

It's Your Right to Know: Helping Community Health Worker Promote Chemical Safety at Work

Amy K. Liebman, MPA, MA, Alma Galvan, MHC, and Kate Kruse
April 11, 2019

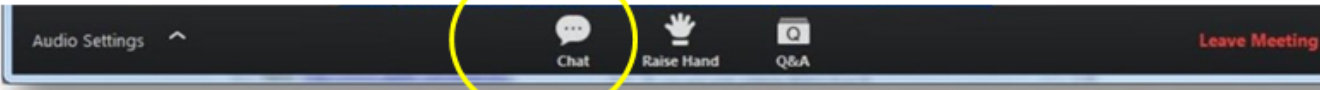




This material was produced under grant SH-31222-SH7 from the Occupational Safety and Health Administration, U. S. Department of Labor. It does not necessarily reflect the views of policies of the U. S. Department of Labor, nor does the mention of trade names, commercial products, or organizations imply endorsement by the U. S. Government.

Revisions were made to this material under grant number SH-05060-SH8 from the Occupational Safety and Health Administration, U.S. Department of Labor.

Please use our chat box to ask questions or give comments



Clicking the "chat" option opens a chat box where you can send a question or comment to the presenters and/or to entire group.

Type here in the chat box

To: All panelists and attendees

Type message here ...

- Allow attendees to chat with
- No one
- All panelists
- All panelists and attendees

More

"More" lets you chose a specific person from the list of presenters and participants to initiate a private discussion.

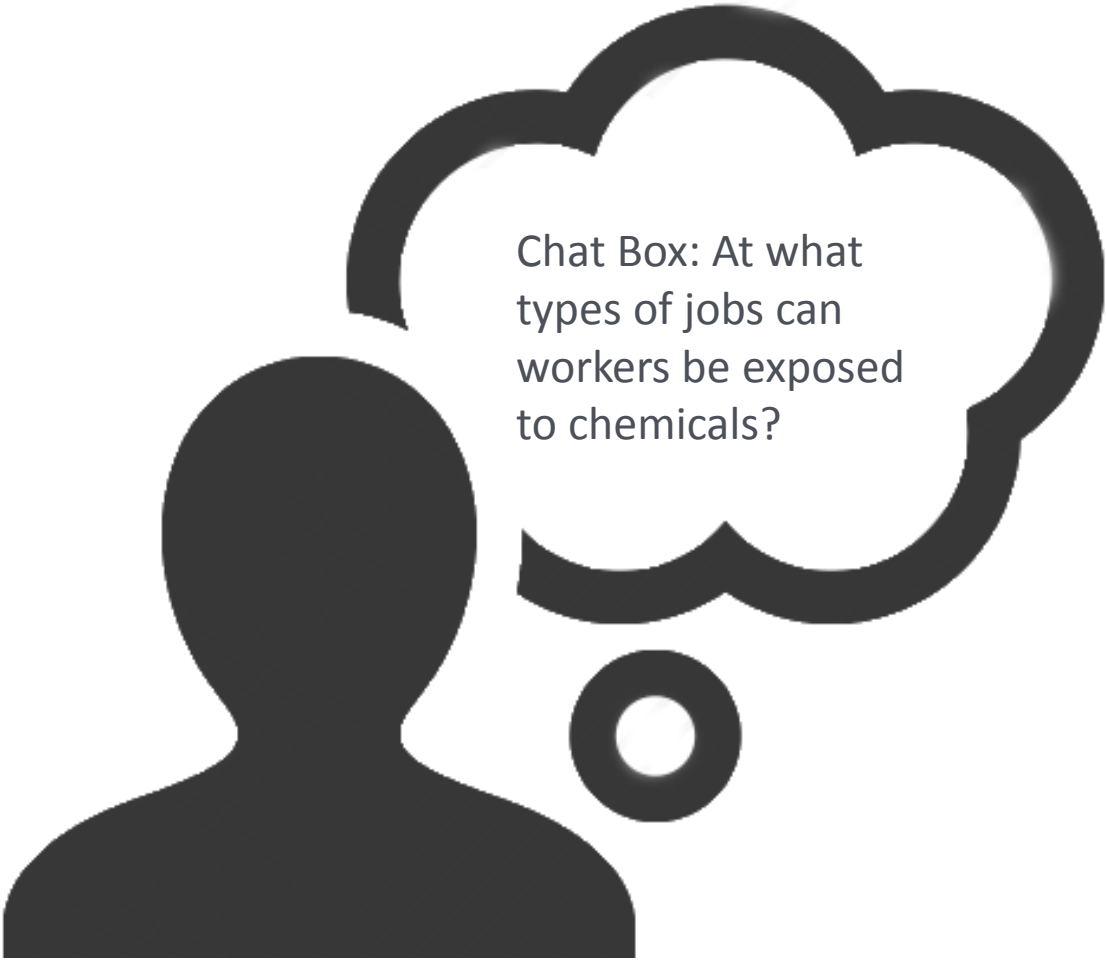
We will learn...

- How workers are exposed to chemicals
- Health effects of chemical exposure
- Basic safety practices
- How community health workers can promote chemical safety to workers



PRE



A black silhouette of a person's head and shoulders is positioned on the left side of the image. A large, black-outlined thought bubble is connected to the top of the head. Inside the thought bubble, the text "Chat Box: At what types of jobs can workers be exposed to chemicals?" is written in a dark gray, sans-serif font. Below the main thought bubble is a smaller, solid black circle.

Chat Box: At what
types of jobs can
workers be exposed
to chemicals?

Chemicals and Safety



Different Forms of Chemicals



Solid



Liquid

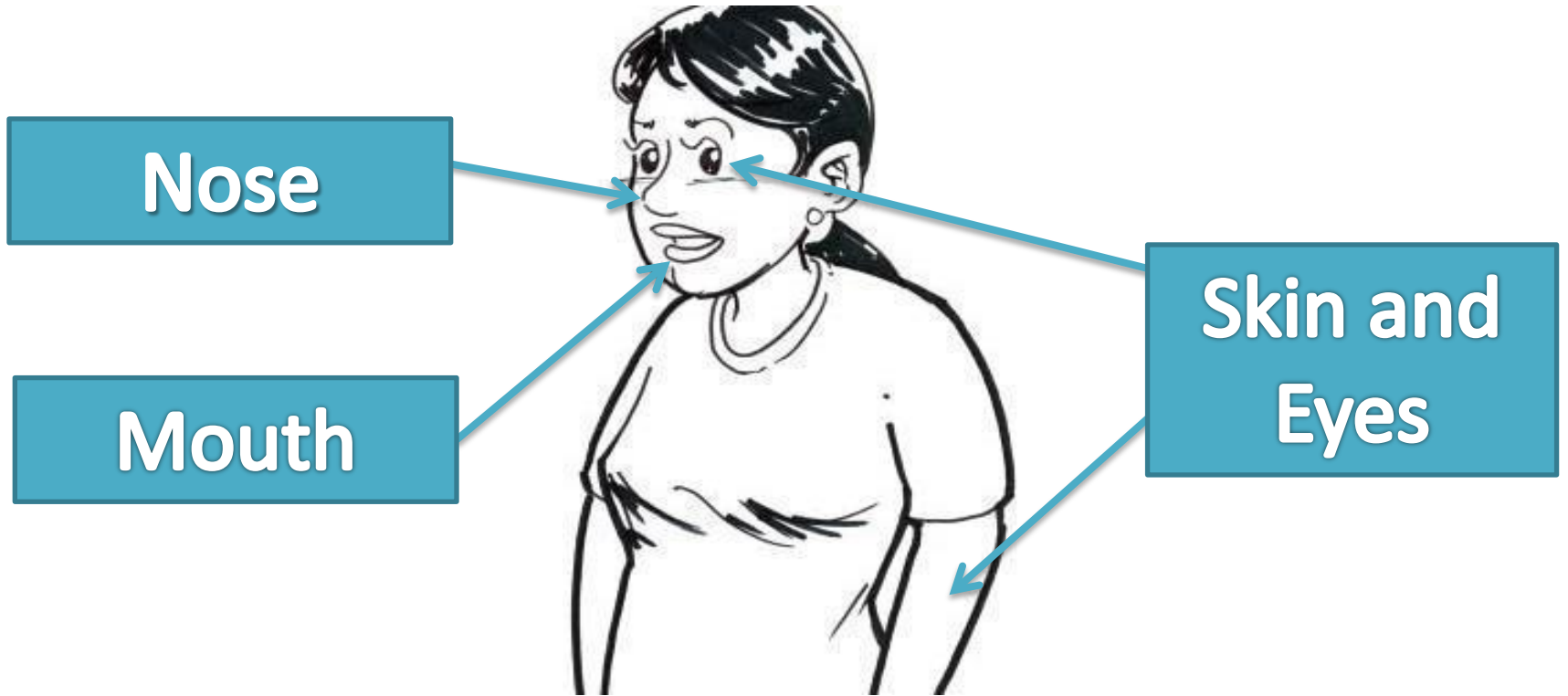



Gas



How do chemicals enter our body?

Routes of Exposure



A black silhouette of a person's head and shoulders is positioned on the left side of the image. A large, stylized thought bubble with a thick black outline extends from the top of the head. Inside the thought bubble, the text "Chat Box: What factors impact how chemicals affect you?" is written in a black, serif font. Below the main thought bubble is a smaller, solid black circle, which is part of the thought bubble's structure.

Chat Box: What
factors impact
how chemicals
affect you?

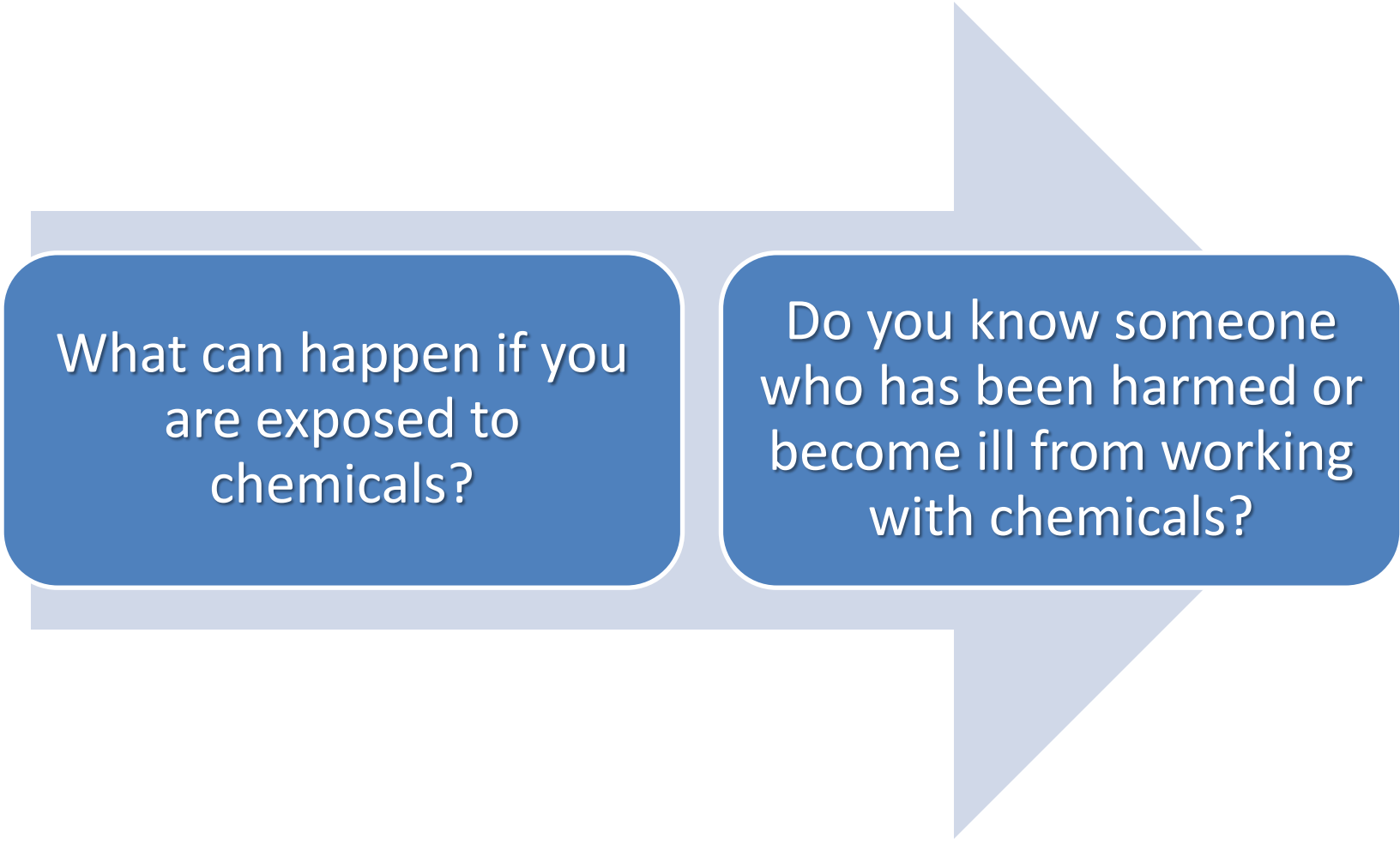


Dose-time relationship

Other factors that impact how chemicals affect you

- ✓ Type of chemical
- ✓ Gender
- ✓ Age
- ✓ Health condition
- ✓ Body size
- ✓ Interaction with other chemicals





What can happen if you are exposed to chemicals?

Do you know someone who has been harmed or become ill from working with chemicals?

Health Hazards



Short
term

Long
term

Within a few hours...

IRRITATED EYES



DIZZY

SKIN RASH



HEADACHE



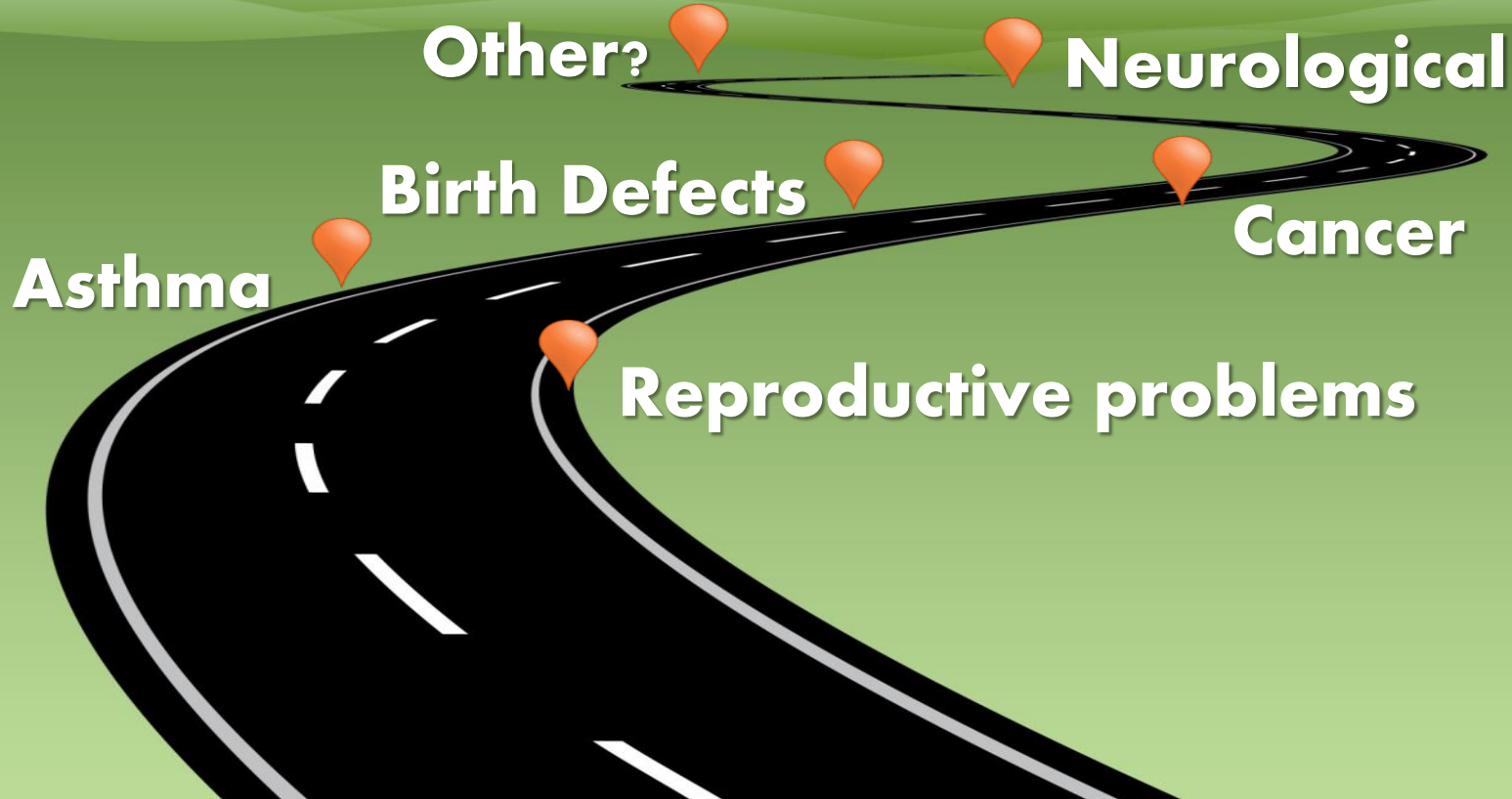
CHEST PAIN



**CONVULSIONS OR
EVEN DEATH**

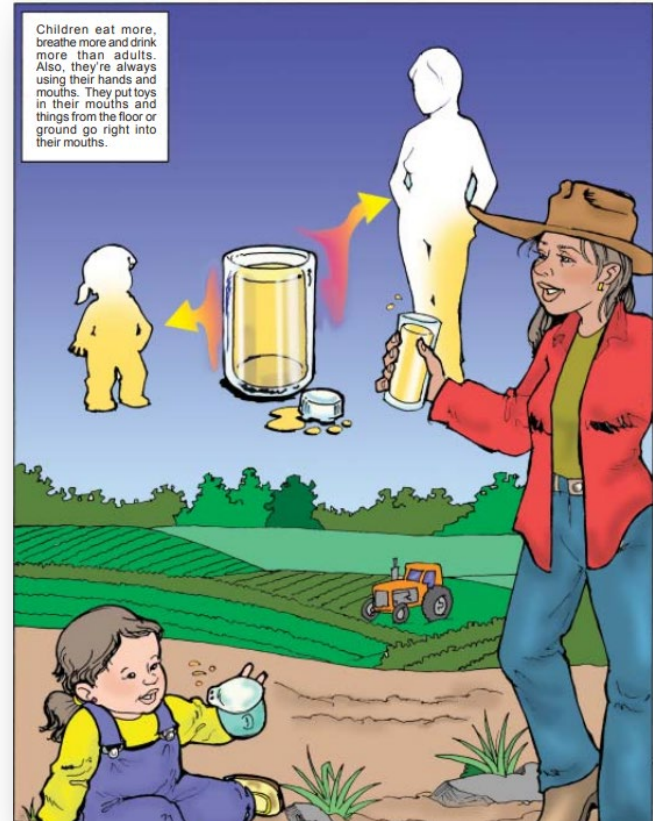


Possible Effects Over time



Children are vulnerable because:

- They are smaller
- They are still developing
- Their immune system is mature
- Proportionately to their size. they eat more, drink more and breath more air than adults



Every day,
thousands of
workers are
exposed to
chemicals in
the workplace

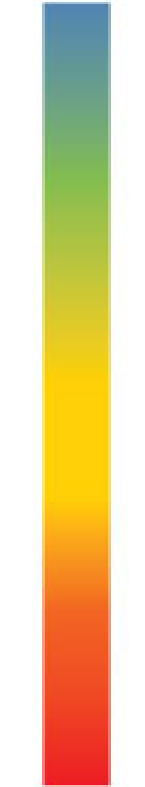




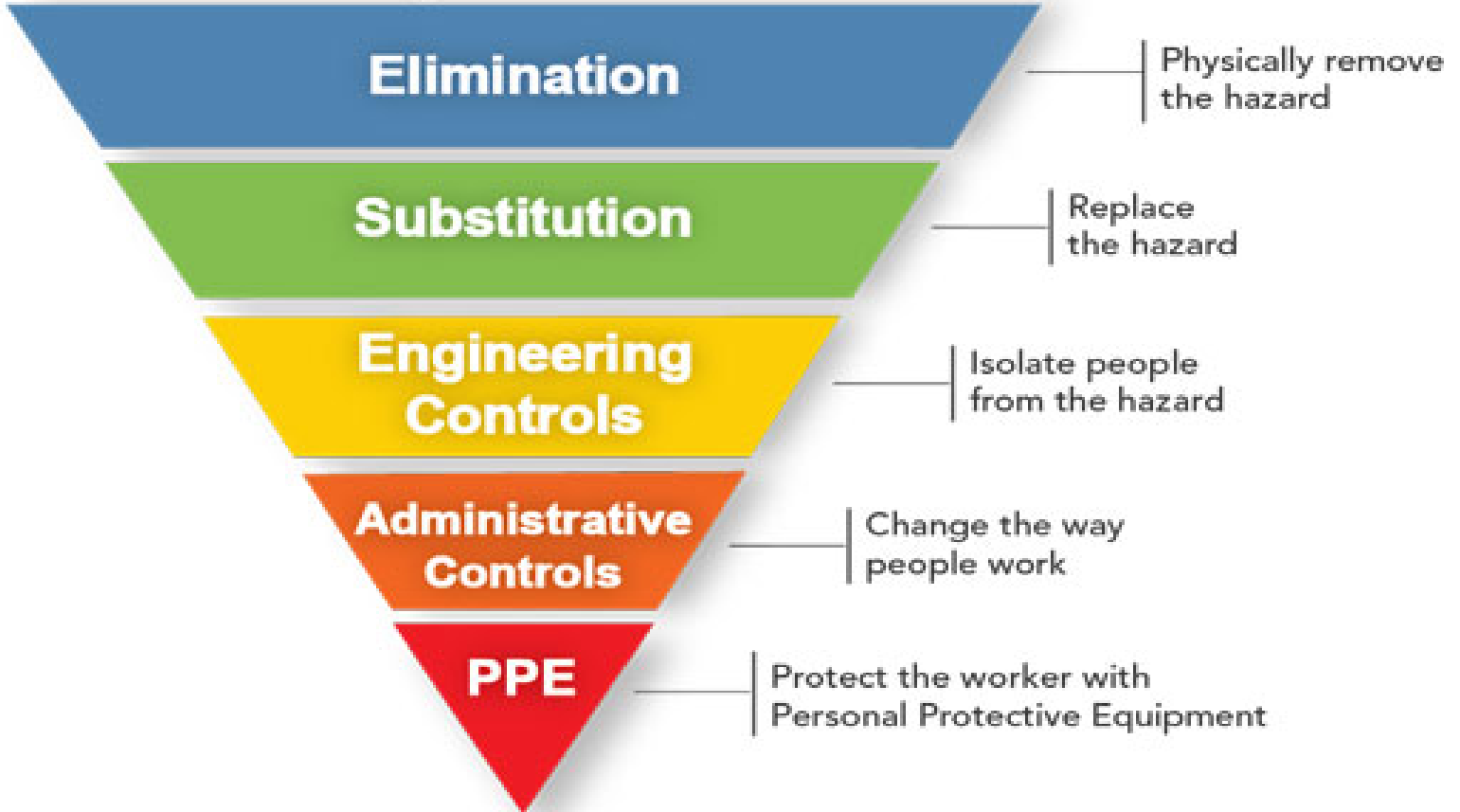
How do worker
protect
themselves?

Hierarchy of Controls

Most effective



Least effective



Training



Personal Protective Equipment



Face Shield



Gloves



Respiratory protection



Coveralls



Ear protection



Safety glasses with side shields

Dairy M.S.R. 50

Acid Cleaner / Detergenté Acido

FOR DAIRY FARM OR INDUSTRY USE.

DIRECTIONS FOR USE:

Acid rinse:

For circulating through pipes and neutralizing alkaline residue, use 1 ounce per 10 gallons of water. Circulate 5 to 10 minutes then rinse. Drain. Sanitize prior to next milking.

Acid wash:

Circulate Dairy M.S.R. 50 in warm or cold water at 1 ounce to 5 gallons water dilution rate (or stronger according to milkstone and scale build-up.) Wash for 15 to 30 minutes, drain and rinse with potable water. Sanitize prior to next milking according to local Health Department regulations.

STORAGE AND DISPOSAL:

THOROUGHLY RINSE ALL MEASURING DEVICES AND STORE OUT OF REACH OF CHILDREN. Avoid contamination of food or feed. Do not store near products containing chlorine. Avoid storing near heat or open flame. Keep container tightly closed when not in use. Do not reuse empty container. Thoroughly rinse empty container before disposing in a safe manner.

Read and understand all label instructions before using this product. For additional information, refer to the Material Safety Data Sheet available from your Universal representative.

KEEP OUT OF REACH OF CHILDREN
MANTENER FUERA DEL ALCANCE DE LOS NIÑOS

⚠ DANGER ⚠ PELIGRO



SI USTED NO PUEDE LEER ESTA ETIQUETA, POR FAVOR PREGUNTE A ALGUIEN MAS QUE SE LA LEA ANTES DE USAR ESTE PRODUCTO.

Corrosive. Contains sulfuric and phosphoric acids. Causes irritation to skin, eyes, and mucous membranes. Avoid contact with skin and mucous membranes. Wear protective apron, gloves, and eye face shield when handling this product. Wash thoroughly after using this product.

Harmful or fatal if swallowed. Swallowing causes severe burns to lining of throat and stomach. Do not mix with products containing chlorine. Do not use in areas where it may form immediately.

FIRE AND EXPLOSION HAZARD: This product does not burn. It reacts with metals such as aluminum, zinc, and iron to produce flammable, poisonous gases.

Chemtec Emergency Service
1-800-854-2338

Manufactured by Universal
13300 Congress Avenue
Kansas City, MO 64153
© Copyright 2006. Made in USA
24-0000

LABELS

Safety Data Sheet (SDS)



What information is provided in the Safety Data Sheet?

- First Aid Measures
- Handling and storage
- Symptoms of exposure
- Instructions for disposal
- Environmental controls
- Personal protective equipment

SAFETY DATA SHEET

Section 1. Identification

Product Name: **Ammonia, Anhydrous**
Synonyms: Ammonia

CAS REGISTRY NO: 7664-41-7

Supplier: Tanner Industries, Inc.
735 Davisville Road, Third Floor
Southampton, PA 18966

Website: www.tannerind.com

Telephone (General): 215-322-1238
Corporate Emergency Telephone Number: 800-643-6226
Emergency Telephone Number: Chemtrec: 800-424-9300

Recommended Use: Various Industrial / Agricultural

Section 2. Hazard(s) Identification

Hazard: Acute Toxicity, Corrosive, Gases Under Pressure, Flammable Gas, Acute Aquatic Toxicity

Classification: Acute Toxicity, Inhalation (Category 4) Note: (1 - Most Severe / 4 - Least Severe)
Skin Corrosion / Irritation (Category 1B)
Serious Eye Damage / Irritation (Category 1)
Gases Under Pressure (Liquefied gas)
Flammable Gases (Category 2)
Acute Aquatic Toxicity (Category 1)

Pictogram:



Signal word: **Danger**

Hazard statements: Harmful if inhaled.
Causes severe skin burns and serious eye damage.
Flammable gas.
Contains gas under pressure; may explode if heated.
Very toxic to aquatic life.

Precautionary statements: Avoid breathing gas/vapors.
Use only outdoors or in well-ventilated area.
Wear protective gloves, protective clothing, eye protection, face protection.
Keep away from heat, sparks, open flames and other ignition sources. No smoking.

NFPA Rating:



NFPA Numbering System:
0 = Least Hazardous / 4 = Most Hazardous

HMIS Classification:

| ANHYDROUS AMMONIA | |
|---------------------|---|
| HEALTH | 3 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | H |

HMIS Hazard Index:
0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe

Section 3. Composition / Information on Ingredients

CHEMICAL NAME: Ammonia, Anhydrous
CAS REGISTRY NO: 7664-41-7
SYNONYMS: Ammonia
CHEMICAL FAMILY: Organic nitrogen compounds
COMPOSITION: 99+% Ammonia

Section 4. First Aid Measures

IF INHALED: Immediately remove person to fresh air and keep comfortable for breathing. In case of severe exposure or if irritation persists, breathing difficulties or respiratory symptoms arise, seek medical attention. If not breathing, administer artificial respiration. If trained to do so, administer supplemental oxygen, if required.

IF ON SKIN: Immediately rinse skin and contaminated clothing with plenty of water before removing clothes. Clothing that has been contacted by liquid ammonia may freeze to the skin. Thaw frozen clothing from skin before removing. Flush skin with copious amounts of tepid water for a minimum of 20 minutes. Do not rub or apply topical, occlusive compounds, such as ointments, certain creams, etc., on affected area. For liquid ammonia contact, seek immediate medical attention. For severe vapor contact or if irritation persists, seek medical attention.

IF IN EYES: Immediately rinse continuously with copious amounts of tepid water for a minimum of 20 minutes. Eyelids should be held apart and away from eyeball for thorough rinsing. Do not rub or apply topical, occlusive compounds, such as ointments, certain creams, etc., on affected area. Seek medical attention.

IF SWALLOWED: Rinse mouth. Do not induce vomiting. If conscious, give large amounts of water to drink. May drink orange juice, citrus juice or diluted vinegar (1:4) to counteract ammonia. If unconscious, do not give anything by mouth. Seek medical attention.

NOTICE TO PHYSICIAN: Respiratory injury may appear as a delayed phenomenon. Pulmonary edema may occur. Chemical bronchitis. Supplement oxygen with necessary ventilation actions, including oxygen, may be necessary for consideration.

Section 8. Exposure Controls / Personal Protection

EXPOSURE LIMITS FOR AMMONIA: (Vapor)

| | | | |
|-------|----------|-----------------------------|-------------|
| OSHA | 50 ppm, | 35 mg / m ³ PEL | 8 hour TWA |
| NIOSH | 35 ppm, | 27 mg / m ³ STEL | 15 minutes |
| | 25 ppm, | 18 mg / m ³ REL | 10 hour TWA |
| | 300 ppm, | IDLH | |
| ACGIH | 25 ppm, | 18 mg / m ³ TLV | 8 hour TWA |
| | 35 ppm, | 27 mg / m ³ STEL | 15 minutes |

PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Chemical splash goggles should be worn when handling anhydrous ammonia. A face shield can be worn over chemical splash goggles as additional protection. Do not wear contact lenses when handling anhydrous ammonia. Refer to 29 CFR 1910.133 for OSHA eye protection requirements.

SKIN PROTECTION: Ammonia impervious gloves and clothing (such as neoprene, butyl and Teflon) should be worn to prevent contact during normal operations, such as loading/unloading and transfers. Chemical boots can be worn as additional protection.

RESPIRATORY PROTECTION: Respiratory protection approved by NIOSH for ammonia must be used when applicable safety and health exposure limits are exceeded. For escape in emergencies, NIOSH approved respiratory protection should be used, such as a full-face gas mask and canisters/cartridges approved for ammonia or SCBA. A positive pressure SCBA is required for entry into ammonia atmospheres at or above 300 ppm (IDLH). Refer to 29 CFR 1910.134 and ANSI: Z88.2 for OSHA respiratory protection requirements. Also refer to 29 CFR 1910.111 for respiratory protection requirements at bulk installations.

VENTILATION: Local exhaust should be sufficient to keep ammonia vapor below applicable exposure standards.

FOR A HAZARDOUS MATERIAL RELEASE RESPONSE: Level A and/or Level B ensemble including positive-pressure SCBA should be used. A positive pressure SCBA is required for entry into ammonia atmospheres at or above 300 ppm (IDLH).

gases o vapores inflamables. Deben usarse detectores de gas cuando existe la posibilidad de que se produzcan escapes de gases tóxicos. En los sitios próximos a cualquier posible exposición debe haber regaderas y estaciones de emergencia para lavarse los ojos. Use equipo a prueba de explosiones. Asegúrese de cumplir con todos los reglamentos nacionales y locales.

Equipo de protección personal: Anteojos de protección. Guantes. Ropa de protección. Ventilación insuficiente: use protección para respirar. Careta de plástico para protección del rostro.





CORROSION

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals



EXCLAMATION MARK

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)



EXPLODING BOMB

- Explosives
- Self-Reactives
- Organic Peroxides



SKULLS & CROSSBONES

- Acute Toxicity (fatal or toxic)



FLAME

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides



GAS CYLINDER

- Gases Under Pressure



ENVIRONMENT

- Aquatic Toxicity



HEALTH HAZARDS

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity



FLAME OVER CIRCLE

- Oxidizers

Pictograms



How can we
protect
ourselves
and our
family?

Leave Work Clothes Outside



Shower



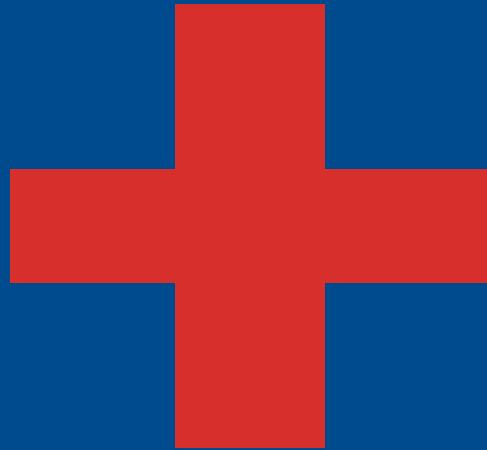


Keep work
clothes separate

Don't Reuse Containers



Emergencies



Call 911

- Address of the work place
- Condition of sick or injured worker
- Name of the chemical or explanation of the accident
- Provide first aid according to the SDS





Safety and
Occupational Act
(OSHA 1910)

Workers' Rights



Occupational Safety and Health Administration

- Ensures men and women have safe and healthy work conditions.
- Enforces the regulations of the Occupational Safety and Health Act (OSH Act).
- Helps employers to comply with regulations through outreach and education.
- Helps workers understand their rights.

What are employers' responsibilities?



The Occupational Safety and Health Act requires employers to provide a safe and healthful workplace free of recognized hazards and to follow OSHA standards. Employers' responsibilities also include providing training, medical examinations and recordkeeping.

For more information about OSHA, go to <http://www.osha.gov> or call 1-800-321-OSHA (6742)

What are workers' responsibilities?

- ✓ Follow the employer's safety and health rules and wear or use all required gear and equipment
- ✓ Follow safe work practices for your job, as directed by your employer
- ✓ Report hazardous conditions to a supervisor.
- ✓ Report hazardous conditions to OSHA if employers do not fix them

Does OSHA protect Immigrant laborers?

All workers no matter race, place of origin, language, gender or salary, have the right to a healthy and safe work environment.

Immigrant workers and the undocumented are also protected.



Risk Communication Standard

29 CFR 1910.1200(g)

***“HazCom” often called
“right to know”***

...workers have the “right to know”, about chemical risk at their workplace ... in their language...



What is your role as a community health worker?



How can you help an injured worker ?

- ✓ See the worker and refer them to appropriate medical treatment for the injury.
- ✓ Make sure the worker explains to the doctor that the injury occurred at work, and when, where and how the injury occurred.
- ✓ Even if the injury happened a long time ago.

What do workers need to protect themselves?



Training



PPE



Know their rights



Community Resources



Learn:

- Policies and practices
- Hazards in the Workplace
- Worker protection
- Emergency response
- How to report hazards and injuries
- Continue education




Training:

- Interactive/participatory
- PPE
- Safety Data Sheets
- Demonstrations

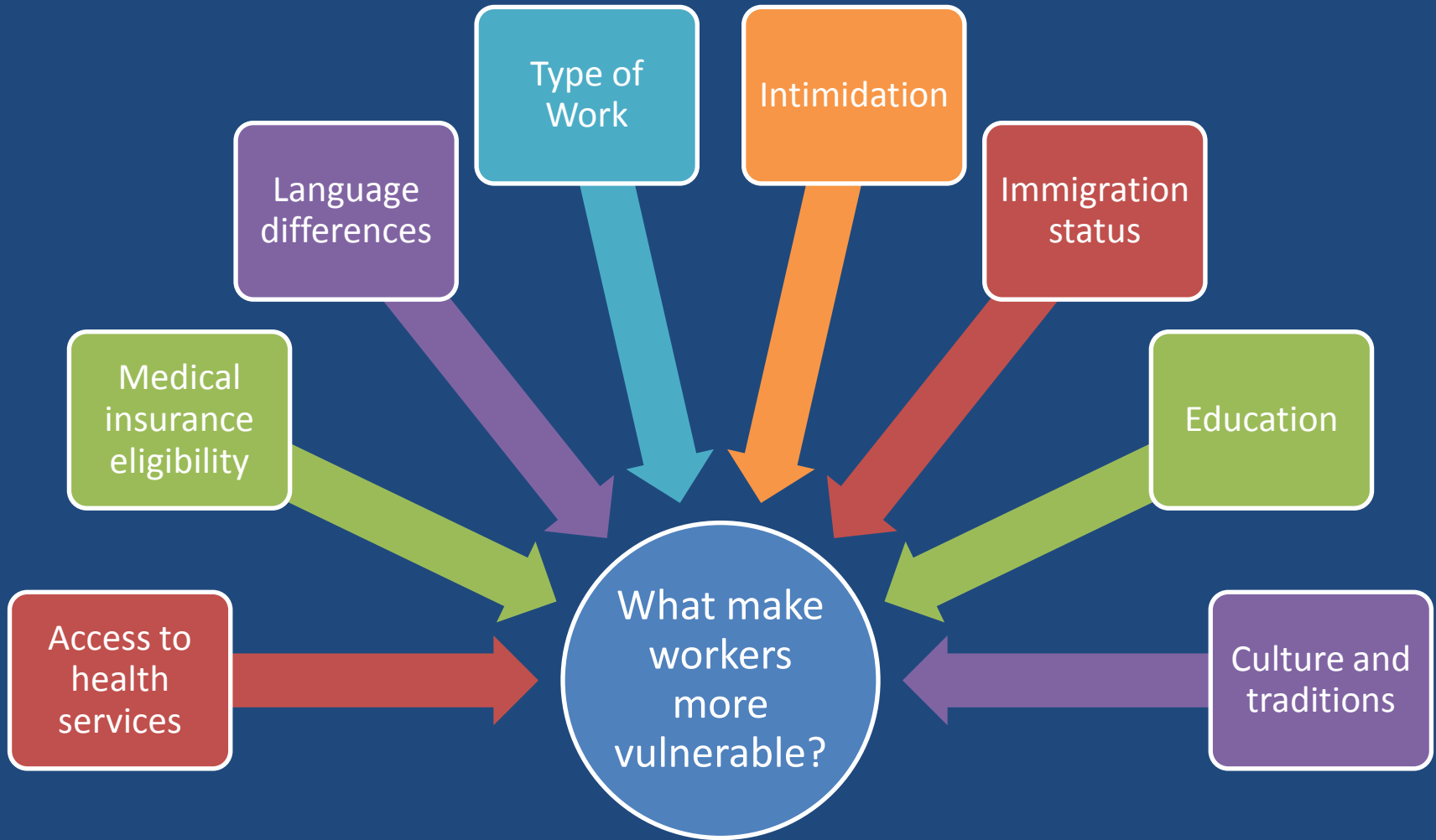


Promote:

- Safe work practices
- Importance of reporting hazards and injuries
- Think about safety
- You can do it!

A black silhouette of a person's head and shoulders is positioned on the left side of the image. A large, black-outlined thought bubble is connected to the top of the head. Inside the thought bubble, the text "Chat Box: What factors make an immigrant worker more vulnerable on the job?" is written in a black, sans-serif font. Below the main thought bubble is a smaller, black-outlined circle, also connected to the main bubble.

Chat Box: What factors make an immigrant worker more vulnerable on the job?



Resources



| Migrant Clinicians Network - Lista de Recursos 2018 | | |
|--|---|---|
| Recursos de MCN sobre seguridad en el trabajo y los químicos | | |
| | <p>Aunque Cerca... Sano- Manual de Entrenamiento sobre Pesticidas</p> <p>Inglés: http://bit.ly/2e9sv1 Español: http://bit.ly/2dXDuEH</p> | Material educativo sobre pesticidas dirigido a los trabajadores comunitarios y a los padres de familia sobre diferentes formas de proteger a sus hijos de exposiciones a pesticidas. |
| | <p>Lo que bien empieza... bien acaba http://bit.ly/1k3PUtm</p> | Libro cómico que busca reducir el riesgo a las exposiciones por pesticidas en mujeres en edad reproductiva |
| | <p>Safety and Health on the Farm Inglés: http://bit.ly/2hwZy8</p> <p>Seguridad and Salud en la Granja Español: http://bit.ly/2mboJ5e</p> | Libro cómico bilingüe que presenta información sobre la compensación y los derechos y responsabilidades de los trabajadores inmigrantes que trabajan en las lecherías |
| | <p>Seguridad en Palabras Español: http://bit.ly/2wtEX5</p> <p>Safety in Words Inglés: http://bit.ly/2wtEX5</p> | Diccionario Grafico Bilingüe de MCN, "Seguridad en Palabras/ Safety in Words", que ilustra los riesgos en el lugar de trabajo y las mejores prácticas de salud y seguridad en la agricultura. |
| | <p>Seguridad en las Lecherías Español: http://bit.ly/2wtEX5</p> | Currículo sobre la salud y la seguridad de los trabajadores inmigrantes en las lecherías con el objetivo de reducir los peligros en el lugar de trabajo y mejorar el conocimiento y las prácticas de los trabajadores. |
| Recursos de OSHA | | |
| | <p>Ley de Seguridad y Salud Ocupacional 1910 (Ley OSH) https://www.osha.gov/law-regs.html</p> | Esta página contiene enlaces a todos los estándares actuales de la OSHA, información sobre el proceso de reglamentación usado para desarrollar normas de salud y seguridad en el trabajo, e incluye enlaces a todos los avisos del Registro Federal que están abiertas para hacer comentarios. Incluye enlaces a la Ley de Seguridad y Salud Ocupacional de 1970 (Ley OSH) y otras leyes pertinentes. |
| | <p>Derechos de los trabajadores https://www.osha.gov/Publications/3473workers-rights-spanish.pdf</p> | Folleto en español que explica los derechos y responsabilidades de los trabajadores |
| | <p>Hoja de Datos OSHA Equipo de Protección Personal https://www.osha.gov/CoshDoc/data_General_Facts/pepe-factsheet-spanish.pdf</p> | Esta publicación provee un repaso general de los derechos de los trabajadores conforme con la Ley de seguridad y salud ocupacional. |

MIGRANT CLINICIANS NETWORK



**Cutting Edge
Programming**



**Resources and
Dissemination**



**Advocacy
and Policy**



**Research and
Knowledge
Mobilization**



**Clinical Support
and Capacity
Building**

POST



Thank you for your participation



Amy K. Liebman, MPA, MA
Director,

Environmental & Occupational Health
aliebman@migrantclinician.org



Katherine Kruse
Project Coordinator

kkruise@migrantclinician.org



Alma R. Galvan, MHC
Senior Program Manger

agalvan@migrantclinician.org

