Workers and Health: How Frontline Providers Make a Difference in the Protection of Migrant Workers and their Families

Session 4: Orientation to Migration Health

Mike Rowland, MD, MPH
Amy K. Liebman, MPA, MA

Disclosure and Disclaimer

Faculty:
Michael Rowland, MD, MPH
Amy K. Liebman, MPA, MA

Disclosure: We have no real or perceived vested interests that relate to this presentation nor do we have any relationships with pharmaceutical companies, biomedical device manufacturers, and/or other corporations whose products or services are related to pertinent therapeutic areas.

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A True Tale of Two Injuries

Paper mill Worker
✓ Severed a flexor tendon on one finger
✓ Seen right away
✓ Workers Comp
✓ Surgery
✓ Accommodations
✓ 3 months to normalcy

A True Tale of Two Injuries

Broccoli Worker
✓ Cut tip off one finger
✓ Dropped at ER
✓ “Nothing to do with work”
✓ No insurance
✓ 3 days of pain meds, closed wound
✓ No work
✓ Lost

Photo © earldotter.com
Migrant Health

Underserved population whose health is worsened by...

- Migratory lifestyle
- Cultural and language barriers
- Immigration status
- Inherent dangers and health risks of occupation
- Lack of access to insurance or financial resources
- Lack of regulatory protection

What is the most dangerous industry in the US?
Number and rate of fatal occupational injuries, by industry sector, 2011*

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Number of Fatal Work Injuries</th>
<th>All-Worker Fatal Injury Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and Warehousing</td>
<td>723</td>
<td>15.0</td>
</tr>
<tr>
<td>Construction</td>
<td>721</td>
<td>24.4</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>557</td>
<td>8.9</td>
</tr>
<tr>
<td>Government</td>
<td>495</td>
<td>2.2</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>402</td>
<td>2.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>322</td>
<td>2.2</td>
</tr>
<tr>
<td>Retail trade</td>
<td>266</td>
<td>1.9</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>242</td>
<td>1.9</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>189</td>
<td>1.1</td>
</tr>
<tr>
<td>Other Services (e.g., public admin.)</td>
<td>177</td>
<td>0.8</td>
</tr>
<tr>
<td>Mining</td>
<td>157</td>
<td>0.8</td>
</tr>
<tr>
<td>Education and health services</td>
<td>150</td>
<td>0.8</td>
</tr>
<tr>
<td>Financial activities</td>
<td>58</td>
<td>2.0</td>
</tr>
<tr>
<td>Information</td>
<td>39</td>
<td>4.2</td>
</tr>
<tr>
<td>Utilities</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total fatal work injuries = 4,608

*Data for 2011 are preliminary.

NOTE: All industries shown are private with the exception of government, which includes fatal injuries to workers employed by governmental organizations regardless of industry. Fatal injury rates exclude workers under the age of 16 years, volunteers, and active military. The number of fatal work injuries represents fatal published fatal injuries before the exclusions. For additional information on the fatal work injury rate methodology changes please see: http://www.bls.gov/iif/oshwc/osh/osh.pdf.

Transportation and warehousing surpassed construction in having the highest number of fatal injuries in 2011. The agriculture, forestry, fishing, and hunting sector had the highest fatal work injury rate.

Fatal Farm Accident Prompts Immigration Investigation

WMEG (Green Bay) (Wisconsin) <br ?>/FEBRUARY 13, 2013

Authorities head to a farm for a fatal equipment accident and find illegal immigrants working there. Seemingly, Leopold, a seasonal fruit picker, was teaching another person how to use a machine. From the accident, the driver of the equipment, Leopold, lost balance and fell back into the machinery, killing him. The U.S. Department of Homeland Security has confirmed that several people working there were actually illegal aliens.

Pesticides Drifting from Farms to Workplaces Increase Parkinson’s Risk

Science Daily (May 12, 2010)

A new study reports that people whose workplaces and homes were near fields sprayed with the pesticides paraquat, diquat and paraquat, have an increased risk of developing Parkinson’s disease (PD). The research is the first to link paraquat exposure to Parkinson’s risk, in particular for farmers and those who lived near contaminated fields. Researchers found that those chemicals can drift from the fields where they are applied to surrounding areas.

Farming Accident Victim Identified

Wisconsin <br />March 7, 2013

The victim of a deadly farming accident in Brown County has been identified. Jacob/Moonstone Police say 29-year-old Joseph Reese-Glorioso was found pinned underneath a piece of machinery on a farm in Moonstone on County Line Road (near) St. Stephen. It’s now up to the 15th Judicial Circuit Court to identify him. Leopold’s Quinoa’s family will bring his body home to Mexico for burial. The cause of his death is still under investigation.

Pesticide used on potato farm sickens two in Genessee County

News-Sentinel (Oct. 20, 2011)

Two people were sickened Wednesday evening by a pesticide being used on a potato farm in Genessee County. The two, both family members of a farm owner, were treated at a hospital and released.

Western man dies after farm accident

Lincoln Journal Star (Nov. 27, 2012)

Two young girls have lost their father in a farm accident. Justin Tippie, 33, of Wester was working at a farm when a tractor was hit by a skid loader. He died on the scene. The family was told about three miles south of Ridge, where two people were killed, including a child.
Vulnerabilities

Immigration Status
Agricultural Exceptionalism
Affordable Care Act
Environmental/Occupational Concerns

- Pesticide
- Injuries and Trauma
- Musculoskeletal
- Other Chemical Exposures
- Heat Illness/ Frost Bite
- Eye Injuries
- Burns
- Bladder Infections
- Dermatitis
- Infectious Diseases
- Transportation

Injuries

- Fall
- Crush
- Pull in
- Thrown object
- Shear/Cutting Point
- Eye Injuries
Tractor rollovers #1 cause of death on farms

Musculoskeletal

- Lifting
- Slips and falls from ladders
- Stooping
- Reaching
- Carrying
Real lives

Agmart and Carlitos

Within 7 weeks of one another...
4 women lived in the same labor camps and worked in the same fields in North Carolina and Florida

Carlitos born without arms or legs
Jesus born with Pierre Robin syndrome
Violeta born with multiple birth defects, died within 3 days

4th baby with similar birth defects in Mexico
Pesticide Exposure

- 10,000-20,000 occupational exposures per year in US (EPA 1996)
- Inconsistent and incomplete surveillance system
- Latino farmworkers most exposed
- Over 1 billion pounds of pesticides used each year, mostly in agriculture

World-wide

3 million poisonings
200,000 deaths

Underreporting

~ 25 million poisonings (if all cases counted)

98% under-reporting to surveillance systems
(Studies from Central America)
Worker Exposure to Pesticides

- Mixing, Handling, Applying Pesticides
- Working in Fields/Orchards Treated with Pesticides
- Drift

Plane Spraying Pesticides

Migrant Housing
Acute Poisonings (OP/Carbamates)

- Stomach Cramps
- Urination
- Diarrhea
- Vomiting
- Death
- Drooling

Chronic Effects

- Cancers
- Blood disorders
- Neurological problems
- Reproductive effects

?
Reproductive Health

- Sterility
- Birth defects
- Spontaneous abortion

Exposure to Family Members

- “Take home” exposure
- Drift
- Home application of pesticides
- Lawn and vegetable and flower gardens
Pesticides and Kids

- Birth Cohort Studies
  - CHAMACOS
- Prenatal/Postnatal Exposure (mostly OPs)
- Poor Cognitive, Behavioral Outcomes
- Neurobehavioral function

Elevated risks of childhood acute lymphoblastic leukemia associated with lifetime moderate exposure to certain pesticides
How many states require clinician to report suspected and confirmed pesticide exposures?
EPA’s General Approach

- Worker Protection Standard
- Count incidents from passive surveillance systems and act on that information
- No national standard for monitoring workers

How does EPA know about problems with a registered chemical?

- Reports from Clinicians
- Surveillance data
  - State systems
  - NIOSH SENSOR system
    - Both dependent on clinician reporting
- Poison Control Data
  - Mostly Clinician reports are biased toward children and exposures not poisonings
- 6(a)2 Reports from Registrants
  - Dependent on clinician reports
Primary Care can be a Gateway
Obstacles for Primary Care Providers/Staff

- BUSY
- Unfamiliar terminology/practice
- Public Health Paradigm
- Workers’ Compensation/Legal system/Reporting
- Office Based

Diagram:
- Elimination
- Substitution
- Engineering Controls
- Administrative Controls
- Personal Protective Equipment
- Injury/Exposure Management
EOH Screening Questions for the Primary Care Setting

<table>
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<tbody>
<tr>
<td>• Describe what you do for work.</td>
<td>• Are there any physical activities that you do – at work or away from work – that you feel are harmful to you?</td>
<td>• Are you exposed to chemicals, fumes, dusts, noise, and/or high heat at your work or away from work? • Do you think these are harming you?</td>
</tr>
</tbody>
</table>

Goals of Workers’ Compensation

• Medical treatment for injured patient
  – Immediate
  – Long term
  – Access to Specialty Care

• Wages

• Return to Work

• Prevention - Hazard Control

• Public Health
  – Surveillance
Are undocumented workers eligible for workers’ compensation in your state?

What can clinicians do?

✓ Think like a lawyer!
✓ Similar to Criminal v Civil Law
✓ Criminal – Beyond a Reasonable Doubt
✓ Civil – More likely than not
✓ Medical Diagnosis v Occupational Exposure/Injury
A Good Analogy

Acquitted in the criminal case
Found culpable in the civil case

What Can the Clinician Do?

- Document/Chart
- Work Related
  - Exposure
  - Illness
  - Injury
1,300 employees at Quality Pork Processors

14 developed new neurological disease

Was it work related?

✓ All worked near “blowing brains” area
✓ Only 3 plants use technique
✓ Several workers consulted company nurse—actions?
✓ Interpreter reported to physician that she heard the “same story” from three patients

Progressive Inflammatory Neuropathy (PIN)

Could have been a lot more imaginative and called it...

Progressive Inflammatory Global-neuropathy Syndrome

PIGS
• 2000 8 workers acquire Bronchiolitis Obliterans
• 2004 NIOSH issues recommendation
• 2007 first consumer case
• 2008 Pathological changes in rats confirmed

Popcorn Lung

Resources
MCN’s Environmental and Occupational Health Program

SIMPLE, Flexible, Effective

✓ EOH Centers of Excellence
✓ Practical training
✓ Reporting
✓ Connecting primary care to occupational and environmental medicine
✓ Resources and technical assistance
✓ Patient Centered Medical Home

Resources, Training, Technical Assistance, and Information from MCN

www.migrantclinician.org
Pesticide Guidelines and Exposure Form

Farmworker Occupational Health Manual for Clinicians

Search Our Agricultural Health Care Topics

- HEALTH CARE TOPICS
  - Common Farmworker Health Conditions and Diagnostic Tools
  - Farmworker Patient Education and Prevention Tools
  - Patient Farm Type
  - Information by U.S. Region
  - Farmworker Demographics and Cultural Resources
Promotores de Salud

Worker Training
Patient Education Materials

• Colorful images
• Simple language
• Health and Safety information
• Available from MCN website

Any questions?

Amy Liebman, MA, MPA
aliebman@migrantclinician.org

Mike Rowland, MD, MPH
mrowland@beeline-online.net

www.migrantclinician.org