

Increasing the Impact of NIOSH Heat Stress Products in Outdoor Worker Populations

CDC/ATSDR Formative Research and Tool Development

0920-1154

Part A

Brenda Jacklitsch, PhD, MS
Research Health Scientist
CDC/NIOSH
1090 Tusculum Avenue, MS C-10
Cincinnati, OH 45226
(513)533-8369
gwe6@cdc.gov

Contents

1. Circumstances making the collection of information necessary.....	3
2. Purpose and Use of the Information Collection.....	3
3. Use of Improved Information Technology and Burden Reduction.....	4
4. Efforts to Identify Duplication and Use of Similar Information.....	4
5. Impact on small Businesses or other small entities.....	4
6. Consequences of collecting the information less frequently.....	4
7. Special Circumstances Relating to the Guidance of 5 CFR1320.5.....	5
9. Explanation of Any Payment or Gift to Respondents.....	5
10. Assurance of Confidentiality Provided to Respondents.....	5
11. Justification for Sensitive Questions.....	5
12. Estimates of Annualized Burden Hours and Costs.....	5
13. Estimates of Annualized Respondent Capital and Maintenance Costs.....	6
14. Estimates of Annualized Costs to the Government.....	6
15. Explanation for Program Changes or Adjustments.....	6
16. Plans for Tabulation and Publication and Project Time Schedule.....	7
17. Reason(s) Display of OMB Expiration Date is Inappropriate.....	7
18. Exceptions to Certification for Paperwork Reduction Act Submissions.....	7

List of Attachments

Attachment A- Authorizing Legislation

Attachment B- Focus Group Guide for Supervisors

Attachment C- Focus Group for Employees (English and Spanish)

Attachment D- Training for Employers Pre-Test

Attachment E- Training for Employers Post-Test

Attachment F- IRB Determination

Attachment G- Recruitment and Consent Scripts (English and Spanish)

I.

A. Justification

1. Circumstances making the collection of information necessary

Background

The Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH) seeks approval from the Office of Management and Budget (OMB) to conduct focus groups with outdoor workers and their employers who are at risk for heat-related illnesses. Additionally, the NIOSH project team plans to conduct pre/post-tests with outdoor employers as they review a draft heat stress online training. Focus group discussions and the pre/post-tests will be conducted by a contractor for the National Institute for Occupational Safety and Health (NIOSH).

Heat stress continues to be a serious hazard for outdoor workers. There is a need to better understand how to create key messages on heat stress prevention that resonate with target audiences, improving message uptake and effectiveness, leading to adoption of improved behaviors to reduce heat-related illness. An approach that includes target audience feedback will help in creating more effective communication products for outdoor workers and their supervisors, as appropriate health message testing may greatly improve adoption of targeted communication efforts. Past NIOSH heat products have relied on technical information and plain language reiterations for improvements, however, pinpointing additional weaknesses will help improve product usability and effectiveness. This study intends to gain a better understanding of how existing knowledge and recommendations regarding occupational exposure to heat in outdoor environments are used by workers and employers, so that these products can be better targeted to and adopted by small business owners and workers in the construction and landscaping industries.

A private contractor, working with NIOSH researchers, will recruit focus group and online training pre/post-test participants, conduct the focus groups and online training tests, and provide information to NIOSH that summarizes major findings.

2. Purpose and Use of the Information Collection

The purpose of this study is to gain a better understanding of how existing recommendations regarding occupational exposure to heat in outdoor environments are used by workers and employers, so that these products can be better targeted to and adopted by small business owners and workers in the construction and landscaping industries. The study will assess the use, understanding, and perceived utility of current or in-development NIOSH heat products:

- 1) OSHA-NIOSH Heat Safety Tool App,
- 2) NIOSH Infographic: Protect your workers from heat stress,
- 3) NIOSH Fast Facts: Protecting Yourself from Heat Stress, and
- 4) Draft NIOSH Heat Stress Prevention Training for Employers of Outdoor Workers (in development/unpublished).

The study will use focus group questions to acquire a better understanding of what message formats translate best to target audiences. In turn, this information will allow NIOSH researchers to hone future development of new heat stress prevention products and make relevant updates to enhance the effectiveness of existing products for employers. Maximize their impact, and improve the health and safety of outdoor workers.

This project will be conducted in three phases:

Phase 1

Phase 1 will use focus groups for health message testing of existing NIOSH heat stress prevention products. Relevant and previously cognitively-tested questions will be used to assess employer and worker attitude toward perceived barriers to adoption of recommendations, and understanding of HRI-related health messages. Specific questions will be evaluated for specificity and suitability by NIOSH and study partners, prior to inclusion in the focus groups

Phase 2

Phase 2 will use findings from Phase 1 to revise NIOSH products. Upon completion of Phase 1 focus groups and analysis, qualitative findings will be used to make informed and responsive revisions to the current NIOSH heat stress prevention communication products and the NIOSH Heat Stress Prevention Training for Employers of Outdoor Workers online training module.

Phase 3

Focus groups for health message testing of revised NIOSH heat stress products will be conducted, similarly, to focus groups in Phase 1. Phase 3 will also evaluate the draft NIOSH Heat Stress Prevention Training for Employers of Outdoor Workers online training using a pre/post-test design to determine if learning objectives have been met and participant knowledge on heat stress and HRIs improved and was retained.

3. Use of Improved Information Technology and Burden Reduction

The focus groups will include outdoor workers and their employers, and the pre/post-tests will include employers of outdoor workers. A contractor will recruit for participation. Individuals who would like to volunteer will be selected based on the eligibility criteria (e.g., age, location, language, gender, employment). The contractor will recruit potential participants from pre-existing lists; 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

No similar information has been gathered by or maintained by NIOSH or other Federal agencies and are not available from other known sources.

5. Impact on small Businesses or other small entities

Workers from small business or other small entities may be involved in these efforts but the contractor will minimize the burden on them during information collections by scheduling focus groups and pre/post-test dates and times that are convenient for participants, asking for readily available information, and using short, easy-to-complete information collection instruments. The burden on respondents has been minimized by the use of an efficient and effective focus group guide.

6. Consequences of collecting the information less frequently

Health message testing might take place at more than one point in a campaign. If the message is not tested, time and money may be wasted developing materials that cannot achieve the health communication objective. Subsequently, if draft materials and messages are not tested, poor execution can undercut a good concept. Each activity will be treated as a separate, one-time study with different respondents. Rarely will information be collected more than once from any given respondent.

There are no legal obstacles to reduce the burden.

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

a) Federal Register Notice

A 60-day Federal Register Notice was published in the Federal Register on Tuesday, July 22, 2022, Volume 87, No. 140, Page(s) 43860-43861.

b) Outside Consultation

The project concept has been shared and discussed with multiple external partners, including: CPWR (a construction stakeholder), Associated General Contractors of America (AGC), Worker Injury Prevention Program, California Department of Public Health, Northeastern University - Center for Work, Health, & Well-being, and the Professional Grounds Management Society.

9. Explanation of Any Payment or Gift to Respondents

Participants will be provided remuneration of \$40 cash as an incentive to encourage participation.

10. Assurance of Confidentiality Provided to Respondents

The NIOSH Information Systems Security Officer reviewed this submission and determined that Privacy Act does not apply because no personal identifiable information will be collected. This data collection was determined to be not research involving human subjects by the NIOSH Division of Science Integration Associate Director of Science.

Participation is voluntary. Participants will be provided with an informed consent form prior to the start of 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 participants 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. Justification for Sensitive Questions

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

12. Estimates of Annualized Burden Hours and Costs

Response burden and cost for each type of message testing method are summarized in Table A12A and Table A12B.

Each of the 36 focus group (18 per two study phases) will be up to 90 minutes and will have up to 9 participants.

Table A12A Estimated Annualized Burden Hours

Type of Respondents	Form Name	No. of Respondents per Method	No. of Responses per Respondent	Average Burden per Response (hours)	Total Burden Hours
Supervisors of Outdoor Workers	Focus Group Guide for Supervisors	108	1	1.5	162
Outdoor Workers	Focus Group for Employees (English and Spanish)	216	1	1.5	324
Supervisors of Outdoor Workers	Training for Employers Pre-Test	45	1	20/60	15
Supervisors of Outdoor Workers	Training for Employers Post-Test (Time 1 & 2)	45	2	20/60	30
Supervisors of Outdoor Workers	Consent Form for Training	45	1	10/60	8
Total		459	-	-	539

Table A12B Estimated Annualized Cost Hours

Data Collection Methods	No. of Respondents per Method	No. of Responses per Respondent	Average Burden per Response (hours)	Total Burden Hours	Hourly Wage Rate	Total Respondents Cost
Focus Groups (Supervisors)	108	1	1.5	162	\$25.00	\$4,050.00
Focus Groups (Outdoor Workers)	216	1	1.5	324	\$15.50	\$5,022.00
Pre Test (Supervisors)	45	1	.333	15	\$27.00	\$405.00

Post Tests (Supervisors)	45	2	.333	30	\$27.00	\$810.00
Supervisors	45	1	.166	8	\$25.00	\$200.00
Total						\$10,487.00

13. Estimates of Annualized Respondent Capital and Maintenance Costs

There is no estimate of respondent capital and maintenance costs.

14. Estimates of Annualized Costs to the Government

Expense Type	Expense Explanation	Annual Costs (\$)
Direct Costs to the Federal Government		
	CDC Project Officer (GS-13, 0.05 FTE)	\$6,935
	CDC Project Officer (GS-14, 0.02 FTE)	\$3,333
	CDC Project Officer (GS-14, 0.02 FTE)	\$3,333
	<i>Subtotal, Direct costs</i>	\$13,601
Cooperative Agreement or Contract	Contracts	\$40,000
	TOTAL COST TO THE GOVERNMENT	\$53,601

15. Explanation for Program Changes or Adjustments

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

16. Plans for Tabulation and Publication and Project Time Schedule

Date	Item Description
January 2022	Received first OMB approval.
February 2022- November 2023	Phase 1 - Focus Groups completed.
July 2023	Phase 1 - Analysis complete.
Beginning August 2023	Phase 3 - Pre/Post-Tests
September 2024	Phase 3 - Analysis complete.

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

No exceptions to the certification statement are being sought.