

Formative Assessment of the Information Needs To Prevent Work-related Musculoskeletal Disorders and Falls  
among Aging Retail Workers

Supporting Statement-Section A

OMB No. 0920-1154

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## List of Attachments

- I. Signed NIOSH IRB Determination Form
- II. Protocol for older retail workers
- III. Protocol for younger retail workers
- IV. Protocol for retail employers
  
- V.

- **Goals of the project:** To develop communication products to prevent work-related musculoskeletal disorders (WMSDs) and falls among aging retail workers.
- **Intended use of the resulting data:** Internal use to develop communication products on WMSDs and falls for retail workers
- **Methods to be used to collect data:** Focus Group
- **The subpopulation to be studied:** Employees and Employers from small and large retail businesses
- **How data will be analyzed:** Qualitative analysis will be performed to examine themes and major topics mentioned by focus group participants.

## Section A-Justification

### 1. Circumstances making the collection of information necessary

#### Background

The retail trade accounts for about 10 percent of the U.S. labor force. In 2017, approximately 16.7 million people were employed in retail, with 21% of these workers 55 years and older.<sup>1</sup> For many people, a job in the retail sector represents their initial entry into the workforce, as well as their last place of work as older workers who are phasing out of the workforce or re-entering it after retirement. Retail workers are exposed to a wide variety of work activities and hazards that can contribute to work-related musculoskeletal disorders (WMSDs) (e.g., bending, lifting, carrying) and slips, trips and falls (STFs) (e.g., walking on slippery surfaces, poor lighting).

WMSDs and injuries from STFs are a major health and economic burden on workers and their employers.<sup>2,3</sup> WMSDs include cases when the event or exposure leading to the injury or illness is overexertion and bodily reaction, which can be caused by repetitive motion, awkward postures, excessive force, and vibration. In 2014, the musculoskeletal injury rate was 35.3 per 10,000 full-time retail workers while the rate of falls was 17.3 per 10,000. Although there has been a reduction in the number of injuries over time, the injury rate in the wholesale and retail trade (WRT) is still higher than the average of all industries (31.9 per 10,000 full-time workers in 2014). However, there has been a gradual increase in the rate of STFs over time. STFs are the third most common cause of lost-workday injuries in WRT establishments. Seventy-five percent of STF injuries in WRT occur at same-level (not from a higher level). Recent research indicates that there is a higher frequency of same-level fall injuries at work among older workers relative to younger workers.<sup>4</sup>

As the U.S. workforce continues to age, there is an increasing need to create age-friendly workplaces<sup>5</sup>—work settings that sustain the physical and psychosocial safety all of workers as they get older. Although there are some sources of guidance with regard to preventing WMSDs and STFs in the retail sector,<sup>6,7</sup> few, if any, of these resources incorporate a perspective focusing on the needs of an aging workforce. The translational materials that are developed for this project will provide (a) educational information regarding the impact of aging on worker safety in the retail sector, and (b) evidence-based recommendations regarding the prevention of WMSDs and STFs.

This data collection is being conducted using the Generic Information Collection OMB No. 0920-1154. A private contractor, working with NIOSH researchers, will recruit focus group participants, conduct the focus groups, and write a report that summarizes major findings regarding the prevention of WMSDs and STFs in an aging workforce.

## 2. Purpose and Use of the Information Collection

The purpose of conducting these formative research focus groups is to improve the researchers' understanding of workers' and employers' knowledge of WMSDs, STFs, activities and factors that lead to WMSDs and STFs, how workers deal with injuries, information workers have already received about WMSDs and falls, and how experience and attitude towards WMSDs and STF injuries change with age. This information will inform the development of draft educational materials and resources for older retail workers.

Six focus groups with up to 9 participants each will be conducted by the contractor. The six focus groups will consist of:

- Older (55 years and older) workers in small businesses (<50 employees)
- Young and middle-aged workers (less than 55 years and old) in small businesses
- Older workers (55 years and older) in large businesses (≥50 employees)
- Young and middle-aged workers (less than 55 years and old) in larger businesses
- Retail trade employers/managers in large businesses
- Retail trade employers/managers in small businesses

Questions in the focus group questionnaire ask respondents to provide feedback on the following topics (also see attachment II, III and IV):

1. **Knowledge about and experience with WMSDs** (experience with muscle and joint pain, cause of injury, situation where they are more likely to experience pain)
2. **Safety and Prevention Perceptions** (things they do to prevent pain, barriers faced when trying to avoid pain, training and information to prevent muscle and joint pain, what guidelines around work organization are important to preventing injuries)
3. **Aging in the workplace** (changes that affect how they do their job, perception and stereotypes associated with age)
4. **Information needs and recommendations** (where do they get information about WMSD and fall injuries and how to prevent them, what information or training would help most to avoid WMSD pain because of work)

## 3. Use of Improved Information Technology and Burden Reduction

The focus groups will include workers and employers from the retail industry. A contractor will recruit employers and employees for focus group participation. Individuals who would like to volunteer will be selected based on the eligibility criteria of the focus group (age group and occupation). The focus groups will

be audio recorded and transcripts will be generated by the contractor. Both audio tape and transcripts will be given to NIOSH. The focus group will have a number of female workers that represent the female proportion of the worker population in the retail sector. The contractor will recruit potential participants from pre-existing lists of employers and workers in the retail sector; therefore, no personally identifiable information (PII) will be collected nor will be provided to NIOSH. All the information collected will be used internally for product development and improvement purposes.

#### **4. Efforts to Identify Duplication and Use of Similar Information**

Information about WMSDs and STFs in aging retail workers in the United States is lacking. A limited number of studies have examined WMSDs and STFs in workplaces, including the retail industry, but information is needed about these hazards in aging retail workers. In the past 10 years, there have been several research studies that have identified and summarized recommendations for engineering, administrative, and personal protective approaches for preventing and reducing WMSDs and STFs.<sup>3,6,8,9</sup> But none of these solutions has focused on the specific needs and challenges that come with an aging workforce. As a result, The NIOSH National Occupational Research Agenda Wholesale and Retail Trade (WRT) Sector program established the goal of better understanding how WMSDs and STFS can be prevented in older workers, and then developing educational materials that effectively communicates that knowledge to both employers and workers.

#### **5. Impact on small Businesses or other small entities**

Small Businesses will be directly involved in this information collection as small retail business managers and employees are the targeted participants. The questions have been held to the absolute minimum required for the intended use of the information. Workers from small businesses will be approached in the same manner as the individuals from large businesses.

Nearly, 40% of retail employees work for small businesses.<sup>10</sup> This project will develop cost-effective *Workplace Solutions (WPS)* documents and other communication products, including a webpage on “Older retail workers” that is intended to benefit companies of all sizes. Some of the recommendations contained in these products will describe prevention strategies that are cost-effective for small businesses, many of which lack the resources to carry out interventions that require a great deal of money or staff to implement.

#### **6. Consequences of collecting the information less frequently**

This request is for a one-time data collection. There are no legal obstacles to reducing the burden. This formative research will aid in the understanding of the information needs to prevent WMSDs and STFs in aging retail workers. Data will be used to inform the development of draft educational products to aid in awareness and prevention. Without this focus group data, knowledge gaps will not be identified and researchers will not have adequate information to develop effective educational materials for aging retail workers.

#### **7. Special Circumstances Relating to the Guidance of 5 CFR1320.5**

There are no special circumstances with this information collection package. This request fully complies with the regulation 5 CFR 1320.5.

**8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency**

The Federal Registry Notice was published for this collection on July 18, 2016, Vol. 81, No. 137, pp. 46680. No public comments were received.

**9. Explanation of Any Payment or Gift to Respondents**

Focus group participants will be given an incentive up to \$40 as a token of appreciation, and in order to compensate participants for their time and anticipated travel costs to the site where the focus group will take place.

**10. Protection of the Privacy and Confidentiality of Information Provided by Respondents**

This submission has been reviewed by the NIOSH Privacy Officer, who has determined that the Privacy Act does not apply because no personal identifiable information will be collected. This data collection is not research involving human subjects by NIOSH Acting Associate Director of Science.

Participation in the focus groups is voluntary. Participants will be provided with an informed consent form prior to the start of focus group and will be allowed to ask questions about the project before deciding whether to participate or not. The consent form describes the purpose of the project, how the information they provide will be used and describes protections for the participant's privacy and confidentiality. The contractor will recruit potential participants from pre-existing lists of personnel; therefore, no new personally identifiable information (PII) will be collected.

**11. Institutional Review Board (IRB) and Justification for Sensitive Questions**

No information will be collected that is of a personal or sensitive nature. The proposed data collection was reviewed by NIOSH Acting Associate Director for Science that this is non-research project and does not need further IRB review. Please see the attached NIOSH IRB determination form (Attachment I).

**12. Estimated of Annualized Burden Hours and Costs**

Each focus group will be of 90 minutes and will have up to 9 participants. The median hourly wage is estimated to be \$11.70 for retail sales workers based on the most recent (May 2018) National Occupational Employment and Wage Estimates for all occupations, published on the Bureau of Labor Statistics website:

<https://www.bls.gov/ooh/sales/retail-sales-workers.htm>

Table A.12.A

The annualized response burden is estimated at 81 hours.

Annualized Burden Hours

A.12.B Annualized Cost to Focus Group Participants

Type of Respondent	Form Name	Number of Respondents	Number of Responses per Respondent	Average Hours Per Response	Total Response Burden (Hours)
Retail Workers	Young Workers	18	1	1.5	27
Retail Workers	Older workers	18	1	1.5	27
Retail Employers	Employers	18	1	1.5	27
Total					81

Activity	Total Burden Hours	Hourly Wage Rate	Total Respondent Cost
Focus Group	81	\$11.94	\$967.14

### 13. Estimates of Other Total Annual Cost Burden to Respondents and Record Keeping

There are no other costs to focus group participants or record keepers. There will be no direct cost to the focus group participants other than their time to participate in the data collection activity.

### 14. Annualized Cost to the Government

Expense Type	Expense Explanation	Annual Costs (dollars)
Direct Costs to the Federal Government		
	CDC Project Officer (GS-12, 0.05 FTE)	\$4,134
	CDC Project Officer (GS-14, 0.02 FTE)	\$2,832

	Subtotal, Direct costs	\$6,966
Cooperative Agreement or Contract	Contracts	\$35,805
	TOTAL COST TO THE GOVERNMENT	\$42,771

### 15. Explanation for Program Changes or Adjustments

This is a new information collection request, therefore program changes and adjustments do not apply.

### 16. Plans for Tabulation and Publication and Project Time Schedule

Date	Item Description
July 2019	<ul style="list-style-type: none"> <li>• Project determined to be non-research by NIOSH official.</li> <li>• Receive OMB approval</li> </ul>
August 2019	Task 1: Develop project plan and recruitment for focus groups sessions
December 2019	Task 2: Prepare interview protocols for six focus groups that address experiences with and knowledge of workplace musculoskeletal disorders (WMSDs) and STFs in retail, and conduct up to two pilot test focus group sessions.
October 2020	Task 3: Conduct focus group interviews to collect employer and employee input on WMSDs and STFs associated with manual materials handling in the retail sector.
April 2021	Task 4: Conduct qualitative analysis of information

	collected during the focus groups and write a report summarizing major findings.
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**17. Reason(s) Display of OMB Expiration Date is Inappropriate**

The OMB Expiration Date will be displayed.

**18. Exceptions to Certification for Paperwork Reduction Act Submissions**

There are no exceptions to the certification. These activities comply with the requirements in 5 CFR 1320.9.

1. CPS. Labor Force Statistics from the Current Population Survey. 2018; <https://www.bls.gov/cps/cpsaat18b.htm>. Accessed 2/6/2018, 2018.
2. Anderson VP, Schulte PA, Sestito J, Linn H, Nguyen LS. Occupational fatalities, injuries, illnesses, and related economic loss in the wholesale and retail trade sector. *American journal of industrial medicine*. 2010;53(7):673-685.
3. NIOSH. *Injuries, Illnesses and Fatalities in Wholesale and Retail Trade in 2005: Chartbook*. 2005.
4. Scott KA, Fisher GG, Barón AE, Tompa E, Stallones L, DiGuseppi C. Same-level fall injuries in US workplaces by age group, gender, and industry. *American Journal of Industrial Medicine*.n/a-n/a.
5. De Guzman AB, Amrad HN, Araullo RCG, Cheung HBOJ. A structural equation modeling of the factors affecting an age-friendly workplace. 2014;40(6):387-400.
6. Afanuh S, Anderson VP, Bell J. Preventing slips, trips, and falls in wholesale and retail trade establishments.
7. WorkSafeBC. *Health and Safety Guide for New Retail Workers*. 2012.
8. Hsiao H. A TOTAL WORKER SAFETY APPROACH FOR PREVENTING SLIPS, TRIPS, AND FALLS.
9. Anderson VP. Ergonomic solutions for retailers: prevention of material handling injuries in the grocery sector. 2014.
10. National Retail Federation. *The economic impact of the U.S. retail industry*. 2014.