Training and Integrating Vulnerable Agricultural Workers

Safety Culture and Risk Management in Agriculture Meeting

Athena K. Ramos, PhD, MBA, MS, CPM
Workshop Purpose

To identify effective models for training and integration of vulnerable populations into the agricultural workforce.

- Immigrants
- Migrants
- Refugees
- Young persons
- Older persons
- Women
- Persons with disabilities
- Minority
- Seasonal workers
Migration: A global phenomena

The largest number of international migrants move from developing countries to developed countries, but slightly less than half move to another developing country.

There are also internally displaced people and rural-to-urban migration.

**Push Factors**  
*Encourage people to leave*

- Unemployment/underemployment
- Insecurity
- Political instability
- Fear for personal/family safety
- War or armed conflict
- Climate related factors (e.g., drought, famine)
- Scarcity of land

**Pull Factors**  
*Encourage people to come*

- Availability of jobs and economic opportunity
- Safety
- Educational opportunities
- Political and religious freedom
- Higher standard of living
- Better infrastructure
- Fertile land

Globally, there were 150.3 million migrant workers in 2015.
## Seasonal & contracted agricultural workers in Europe

<table>
<thead>
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<td><strong>France</strong></td>
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<td>Hungary 85,310</td>
<td>France 84,210</td>
<td>Italy 14,530</td>
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<td>Italy 79,090</td>
<td>Germany 55,900</td>
<td>United Kingdom 13,200</td>
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<td><strong>Total</strong></td>
<td>2,023,880</td>
<td>1,467,170</td>
<td>777,910</td>
<td>171,740</td>
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</tbody>
</table>

* AWU = Annual worker units

Immigrants in agriculture

Immigrants represent a significant portion of the agricultural labor force (3-D jobs). Immigrants may also be migrant or seasonal workers. They are considered a “vulnerable” worker population.

Below are some of the factors affecting immigrant workers’ occupational health:

- Hazardous work: dangerous conditions, high demands, long hours, inadequate rest, time pressure, and repetitive tasks
- Language, cultural, and logistical barriers
- Little or no safety training or personal protective equipment
- Low levels of formal education and literacy
- Poverty
- Racism, xenophobia, discrimination, and ethnicization of tasks
- Immigration-related fear/legal status
- Inadequate knowledge of labor rights and reluctance to speak up about unfair treatment or hazardous conditions

Higher rates of occupational injuries and illness


ILO Convention (C-184)
Safety and Health in Agriculture

Article 6: The employer shall have a duty to ensure the safety and health of workers in every aspect related to the work.

Article 7: The employer shall carry out appropriate risk assessments and adopt prevention and protective measures; ensure adequate and appropriate training on hazards/risks (while accounting for educational level and differences in languages); and stop any operation that is imminently dangerous workers.

Article 8: Workers in agriculture shall have the right:
(a) to be informed and consulted on safety and health matters including risks from new technologies;
(b) to participate in the application and review of safety and health measures and, in accordance with national law and practice, to select safety and health representatives and representatives in safety and health committees; and
(c) to remove themselves from danger resulting from their work activity when they have reasonable justification to believe there is an imminent and serious risk to their safety and health and so inform their supervisor immediately. They shall not be placed at any disadvantage as a result of these actions.

2. Workers in agriculture and their representatives shall have the duty to comply with the prescribed safety and health measures and to cooperate with employers in order for the latter to comply with their own duties and responsibilities.

Why training does not work

• Training does not meet the needs of the end-users (farmers/farmworkers).

• Training methodology and terminology are not appropriate for the audience.

• Training is once and done. Training is not consistently reinforced.

• Farm leadership does not follow through with the recommended actions from training; supervisors do not model correct practices on the job.

• Trainer is not trusted or is viewed as unexperienced by the workforce.


End users should be engaged in the design & development

Both farmworkers and supervisors can contribute to the development of effective training materials.

- Tasks
- Structure of work
- How work is carried out among workers
- Thought processes

Materials may be refined through some form of rapid cycle improvement process such as design thinking or user-centered development.


Engagement: A key component to learning and retaining knowledge

Low-engaging methods (one way flow of information)
- Lecture
- Video
- Written materials

High-engaging methods (active learning)
- Computer-based instruction
- Flip charts
- Think-pair-share
- Facilitated case discussions
- Hands-on practice with feedback
- Action-focused reflection

Knowledge in stages
Principles of behavioral modeling

- Try to use a variety of teaching strategies that address different learning styles (audio, visual, and kinesthetic).
- Use low-engaging formats as reinforcements for what was taught.
- Connect people to local resources.

Partnering with a Local Farm to Reduce H-2A Worker Back Pain and Injury

Athena Ramos, PhD, MBA, MS, CPM1, Susan Billups Rabick, BS2, Antonia Correa, MA1, Natalia Trinidad, BS1, Ellen Duysen, MPH3, & JN Sanchez4

1University of Nebraska Medical Center, College of Public Health, Center for Reducing Health Disparities and the Central States Center for Agricultural Safety and Health, Omaha NE
2Proteus, Inc., Lincoln NE
3University of Nebraska Medical Center, College of Public Health, Central States Center for Agricultural Safety and Health, Omaha NE
4Community Volunteer

Background

Back pain is the most common cause of job-related disability all across the world (Hoy et al., 2012). Almost 80% of people will experience a back injury sometime in their lives (Rubin, 2007). Farmworkers are no exception. In fact, about 25% of farmworkers experience back pain, in part due to awkward body positions, repetitive motions, and vibrations common in farm work (Xiao, McCurdy, Slooiklin-Marois, Li, & Schenker, 2013). Many also experience back injuries. According to the Nebraska Migrant Farmworker Health Study 2016, 18.3% of farmworkers have been injured on the job and of those about 21% were back injuries (Ramos, 2016).

Although some of the risks for injury can be resolved through engineering controls, changes to administrative processes and work practices are still necessary. Ensuring proper training of all workers is an important step in reducing ergonomic stress and preventing back injuries (Donham & Thelin, 2016).

The purpose of this poster is to describe the development and testing of a short back safety module created for H-2A farmworkers.

Methods

In early April 2017, Proteus, Inc., a farmer health education, and training organization, was approached by one of their partner farms in Nebraska. Workers on the farm had experienced back pain and back injuries during the last season. The farm was seeking basic training to prevent pain and future injuries.

A representative from Proteus contacted an investigator from the Central States Center for Agricultural Safety and Health (CS-CASH) to explore the possibility of developing a short back safety module that could be used in conjunction with other training already happening on the farm. In late April 2017, representatives from Proteus, CS-CASH, and the farm met to discuss what should be included in the training based on actual job tasks on the farm.

After the farm visit, the team explored current available resources from the National Ag Safety Database (NASD), National Institute for Occupational Safety and Health, and the Occupational Safety and Health Administration (OSHA). Core training messages were developed based on the current science of back pain, back injury, and preventative strategies. Training was developed in English, reviewed by two physical therapists, and then translated into Spanish by native speakers who were certified translators.

Implementation and Results

The training was designed to be implemented on the farm with a duration of approximately 20 minutes. Because of the potential lack of training facilities and structured meeting rooms, this training was designed to be implemented with limited resources, just a facilitator, a standard reusable produce container (RPC), a large copy of the pictures used for discussion, and if possible a copy of the warm-up exercises for each worker.

The learning objectives for this back safety module included:

1. To understand that back injuries are common among farmworkers
2. To recognize risks for back injury
3. To identify safe lifting practices
4. To describe strategies to protect musculoskeletal health.

A total of 63 farmworkers participated in the back safety training in June 2017 in Monroe, Nebraska. The training was conducted in Spanish and held on the farm outside during the workday within the first two weeks after the workers’ arrival into the U.S.

During the training, workers were asked who had ever hurt their back and what did it feel like. The facilitator discussed frequency, intensity, and duration of movements and load location. Workers were shown pictures of safe and unsafe lifting practices (Figure 1). Then, they were asked to identify and discuss why they believed each picture was safe or unsafe. Facilitators also demonstrated some warm-up exercises and workers practiced them as a group (Figure 2). Finally, strategies for protecting musculoskeletal health were discussed.

![Figure 1: Safe and Unsafe Lifting Practices](image1)

![Figure 2: Sample Warm-up Exercises](image2)

At the end of the training, a short evaluation based on the New World Kirkpatrick model for evaluation (Kirkpatrick & Kirkpatrick, 2016) was conducted with the workers. Evaluation questions focused on three levels of the model: reaction, learning, and behavior. Workers were given color-coded pieces of paper to tear off for their responses to these questions (Figure 3).

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Level 1: Reaction</th>
<th>Level 2: Learning</th>
<th>Level 3: Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This training was helpful to me.</td>
<td>Yes</td>
<td>No</td>
<td>SI</td>
</tr>
<tr>
<td>2. I know what are the risks for back injury.</td>
<td>Yes</td>
<td>No</td>
<td>SI</td>
</tr>
<tr>
<td>3. I will use what I learned about back safety on the job.</td>
<td>Yes</td>
<td>No</td>
<td>SI</td>
</tr>
</tbody>
</table>

The training was well received by the workers. Of those who participated in the training, 100% agreed that the training was helpful, 98% agreed that they now know about some risks for back injury, and 100% agreed that they will use what they learned about back safety on the job.

![Figure 3: Evaluation Cards](image3)

Discussion

Oftentimes, farm managers and supervisors do not have time to find training materials for every concern found in the work environment. Partnering with academic institutions to meet industry-relevant training needs may be a practical solution to overcoming some of these challenges. This back safety module was developed so that it could be used as a regular training component of on-boarding seasonal employees. It is available in English and Spanish and includes easy-to-use facilitator instructions.

Given varying levels of worker literacy and agricultural work experience, the module uses graphic illustrations, demonstration and teach-back strategies, and practice to ensure that workers understand the content. These strategies are useful and can be used to train workers on a variety of health and safety concerns.

Conclusions

Back injuries are common among farmworkers; however, they may be prevented through appropriate training. Partnerships with academic institutions and farmworker health advocates may help farms to be able to meet the vast training, information, and resource needs of their seasonal workers. Ensuring culturally, linguistically, and contextually appropriate educational strategies is critically important to making a difference in actual injury rates and being able to link these to Level 4 evaluation of results.

Acknowledgements

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References

Camp health aide relies on local non-professionals who receive training in particular health issues and act as educators, advocates, and providers of first aid, outreach, and social support.

Camp health aide is similar to a lay health educator, health promoter, community health advocate, or a community health worker.

WHO states that individuals in this role should be:
• members of the communities where they work
• selected by communities
• answerable to communities for their activities
• supported by the health system, but not necessarily a part of its organization
• have shorter training than professionals

Seguridad en las lecherías

The Seguridad en las lecherías project employed a popular education model that builds on experiential learning approaches relevant to the everyday lives of workers.

The goal of this project was to bridge the gap in worker health and safety training in dairy production, by testing a culturally appropriate, occupational safety and health intervention to reduce worksite hazards and to improve knowledge and practices among immigrant dairy workers in Wisconsin.

SPECIFIC AIMS:
1. Translate and apply research to an occupational health and safety intervention for immigrant workers in dairy;
2. Engage dairy producers, farm managers, workers and clinicians, health and safety professionals to raise awareness and increase understanding of strategies to improve the occupational health and safety of immigrant workers in the dairy industry; and
3. Evaluate the intervention to determine reduction in hazards, changes in knowledge, attitude and practices among immigrant workers and the acceptability of the CAPE methods.

Popular education
All participants are simultaneously learners and teachers.

The purpose of popular education is **conscientization** by critically reflecting on the conditions that exist, then imagining possibilities for something much better that emerges from both interpersonal and institutional dynamics.

- Praxivism (reflection *and* action)
- Start where people are at; Begin with their experiences, knowledge and skills
- Ensure that learning comes from the whole group, not just a few people
- Connect personal experiences with the systemic infrastructure
- Contextualize and connect to the history, present and future of the issue
- Build capacity so that the expertise is within the community
- Trust in people and the knowledge that they bring; Respect and value each voice
- Build solidarity to address shared issues

http://www.practicingfreedom.org/offerings/popular-education/
Seguridad en las lecherías
https://www.migrantclinician.org/seguridad

http://umash.umn.edu/seguridad/
Technology-based models

Douphrate and colleagues found that mobile technologies were useful in training immigrant workers. There were increases in worker knowledge and workers were satisfied with the training format, which included:

• Bilingual/bicultural staff visiting farms actively assisting workers
• Multilingual computer-based modules (accessed through iPads) completed during work day on the farm
• Curriculum consisted of general modules for all workers and task specific modules based on current job functions
• Certificate of completion for the workers

Innovative training opportunities

- Fotonovela/Comic book
- Storytelling/Audio library
- Radionovela
- Theater

### Material development considerations

**PRINTED MATERIALS**
- Font
- Color
- Images (e.g., photo vs. drawing; step-by-step photos)
- Layout (e.g., side-by-side; white space)
- Language (e.g., mono-, bi-, or multilingual; translation quality)
- Literacy level

**AUDIO & OTHER MEDIA MATERIALS**
- Characters
- Voices
- Trust of spokespeople
- Placement (e.g., stations, online)
- Reach of medium
- Regular repetition
- Cultural fit with the target population

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Program development

Evidence-based programs …
Could there be some for
agriculture health and safety?

• What are the topics that need
to be addressed?
  ✓ Proper method to complete
task, hazard, risk, PPE,
reporting, near misses
• How will the topics be
addressed? Methods?
• What are the “active
ingredients” of the program?
Why does it work?
• What is the appropriate
“dosage” of the program?

Components and Impacts of Integration on Community Life

Sense of Community
- Policy environment promoting equity and respect

Place Attachment
- Economic inclusion

Integration
- Communication and navigational infrastructure
- Civic and political participation
- Educational opportunities

Well-Being
- Social and cultural interactions

Satisfaction

Roots

Appreciative Rural Narratives on “Welcoming”

Hispanic/Latino immigrant participants liked their new communities and planned on staying. They contributed to community life in many ways. Overall, they were satisfied with their lives, even though they experienced some real and perceived challenges.

Community leaders may have limitations such as dealing with national immigration laws and policies, but they can:
- Make people feel comfortable
- Mitigate the fear related to anti-immigrant policies
- Foster a sense of community
- Strengthen social capital
- Promote community well-being
- Make the community a more welcoming and safer place to live

1. “Welcoming” is about intentional inclusion – not just hoping that people will come or participate, but actually being proactive and creating the conditions where people feel included, accepted, and valued.
2. Furthering integration requires changes to community systems and developing community opportunities that could benefit all residents.
3. Most people can connect with an experience of being a newcomer - whether a newcomer to town, new kid in school, or being the new person at work. Using this experience as a bridge to foster empathy may motivate leaders to act on their power.

Creating a culture of safety

Fostering positive relationships between workers and supervisors/managers is critical to improving safety culture in agriculture.

Effective relationships require:
• Trust
• Strong communication
• Being open to learning
• Acknowledging errors and committing to improve

End users should be involved in the development of training topics and materials.

High quality, engaging training upon hire and at regular intervals throughout employment is essential.
• Training may be completed in-person or using technology.
• Reinforcement of training with family and friends of farmworkers may promote the retaining of information and increase the effectiveness of interventions.

Integration of immigrant agricultural workers must happen at work, but also in communities. Without supportive communities, it will be difficult to attract and retain motivated workers.
Advancing research with vulnerable workers

Farmworker enumeration studies that take into account official published statistics but also working knowledge of community and industry stakeholders

Develop common definition of “vulnerable” and “migrant”

Include occupational status in electronic medical records

Multidisciplinary approaches to address the myriad of cultural, demographic, health, political, and social aspects of workers’ lives

Should try to collect migration-related data including country of origin, age at migration, duration in host country, plans for tenure in host country, language proficiency, ethnicity, and acculturation

Studies that address the country of origin, transit, destination of these workers

Ensure study staff have specific cultural awareness training to work with the target population of workers, understand the language, and any potential safety issues

Discussion

1. Are these types of training methodologies/strategies practical in the European context? Why or why not?

2. What other types of training ideas for vulnerable populations do you have?

3. What other demographic changes/migration patterns are you seeing in your country?

4. What other types of research may be necessary to improve the data on immigrant, migrant, seasonal, and refugee farmworkers?

5. Community welcoming strategies are occurring throughout the world. How could you capitalize on a “welcoming” strategy to encourage participation in national agriculture?

6. What other opportunities for integration of vulnerable workers exists?

7. What partnerships are needed to improve safety culture among vulnerable workers?
Resources

European Working Conditions Survey
Includes information on employment status, working time duration and organization, work organization, learning and training, physical and psychosocial risk factors, health and safety, work-life balance, worker participation, earnings and financial security, as well as work and health
https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys

PROMINSTAT
Responds to the need of researchers, policy makers and practitioners for more reliable, more systematic and more harmonized statistical data on migration, integration and discrimination in Europe
http://www.prominstat.eu
Questions?

Athena Ramos, PhD, MBA, MS, CPM
Assistant Professor
Center for Reducing Health Disparities
Department of Health Promotion
College of Public Health
University of Nebraska Medical Center
Omaha, NE 68198-4340
(402) 559-2095
aramos@unmc.edu
@athenakramos