Workers and Health: Frontline Providers Make a Difference in the Care of Workers and their Families

Ed Zuroweste, MD
Amy K. Liebman, MPA, MA

Disclosure and Disclaimer

Faculty:
Ed Zuroweste, MD
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.

Disclaimer
This material was produced, in part, under Assistance Agreement No. X883487601 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA. EPA does not endorse any products or commercial services mentioned in this product.
Tell us who you are

1. Outreach
2. Administration
3. Medical Assistant
4. Nurse
5. Physician Assistant/Nurse Practitioner
6. Physician
7. Student
8. Other

Mississippi is Best Known For??

1. Catfish
2. Cottonwood Trees
3. Mississippi River
4. The King
What are your greatest concerns working with migrant farmworker patients?

- What are the key emerging issues in your area?
- What kind of assistance do you need in addressing these issues?
A True Tale of Two Injuries

Paper mill Worker
- Severed a flexor tendon on one finger
- Seen right away
- Surgery
- Workers Comp
- Accommodation made
- 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
- Given 3 days of pain meds, closed wound
- No work
- Lost to follow-up
• Why should we care about the work of our patients?
• What can we do to make a difference?
• What tools and resources do we have available to us?

10,000 constituents

Founded in 1984

Oldest clinical network serving the mobile poor

MCN’s primary constituents
• Federally qualified health centers
• State and local health departments
Agricultural Worker Demographics

2.5 million estimated population

72% male
28% female

500,000 children who work in agriculture

41% are 20–34 yrs old

3. * Note: Kandel uses a combination of NAWS and others data.
Agricultural Worker Demographics

- **Spanish** dominant language (70%)
- **71%** foreign born
  - Mexico (95%)
  - Central America (3%)
- 39% had no healthcare visit in last 2 years
- Hispanic (78%)
  - White (13%)
  - Other (5%)
  - African American (4%)

Average 2012 individual agricultural worker income: $18,910

25% of agricultural worker families had total family incomes below 100% of the Federal Poverty Level

OCCUPATIONAL DISEASE AND INJURY IN US

3.1 MILLION TO 5.5 MILLION
work related injuries/year

4-5,000
on the job DEATHS /year

~14 workers die
EVERY DAY

2ND
MOST EXPENSIVE HEALTH CONDITION
Occupational injury/disease
OTHER IMPACTS

54,000 work-related illness deaths/year

SIMILAR TO INFLUENZA
AND KIDNEY DISEASE

8TH LEADING CAUSE OF DEATH

2.4 TO 4.8% of CANCER DEATHS are occupational

15% of ASTHMA DEATHS due to work exposures

14% of deaths due to CHRONIC OBSTRUCTIVE PULMONARY DISEASE

---

Number of fatal work injuries involving Hispanic or Latino workers, 1997-2013

The total for fatal work injuries involving Hispanic or Latino workers increased in 2013 to the highest level since 2007. Two-thirds of fatally-injured Hispanic or Latino workers in 2013 were born outside of the United States.

Data for all years are revised and final.
Note: Data from 2001 exclude fatal work injuries resulting from the September 11 terrorist attacks.
• Native born Hispanics 12.3 million workers
• Foreign born Hispanics 12.1 million workers
  – 66% of the fatalities
• In 2013 Hispanic fatal injuries increased by 7% while fatal injuries in other groups went down

2 Latino workers die every single day
What’s the most dangerous industry?

1. Transportation
2. Belly Dancing
3. Agriculture
4. Construction
5. Mining

Number and rate of fatal occupational injuries, by industry sector, 2013

Private construction had the highest count of fatal injuries in 2013, but the agriculture, forestry, fishing and hunting sector had the highest fatal work injury rate.

March 24, 2015 • Associated Press

LEBANON, Conn. — A Connecticut farm worker has died after a pile of milled corn collapsed on him.

Police say the collapse happened when 54-year-old Donald Merchant, of South Windham, was using equipment to move corn from a large mound at the Square A Farm on Monday. When he got off the equipment, some of it toppled onto him.

Merchant was found unresponsive by other farm workers, who dug him out.

A tragic accident claimed the life of a 4-year-old boy at Parksdale Farm over the weekend.

Hayden Hitchcock was running alongside a pickup truck Sunday around 4 p.m. when he fell underneath it, according to the Hillsborough County Sheriff’s Office. The driver, 31-year-old Robert Parker, rushed the boy to South Florida Baptist Hospital. The boy was then taken to St. Joseph’s Hospital, where he died from his injuries, the sheriff’s office said.

Hayden is the great-grandson of Holland, the founder of the Parksdale Farms. The family confirmed to FOX 13 Monday the investigation is closed.
What are the work-related concerns in agriculture?

• Musculoskeletal
• Injuries and Trauma
• Pesticide and other Chemical Exposures
• Heat Illness/ Frost Bite
• Eye Injuries
• Burns
• Green Tobacco Illness
• Bladder Infections
• Dermatitis
• Infectious Diseases
• Transportation

Tractor Rollovers #1 Cause of Death on Farms
Injuries

- Roll-Over
- Fall
- Crush
- Pull In
- Thrown Object
- Shear/Cutting Point
- Eye Injuries

Power Take-off
At what rate does an arm get wrapped around a PTO

1. 1 foot per second
2. 7 feet per second
3. 1 foot per minute
4. 7 feet per minute
5. Not Sure

Musculoskeletal

- Lifting
- Carrying
- Slips and falls from ladders
- Reaching
- Stooping
Heat Illness

28 workers die from heat each year

Worker Heat Related Fatalities 2008-2013
Dust

Noise
Chemical Hazards

Real lives

Agmart and Carlitos
Within 7 weeks of one another...
4 pregnant women worked in the same fields in North Carolina and Florida

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

4th baby with similar birth defects in Mexico

How do we know about these cases
1. Surveillance System
2. Physician
3. Birth Defects Registry
4. Outreach Worker
5. Robust E.H.R.
Pesticide Exposure

- 10,000-20,000 occupational poisonings per year in US (EPA 1996)
- Inconsistent and incomplete surveillance system
  - 30 states require reports
  - 12 states do surveillance
- Latinos farmworkers most exposed
- Over 1 billion pounds of pesticides used each year, mostly in agriculture

World-wide

3 million poisonings
200,000 deaths

Significant underreporting

~ 25 million poisonings (if all cases counted)

98% under-reporting to surveillance systems (Studies from Central America)
Are clinicians required to report pesticide exposures in Mississippi?

1. Yes
2. No
3. Unsure
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
Worker Exposure to Pesticides

- Mixing, Handling, Applying Pesticides
- Working in Fields/Orchards Treated with Pesticides
- Drift
Exposure to Family Members

• “Take home” exposure
• Drift
• Home application of pesticides
• Lawn and vegetable and flower gardens

Beyond the workplace

• Substandard Housing
• Water and Sanitation
• Infectious diseases
• Take-Home and Drift
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 happens when there are numerous barriers to health care?

• Individuals present with advanced health care problems
• The ultimate cost of treatment is higher
• The outcomes of treatment are significantly poorer
• Morbidity and Mortality rates are higher
Simple Inguinal Hernia: Advanced Stage

What Federal Agency is Responsible for Worker Health and Safety?

1. CDC
2. FDA
3. OSHA
4. EPA
5. NSA
What Federal Agency is Responsible for Protecting Farmworkers from Pesticide Exposure

1. CDC
2. FDA
3. OSHA
4. EPA
5. NSA

Worker Protection Standard in 1972

Farmworkers DENIED overall protection from OSHA 1975

*Organized Migrants in Community Action, Inc. v. Brennan*

FIFRA mandates that EPA Protect Farmworkers
For the first time in over 20 years, EPA proposes revisions to the WPS on March 19, 2014.
• Public comment period from March 19-August 18.
• EPA receives over 200,000 comments from farmworker advocates
• EPA releases updated WPS on September 28, 2015

**WPS**

**Major changes-**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>New 2015 Provision</th>
<th>Former Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of training for workers and pesticide handlers</td>
<td>Annual mandatory training</td>
<td>Training once every 5 years.</td>
</tr>
<tr>
<td>Content of training</td>
<td>Expanded content includes how to reduce take-home exposure for farmworker families</td>
<td>Minimal training on reducing take-home exposure, worker rights, etc.</td>
</tr>
<tr>
<td>Minimum age for pesticide handlers and early-entry workers</td>
<td>Must be at least 18 years old</td>
<td>No minimum age</td>
</tr>
<tr>
<td>Anti-retaliation provisions</td>
<td>Anti-retaliation provisions comparable to Department of Labor standards</td>
<td>Anti-retaliation provisions not defined</td>
</tr>
</tbody>
</table>
Farmworker Exceptionalism

• Beyond pesticides...
• Few OSHA standards to protect farmworkers
  – Water and sanitation, 1987
  – Only farms with 11 workers or housing
• Collective bargaining
• Child labor
• Workers’ compensation
Primary Care can be a Gateway

EPA National Strategies for Healthcare Providers Pesticide Initiative
Obstacles for Primary Care Providers/ Staff

- BUSY
- Unfamiliar terminology/practice
- Public Health Paradigm
- Workers’ Compensation/Legal system/Reporting
- Office Based
Where is your work on the Hierarchy of Controls?

1. Elimination
2. Substitution
3. Engineering Changes
4. Administrative Controls
5. Personal Protective Equipment
6. Injury Management
7. N/A
MCN’s EOH Program

SIMPLE, Flexible, Effective

- EOH Centers of Excellence
- Practical training
- Reporting
- Connecting primary care to occupational and environmental medicine
- Resources and technical assistance

© Alan Pogue
EOH Screening Questions for the Primary Care Setting
Preguntas para sondear en los lugares de atención a la salud

1. OCCUPATION
   OCUPACIÓN
   Describe what you do for work.
   Describa lo que hace en su trabajo.

2. ACTIVITIES AND CAUSES
   ACTIVIDADES Y CAUSA
   Are there any physical activities that you do — at work
   or away from work — that you feel are harmful to you?
   ¿Hay alguna actividad física en el trabajo o en otro
   lugar que crea usted es dañina para usted?

3. SUBSTANCES/PHYSICAL HAZARDS AND CAUSES
   SUBSTANCIAS/PELIGROS FÍSICOS Y CAUSA
   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?
   ¿Está usted expuesto a químicos, gases, polvo, ruido y/o
   altas temperaturas en su trabajo o en otro lugar? ¿Piensa
   usted que estas cosas lo pueden dañar?

MCN Environmental and Occupational Health Centers of Excellence
What else can the clinician do?

Workers Compensation
How many states require employers to provide workers’ compensation equally to all workers including agricultural workers?

1. No States
2. 13 States
3. 29 States
4. All States
Common Exceptions

No coverage in many states

• Farmworkers
• Household employees
• Private contractors
• Day laborers
• In home healthcare workers

Are agricultural workers eligible for workers’ compensation in Mississippi?

1. Yes
2. No
3. Unsure
PESTICIDE REPORTING REQUIREMENT:
- Required
- Optional
- None

Coverage for Farm Workers: Optional


Coverage for Undocumented Workers: Not Defined in Statue or Case Law

Case Law: "employee" means any person, including minor, whether lawfully or unlawfully employed. Miss. Code Ann. § 71-3-3(d). I found no case law on the issue of whether an undocumented worker qualifies for workers' comp.

Benefits Available for Undocumented Workers: There is no case law answering this question.

Online Forms: Forms

State Workers' Compensation Website: Mississippi Workers' Compensation Commission

This interactive map in collaboration with Farmworker Justice.

Reports are extremely valuable to state and federal regulators, allowing them to spot
Workers’ Compensation in Mississippi

- Agriculture: Employer may elect to become subject to workers' compensation law.
- H-2A visa program: ALL WORKERS on farm are covered, not just workers with H-2A visas
- Undocumented workers eligible to receive benefits

When is illness or injury work related?

Any injury or illness resulting from or sustained in the course of any occupation or employment.

More than 50% likely due to work

USE THESE WORDS:

- “More likely than not” due to work
- Work “most likely” cause of the condition
- “But for the work” the condition would not exist
What can the clinician 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
• Refer for expert legal help
Despite the sealing of the plant, fork lifts remained in use.
Take Away Points

1. Linkages between individual cases and mass events.
2. Objective clinical tests are important.
3. Under certain conditions it is possible to go back and extrapolate to determine exposure levels.

Medical Home for Mobile Patients
Patients on the move need:

- To know where services are located
- Extended hours of service
- Transportation
- Affordable care
- Access to their medical records
- Culturally competent care at every level

Have You Traveled to West Africa??

- What do front desk workers need to know about the patient in front of them
- How do you talk to them (culturally competent)
- Where did you come from
- Where are you living
- Are you going to be moving soon
Ask Yourself...

- Who will follow these patients if the results come back positive?
- How can these patients remain adherent while moving to a different state / country?
- How can I get completion results for patients that have started treatment?
Health Network Enrollment Criteria

1. **Patient is:**
   - Already mobile OR
   - Likely to move

2. **Patient has:**
   - In need of a clinic for follow-up of ANY health condition

3. **Clinic Must:**
   - Complete Enrollment Registration
   - Have patient sign Consent/Send
   - Send Medical Records

"Fernando" is a 56 year old migrant farmworker diagnosed with diabetes at age 49. He traveled each year from South Texas to Minnesota or “wherever I can find work”.

Enrolled in Health Network 8/02

Over the ten years he was enrolled, Health Network made 46 clinic contacts, 124 patient contacts, transferred medical records 9 times to 6 different clinics.
MCN Health Network

- An innovative approach for over 19 years (1996-2015)
- 8,221 total HN enrollments
  - 6,137 TB
  - 962 Diabetes
  - 421 Prenatal
  - 339 General Health
  - 275 Cancer
  - 87 HIV
- 2,951 total clinics in U.S. and over 91 countries
Class 3 Active TB:
TBNNet Treatment Success (2005-2013)
(91 Total Countries)

✓ 1,512 Class 3 Active TB Cases Referred
  – 37 not recommended by country
✓ 1,475 Treatment Recommended
  – 24 deceased
✓ 1,451 Followed by TBNNet for Active TB
  – 147 lost to follow up
  – 87 refused treatment

1,217 Complete Treatment = 83.9%
Health Network’s International Reach

Health Network IMPACT

• Bridge between patients and their providers
• Fewer patients lost to follow up
• Higher % of patients completing treatment
• Treatment completion reports
• Improved patient participation
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**
Resources

Resources, Training, Technical Assistance, and Information from MCN

www.migrantclinician.org
Patient Education Materials

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

Contact

Amy K. Liebman, MPA, MA
Director of Environmental and Occupational Health
(512) 579-4535
aliebman@migrantclinician.org
www.migrantclinician.org

Ed Zuroweste, MD
Chief Medical Officer
(512) 579-4540
ezuroweste@migrantclinician.org
www.migrantclinician.org