


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.

Disclaimer

This material was made possible, in part, from Grant Number U30CS09742 from the US Department of Health and Human Services, Bureau of Primary Health Care, Health Resources Services Administration. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the US Department of Health and Human Services.


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.



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



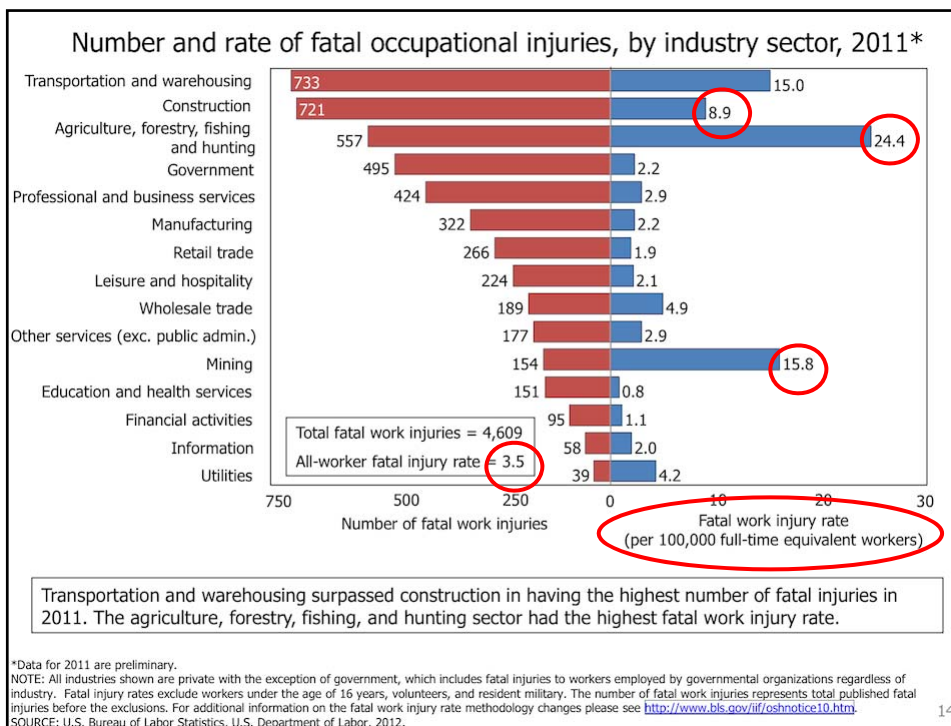
Migrant Health

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?





Fatal Farm Accident Prompts Immigration Investigation

WBNG Binghamton (NY) February 13, 2012

Authorities head to a farm for a fatal equipment accident and find illegal immigrants working there. Jenaro Lopez-Batista, 20, was teaching another person how to use a skidsteer when the front attachment on the hydraulics pinched Batista between the hydraulics and the cab. The injury was ruled accidental, and Batista was pronounced dead at Wilson Hospital. While at the farm, deputies and the United States Border Patrol found several people working there were actually illegal aliens.

Pesticides Drifting from Farms to Workplaces Increase Parkinson's Risk

Science News, June 10 2011

A new study reports that people whose workplaces and homes were near fields sprayed with the pesticides ziram, maneb and paraquat, have an increased risk of developing Parkinson's disease (PD). The research is the first to link ziram, a fungicide, to people with PD. For several years evidence has mounted that pesticide exposure increases Parkinson's risk, in particular for farmers and others who use pesticides in the workplace. But these chemicals can drift from the fields where they are applied to surrounding areas.

Farming Accident Victim Identified

Wisconsin March 7, 2013

The victim of a deadly farming accident in Brown County has been identified. Hobart/Lawrence Police say 29-year-old Israel Lepe-Quezada was found pinned underneath a piece of machinery on a farm in Hobart on County Line Road last Sunday. It took the police and the FBI several days to identify him. Lepe-Quezada's family will bring his body home to Mexico for burial. The cause of the accident is still under investigation.

Pesticide used on potato farm sickens two in Genesee County

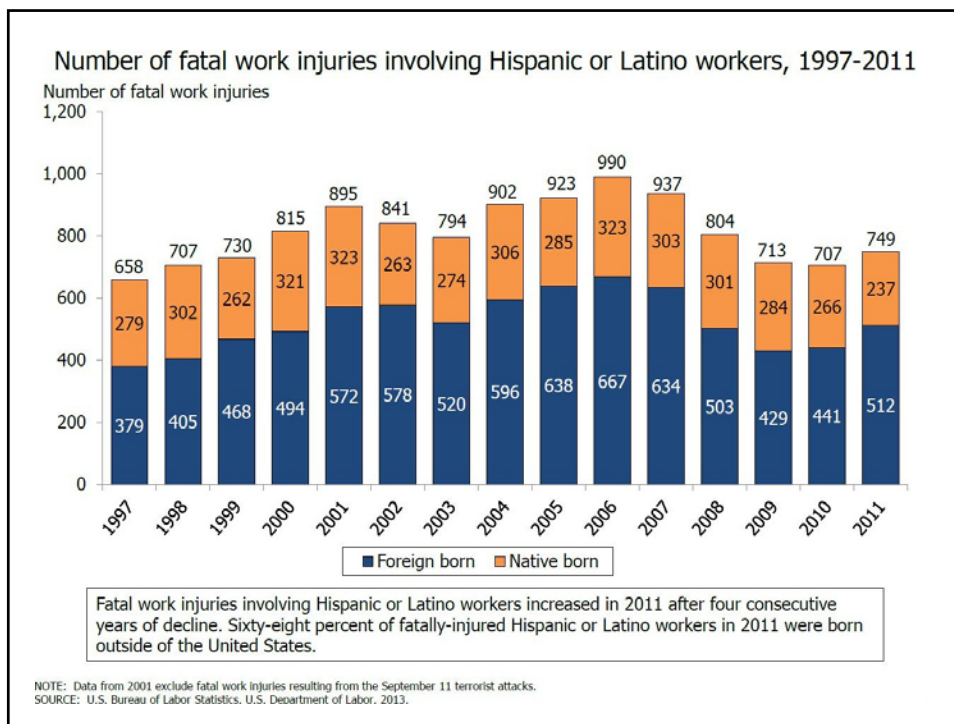
News Staff Reporter (NY), October 12, 2011

Two people were sickened Wednesday morning by a pesticide being used at a potato farm off Route 5 in the Town of Batavia, Genesee County officials said. Shortly before 8 a.m., a truck driver delivering materials to a business at 2975 Route 5 began suffering irritation to his eyes, nose and throat. He was then overwhelmed by a strong odor and began vomiting, according to Genesee County Emergency Manager Timothy Yaeger. About the same time, a woman who lives nearby also reported similar symptoms.

Western man dies after farm accident

Lincoln Journal Star (NE), 2/29/12

Two young girls have lost their father to a farm accident. Justin Kunc, 33, of Western was working at about noon Tuesday in a grain bin on the Vyhalek family farm about three miles southwest of Crete when a sweep auger caught his clothes. Crete Fire and Rescue Chief Mahlon Kohl said, Emergency responders cut him free and took him to the Crete Area Medical Center, where he was pronounced



Vulnerabilities



Immigration Status

Agricultural Exceptionalism

Affordable Care Act

Migrants

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



photo © earldotter.com



Tractor rollovers #1 cause of death on farms

Musculoskeletal



Heat Illness



Chemical Hazards



Real lives

Agmart and Carlitos

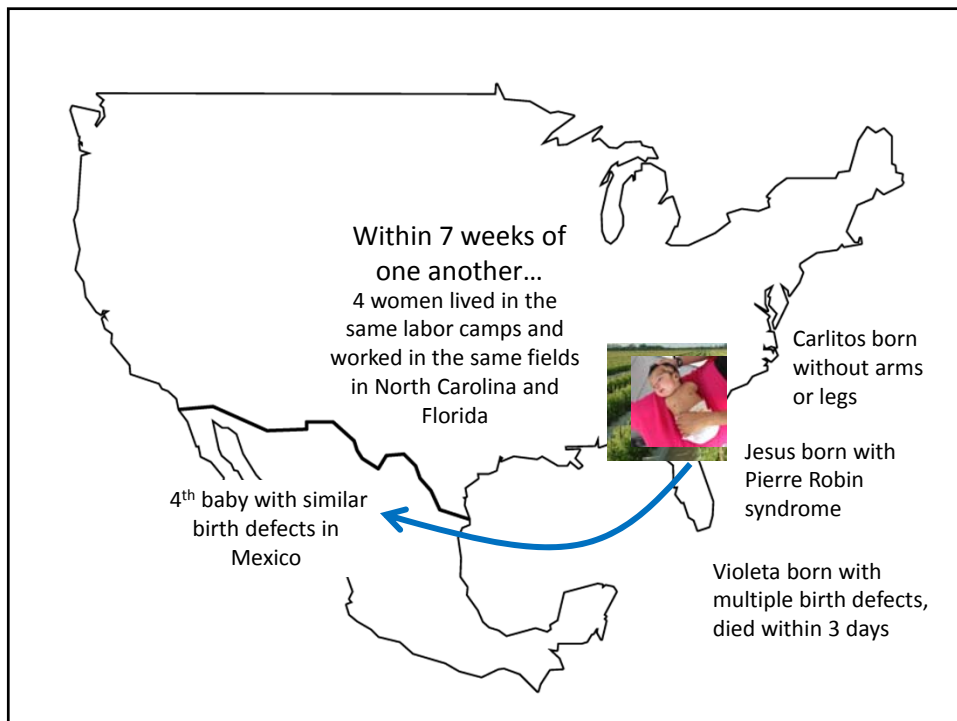




Photo © earldotter.com

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

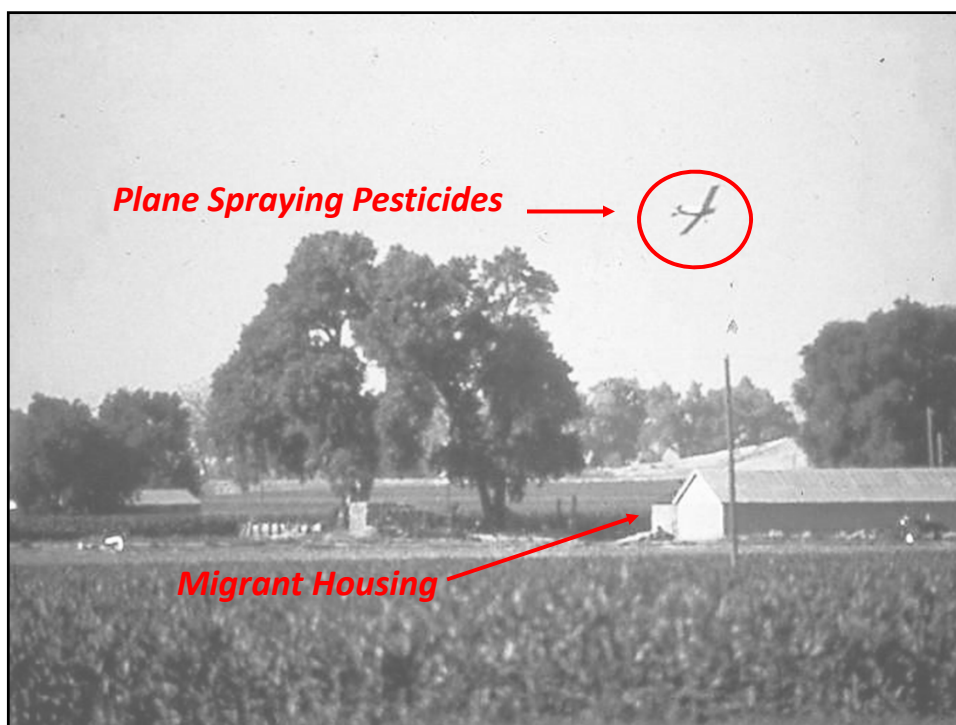
~ 25 million poisonings (if all cases counted)

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



Acute Poisonings (OP/Carbamates)



Stomach Cramps

Urination

Diarrhea

Vomiting

Death

Drooling



Chronic Effects

- ✓ Cancers
- ✓ Blood disorders
- ✓ Neurological problems
- ✓ Reproductive effects

?

Photo © earldotter.com



Exposure to Family Members

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

Illustration: Salvador Sáenz from MCN's *Lo que bien empieza*

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



The Clinician

How many states
require clinician
to report
suspected and
confirmed
pesticide
exposures?



Who We Are | What We Do | **Issues We Face** | Community | Tools / Resources

Home - Issues We Face - Environmental and Occupational Health - Pesticides

Issues We Face

- Migrant Info
- Behavioral Health
- Cancer
- Children's Health
- Diabetes
- Emergency Preparedness
- Environmental and Occupational Health
 - Pesticides**
 - Report Pesticide Exposures**
 - Lead
 - Heat Stress
 - Water & Sanitation
- Eye Care
- Family Violence
- H1N1 Flu

Pesticide Exposure Reporting Map

PESTICIDE REPORTING REQUIREMENT:

- Required (Dark Orange)
- Optional (Light Orange)
- None (Medium Orange)

| State | Requirement |
|-------|-------------|
| AK | None |
| AL | None |
| AR | None |
| AZ | Required |
| CA | Required |
| CO | Required |
| CT | None |
| DC | None |
| DE | None |
| FL | None |
| GA | None |
| HI | None |
| IA | None |
| ID | Optional |
| IL | None |
| IN | None |
| KS | Optional |
| KY | None |
| LA | None |
| MA | None |
| MD | None |
| ME | None |
| MI | None |
| MN | None |
| MO | None |
| MS | None |
| MT | Optional |
| NC | Required |
| ND | Optional |
| NH | None |
| NJ | None |
| NM | Optional |
| NV | Required |
| NY | None |
| OH | None |
| OK | Optional |
| OR | Required |
| PA | None |
| RI | None |
| SC | None |
| TN | None |
| TX | None |
| UT | Optional |
| VA | None |
| VT | None |
| WA | Required |
| WI | None |
| WV | None |
| WY | Optional |

Who We Are | What We Do | Issues We Face | Community | Tools / Resources

Issues We Face

- Migrant Info
- Behavioral Health
- Cancer
- Children's Health
- Diabetes
- Emergency Preparedness
- Environmental and Occupational Health
 - Pesticides**
 - Report Pesticide Exposures**
 - Lead
 - Heat Stress
 - Water & Sanitation
- Eye Care
- Family Violence
- H1N1 Flu
- HIV/AIDS

State Pesticide Reporting Office(s) in North Carolina

Close or Esc Key

Report Exposure: Department of Health and Human Services, Division of Public Health, Occupational and Environmental Epidemiology Branch

Phone: 800-200-7090
Report Online: http://epi.publichealth.nc.gov/pest/pdf/reporting_form.pdf

Pesticide Reporting Requirements

Required to Report: Yes
What to Report?: Any Pesticide-Related Exposure
Timeframe to Report Injury or Exposure: 48 Hours
Who is Required to Report?: Physicians, Other health professionals.

SENSOR partnership with NIOSH:
Pesticide Poisoning Surveillance Program (technical support from NIOSH):
<http://www.epi.state.nc.us/epi/pests.html>

Additional Info:
Reports can be made by telephone to Poison Control or to the Division of Public Health. For

PESTICIDE REPORTING REQUIREMENT:

- Required (Dark Orange)
- Optional (Light Orange)
- None (Medium Orange)

EPA's General Approach

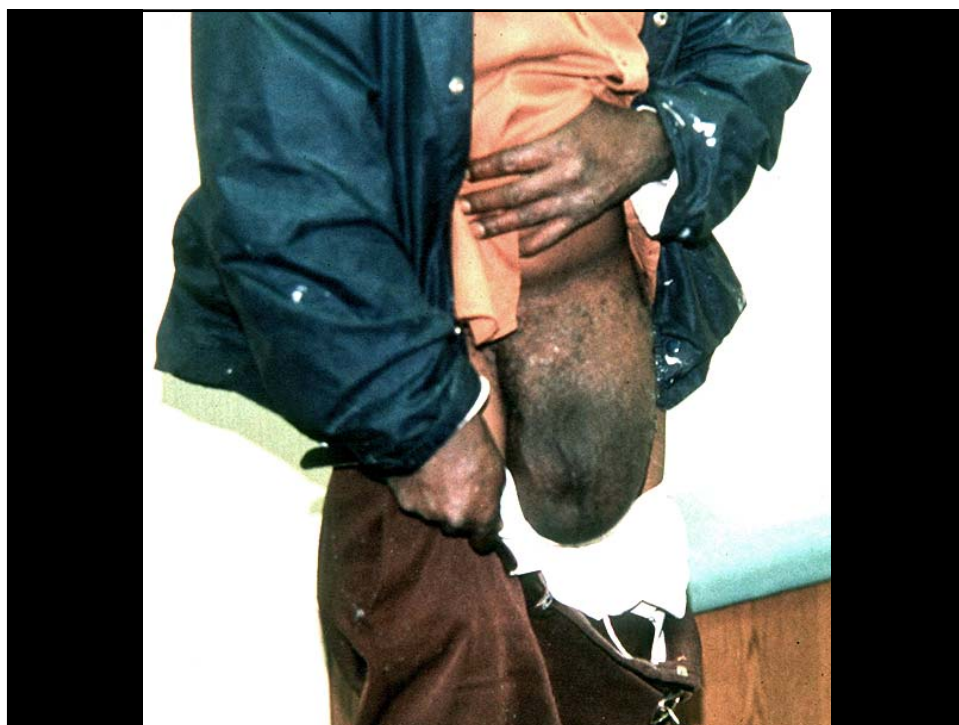
- Worker Protection Standard
- Count incidents from passive surveillance systems and act on that information
- No national standard for monitoring workers



How does EPA know about problems with a registered chemical?

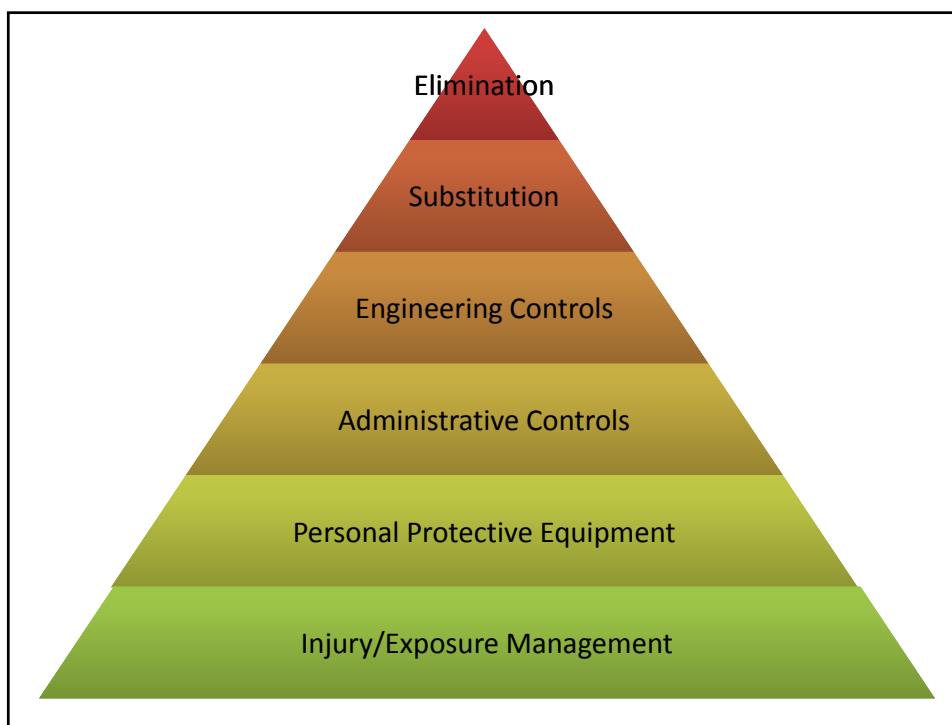
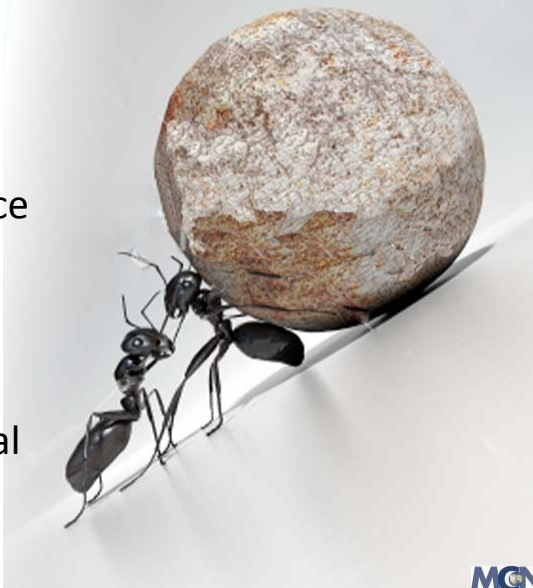
- Reports from Clinicians
- Surveillance data
 - State systems
 - NIOSH SENSOR system
 - Both dependent on clinician reporting
- Poison Control Data
 - Mostly Clinician reports are biased toward children and exposures not poisonings
- 6(a)2 Reports from Registrants
 - Dependent on clinician reports

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



EOH Screening Questions for the Primary Care Setting

| 1. Occupation | 2. Activities and Cause | 3. Substances/ Physical Hazards and Cause |
|--|---|--|
| <ul style="list-style-type: none"> Describe what you do for work. | <ul style="list-style-type: none"> Are there any physical activities that you do – at work or away from work – that you feel are harmful to you? | <ul style="list-style-type: none"> 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? |



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



MINNESOTA

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

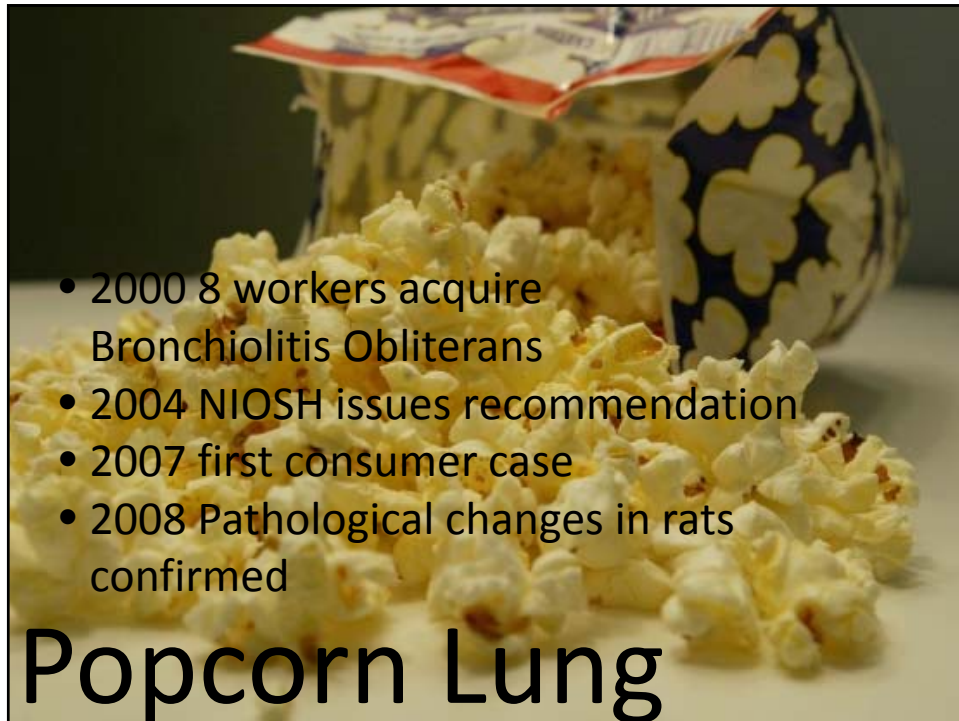


Progressive Inflammatory Neuropathy (PIN)

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



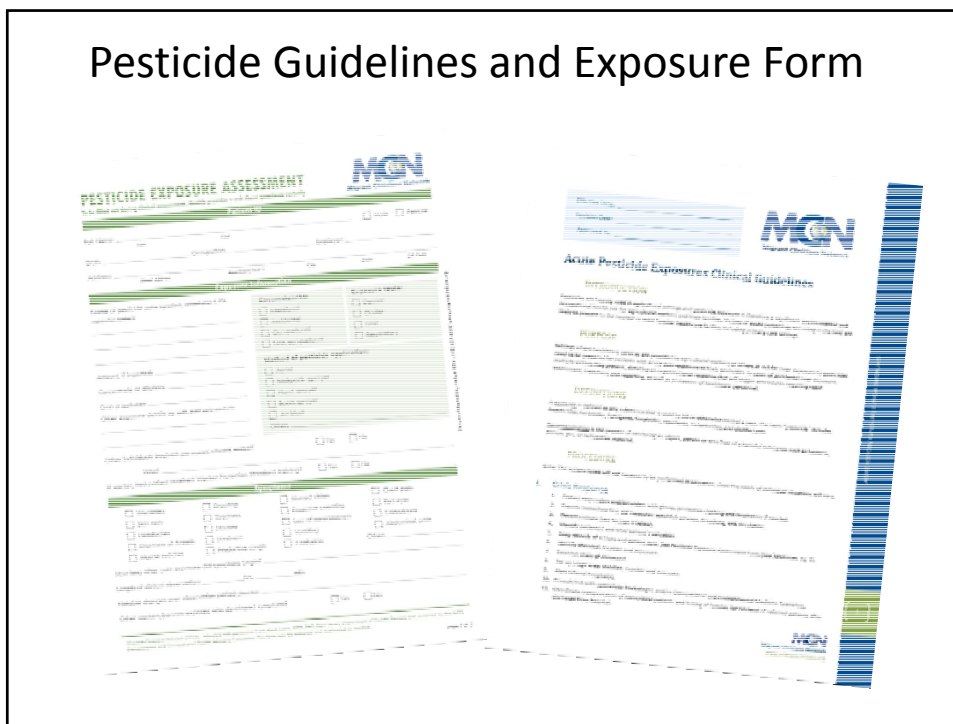
Photo © earldotter.com

Resources,
Training,
Technical
Assistance,
and
Information
from MCN



www.migrantclinician.org

Pesticide Guidelines and Exposure Form



Farmworker Occupational Health Manual for Clinicians

**FARMWORKER
CLINICAL CARE RESOURCE**
For Occupational Health

NEC
Northeast Center for Agricultural and Occupational Health

NYCAMH
New York Center for Agricultural Medicine and Health

Bassett Healthcare Network
New York Center for Agricultural Medicine and Health

Search Our Agricultural Health Care Topics **SEARCH**

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




Clinician Orientation to Migration Health

7 part webinar series

| | | |
|---|---|------------------------|
| 1 | OVERVIEW OF CRITICAL CONCERNS IN MIGRATION HEALTH | Feb 13 th |
| 2 | CULTURAL PROFICIENCY IN THE CONTEXT OF MIGRATION HEALTH | Mar 13 th |
| 3 | THE INTERSECTION OF PRIMARY CARE AND MIGRATION HEALTH | April 17 th |
| 4 | WORKERS AND HEALTH How Frontline Providers Make a Difference in the Protection of Migrant Workers & Their Families | May 15 th |
| 5 | CREATING A PATIENT CENTERED MEDICAL HOME FOR PATIENTS ON THE MOVE | June 12 th |
| 6 | WOMEN'S HEALTH AND MIGRATION | July 17 th |
| 7 | QUALITY AND MEANINGFUL USE IN MIGRATION CARE | Aug 14 th |

 /migrantclinician
  @tweetMCN
  migrantclinicians

 **MCN**
www.migrantclinician.org