Exercise

Overview

With an ever-changing workplace environment, incidents of severe weather are happening more frequently. Additionally, new hazards are present in the workplace that we all need to be attentive to in order to maintain a safe workplace.

Objectives

1. Recognize new workplace hazards due to an ever-changing climate
2. Identify protective measures workers can use to reduce exposure to climate hazards

Facilitator Information

Time Requirement: 0.5 hours
Number of Instructors: 1
Small group activity
Resources

- Participant Guide
- White board, black board, and/or easel pad
- Resources listed in Preparation Section
- Locally developed useful handout (to be prepared by the facilitator prior to the session) showing regional hazards/ trends and/or additional protective measures/ hot topics.

NOTE: all web links accurate as of April 24, 2018. If found inoperable, please contact Linda Alerding at alerdilr@uc.edu.
Preparation

Review the following resources to increase your individual awareness of primary areas workers are impacted by climate change:

- Adaptation in Action Part II 2018: Grantee Success Stories from CDC’s Climate and Health Program


- Climate change vulnerability assessment 7-7-2014. Summary and full report here: http://nca2014.globalchange.gov/
  - This is a valuable resource that truly displays all workers, in some part of their job, are exposed. See sections on Midwest and Southeast for your region.

- See various State assessments here:
  For woodlands in IL, IN, OH, MN, MI, WI: https://www.forestadaptation.org/
  For most recent assessments on a specific topic, search on ‘climate vulnerability assessment for YOURSTATE’.
  Example for WI: https://www.dhs.wisconsin.gov/climate/index.htm

See government agency adaptation plans here:

Participants may not be familiar with the terms vector-borne (spread by mosquitos, ticks, fleas; the insect is the ‘vector’) or zoonoses (spread by animals). For an overall review, see https://www.cdc.gov/niosh/topics/outdoor/default.html.
Resources that should be reviewed:

Vector-borne—See [http://www.cdc.gov/ncezid/dvbd/](http://www.cdc.gov/ncezid/dvbd/)

Tick resources from Participant Guide

- [https://www.cdc.gov/ticks/life_cycle_and_hosts.html](https://www.cdc.gov/ticks/life_cycle_and_hosts.html)
- [https://www.cdc.gov/ticks/tickborne_diseases/tickID.html](https://www.cdc.gov/ticks/tickborne_diseases/tickID.html)
- [https://www.cdc.gov/ticks/geographic_distribution.html](https://www.cdc.gov/ticks/geographic_distribution.html)
- [https://www.cdc.gov/ticks/removing_a_tick.html](https://www.cdc.gov/ticks/removing_a_tick.html)

Zika resource from Participant Guide

- [https://www.osha.gov/Publications/OSHA3855.pdf](https://www.osha.gov/Publications/OSHA3855.pdf)

Bee, wasp, hornets, fire ants and scorpions resource from the Participant Guide

- [https://www.cdc.gov/niosh/topics/insects/default.html](https://www.cdc.gov/niosh/topics/insects/default.html)

Poisonous plant resource from the participant Guide

- [https://www.cdc.gov/niosh/topics/plants/default.html](https://www.cdc.gov/niosh/topics/plants/default.html)

Venomous snakes and spider resources from the Participant Guide

- [https://www.cdc.gov/niosh/topics/snakes/default.html](https://www.cdc.gov/niosh/topics/snakes/default.html)
- [https://www.cdc.gov/niosh/topics/spiders/types.html](https://www.cdc.gov/niosh/topics/spiders/types.html)

Zoonotic--Examples of detailed fact sheet here: [http://www.cfsph.iastate.edu/Zoonoses/](http://www.cfsph.iastate.edu/Zoonoses/)

Background regarding agricultural workers here:

- [https://www.cdc.gov/rabies/location/usa/surveillance/wild_animals.html](https://www.cdc.gov/rabies/location/usa/surveillance/wild_animals.html)

Rabies resources from Participant Guide

Be prepared to provide regional examples. The websites in the Participant Guide have pictures of each hazard and geographic distribution figures.

**Successful Completion**

Active participation in the activities. Identification of one or more Actions.

**NOTE:** If only Activity 5 is used (Habitat Change) due to interest of the participants, then more Actions should be identified.

**Presentation of the Exercise**

- Introduce the Participant Guide and have audience read the Background. The purpose is to create an awareness to the changing workplace environment.

- While students are reading, list the five areas climate change is impacting the worker. List these as individual categories on a white/black board or as individual sheets of paper on an easel pad. Remove the sheets and post on the wall if able to. These are also in their guides to take away.

- Discuss headings in Participant Guide
  - Pose the discussion question: How do these five major categories of climate change impact you? Allow participants time to answer. The goal of this step is to perform the hazard identification of the risk assessment. Use the previous mentioned articles to draft notes of a few in the event the audience is unable to identify any hazards. List their responses on the easel paper or white board.

- Identification Work Sheet page of Participant Guide
  - Once at least one hazard is listed for each of the five topic areas, discuss the potential physiological/ health problems that can come to the worker through these without the proper protection. Again, use the previously mentioned articles to draft a few responses in the event the audience is unable to identify. Have them list their responses on the work sheet.
    - Attempt to create an affective connection with the audience by asking them if they, or a friend/family member has been diagnosed with: skin cancer, Lyme disease, cataracts, heat-related illness or another medical problem that can be connected to climate. The purpose of this is to reinforce that these are real hazards with real consequences to which they are all exposed.
• Action Work Sheet page of Participant Guide
  o Next, ask the audience, "What can we do to reduce our risk to these hazards". This is listed in the action area of the Participant Guide. This step completes the risk assessment process by now identifying control measures through either engineering controls, work practices, personal protective equipment or other avenues. Again, review the articles and Participant Guide to assist with ideas.
  o Ask: What happens to identified risks if there is no action to remediate? Empower each of them to make changes in their PPE and work practices to reduce their exposure/risk to these new hazards.

**Follow up**

**Learning Domain Assessment:**
Cognitive: have each individual read the background information, identify hazards, assess their risk to each hazard, and identify control measures they can implement to make their work environment safer.

Affective: attempt to personalize these hazards through connecting with someone who has suffered through an environmentally created illness

Psychomotor: empower action. Empower each to make a climate kit that they have in their work vehicle to protect them when they are outside.

Make this exercise better:
  Forward suggestions to UC
  Organize the list of ‘takeaways’ and forward to your program director. These are very important for future follow-back with the company and as possible impacts reported to NIEHS.

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