



# Eye on Farmworker Health

## Current Developments in Research and Policy

### Migrant and Seasonal Crop Worker Injury and Illness Across the Northeast

*Title: Migrant and Seasonal Crop Worker Injury and Illness Across the Northeast*

*Authors: M Scribani, S Wyckoff, P Jenkins, H Bauer, G Earle-Richardson*

*Source: American Journal of Industrial Medicine, article first published online: Dec. 27, 2012*

Hand harvest jobs are extremely dangerous yet many farmworkers feel they have little choice but to work through injury, illness and unsafe working conditions for fear of losing their jobs. Occupational injury research on this population is limited, particularly in the Northeast, where farmworker populations are comparatively small. At the time of the authors' research, there were no studies available that identified leading sources of occupational morbidity, contributing factors, or injury patterns by crop type for agricultural workers in the Northeast.

The study population is all crop harvest workers working in the Northeast (Maryland to Maine) from 2001 to 2002 served by participating migrant health centers (MHCs). Of the 11 MHCs in the Northeast, 10 MHCs and their 30 individual clinic sites enrolled in the study. Estimates were gathered by using chart reviews from the participating MHCs and developing a new method of calculating incidence-density based on Census of Agriculture data.

The authors estimated a total of 20,607,575 hand-harvest hours worked across the Northeast region: 55% harvesting ground crops, 29% in orchards, and 16% in bush crops. During this two-year period, the authors found 2,520 agricultural-related injuries or illnesses. Among these injury or illness cases, the median age of workers was 37 years old, 88.1% were male, and 73.1% were Hispanic.

With an estimated annual average of 1,260 cases, the Northeast region had an incidence density of 6.1 per 100,000 worker hours. The authors observed that straining/spraining was the most frequently reported injury, accounting for 56% of all cases. Across all crop types, they found that the back was most affected. Lifting was the most frequently reported contributing factor to injuries (21.5% of all cases), though the literature is split on whether lifting or overwork/overuse is more commonly associated with back strain. Further, the authors found that bush crops have the highest incidence of occupational injury/illness across all crops in the Northeast, although this is largely attributed to shade tobacco in Connecticut.

These results differ from studies of orchards in the Pacific Northwest where falls (particularly from ladders) are identified as the leading cause of occupational

### ARTICLES REVIEWED IN THIS ISSUE

→ [Migrant and Seasonal Crop Worker Injury and Illness Across the Northeast](#)

→ [Cooking and Eating Facilities in Migrant Farmworker Housing in North Carolina](#)

→ [Delivery of Mobile Clinic Services to Migrant and Seasonal Farmworkers: A review of Practice Models for Community-Academic Partnerships](#)

→ [Effectiveness of Pesticide Safety Training and Knowledge About Pesticide Exposure Among Hispanic Farmworkers](#)

→ [Health-related Inequities Among Hired Farmworkers and the Resurgence of Labor-intensive Agriculture](#)

→ [Policy Update](#)

injury. Also, in spite of the high rates of injury found in the Northeast, the authors noted the near non-existent utilization of workers' compensation (only 3% of cases involved claims). In comparison, studies in California found that 27% of farmworkers utilized workers' compensation. The authors write that further research is needed to determine what accounts for these regional differences.

The authors contend that the use of health center charts is the main limitation of this study. Because the chart reviews were limited to the ambulatory setting, there is a possibility that there is an underrepresentation of traumatic injuries and illnesses. Although previous research found no differences in mechanisms of health injury/conditions when directly comparing chart reviews and survey methods, the authors believe that either tool will likely miss some types of the most severe morbidity.

As highlighted by the authors, this is the first study that shows that even when broken down by crop type, straining/spraining injuries predominate. The authors stressed the broad implications of this research for injury prevention efforts in the Northeast. This study suggests that regardless of region or leading crops, ergonomic workplace improvement should be a major area of focus. The authors specifically recommend a 5-minute break per hour to reduce injury. They conclude that more research should be done both in ergonomic safety and in developing greater support among small agricultural employers for safety investments.

## **Cooking and Eating Facilities in Migrant Farmworker Housing in North Carolina**

*Title: Cooking and Eating Facilities in Migrant Farmworker Housing in North Carolina*

*Authors: SA Quandt, P Summers, WE Bischoff, H Chen, MF Wiggins, CR Spears, TA Arcury*

*Source: American Journal of Public Health 103(3): e78-e84; Epub Jan. 27, 2013*

Proper cooking and eating facilities in migrant farmworker housing is vital for the well-being and livelihood of the community. The importance of food preparation and food storage for farmworkers is recognized in federal law. The Migrant and Seasonal Agricultural Worker Protection Act specifies standards for cooking, kitchens, and mess halls.

The authors of this research have three distinct aims: (1) to describe the observed kitchen facilities and their use in migrant farmworker camps in North Carolina; (2) to compare the observed conditions with existing farmworker housing regulations; and (3) to examine the associations of kitchen violations with camp characteristics. The authors' research was conducted in a 16-county area of east-central North Carolina where a large number of migrant farmworkers are employed. Four community organizations that serve the area's farmworkers collaborated in the research. A total of 182 camps were enrolled in the study. Measures for analysis were based on 15 housing regulations related to kitchens and eating facilities.

The mean age of the interviewed workers was 32.8 years. Most of the participants were from Mexico (95.2%), and 65.2% were in the US with H-2A temporary work visas. Slightly more than half (52.0%) reported cooking daily in the kitchen. In



### **WHO ARE WE?**

---

Eye on Farmworker Health: Current Developments in Research and Policy is an electronic newsletter covering important recent developments in research and regulation on issues affecting the health and safety of migrant farmworkers.

It is a publication by [Farmworker Justice](#), supported by the Health Resources and Services Administration's Bureau of Primary Health Care. Each issue includes summaries of recent articles and reports, as well as recommendations for using the information to help health professionals, outreach workers, *promotores de salud*, and advocates strengthen their efforts on behalf of farmworkers and their families.

The contents of this publication are solely the responsibility of Farmworker Justice and do not necessarily reflect the official views of the Bureau of Primary Health Care or the Health Resources and Services Administration.

### **STAY IN TOUCH**

---

For more information, please contact Renato Rocha at [rrocha@farmworkerjustice.org](mailto:rrocha@farmworkerjustice.org)

more than 10% of the camps inspected, the authors observed 8 violations out of a total of 15 assessed regulations. The authors found structural problems that fail to protect against the elements in 12.1% of kitchens, and improper and damaged flooring in 25.8% of kitchens. In addition, the authors also observed coliform bacteria present in 34.4% of kitchens and evidence of cockroach and rodent infestation in 45.9% and 28.9% of kitchens, respectively. The authors found few violations related to adequate lighting, hot and cold water, and required kitchen appliances.

In the authors' discussion of the research, they identified two attributes of camp inspections that stand out as significant for having multiple violations: absence of H-2A visa holders and timing of data collection across the agricultural season. Since housing must be inspected before the arrival of H-2A workers and North Carolina has a limited number of housing inspectors, the authors believe that non-H-2A camp sites are more likely to escape inspection. The authors found that housing inspections between mid- and late summer revealed more violations. This is likely due to the high demand for farm labor midsummer, which the authors reasonably assume is also when there is greatest strain on housing resources.

In conclusion, the authors suggest that the kitchen conditions observed in this study may put workers at a substantial risk for food and waterborne illness and chronic disease. They recommend further research to assess the health effects of these violations. The authors also recommend post-occupancy inspections to promote safe kitchen and eating conditions throughout the agricultural season.

### **Delivery of Mobile Clinic Services to Migrant and Seasonal Farmworkers: A Review of Practice Models for Community-Academic Partnerships**

*Title: Delivery of Mobile Clinic Services to Migrant and Seasonal Farmworkers: A Review of Practice Models for Community-Academic Partnerships*

*Authors: JS Luque, H Castaneda*

*Source: Journal of Community Health 38(2): 397-407, April 2013*

To address the various barriers of accessing primary healthcare in the migrant and seasonal farmworker community, nursing professionals, in partnership with professionals from medicine and allied health, have developed community-academic partnerships to deliver mobile clinic services to farmworker camps. In this study, the authors review articles on the clinical efficacy of these mobile clinics and summarize effective partnership models to best facilitate these outreach activities.

Articles in this review had to meet the following criteria: (a) describe mobile clinic services for migrant farmworkers; (b) be based in the United States; and (c) be published either in peer-reviewed articles indexed in PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), or in one of two migrant health newsletters (*Migrant Health Newslite* or *Streamline*). Between January 1990 and July 2012, 18 articles met the inclusion criteria.

For those articles reporting descriptive statistics of the population served, the authors found that 88% of patients were of Hispanic origin with an average age between 32 and 33 years. Although the migrant farmworker population is

primarily male, 71.6% of the patients were female. The authors attribute this skewed percentage of female patients to the fact that four of the seven articles reporting gender specifically focused on women's cancer screenings or prenatal care. Most of the articles described mobile farmworker clinics in Georgia, Oregon, and Florida. The most common services provided were health screenings, adult vaccinations, and health education.

The authors also identified major challenges in implementing mobile clinic services, including a lack of bilingual staff, difficulty in tracking patients, coordination of partnership activities, and literacy level of patient education materials. Despite these observed challenges, the authors discuss various characteristics of sustainable partnerships. Some of these characteristics include (1) a multiple and diverse organization membership structure; (2) a history of collaboration; and (3) a functioning partnership decision-making process. The authors highlight the Farm Worker Family Health Program as one example of a successful partnership. This program, a partnership between Emory School of Nursing and migrant health centers, provides a two-week immersion experience for health profession students in southern Georgia and has been operating since 1993.

The authors recommend that future articles reporting the results of mobile clinic activities also include longitudinal data on patient outcomes. Public health and social science researchers can partner with clinical practice colleagues to implement rigorous program planning and evaluation activities. The authors conclude that the studies identified in this review demonstrate the potential of the community-academic partnership model to significantly impact the health of migrant and seasonal farmworkers.

### **Effectiveness of Pesticide Safety Training and Knowledge About Pesticide Exposure Among Hispanic Farmworkers**

*Title: Effectiveness of Pesticide Safety Training and Knowledge About Pesticide Exposure Among Hispanic Farmworkers*

*Authors: DL Levesque, AA Arif, J Shen*

*Source: Journal of Occupational and Environmental Medicine 54(12): 1550-1556, December 2012*

Farmworkers and their families are disproportionately exposed to pesticide active ingredients. In 1992, the US Environmental Protection Agency (EPA) revised the Worker Protection Standard (WPS) to strengthen worker protections. The revised WPS required restricted re-entry intervals after the application of pesticides, use of personal protective equipment (PPE), pesticide safety training, and access to labeling and site-specific information.

The authors assessed the adequacy and effectiveness of farmworker pesticide safety training and knowledge about PPE. The authors define PPE as protective clothing to protect the body against pesticide residue, such as gloves, socks, and caps. They used a cross-sectional quantitative research design to recruit Hispanic farmworkers between the ages of 18 and 62 years throughout four agricultural counties in North Carolina. After obtaining informed consent, they interviewed the participants to collect information on the following variables: (a) use of PPE; (b)

organizational barriers to use of PPE; (c) knowledge about pesticides; and (d) pesticide training.

Of the 187 Hispanic male farmworkers sampled, 56.2% had less than a sixth grade education, and most reported only speaking Spanish (95.2%). The overwhelming majority of the farmworkers reported that they were under contract with the North Carolina Growers Association (93%) and were primarily working in tobacco (95%).

Farmworkers with greater knowledge about the risks of pesticide exposure were more likely to use PPE. Use of PPE was greater among farmworkers who reported that they could come into contact with pesticides by living near a field where pesticides were sprayed and almost three times more likely among farmworkers who reported that they could come into contact with pesticides by bringing foods home from the fields that were not washed. More than one-fourth (27%) of participating farmworkers reported that they did not use PPE while working in the fields within the past month. Approximately one-fourth of the farmworkers (23.5%) reported that use of PPE slowed down work, and approximately three-fourths of farmworkers (71.6%) did not always wear PPE because it was uncomfortable. However, the majority of farmworkers (89.8%) reported that they would use PPE to protect themselves against pesticides if their employer provided it.

All of the farmworkers reported receiving pesticide safety training. However, the authors found that more than one-fourth of farmworkers (27.1%) do not have anyone to ask for information about pesticides once they are working. Also, several farmworkers reported that it was never explained to them that their employer has legal responsibilities to protect them against the harmful effects of pesticides.

In conclusion, the authors stress that it is necessary to amend the WPS to require farmers to provide protective clothing to all agricultural workers, including field workers. The authors also recommend that further research identify weaknesses in the WPS pesticide safety training to pinpoint areas that need to be revised.

### **Health-related Inequities among Hired Farmworkers and the Resurgence of Labor-intensive Agriculture**

*Title: Health-related Inequities among Hired Farmworkers and the Resurgence of Labor-intensive Agriculture*

*Author: D Villarejo*

*Source: The Kresge Foundation, published online March 2013*

America's farmworkers suffer widespread health disparities, including lack of access to healthcare and high rates of work-related injuries. [A report by the Kresge Foundation](#) analyzes recent studies and data from the National Agricultural Workers Survey (NAWS) and Census of Agricultural Data to describe the current health status of US farmworkers and to suggest future directions for intervention.

The paper focuses on health outcomes that are associated with occupational, environmental and individual risk factors or are influenced by regulatory policy.

An estimated 45% of direct-hire jobs in agriculture are for 150 days or more per year. Temporary and short-term seasonal workers are increasingly hired through intermediaries such as labor contractors. According to the 2007-2009 NAWS, the number of farmworkers who migrate is about 26%, down from about 56% in 1995-1997. According to the author, most of those who regularly travel for work do so from a permanent home base, returning home after the season ends.

More than 55% of hired crop farmworkers in 2007/2008 indicated a healthcare visit during the previous 2 years. Yet one study found that the presence of an FQHC in the NAWS participants' county was not independently associated with healthcare utilization. NAWS data indicates that only 11% of hired farmworkers have employer-paid health insurance. The author writes that larger farms are somewhat more likely to provide benefits, including health insurance, to seasonally employed workers.

The author states that the single most important development in the structure of the farm labor market during the past 25 years has been the gradually increasing replacement of direct-hire short-term workers by contract laborers. There are a number of disparities in legal workplace protections for agricultural workers, including their exclusion from the National Labor Relations Act and the Fair Labor Standards Act as well as the small farm exemption from OSHA regulations. He argues that these exclusions, especially the small farm exclusion, costs workers' lives and endangers worker safety. Although an estimated 50% of farmworkers are undocumented, foreign-born workers who lack employment authorization are excluded from receiving many of the same benefits afforded other workers.

The report concludes with an assessment of the impact of the Affordable Care Act (ACA) on farmworkers. The author argues that most farmworkers will see minimal benefits from the ACA either due to their immigration status or due to the seasonal worker exclusion for employer-provided health insurance.

Undocumented immigrants are not able to access the marketplaces to purchase health insurance in 2014. Further, a seasonal worker who is employed for 120 days or less in the employer's tax year is not counted as a full-time employee for purposes of determining if the employer is mandated to provide health insurance as an applicable large employer. There are no published reports of the percentage of the farm labor force that has annual employment of 120 days or less for a specific employer, but the NAWS for 2007-2009 finds that 81% of all crop workers only had a single farm employer. Though the tax penalty for not offering health insurance under the employer provisions of the ACA is substantial, the author suggests that some agricultural employers may find it less expensive to pay the penalty than to provide health insurance to their labor force.

To reduce the health disparities among hired farmworkers, the author recommends: enhancing participation of eligible farmworkers and their families in federal benefits such as Medicaid or WIC; enhancing OSHA and labor enforcement by adding new field inspectors; initiating a substantial new effort to provide farmworkers with information about their rights and responsibilities under US law; expanding housing opportunities for unaccompanied male farmworkers; strengthening disclosure requirements for farm labor contractors; and expanding the public health workforce that serves farmworkers and their families. He also recommends regulatory action such as the inclusion of farmworkers under the

National Labor Relations Act and increasing the minimum wage to \$10/hour.

#### POLICY UPDATE: RECENT REGULATIONS OF THE AFFORDABLE CARE ACT

It is less than one year until full implementation of the Patient Protection and Affordable Care Act (ACA). The US Department of Health and Human Services (HHS) recently finalized regulations that implement various provisions of the ACA, including the minimum essential coverage provision (the individual mandate), the navigator program, and enrollment and eligibility for the health insurance exchanges, Medicaid and the Children's Health Insurance Program (CHIP). Each of these final regulations is an essential piece of ACA implementation.

Under the ACA's minimum essential coverage provision (also known as the individual mandate), most Americans will be required to have health insurance by January 1, 2014. Beginning October 1, 2013, individuals will be able to buy health insurance online through websites or "insurance marketplaces" where they can compare prices and benefits of several plans. The ACA also directs HHS to "develop and provide to each state a single, streamlined form" that applicants may use to apply for various forms of health insurance simultaneously, including Medicaid, CHIP and private insurance via the health insurance marketplaces. Recently, HHS released the final version of the paper application form, which may be submitted online, by mail, over the telephone or in person to a state Medicaid or CHIP agency for coverage beginning January 1st. This form will also be used to determine eligibility for a new tax credit that qualified individuals (those earning between 100% and 400% of the Federal Poverty Level) can apply towards their health insurance premiums.

Those interested can view a copy of the paper version of the form on the CMS [website](#). There is a 3-page individual short form for single adults with no dependents who want to apply for financial assistance; a 7-page form for families who want to apply for financial assistance; and a 3-page form for individuals who are not requesting financial assistance. The online application will be available by October 1st.

Additionally, the Department of the Treasury released a [notice](#) on July 9, 2013 that delayed the reporting requirement for employers until 2015. Employers will not be assessed a penalty if they fail to offer affordable health insurance to their full-time employees in 2014 (under the employer mandate). It's important to note that this delay in the employer mandate does not affect other provisions of the ACA.

As January 2014 draws near, Farmworker Justice will continue to monitor laws and policies related to healthcare reform implementation. FJ recently published a fact sheet "[The Affordable Care Act and Farmworkers: Access to Healthcare](#)." We will provide updates and analysis on the ACA's impact on farmworker access to healthcare. For more information about these regulations, contact Alexis Guild at [aguild@farmworkerjustice.org](mailto:aguild@farmworkerjustice.org).

More resources, trainings and materials on the ACA can be found at:

- <http://marketplace.cms.gov/>
- <http://healthcare.gov/>
- <http://cuidadodesalud.gov/> (Spanish)

Published by Farmworker Justice and Migrant Clinicians Network  
Farmworker Justice  
1126 16th St., NW, Suite 270  
Washington, DC 20036  
202-293-5420 phone  
202-293-5427 fax  
[www.farmworkerjustice.org](http://www.farmworkerjustice.org)

\* Photo by Earl Dotter © <http://www.earldotter.com/>