



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

Print Date: 10/3/23

**Title:** Data collection, analysis, and dissemination regarding management and use of respirators in the workplace

**Project Id:** 0900f3eb81c5837d

**Accession #:** NIOSH-TRB-12/15/20-5837d

**Project Contact:** Emily J Haas

**Organization:** NIOSH/NPPTL/TRB

**Status:** Pending Regulatory Clearance

**Intended Use:** Project Determination

**Estimated Start Date:** 07/24/2020

**Estimated Completion Date:** 09/30/2024

**CDC/ATSDR HRPO/IRB Protocol #:**

**OMB Control #:**

## Determinations

Determination	Justification	Completed	Entered By & Role
HSC: Does NOT Require HRPO Review	Not Research - Public Health Surveillance <i>45 CFR 46.102(1)(2)</i>	2/6/21	Moore_Susan M. (sme6) Division HSC
PRA: PRA Applies		1/24/23	Sawyer Deloney_Tamela (tqs7) OMB / PRA

## Description & Funding

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### Description

**Priority:** Standard

**Determination Start Date:** 12/15/20

**Description:**

NPPTL executes NIOSH's Respirator Approval Program. A comprehensive effort to ensure the effectiveness of respiratory protective equipment requires an ongoing understanding of the types of establishments that purchase respirators, the types of jobs and occupations that use respirators, why respirators are used, whether they are used properly to optimize worker safety and health, and how they are managed in the workplace. Surveillance plays an important role in obtaining the above information. In 2001, NIOSH partnered with the Bureau of Labor Statistics to conduct a survey of respirator management and use, estimate the numbers of U.S. establishments and workers who rely on respirators, and determine why and how respirators were used. Twenty years after the initial survey, OSHA is collaborating with NIOSH to fund the development and administration of another national survey similar to that of the BLS, to update surveillance practices around respirator management and use.

**IMS/CIO/Epi-Aid/Lab-Aid/Chemical Exposure Submission:** Yes

**IMS Activation Name:** 2019 Novel Coronavirus Response

**Primary Priority of the Project:** Prevention, mitigation, and intervention strategies

**Secondary Priority(s) of the Project:** Not selected

**Task Force Associated with the Response:** Health Systems and Worker Safety

**CIO Emergency Response Name:** Not selected

**Epi-Aid Name:** Not selected

**Lab-Aid Name:** Not selected

**Assessment of Chemical Exposure Name:** Not selected

**Goals/Purpose** The goal of the survey is to derive national estimates of worker exposure to hazardous atmospheres and respirator use and management for targeted U.S. industries and occupations.

**Objective:** For targeted U.S. industries, the survey will measure: 1) Prevalence of hazardous atmospheres 2) Pattern of non-respirator and respirator mitigation strategies 3) # employees using what types of respirators 4) How respirators are managed 5) Opportunities for improving respirator technologies

**Does your project measure health disparities among populations/groups experiencing social, economic, geographic, and/or environmental disadvantages?:** Not Selected

**Does your project investigate underlying contributors to health inequities among populations /groups experiencing social, economic, geographic, and/or environmental disadvantages?:** Not Selected

**Does your project propose, implement, or evaluate an action to move towards eliminating health inequities?:**

Not Selected

**Activities or Tasks:**

New Collection of Information, Data, or Biospecimens

**Target Populations to be Included/Represented:**

Businesses

**Tags/Keywords:**

Air Pollutants, Occupational ; Occupational Health ; Personal Protective Equipment

**CDC's Role:**

Activity originated and designed by CDC staff, or conducted at the specific request of CDC, or CDC staff will approve study design and data collection as a condition of any funding provided

**Method Categories:**

Analytic Services (can be data/specimen TA for non-research, research, investigations); Secondary Data Analysis; Surveillance Support; Technical Assistance

**Methods:**

U.S. industries where there is a known or suspected exposure to hazardous airborne contaminants will define the sampling scope of the survey. Limiting the sampling scope to industries in which a known or suspected exposure to airborne contaminants exists minimizes the chance of surveying respondents that have no reason to use respiratory protection. Surveillance data sources will be purchased and identified via web scraping to define the sampling scope. Within the scope of industries identified, the survey will be used to estimate the extent to which hazardous atmospheres are present and the extent to which non-respirator hazard control techniques are used to mitigate airborne hazards. Asking these questions allows us to understand the hazard control portfolio used in industries. The survey will also be used to estimate the number of employees using respirators and the amount of time respirators are used. NIOSH-Approved respirator use information will be delineated into the following categories: elastomeric air-purifying respirators, powered air-purifying respirators, NIOSH approved filtering facepiece respirators, air-supplied respirators, and self-contained breathing apparatuses. In addition, the survey will ask respondents about how respirators are managed in their workplaces according to the following: how respirators are selected, how fit testing is conducted, how medical fitness assessment is conducted, how training is administered, how respirators are maintained, and the respirator protection program. The survey will also ask respondents their perspectives regarding how respirator technologies may be improved. These questions will be gathered in an open-ended question format in relation to the following: new respirator technologies that would be beneficial; the usability/ease of use of respiratory protection; comfort and fit; supply; and durability. This surveillance activity will provide support and direction to improve NIOSH's respirator approval program for several NIOSH-Approved respirators.

**Collection of Info, Data or Biospecimen:**

OSHA contractors Abt will oversee all aspects of the survey administration and data collection. OSHA's primary mission is protect the safety and health of U.S. workers - respiratory protection has played a significant role in worker protection over the last two years. While OSHA funded contractors will oversee survey administration and data collection, CDC/NIOSH is responsible for OMB/PRA clearances related to this project and all the labor market statistics they obtain as a component of their congressional mandate. This project will derive data that becomes a part of the historical record of U.S. labor market statistics. The methodological approach necessary to produce the desired outcomes include the following. Key informants provided information specific to their establishment's management and use of respirators under a formerly funded activity with DOL/BLS. The survey that was developed was subject to cognitive/psychological assessment that measured both effort and question understandability. Using the cognitively tested survey, questions will be administered via an internet-based questionnaire by OSHA's contracted vendor. The survey introduction includes a list of definitions and pictures associated with each type of respirator that will be asked about throughout the survey. Within the survey itself where a question is asked about a type of respirator, a pop-up will provide the picture and definition when hovered over. This process will ensure that a common understanding of each type of respirator is held by each respondent that takes the survey. The sample size required to derive reliable national estimates by industrial sector is approximately 80,000. As many samples as possible will be solicited to respond to the survey, given that it is voluntary and there is a potential for

nonresponse. In order to increase the response rate respondents will be assured anonymity, the process includes temporary subcontracted staff hired by Abt to follow-up with (through telephone) prospective respondents, and resampling will also be considered if necessary.

Dissemination of the survey results will be primarily accomplished through a jointly published NIOSH and OSHA report. This publication will be consistent with the primary dissemination effort from the 2001-2003 survey (Bureau of Labor Statistics (BLS) /National Institute for Occupational Safety and Health (NIOSH): Respirator Usage in Private Sector Firms, 2001. Washington, D.C.: BLS, 2003). In addition, researchers will publish the results in peer-reviewed and industry-specific trade journals and present the findings at academic and professional conferences, through partnerships with industry, trade, and labor groups, and directly to partner federal/state governmental organizations. Knowledge from this survey should help guide future programmatic resource allocation applicable during routine and emergency situations such as research and development programs, enforcement/education /awareness initiatives, hazard mitigation interventions, supply planning, and respiratory protection product assessment and development initiatives.

**Expected Use of Findings/Results and their impact:**

**Could Individuals potentially be identified based on Information Collected?** No

## Funding

Funding yet to be added .....

## HSC Review

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### HSC Attributes

**Program Evaluation** Yes

### Additional Ethical Considerations

NPPTL executes NIOSH's Respirator Approval Program. A comprehensive effort to ensure the effectiveness of respiratory protective equipment requires an ongoing understanding of the types of establishments that purchase respirators, the types of jobs and occupations that use respirators, why respirators are used, whether they are used properly to optimize worker safety and health, and how they are

managed in the workplace. Surveillance plays an important role in obtaining the above information. In 2001, NIOSH partnered with the Bureau of Labor Statistics to conduct a survey of respirator management and use, estimate the numbers of U.S. establishments and workers who rely on respirators, and determine why and how respirators were used. Twenty years after the initial survey, NIOSH seeks to again collaborate with the BLS to administer a national survey of respirator management and use. NIOSH meets the definition of a public health authority. This work will allow NIOSH to identify and assess conditions of public health importance related to consumer products, specifically respirators.

## **Regulation and Policy**

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**Do you anticipate this project will need IRB review by the CDC IRB, NIOSH IRB, or through reliance on an external IRB?**      No

**Estimated number of study participants**

**Population - Children**

Protocol Page #:

**Population - Minors**

Protocol Page #:

**Population - Prisoners**

Protocol Page #:

**Population - Pregnant Women**

Protocol Page #:

**Population - Emancipated Minors**

Protocol Page #:

**Suggested level of risk to subjects**

**Do you anticipate this project will be exempt research or non-exempt research**

## Requested consent process wavers

Informed consent for adults	No Selection
Children capable of providing assent	No Selection
Parental permission	No Selection
Alteration of authorization under HIPPA Privacy Rule	No Selection

## Requested Waivers of Documentation of Informed Consent

Informed consent for adults	No Selection
Children capable of providing assent	No Selection
Parental permission	No Selection

## Consent process shown in an understandable language

Reading level has been estimated	No Selection
Comprehension tool is provided	No Selection
Short form is provided	No Selection
Translation planned or performed	No Selection
Certified translation / translator	No Selection
Translation and back-translation to/from target language(s)	No Selection
Other method	No Selection

## Clinical Trial

Involves human participants	No Selection
Assigned to an intervention	No Selection
Evaluate the effect of the intervention	No Selection
Evaluation of a health related biomedical or behavioral outcome	No Selection
Registerable clinical trial	No Selection

## Other Considerations

Exception is requested to PHS informing those bested about HIV serostatus No Selection

Human genetic testing is planned now or in the future No Selection

Involves long-term storage of identifiable biological specimens No Selection

Involves a drug, biologic, or device No Selection

Conducted under an Investigational New Drug exemption or Investigational Device Exemption No Selection

## Institutions & Staff

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### Institutions

Name	FWA #	FWA Exp Date	IRB Title	IRB Exp Date	Funding #
U.S. Bureau of Labor Statistics					
Occupational Safety and Health Administration					

### Staff

Staff Member	SIQT Exp. Date	CITI Biomedical Exp. Date	CITI Social & Behavioral Exp. Date	CITI Good Clinical Practice Exp. Date	Staff Role	Email	Phone	Organization
Patrick Yorio	08/08/2026	10/22/2021		02/02/2024	Project Officer	wjc8@cdc.gov	412-386-5568	TECHNOLOGY RESEARCH BRANCH

## Data

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### DMP

Proposed Data Collection Start Date: 8/1/23





Current	CDC Staff Member and Role	Date Added	Description	Supporting Info Type	Supporting Info
	Haas_Emily (wcq3) Project Contact	01/24/2023	Statement of work provided by OSHA to contract with Abt on survey data collection	Statement of Work	SOW_AbtSRUP_1.18.23.docx
	Yorio_Patrick (wjc8) Project Contact	12/15/2020	The attached file provides documentation regarding NIOSH's determination of this project as non-research.	Other-NIOSH IRB Determination Form	19 - Data collection, analysis, and dissemination regarding management and use of respirators in the workplace (Yo. pdf



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