

# Advancing Equitable Personal Protective Equipment (PPE) Protection for Women Working in Hazardous Environments



**NORA Construction Sector Council Meeting**  
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**Today, I will talk about NIOSH's  
equitable PPE for women project.**

- 1. Why is this important?**
- 2. What NIOSH has learned?**
- 3. What are the project objectives?**
- 4. What data will we collect?**
- 5. How can you help?**

# More than 20 million US workers rely on PPE; Inadequate PPE protection for women needs to be addressed.

The representation of women continues to grow, or women already make up significant percentage in several occupational sectors: healthcare, public safety, construction, and mining.<sup>1</sup>

Women remain an underserved PPE user population, potentially exposing them to additional health and safety risks on the job.<sup>2,3</sup>

1. Bureau of Labor Statistics (BLS). (2021). Women in the Labor Force: a Databook.
2. Keefe, A. (2022). Canadian Women's Experiences with Personal Protective Equipment in the Workplace. Canadian Standards Association, Toronto.
3. Shepard (2021). PPE for Women: Why Fit Matters.







**Ill-fitting PPE can lead to injuries and has been linked to increased stress.**

**Examples of inequitable protections for female workers include:**

- Issues related to fit, discomfort, and inadequate availability of PPE
- Limited access to properly sized PPE, forcing women to adapt, wearing ill-fitting PPE, or skip PPE without appropriate options.



# **NIOSH has been learning about challenges related to PPE protection for female workers.**

2021-2022 Federal Register Notice  
(hereinafter, “FRN”)

NIOSH 2022 Equitable PPE Protections  
Workshop (hereinafter, “the Workshop”)

1. [Federal Register Notice - Needs and Challenges in Personal Protective Equipment \(PPE\) Use for Underserved User Populations, 2021](#)
2. [NIOSH Equitable PPE Protections Workshop, 2022](#)





## FRN, 2021-2022 (39 submissions)

### Needs & challenges identified: construction sector

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#### Fall protection equipment

- Women and pregnant workers (size, fit)
- Atypical sizes and body shapes
- Training, labels, and instructions in other languages and using pictures

#### PPE type mentioned

- Durable pants, fall arrest harness, coverall, Tyvek suits, non-gender specific rain gear, reflective safety vest, boots/shoes/gloves, hearing protection, flame-retardant clothing

#### Other issues

- Outdoor work activities (cooling, lightweight, illumination)
- Some PPE are not available in the market (e.g., P100 with 6CFM)
- Contractors may not make proper PPE available for many reasons (e.g., not prioritize PPE faced with limited supply for various sizes, lack of resources to purchase PPE for each worker)

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# NIOSH 2022 Workshop on Equitable PPE Protections

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Participants: 1,000+ from PPE manufacturers, practitioners, federal agencies, labor and worker groups, and all individuals who are interested in this topic

## Feedback revealed 4 primary themes:

- Size, shape, fit, functionality, and safety of PPE for end users
- The need for interdisciplinary collaborations and partnerships
- Gaps and challenges related to PPE regulations and standards
- Limitations of PPE manufacturing

# NIOSH 2022 Workshop on Equitable PPE Protections



## Construction-specific discussions

- A presenter cited “fit” as the number one concern expressed by 3,300 tradeswomen in construction.
- 29 Code of Federal Regulations Part 1926.95 requires that the employer provides PPE but with no explicit requirement that the PPE fits workers.
- It was suggested that NIOSH continue to partner with employers and employees to help close some of these gaps as well as engage in research.
- Enforcement and accessibility issues are observed in construction especially during COVID.



# Equitable PPE for Women Study Objectives

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- Identify driving factors and barriers for equitable PPE protection for women in PPE use, availability, accessibility, acceptability, and knowledge.
  - Draft a methodological framework to identify and mitigate site- and job-specific barriers for equitable PPE protections
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# Using focus groups to answer objectives:

**Female Healthcare  
Frontline Workers**

**Female EMS  
Frontline Workers**

**Female  
Firefighting  
Frontline Workers**

**Female  
Construction  
Frontline Workers**

**Female Mining  
Frontline Workers**

**Management  
in Healthcare**

**Management  
in EMS**

**Management  
in Firefighting**

**Management in  
Construction and  
Mining**



# Quality Partnerships Enhance Worker Safety and Health

## Interested in Participating in Our Study?

If your organization or group of colleagues is interested in participating in our study, please feel free to contact the PI or project primary contact. We will reach out to you in the future with scheduling options.



Photo: Screen capture from Getty video / rudi\_saurdi



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<https://www.cdc.gov/niosh/npptl/default.html>

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