

Nutrition Training for Registered Apprentices Final Report

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Diane S. Rohlman, PhD
College of Public Health, University of Iowa

Megan A. Parish, MPH
Confluence Health, Wenatchee, Washington

Megan TePoel, MS
College of Public Health, University of Iowa

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INTRODUCTION

Injuries & Fatalities in Construction

Construction workers are at increased risk for injuries, including fatal injuries, on the job. According to the Oregon Fatality Assessment and Control Evaluation (OR-FACE) program, there were 84 fatalities on construction sites in Oregon between 2003 and 2013 and construction had the third highest number of fatalities across all Oregon industries following transportation and logging (OR FACE, 2015). Nationally, the Bureau of Labor Statistics reported 3.8 major injury and illness cases per 100 full time construction workers; of these, 2.2 out of 100 required time away from work, job restriction or transfer (BLS, 2014). However, these estimates don't include minor injuries, near miss events or unreported occupational injuries, such as those sustained by temporary or contract workers who may be reluctant to report injuries. Therefore, occupational injury rates for the construction industry are likely to be even higher (Moore et al., 2013).

Costs Associated with Injuries & Fatalities

Costs associated with injuries among Oregon construction workers are higher and show greater time loss days compared to other industries in the state. In 2010, the average total cost associated with an occupational injury event in construction, including indemnity and medical costs, was approximately \$35,642 (OR OSHA, 2011). Construction-related claims had the second highest payout following logging and forestry (OR OSHA, 2011). In addition, there was an average of 113 time loss days per injury. The total cost of the 1,525 injury claims in construction totaled over \$54 million (OR OSHA, 2011). Although the Oregon OSHA report cautions about drawing strong conclusions from these numbers due to the high susceptibility of data errors (e.g. an outlier that is a particularly high or low claim), the general message is that the Oregon construction industry is subject to high costs associated with occupational injuries (OR OSHA, 2011).

Limitations in Addressing Occupational Injuries

As a result of recent changes in policy, training, and technology, along with innovation within construction industry, rates of injury have been decreasing but still remain high when compared to other industries. The most common methods to reduce injuries and fatalities address traditional workplace hazards but may neglect other non-traditional factors that contribute to occupational injuries, such as work climate, psychosocial factors, work climate, and health conditions and behaviors. Increasingly, these hazards have been associated with occupational injuries and illness and are implicated in adverse health outcomes including substance use, poor diet, and psychosocial stress. Additionally, there is growing evidence that both work and non-work-related

factors contribute to occupational injuries. For example, construction workers have the third highest reported levels of stress out of any occupation worldwide (Leung et al., 2012). The effects of both physical and emotional stress, either from organizational (e.g. pace of work, job demands) or personal factors, reach across multiple individual behaviors, including safety and health behaviors both at work and off the job (Leung et al., 2012).

The Role of Total Worker Health® in Construction

An approach that integrates Total Worker Health® principles (TWH; Schill & Chosewood, 2016), can help reduce injuries and illness associated with construction work. There is increasing evidence demonstrating the impact of traditional workplace hazards (chemical exposures, repetitive motion, large machinery) and work organizational factors (shift work, long commute times) on health outcomes (cardiovascular disease, obesity, depression) and behaviors (substance use, sedentary behavior, unhealthy eating), which in turn can impact injuries, illnesses and productivity at work. Furthermore, the projected increase in construction jobs highlights the need for the development of targeted interventions that aim to reduce injuries and promote health and wellbeing. According to the Associated General Contractors of America, 86% of construction firms are unable to find adequate skilled labor, leading to an increase in the use of temporary and less skilled workers. These workforce shortages have been implicated in an increase in reportable injuries and illnesses, with employers attributing the increase to new workers that are unfamiliar with safety procedures (AGC of America, 2015). Employers are responsible for providing safe and healthy workplaces; however, other intermediary organizations may also play a role in promoting health and safety (Sinclair et al., 2013). Training programs such as those offered by the Oregon Bureau of Labor and Industries (Oregon BOLI) Apprenticeship and Training Division provide a unique and powerful opportunity to incorporate a broader expectation of safety and worker wellbeing to an emerging workforce. Furthermore, by addressing work organizational factors in apprenticeship programs and promoting the importance of Total Worker Health® principles, a new cultural norm that promotes both safety and health can have an opportunity to impact a rapidly evolving workforce. Health behaviors and outcomes, such as smoking and obesity, have been associated with adverse health effects and increased workplace injuries. Smoking rates are higher among construction workers compared to the national average (Lee et al., 2007). Over two-thirds (69%) of U.S. adults are overweight or obese (National Institute for Diabetes and Digestive and Kidney Diseases, 2012). Compared to workers with BMIs in the normal range, workers who are obese are at greater risk of occupational injuries, incur greater costs (21%) associated with injuries, have longer return to work following injury and higher worker compensation claims (Otsby et al. 2007; Kouvonen et al., 2013). Nationally, the annual attributable cost of obesity among full-time workers associated with insurance costs, absenteeism and presenteeism (at work, but unable to perform duties) is \$73.1 billion (Finklestein et al. 2010).

Conversely, work organizational factors can impact health behaviors such as substance use, physical activity and healthy eating. Individuals with low-status, high-demand jobs, such as those in the construction industry, are more likely to report eating less healthy than those in low-demand, high-status jobs (Devine et al., 2007). Other studies have also demonstrated the impact of high stress, low autonomy and unhealthy physical environments in the workplace on employee health (Soloveieva et al., 2013). Apprentices and construction workers must often travel long distances to worksites and work long days, which can create barriers to planning, preparing and eating healthy foods both on and off the job. Studies of eating behaviors among construction workers have reported that over 52% of workers do not eat the recommended daily servings of fruits and vegetable (Devine et al., 2007, Harley et al., 2010). In addition, individuals with low-status, high-demand jobs, such as apprentices, are at greater risk of eating a poor diet (e.g. increasing reliance on convenience foods, consuming limited fruits and vegetables, and relying on sugar and caffeine to meet the high energy demands of the workplace) (Nagler et al. 2013). In the short-term, a poor diet can translate to performance and productivity issues. In the long-term, poor diet can lead to a higher prevalence of chronic conditions such as obesity, heart disease and diabetes (Champagne et al., 2012; Luckhaupt et al., 2014). A Total Worker Health® approach can address workplace factors to protect the health and safety of the worker while also promoting worker well-being.

PROGRESS ON AIMS

Aim 1: Finalize Training and Questionnaires

Status: Complete

Nutrition Training Content

The nutrition training is an online, self-paced training that addresses topics related to eating healthy on the job site and includes images and videos developed by a former tradeswoman-turned-videographer, Dawn Jones of Hearts and Sparks Productions (heartsandsparksproductions.com). The images and videos feature apprentices and journeymen on the construction site modeling behaviors, sharing personal stories, recommending methods for overcoming barriers, and delivering information addressing a range of nutrition topics. Based on prior research, training topics were identified and prioritized by Oregon BOLI and content was developed by researchers at the University of Iowa and Oregon Health & Science University. The training takes approximately 50 minutes to complete.

Table 1. Questionnaires and Assessment Tools**Worker Background**

Demographics	Age, gender, ethnicity, and education level
Work history	Trade, apprenticeship tenure, training, employment status

Needs Assessment

Health	PROMIS Global Health Scale (Cella et al., 2010), BMI (Keys et al., 1972)
Nutrition	Rapid Eating Assessment for Patients (REAP) (Gans et al., 2003)
Sleep	Average duration
Exercise	Type and frequency of intentional activity
Substance use	Use of alcohol, tobacco, marijuana, and prescription painkillers
Pain and occupational injury	Nordic Musculoskeletal Questionnaire (Kuorinka et al., 1987)
Job stress	Job Content Questionnaire (Karasek et al., 1998)
Challenges	Barriers and challenges related to apprenticeship tenure (Kelly & Wilkinson, 2012)
Occupational safety behaviors	Safety climate, motivation, and participation (Griffin & Neal, 2000; Neal & Griffin, 2006)

Nutrition Training Evaluation

Nutrition	Rapid Eating Assessment for Patients (REAP) (Gans et al., 2003)
Health	BMI (Keys et al., 1972)
Attitudes	Agreement scale of questions related to training topics
Stages of change	Measure of participants readiness to change health behaviors
Knowledge	Questions based on the training topics

Training Topics

- Why Nutrition Matters described the benefits of a healthy diet related to long-term health and performance on the jobsite.
- Eating a Well-Balanced Diet explained basic components of a healthy diet, including macronutrients, fruits and vegetable recommendations and MyPlate guidelines (U.S. Department of Agriculture, 2016).
- Shopping on a Budget discussed how to integrate healthy foods into budgeting and shopping.
- Reading Labels provided tips on interpreting food packaging (nutrition labels, ingredients list, packaged vs. whole foods) and identifying healthier food choices.
- Identifying Healthier Alternatives provided information on how to select healthier options from convenience foods. Workers often travel away from home for long periods of time or are limited with regards to food preparation opportunities due to the environmental restrictions of a construction site.
- Healthy Packing and Snacking described the importance of eating throughout the day to keep a consistent level of energy to help remain focused on the task and improve work performance. Examples of healthy alternatives to sugary snacks and drinks were provided.
- Hydration addressed the importance of drinking enough fluid, as it relates to performance and safety on the jobsite and discussed the benefits of avoiding sugary drinks and overconsumption of alcoholic drinks.

- Food Safety provided information about hygiene and food storage issues, an important component since workers may not have access to refrigeration.

Training Platform

The online training is delivered using the cTRAIN platform (www.nweta.com), allowing the training to occur offsite. cTRAIN is a computer-based program that incorporates behavioral education principles and is used for occupational safety and health training (Anger et al., 2001). This format has been shown to be more effective than traditional training formats (Rohlman et al., 2005) and has been utilized in a range of occupational groups, including construction, h, food service, public sector, small businesses, truck drivers, young workers and food service workers (Anger et al., 2009; Austin et al., 2009; Eckerman et al., 2004; Glass et al., 2010; Olson et al., 2009). The cTRAIN format allows training to be delivered online allowing participants flexibility on when they complete the training. cTRAIN was developed by the Northwest Education Training and Assessment LLC (NwETA) owners Dr. Kent Anger and Dr. Diane Rohlman. Dr. Rohman has a significant financial interest in NwETA, a company that may have a commercial interest in the results of this research and technology. This potential conflict of interest was reviewed and a management plan approved by the University of Iowa Conflict of Interest Research Committee was implemented.

Training Development and Review

The training content expanded the content from the Promoting U through Safety & Health's (PUSH) nutrition module. The content was reviewed by nutrition experts, a physician, health promotion curriculum developers and researchers in occupational safety and health, industrial hygiene, and community and behavioral health. In addition, feedback was provided by Oregon BOLI/ODOT partners.

Questionnaire Platform

The online questionnaires will be delivered using the Qualtrics platform (www.qualtrics.com). A .pdf of the baseline questionnaire is in the Appendix.

Questionnaire Development and Review

The questionnaire will be administered to apprentices prior to completing the online training and 6 months after completing the training. Previous responses to questionnaire items (Rohlman et al., 2016) were examined to identify items that did not provide useful information and to improve items that directly assess the training content. As part of this process, an expert in community and behavioral health reviewed the content and

recommended substantial revisions to questions assessing participants' attitudes, behaviors, and intentions on the nutrition topics presented in the training. In addition, several sections of the questionnaire were modified to reduce length, with measures being replaced with shorter versions or items that were used in previous research (allowing comparisons across study cohorts), removing extraneous questions, or deleting items that did not provide useful information. For a complete list of measures, refer to Table 1; a .pdf of the baseline questionnaire can be viewed in the Appendix.

Pilot Testing

BOLI partners and contacts pilot tested the training to provide feedback on the content, delivery format, and duration, and to evaluate the questionnaire items. Participants chose when and where to complete the training and questionnaires. In March 2017, unforeseen problems with the training software caused a temporary setback. During pilot testing we discovered the website for the training software was "uncategorized," which prevented BOLI partners from accessing the training from their work computers. Furthermore, a bug in the training software prevented participants from progressing through the training. Both problems were corrected by software developers. Based on the findings from pilot testing, the survey and training content was revised and final approval was obtained from Oregon BOLI and the University of Iowa.

Aim 2: Disseminate Training and Questionnaires

Status: In progress, revised

With BOLI partners, we developed a strategy to encourage construction apprenticeship committees to endorse, offer, or require the training as part of their curriculum. BOLI partners made a request to the Rules and Policy Subcommittee to implement the program at their Match 1st meeting. Invitations to review and consider the training curriculum were emailed to apprenticeship representatives; however, the response was limited.

In May 2017, we arranged a meeting with BOLI partners to discuss the setbacks we had encountered (issues with the training platform and limited feedback from apprenticeship representatives) and outline potential solutions. We decided to submit a contract modification to extend the research study project through FY2019 and expand its scope. Improving dissemination and recruitment will be a primary focus of the extension. In an attempt to increase interest in the training among apprentices and leadership, an additional set of recruitment materials is in development. These materials include a one-page flier, trifold brochure, and large poster with pocket that can hold trifold brochures. The materials present information about the training and research study and how to participate in a visual, brief, and easy-to-read manner. We plan to distribute the materials among

apprentice representatives and post them in apprentice classrooms. The materials will be available for distribution in July 2017. A revised study timeline can be found in Tables 2 and 3.

Aim 3: Research Study to Evaluate Training

Status: In progress, revised

Supplemental Materials, i.e. “Toolbox Talks”

As part of the study expansion, we plan to develop a series of “toolbox talks” to reinforce training concepts. These will be a series of interactive activities on nutrition topics. Potential topics include how to read a food label, build a healthy breakfast, and calculate the long-term financial cost of sugary drinks.

To evaluate the potential effects of toolbox talks on retention of training knowledge and adoption of healthy behaviors, we will administer the training in two waves. Wave 1 will complete the training, baseline questionnaire, and 6-month follow-up questionnaire. Wave 2 will receive toolbox talks in addition to the aforementioned activities.

Table 2. Year 1 Timeline

	Month												
	J	A	S	O	N	D	J	F	M	A	M	J	
Licensing	X												
IRB Continuing Review													
Group 1 baseline data collection	X	X	X	X	X	X							
Group 1 follow up data collection							X	X	X	X	X	X	X
Develop supplemental materials	X	X	X										
Pilot test supplemental materials				X	X	X							
Group 1 data analysis & report													
Group 2 baseline data collection													
Group 2 follow up data collection													
Group 2 data analysis & final report													

Table 3. Year 2 Timeline

	Month												
	J	A	S	O	N	D	J	F	M	A	M	J	
Licensing	X												
IRB Continuing Review													
Group 1 baseline data collection													
Group 1 follow up data collection													
Develop supplemental materials													
Pilot test supplemental materials													
Group 1 data analysis & report	X	X	X										
Group 2 baseline data collection	X	X	X	X									
Group 2 follow up data collection							X	X	X	X			
Group 2 data analysis & final report												X	X

OUTREACH

In the past year findings from the previous nutrition project were presented at the 2016 Pacific Northwest Apprenticeship Education Conference (Rohlman et al.) and the 2016 annual meeting of the American Public Health Association (Rohlman et al.).

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APPENDIX

Baseline Questionnaire

What is your date of birth?

MM/DD/YYYY

What is your gender?

- Male
- Female
- Other (specify): _____

What is your racial background?

- White
- Black/African American
- Asian/Asian American
- American Indian/Alaska Native
- Native Hawaiian or other Pacific Islander
- Other (specify): _____

Are you Hispanic or Latino?

- Yes
- No

What is the highest level of education you have completed?

- Less than high school
- High school graduate or GED
- Technical
- Some college
- College (Bachelor's degree)
- Advanced degree

What is your current relationship status?

- Single
- In a relationship/dating
- Living with significant other
- Married
- Divorced or separated
- Widowed

Do you have children living at home who need childcare?

- Yes
- No

In what trade is your current apprenticeship?

- Carpenter
- Cement Mason
- Electrician
- Ironworker
- Laborer
- Operating Engineer
- Painter
- Pile Driver
- Plumber
- Sign Maker/Installer
- Sheet Metal Worker
- Other (specify): _____

What term apprentice are you?

- 1st
- 2nd
- 3rd
- 4th
- 5th
- 6th
- 7th
- 8th

How long have you worked in your trade?

Years

Months (if less than 1 year)

Are you currently eligible for benefits through the union?

- Yes
- No

Are you currently employed?

- Yes
- No

How long have you worked for your current employer? (in months)

How many employers have you worked for in the past year?

In the past year, how many weeks (out of 52) were you NOT paid as a trade worker (include school and unemployed time here)?

What is your height?

Feet

Inches

What is your weight?

Pounds

Please respond to each item by marking one box per row.

	Excellent	Very good	Good	Fair	Poor
In general, would you say your health is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, would you say your quality of life is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, how would you rate your physical health?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, how would you rate your mental health, including your mood and your ability to think?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, how would you rate your satisfaction with your social activities and relationships?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, please rate how well you carry out your usual social activities and roles. (This includes activities at home, at work and in your community, and responsibilities as a parent, child, spouse, employee, friend, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the item by marking one box per row.

	Completely	Mostly	Moderately	A little	Not at all
To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past 7 days...

	Never	Rarely	Sometimes	Often	Always
How often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past 7 days...

	None	Mild	Moderate	Severe	Very severe
How would you rate your fatigue on average?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In the past 7 days...

	No pain 0	1	2	3	4	5	6	7	8	9	Worst imaginable pain 10
How would you rate your pain on average?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you ever been told by a medical doctor that you currently have any of the following health problems?

	Yes	No
Diabetes (excluding diabetes solely related to pregnancy)	<input type="radio"/>	<input type="radio"/>
Hypertension	<input type="radio"/>	<input type="radio"/>
High cholesterol	<input type="radio"/>	<input type="radio"/>
Arthritis	<input type="radio"/>	<input type="radio"/>
Other serious illness (specify):	<input type="radio"/>	<input type="radio"/>

In a usual week, how often do you do the following:

	Usually/Often	Sometimes	Rarely/Never
Eat at least 2 servings of fruit a day? Serving = ½ cup or 1 medium fruit; ¾ cup 100% fruit juice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eat at least 2 servings of vegetables a day? Serving = ½ cup vegetables or 1 cup leafy raw vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eat fried foods such as fried chicken, fried fish, or French fries?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eat regular potato chips, nacho chips, corn chips, crackers, regular popcorn, or nuts instead of pretzels, low-fat chips, low-fat crackers, or air-popped popcorn?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eat sweets like cake, cookies, pastries, donuts, muffins, chocolate and candies more than 2 times per day?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drink 16 ounces or more of non-diet soda, fruit drink/punch, or Kool-Aid a day? NOTE: 1 can of soda = 12 ounces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eat fast food or food from convenience stores/gas stations?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drink 2 or more cans of an energy drink?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drink 4 or more cups of coffee or tea in a day?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drink 10 or more cans of caffeinated soft drinks in a day?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On average how many hours of sleep do you get in a 24-hour period?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- More than 12

In the past 7 days, how many days did you do 20 minutes or more of vigorous physical activity that makes you sweat or puff and pant (e.g. heavy lifting, digging, jogging, aerobics, or fast bicycling)?

- None
- 1-2 times a week
- 3-4 times a week
- 5 or more times a week

In the past 7 days, how many days did you do 30 minutes or more of moderate physical activity that increases your heart rate or makes you breathe harder than normal (e.g., carrying light loads, bicycling at a regular pace, or doubles tennis)?

- None
- 1-2 times a week
- 3-4 times a week
- 5 or more times a week

In the PAST 30 DAYS, how often did you drink any type of alcoholic beverage?

- Everyday
- Nearly everyday
- 2-3 days/week
- Once a week
- 2-3 days/month
- Once a month
- I did not drink in the past 30 days

In the PAST 30 DAYS, how many drinks did you have PER WEEK on average?

- 1-4 drinks/week
- 5-9 drinks/week
- 10-19 drinks/week
- 20-29 drinks/week
- 30 or more drinks/week

In the PAST 30 DAYS, on how many DAYS did you have 5 or more of any alcoholic beverages?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30

Which of these statements best describes the smoking policy for the work sites you have been on over the past year?

- Smoking is not allowed on most work sites
- Smoking is allowed on some work sites
- Smoking is allowed on almost all work sites

Do you currently smoke?

- Yes, I smoked within the last 30 days
- No, I quit within the last 6 months
- No, I quit more than 6 months ago
- No, I never smoked

Do you currently smoke marijuana?

- Yes, I smoked within the last 30 days
- No, I quit within the last 6 months
- No, I quit more than 6 months ago
- No, I never smoked

Have you ever gone to work under the influence of drugs or alcohol?

- Yes
- No

In the PAST 30 DAYS, have you taken prescription painkillers?

- Yes
- No

Please answer the following questions related to musculoskeletal symptoms. Have you at any time during the last 6 months had trouble (such as ache, pain, discomfort, numbness) in your Neck/Shoulders?

- Yes
- No

Please answer the following questions.

	Yes	No
Have you been prevented from carrying out normal activities (e.g. job, housework, hobbies) because of this trouble in Neck/Shoulders?	<input type="radio"/>	<input type="radio"/>
During the last 6 months have you seen a physician for this condition in Neck/Shoulders?	<input type="radio"/>	<input type="radio"/>
During the last 7 days have you had trouble in Neck/Shoulders?	<input type="radio"/>	<input type="radio"/>

Have you at any time during the last 6 months had trouble (such as ache, pain, discomfort, numbness) in your Hands/Wrists?

- Yes
- No

Please answer the following questions.

	Yes	No
Have you been prevented from carrying out normal activities (e.g. job, housework, hobbies) because of this trouble in Hands/Wrists?	<input type="radio"/>	<input type="radio"/>
During the last 6 months have you seen a physician for this condition in Hands/Wrists?	<input type="radio"/>	<input type="radio"/>
During the last 7 days have you had trouble in Hands/Wrists?	<input type="radio"/>	<input type="radio"/>

Have you at any time during the last 6 months had trouble (such as ache, pain, discomfort, numbness) in your Lower Back?

- Yes
- No

Please answer the following questions.

	Yes	No
Have you been prevented from carrying out normal activities (e.g. job, housework, hobbies) because of this trouble in Lower Back?	<input type="radio"/>	<input type="radio"/>
During the last 6 months have you seen a physician for this condition in Lower Back?	<input type="radio"/>	<input type="radio"/>
During the last 7 days have you had trouble in Lower Back?	<input type="radio"/>	<input type="radio"/>

Have you at any time during the last 6 months had trouble (such as ache, pain, discomfort, numbness) in your Knees?

- Yes
- No

Please answer the following questions.

	Yes	No
Have you been prevented from carrying out normal activities (e.g. job, housework, hobbies) because of this trouble in Knees?	<input type="radio"/>	<input type="radio"/>
During the last 6 months have you seen a physician for this condition in Knees?	<input type="radio"/>	<input type="radio"/>
During the last 7 days have you had trouble in Knees?	<input type="radio"/>	<input type="radio"/>

In the past 6 months, did you miss any days of work because of bodily pain or discomfort?

- Yes
- No

How many days of work did you miss in the past 6 months due to these problems?

In the past 6 months, have you missed any days of work due to an injury?

- Yes
- No

Describe the injury:

Was this injury work-related?

- Yes
- No

How many days of work did you miss because of this injury?

Did you tell your supervisor about this injury?

- Yes
- No

In the past 6 months, have you missed any days of work due to illness?

- Yes
- No

Describe the injury:

Was this illness work-related?

- Yes
- No

How many days of work did you miss because of this illness?

Please answer the following questions about your apprenticeship.

	Strongly disagree	Disagree	Agree	Strongly agree
My job requires that I learn new things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job involves a lot of repetitive work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires me to be creative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job allows me to make a lot of decisions on my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires a high level of skill.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On my job, I have very little freedom to decide how I do my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get to do a variety of different things on my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a lot of say about what happens on my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an opportunity to develop my own special abilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires working very fast.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires working very hard.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not asked to do an excessive amount of work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have enough time to get the job done.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am free from conflicting demands that others make.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job requires long periods of intense concentration on the task.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My tasks are often interrupted before they can be completed, requiring attention at a later time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job is very hectic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waiting on work from other people or departments often slows me down on my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor is concerned about the welfare of those under him.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor pays attention to what I am saying.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am exposed to hostility or conflict from my supervisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor is helpful in getting the job done.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor is successful in getting people to work together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People I work with are competent in doing their jobs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People I work with take a personal interest in me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am exposed to hostility or conflict from the people I work with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People I work with are friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The people I work with encourage each other to work together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People I work with are helpful in getting the job done.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following are possible challenges experienced during an apprenticeship. Please select all that apply to you in your most recent apprenticeship.

- I was out of work too much
- I was primarily doing repetitive or low-skill tasks on the job site
- I did not get opportunities to learn all the necessary skills for my trade
- I did not have anyone to teach me new skills
- I did not have anyone to turn to when I had questions about my work
- I did not have anyone to talk to about working in the construction trades
- I had personal problems with other apprentices in my trade
- I had personal problems with journeymen in my trade
- I had personal problems with other workers on the job site
- I had personal problems with foremen, supervisors, or employers
- I did not enjoy the work (e.g. too physically difficult; weather was too cold, wet, or hot; hours were irregular)
- I had difficulty with reliable transportation
- I had difficulty paying for gas to and from work
- I had difficulty paying for food and lodging for out of town jobs
- I had difficulty with finding consistent child care for my children (paid or family/friends)
- I had difficulty paying the cost of child care for my children
- I had difficulty finding care for my children that accommodated my work schedule
- I was not working as hard as I should have on the job site
- I sometimes had a bad attitude at work
- I had difficulty attending the required classes
- I did not encounter any challenges

Check all of the direct support services you receive from BOLI:

- Job resources
- Fuel support
- Per diem
- Childcare
- Other (specify): _____
- I do not receive any direct support services

Think about your most recent employer and answer the following questions:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Management places a strong emphasis on workplace health and safety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety is given a high priority by management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management considers safety to be important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that it is worthwhile to put in effort to maintain or improve my personal safety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that it is important to maintain safety at all times.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that it is important to reduce the risk of accidents and incidents in the workplace.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use all the necessary safety equipment to do my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I use the correct safety procedures for carrying out my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I ensure the highest levels of safety when I carry out my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I promote the safety program within the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I put in extra effort to improve the safety of the workplace.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I voluntarily carry out tasks or activities that help to improve workplace safety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

As an apprentice, have you ever been asked to "sign off" that you participated in safety training that you did not attend?

- Yes
- No

The food I eat is important to my performance at work.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you choose foods that help you perform better at work?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to choose foods to help you perform better at work in the next month?

- Yes
- No

Do you plan to choose foods to help you perform better at work in the next 6 months?

- Yes
- No

It is important to eat 5 servings of fruits and vegetables each day.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you regularly eat 5 servings of fruits and vegetables each day?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to regularly eat 5 servings of fruits and vegetables each day in the next month?

- Yes
- No

Do you plan to regularly eat 5 servings of fruits and vegetables each day in the next 6 months?

- Yes
- No

Paying attention to nutrition labels is important to eating right.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you look at nutrition labels before choosing foods to eat?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to look at nutrition labels before choosing foods to eat in the next month?

- Yes
- No

Do you plan to look at nutrition labels before choosing foods to eat in the next 6 months?

- Yes
- No

Sugary drinks are bad for me.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you drink less than two sugary drinks per day?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to drink less than two sugary drinks per day in the next month?

- Yes
- No

Do you plan to drink less than two sugary drinks per day in the next 6 months?

- Yes
- No

It is not a good idea to drink alcohol the night before work.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you abstain from drinking alcohol if you have to work the next day?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to abstain from drinking alcohol at night if you have to work the next day in the next month?

- Yes
- No

Do you plan to abstain from drinking alcohol at night if you have to work the next day in the 6 months?

- Yes
- No

Drinking 8 glasses of water each day is important to my mental and physical performance.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you drink 8 glasses of water each day?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to drink 8 glasses of water each day in the next month?

- Yes
- No

Do you plan to drink 8 glasses of water each day in the next 6 months?

- Yes
- No

Eating lunch from fast food restaurants and convenience stores is bad for my health.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you eat fast food or food from convenience stores for lunch?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to choose healthy options from fast food restaurants and convenience stores in the next month?

- Yes
- No

Do you plan to choose healthy options from fast food restaurants and convenience stores in the next 6 months?

- Yes
- No

It is a good idea to shop around the perimeter of the grocery store.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you shop around the perimeter of the grocery store?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to shop around the perimeter of the grocery store in the next month?

- Yes
- No

Do you plan to shop around the perimeter of the grocery store in the next 6 months?

- Yes
- No

It is important to wash my hands or use hand sanitizer before I eat lunch at work.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you use hand sanitizer or wash your hands before you eat lunch at work?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to regularly wash your hands or use hand sanitizer before you eat lunch at work in the next month?

- Yes
- No

Do you plan to regularly wash your hands or use hand sanitizer before you eat lunch at work in the next 6 months?

- Yes
- No

It is important to keep my lunch cold at work.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Do you use a freezer pack or a refrigerator to keep your lunch cold at work?

- Yes
- No

Have you been doing this for more than 6 months?

- Yes
- No

Do you plan to start using a refrigerator or cold pack to keep your lunch cold at work in the next month?

- Yes
- No

Do you plan to start using a refrigerator or cold pack to keep your lunch cold at work in the next 6 months?

- Yes
- No

How willing are you to make changes in your eating habits in order to be healthier?

- 1 = Not at all willing
- 2
- 3
- 4
- 5 = Very willing