grants specific to childhood agricultural safety and health research have been funded and completed. Early grants focused on surveillance, intervention strategies, evaluation of educational/training programs, and the evaluation of farm safety day camps. New grant proposals were called for in FY2003 for research to 1) develop and evaluate new or existing enhanced control technologies, 2) develop and evaluate incentives which encourage adults to protect youth, or 3) identify the economic and social consequences of youth working on farms. Additionally, a RFA was announced for renewal of the National Center for Childhood Agricultural Injury Prevention in FY 2003, which is an integral part of the overall initiative. A national surveillance plan for childhood agricultural injuries is being developed and implemented by NIOSH. A website featuring publications and summaries of the research conducted under this initiative has been implemented and updated for public access. Finally, receiving external input for the Initiative has been addressed by reinstituting the Federal Task Force on Childhood Agricultural Injury Prevention and planning for another stakeholder input meeting in 2005.

C1.2

Title: Surveillance of On-Farm Injuries to Youth in the United States

Author: Myers JR

In 1997, the National Institute for Occupational Safety and Health (NIOSH) began a national initiative to prevent fatal and nonfatal injuries to youth on farms in the United States. A major component of this initiative is the development of a surveillance program for injuries to youth that occurred on farms. This surveillance program is an internal NIOSH activity, and has the goal of providing national and regional surveillance on injuries occurring to a variety of youth populations exposed to farm hazards. The populations at risk include: youth farm workers and the children of farm workers; children of farm operators; and, children visiting farming operations. Development of the surveillance program included the assessment of existing data sources for their utility in providing on-farm youth injury information, and the development of new data collection systems to cover populations not adequately addressed by existing data systems. Existing data systems that have been examined include the Bureau of Labor Statistics' Census of Occupational Fatal Injuries, the Consumer Product Safety Commission's National Electronic Injury Surveillance System, and the National Center for Health Statistics' Vital Statistics Mortality data system. New data collection efforts include periodic farm operator surveys conducted in cooperation with the National Agricultural Statistics Service, periodic youth farm worker surveys conducted in cooperation with the Department of Labor through the National Agricultural Workers Survey, and the annual collection of farm-related death certificates through the cooperation of State Vital Statistics Registrars. By combining information from all these data sources, NIOSH intends to create a workable and cost effective approach to providing injury surveillance for the three broad youth populations at risk to farm hazards. Finally, this surveillance program will undergo an external review by experts in the area of agricultural safety and health surveillance to ensure the scientific soundness and appropriateness of this program.

C1.3

Title: Hmong Children as Farm Workers in Minnesota: Hazards, Tasks and Safe Work Practices

Authors: Shutske JM, Schermann M

The purpose of this NIOSH-funded research project has been to 1) examine the extent and nature of children's agricultural labor in farm families of Hmong origin in Minnesota; 2) investigate culture-specific health behavior patterns and culturally appropriate health promotion methods for farm families of Hmong origin; and 3) analyze the North American Guidelines for Children's Agricultural Tasks (NAGCAT) manual labor guidelines for applicability and appropriateness for use by Hmong farming families. Qualitative and quantitative research methods were used, including extensive literature review; review of secondary data; semi-structured interviews of parents, grandparents, and other care providers; focus groups; field observations of children and families performing work; and height and weight measurements of children. Text narratives, field notes, and photographs were analyzed using Atlas.ti software used to manage and organize qualitative data. Numerical data were analyzed with SPSS. Hmong farm children are engaged in different work tasks, roles, and responsibilities compared to mainstream North American farm children. Hmong children perform tasks in four temporal phases: preharvest, harvest, post-harvest, and at the market. The characteristics and intensity of tasks performed by children differ in each phase. Tasks differ by age and gender. Girls work longer hours and carry heavier loads than boys of the same age. Standard health and safety materials are not widely accepted by Minnesota Hmong farmers. Participants in this project helped develop culturally appropriate and relevant materials for Hmong farm parents and children. These materials and the development process will be presented and discussed.

C1.4

Title: Lessons Learned from the Process and Outcome of a Summit on Childhood Agricultural Injury Prevention

Authors: Lee BC, Marlenga BL, Gallagher SS,
Hard DL, Phelan CH

Background: Following a five-year infusion of public and private dollars to implement a national action plan on childhood agricultural injury prevention (for which NIOSH serves as lead agency), a comprehensive progress review was warranted. The

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