El Paso COVID-19 Recovery Training

P2R CONSORTIUM

NIEHS WTP GRANT NO. U45ES019360

OCTOBER 19, 2021

Project Objective, Target Populations

Overall objective:

To deliver actionable, site-specific training in COVID-19 mitigation strategies to vulnerable populations in El Paso County

Target populations:

1. Wastewater treatment workers at El Paso Water
2. Workers at the University Medical Center of El Paso, including non-healthcare workers
3. Businesses serviced by the El Paso Hispanic Chamber of Commerce with a special focus on small businesses with vulnerable workers

Detailed Project Aims

Aim 1: Refinement and Deployment of a Tailored Risk Profile Tool

- Refinement of preliminary hazard classification tool
- On-site assessment of risk
- Development of tailored assessment tool

Aim 2: Development of site- and job-specific transmission mitigation plans

- Development of tailored controls matrix and assignment of control strategies
- Development of custom transmission mitigation plans

Aim 3: Delivery of site- and job-specific transmission mitigation plans

- Train workers on risk reduction strategies
- Evaluate training effectiveness

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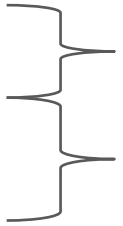

Aim 1A
Preliminary Hazard Classification Tool

Aim 1B
Comprehensive Hazard Classification Tool

Aim 2: Development of site- and job-specific transmission mitigation plans

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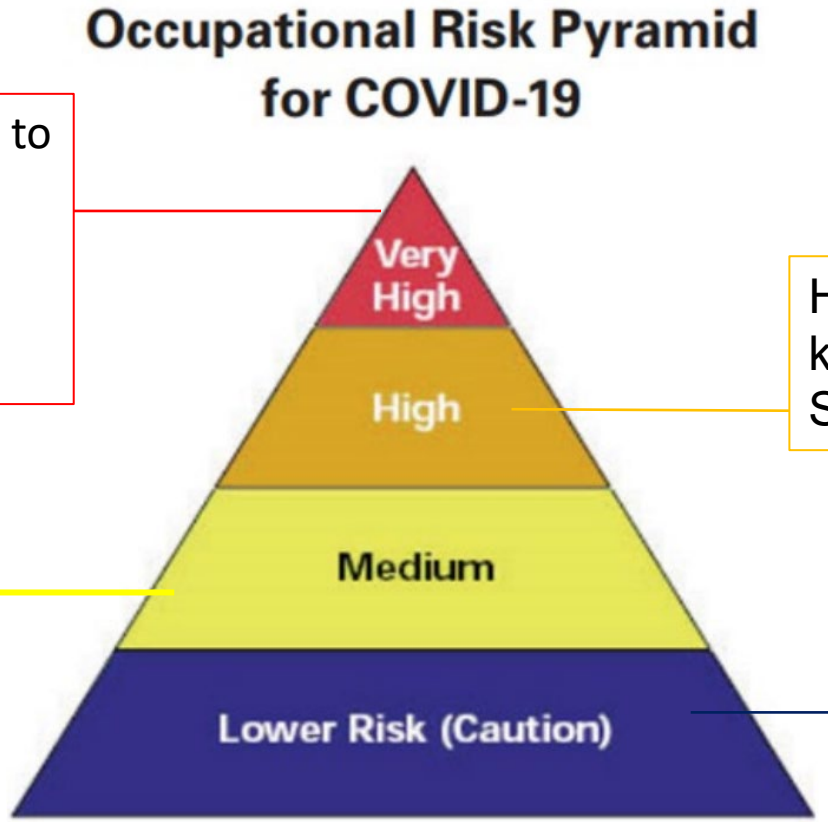
OSHA COVID-19 Risk Classification

OSHA then divided job tasks into four potential exposure levels:



Very high potential for exposure to known or suspected sources of SARS-CoV-2 during specific medical, postmortem, or laboratory procedures

High potential for exposure to known or suspected sources of SARS-CoV-2

Jobs that require frequent close contact or sustained close contact, especially in high-transmission communities

Jobs that do not require close contact with other people

https://www.osha.gov/coronavirus/hazards

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O*NET Database Overview

Some researchers have utilized the Occupational Information Network (O*NET) to assess COVID-related job exposures

- Sponsored by the U.S. Department of Labor (DOL)
- Provides detailed worker characteristics and job-related information on >950 occupations
- Data collected annually from job incumbents and occupational experts
  - Revisions periodically released
- Focuses on (1) worker knowledge, skills, and abilities and (2) job activities and tasks
- Online informational summaries with detailed data available for download
  - Website focuses on job-seekers; some study documentation limited

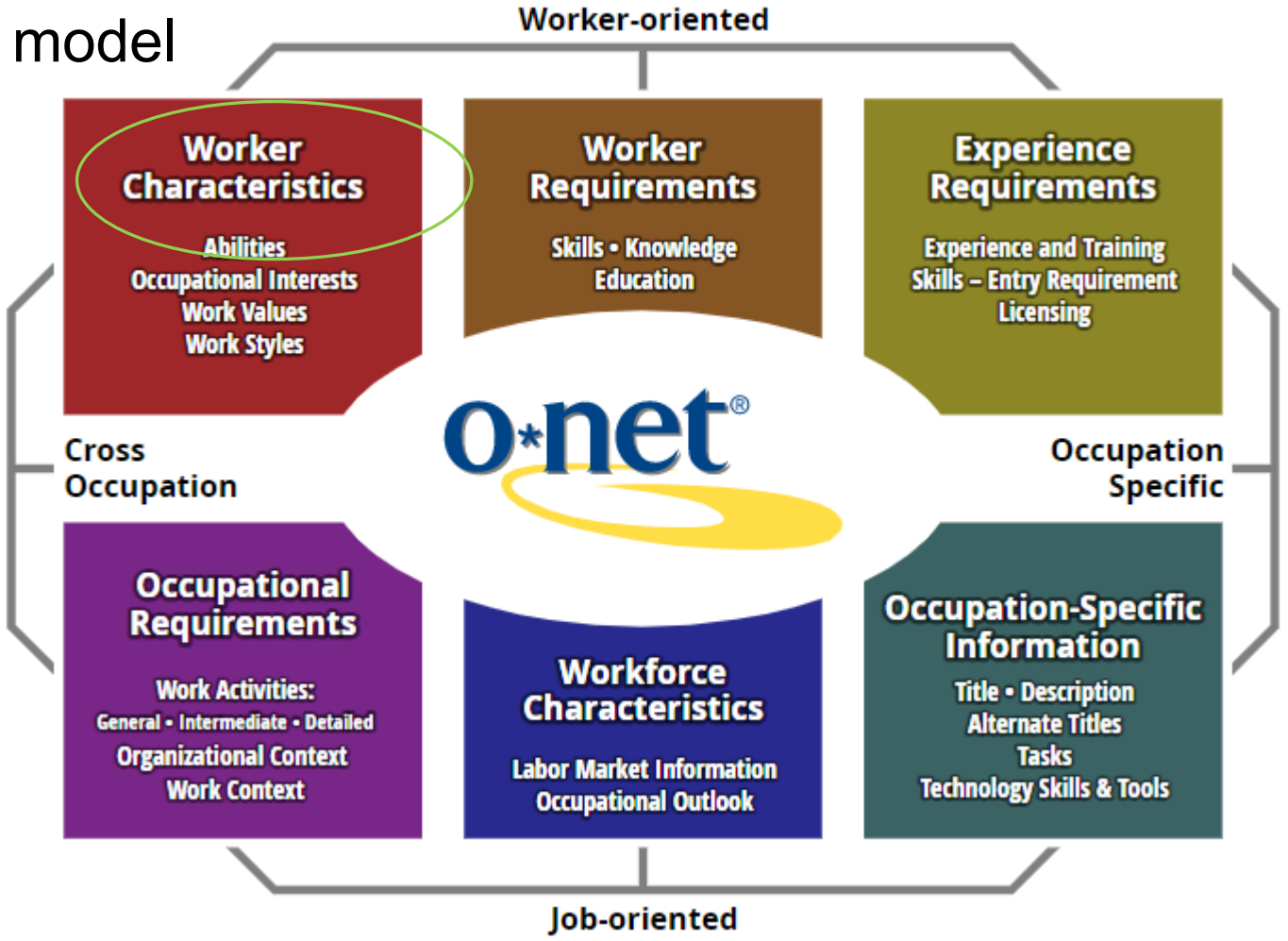
O*NET Content Model

O*NET utilizes a hierarchical content model

Each attribute is further divided into elements

For example:

I) Worker Characteristics
  A) Abilities
    i) Cognitive (21 elements)
      a) Deductive Reasoning
      b) Number Facility
      c) Oral Comprehension
      d) … u)
    ii) Psychomotor (10 elements)
    iii) Physical (9 elements)
    iv) Sensory (12 elements)



https://www.onetcenter.org/content.html

O*NET Data

Data collection entails one to two questions per element (257) per occupation (923), with some elements reported across multiple scales

- O*NET occupational codes are closely related to Bureau of Labor Statistics Standard Occupation Classification (SOC) codes
- Several scales used (i.e., importance, level, frequency, extent)

  For example:
  Worker Characteristics → Abilities → Cognitive → Deductive Reasoning → The ability to apply general rules to specific problems to produce answers that make sense.

O*NET assigns weighted scores of the importance/ level/ frequency/ extent to which workers engage with the element in question for each occupation code

Construction of preliminary tool (Aim 1A)

1. Compiled all O*NET elements
2. Review of detailed characteristics and descriptions of O*NET work activities, work context, work styles, work values
3. Selected of reduced list of potentially hazardous job elements
4. Compiled elements that signal potential telecommuting
5. Mapped OSHA risk categories onto ranges of scales for each element

Note: These efforts are at the element level, not at the occupation level

Organization of preliminary tool (Aim 1A)

For measures of interpersonal interactions, particularly in close contact:

1. Contact with Others: How much does this job require the worker to be in contact with others in order to perform it?
2. Physical Proximity: To what extent does this job require the worker to perform tasks in close physical proximity to others?
3. Face-to-Face Discussions: How often do you have to have face-to-face discussions with individuals or teams in this job?
4. Performing for or Working Directly with the Public: How often do you perform for people or deal directly with the public?
5. Deal with Physically Aggressive People: How frequently does this job require the worker to deal with physical aggression of violent individuals?

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