



## A story of **Impact**

### *Guidelines for Children's Agricultural Tasks Demonstrates Effectiveness*

Farms have been recognized as a hazardous environment for adults and youth. Youth living on farms are not only exposed to hazards while working, but also by merely residing on the farm.

An estimated 1.03 million children and adolescents younger than 20 years of age resided on farms in 2010, with 15,011 youth injured on farms.<sup>1</sup> On average, 113 youth die annually from farm-related injuries (1995-2002).<sup>2</sup> Of the leading sources of fatal injuries to youth on U.S. farms, 23% involved machinery (includes tractors), 19% involved motor vehicles (includes all-terrain vehicles [ATVs]), and 16% were due to drowning.<sup>2</sup>

At the request of farm parents seeking guidance in assigning appropriate work to youth, the National Children's Center for Rural and Agricultural Health and Safety created the North American Guidelines for Children's Agricultural Tasks (NAGCAT).<sup>3</sup> NAGCAT was based on child development principles and matched a child's physical, mental, and psychosocial abilities with the requirements of specific farm work. The NAGCAT initiative is a model for effective

▲ Animal handling is one of the many jobs done by children on farms and ranches across the U.S. Photo by Scott Heiberger, National Children's Center for Rural and Agricultural Health and Safety.

#### **Relevant Information**

**Each year, over 100 youth die** from farm-related injuries, with most of the deaths in the 16-19 age group.<sup>2</sup>

**The North American Guidelines for Children's Agricultural Tasks** ([www.nagcat.org](http://www.nagcat.org)) were developed in 1999 to aid parents in appropriately assigning farm work to children.<sup>3</sup>

**From 1998-2009**, the injury rate for youth living on farms decreased from 18.8 to 9.9 injuries per 1,000 farms.<sup>1</sup>



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public-private partnership. It was funded primarily by the National Institute for Occupational Safety and Health (NIOSH); however, continued funding, resources, and partnership with the private sector has allowed for greater awareness and dissemination of NAGCAT.

## Impact

A randomized control trial was conducted on farms in central New York State to determine NAGCAT's efficacy in reducing childhood agricultural injuries.<sup>4</sup> Active dissemination of NAGCAT to farm families over a one year period created several changes on the farm. Intervention farms made more safety-related changes than did control farms. In the 0 to 19 year age group, the amount of time that lapsed before occurrence of a NAGCAT-preventable injury was significantly longer for the intervention than the control group. Incidence of NAGCAT-preventable injuries decreased by half among seven to 19 year-olds on intervention farms where active dissemination of NAGCAT occurred versus control farms. Lastly, NAGCAT appeared to affect intermediate outcomes, such as setting limits on the amount of time a child could perform work between breaks, delaying initiation of ATV-use, and making more safety-related changes on the farm.<sup>4</sup>

Between 1998 and 2009, work-related injury rates among youth living on farms have declined.<sup>5</sup> Several factors may have contributed to this decrease including: National Children's Center initiatives to establish guidelines, most notably NAGCAT and Creating Safe Play Areas on Farms; Congressional approval and funding of the National Action Plan for Childhood Agricultural Injury Prevention; leadership and funding by NIOSH; high-quality research that provided evidence of strengths and limitations of various interventions and policies; private donations to organizations such as Farm Safety 4 Just Kids and Progressive Agriculture Foundation for community-based safety programs; campaigns supported by media coverage; and a willingness of farm owners and parents to bury unsafe traditions and adopt new practices involving youth workers.<sup>5</sup>

Development, dissemination, and implementation of NAGCAT has demonstrated its effectiveness in reducing child agricultural injuries. However, the number of youth injuries and fatalities on farms continues to be a public health concern. A multi-faceted prevention strategy that includes use of NAGCAT is recommended as the next step in further reducing childhood agricultural injuries.

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For more information, visit the National Children's Center Web site at [www.marshfieldclinic.org/nccrahs](http://www.marshfieldclinic.org/nccrahs) and the National Institute for Occupational Safety and Health (NIOSH) at [www.cdc.gov/niosh](http://www.cdc.gov/niosh).

<sup>1-5</sup> For a complete list of references, see [www.cdc.gov/niosh/docs/2011-129/](http://www.cdc.gov/niosh/docs/2011-129/).

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DHHS (NIOSH) Publication No. 2011-129

