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implementation, and design the program evaluation instruments. This process allows for the careful design and development of both the intervention materials and the implementation and dissemination plan. This poster will illustrate and describe the results of a needs assessment; creation of matrices of change objectives based on the determinants of behavior and environmental conditions; selection of theory-based intervention methods and practical strategies; and translation of the methods and strategies into an organized program. The program matrices that were created focus on performance objectives and change objectives along with the key messages that need to be delivered to farmworkers to influence behavior change. These matrices are being used to inform and guide material development. The key behaviors identified and that will be addressed in the program include: use of sunscreen, proper clothing, hydration, avoidance of caffeine and alcohol and periodic rest breaks. Educational materials in development include a flip chart (with an emphasis on sun safety behaviors) that will be used by the lay health workers to disseminate safety information to farmworkers, and a fotonovela/photo novel (with an emphasis on proper hydration practices).

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#### **Development of Safety Guidelines for Hired Adolescent Farm Workers**

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The North American Guidelines for Children's Agricultural Tasks (NAGCAT) were released in 1999 as a resource to assist parents in assigning farm jobs to their children 7 - 16 years of age, on family farms. Since that time, these guidelines have been proven to reduce the risk of agricultural injuries among family farm children by 50%. The NAGCAT were not intended for use in employment situations because they do not incorporate child labor regulations or reference the Hazardous Occupations Orders in Agriculture which restrict specific tasks in youth employment. This project addressed the gap in resources for employers who hire adolescents for agricultural work. Over a 10 month period, the project team reviewed NAGCAT for tasks pertaining to youth hired to work in agriculture. Only jobs for which adolescents are legally eligible for hire were included. Stakeholder input was gathered to identify the most common agricultural tasks and NIOSH Child Agricultural Injury Surveillance data were reviewed to identify relevant tasks and major hazards. Guidelines were drafted based on the original NAGCAT child development principles. Content from NAGCAT resources was updated to reflect prevailing working conditions. During 2008 content and format was reviewed by peers, employers/supervisors,

and growers with labor-intensive crops. Seven guidelines are now available in English and Spanish. Each poster addresses supervisor responsibilities for ensuring work conditions are appropriate and adequate and for assessing their teen workers. Training and supervision tips, specific to teens are provided. Each poster includes illustrations of main hazards and points to remember for quick reference. Finally, each poster includes pertinent federal regulations and referrals to obtain state-specific child labor regulations. This project is funded by NIOSH through the National Children's Center for Rural and Agricultural Health and Safety cooperative agreement. An intervention to test the usability of these guidelines among field supervisors is now underway.

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#### **Hearing Loss among Farmworkers: Perspectives and Prospects**

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Occupational hearing loss is the most common occupational disease in the United States. It affects all workers regardless of age, gender, or industrial sector. Agriculture work has been associated with a high prevalence of hearing loss, both in adults and youth. Farmworkers directly associated with intense field work and transport activities, are potentially at risk for the development of hearing loss. Farmworkers in south Texas shared their perceptions about noise exposure and agricultural work. Hearing levels were measured using audiometric pure tone and calculating the sensitivity and specificity of the Hearing Ability Survey in Spanish. Farmworkers reported exposure to noise (e.g., machinery) and potentially toxic chemical exposures (e.g. pesticides) and lacking training about hearing conservation. Most farmworkers reported working in a noisy environment, and reported working in a noisy environment for over 6 years. Hearing loss ( $\geq 25$ dB average 500, 1000, 2000 Hz) was found in more than 25% of farmworkers. This percentage of hearing loss increased when hearing loss was evaluated at higher frequencies ( $\geq 25$ dB average 4000, 8000 Hz). The average of the proportion of survey responses classified correctly was 70%, sensitivity was 46%, and specificity was 90%. Addressing occupational health outcomes that permanently impair a socio-economic disadvantaged population is urgent. Hearing loss among underserved populations, particularly Spanish speaking farmworkers needs to be prevented rather than only documenting such health disparity.

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