distinguishing factor in teenage job and task delineation, was not found to be an important predictor of performing potentially hazardous tasks. Hazardous tasks as well as deficits in the training of adolescents associated with these tasks tend to be concentrated in certain industries.

Development of Specific Guidelines for Adolescents' Work in Agriculture: Results of a Pilot Study—Lee B, Marlenga B, Hanna C

Adolescents are often injured while conducting agricultural work that may be beyond their physical and cognitive abilities. In 1996 the National Committee for Childhood Agricultural Injury Prevention recommended that guidelines be developed to assist parents and employers in assigning safe, appropriate farm work to children and adolescents. Given the complex nature of agricultural work and the controversial aspects of establishing age guidelines for specific tasks, a pilot study (funded by the CDC-Injury Center at the University of Iowa) was conducted over a 10 month period to determine the feasibility of embarking upon a large-scale initiative to develop "North American Guidelines for Children's Agricultural Tasks."

The overall goal of this initiative is to reduce the risk of fatal and nonfatal agricultural injuries to children younger than 16 years who are conducting farm work. Specific aims of the pilot study were to: a) investigate current information on age- and developmentally-appropriate agricultural tasks for youth; b) identify an effective method for generating comprehensive guidelines applicable to agriculture across North America; c) identify farm parents' perspectives on preferred options for receiving agricultural work guidelines for youth; and d) propose a full-scale initiative based on evaluation results of the pilot phase.

Pilot study methods included: a) a comprehensive review of international literature, farm safety bulletins, and anecdotal notes and reports; b) telephone and in-person meetings with 14 primary advisors; c) written communications with 24 secondary reviewers; and d) focus groups with farm parents.

Results of the pilot study revealed that: a) agricultural work guidelines for youth, based upon empirical data, do not exist; b) the job task analysis framework used in industry is most useful in depicting relevant variables; c) content regarding specific tasks is best obtained from a worker actively engaged in that agricultural enterprise; d) while most child safety advocates are eager to collaborate, the most meaningful input is obtained from agricultural safety specialists; e) given the time constraints of most people, a small group of paid consultants/collaborators is most efficient in working productively; and f) farm parents have mixed feelings about using guidelines for children's agricultural work, but are most interested in receiving information that is brief and reader-friendly, such as a poster to place in the work setting.

Pilot study results provided valuable information that was used to: 1) secure funding from NIOSH and the Maternal and Child Health Bureau (MCHB) to convene a project team comprised of our staff plus 10 paid consultants from the United States, Canada, and Mexico; 2) establish a practical methodology for generating, reviewing, and field-testing about 100 different agricultural work guidelines; and 3) upon completion of field-testing and final approval of the content by the project team, prepare for multimedia dissemination of agricultural work guidelines to a variety of stakeholders.

This presentation will briefly describe the results of the pilot study and then explain the current status and specific process of this five-year initiative that is now being funded by NIOSH, MCHB, and private sector support.

Session 26: Occupational Eye Injuries

Acute Eye Injury in the Workplace—Jackson LL, Berandinelli SP, Geidenberger CA, Johnston JJ, Long DJ, Layne LA, Islam S

Acute eye injuries continue to occur in the workplace despite being a preventable injury. The U.S. Bureau of Labor Statistics (1996) reported that private industry eye injuries in 1994 accounted for 3.7% (about 83000 incidents) of all nonfatal injuries involving a day or more of lost work. Eye injury and illness incident rates varied greatly among industries with the construction industry having the highest incident rate (29.0 incidents/10,000 full-time workers), about three times higher than the average rate for all private industries (10.4 incidents/10,000 full-time workers). Despite the high incidence rate of eye injuries in some industries, relatively little information is available about industry-specific eye injury risk factors, effectiveness of prevention measures, and associated medical treatment and lost work time.

In order to develop a better understanding of occupational eye injury, we examined data from three sources: the West Virginia Workers' Compensation Program (WVWCP) for work-related injury claims for July 1995 through June 1996; the 1988 National Health Interview Survey (NHIS) for self-reported injuries and medical treatment that occurred during a one-year period; and the National Electronic Injury Surveillance System (NEISS) for emergency department reports for the one year period October 1995 through September 1996.

Eye injuries accounted for 7.6% of the annual compensable claims (4422 eye injury claims/58,325 total claims) in the WVWCP. The number of eye injuries reported in the NHIS correspond to an estimated 626,000 eye injuries for a 12-month period. This represented 5.9% of the estimate for all work-related injuries (10,600,000) for the same time period. Forty-three percent of NHIS respondents with eye injuries filed workers' compensation claims which suggests that there may be a more than two-fold under-reporting of eye injury when restricting analyses to only workers' compensation claims such as in WVWCP.

From NEISS records, work-related eye injuries were about 7.1% (240,000) of all injuries (3,380,000) treated in emergency departments for the one-year period examined. Thirty eight percent of self-reported eye injuries in NHIS were treated in a hospital emergency department in 1988. Extrapolation of the NEISS emergency department eye injuries, assuming that these injuries represent 38% of all medically treated eye injuries, suggests that there are 632,000 work-related eye injuries annually in the U.S. Because of under-reporting of work-relatedness in emergency department visits, this latter estimate is likely to still be an underestimate of the true number of work-related eye injuries. The three injury perspectives uniformly indicate that a significant proportion of occupational injuries are eye injuries—a largely preventable work-related injury.