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## Study finds significant federal undercounting of ag injuries, illnesses

Federal agencies responsible for tracking workplace hazards fail to report 77 percent of the injuries and illnesses of U.S. agricultural workers and farmers, new research from WCAHS investigators J. Paul Leigh, Juan Du, and Stephen McCurdy have found. The lack of complete data greatly reduces the chances that safety and health risks for the nation's food suppliers will be corrected, they said.

Debate surrounds the accuracy of the U.S. government's estimates of job-related injuries and illnesses in agriculture. While studies have attempted to estimate the undercount for all industries combined, none have specifically addressed agriculture.

Investigators collected data from the U.S. government's premier sources for workplace injuries and illnesses and employment: the Bureau of Labor Statistics databanks for the Survey of Occupational Injuries and Illnesses (SOII), the Quarterly Census of Employment and Wages, and the Current Population Survey. They constructed estimates using transparent assumptions; for example, that the rate (cases-per-employee)

of injuries and illnesses on small farms was the same as on large farms (an assumption they altered in sensitivity analysis).

Leigh and his colleagues estimated 74,932 injuries and illnesses for crop farms and 68,504 for animal farms, totaling 143,436 cases in 2011. They estimated that SOII missed 73.7 percent of crop farm cases and 81.9 percent of animal farm cases for an average of 77.6 percent

for all agriculture. Sensitivity analyses suggested that the percentage missed ranged from 61.5 percent to 88.3 percent for all agriculture.

Investigators estimate considerable undercounting of nonfatal injuries and illnesses in agriculture and believe the undercounting is larger than any other industry. Reasons include: SOII's explicit exclusion of employees on small farms and of farmers and family members, and Quar-

terly Census of Employment and Wages's undercounts of employment. The result of undercounting limits the ability to identify and address occupational health problems in agriculture, affecting both workers and society.

The full text of the study, which was funded by NIOSH, can be found at [http://www.annalsofepidemiology.org/article/S1047-2797\(14\)00012-X/](http://www.annalsofepidemiology.org/article/S1047-2797(14)00012-X/)

Bruce Goldstein (left), president of Farmworker Justice, in Washington, D.C., a national advocacy, litigation and education organization for migrant and seasonal farmworkers, was guest speaker at WCAHS' June seminar. His talk focused on federal policy impacts on farmworkers' wages, working conditions and immigration status. Goldstein has been a leader in advocating for immigration legislation, reforming the agricultural guestworker program and improving enforcement of labor protections.

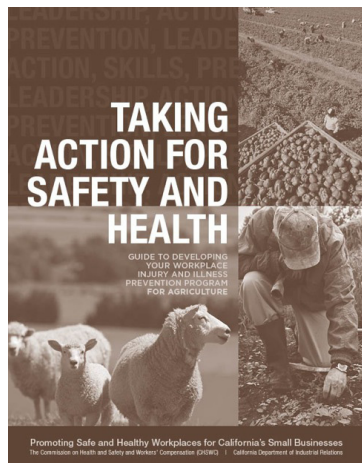
His publications, litigation and advocacy have also sought to address the problem of "farm labor contractors" used by farming operations, often in an attempt to avoid responsibility for complying with labor laws. Because farmworkers are part of a transnational labor force, Goldstein has been active at the international level. He is also engaged with farm labor unions, food safety advocates and environmentalists in efforts to improve corporate social responsibility in the food industry.



# Western Center for Agricultural Health and Safety outreach highlights

## Taking Action for Safety and Health

The new guide *Taking Action for Safety and Health* has been printed, and the first workshops are scheduled for July 2014. The guide was developed to help agricultural workplaces



in which 60 videos are now available for Extension agents/educators, agricultural science teachers, producers/owner/operators, first responders and agricultural families. Videos can be used during job orientation, safety/health education, 4-H meetings, and high school or college classes. One benefit of YouTube is that videos can be accessed from mobile devices to conduct tailgate trainings in the field. The videos can be seen at [www.youtube.com/USagCenters](http://www.youtube.com/USagCenters).

## WCAHS' Blog

Trying to bring our research finding to a larger audience WCAHS has developed a blog. Readers of the blog can make comments, ask question of the author or add additional information to the posting. This potential for dialogue is much more dynamic than the traditional, very slow process of writing "letters to the editor" for journal articles. Visit our blog at <http://westernaghealthandsafety.wordpress.com/>

in California comply with the Cal/OSHA Injury and Illness Prevention Program standard (Title 8, Section 3203). The benefits of an effective Injury and Illness Prevention Program (IIPP) include improved workplace safety and health. An effective IIPP can contribute to reducing cost and risks associated with workplace injuries and illnesses. The guide was designed for the individuals who write their workplace's IIPP and those who participate in its implementation in an agricultural setting. For more information, contact Teresa Andrews at [terandrews@ucdavis.edu](mailto:terandrews@ucdavis.edu).

## California Heat Illness Prevention Study

To assist the California Heat Illness Prevention Study to identify worksites to conduct the study we developed a series of workshops on heat illness prevention. During the workshops farmers and managers review the elements of the heat illness prevention standard (Title 8, Section 3395). The aim of the study is to understand the reason why farmworkers who have received heat illness prevention training and have water available to drink still have risky behaviors.

## Agricultural safety videos

Outreach staff of the National Institute for Occupational Safety and Health-funded agricultural centers across the nation is collaborating to promote ag health and safety messages using social media. To that end they created a YouTube channel



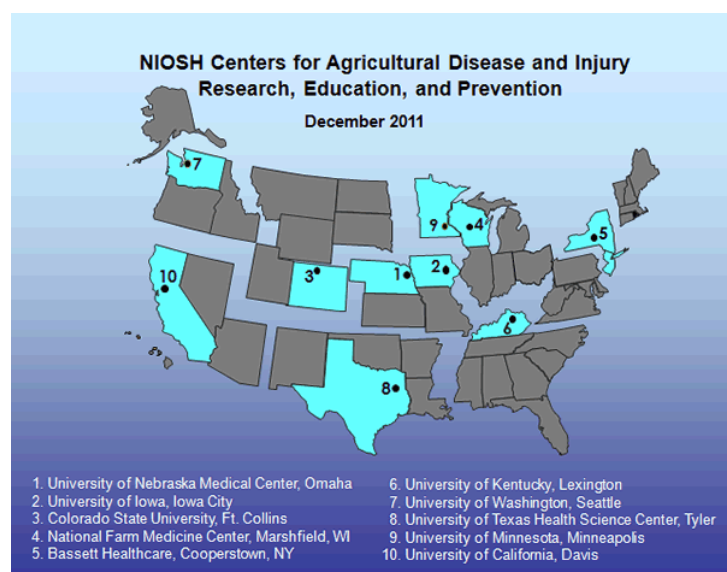
Elena Ronda, an expert on public health at the Universidad de Alicante in Spain, visited WCAHS in May to learn about the methodology used in the MICASA study because her team is interested in conducting a similar study in Spain. Dr. Ronda said that what she learned about MICASA methodology was instrumental in preparing a proposal her team submitted recently to the Aid to Research Projects Fund, so they can conduct a study among immigrants from developing countries and evaluate their health status.

# Ag safety, health centers benefit farmers

*Excerpted from an article by Dr. Mike Rosmann that ran in the May 27th edition of the Yankton Daily Press*

As the U.S. Congress undertakes deliberations on the FY 2015 federal budget, the National Institute for Occupational Safety and Health (NIOSH) is faced with threats of reduced funding or elimination, for the third year in a row. NIOSH is the primary U.S. agency responsible for conducting research and making recommendations for the prevention of work-related illnesses, injuries and fatalities.

Ten regional Agricultural Safety and Health Centers and related programs serving all 50 states utilize a small portion of the \$332.86 million FY 2014 NIOSH budget to undertake research, education and information dissemination about agricultural safety and health. The centers were established as part of a Center for Disease Control and Prevention/NIOSH Agricultural Health and Safety Initiative in 1990.



Farmers, ranchers, agricultural workers – indeed, anyone with concerns about health and safety issues in agriculture, fishing and forestry – may contact any of the 10 regional centers <[www.cdc.gov/niosh/oep/agctrhom.html](http://www.cdc.gov/niosh/oep/agctrhom.html)>

The centers work with individual producers as well as organizations, businesses, manufacturers and groups involved in the agriculture industry. While they have produced a lot of “bang for the buck,” their continuation is uncertain.

NIOSH funds are mainly responsible for the development of agricultural medicine training for physicians, nurses and persons in many related occupations in ten locales. The training helps

healthcare providers and educators know how to manage the unique health issues of persons involved in agriculture, such as nicotine poisoning among people working in tobacco fields, respiratory health concerns due to agricultural dust and hearing loss due to agricultural noise.

The combined efforts of the centers with the agriculture industry as a whole have contributed to significant reductions of work-related perils, such as far fewer deaths due to tractor rollovers and half as many injuries and fatalities to children working on the farm as two decades ago. More is now known about how antibiotics in animal feedstuffs affect human consumers, among the many health issues which are now better understood.

Many more agriculture issues need solutions, such as clearer knowledge about the health and environmental effects of long-term use of glyphosate, how certain pesticides influence the rates of cancer, Parkinson’s disease and other maladies of the people who contact these substances and how to certify farms as safe places to work, among many other issues.

All of the centers offer pilot grants up to \$20,000 on a competitive basis for emerging issues, research and demonstration projects that are proposed by individuals or groups who want to examine a particular issue or disseminate information that improves the health and safety of the agricultural population and environment.

The centers are seeking to fund innovative projects that examine new issues or apply scientific findings to the agriculture industry. Among recently funded projects are teaching life-saving ways to extract persons trapped in grain bins, development of webinars to cope with farm stress, reducing the spread of methicillin-resistant staphylococcus aureus by workers in livestock operations, and developing standards for the safe use of all-terrain vehicles like 4-wheelers, to name but a few.

Federal funding for agricultural safety and health through NIOSH for the upcoming year likely will be decided this summer. Persons can register their opinions about whether this money is well spent by contacting their elected officials, all of whom have websites and invite input from constituents.

Dr. Rosmann lives at Harlan, Iowa, and serves on the Regional Advisory Committee for the Great Plains Center. To contact him, see the website: [www.agbehavioralhealth.com](http://www.agbehavioralhealth.com).

## DOSH seeks major changes to heat illness standard

The Division of Occupational Safety and Health has just proposed major revisions to California's heat illness prevention standard. The action is not formal rulemaking, but sending its proposal to the Standards Board is a big first step in revising the almost 10-year-old regulation. California has led the nation in heat illness standards.

Employers with heat exposures may be well advised to begin adoption in advance.

Among the proposed revisions:

- Requiring employers to provide drinking water as close as practicable but no more than 400 feet from employees, with some wiggle room.
- Shade to be provided when temperatures hit 80 degrees (currently 85°F) and no farther than 700 feet from workers.
- Employees who need to take a "cool-down rest" cannot be ordered back to work until symptoms of heat illness have abated. Employers also would have to monitor the worker during the rest period and provide emergency services if the symptoms worsen.

- High-heat procedures would kick in at 85 degrees, instead of the current 95°F. The draft also adds specific instructions for observing employees for heat illness signs during high heat.
- Expanding the training topics that must be provided to employees.
- Adding specific instructions on what must be contained in employers' written heat illness prevention procedures.
- Requiring supervisors to take "immediate action" if employees show signs of heat illness. Such employees would have to be offered emergency medical services before they could be sent home.

Once the Standards Board reviews the draft, it may return it to DOSH for changes or for questions. No timetable has been set for formal adoption but this appears to be on a fast track.

For more information, visit <http://www.dir.ca.gov/dosh/>



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### ***Join the AgHealth e-mail listserver***

The Western Center for Agricultural Health and Safety's AgHealth e-mail discussion group is open to anyone interested in agricultural health and safety. We welcome and encourage participation by posting comments or questions about agricultural health and safety. Subscribe at the WCAHS homepage: <http://agcenter.ucdavis.edu>, click on "AgHealth email List."

### ***WCAHS Seminars will resume in October***

**NIOSH** National Institute for Occupational Safety and Health

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