

New and Persistent Challenges in Agriculture, Forestry, and Fishing

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Agriculture ranks as the highest risk sector of occupational fatalities in the United States. Workers and their families experience disproportionate levels of injury and illness from a range of physical, chemical, and biological exposure hazards. “Most farm workers receive low pay and perform strenuous work outdoors in all kinds of weather, and they often perform their jobs in isolation. The fishing and forestry industries encounter equally challenging working conditions” (NIOSH, 2006).

This recent description of conditions in agriculture is strikingly unchanged from Ramazzini’s observation that farmers “have to wrestle with unending toil and the direst poverty on another man’s estate.” He also noted that weather was a significant cause of illness among farmers (Ramazzini, 1983). Though there has been progress since the 18th century, it remains clear that new and persistent challenges face workers in these settings.

An expert panel of the National Academy of Sciences has reached a similar conclusion in a NIOSH-requested review of the Agriculture, Forestry, and Fishing (AFF) Research Program. Specifically, the committee concluded that from 1990–2006, NIOSH’s AFF Research Program had made “meaningful contributions to improving worker safety and health” (National Academies, 2008). However, to enhance both the relevance and impact of the program’s work, a number of recommendations were offered, including establishment of strategic goals, implementation of a comprehensive surveillance system, and engaging stakeholders for input on research priorities, with an eye toward new and emerging areas. NIOSH has begun the task of outlining these strategic goals through a process established for entering the second decade of the National Occupational Research Agenda (NORA). Using an industrial sector-based approach, an AFF council made up of representation from academia, industry, labor, and government has prepared a draft strategic plan with intermediate goals and time-linked action steps, now available for public comment (see www.cdc.gov/niosh/nora/comment/public/AgForFishDraftMar2008/). This plan includes an effort to fill knowledge gaps in surveillance and hazard assessment that can lead to intervention design.

It is essential that any strategy recognize the continuous and dramatic changes that affect working populations. In the AFF sector, industrialization of farming, emerging technologies, shifts in workforce demographics, vulnerable populations (including

children/youth), mental health, globalization, climate, disaster risks, agroterrorism, economic considerations, and energy (cost and source) are among several external factors that will shape production as well as safety and health. Approaches to research design must increasingly consider these issues as well as social and behavioral influences in order to move solutions into practice. Transferring and translating research into practice (r2p) as outlined by NIOSH hinges on two important components: practicality and partnerships (NIOSH, 2008). Without including and building trust between stakeholders in the process, important research findings and preventive efforts (primary, secondary, and tertiary) will often have limited application. The practicality of solutions is determined by their priority as well as challenges to successful implementation. In turn, these solutions must consider the external forces that have been outlined from the vantage point of the same stakeholders. As an example, the New York/Northeast Center has engaged its stakeholders in evaluating the economic forces and behavioral influences involved in retrofitting older tractors with ROPS.

On-going evaluation of NIOSH AFF work is critical in defining significant or minor changes in direction. The NIOSH Agricultural Centers Initiative has been instrumental in addressing regional needs and concerns. The Agricultural Center Evaluation Project (ACE), based at the High Plains Center for Agricultural Health and Safety, has served as an important tool to document regional activities and trends, and to identify opportunities for collaboration on complimentary initiatives across centers.

Finally, maintaining effective outreach programs and funding for agricultural health and safety research has remained a challenge. The National Academies recommend targeting key areas “of great relevance to improvement of AFF worker safety and health” that “could substantially affect safety and health with help from NIOSH.” Among these are gaps in health effects research, health services research and training, intervention research, and regulatory policies (National Academies, 2008). As growth in resources continues to decline and competition for these resources stiffens, it will be important to explore new methods and identify new resources that will sustain and build capacity among researchers and practitioners in agriculture-related occupational safety and health fields. This effort will be fundamental to nurturing future leadership, addressing challenges, and achieving the outcome of reducing the burden of occupational injury and illness in AFF.

References

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