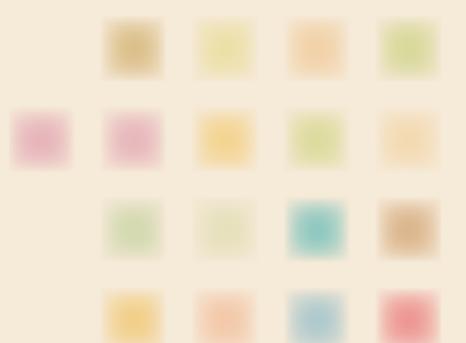


Hazard Identification and Prevention

(NDLON-OSHA)



SECOND TRAIN THE TRAINER Facilitator Guide

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Activity #1: SPIDERWEB ACTIVITY (BREAK THE ICE) (30 minutes)

Each participant can introduce himself or herself using a ball of yarn that is thrown from participant to participant.

Materials:

- A ball of yarn

Instructions:

This activity must be done in a fast manner.

All the participants will form a circle, then someone will be selected at random and he/she will take the beginning of the yarn and throw the rest of the yarn to another participant, but before throwing it, the first participant will have to say his/her name and what has been the most dangerous job he/she has done. The next participant to catch the ball of yarn must repeat the name of the person who threw the ball of yarn and then do the same as the participant before him or her and so on until all the participants have gone. This will form a spider web and then the facilitator can explain the connection there is among all workers.



Activity #2: WHAT IS A HAZARD? (30 minutes)

Read the definition of a hazard to the participants and then explain in simple terms what that means by giving examples:

A hazard is the potential for harm (physical or mental). In practical terms, a hazard often is associated with a condition or activity that, if left uncontrolled, can result in an injury or illness. Identifying hazards and eliminating or controlling them as early as possible will help prevent injuries and illnesses.

Explain that job hazards can be divided into the following categories:



Safety hazards can cause immediate accidents and injuries. Examples are hot surfaces, broken ladders, and slippery floors. Safety hazards can result in burns, cuts, broken bones, electric shock, or death.

Chemical and biological hazards are agents that can make you sick. They can get into the body through the nose, mouth, or skin to cause harm.



- Chemical hazards are gases, vapors, liquids, fumes or dusts that can result in poisoning, lung disease, skin irritation, or damage to other parts of the body. Examples include cleaning products, asbestos, and pesticides.
- Biological hazards are living organisms that can cause infectious diseases and allergies. They include viruses, bacteria, and molds.

Other hazards are those that cannot be classified into the other categories but can cause health or safety problems for workers. This can include stress, violence, and ergonomic hazards.

Make sure to let participants know that some hazards can harm a person right away, like safety hazards or chemicals that cause rashes. But sometimes the symptoms of illness appear months or years later. These long-term effects, for example, might include wear and tear on the body from repetitive motion, or lung disease from asbestos exposure or even cancer.



Show the participants the sheet with most common hazards and explain each one of them. Ask participants if they could give examples of each hazard.



Ask the participants if they have identified any of these hazards at their workplace.

Activity #3: MAPPING (1.5 hours)



Many times workers do not know why they get hurt or sick on the job and this activity will develop that awareness. Explain to the participants that “Mapping” is a technique used to tell workers about health and safety problems at work.

Objectives

- Identify the safety and health hazards (problems) that participants are exposed to.
- Learn how these hazards affect their safety and health.
- Make a plan to reduce or get rid of these hazards and problems.
- Develop a sense of solidarity among the workers.

There are two different types of maps:

1. **Body Maps:** A body map is an image that is used to show what part of a worker's body is getting hurt, sick or stressed by their job. Workers can use body maps to find out what injuries or illnesses workers have in common.
2. **Hazard Maps:** A Hazard map shows where there are health and safety problems at work and allows for workers to identify potential risks.

BODY MAPPING

Materials:

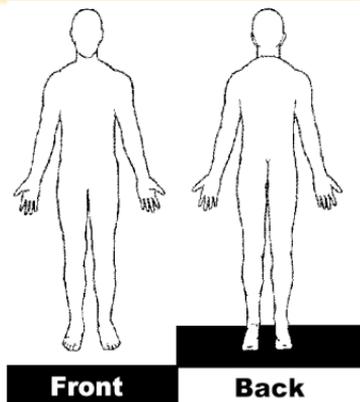
- Butcher paper
- Markers
- Sticker dots (7 colors)
- Color code



Facilitator Guide

Explain to the participants that a body map is a picture that shows what part of the worker's body is getting hurt, sick or stressed by their job.

Divide participants in small groups of four to six people.



Ask each group to pick someone who likes to draw. That person should draw a large outline of a body on the butcher paper. They can draw a front side and a backside of the body if they want to be more specific about their pains and injuries.

Ask the participants to think about problems at their work that cause them to get hurt, sick or stressed. Using the color code sheet that was provided to each group, ask the participants to put the correct color dots on the body parts that are affected.

Explain to the groups that their body map should only show the injuries, illnesses and stresses of workers in their group.

Once the groups have finished their body maps, each group should pick a representative that will explain their body map.

Ask the workers to find the most common injuries and illnesses that are on the body maps.

Remind everyone that each dot is caused by a hazard or problem in the workplace that needs to be fixed. The next step is to find out what these problems are so that someone can make a plan to correct them.

HAZARD MAPPING

Materials:

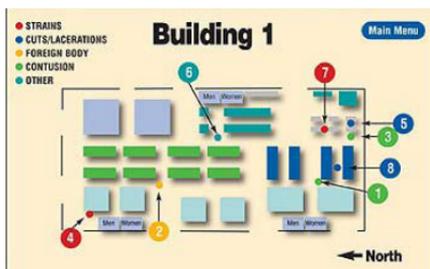
- Butcher paper
- Markers
- Sticky dots in 6 different colors
- Tape
- Color code



Explain to the participants that a hazard map shows where there are health and safety problems at work.

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Divide participants in small groups of four to six people. If possible, ask participants who do the same type of work to be in the same group.



Ask each group to pick someone to draw a picture of their work area including machinery, equipment, workstations, furniture, storage area, doors and windows.

Then ask the groups to think about the hazards that cause workers to get hurt, sick or stressed on the job. Give each group a copy of the color code for hazard mapping. Ask workers to use the colored sticky dots to show where the hazards are on their map. Everyone in the group should talk it over as they put the dots on the map.

Once the groups have finished their hazard maps, each group should pick person from their group to explain their map.

Locate the hazards

Ask each group what are the different types of hazards that are marked on their hazard map.

After each group has explained their map, ask the following questions:

What are the most common problems identified?

How serious are those problems?

What are the most common injuries at the job?

Have there been changes at your job that make it more difficult or dangerous?

Of all the hazards identified, which ones should be fixed first and why?

Let participants know that this map can be used in different ways. One: it can be used to talk to their employer about the hazards that could cause an accident; two: by adding or taking off dots from the map, the workers can identify whether the problems have been fixed or not; three: it can help them identify which problem should be fixed first; and four: it can be used as proof of the violations at work.

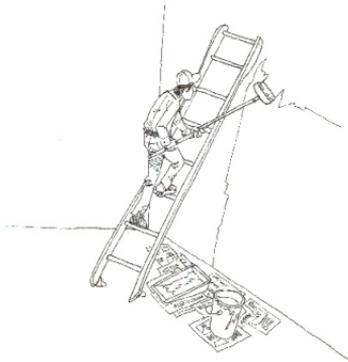
As a whole, ask the participants to come up ways in which we can find possible solutions to those problems.

Activity #4: CONTROLLING HAZARDS **(1 hour)**

We have learned what a hazard is and the problems that hazards cause. We have also learned to identify potential hazards at the worksite. But that is not enough to keep day laborers safe. There are many factors that can cause an accident at the job:

- When the work pace is too fast, the procedures are confusing, the staffing is inadequate, or the workload is too heavy.
- When workers are having trouble with equipment or tools, with the way the work area is set up, with the air quality, or with the temperature.
- When there is an inadequate safety program, a lack of involvement by all levels of management, a lack of resources committed to safety, poor communication, or no system for reporting problems.





- **When workers contribute to a hazardous situation. These can include inexperience, not enough training, fatigue, stress, and problems with communication.**

When mistakes happen, it is important to ask why. Focusing only on an individual worker's actions may prevent that particular worker from making the same mistake again, but will do nothing to prevent similar problems by others in the future. In contrast, the best way to prevent injuries is to fix the policies, procedures, and conditions that caused them in the first place.

When building a house, for example, there needs to be a plan to make sure that the work is done right. You can't just go and figure out the design of the house as you are working, you need a blueprint and a plan. The same way, when doing a job, whether in construction, gardening, cleaning or anything else, it is important to know what you are going to do before you start, the tools that you need to use, but also knowing that it is important to identify potential hazards to prevent an accident from happening.

Hierarchy of Hazard Controls

Here's a list of strategies or ways to deal with hazards in order of effectiveness in case a hazard is identified at your worksite:

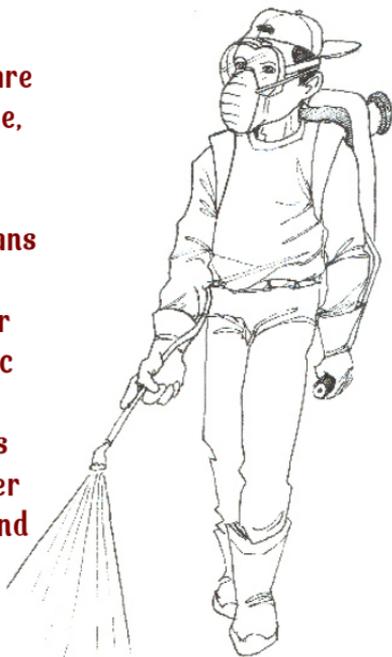


The first thing you need to do is **eliminate** the hazard. If you get rid of the hazard it will no longer pose a danger to you or your coworkers. For example, if the floor is wet and people are slipping, the best way to prevent an accident from happening is to dry that floor.

The second thing you can do is **substitute** the hazard. When you can't get rid of the hazard, then maybe you can change it to something else that will not be as dangerous. For example, you can use white vinegar to clean windows instead of using Windex.

If you can't eliminate or substitute the hazard, the next best thing you can do is using **engineering controls** or **safeguarding technology**. For example, if you have to use a round saw at your work and it does not have proper protective devices, what do is change it for one that has a guard that will protect you from cuts.

If the previous strategies are not available at your worksite, what you can do is apply what is called **administrative controls**, which basically means changing the way things are done and getting trained. For example, if using a very toxic chemical is essential to the job, then what can be done is reduce the time that a worker is exposed to the chemical and train the workers on how to handle the chemical properly and the consequences of not being exposed to it.



And last, the least effective way of controlling a hazard is wearing **personal protective equipment**. If none of the strategies we have discussed are available, which means that there is no better way to control the hazard, then at least we can try to protect our bodies with PPE.

We will focus on personal protective equipment because oftentimes, day laborers have different realities than other workers. The job site changes and the type of work they do can change on a daily basis.



Whereas it is important for workers to understand the hierarchy of hazard control, they don't always stay at a job site long enough to really identify the roots of a problem and to try to change the underlying causes of it. Therefore, the most probable solution that workers can do is protecting themselves and their bodies.

Activity #5: PPE– PERSONAL PROTECTIVE EQUIPMENT (30 minutes)

Definition: Personal protective equipment, or PPE, is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Besides face shields, safety glasses, hard hats, and safety shoes, protective equipment includes a variety of devices and garments such as goggles, coveralls, gloves, vests, earplugs, and respirators. In other words, PPE is equipment worn on the body that protects a worker from exposure to a hazard.

Ask the participants if they have ever used PPE at their work. Follow up with this question: What type of job were you doing and what equipment did you wear?

It is important to explain to the workers that other methods of controlling hazards should be implemented first (removing the hazard or changing work policies or procedures), but that when they are not possible or don't give enough protection, then the alternative is for the worker to wear protective equipment.

Ask the participants to answer why is PPE usually considered less effective than the other methods?

Possible answers include:

- It doesn't get rid of the hazard itself.
- Workers may not want to wear it because it is uncomfortable, hot, and may make it hard to communicate.
- It has to fit properly to work, and in many cases must be cleaned and inspected often.
- It has to be the right type for the particular hazard, such as the right respirator cartridge or glove for the chemical being used.
- Workers must know and remember how to use it properly.
- Some PPE creates its own hazards, such as heat, heavy weight, reduced visibility and hearing, and restricted movement.

Employer Responsibilities: (30 minutes)

Employers must assess the workplace to determine possible hazards. If any hazards are present, the employer must provide protective equipment that properly fits and require workers to use it.

The employer must also train the workers that are required to wear protective equipment on how to do the following:



- Use protective equipment properly
- Be aware of when personal protective equipment is necessary
- Know what kind of protective equipment is necessary
- Understand the limitations of personal protective equipment in protecting workers from injury
- Put on, adjust, wear, and take off personal protective equipment
- Maintain protective equipment properly

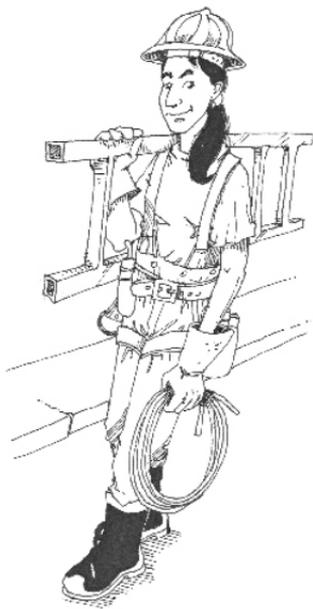
Notes for the facilitator:

You can ask the participants to help you read the responsibilities of the employer to make this activity more dynamic.

Activity #6: HANDS ON! (1 hour)

In this activity, the participants will have an opportunity to practice how to wear the basic protective equipment.

Review the following flash cards with the participants and then ask someone from the group to help you model the proper way of using the personal protective equipment.



(Each of the partners will have a set of basic personal protective equipment)

Protection from Head Injuries

Hard hats can protect workers from head impact, penetration injuries, and electrical injuries such as those caused by falling or flying objects, fixed objects, or contact with electrical conductors. Also, OSHA regulations require employers to ensure that workers cover and protect long hair to prevent it from getting caught in machine parts such as belts and chains.

Protection from Foot and Leg Injuries

In addition to foot guards and safety shoes, leggings (e.g., leather, aluminized rayon, or other appropriate material) can help prevent injuries by protecting workers from hazards such as falling or rolling objects, sharp objects, wet and slippery surfaces, molten metals, hot surfaces, and electrical hazards.

Protection from Eye and Face Injuries

Besides spectacles and goggles, personal protective equipment such as special helmets or shields, spectacles with side shields, and face shields can protect workers from the hazards of flying fragments, large chips, hot sparks, optical radiation, splashes from molten metals, as well as objects, particles, sand, dirt, mists, dusts, and glare.

Protection from Hearing Loss

Wearing earplugs or earmuffs can help prevent damage to hearing. Exposure to high noise levels can cause irreversible hearing loss or impairment as well as physical and psychological stress. Earplugs made from foam, waxed cotton, or fiberglass wool are self-forming and usually fit well. Clean earplugs regularly, and replace those you cannot clean.

Protection from Hand Injuries

Workers exposed to harmful substances through skin absorption, severe cuts or lacerations, severe abrasions, chemical burns, thermal burns, and harmful temperature extremes will benefit from hand protection.

Protection from Body Injury

In some cases workers must shield most or all of their bodies against hazards in the workplace, such as exposure to heat and radiation as well as hot metals, scalding liquids, body fluids, hazardous materials or waste, and other hazards. In addition to fire-retardant wool and fire retardant cotton, materials used in whole-body personal protective equipment include rubber, leather, synthetics, and plastic.

When to Wear Respiratory Protection

When engineering controls are not feasible, workers must use appropriate respirators to protect against adverse health effects caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. Respirators generally cover the nose and mouth or the entire face or head and help prevent illness and injury. A proper fit is essential, however, for respirators to be effective. Required respirators must be NIOSH-approved and medical evaluation and training must be provided before use.

Ask the participants to give an example of what type of work would fit into one of the categories of protective equipment that we have provided.



Having the understanding of the nature of the type of work that day laborers and household cleaners do, what alternatives can we as a group propose to ensure that these workers are protected?

The facilitator can take notes on butcher paper.

What are the most basic protective equipment items that workers can provide for themselves?



How can we educate the residential or private sector (employers) about their responsibilities?

Activity #6: APPLYING WHAT I'VE LEARNED AT MY JOB (1 hour)

In this activity, the participants will have the opportunity to learn the basics of the most common jobs day laborers and household cleaners do. Through the use of images, we will review some of the most common mistakes in construction, gardening, cleaning, moving and handling chemicals that may be prevented. The focus of the video will be on the following topics: falls, injuries from power tools, ditch digging, use of ladders, working with chemicals, lifting regulations.

In this section, excerpts from different health and safety videos will be shown to the participants to prompt dialogue among them and to have them understand the differences between doing a job fast and carelessly and doing it safely.



The facilitator is to play the video and pause it in between each section. Each section will be divided in two parts; the first part will have images of an accident and the second part will have images on how to do the job right and safely.

The facilitator can ask the following questions:

What is this video about?

What do you see in this video?

Is this something you do at your work site?

What did the worker (in the video) do wrong?

How could he have prevented getting hurt?

After, the facilitator can play the second part of the section of the video and then ask the following questions:

What do you see in the video?

Is that the correct use of tools?

When you are at your work, does your employer provide personal protective equipment like the one in the video?

After watching this video, can you identify any personal practices that might lead to an accident at the jobsite?

Do you feel like you comply with the safety regulations at your jobsite?

Notes for the facilitator: You can ask similar questions for each section of the video, just make sure that each participant understands that accidents can happen to them in a matter of seconds and that they need to be alert, aware of their surrounding but most importantly, that accidents can be prevented by having the correct information, the right equipment and proper training.



Contacting OSHA

If you identify a hazard at your job, please report it!

To report an emergency, file a complaint or seek OSHA advice, assistance or products, call (800) 321-OSHA or contact your nearest OSHA regional or area office.

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