Evaluation of Occupational Safety and Health Educational Materials for Home Care Workers
0920-10CB

Supporting Statement

PART A

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Table of Contents

A1. Circumstances Making the Collection of Information Necessary

Background

This is a new information collection request from the National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention. The proposed information collection will be used to evaluate an occupational safety and health handbook and training program developed by NIOSH for home care workers (also known as home health aides). This data collection is authorized under the Occupational Safety and Health Act [29 CFR § 671 Sections 20 and 22] (Attachment A).

Home care workers who provide housekeeping and routine personal care services to elderly, disabled or ill individuals in their homes, constitute one of the fastest growing occupational groups, estimated at about 1,500,000 workers [Baron 2009]. It is a low wage job (mean annual wage of under $20,000) and is about 50% minority, Hispanic and/or immigrant workers (Baron 2009). It is also one of the occupations with the highest occupational injury rate. In 1997, the U.S. Bureau of Labor Statistics issued a special report on work-related injuries to home care workers showing an injury rate which was 50% higher than that of workers employed in the private hospital sector and 70% higher than the overall rate for all private industry workers [BLS 1997].

Beginning in 2001, the NIOSH Health Hazard Evaluation program conducted a two year evaluation of safety and health problems among the 10,000 home care workers employed in Alameda County California through their publically funded In-home Supportive Services (IHSS) program. Some key findings from this evaluation were that the workers' housekeeping tasks were as physically stressful as personal care-related tasks such as bathing the clients or lifting and transferring clients (such as from a bed to a chair). This evaluation also found that workers lacked knowledge of and access to many tools and equipment which are readily available and might decrease the physical stress from this job. Other findings were that most home care workers had little or no previous formal job-related training and few training opportunities existed, and also that communication barriers between workers and clients sometimes affected safety [Appendix L]. Other researchers have also documented similar health and safety concerns for home care workers and these findings have been summarized in the recent publication: *NIOSH Hazard Review: Occupational Hazards in Home Healthcare* [NIOSH 2010].

As a result of these findings, NIOSH has developed educational intervention materials for home care workers. The primary goal of these materials is to prevent exposure to work-related hazards for home care workers. By improving worker safety, we also hope to achieve a secondary goal of improving home

care services for the clients. The intervention materials consist of a printed handbook called *Caring for yourself, while caring for others: Practical Tips for Homecare Workers* and a 1 hour training session for home care workers that explains how to use the handbook (Attachment F). The primary goal of the handbook and training session is to help home care workers and their clients identify hazards, discuss these hazards and identify accessible and low cost tips and tools for minimizing exposures to hazards. These materials have been developed and piloted in Alameda County, California. The goal of this data collection is to evaluate these materials before disseminating them more broadly.

Privacy Impact Assessment

Since the evaluation design requires both a pre- and post- intervention survey, we will need to collect identifiable information (IIF) in order to track respondents over the 2 month interval between surveys. Identifiable information to be collected includes name, telephone number(s), and address. The IIF will be collected and maintained by the survey administration contractor and once all data has been collected, the contractor will remove all IIF from the analytic database before transmitting it to NIOSH. The IIF will be destroyed by the contractor once the analytic database (stripped of IIF) has been received and reviewed for completeness by NIOSH. The contractor will maintain a mailing list of participants and their preferred language in order to mail participants a summary of the findings at the conclusion of the evaluation. That mailing list will also be destroyed by the survey contractor once the mailing is complete.

Overview of the Data Collection System

Consenting home care workers who have volunteered to participate will be randomized into either an intervention or a control group. The primary client for each consenting home care workers will also be invited to participate but the clients' willingness to participate will not affect whether a home care worker can remain as a study participate. Both the home care worker and their client will complete two telephone surveys, with a two month interval between the two surveys. The home care worker pre-survey, the home care worker post-survey, the client pre-survey and the client post-survey are all included in Attachment C. For the intervention group the home care workers will receive the intervention materials and training (Attachment F) during the interval between the two surveys. For the control group, the home care workers will receive their intervention materials and training program (Attachment F) after the completion of the post survey. Each telephone survey will last approximately 30 minutes for home care workers and 15 minutes for clients. Because of the demographics of the home care worker population in Alameda County, California, the printed handbook and the training materials (Attachment F) as well as all survey instruments (Attachment C) and all recruitment materials (Attachment D) will be available

in three languages: English, Spanish and Chinese [Howe 2008, East Bay Alliance 2002].

Items of Information to be Collected

Information will be collected on demographic variables (age, sex, race, education, income, primary language, and marital status), work history as a home care workers, and duration of use of care giving by client, working conditions and occupational exposures, work related injuries, health behavior and knowledge of work-related health risks, job and caregiver satisfaction, quality of caregiver and client relationships, and specific questions regarding use of the intervention materials.

Identification of Website(s) and Website Content Directed at Children Under 13 Years of Age

The proposed research will not involve the collection of information through websites, and will not direct any website content at children under 13 years of age.

A2. Purpose and Use of Information Collection

The purpose of this information collection is to evaluate whether or not the intervention materials, the Home Care Worker Handbook and training session (Attachment F), are effective in: 1) conveying the intended message, and 2) encouraging home care workers and their clients to make changes to reduce hazards. Without benefit of the evaluation, CDC will be unable to determine the effectiveness of the materials or formulate recommendations on their appropriate use. CDC has committed funds to make these educational materials available to home care workers and employers and needs this information before initiating broader dissemination.

More specifically, the evaluation will assess whether these educational materials are effective in the following ways:

1) Do they improve home care workers' recognition of work-related hazards?
2) Do home care workers perceive that it is easier to control these hazards after using the intervention materials?
3) Do the materials improve home care workers ability to access information, new work tools or new work practices that promote home care worker safety?
4) Do the materials improve home care workers relationship with their client and, more specifically, do they improve home care workers' and clients' ability to communicate with each other about decreasing work-related hazards?
5) Do they improve home care worker and client satisfaction?

NIOSH, home care employers and State and local agencies will use the information gleaned from this evaluation to determine whether they should invest their limited resources to distribute these materials. This information has practical utility because the evaluation will assess impacts of the materials in a real-world setting, as it is implemented through a county administered home care program in California. Without the information from this evaluation, NIOSH, county home care agencies and others may be squandering local, state and federal dollars on ineffective educational materials. The information from this evaluation will also be used to guide CDC recommendations on the use of these materials, and/or the need for modification. The present study is a randomized experiment on a self-selected sample of home care workers whose clients have also consented to their participation in the program. While the experimental design provides strong internal validity, the self-selected sample from a single county does not provide strong external validity, and CDC recognizes that the findings from this evaluation in Alameda County, California are not applicable to all home care workers throughout the country. However, these results can provide insights on whether the materials CAN have an impact for workers, and thus this study represents an important first step in evaluating the usefulness of the materials.As evidenced by the attached letters of support (Attachment E), both the county agency that administers the home care program and the labor union representing the workers support this effort. These groups have been involved in all stages of the development of the educational intervention materials and are eager to see the product evaluated.

A3. Use of Improved Information Technology and Burden Reduction

We will utilize Computer Aided Telephone Interviewing (CATI) to collect data from respondents within the target audiences. We have chosen telephone interviewing as opposed to in-person interviewing in order to minimize the respondent time investment and travel burden. Furthermore, this process is faster, more convenient, and more accurate than traditional paper surveys, thus reducing the total time needed for each interview.

To improve response rates and to better ensure that only current home care workers and their clients are contacted, we will recruit participants through a mailing to current home care workers who are employed through the Alameda County program (see Attachment D1). Home care workers will then volunteer to participate in the evaluation by returning the home care worker interest response form (Attachment D2) thus assuring a participant group with a higher likelihood of response. Since the evaluation will randomly assign these volunteers to either the intervention or the control population, this approach will promote a good response rate while minimizing the impact of selection bias.

A4. Efforts to Identify Duplication and Use of Similar Information

The current study will not duplicate any existing or past NIOSH work or the work of other agencies. Significant effort was spent prior to beginning this project to look for existing educational materials about workplace hazards targeting home care workers and their clients that had been rigorously evaluated. NIOSH conducted an extensive search on the internet and contacted researchers and state agencies to assess existing materials. NIOSH collaborated in a separate but related project with Leslie Nickels of the University of Illinois, School of Public Health (Lnickels@uic.edu) in a project through which she developed a compendium of existing training curriculum targeting home care and home health care workers. No printed training materials similar to those developed by this project were identified. NIOSH also held local stakeholder meetings in California in November 2007 and November 2008 and participated in a networking meeting of researchers interested in improving home care services in California. At these meetings we obtained input related to the project, including regarding the availability of existing educational materials. (See Attachment B1 for a list of participants).

In a related project, in June 2008 NIOSH convened a meeting of government agencies, home care agency trade organizations, labor unions and academic researchers to discuss training materials related to influenza preparedness for home care workers. While this meeting targeted a specific health and safety concern, NIOSH was able to also gather information regarding the broader need for and gaps in general safety and health training for home care workers (See list of participants in Attachment B1).

Based upon our findings from these meetings and from our research we determined that adequate educational materials were lacking, especially material that had been rigorously evaluated. Therefore, NIOSH has now developed educational intervention materials, the home care worker handbook and training (Attachment F) and this study has been designed to collect the necessary evaluation data. There are no other similar data available and no other evaluation plans for these materials.

A5. Impact on Small Businesses or Other Small Entities

No small business will be involved in this data collection.

A6. Consequences of Information Collected Less Frequently

This request is for a one-time data collection. If this data collection does not take place, federal programs will not be able to determine the effectiveness of the materials that were developed and this will limit future efforts to appropriately disseminate the materials.

A7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This request fully complies with regulation 5 CFR 1320.5.

A8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. A 60-day Federal Register Notice was published in the Federal Register on March 17, 2010 vol.75, No. 51,pp. 12754-56[see **Attachment B]**. There were no comments in response to the Federal Register Notice.

B. NIOSH has consul**ted with numero**us **i**ndividuals and organizations outside the agency regarding the availability and usefulness of existing training materials for home care workers and on the design of the intervention materials and on how to evaluate those materials. Names of participants at these meetings are included in Attachment B1.

November 2007 and November 2008
The project has had 2 local stakeholder meetings

February 2007.
Project consulted with a network of researchers examining various aspects of the California home care program at a meeting at the University of California, San Francisco. This project was presented to the meeting participants for input.

November 2008
In developing the educational materials we held an expert meeting of health communication experts.

June 2008
In a related project, NIOSH held a meeting of home care agencies, stakeholders and experts to discuss training materials and preparedness related to influenza. During this meeting NIOSH was able to gather information regarding the broader need for and gaps in general safety and health training for home care workers.

January 2009
We held an expert meeting of evaluation experts to discuss the design of the evaluation. These individuals also assisted with the development of and reviewed the final version of the survey instrument. Participants included:

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A9. Explanation of Any Payment or Gift to Respondents

It is important to achieve the highest possible response and retention rates during this information collection. A typical method for improving response and retention includes offering a financial incentive. Therefore, we will offer a financial incentive during recruitment. It has been demonstrated that

incentives increase participation and reduce non response bias (e.g., Abreu & Winters, 1999; Shettle & Mooney, 1999). The CDC conducted a nation-wide survey of home care workers in 2007 (OMB No. 0920–0298) for that survey home care participants were reimbursed $30 for participation in the survey. We identified a number of health studies of home care workers in California conducted by academic researchers and examined the type and amount of incentives they used. Our project partners in California use incentives when recruiting home care workers or clients to participate in training or other program activities. They use $40 grocery vouchers for participation in training programs and focus groups requiring about a 2 hour commitment of time including travel to the program site.

Incentives used for this study will be of a similar form and amount as these previous studies and were chosen after consultation with our research partners from the workers labor union and from the county home care agency. Home care worker participants will receive a $20 supermarket gift card for each of the 30 minute surveys and a $40 gift card for participation in the training session. The training session will last about 1 hour and requires travel to the training site, thus justifying the higher incentive amount. The client participants will be offered a total of $35, $10 for the first survey and $25 for the second survey, also in the form of supermarket gift cards. This slightly lower total incentive amount was based on the clients' survey being shorter (about half the length) of the workers' survey. The higher incentive for the second survey is meant to encourage retention. This amount was decided after extensive consultation with the Alameda County home care program administrator and drew upon their experience with recruiting clients to participate in training and other program activities.

Based on stakeholder and focus group input, and the considerable experience of our local union and management partners, we feel this incentive will improve participation rates for both workers and clients. This incentive, along with publicity of the program and vigorous attempts at retention, will help us to achieve an 80% retention rate among home care workers and clients across the two month interval of the study.

A10. Assurance of Confidentiality Provided to Respondents

The surveys will collect potentially sensitive information about injuries and safety/health behaviors and demographic information (Survey instruments are found in Attachment C). Risks to participants are low, since no IIF will be retained in the analytic dataset. Benefits to the participants include increased knowledge of the effectiveness of intervention materials that might improve their safety and health. The NIOSH human subjects review board has approved this data collection (Attachment G). We will not be requesting an assurance of confidentiality.

Privacy Impact Assessment Information

No personal identifiers will be linked to data or provided to CDC. However, information in identifiable form (IIF) will be used by the contractor who will be administering the survey. A copy of the Agreement to Prohibit CDC from Receiving the Identifying Key with the contractor, JBS International (CDC form 0.1375B) is included in attachment H. Since the evaluation design requires both a pre- and post- intervention survey, the contractor will need to collect identifiable information (IIF) in order to track both home care worker and client respondents over the 2 month interval between surveys and to distribute the supermarket gift cards used as incentives. Identifiable information to be collected includes first and last name, telephone number(s), and address. The IIF will be collected by the survey administration contractor and once all data has been collected, the contractor will remove all IIF from the analytic database. The IIF will be destroyed by the contractor once the data has been received and reviewed for completeness by NIOSH. At no time during the data collection will any personal identifying information be linked to the data set to be analyzed. No data analysis will be performed for any single respondent. All analysis will be conducted on an aggregate level. All data and reports released to the CDC will not contain any personal identifying information. The contractor will maintain a mailing list of participants in order to mail participants a summary of the findings at the conclusion of the evaluation. That list will be destroyed once this mailing is complete.

In order to build rapport and encourage accurate and honest answers, prior to the interview respondents will be assured that all their responses will be held in a secure manner. Interviewers will also assure respondents that all data will be analyzed on an aggregate level. All data and reports released to the CDC will not contain any personal identifying information.

Access to micro data will be limited to authorized NIOSH researchers and contractors. NIOSH facilities have 24 hour security, and all data will be either stored on secure servers accessible only with passwords, or stored in locked rooms or cabinets. Any contractor charged with data collection, preparation, or management tasks to be performed away from a NIOSH facility will be required to follow equivalent procedures.

This ICR has been reviewed by the staff in CDC’s Information Collection Review Office, who has determined that the Privacy Act does not apply Respondents will be provided with a written consent document that will explain the intended use of the information collected, describe any risks participants may face, and inform them that their participation is completely voluntary. Respondents will also be informed verbally over the telephone that their participation is voluntary, and that they may discontinue the survey at any time (see Attachment I for consent documents).

A11. Justification for Sensitive Questions

The survey will collect information about both the client's and the home care worker's race and ethnicity (See attachment C for survey instruments). This is being collected because research indicates that these characteristic can potentially impact the quality of the home care worker and client relations and that worker-client pairs of similar race/ethnicity have a higher home care worker retention rate [Howe 2002, Howe 2008].

Therefore this information will be important to consider when assessing the impact of the intervention materials on work/client communication and relationship. Data is also being collected on whether the home care worker is a family member or friend of the client. While this might be considered a sensitive question, in the California IHSS home care program clients can officially choose family members or friends as their paid caregiver and for about half of the clients this is the case. Employing a family member or friend has also been associated with better caregiver retention [Benjamin 2000]. It will be important to evaluate the possible impact of the client/caregiver relationship on the intervention's effectiveness.

A12. Estimates of Annualized Burden Hours and Costs

A. Annualized Burden to Respondents

The targeted number of surveys that will be completed is about 1,280: 320 home care workers will complete both the pre and the post home care worker survey and 320 clients will complete both the pre and post client survey.(All surveys found in Attachment C). Both the pre and post home care worker survey is estimated to take about 30 minutes and the client pre and post telephone survey is estimated to take 15 minutes to complete. In addition to the surveys, the home care worker interest response form (Attachment D2) is estimated to take 5 minutes to complete and we estimate that 500 home care workers will complete that form. The intervention training program will be completed by 320 home care workers and will last 1 hour. Therefore the total burden hours are 842. No direct costs will accrue to respondents other than their time to complete the survey.

Type of Respondent	**Form Name**	**Number of Respondents**	**Number of Responses per Respondent**	**Average Burden per Response (in hours)**	**Total Burden (in hours)**
Home care workers	Home care worker interest response form	500	1	5/60	42

	Home care workers pre survey	320	1	30/60	160
	Home care Worker training Program	320	1	1	320
	Home care Worker post survey	320	1	30/60	160
Home care clients	Client pre survey	320	1	15/60	80
	Client post survey	320	1	15/60	80
				Total	**842**

B. Annualized Cost to Respondents

The total estimated annualized cost to respondents is $7,157, as summarized in Table A.12-2. The mean hourly wage rate for home care workers is $10.50 [Bureau of Labor Statistics 2009]. The clients are disabled or elderly individuals who are unable to work.

Table A.12-2. Estimated Annualized Cost to Respondents

Type of Respondent	**Number of Respondents**	**Number of Responses per Respondent**	**Average Burden per Response (in hours)**	**Total Burden Hours**	**Average Hourly Wage Rate**	**Total Respondent Costs**
Home care workers	500	1	5/60	42	$10.50	$437
	320	1	30/60	160	$10.50	$1680
	320	1	1	320	$10.50	$3360
	320	1	30/60	160	$10.50	$1680
Home care clients	320	1	15/60	80	0*	0
	320	1	15/60	80	0*	0
					Total	$7,157

* Clients enrolled in this program are low income elderly or disabled who must qualify for Medicaid and/or social security disability and therefore are not working for wages.

A13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no capital or maintenance costs to respondents.

A14. Annualized Cost to the Government

Total costs include work performed by the contractors and CDC personnel. The survey contractor (JBS International) will be responsible for recruiting and training interviewers, conducting the survey and data management. Contractor costs include tasks such as: (1) development of the CATI computer entry screens; (2) receiving interest response forms and screening and randomizing respondents into intervention or control groups; (3) scheduling and conducting the surveys; (4) sample tracking between surveys including registering participants at the intervention training session; (5) data processing and delivery; (6) distributing incentive payments to participants. A training contractor (Labor Occupational Health Program of University of California Berkeley) will conduct the training sessions as part of the intervention but will not be collecting any data. The data analysis and report writing will be done by a team including a CDC/NIOSH medical epidemiologist and a contract statistician and will require three or four months of fulltime effort. There will be additional dissemination costs to NIOSH (not yet determined) for preparing reports and other publications that NIOSH anticipates following analysis of the data captured in this survey. Estimated annualized costs to the Federal Government for the survey period are presented in Table A.14-1 below.

Table A.14-1. Estimated Annualized Cost to the Federal Government

	2010	2011	Annualized Cost
CDC Personnel*	$36,056	$37,102	$36,600
Survey Contractor	$106,000		$53,000
Training contractor	$25,000		$12,500
Statistical support contract		$12,500	$6,250
Total			$108,350

(*Includes a 3% personnel cost of living salary increase per year.)

A15. Explanation for Program Changes or Adjustments

This is a new data collection.

A16. Plans for Tabulation and Publication and Project Time Schedule

Upon completion of data collection, NIOSH will develop tables of descriptive results including: 1) the intervention worker group, 2) the control worker

group; 3) the client intervention group and 4) the client control group. The tables will be designed to allow for columnar comparisons of results from the two surveys and testing of significant difference between these columns (t-tests and ANOVAS). Results from multi item scaled measures such as those measuring self efficacy and job satisfaction will be presented as the mean of all of the scale items measured on a likert scale and will be treated as continuous variables. The change in score from baseline (post-intervention score minus pre-intervention score) will be evaluated for outcome measures including worker perception of health risks, worker self-efficacy to decrease health risks, and worker and consumer satisfaction. Ultimately, the analysis will compare the difference in the change in measures between the two surveys comparing the control group and the intervention group. The change between the pre survey and the post survey for the control group will establish a benchmark comparison against which the intervention group can be compared looking for significant differences at the 95% confidence level.

Separate analyses will be conducted for the home care workers and consumers responses. However, for some variables such as worker and client satisfaction a combined score for the consumer/home care worker pair will be constructed by summing the two individual post- minus pre-intervention scores.

More advanced and robust analysis of the data utilizing univariate and multivariate statistical approaches will include making comparisons between the intervention and control groups using analysis of variance (ANOVA) and multiple regression. These additional analyses will allow us to examine the impact of potential modifying factors such as previous work experience and job training, level of perceived social support from the client and home care program (IHSS) and other job stressors (eg time constraints and control over job tasks).

A complete time schedule for the entire project is as follows:

Activity	**Time Required**	**Start Date**
Mailing of letter to home care workers introducing the study with the interest response forms	2 weeks	Immediately on OMB approval

Activity	**Time Required**	**Start Date**
Receipt of interest forms and randomization into control and intervention groups and scheduling of surveys and training sessions.	2-4 weeks	2 weeks after OMB approval
Field pre and post surveys and conduct training programs	4 months	4-6 weeks after OMB approval
Delivery of complete dataset to CDC	2 weeks	Immediately after completion of pre and post survey
Tabulation and statistical analysis of data from pre and post data prepared	2 months	Immediately upon receipt of dataset from contractor
Detailed written reports	2 months	7-8 months after OMB approval
Publication in public health journals	6 weeks	TBD

A17. Reason(s) Display of OMB Expiration Date is Inappropriate
There is no request for an expiration date display exemption.

A18. Exceptions to Certification for Paperwork Reduction Act Submissions
There are no exceptions being sought to the certification statement.

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