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## ASHCA/NIOSH CONFERENCE: PLENARY

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# Agricultural Health and Safety: Incorporating the Worker Perspective

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**ABSTRACT.** This commentary offers a worker’s perspective on agricultural health and safety and describes (1) the historical exemption of agriculture from regulatory oversight and barriers encountered due to lack of regulations and poor enforcement of the existing standards; (2) the effect of immigration status on worker protections; and (3) the basic desire for economic survival and how this impacts worker health and safety. The commentary describes two models to reduce hazards at work that illustrate how workers’ perspectives can be incorporated successfully at the policy level and during the intervention development process and puts forth recommendations for employers, researchers, and funding agencies to facilitate the integration of workers’ perspectives into occupational health and safety in agriculture. Ultimately, improved worker protection requires systemic policy and regulatory changes as well as strong enforcement of existing regulations. This commentary summarizes the presentation, “Ground View: Perspectives of Hired Workers,” at the Agricultural Safety and Health Council of America/National Institute for Occupational Safety and Health conference, “Be Safe, Be Profitable: Protecting Workers in Agriculture,” January 27–28, 2010, Dallas/Fort Worth, Texas.

**KEYWORDS.** Agricultural workers, immigration policy, migrant and seasonal farmworkers, research to practice, worker protection

*“We are proud to be farmworkers and proud to work. We are not looking for handouts. Work gives us dignity. At the same time, when policies and laws are decided, it is important that you please include us in that process. It is more dignifying that way.”*

Wilson Augustave

In the United States there are between 1 and 2.5 million hired farmworkers,<sup>1,2</sup> who earn their living from agriculture, one of the most hazardous occupations in this country.<sup>3</sup> Largely from Mexico and other Central American countries, hired farmworkers make up approximately a third of the farm labor work force.<sup>1</sup> In addition

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to hazards such as working with heavy machinery and arduous physical labor, farmworkers endure exposure to pesticides, risk of heat illness, and often inadequate sanitary and housing facilities. Factors such as lack of training, poor safety precautions, language barriers, piece-rate pay, undocumented worker status, and geographical and cultural isolation can put these workers at increased risk for occupationally related injuries and illnesses and abuses. Farmworkers also face obstacles in obtaining health care due to high costs, lack of insurance, geographical isolation, and language as well as cultural barriers.

Despite the inherent dangers of farm work and the unique vulnerabilities of farmworkers, US health and safety regulations and labor laws for agriculture offer less protection to farm laborers than workers in other industries. There is a long history of farmworker exceptionalism under the law. However, this was not always the case. In the 19th century, living and working conditions in agriculture were not strikingly different than in other industries. Work in many industries, including agriculture, was characterized by hazardous and often primitive working conditions, long hours, and meager wages. Child labor was common and many workers endured extreme poverty. Immigrants, willing to accept low wages and dangerous work, supplied the labor for both agriculture and other industries.<sup>4</sup> As other industries began to see greater protection, agriculture remained unchanged.

Reforms made during the Progressive Era through the New Deal period had a dramatic impact that transformed industrial labor in the 20th century. Child labor was prohibited or severely restricted in most industries. Overtime pay requirements helped limit the number of hours worked and minimum wage laws helped lift many laborers from crushing poverty. Workers' compensation laws ensured that workers injured on the job received medical care and payment for lost income. Moreover, industrial workers were granted the right to collectively bargain and be protected from employer reprisals. As a result of these changes, the standard of living of industrial workers improved dramatically.<sup>4</sup>

Farmworkers, however, were notably excluded and remain excluded from reforms that changed the lives of industrial workers. The labor laws passed during the New Deal continue to guide many of the basic worker protections offered today. Yet for farmworkers, even in the 21st century, the doctrine of "agricultural exceptionalism" persists, forcing many workers to live in poverty and endure poor working conditions. The Fair Labor Standards Act (1938) does not require small farm employers to pay minimum wage, exempts overtime for all agricultural employees, and permits child labor in agriculture. The National Labor Relations Act (1935) offers no federal protection for agricultural workers to bargain collectively, although some states have legalized collective bargaining by agricultural workers.<sup>4</sup>

In the 1970s the federal government began to take a more active role in workplace safety. The formation of the Occupational Safety and Health Administration (OSHA) in the Department of Labor was an important step forward to further health and safety regulations in the workplace. Farmworker protection is markedly absent from OSHA, as it has largely refused to put forth specific standards for agricultural jobs. It generally exempts industries involving agricultural crop production and livestock production from its primary regulations, including certain record keeping requirements for work-related injury and illness. Standards regarding sanitation and a few others are the exception.<sup>5</sup> In 1987, nearly 17 years after its formation, OSHA finally promulgated regulations regarding sanitation for agricultural workers, but only after advocates sued the agency.<sup>4</sup> The Worker Protection Standard (WPS) is the primary regulatory standard that mandates workplace protection for hired agricultural laborers. Administered by the US Environmental Protection Agency and its designated state regulatory agencies, the WPS focuses largely on worker protection from pesticide exposure. The WPS involves pesticide safety training, notification of pesticide applications, use of personal protective equipment, restricted entry intervals following pesticide application, decontamination supplies, and emergency medical assistance.<sup>6</sup> It is notably

weaker than similar regulatory standards for occupations other than agriculture, and the WPS is poorly enforced.<sup>7,8</sup>

In general, laws at the state level treat farmworkers less favorably than other workers. Only 13 states require employers to provide workers' compensation coverage to migrant and seasonal agricultural workers to the same extent as other workers. Arizona, California, Colorado, Connecticut, Hawaii, Idaho, Massachusetts, Montana, New Hampshire, New Jersey,\* Ohio, Oregon, and Washington as well as the District of Columbia, Virgin Islands, and Puerto Rico require employers to offer farmworkers coverage.<sup>9</sup>

It is important to note that a handful of states offer farmworkers more robust and protective regulations and have occupational health and safety programs particular to agriculture. In agriculture, many extra enforcement efforts such as inspections and complaint investigations by states must be conducted with non-federal funds. California, Washington State, and Oregon exemplify states with some of the stronger farmworker protection laws and regulations in the United States. California grants farmworkers the right to organize, requires cholinesterase monitoring for mixers, loaders, and applicators of pesticides, mandates reporting of pesticide illness, and has heat stress regulations. As described below, Washington State has an exemplary cholinesterase-monitoring program. It also permits collective bargaining, requires reporting of suspected or confirmed pesticide-related illness, and has promulgated heat stress regulations. By and large, however, states have maintained the long history of farmworker exceptionalism under the law.

Beyond the weak regulatory milieu in which farmworkers labor overall, the demographic makeup of farmworkers furthers their economic disadvantage and occupational health and safety disparities. In general, farmworkers are younger, less educated, more likely to be foreign-born, and less likely to be citizens or authorized to work in the United States. Approximately 80% of hired farmworkers are foreign born and

50% are unauthorized to work in the United States. There are a growing number of farmworkers from indigenous populations. The majority of foreign born farmworkers do not speak, read, or write English.<sup>1,10</sup>

Socioeconomic disparities between sending countries and the United States, furthered by economic policies such as NAFTA (North American Free Trade Agreement), coupled by the demand for low-skilled, low-wage workers in the United States, has intensified migratory pressures. Foreign-born workers have access to few legal means of entry to the United States, but the need for economic survival drives migrant laborers from their homes to search for work in this country. Many risk their lives to enter the United States in search of work, and the over 5000 reported border crossing deaths along the US-Mexico border between 1993 and 2009 underscore the extreme risks migrants take in order to just secure work.<sup>11-13</sup> Fear of deportation due to their documentation status places farmworkers in a precarious employment situation where they are more likely to endure unfair labor practices and unsafe workplaces.<sup>1,14,15</sup> For farmworkers migrating for economic survival, US immigration policies are the first step in a legal process of subordination that fosters a hyperexploitable workforce that is more vulnerable to rights' violations. Fear of deportation combined with the extreme physical risks to reenter the United States has created a workforce that is less likely to report workplace safety and wage violations, to have access to training and protective equipment, and to foster worker willingness to seek medical attention.<sup>11,16-20</sup>

### ***INTEGRATING THE WORKERS' PERSPECTIVE: TWO MODEL CASES***

From a worker's point of view, safer workplaces and improved worker protection involve systemic changes that ultimately foster greater enforcement and stronger regulatory standards. Workers do, however, encourage efforts that at

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\*Note: Farmworkers are not excluded from workers' compensation in New Jersey, but all workers' compensation in New Jersey is optional.

the very least promote workplace standards similar to other industries. Some stakeholders may feel powerless to address systemic deficits and feel they have greater impact on more traditional health and safety interventions such as improved engineering controls and training and education. Improving worker protection is multifaceted and requires efforts from stakeholders at all levels. The following section offers two examples of diverse stakeholder participation to improve worker protection through regulatory changes and through a workplace intervention.

Researchers at the Pacific Northwest Agricultural Safety and Health Center (PNASH) at the University of Washington diligently worked to bring better regulation to protect farmworkers from pesticide exposure. In 1993, the Washington Department of Labor and Industries (L&I) formed a Technical Advisory Group (TAG) on cholinesterase monitoring in Washington State. PNASH researchers Matthew Keifer, MD, MPH, Richard Fenske, PhD, and Joel Kaufman, PhD, served on the TAG along with Mary Miller, MN, RN. The 1995 scientific report of the TAG recommended that Washington adopt a cholinesterase-monitoring program for individuals handling organophosphate and carbamate pesticides. L&I, however, declined to require cholinesterase monitoring and farmworker advocates successfully sued L&I. That case, known as *Rios v. Department of Labor and Industries*, reached the Washington Supreme Court in 2002. According to the farmworkers' lawyer, Dr. Keifer's expert testimony and the TAG report proved critical in an unprecedented farmworker victory (Dan Ford, Columbia Legal Services, personal communication with author, September 2008). The Court ordered L&I to initiate rulemaking on a mandatory cholinesterase-monitoring rule. PNASH's involvement did not end with the Court's decision. There were numerous stakeholder meetings discussing the requirements of a monitoring rule and meetings explaining the program to state legislators when the opponents of the cholinesterase monitoring attempted to have the program blocked legislatively. PNASH researchers also serve on the Stakeholder Advisory Committee and the Scientific

Advisory Committee overseeing implementation of the rule, which became effective in 2004. More importantly, as a direct result of PNASH's involvement and recommendations, Washington is the only state to collect comprehensive data on cholinesterase monitoring results. PNASH investigators continue to evaluate the risks to the workers from the pesticide exposure and share their results with stakeholders.<sup>21</sup>

Systemic policy changes are needed and efforts such as the formation of a cholinesterase-monitoring program exemplify effective application of research to improve worker health and safety regulations. Additionally, workers acknowledge that research initiatives fostering applied approaches with multiple stakeholders, from industry to healthcare providers to workers to academics, can impact more traditional workplace safety practices.

The Northeast Center for Agriculture and Occupational Health (NEC) offers an important example of a successful intervention that involved a diverse group of stakeholders to address worker musculoskeletal injuries resulting from manually raking wild blueberry bushes during harvests in Maine. The stakeholders included clinicians and outreach workers from the Maine Migrant Health Program, farm owners, Hispanic and Native American blueberry rakers, and representatives from agricultural and community service agencies. NEC, in partnership with the Maine Migrant Health Program, worked to bring all stakeholders together to jointly determine a solution to design and test an ergonomically enhanced blueberry-harvesting rake. Together this group worked to conceptualize a rake design to satisfy grower concerns and reduce injuries. After a pilot intervention to test various rake designs and measure productivity, a longer handled rake was selected. The longer handled rake was considered acceptable to growers and broadly distributed to rakers.<sup>22</sup> The Maine Migrant Health Program, local manufacturers and employers partnered to disseminate the new design rake. Two years following this dissemination, 73% of a random sample of workers had adopted the longer handled rakes (J. May, personal communication with author, November 2009).

This intervention exemplifies the importance of a community-based approach for research to practice. NEC did not set out specifically to develop and assess an ergonomically enhanced blueberry-harvesting rake, but rather to help address whatever occupational concern was designated by the community. The experience of this project helped to validate a model for community-based interventions to assist vulnerable populations that had traditionally suffered health disparities as a result of occupational or environmental conditions.<sup>23</sup> NEC's approach broadened the stakeholder group to include both workers and agricultural employers. Without grower involvement, acceptance and dissemination of the rake would not have been possible, underscoring the importance of meaningfully including agricultural employers. It is also worth noting that an unintended outcome of the raker intervention has been a markedly improved relationship between the Maine Migrant Health Program and the local grower community. Moreover, this project successfully incorporated a Migrant Health Center. There are 155 Migrant and Community Health Centers throughout the United States providing health care to migrant and seasonal farmworkers. These centers offer an important partner in research to practice efforts that focus on health and safety. Many centers have models of care that demonstrate a deep understanding of how to reach vulnerable populations in a culturally competent and effective way. As providers of health care, Migrant and Community Health Centers are often a trusted community institution as well as an important source of health information and trends. The Maine Migrant Health Program serves as an exceptional model of migrant health with award winning outreach programs. NEC's partnership with Maine Migrant Health provided researchers with a deeper understanding of the health concerns as well as a vehicle to gain entry into the community. In this specific intervention, the Maine Migrant Health Program provided valuable assistance in helping NEC gather the rake usage data through worker surveys in randomly selected camps.

It is encouraging to observe increased emphasis from funding agencies on applied

research activities. More effort is needed, however, to guarantee genuine participation of the targeted beneficiaries so the practice part of the equation is not simply an after thought in the design of a research initiative. Funding agencies should incorporate this criteria in the call and review for proposal process. Applicants should be required to demonstrate both in the proposal design as well as the budget that legitimate partnerships are in place to foster successful models of research to practice.

## DISCUSSION

From a worker's perspective, efforts to improve occupational health and safety in agriculture must consider the long history of farmworker exceptionalism under the law, the significant vulnerabilities of this workforce due to their demographic make up, immigration status, and US immigration policies. This will require approaches to workplace safety that seek to address the regulatory deficits as well as innovative research and programmatic interventions that consider new partnerships and culturally sensitive models that can be sustained and accepted by both workers and employers.

Integrating workers' perspectives into occupational health and safety will require specific efforts from multiple stakeholders.

### *Recommendations for Employers*

1. Perhaps the greatest vulnerability that workers and employers share involves immigration policies. From a worker's perspective, one of the most important role employers and industry can play in worker safety is to work with legislators to bring about immigration reform. Specific to farmworkers, the Agricultural Job Opportunities Benefits and Securities Act will provide a legal, stable labor supply and fundamental safety protections to immigrant workers. It represents an important compromise between farmworker advocates and major agricultural employers and has broad bipartisan support in

Congress. Both workers and employers would benefit with the passage of this key legislation.

2. Although existing standards of agricultural worker protection are notably weak and enforcement limited, basic standards are in place. Applying these standards accordingly is an important first step in worker protection and this requires broad employer commitment to basic worker protection.

### ***Recommendation for Researchers***

1. Research design should consider community-based approaches that involve genuine worker participation. Researchers should foster partnerships directly with workers or their proxy—organizations and groups that serve and represent farmworkers—as part of the project development process. Such interface will assist investigators in learning about trends, conceptualizing relevant research ideas and understanding what outcomes workers desire as well as jointly determining how research could support their desired outcomes.
2. Beyond workers, there are diverse groups of stakeholders that should also be part of research to practice efforts from beginning to end. Stakeholders may include representatives such as healthcare providers, outreach workers, *promoters de salud*, community and agricultural service agencies, academia/researchers, and employers, as appropriate.
3. Stakeholder involvement should be designed so that participants are not only involved in the research design, but have a clear understanding of their roles during the intervention study and how potential results will impact health and safety. There should be an on-going bidirectional process throughout the research period.
4. Researchers should look beyond the workplace to existing community organizations, including providers of health care, and examine ways to incorporate

interventions into their day-to-day activities in order to improve worker health and safety. Migrant and Community Health Centers are important, trusted institutions and can be valuable partners in research to practice. They offer researchers not only meaningful health information and trends, but culturally appropriate and effective models of care that can be adapted to include occupational health. Migrant and Community Health Centers often have strong educational outreach programs that have been effective in reaching workers and would benefit from innovative occupational safety programs. Moreover, Migrant and Community Health Centers may offer an essential means for ongoing monitoring of health and safety practices.

5. Investigators should apply their research to address some of the systemic problems facing farmworkers and the effects of these problems in terms of health and safety.

### ***Recommendations for Funding Agencies***

1. Funding agencies play an important role in the design and review of research projects and are ultimately the gatekeepers. Funders must design calls for proposals so that genuine research to practice efforts are encouraged, and then develop a legitimate review process that moves beyond academic perspectives to include practitioners and community representation.
2. Funders should encourage stakeholder involvement by awarding funding to investigators that demonstrate meaningful partnerships in their proposals. Such partnerships should be demonstrated not only by letters of commitment, but also by fiscal collaborations. Like the researchers conducting the investigation, workers and community groups should be compensated too.
3. Funders should consider the systemic barriers impacting worker protection and encourage researchers to use their results to guide policy. Agricultural health and safety research offers numerous examples

demonstrating workplace safety concerns and innovative approaches to improving protections. In calling for more practice or applied research, funding agencies must allow practice to be broadly defined to inform policy. More importantly, researchers and academics should be encouraged and rewarded in the review process for addressing policy implications as an outcome of their work.

### CONCLUSION

By and large, today's farmworkers toil in fields throughout the United States with fewer legal rights and protective oversights than any other category of workers. Protection of farmworkers will ultimately require systemic changes in policy and regulation. At a minimum, farmworkers must be afforded the basic protections granted to other workers. The Worker Protection Standard needs to be systematically enforced and strengthened. More importantly, OSHA, the federal agency charged with worker health and safety, must take an active role in protecting farmworkers. The immigration status of farmworkers will continue to be a key factor in furthering their vulnerability and immigration reform is essential to worker protection. At the state level, workers' compensation systems need to include farmworkers. States are encouraged to follow the lead of California and Washington State, offering stronger state level protections to farmworkers. Outside of the overall systemic policy changes needed for worker protection, meaningful involvement and partnerships between stakeholders such as employers, workers, researchers, community groups, healthcare organizations as well as funders are needed to facilitate the integration of the workers' perspectives into occupational health and safety in agriculture.

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