



Transportation Research Division



Technical Report 08-03

Employee Wellness Program Evaluation

Final Report

December 2008

Maine DOT Region 5
Employee Wellness Program
Evaluation Report
October 2008

Maine DOT Region 5 Employee Wellness Program Evaluation Report 2008

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This report was made possible by a cooperative agreement between the
Maine Department of Transportation
and
University of Southern Maine
Muskie School of Public Service

The conclusions and opinions expressed in the paper are the authors and no endorsement by the University of Southern Maine or the sponsor is intended or should be inferred.

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Acknowledgements

The report authors thank the following individuals for their contributions and partnership on this project.

Muskie School of Public Service

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External Health Agency Partners

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Executive Summary

Well-designed wellness programs can keep healthy employees healthy, support employees with health risks to improve their health behaviors, and facilitate organizational efforts to achieve workforce performance goals.

Productivity lost through absenteeism, sickness, and injury was a key driver for the development of the Maine Department of Transportation (DOT) Region 5 wellness program, offered since 2004. In 2008, the Maine DOT engaged the University of Southern Maine Muskie School of Public Service to create a more robust and sustainable evaluation process for their employee wellness initiative, and assist in planning to replicate the Region 5 program across the state.

The Muskie School evaluation team completed several key tasks in support of these goals.

- Developed an evaluation plan for the Maine DOT wellness program.
- Compiled and summarized descriptive data related to employee health and MDOT costs for Region 5 for the period 2004-2007.
- Calculated an initial return-on-investment for the Region 5 employee wellness program.
- Crafted an employee wellness model that can be replicated in other Maine DOT regions.

Development of a logic model was the cornerstone of determining the components for program evaluation. The desired outcome of a “safe, injury-free work environment that costs less to maintain and operates at full capacity” provided the direction to develop activities, inputs, outputs, and short-term outcomes.

The Region 5 wellness program had an estimated 40% participation rate in year one (2004), followed by estimated rates over 60% for 2005-2007. Health Risk Appraisal (HRA) respondents in 2004 had an average age of 45 and average “health age” of 47. The HRA Group Summary calculated that the typical employee participant could add 8.3 years to their life by improving health practices. The average age reported on the 2004 HRA of 45 years was older than Maine’s 2006 median age of 41. The overwhelming majority of wellness participants in 2004 were male (95%), as is the Region 5 workforce itself.

The HRA group summaries for year one provide data on the health risks and conditions cited by the Region 5 wellness team as most concerning. Mean prevalence rates of overweight (91%) and physical inactivity (47%) were pronounced, followed by smoking (22%), hypertension (18%), diabetes (17%) and high cholesterol (10%). The steady high prevalence rates for these health risks provide impetus for collecting and examining more specific data in the future.

The impact of Region 5’s wellness program can be seen most dramatically in sick time and injury figures. Workers’ compensation hours claims dropped from 875 hours in 2006, to 236 hours in 2007. Muscle strains and falls on the ice appear as the most common sources of injury outside of road accidents and machinery (tool or part) mishaps. Strains contributed roughly 17% of the overall costs reported for all three years, and almost one third of the costs for 2005. While the number of injuries reported rose slightly each year from 2005 to 2007, the cost of injuries

incurred dropped each year, as shown in the table at right, from \$100,236 in 2005, to \$80,357 in 2006, to \$31,105 in 2007. The rather dramatic decrease in the costs of injuries from 2005 to 2007 is associated with the wellness program initiative of stretching exercises offered at the beginning of worker shifts.



The average Return-on-Investment (ROI) across the four-year period was \$2.90, meaning for every dollar spent on the wellness program there is a recovery of \$2.90. The ROI calculations demonstrate that there are monetary savings associated with wellness initiatives in Region 5. The ROI for the Region 5 wellness program has improved every year. The average program cost per person and “real cost” of the wellness program in Region 5 are both declining. Rising participation rates create economies of scale when fixed costs are spread across larger numbers of participants. Declining costs of sick and injury claims in Region 5, which occurred during 2006-2007, have created savings large enough to more than balance the overall costs of the wellness program.

The Wellness program Model was developed using the Wellness Council of America (WELCOA) guidelines. Recognizing the central role of management support, the next most important components for Maine DOT are: a) having a wellness team, b) partnering with local health organizations, c) providing on-site activities, and d) conducting program evaluation. Program evaluation will provide the data for continued improvement in program delivery and effectiveness.

Recommendations for Maine DOT to continue building their capacity to institute a comprehensive employee wellness program evaluation are sorted into program evaluation, policies, and replicating the wellness program model in other regions.

Wellness Program Evaluation

1. Assure that responsibility for assuring employee wellness evaluation tasks are carried out.
2. Upgrade the logic model as needed to concisely show the wellness program plan.
3. Strengthen the Return on Investment model as follows.
 - a. Track total wellness program costs, including items such as travel expenses and incentives.
 - b. Track individuals anonymously and over time to quantify the impact of the program, specifically on participants versus non-participants, focusing on wellness interventions, trends in health risks, and actual changes in health behaviors.
 - c. Collect data by region on specific ROI indicators such as workers compensation costs, injury claims costs, health care utilization and sick leave.

4. Use a standardized Health Risk Appraisal instrument, and a standardized employee survey to collect data on employee satisfaction and other wellness program feedback over time.
5. Standardize and centralize data collection, eg, use one database system for wellness programs in all regions.
6. Verify and record the use and effectiveness of specific wellness policies, incentives and other variables in the work environment that support healthy lifestyles.

Policies

1. Develop workplace wellness policies using HRA and evaluation data as basis.
2. Assess various crew positions to determine minimum fitness levels necessary to safely perform the job using standard equipment, then prepare and implement policies for assuring a minimum fitness level for various crew positions.

Replicating the Model in Other Regions

1. Use a standard readiness assessment tool to determine the strengths and gaps for each region as they prepare to implement the employee wellness program.
2. The main elements of the wellness program in each Maine DOT region should include:
 - management support,
 - policies that support healthy behaviors,
 - a wellness team,
 - a partnership with a local hospital or health care provider to assist with the measurement of health risks and behaviors and confidentially store protected health information,
 - data measurements
 - onsite health and wellness activities tailored to the region's interests and needs, and
 - an extensive communication plan to assure participation. Examples of communications channels are management meetings, newsletters, bulletin boards, web sites and email updates.
3. Assess whether incentives and/or policies boost employee participation rates, and contribute to ROI.