Safety and Health Investment Projects FINAL REPORT REQUIREMENTS

The purpose of the final report of your SHIP project is to:

- 1. Evaluate and document the achievements, challenges, and shortcomings of the project for the constructive benefit of others interested in learning from SHIP projects; and
- 2. Provide the Division of Occupational Safety and Health with information that shows:
 - a. The outcomes specified in the project application were met; and
 - The grant was used for the purpose(s) for which it was approved and in accordance with relevant WAC rules and any special conditions or requirements; and
 - c. The outputs of the project have been disseminated as specified in the application.

The report format has four sections:

- 1. Cover Sheet
- 2. Narrative Report (part I)
- 3. Financial Information (part II)
- 4. Attachments (part III)

Please provide complete and detailed information in the final report. If you have questions, please call your SHIP grant manager.

REMINDER!!: All products produced, whether by the grantee or a subcontractor to the grantee, as a result of a SHIP grant are in the public domain and can not be copyrighted, patented, claimed as trade secrets, or otherwise restricted in any way.

SAFETY AND HEALTH INVESTMENT PROJECTS FINAL REPORT

Developing Early Return to Work Multimedia Training for Supervisors of Healthcare Workers 2012RH00198 January 3, 2013 – February 28,2014

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Applicant: University of Washington, Department of Environmental and Occupational Health Sciences Partners: University of Washington Office of Risk Management Claims Services Harborview Medical Center

March 20th, 2014

Michael Oberg



Funding and support for this project has been provided by the State of Washington, Department of Labor & Industries, Safety & Health Investment Projects.

[Grantee] is solely responsible for the content of and views expressed in this report and related materials unless they have been formally endorsed by the Washington State Department of Labor and Industries.

Cover Sheet for SHIP Final Report

Part I

Narrative Report

Organization Profile:

For awarded organizations, to include partners and collaborators, provide a brief description of each organization. Mission, vision, and purpose for each of the organizations who applied (this includes partners and collaborators) for the grant.

The organizational profile is listed in each section below for: 1) The University of Washington (UW) Office of Risk Management Claims Services; 2) Harborview Medical Center (HMC); and 3) UW Department of Environmental and Occupational Health Sciences (DEOHS).

Organization Descriptions:

The UW Office of Risk Management Claims Services workers' compensation (WC) program covers all UW divisions, including the Medical Centers (HMC and UW Medical Center), Facilities, Arts & Sciences, and Health Sciences. The Office of Risk Management is the University's statutorily designated return to work (RTW) coordinator and has a history of, and extensive experience with, managing WC claims.

HMC, which began as a six-bed King County Hospital in 1877, is owned by King County and managed under contract by the UW. HMC is the only Level I adult and pediatric trauma and burn center serving Washington, Alaska, Montana and Idaho (WAMI). HMC has 413 licensed beds and over 4,500 employees.

The UW DEOHS has a long history of providing health and safety training, consultations, laboratory testing and clinical services to business and labor organizations. The DEOHS faculty provides leadership to the UW Occupational Epidemiology and Health Outcomes Program and the UW/HMC Center of Occupational Health and Education (COHE), which aim to improve injured worker health and healthcare, and to reduce disability through research and educational outreach.

Organization Vision/Mission:

The UW Office of Risk Management Claims Services WC program aims to most effectively achieve optimal outcomes for all stakeholders involved in the WC claims process, especially valued employees, and to control WC costs.

HMC's primary mission is to provide and teach exemplary patient care and to provide health care to the community's most vulnerable patients.

The official DEOHS mission is to identify agents in the environment and the workplace that affect human health, elucidate their mechanisms, develop strategies for confronting their effects, and share knowledge obtained. Preventing unnecessary work disability by encouraging early, safe RTW after workplace injuries and illnesses is an important part of

the DEOHS mission.

Abstract:

Present a short overview of the nature and scope of the project and major findings (less than half a page).

Scientific studies indicate that direct supervisors play a key role in helping to facilitate early, safe return to work (RTW) in injured and ill employees. The US healthcare sector has considerably higher injury rates than US industry overall, and Washington hospital injury rates involving days away from work are even higher than rates for US hospitals. Harborview Medical Center (HMC) is the largest driver of missed work (time-loss) at the University of Washington (UW).

The aims of this project were to develop and evaluate the effectiveness of an electronic multimedia supervisor RTW training module at HMC. Our primary objectives were to improve supervisor RTW attitudes and knowledge, as assessed by self-reported survey responses, before compared to immediately after receiving the module. Our secondary objectives were to improve RTW knowledge and attitudes, as assessed by self-reported survey responses, between baseline and three month post intervention. We are also in the process of assessing changes in supervisor RTW practices between baseline and three months using self-reported data and workers' compensation claims data.

Eighty-one (68%) of 120 eligible clinical and non-clinical HMC supervisors participated in our project. Supervisor knowledge and attitudes about the RTW process were significantly improved immediately after, compared to before, the module. Supervisors' levels of confidence in their ability to answer employees' questions three months after the module were significantly improved, but significant improvements in knowledge and other confidence levels were not sustained at three months. This indicates that, over time, participants may have become less confident and knowledgeable about the details of the RTW process. However, confidence in the ability to manage the overall RTW process was significantly improved at three months. Even if, over time, supervisors and managers do not fully retain the details of the RTW process, the module may help them remember where to look for needed resources.

Purpose of Project:

Describe what the project was intended to accomplish.

The purpose of this project was to develop and determine the degree to which a multimedia RTW training intervention geared toward healthcare supervisors could impact supervisor knowledge, attitudes, and practices regarding early, safe RTW in injured and ill employees. In particular, with input from key stakeholders, we developed and tested an electronic multimedia RTW training intervention at a large hospital with high time-loss rates (HMC). The multimedia training was delivered pro-actively (before employees started time-loss, rather than being triggered by a particular employee's time-loss) in order provide the best chances for preventing unnecessary time-loss and work disability. To test the effectiveness of the intervention, healthcare supervisors were recruited to participate in one of two groups:

1) Group 1 participants received the ~15 minute best practices electronic multimedia

supervisor RTW training, in addition to "usual practice" (delivery of supervisor written materials on RTW best practices at the start of employee time-loss);

2) Group 2 participants received "usual practice" alone.

Differences in participant knowledge and attitudes regarding early, safe RTW were assessed in Group 1 before, compared to immediately after and 3 months after, intervention using surveys. Differences in RTW knowledge, attitudes, and practices (assessed using self-report and workers' compensation data) between baseline and 3 months are also in the process of being compared across Groups 1 and 2.

Because of the relatively short duration of the grant (12 months) and the necessary delay in updating of claims administrative data, time-loss data available from UW claims databases during the project period will likely not fully reflect the effectiveness of the multimedia training.

Statement and Evidence of the Results:

Provide a clear statement of the results of the project include major findings and outcomes and provide evidence of how well the results met or fulfilled the intended objectives of the project.

Our primary objectives were to improve supervisor RTW attitudes and knowledge, as assessed by self-reported survey responses, before compared to immediately after receiving the module. Our project fulfilled these primary objectives. Return to work attitudes and knowledge generally improved when comparing survey responses at baseline with responses immediately after the module was taken. The two knowledge questions in the surveys were: "Who should you first contact in order to set up modified or light duty for an injured employee?" and "Who should you contact to determine if your injured employee qualifies for return to work financial incentives? The percentage of correct answers to these questions increased by 35% and 46%, respectively, from baseline to immediate postintervention. These results were statistically significant (adjusted p value of 0.001 for both questions). Participants showed improvement, between baseline and immediately after taking the module, in their confidence to: "manage the RTW process" [positive responses (agree/strongly agree) increased by 32%], "guide an employee to seek medical care" [positive responses (moderately confident/very confident) increased by 27%], "identify/arrange modified and light duty" [positive responses (moderately confident/very confident) increased by 40%], "answer an injured employee's questions" [positive responses (moderately confident/very confident) increased by 49%], and "complete an incident report" [positive responses (moderately confident/very confident) increased by 8%]. With the exception of "complete an incident report", all of these results were statistically significant (adjusted p-values 0.090, 0.027, 0.001, 0.001, and 0.001, respectively). The increase in confidence in completing an incident report was not statistically significant; a large percentage of participants felt confident about completing an incident report at baseline.

Our secondary objectives were to improve RTW knowledge and attitudes, as assessed by self-reported survey responses, between baseline and three month post intervention. Although knowledge improved from baseline to three months, this change was not statistically significant. The only significant improvement in attitudes at three months was confidence to "answers an injured employee's questions" (p value of 0.005). This indicates that, over time, participants may have become less confident and knowledgeable about the details of the RTW process. However, confidence in the overall ability to manage the RTW process was significantly improved at three months (p vaue of 0.004). Even if, over time, supervisors and managers did not fully retain the details of the RTW process, the module may have helped them remember where to look for needed resources.

We are in the process of assessing changes in supervisor RTW practices between baseline and three months using self-reported data and workers' compensation claims data. Because of the relatively short duration of the grant (12 months) and the necessary delay in updating of claims administrative data, time-loss data available from UW claims databases during the project period may not fully reflect the effectiveness of the multimedia training.

Measures to Judge Success:

If relevant, state what measures or procedures were taken to judge whether/ how well the objectives were met and whether the project or some other qualified outside specialist conducted an evaluation.

We conducted a rigorous evaluation of the supervisor training module that we developed using survey and other data, as outlined in the prevous section. We received feedback on our project from outside specialists as described in the feedback section below.

Relevant Processes and Lessons Learned:

Specify all relevant processes, impact or other evaluation information which would be useful to others seeking to replicate, implement, or build on previous work

AND

Provide information on lessons learned through the implementation of your project. Include both positive and negative lessons. This may be helpful to other organizations interested in implementing a similar project.

Processes

The first step in our project was gaining stakeholder buy-in and cooperation. This was accomplished through numerous meetings where we determined the needs of the stakeholders and illustrated the value we could bring to address those needs. Stakeholder support allowed us access to data and resources that were invaluable to implementation and evaluation of this project.

The process of identifying the RTW procedures and barriers to address in our module was also an important step. Using our stakeholder connections, we initiated conversations with everyone involved in the RTW process at our institution, including Human Resources, the Office of Risk Management, Managers, Employee Health, and COHE. Each stakeholder provided a different perspective on the steps involved, as well as on the areas needing improvement. Obtaining feedback from each group allowed us to understand the challenges of miscommunication and the false information that needed to be addressed.

Creating the module required many iterations and frequent contact with our stakeholders and graphic designer. Once we fully understood the RTW process, we distilled it into important steps. We presented these steps to numerous stakeholders, to make sure we were adequately covering the RTW process and presenting it in an acceptable manner. We then created a storyboard around these steps and decided upon a style and format for the module. Again, we received feedback from stakeholders regarding the storyboard, style, and format. The storyboard was given to a graphic designer and was used to create a first draft of the module. We received more feedback on this draft, and each subsequent draft, until our final product was created.

Recruiting participants and deploying the module was a time-comsuming process. We obtained a complete list of managers and identified potentially eligible participants. We created a listserv for potential participants through which we later sent surveys and the module. In order to improve participation, we asked senior administrative officials to use their internal manager listservs to make employees aware of our study. We used our listserv to request participation in an email that included a link to the baseline survey and consent form. To improve participation, we followed up with additional emails and phone calls to the managers that had yet to fill out the survey. Once the baseline survey was completed, we used an online randomization tool to sort participants into an intervention group and a usual practice group. We distributed the module and follow up surveys accordingly, using additional emails and phone calls to ensure continued participation.

Lessons Learned

We learned that creating a training module for a complex process in a large organization can be challenging. If there is a need for a training module for a process, it is likely that the process itself is not yet optimally clear and streamlined. Part of creating the training module involves helping to clarify and streamline the process.

Different stakeholders had different feedback that reflected their different perspectives. We learned that a substantial amount of time and discussion is needed to successfully obtain and incorporate these various feedback items while still producing a cohesive training module. We found that a combination of one-on-one and group meetings with stakeholders, followed by reflection and discussion of stakeholder comments by the core project group, is one method for producing a training module product that we believe is cohesive and acceptable.

We also learned that there were many logistical details that required input from our stakeholders. We learned that, in addition to the development of our training module, the development of our *process* for evaluation also required stakeholder input, which strengthened our evaluation process.

Managers/supervisors in a hospital setting are extremely busy. Although many recognized the value of our project, surveys were placed by some participants at the bottom of their priority list. We found it helpful to include in our emails how long it would take to complete the surveys and training module (they are relatively short). However, our introductory email itself was long and many supervisors didn't take the time to read it. Providing initial information as concisely as possible increases the likelihood that eligible participants will be engaged. We also discovered that leaving voice messages or sending emails was not sufficient to get the levels of participation we desired. When speaking with individuals directly on the phone, they were more likely to complete the survey.

Some entities may not be willing to freely hand over time-loss data. We made sure to engage our Office of Risk Management when this project started to ensure we had access to the data we needed. Once access was granted, all of the data we needed was not in the same place and took time to compile. Lastly, we discovered that internal missed work/time-loss' data is not 100% accurate, for example because elements of the data may rely on self-reporting from injured employees.

Product Dissemination:

Outline of how the products of the project have been shared or made transferrable. We have taken several steps to ensure that our module is properly disseminated. We have provided the module to the continuing education department at HMC so that it may be integrated into their learning management system and be hosted on their intranet.

There is also substantial interest from the University of Washington Medical Center to make our module required training for their management staff. To do this, we have provided the module to the UW Office of Risk Management. They will host the module on their website and will work with UWMC to integrate the module into their training.

We are also working with the UW Department of Environmental and Occupational Health Sciences Continuing Education Department to get the module hosted on their publicallyaccessible website, which is still in production. We have given a copy of the module to the HMC COHE to use in their educational sessions and have worked with the HMC COHE to post the module on their website.

A story about the project was also written up and disseminated by HSNewsBeat, a source of news and information about the University of Washington Health Sciences and UW Medicine (link: http://hsnewsbeat.uw.edu/story/managing-caregivers-return-work-post-injury).

Lastly, information about the module and study was presented at two conferences. Michael Oberg (Project Manager) presented a poster at the Washington State Nurses Association Leadership Conference and June Spector (Project PI) presented a PowerPoint presentation at the Northwest Association of Occupational and Environmental Medicine Annual Scientific and Clinical Education Conference. Presentation products from these conferences can be used for future presentations and conferences.

Feedback:

Provide feedback from relevant professionals, stakeholder groups, participants, and/ or independent evaluator on the project.

Jon Reynolds, Project Operations Supervisor of the HMC COHE:

"The Supervisor Training Module clearly and concisely outlines the major components of early, safe return to work for busy frontline managers. Immediate supervisors in any business environment are crucial to facilitating transitional work accommodations for their injured employees. The Supervisor Training Module gives these managers the confidence and knowledge as well as means, methods and reasons to do so. The module hits the key points that matter, it empowers supervisors to be engaged in the return to work process and offers them the ability to competently take actions that benefit the injured worker, their own workforce and the employer at large.

The workers compensation system and UW are both large, complex and generally difficult policy/procedure environments to navigate; the module avoids losing the audience by cutting quickly to actionable essentials that are pertinent to the immediate employer of injury. The steps are graphically displayed from injury event to recovery, key players and their roles are identified and the module includes scripting suitable for all managers that enables them to communicate competently and compassionately.

The Guide to Promoting Early, Safe Return to Work is the recipe that corporate and health care safety officers can easily follow in order to replicate the training module and positive outcomes in their own workplace."

Survey Feedback on the Module from Participants:

Found most beneficial about the module:

- Learned about Stay at Work Incentives
- Now know all the resources available
- Nice graphics, interesting to view
- Learned how to communicate
- Knowing the roles of HR and Risk Management
- Understand the whole process
- Understand how to identify and use light and modified duty

Uses:

How might the products of your project be used within the target industry at the end of your project?

Is there potential for the product of the project to be used in other industries or with different target audiences?

We selected a cost-effective and practical medium for the development of the healthcare supervisor RTW module to maximize chances for successful integration at UW hospitals and dissemination to healthcare facilities throughout WA. Different healthcare facilities use

different electronic learning management systems (LMSs), and integration of training into a healthcare facility's LMS is an important potential route to the successful and sustainable training of healthcare supervisors. A common feature of LMSs is their ability to import certain common file types, including PowerPoint and certain video files. We therefore chose to produce our training in a video style usingPowerPoint with audio. This economical medium for RTW training could be integrated into different LMSs and websites, as well as modified for use in other sectors (e.g. by changing the avatar and scenario). We provide an example of such a module, developed for HMC, which includes both general RTW principles and HMC-specific information. The module would need to be tailored for use in other healthcare institutions and industries.

Additional Information

Project Type		Industry Classification (check industry(s) this	
Best Practice		project reached directly)	
Technical Innovation	nmont	11 Agriculture, Forestry, Fishing and Hunting	
	pment	21 Mining 22 Utilities	
Intervention		22 Construction	
Research		31-33 Manufacturing	
Other (Explain):		42 Wholesale Trade	
		44-45 Retail Trade	
		48-49 Transportation and Warehousing	
		\square 51 Information	
Target Audience: Managers and	supervisors	52 Finance and Insurance	
	supervisors	53 Real Estate and Rental and Leasing	
at healthcare institutions.		54 Professional, Scientific, and Technical Services	
		55 Management of Companies and Enterprises	
		56 Administrative and Support and Waste	
		Management and Remediation Services	
Languages: English		61 Educational Services	
Languages, Lingues		62 Health Care and Social Assistance	
		71 Arts, Entertainment, and Recreation	
		72 Accommodation and Food Services	
		81 Other Services (except Public Administration) 92 Public Administration	
Please provide the following infor	mation	List, by number above, industries that	
(information may not apply to all projects)		project products could potentially be	
# classes/events:	6	applied to.	
# hours trained	429	All	
# companies participating in project	1 (UW)		
# students under 18	NA	-	
	81		
# workers	Supervisors		
	1 (UW/	Potential impact (in number of persons	
# companies represented	HMC)	or companies) after life of project?	
# reached (if awareness activities)	1611	Harborview employee number: 4000	
	2120	Annuarin ataly 1000 (in atitution	
Total reached	2129	Approximately 4000/institution	
		icts from external sources? Yes	
		ashington Medical Center is interested in	
integrating the module into thei	r training regi	men, making it required for all	
supervisors/managers.			

Part II

Financial Information Budget Summary

Project Title:	Developing Early Return t of Healthcare Workers	o Work Multimedia T	raining for Supervisors
Project #:	2012RH00198	Report Date:	March 20 th , 2014
Contact Person :	Michael Oberg	Contact #:	(206)616-4213
Start Date:	January 3 rd , 2013	Completion Date:	February 28 th , 2014

1.	Total original budget for the project	\$ <u>100,557.00</u>
2.	Total original SHIP Grant Award	\$ <u>100,557.00</u>
3.	Total of SHIP Funds Used	\$ <u>93,539.80</u>
4.	Budget Modifications (= or - if applicable)	\$
5.	Total In-kind contributions	\$ 2,553.00
6.	Total Expenditures (lines 3+4+5)	\$ <u>96,092.80</u>

Instructions:

- Complete the Supplemental Schedule (Budget) form first (on the next page).
- The final report must include all expenditures from date of completion of interim report through termination date of grant.
- Indicate period covered by report by specifying the inclusive dates.
- Report and itemize all expenditures during specified reporting period per the attached supplemental schedule.
- Forms must be signed by authorized person (see last page).
- Forward one copy of the report to **Project Manager Name, SHIP Project Manager** at **PO Box 44612, Olympia, WA 98504-4612**

PART II (Continued)

Financial Information Supplemental Schedules (Budget)

	Developing Early Return to	Work Multimedia	Training for	-
Project Title:	Supervisors of Healthcare V	Workers	0	
Project #:	2012RH00198	Report Date:	March 20 th , 2014	
Contact Person:	Michael Oberg	Contact #:	(206)616-4213	
Total Awarded:	\$100,557.00			

ITEMIZED BUDGET: How were SHIP award funds used to achieve the purpose of your project?

	Budgeted for Project	Amount Paid Out	Difference
A. PERSONNEL	\$83,110.00	\$78,969.44	\$4,140.56
Explanation for Different	ence and other relevant	information: The posit	ive difference of
\$4,140.56 occurred for	r two reasons. Michael (Oberg was hired two we	eeks after the
	ct, resulted in a half mor		
	anging appointments als		
	twice during the course		
	reasons, he was ineligit		

	Budgeted for Project	Amount Paid Out	Difference	
B. SUBCONTRACTOR	\$5,703.00	\$5,554.36	\$148.64	

Explanation for Difference and other relevant information: The variance occurred because we budgeted \$5,179 for creation of the module and only used \$5,068.80, leaving a variance of \$110.20. We also were budgeted \$524 for printing and publishing cost and used \$485.56, leaving a variance of \$38.44. Those two variances total \$148.64.

	Budgeted for Project	Amount Paid Out	Difference
C. TRAVEL	\$990.00	\$285.61	\$704.39
Explanation for	Difference and other relevant	information: The var	iance of \$704.39
occurred becaus	e Michael Oberg only attende	ed one conference, ins	tead of three which
were originally	oudgeted for. Dr. June Spector	r attended, and preser	ited at, another
	igh her travel expences were		

nount Paid Out	Difference
	her relevant information:

agetea for i roject	Amount Paid Out	Difference
		e and other relevant information:

	Budgeted for Project	Amount Paid Out	Difference
F. OTHER	\$1,612.00	\$226.74	\$1,385.26
Explanation for D	ifference and other relevant	information: The var	riance of \$1,385.26
occurred for two	reasons. \$800 was budgeted	l for conference fees,	though only one

conference fee of \$175 was required, leaving a variance of \$625. \$812 was budgeted for supervisor incentives, but only \$51.74 was needed. Leaving a variance of \$760.26.

	Budgeted for Project	Amount Paid Out	Difference
TOTAL DIRECT COSTS	\$91,415.00	\$85,036.15	\$6,378.85
	Budgeted for Project	Amount Paid Out	Difference
TOTAL INDIRECT Costs	\$9,141.50	\$8,503.65	\$638.35
	Budgeted for Project	Amount Paid Out	Difference
TOTAL SHIP BUDGET	\$100,556.50	\$93,539.80	\$7,017.20

	Budgeted for Project	Amount Paid Out	Difference
G. IN-KIND	\$5,835.00	\$2,553.00	\$3,282.00

Explanation for Difference and other relevant information: We engaged in monthly meetings with Shari Spung and Paula Minton Foltz. We also had meetings with other members in the Risk Management office, and required their help in obtaining time-loss data. The time they provided to us was sufficient enough to complete the project, but was less time than we initially budgeted for, leaving a variance of \$3,282.00.

I hereby certify that the expenditures listed on this report were made with my approval:

10/28/14

Signature of Project Manager

Date

PART III Attachments:

Provide resources such as written material, training packages, or video/ audio tapes, curriculum information, etc. produced under the grant.

Also include copies of publications, papers given at conferences, etc.

This information should also be provided on a **CD** or **DVD** for inclusion in the file.

REMINDER!!: All products produced, whether by the grantee or a subcontractor to the grantee, as a result of a SHIP grant are in the public domain and can not be copyrighted, patented, claimed as trade secrets, or otherwise restricted in any way.

