

SHINING THE LIGHT ON PESTICIDE EXPOSURE: INCIDENT REPORTING AND WORKER PROTECTIONS

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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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What is the WPS?

*“A Worker Protection Standard
for Agricultural Pesticides”*

Intended to reduce the risks of illness or injury to workers and handlers resulting from occupational exposures to pesticides in the production of agricultural plants

Federal Regulation- 1974 EPA published 40 CFR, Part 170



**WPS
Framework**

- **Inform**
- **Protect**
- **Mitigate**

Major Changes to the WPS

Implementation Timeline

Date	Milestone
September 28, 2015	Revised WPS final rule signed and announced.
November 2, 2015	Revised WPS final rule published in the <i>Federal Register</i> .
January 1, 2016	Revised WPS final rule becomes effective. [Compliance is required with <u>existing</u> WPS during 2016.]
January 2, 2017	Compliance is required with <u>most</u> of the <u>revised</u> WPS requirements.
January 1, 2018	Compliance is required with <u>all</u> of the <u>revised</u> WPS requirements. Last three requirements: <ul style="list-style-type: none">• Cover new content in worker and handler training• Include new content on pesticide safety information display• Handlers suspend applications if anyone is in the application exclusion zone.



Pesticide Safety Training

Pesticide Safety Training

Existing Rule

- Pesticide safety training every 5 years
- Brief training required prior to entering treated area
 - 5 day “grace period” permitted



Key Changes

- Pesticide training every year
- Training content expanded
- “Grace period” eliminated
- Recordkeeping of training for 2 years

Expanded Content

How to reduce take-home exposures

Employer obligations in an emergency

How to report violations to state enforcement agencies

Location of detailed information about pesticides recently applied

Minimum age and notification requirements for early-entry workers (those who can enter a treated area during a restricted entry period).

Minimum age



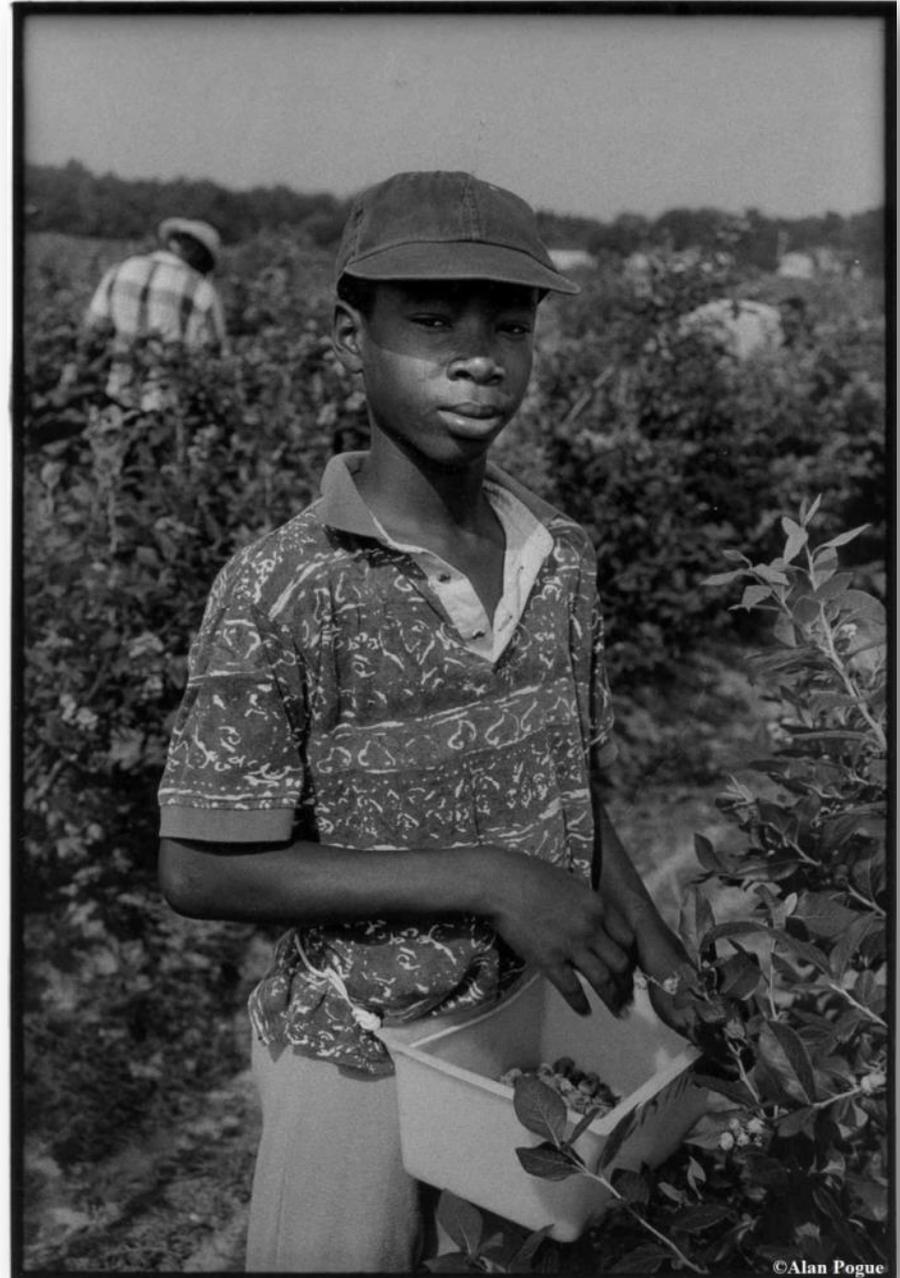
Minimum Age

Existing Rule

- No minimum age

Key Changes

- Pesticide handlers and early-entry workers (entering during REI) must be at least 18 years old
- Members of owner's immediate family are exempt from this requirement



PROTECT YOURSELF FROM PESTICIDES
PROTEJASE DE LOS PESTICIDAS



Before allowing anyone to enter the field, place a sign that says "DANGER PESTICIDES".

Pesticides may be on plants and soil, in irrigation water, or drifting from nearby applications.

Los pesticidas pueden estar en las plantas o en el suelo, en el agua de riego, o arrastrados por el viento cuando se aplican cerca.



There are federal rules to protect workers. These rules require that your employer make you a pesticide safety training sign that says "DANGER PESTICIDES".



Traditional tasks and fire-breath smoking, drinking, washing, cleaning, glass or tobacco, or using the toilet. Leave the area until you are told to come back. Do not eat, drink, or use the toilet, and do not use the water in the area.

IN AN EMERGENCY EN UNA EMERGENCIA



Have a sign that says "DANGER PESTICIDES" in Spanish and English in the field.



When you are in a field, wear a long-sleeved shirt, long pants, and closed shoes to protect yourself from pesticides.



After work, shower or wash your body with soap and water. Shampoo your hair and put on clean clothes.



Mark each child separately from other children before running them again.

EPA
 United States Environmental Protection Agency
 400 M Street, N.W. 10166 D
 Washington, D.C. 20460
 (202) 366-7368
 EPA 725-11-95-001

The nearest emergency medical facility (hospital) to El pueblo, Chihuahua is the Hospital de Occidente.

Name _____
 Address _____
 City _____
 Telephone _____

For more information on pesticides, visit the nearest extension pesticide office:

• 1-800-857-3735 or
 • National Agency for Pesticides, Agency for protection of pesticides



Notification and Information

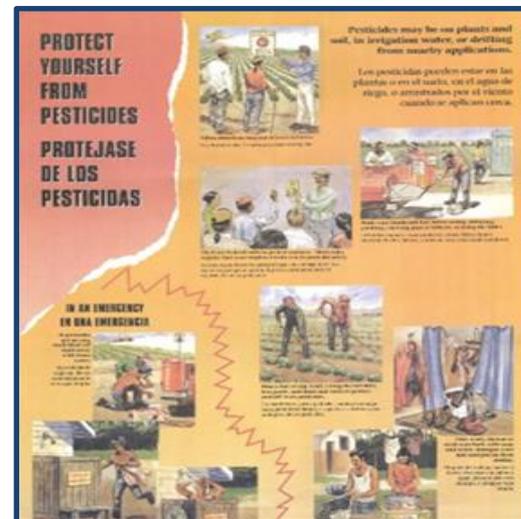


Existing Rule

- Post information about recent pesticide applications (including name of the pesticide, location of field, and re-entry interval) in an easily accessible central location
 - Oral or posted notification of treated areas unless labeling requires both
- Safety poster displayed at central location

Key Changes

- Posted information must include safety data sheets (SDS) for each pesticide used
- Maintain application records and SDS for 2 years
- Safety information must include address and phone of a nearby medical care facility and appropriate state agency for reporting violations (by 2018)
- Post warning signs around pesticide-treated areas when REI is greater than 48 hours





Workers may designate another individual to access information about the pesticides used in their worksites.



When an agricultural worker seeks medical assistance due to pesticide exposure, employers must promptly make available SDSs, product information, and application information to medical personnel.



DANGER PESTICIDES
PELIGRO PESTICIDAS

NO ENTRY
ENTRADA PROHIBIDA

Restricted Entry Intervals

Pesticides may not be applied in a way that will expose workers or other persons. Workers must be excluded from areas while pesticides are being applied and cannot enter a pesticide treated area during the REI unless they are given protective equipment.



Restricted Entry Intervals

Key Changes

- Early entry workers must receive detailed information about the pesticides used and the required PPE
- An applicator must suspend application if a worker or other person is in an area up to 100 ft around the application equipment





Personal protective equipment
(PPE)

The Clinician



Personal Protective Equipment

Key Changes

When a respirator is required, employer must provide handlers with the following before any activity requiring the respirator:

- Medical evaluation
- Fit test
- Respirator training





Clinician Access
to Information

Decontamination

**IN CASE OF AN EMERGENCY
CALL 911**

This address is:
6750 Eldorado Road
Federsburg, MD 21632

Nearest intersection:
Bailey Store Road and Eldorado Road

Nearest Hospital:
Nanticoke Memorial Hospital
801 Middleford Road
Seaford, DE 19973
302-629-6611

DANGER PELIGRO
PESTICIDES PESTICIDAS



KEEP OUT NO ENTRE

THIS PROPERTY TREATED WITH _____

DATE TREATED _____

WARNING STAY OUT UNTIL _____

HY-AD PRODUCTS CO. WALTERVILLE, OHIO 45146-1418

EP 302



Decontamination

Existing Rule

- Employers must provide “sufficient amount of water so that the workers/handlers may wash thoroughly”
- One pint of water required for eye flushing



Key Changes

- Provide **1 gallon** of water for **each worker** and **3 gallons** for each **handler** and each **early entry** workers measured at the beginning of the work period

Emergency eyewash





Emergency
Assistance

EMERGENCY

Employers must provide
“prompt” transportation to
an emergency medical
facility for workers or
handlers who may have
been exposed to pesticide



Key changes

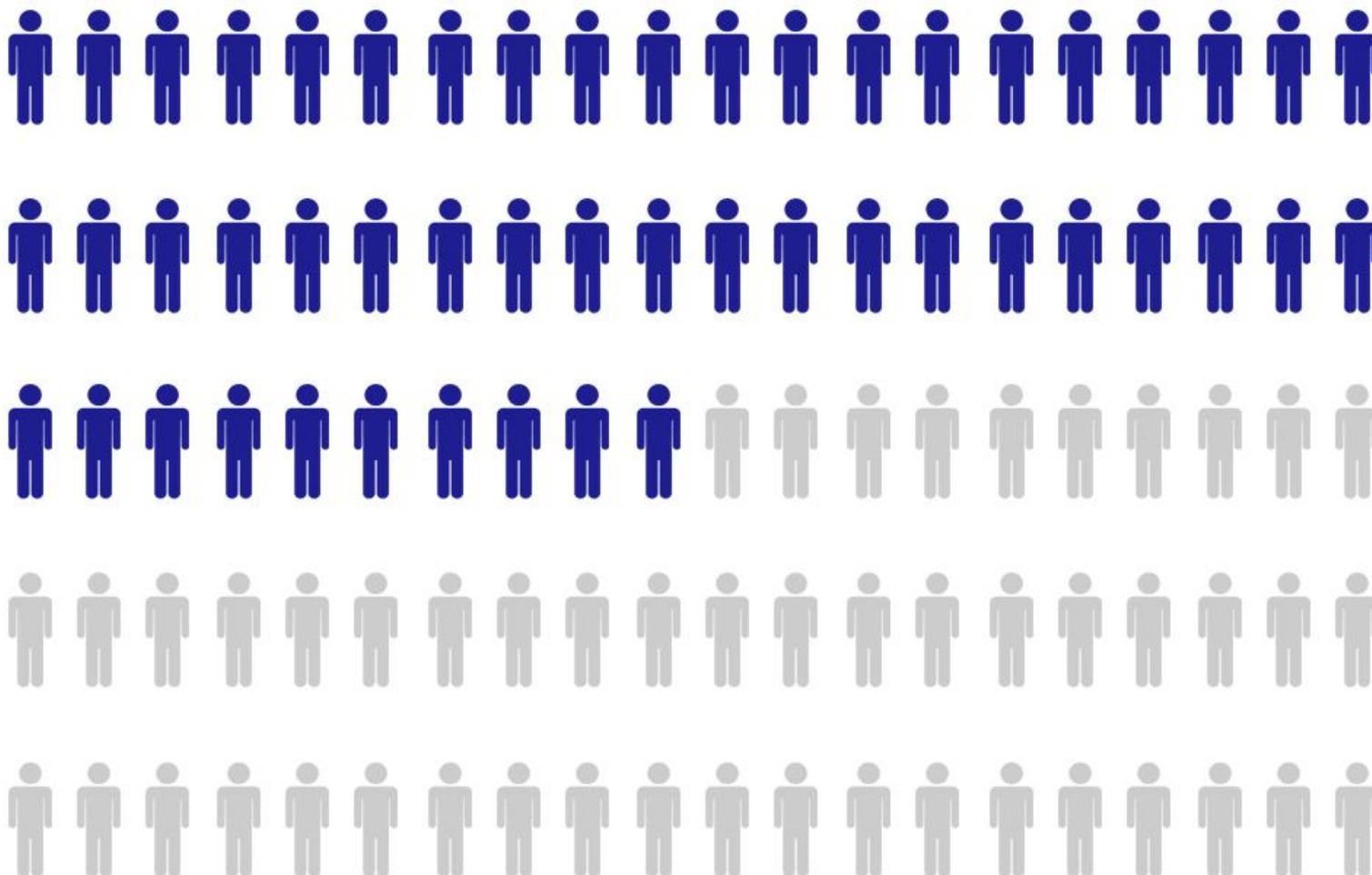
Requires employers to promptly provide the product's Safety Data Sheet (SDS), product information (name, EPA Reg No and active ingredient), as well as the circumstances of the exposure to treating medical personnel



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
 - Workers Compensation
- Poison Control Data
 - Clinician reports

MCN's survey of 101 clinicians, found that 50% did not know the pesticide reporting requirement in their state.



A piece of brown cardboard with a hole and a rolled-up piece of cardboard. The hole is irregularly shaped and reveals a white background. The text "Find out more" is written in bold black font across the hole. The rolled-up piece of cardboard is on the left side of the hole.

Find out more

CONTINUING EDUCATION

- Upcoming Webinars
- Archived Webinars
- Online Courses

UNDERSTANDING MIGRATION

- Migrant Health Overview
- Migrant/Seasonal Farmworkers Profile

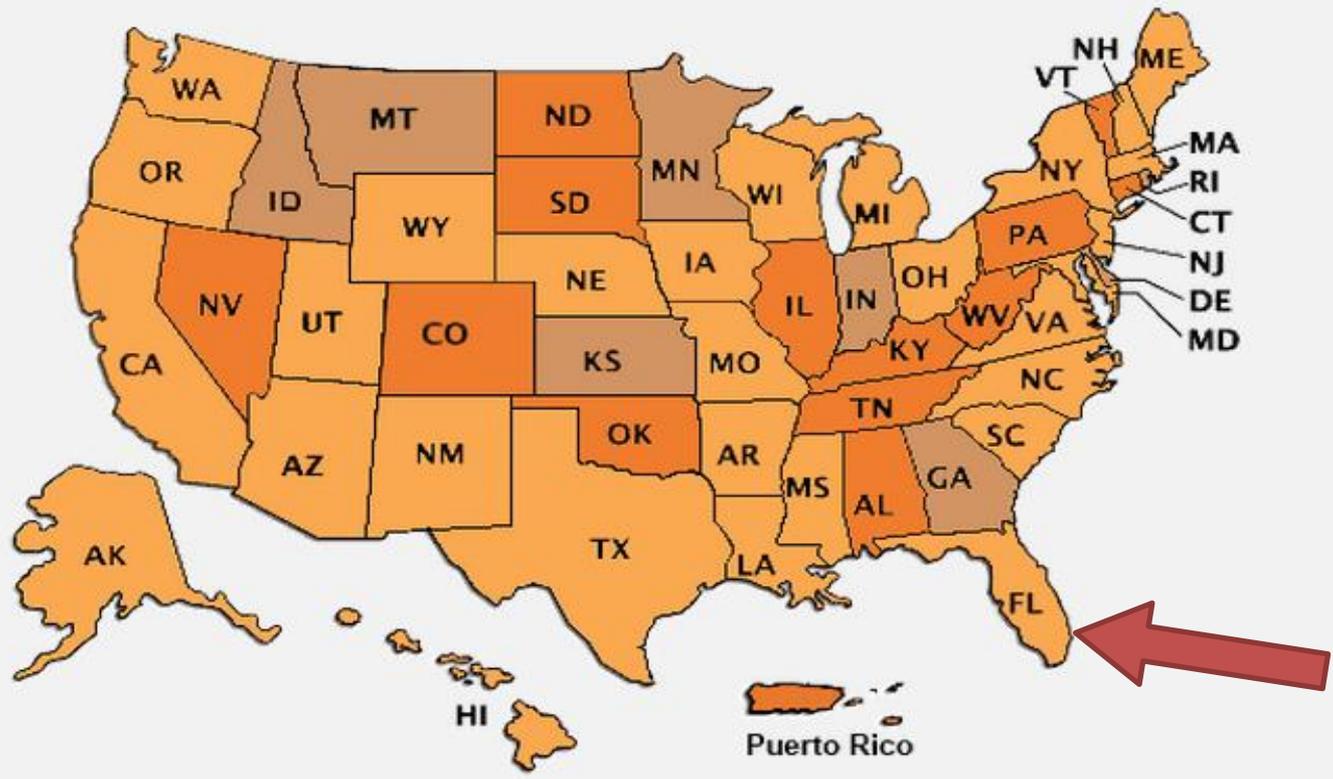
ISSUES IN MIGRANT HEALTH

- Behavioral Health
- Cancer
- Children's Health
- Diabetes
- Eye Care
- Family Violence

Report Pesticide Exposures



Pesticide Clinics



PESTICIDE REPORTING REQUIREMENT:

- Required
- Optional
- None

ATIONAL

compensation

Report Exposure

Workers' Compensation

Report Exposure: Department of Health, Pesticide Exposure Surveillance Program

Phone: 800-606-5810

Report Online:

http://www.doh.state.fl.us/disease_ctrl/epi/disease_rept_form_09.pdf

Pesticide Reporting Requirements

Required to Report: Yes

What to Report?: Any Pesticide-Related Exposure

Timeframe to Report Injury or Exposure: Next Business Day

Who is Required to Report?: Physicians, Hospitals, Laboratories, Other health professionals.

SENSOR partnership with NIOSH:

Pesticide Exposure Surveillance Program (technical support from NIOSH):

http://www.doh.state.fl.us/environment/medicine/pesticide/FPESP_1.html

WPS Enforcement

Worker Protection Standard Enforcement Agency:

Department of Agriculture and Consumer Services:

<http://www.flaes.org/complimonitoring/workersafety/index.html>

Pesticide Applicator Certification Regulation

40 CFR 171

Establishes an applicator certification program with competency & safety standards for those applying restricted use pesticides (RUPs)



EPA: Reasons for Rule Change

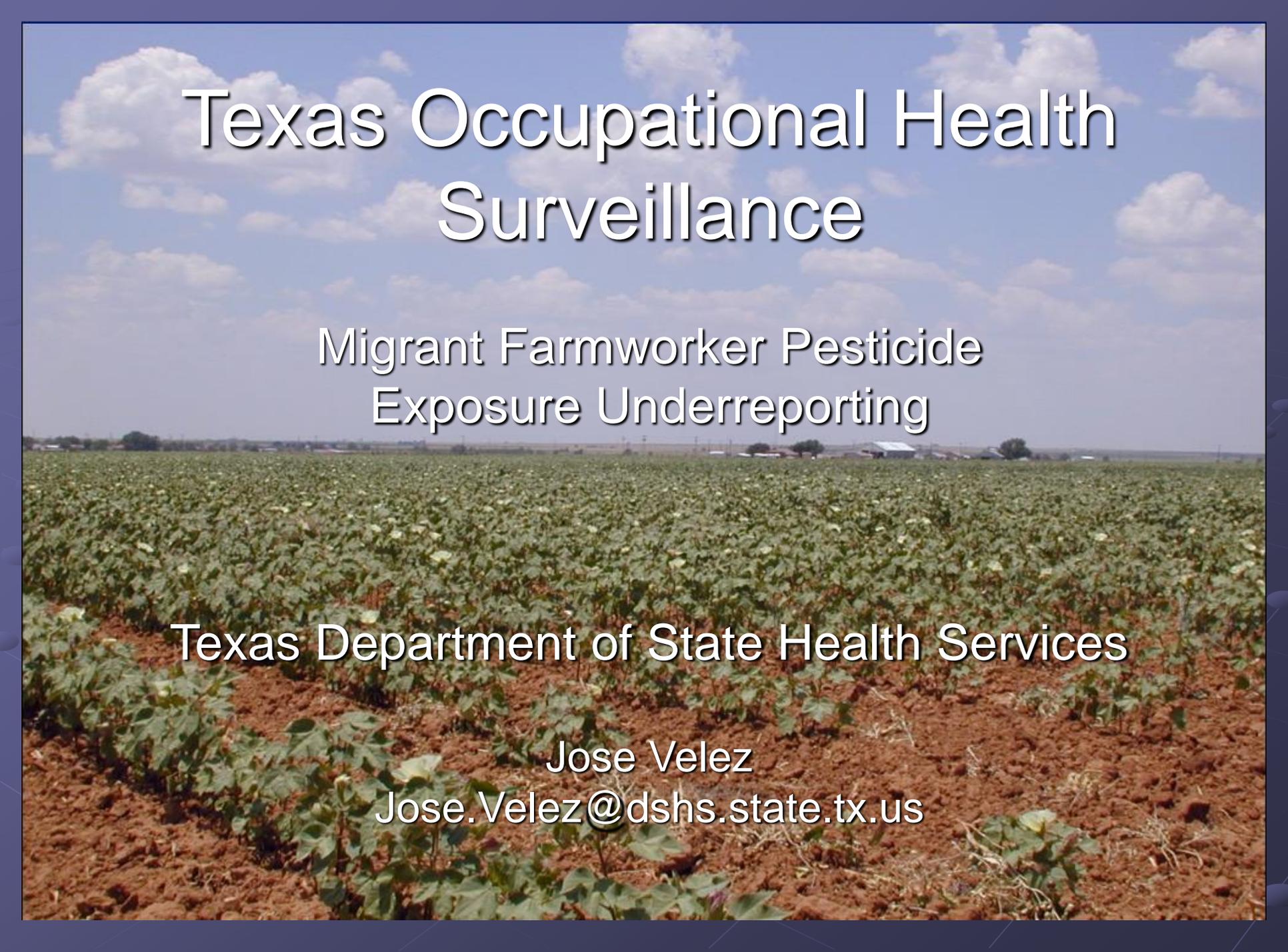


- Impose stricter standards to protect human health and the environment and reduce risk to those applying pesticides.
- Improve consistency in the knowledge and competency of pesticide applicators across the nation

Key Changes Proposed for Certification & Training



- Higher competency standards for pesticide applicators to ensure that restricted use pesticides are used safely
- All applicators must renew certifications every 3 years and sets minimum requirements for recertification programs
- Additional specialized certifications for people using high-risk application methods (fumigation and aerial)
- Establishes a nation-wide minimum age of 18 for certified applicators and persons working under their direct supervision
- Annual safety training and increased oversight for persons working under the direct supervision of a certified applicator



Texas Occupational Health Surveillance

Migrant Farmworker Pesticide
Exposure Underreporting

Texas Department of State Health Services

Jose Velez

Jose.Velez@dshs.state.tx.us

Texas Occupational Health Surveillance

- Collectively, categories of occupational illnesses and injuries are referred to as occupational health indicators
- Provide an assessment of the health and safety status of our workforce

Occupational Health Indicators

- Occupational pesticide exposure is a health condition that affects our workforce, especially the migrant / seasonal farmworkers
- An accurate assessment of the farmworker health status is highly dependent on the reporting of their pesticide exposure

Texas Statutes Mandate Reporting of Occupational Pesticide Exposures

- Health and Safety Code (HSC) - Texas Occupational Conditions Reporting Act, 1985
- Texas Administrative Code (TAC) – Title 25, Part 1, Chapter 99 – Occupational Diseases
- Acute pesticide poisoning – a reportable health condition under TOCRA

General Types of Pesticides

● Disinfectants

● Herbicides

● Sanitizers

● Fungicides

● Sterilizers

● Fumigants

● Insecticides

● Rodenticides

Who Should Report?

- A physician who diagnoses or treats the individual with the condition
- Other health professionals
- Facilities where laboratory analyses render evidence of pesticide exposure

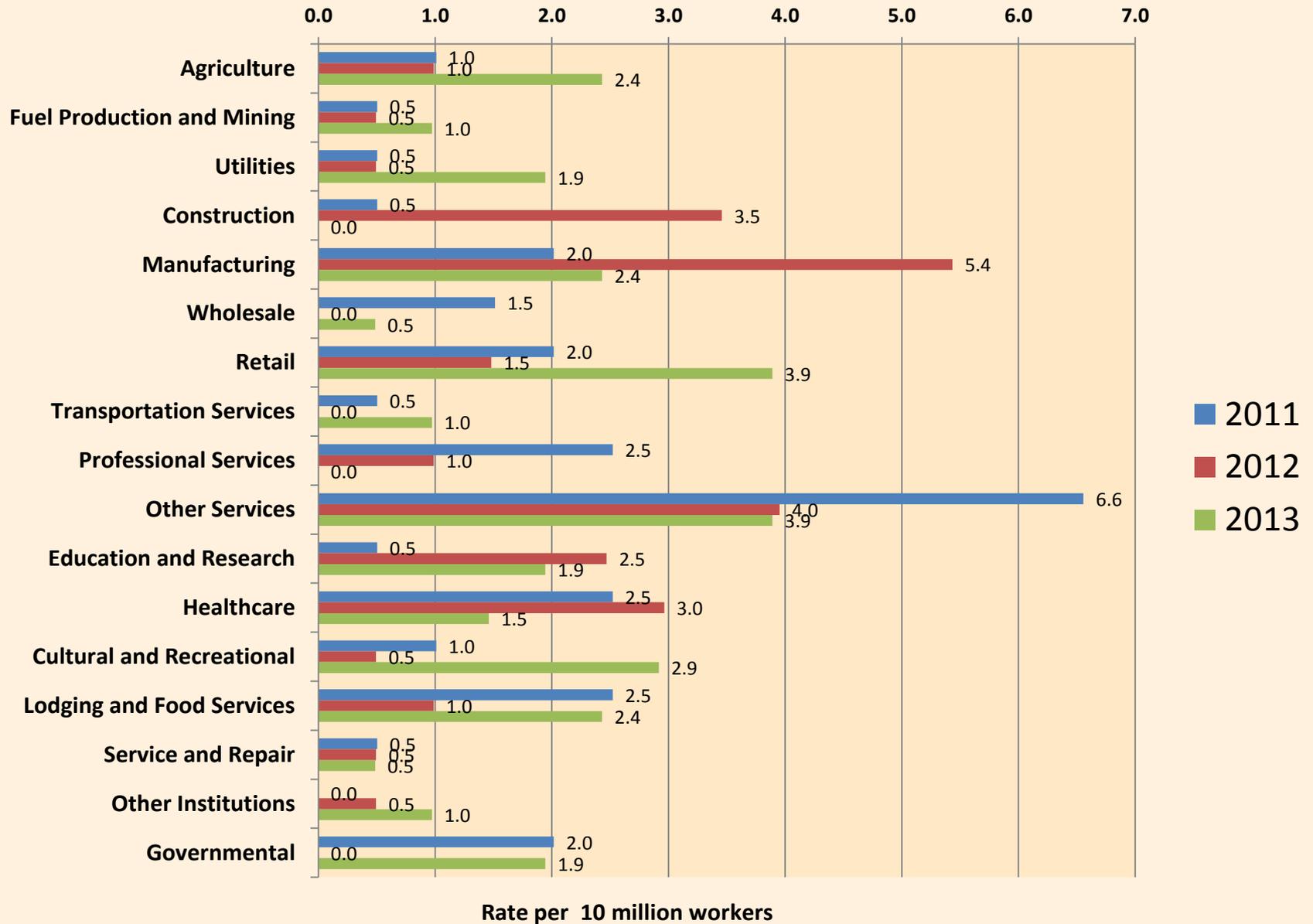
Benefits of Increased Reporting for Farmworkers

- Empowers farmworkers to routinely report their exposure to pesticides
- Provides statistical data to support new / enhanced preventive rules and regulations
- Helps evidence what pesticides are implicated in prevalent illnesses and injuries among farmworkers
- Brings farmworkers to same level of protection as workers in others industries
- Provides geographical mapping of exposure
- Serves as a role model for other states seeking to extend the same level of protection to farmworkers

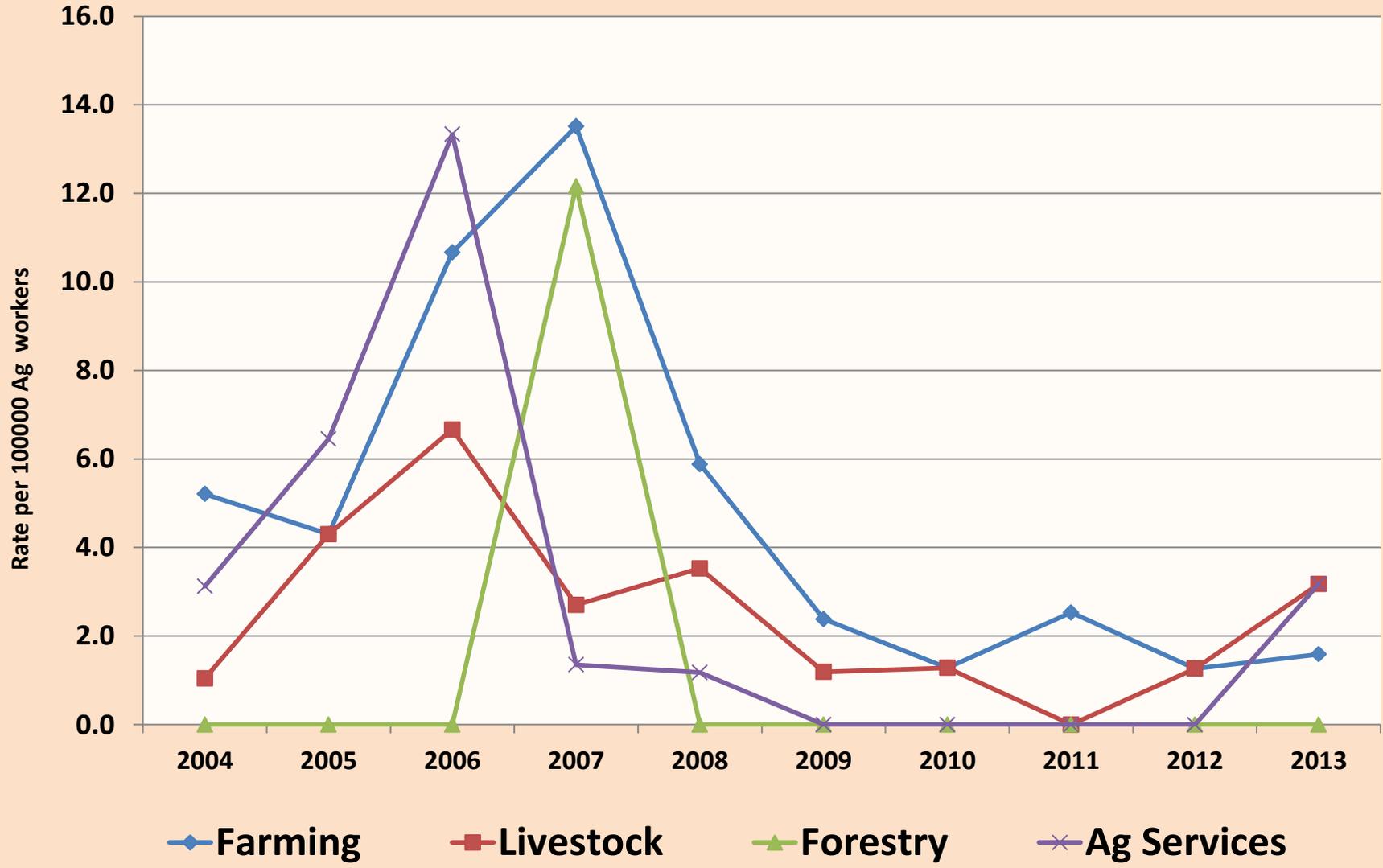
The Panhandle Case

- Called our hotline to report their case
- Case investigated by PEST
- Referred to TDA
- Farmworkers filed complaint with TDA
- TDA investigated case
- TDA assessed fines to parties at fault

Rate of Exposure by Industry 2011 - 2013



Agricultural Industries Rate 2004 - 2013



Fears / Reasons that Discourage Migrant Farmworkers from Reporting

- Losing their jobs
- Being deported
- Being harassed by employer
- Causing “problems” for fellow coworkers
- Unable to communicate in English
- Not feeling empowered to protest, etc.

Strategy to Increase Exposure Reporting for / by Farmworkers

- Collaborate with migrant clinics to increase farmworker pesticide exposure reporting
- Provide statistical data to collaborators and advocates on farmworker geographical distributions and pesticide usage

Strategy to Increase Exposure Reporting by / for Farmworkers

- Collaborate with agencies currently charged with educating farmworkers / employers on exposure prevention and reporting process
- As collaboration efforts begin to work, provide stakeholders surveillance data that evidence increased migrant farmworker pesticide exposure reporting

Healthcare Providers - How to Report

- Fax exposure report to 512-776-7222

www.dshs.state.tx.us/epitox/Pesticide-Exposure/#reporting

- Call central office at 800-588-1248

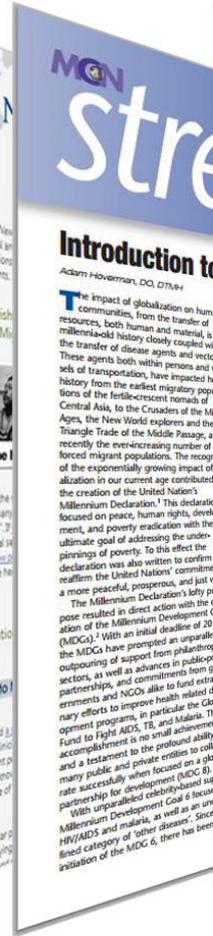
- Submit report to local health department

<http://www.dshs.state.tx.us/epitox>



Resources

Resources,
Training,
Technical
Assistance,
and
Information
from MCN



www.migrantclinician.org

Bilingual Pesticide Guidelines & Exposure Form

PESTICIDE EXPOSURE ASSESSMENT

To be filled out during clinical assessment. Health provider – ask these questions verbally



Patient ID _____

Male Female

Full Name: Last First _____ Employer: _____
 Occupation: _____ City State ZIP Code _____

DOB: _____ Apartment/Unit # _____
 Address: Street Address _____

Exposure Information

Pesticide brand name: _____
 Active ingredient: _____
 EPA registration number: _____
 Amount exposed to: _____
 Concentrate or dilution: _____
 Crop (if applicable): _____
 Suspected cause of exposure (eg. spill?, drift?, early reentry?) _____
 Personal Protective Equipment used? Yes No

Circumstances:

- Intentional
- Accidental
- Occupational
- Non-occupational

Exposure route:

- Dermal
- Ocular
- Oral
- Respiratory

Method of pesticide application:

- Aerial
- Backpack sprayer
- Hand sprayer
- Boom sprayer
- Air blast
- Other: _____

Other individuals involved (also exposed, witnessed, assisted)?
 Who? _____
 If worker, had patient received Worker Protection Standard training? Yes No Date last trained _____

Symptoms

- | | | |
|--|---|--|
| <input type="checkbox"/> Weakness | <input type="checkbox"/> Drooling | <input type="checkbox"/> Blurred vision |
| <input type="checkbox"/> Skin rash | <input type="checkbox"/> Tiredness | <input type="checkbox"/> Excessive sweating |
| <input type="checkbox"/> Headaches | <input type="checkbox"/> Nausea | <input type="checkbox"/> Loss of consciousness |
| <input type="checkbox"/> Shortness of breath | <input type="checkbox"/> Dizziness | <input type="checkbox"/> Vomiting |
| <input type="checkbox"/> Muscle twitches | <input type="checkbox"/> Productive cough | <input type="checkbox"/> Confusion |

How long after exposure did symptoms begin? _____ hrs. _____ min.

Length of clinical observation: _____ hrs. _____ min.
 Notable changes over observation period (describe): _____
 Other workers/persons exposed who developed symptoms? Yes No

Migrant Clinicians Network (2014). Adapted with permission from Mark Lyons, MPH, PAC, New Jersey Department of Health. Revised and reviewed by Environmental and Occupational Health Advisory Committee. This form may be adapted and duplicated as needed.

Effective Date: _____
 Revision Date: _____
 Approved By: _____



Acute Pesticide Exposures Clinical Guidelines

INTRODUCTION

Pesticides are heavily used in agricultural settings and pesticide exposure is therefore a significant environmental and occupational health risk for agricultural workers and their families. Victims of acute poisonings occurring in the field are likely to present to the nearest or most familiar healthcare facility, including primary care settings.

PURPOSE

Settings where healthcare services are provided to agricultural workers or others at risk for over-exposure to pesticides need to be prepared for patients with acute over-exposure to toxic pesticides. In cases of accidental over-exposure, multiple victims may present, dictating an organizational response that will trigger procedures requiring rapid assessment, treatment and reporting, as well as protection of healthcare personnel.

DEFINITIONS

A pesticide is defined as any substance that is used to kill or otherwise control a pest. The term "pesticide" includes insecticides, herbicides, fumigants, fungicides, repellents, rodenticides, and disinfectants.

Decontamination is the process of rendering an object, person or area free of a harmful substance such as bacteria, poison, gas, or radioactive material.

PROCEDURE

Note: The actions listed will not necessarily be performed in sequence, since the needs of individual situations will vary.

1. **Crisis Response**
2. Protect responders and/providers with gloves, protective clothing and respirators if needed.
3. Provide immediate first aid measures: establish airways, breathing, and circulation.
4. Decontaminate (see Section II below).
5. Identify patient(s) and label patient's valuables.
6. Keep records of actions and patient care. See Pesticide Exposure Assessment form (See Resources, pg. 5).
7. Establish chemical, location and exposure.
8. Set up triage area: stabilize, monitor and evacuate.
9. Alert referral hospital(s).
10. Consult/link with specialists: Toxicologist and/or Occupational and Environmental Medicine Specialists.
11. Coordinate transportation of non-critical patients and linking of families for retrieval of referred patients after discharge from hospital.

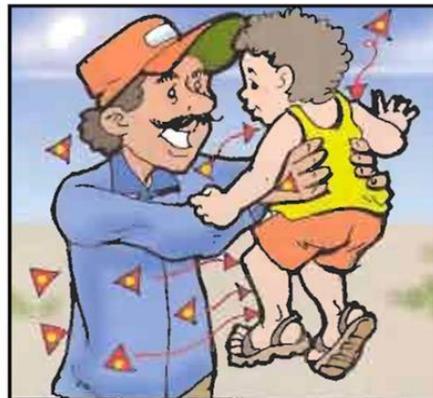
ACUTE PESTICIDE EXPOSURES CLINICAL GUIDELINES

Recognition and Management of Pesticide Poisonings, 6th Edition





Patient Education Resources



Colorful images

Simple language

Health and Safety information

Available from MCN website

Farmworker Justice Resources



Bilingual Educational Curricula

www.farmworkerjustice.org



MCN's Worker Health Program

SIMPLE, Flexible, Effective

- Partner with Health Centers
 - Centers of Excellence in EOH
- Training, resources, technical assistance
- Financial Incentive
- Goal: Change in Clinical Systems
 - Intake, screening, policies, outreach/education
 - Patient Center Medical Home

