

Personal Protective Equipment

Virtual Stakeholder Summit - November 27, 2024

Summary and Key Themes

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Introduction and Meeting Objectives

Workers face challenges with personal protective equipment (PPE) in the workplace, including ill-fitting PPE, especially for women. These challenges present serious dangers on worksites and create barriers to the inclusion of women and workers of all body types in the trades and other sectors.

At the April 2024 Meeting of Federal-Provincial-Territorial (FPT) Ministers Responsible for Labour, the Ministers discussed the critical importance of addressing the issue of PPE for women across various sectors. They emphasized the need to raise awareness among stakeholders and take concrete actions to ensure the efficacy of PPE in protecting all workers. Recognizing the importance of this issue, the Ministers agreed to advance work on this initiative, beginning with the convening of a virtual stakeholder meeting.

The Canadian Centre for Occupational Health and Safety (CCOHS) was tasked with hosting the meeting to help promote collaboration amongst the stakeholders, raise awareness of the importance of, and sensitize participants to the market need for, body type appropriate workplace PPE.

CCOHS hosted an invitation only, virtual stakeholder meeting on November 27, 2024. The objective was to discuss PPE strategies in Canada and a way forward, ensuring worker safety for people of all ages, body types, sizes, and genders. Invited guests included manufacturers, construction companies, employer and labour groups, researchers and representatives from federal, provincial and territorial governments, to discuss this important issue.

Meeting Agenda

The final agenda was sent to all potential attendees prior to the November 27, 2024, meeting, outlining key presenters, topics for discussion, and time allotments. The one-hour and 45-minute Zoom meeting included 40 minutes of expert-led presentations on current PPE issues and innovations, a 25-minute breakout group discussion, and remarks from the Deputy Minister of Labour and Associate Deputy Minister of Employment and Social Development, Sandra Hassan.

See Appendix A for the full November 27 agenda.

Key presenters and presentation topics included:

Anya Keefe, MSc, Anya Keefe Consulting

Canadian Women's Experience with PPE in the Workplace

Tom Brocklehurst, Director, Prevention Practice, Quality & Engineering, WorkSafeBC

PPE Fit - The BC Experience

Amin Yazdani, PHD, CSP, Director, Canadian Institute for Safety, Wellness & Performance at Conestoga College Institute of Technology and Advanced Learning

Ontario's Multivariate Occupation-specific Anthropometric (MOSAIC) Database

Speaker biographies and session abstracts are provided in Appendix B.

Attendees

There were 103 meeting attendees, approximately 88 of which were guests of the event. The remainder were CCOHS staff, management and interpretation contractors. There were 10 provinces, three territories and the federal government represented by two departments. See Appendix C for audience industry analysis and jurisdictional details.

Breakout Sessions

Participants were divided into three breakout groups, with a mix of employer, government, and union, plus varying jurisdictions, researchers, event speakers, manufacturers of PPE and suppliers represented in each virtual room. Each of the breakout groups had a CCOHS moderator and note taker to help lead the discussions and document the responses to three specific questions posed to the group. Based on what was asked and dialogue that resulted, reoccurring themes appeared across all groups.

Discussions revealed a variety of challenges, including a knowledge gap in the need for appropriately fitting PPE, that costs and procurement could be barriers, as well as legislation and manufacturing limitations.

A variety of suggestions emerged regarding ways to increase uptake and usage of properly fitting PPE that included:

- employer and worker education,
- legislative changes,
- overall improved workplace communication and psychological safety in reporting equipment needs, and
- avoiding gendering equipment.

Potential pilot projects were also suggested, such as:

- creating a central repository of available PPE equipment,
- establishing partnerships to educate manufacturers on needs,
- implementing user testing,
- holding design competitions to generate new equipment potential, and
- creating mobile units to fit workers to PPE.

See Appendix D for details.

Survey and Results

A survey consisting of the same three questions posed at the stakeholder meeting of November 27 in the breakout sessions was sent out to participants on December 17, 2024, to prioritize the suggestions and outcomes. Participants were asked to complete the survey by January 13, 2025.

Of the 117 participants who were sent the survey, 25 (22%) completed it, including guests plus CCOHS staff and management. Questions focused on ranking criteria related to three specific question sets, including the primary challenges in accessing properly fitting PPE, what would increase the uptake and usage of proper fitting PPE, and potential pilot projects.

See Appendix E for survey questions.

The first survey question addressed primary challenges in accessing properly fitting PPE. Availability was the statement identified as the most challenging by participants, with lack of legislation as the second most highly rated reason.

The second question asked what tactics would increase the uptake of properly fitting PPE. The most highly rated options included legislation changes, employer education, and accommodating diversity without tokenization.

The third and final question asked participants to rate options concerning what pilot project would encourage PPE uptake. The highest rated options were launching industry partnerships and building a central repository.

See Appendix F for full survey results.

Conclusion

The stakeholder discussions were fruitful, and the meeting produced several themes of concern, mainly the lack of awareness of ill-fit PPE and the resulting impacts, and the need to raise awareness of the lack of body-diverse sizing available in the market.

Participants were highly engaged during the breakout sessions, sharing suggestions that centered around running potential pilot projects such as creating a central repository of available PPE equipment to increase and enable easier access, and establishing partnerships to educate manufacturers on the needs of the workplace.

CCOHS will post the report on the CCOHS website to start the effort to raise awareness of this important issue and will promote the report through its social media and communication channels.

Appendices

Appendix A – Agenda

Stakeholder Meeting on Body Type Appropriate Personal Protective Equipment

Virtual Meeting via Zoom

November 27, 2024, 13:30 – 15:00 EST

13:30

- 5 minutes
- Introduction and Land Acknowledgement
 - ◆ Anne Tennier, President and CEO, Canadian Centre for Occupational Health and Safety

13:35

- 5 minutes
- Opening remarks
- Overview of Ministers of Labour concerns and expectations in proper-fit PPE for women across various sectors
 - ◆ Sandra Hassan, Deputy Minister of Labour and Associate Deputy Minister of Employment and Social Development

13:40

- 10 minutes
- Overview of research on proper-fit PPE for women: Canadian Women's Experiences with PPE in the Workplace
 - ◆ A summary of the November 2022 Canadian Standards Association (CSA) report aimed at gaining a better understanding of the extent to which physical differences are considered in the development of PPE and PPE standards for men and women
 - ◆ Speaker: Anya Keefe, MSc, Anya Keefe Consulting

13:50

- 10 minutes
- Overview of WorkSafeBC work on this issue
 - ◆ PPE Fit – The BC experience
 - ◆ Speaker: Tom Brocklehurst, Director, Prevention Practice, Quality & Engineering, WorkSafeBC

14:05

- 15 minutes
- Overview of WSIB-funded research in Ontario on this issue
- Ontario's Multivariate Occupation-Specific Anthropometric (MOSAIC) Database
 - ◆ The Ontario Multivariate Occupation-Specific Anthropometric (MOSAIC) database, developed using cutting-edge 3D portable body scanner technology, will help ensure Ontarian and Canadian workers can benefit from properly fitted and effectively designed PPE, tools and equipment. Inclusively designed products such as PPE will remove barriers faced by underrepresented groups in entering and staying within their careers.
 - ◆ Speaker: Amin Yazdani, PhD, CSP, Director, Canadian Institute for Safety, Wellness & Performance at Conestoga College's School of Business

14:20

- 25 minutes
- Breakout room dialogue

Stakeholders will break out into virtual rooms to consider the following:

- Challenges in accessing proper-fit PPE
- How to increase uptake and usage of proper-fit PPE for better protection of workers and reduce hazards: regulations (gaps?), workplace policies, safe work procedures and practices
- Potential pilot projects that could lead to solutions

Each room will have a moderator, recorder and technical support person supplied by CCOHS

14:55

- 10 minutes
- Summary from the breakout room recorders

15:05 – 15:10

- 5 minutes
- Closing remarks and next steps
 - ◆ Anne Tennier

Appendix B – Speaker Biographies and Session Abstracts

Sandra Hassan, Deputy Minister of Labour and Associate Deputy Minister of Employment and Social Development

Ms. Hassan began her public service career in 2000 in the Department of Justice with the Legislative Services Branch and went on to hold various high profile governmental roles including Executive Director and General Counsel, Tax Counsel Division of the Department of Finance Legal Services; Assistant Deputy Minister, Central Agencies Portfolio (Justice) and Counsel to the Department of Finance; and Assistant Deputy Minister, Employment Conditions and Labour Relations, Office of the Chief Human Resources Officer of the Treasury Board Secretariat. Ms. Hassan was also co-chair of the National Joint Council.

She was appointed Deputy Minister of Labour and Associate Deputy Minister of Employment and Social Development effective March of 2021.

Session Abstract: Opening remarks.

Anya Keefe, MSc, Occupational and Public Health Consultant

Anya Keefe is an occupational and public health consultant with over 35 years of experience in occupational disease prevention, policy and research. Prior to launching her consulting practice, Anya was the Director of the Research Secretariat at WorkSafeBC, where she managed a systematic process for research, knowledge transfer and strategic initiatives. Since 2014, she has provided pro bono assistance to workers diagnosed with occupational diseases. Anya has an undergraduate degree in Chemical Engineering and a graduate degree in Occupational Hygiene, both from the University of British Columbia. She is also a formally trained chef and chocolatier.

Session Abstract:

A summary of the November 2022 CSA report that aimed at gaining a better understanding of the extent to which physical differences are considered in the development of PPE and PPE standards for men and women.

Tom Brocklehurst, Director of Prevention Practices, Quality and Engineering, WorkSafeBC

Tom Brocklehurst is the Director of Prevention Practices, Quality and Engineering at WorkSafeBC. He is a graduate of Carleton University and UBC law school, and after practicing in labour and employment law, joined WorkSafeBC, where he has been for the past 22 years. He oversees a department that provides legal, policy and technical advice and support to WorkSafeBC's Prevention Division.

Session Abstract:

Personal Protective equipment hazards, barriers, challenges, interventions, opportunities for change and impacts to consider, from a WorkSafeBC prevention perspective.

Dr. Amin Yazdani, PhD, CSP, Director, Canadian Institute for Safety, Wellness & Performance at Conestoga College Institute of Technology and Advanced Learning

Dr. Amin Yazdani is the founder and executive director of the Canadian Institute for Safety, Wellness & Performance at Conestoga College. He is an adjunct associate professor at the University of Waterloo and is the chair of the Research Ethics Committee and adjunct faculty at the Pacific Coast University for Workplace Health Sciences. Dr. Yazdani, a Certified Safety Professional, is also a member of the Executive Scientific Committee on Work Disability Prevention and Integration for the International Congress on Occupational Health.

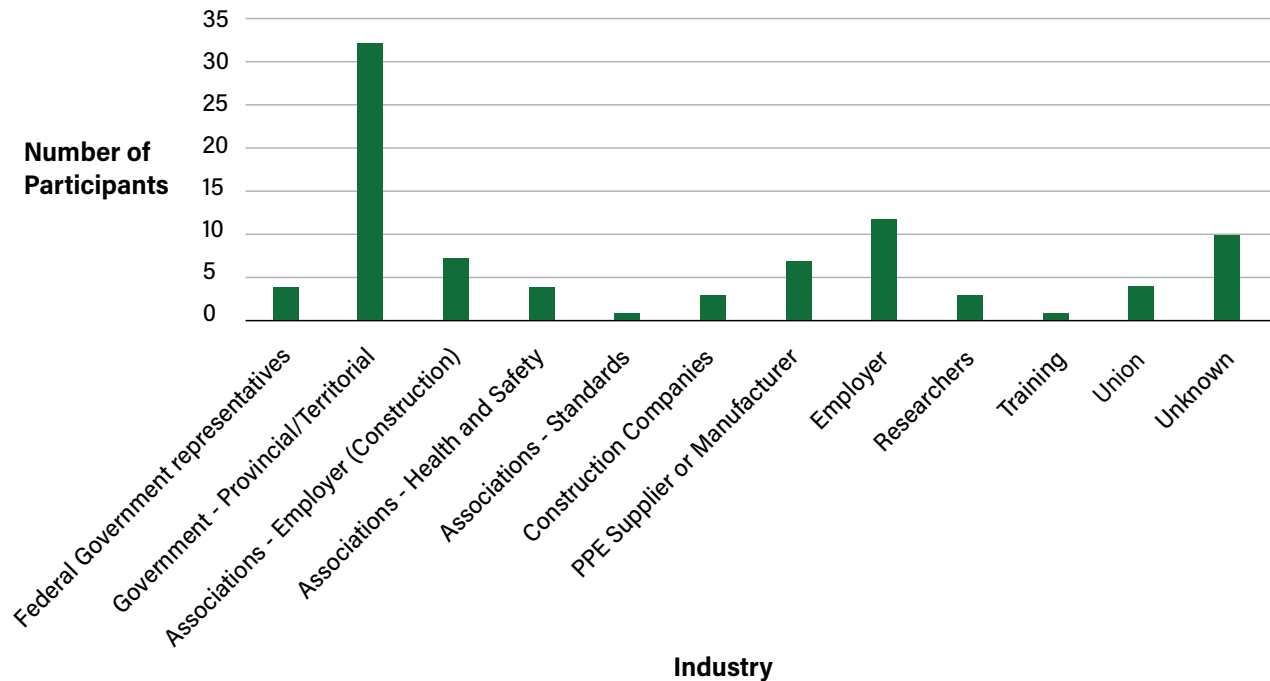
Dr. Yazdani's research focuses on developing innovative solutions to prevent workplace injuries and disabilities. He employs a field-to-lab-to-field research methodology to advance work and health research, creating practical solutions to enhance workplace safety, performance, and productivity.

Session Abstract:

The Ontario Multivariate Occupation-specific Anthropometric (MOSAIC) Database, developed using cutting-edge 3D portable body scanner technology, will help ensure Ontarian and Canadian workers can benefit from properly fitted and effectively designed PPE, tools and equipment. Inclusively designed products such as PPE will remove barriers faced by underrepresented groups in entering and staying within their careers.

Appendix C – Audience by Industry Analysis and Jurisdiction

Personal Protective Equipment : Attendance by Industry



Audience Representation by Sector

Federal Government Representatives	4 unique attendees (Labour Program, ESDC)
Government – Provincial/Territorial	20 organizations, 32 unique attendees
Associations – Employer (Construction)	6 organizations, 7 unique attendees
Associations – Health and Safety	3 organizations, 4 unique attendees
Associations – Standards	1 organization/unique attendee
Construction Companies	3 organizations/unique attendees
PPE Supplier or Manufacturer	6 organizations, 7 unique attendees
Employer	10 organizations, 12 unique attendees
Researchers	3 unique attendees
Training	1 unique organization/attendee
Union	4 organizations/unique attendees

There were eight to ten unique attendees that had an unknown sector that were not on the original invitation list and are attributed to being guests of other attendees.

Jurisdictional Representation

The November 27 meeting had representation from ten provinces, three territories and the Federal Government of Canada:

Federal – Employment and Social Development Canada (ESDC) and the Labour Program

Alberta – Government of Alberta

British Columbia – WorkSafeBC, Labour Branch of the Government of British Columbia

Manitoba – Workers Compensation Board of Manitoba, Manitoba Department of Labour and Immigration, SAFE Work Manitoba

New Brunswick – WorkSafeNB

Newfoundland and Labrador – WorkplaceNL

Nova Scotia – Nova Scotia Department of Labour, Skills and Immigration

Ontario – Workplace Safety and Insurance Board (WSIB)

Prince Edward Island – Workers Compensation Board of PEI

Québec – Commission des normes de l'équité de la santé et de la sécurité du travail (CNESST)

Saskatchewan – Government of Saskatchewan

Northwest Territories and Nunavut – Governments of Northwest Territories and Nunavut

Yukon – Yukon Workers Compensation, Health and Safety Board

Appendix D – Breakout Sessions and Discussion Outcomes

Questions posted during breakout sessions and the post-event survey were the same. A summary of the outcomes and suggestions discussed are listed after each question below:

1. What are the challenges in accessing proper-fit PPE?

Knowledge gap:

- a general unawareness of the need for body appropriate PPE and how to access it
- must be built into company policy
- difference in sizing between men and women and not accounting for pregnant people

Cost and procurement:

- lack of body-diverse sizing available in the market, those who need equipment specially made are sent to specialty stores
- PPE not always available on site, question of whether to stock the PPE first or order it after measuring and upon onboarding
- difficult to get timely access to proper PPE in isolated places/remote communities

Legislation:

- regulation change as the driver to get everyone on board, if not mandated, then companies will not actively seek out body-diverse sizing
- length of time as a transition period

Manufacturing limitations:

- costly for manufacturers to scale and diversify the line of options

2. What are some ways to increase uptake and usage of proper-fit PPE?

- education of employers, and workers and at point of purchase, and general awareness of the importance of PPE
- legislation change/updates, tighten up regulations to be more prescriptive
- improve workplace communication/psychological safety to allow those who need body diverse-PPE to speak up, avoid the gendering equipment with superficial designs (for instance, making it pink)

3. What are some potential pilot projects that could lead to solutions?

- creating a central repository of available PPE
- create partnerships to educate manufacturers on needs, and invite them into the conversation
- allow end users to test materials
- generate designs through college competitions and apprenticeships
- have mobile units to fit PPE to worker

Appendix E – Prioritization Survey Questions

The three questions are as follows and participants were asked to rate and prioritize the options on a 5-point scale with 1 being most in agreement, and 5 being the least:

1. What are the primary challenges in accessing properly fitting PPE?

- (a) Accessibility
- (b) Employer awareness
- (c) Lack of legislation
- (d) Cost and procurement issues
- (e) Manufacturing limitations

2. What would increase the uptake and usage of properly fitting PPE?

- (a) Educate employers about the consequences from not having properly fitted PPE for all workers
- (b) Educate workers on how advocating for properly fitting PPE improves their safety
- (c) Safe work procedures and practices
- (d) Legislation changes: makes existing regulations more explicit and less open to interpretation
- (e) Prioritize psychological safety in the workplace through training, policies and onboarding to encourage those who need body diverse PPE to speak up
- (f) Accommodate diversity without singling out or tokenizing, such as gendering equipment with superficial designs or colours

3. Rank these potential pilot projects from 1 (most likely to increase uptake of properly fitting PPE) to 5 (least likely to increase uptake of properly fitting PPE):

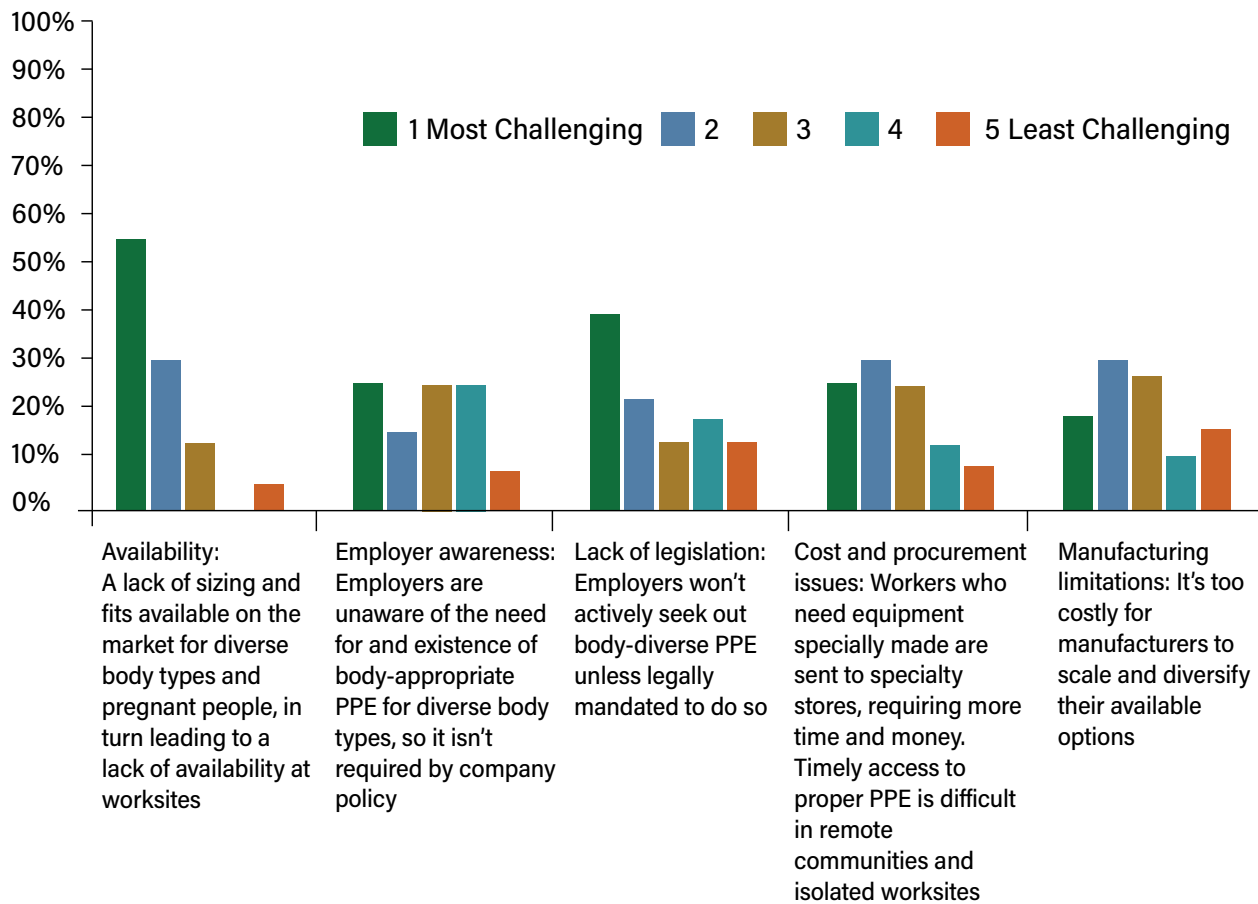
- (a) Build a central repository of available PPE
- (b) Launch industry partnerships with manufacturers to educate them on PPE needs for diverse body types
- (c) Allow a group of end users to test new products
- (d) Generate new designs through college competitions and apprenticeships
- (e) Deploy mobile units to fit PPE to workers

Appendix F – Survey Results

Top performing answers are calculated by adding respondent numbers from the scores of 1 and 2.

Question 1: What are the primary challenges in accessing properly fitting PPE? Rank from 1 (most challenging) to 5 (least challenging)

Answered: 24 Skipped: 1



Most challenging in accessing properly fitted PPE

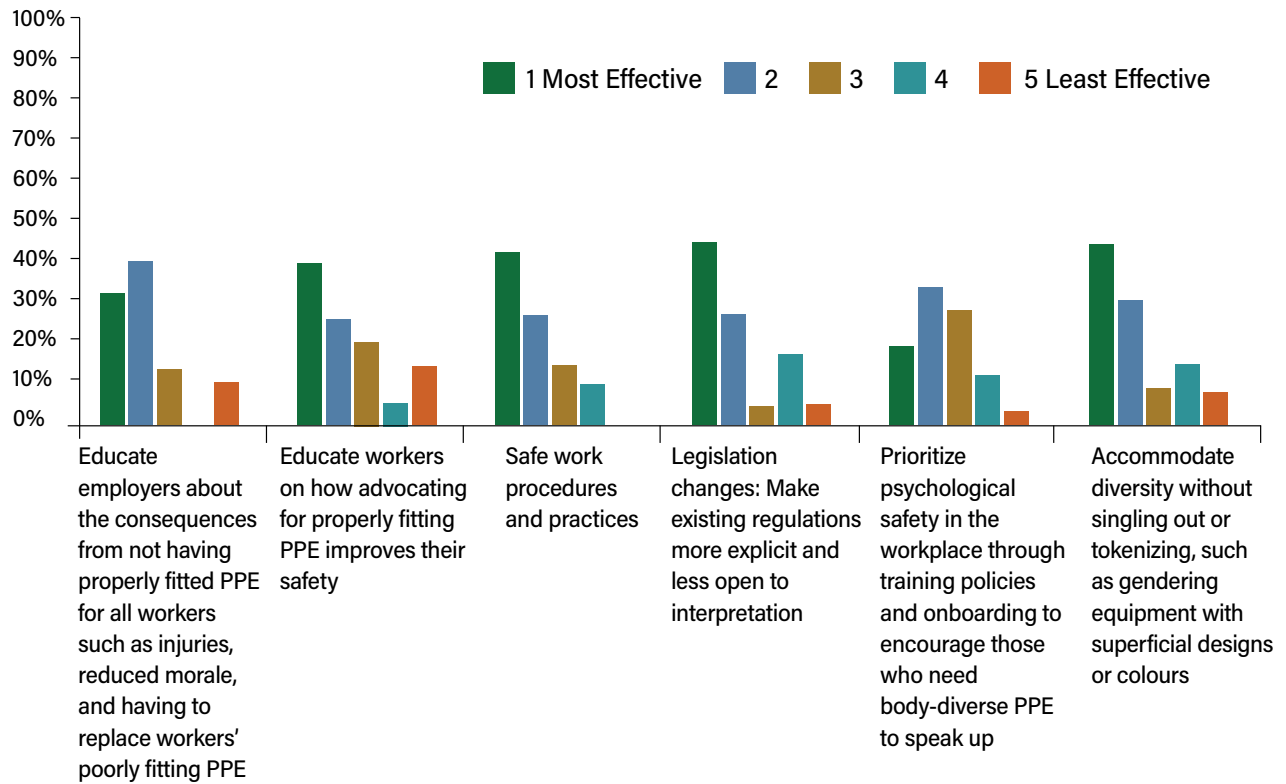
Availability: lack of sizing and fits available on the market for diverse body types and pregnant people, in turn leading to a lack of availability at worksites
(83% of people rated this either a 1 or 2)

Lack of legislation: employers won't actively seek out body-diverse PPE unless legally mandated to do so
(58% of people rated this either a 1 or 2)

Question 2: What would increase the uptake and usage of properly fitting PPE? Rank from 1 (most effective) to 5 (least effective)

Answered: 25

Skipped: 0



Most effective

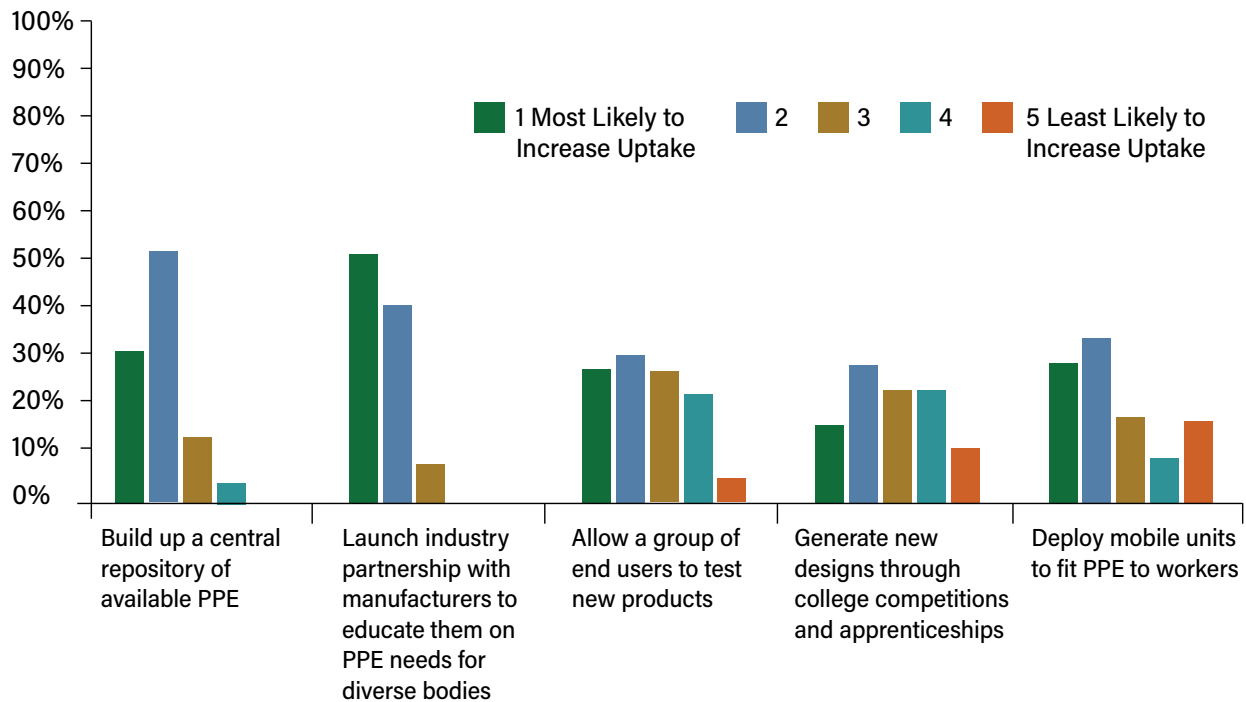
Educate employers about the consequences from not having properly fitted PPE for all workers such as injuries, reduced morale, and having to replace workers' poorly fitting PPE
(72% of people rated this either a 1 or 2)

Legislation changes: Make existing regulations more explicit and less open to interpretation
(68% of people rated this either a 1 or 2)

Accommodate diversity without singling out or tokenizing, such as gendering equipment with superficial designs or colours
(68% of people rated this either a 1 or 2)

Question 3: Rank these potential pilot projects from 1 (most likely to increase uptake of properly fitting PPE) to 5 (least likely to increase uptake of properly fitting PPE)

Answered: 25 Skipped: 0



Most likely to increase uptake

Launch industry partnerships with manufacturers to educate them on PPE needs for diverse bodies
(92% of people rated this option a 1 or 2)

Build up a central repository of available PPE
(84% of people rated this either a 1 or 2)