injuries are remarkably similar to what is experienced in many of the Nordic countries. This paper will provide a broad overview of rural and agricultural injuries among children in the U.S., then describe a very specific approach that was used to generate a national action plan for injury prevention.

Rural and Agricultural Childhood Injuries in the U.S.

Approximately 27% of the U.S. population resides in rural areas and rural residency is increasing by 4.9% each year, compared with a 2.4% increase for urban residency. It is estimated that 63.7 million children reside in rural America (Dacquel and Dahmann, 1993). Across the U.S., there are 1.9 million farms (Census of Agriculture, 1994) with an estimated 1.5 million children residing on farms (Dacquel and Dahmann, 1993). It is not possible to estimate the total number of children exposed to rural and agricultural hazards, since many injuries occur to urban children who are visiting or working on farms or rural locations.

What are the most common childhood injuries associated with rural life?

Looking at broad categories, motor vehicles are the agent of injury for the majority of childhood injuries in rural America, followed by firearm-related injuries and drowning (Fingerhut, 1996). Other sources of injury are bicycles, all-terrain vehicles, snowmobiles, horses, falls, fires, and farm-related machinery and environments. The U.S. does not have a comprehensive injury reporting system, therefore annual statistics specific to rural or agricultural injuries are not available. It has been estimated that more than 100,000 child-

ren are injured on farms each year (Miller, 1995) and up to 300 children are victims of fatal injuries on farms each year (Rivara, 1985). In both the U.S. and Canada, children younger than 16 years of age comprise up to 20% of all farm fatalities. Peak ages for agricultural trauma include early toddler years through four years of age and middle adolescence. After the toddler age, males consistently experience a greater rate of injuries than females (Purschwitz, 1990). It is widely believed that injuries associated with production agriculture are persistent, yet preventable. Therefore, action is warranted to minimize these injuries among children.

Justification for a National Action Plan

What are the major challenges we face in trying to reduce the number of childhood agricultural injuries?

Traditional farm and family practices play a strong role in children's exposure to hazards on farms. Multigenerational farm sites, combined with years of independent work practices, have resulted in work environments that have not kept pace with the safety practices of other industries. Another challenge in protecting children from hazards on farms is the issue regarding home residence. Children who grow up on farms may be keenly aware of existing hazards, yet they are not immune to traumatic events. Additionally, between one-third and one-half of children injured on farms are not residents of the farm where they are injured and many victims are merely bystanders to the work (Miller, 1995; Stuehl et al., 1995). Other challenges to injury prevention include the limited efficacy of safety programs provided for adults and children; the lack of child care options in rural areas; the absence of child labor laws applicable on family farms; and limited options for enforcing child labor laws in the U.S.

Given the scope of the childhood agricultural injury problem in the U.S., the question was posed, "what specifically should be done?" Across the country, a variety of educational approaches are utilized, including interventions such as safety camps and patient counseling. However, child safety advocates and agricultural safety specialists believe there is a need to develop a systematic approach to solving the childhood agricultural injury problem. The intent is to coordinate efforts and place our energy into those activities likely to have the most significant results. Thus, the National Committee for Childhood Agricultural Injury Prevention was developed as a joint public/private sector initiative with funding from federal agencies and in-kind support from committee members. The goal of the Committee was "to maximize the safety and health of all children and adolescents who may be exposed to agricultural hazards." The guiding principle for the Committee was that "all children, regardless of their parents' ethnicity, socioeconomic status, a relationship to farm ownership, deserve equal protection from agricultural injuries."

Process of the National Committee

In order to develop a national action plan, a consensus-development process was employed with 42 committee members who represented a wide spectrum of perspectives and experience. A separate activity involved an action plan for gaining farm community support. Staff of the National Farm Medicine Center coordinated these two distinct activities over a 16 month period that resulted in a final action plan that was published as a 22 page report. The process for developing consensus among committee members involved teleconference calls, in-person meetings, and review of written materials. Committee members worked within six categorical groups to

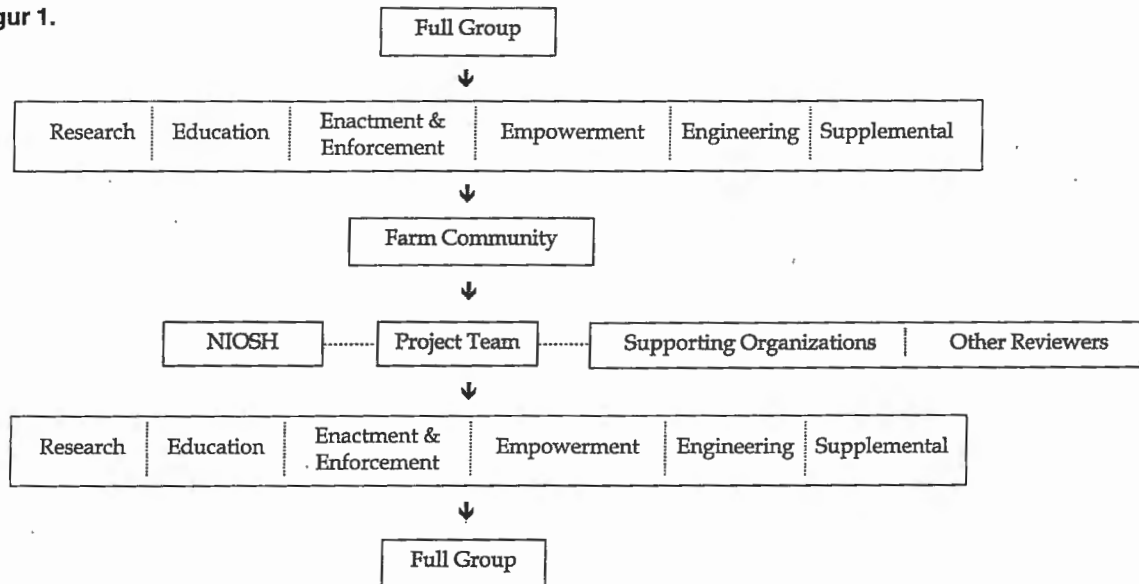
debate issues and refine content; then the full committee reviewed and approved the final report.

In order to gain input and support from the farming community, as well as to avoid misunderstanding, 27 prominent farm organizations were contacted for their participation in the development of the report. Thirteen organizations were personally visited by committee members. Each of these organizations used different systems for gaining constituents' feedback on the strengths and limitations of proposed recommendations. Written responses from the farm organizations provided insight into issues that troubled farmers, as well as statements that were not clearly stated. For example, farmers interpreted the use of the term "surveillance" as meaning snooping or spying on farms rather than collecting data on injuries. Once feedback was received from the farming community, the draft document was shared with staff of the National Institute for Occupational Safety and Health (NIOSH), reviewers representing special populations such as African-American farmers, and directors of nearly 100 professional organizations that might lend their support to the action plan.

As can be expected in a consensus-development process, there was considerable debate and controversy regarding proposed recommendations. The first issue generating debate involved the designation of a lead federal agency to be accountable for childhood agricultural injury prevention. Until the present time, there was no federal agency responsible for this problem. After considerable review of the options and direct contact with the federal agency, committee members agreed that NIOSH (primarily a research agency) should be asked to coordinate implementation of the national action plan.

Other points of disagreement among committee members involved the enforcement and enactment recommendations. Specifically, there was disagreement regarding the inclu-

Figur 1.



sion of specific policy mandates within the report. In the end, committee members agreed that, as child safety advocates, the report should be strong enough to include recommendations that would ensure children are not placed in a position of operating unsafe equipment, or operating machinery before they have reached an appropriate age. The intent was to provide youth working on farms with safety standards comparable to those youth working in nonagricultural occupations.

Objectives of the U.S. National Action Plan

With the goal of maximizing the safety and health of all children and adolescents exposed to agricultural hazards, 13 objectives and 43 recommended action steps were proposed. The objectives included:

1. Establish and maintain a national system for childhood agricultural injury prevention.
2. Ensure that childhood agricultural injury prevention programs are supported with
3. sufficient funding and cooperation from the public and private sectors.
4. Establish guidelines for children's and adolescents' work in the industry of agriculture.
5. Ensure that the public is aware of general childhood agricultural safety and health issues.
6. Establish and maintain a comprehensive national database of fatal and nonfatal childhood agricultural injuries.
7. Conduct research on costs, risk factors, and consequences associated with children and adolescents who participate in agricultural work.
8. Use systematic evaluation to ensure that educational materials and methods targeted toward childhood agricultural safety and health have demonstrated positive results.
9. Ensure that farm and ranch owners/operators, farm workers, parents and caregivers understand relevant agricultural safety and health issues that pertain to children and adolescents.
10. Ensure that rural safety and health professionals understand the issues relevant to

- children and adolescents exposed to agricultural hazards.
10. Influence adult behaviors which affect protection of children and adolescents through the use of incentives and adoption of voluntary safety guidelines.
 11. Provide a protective and supportive environment for children exposed as bystanders to agricultural hazards.
 12. Establish uniform standards that address protection of children and adolescents from agricultural occupational hazards.
 13. Increase adherence to child labor laws through active and funded enforcement, including the use of penalties.

Impact and Outcome of the National Action Plan

In April 1996, more than 5,000 copies of "Children and Agriculture: Opportunities for Safety and Health" were widely disseminated across the United States. Methods of dissemination included general mailings to key groups, personalized mailings to all members of the U.S. Congress and state governors, and response to requests for reports via electronic mail and library listings. The reaction of farm and ranch operators to the action plan was primarily positive. Several groups were interested in knowing how to become more involved in injury prevention activities. The media responded in a rather unique manner. Their primary interest was in the committee's interest in "shunning the feds" and dealing primarily with the private sector. Policymakers listened to our requests for financial support but indicated it would be difficult to garner government funds for this initiative, given the current economic conditions and pressure to cut the federal budget. Because 1996 was an election year, it was not possible to predict whether or not we would gain government support for the plan.

It is with great pleasure that we can now announce that effective October 1, 1996, the U.S. government moved forward and approved allocation of \$5 million to NIOSH for purposes of implementing the action plan. NIOSH is willing to adopt new strategies so this program does not appear like a typical government-run program. For example, it is proposed that an advisory panel, heavily weighted with representatives of the farming community, guide the distribution of the \$5 million. It is the committee's hope that we can transition "ownership" of injury prevention programs from the federal agency to the farming community over a five year period. With seed money from this initiative, new partnerships may be formed to test and implement injury prevention programs. These will hold greatest potential for success where there is an economic incentive. For example, programs that provide rural day care options or insurance-based incentives, will be strongly promoted. Additionally, NIOSH is expected to develop an injury surveillance system so that progress towards injury reduction can be tracked through national injury statistics.

Outcome Evaluation

Members of the national committee wanted to determine the strengths and limitations of the process used to develop consensus on this complicated issue. Several evaluation measures were employed to assess the process, impact, and final outcome of this initiative. For example detailed reports on time and money during the developmental phase have been maintained. In order to assess the committee participants' perspective on the process, confidential telephone interviews were conducted and results were summarized. Telephone interviews were also conducted with representatives of the prominent farm organizations that were involved in this process. For the most part, committee mem-

bers and farm organizations indicated they felt that their perspectives were considered and the report reflects a broad base of concerns and priorities (Buchan, 1996).

The ultimate evaluation of this initiative will be measured by children's lives saved and improved working conditions on farms. Perhaps in five or more years we might witness some small successes. Additionally, by sharing information on international experiences we hope to learn the value of a variety of interventions and to appreciate the relative value of different approaches. Through international networking and collaboration, we can all strive to provide a safer environment for children in agriculture regardless of their geographic location.

Closing

As child safety advocates, it is helpful to consider living conditions and injury prevention programs from the perspective of the child. The best way in which I can do that is by sharing the prose of Nancy Young, as it is included in our national committee's report:

What would the children expect from those of us with the power to make them safer?

They would expect that...

We would cherish with them the beauty of the American countryside – the joy they feel on a long walk in the woods or in an open field. But they would expect us to note that the same open spaces that liberate can also isolate – so that sometimes their voices are not heard.

They would expect that...

We would work to eliminate the sadness and fatigue that they feel when they are asked to work too hard, too soon. But they would also

want us to rejoice with them as they experience the sense of mastery, accomplishment, and contribution that can come from working alongside an adult whom they respect.

They would expect that...

We would be their voice with policymakers when they don't have one – when their numbers are too small, their homes are too remote, their pockets are too empty, or their protection too controversial.

They would expect that...

We would honor the traditions of rural families and communities, but that we would call them into question when they are incompatible with the safety and well-being of children. Then they would expect that we would work with their families and communities to build better, stronger, safer traditions – traditions that build as the first priority, the preservation of children, not the preservation of history.

Nancy B. Young

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