Union Pacific Railroad Quality Audit

Conducted in Fall 1992

Union Pacific Railroad contracted with Johnson and Johnson Health Management to conduct a Quality Audit of their employee health promotion program. The Quality Audit is a flexible and dynamic tool designed to assess the overall quality and impact of worksite health promotion programs. The Final Report was completed in October, 1992 and is intended to provide UPRR with key findings of the Lifestyle Survey and to highlight program strengths and opportunities for improvement.

The Quality Audit identified the following program strengths and opportunities for improvement and challenges (listed below).

Program Strengths

- Strong Program Leadership
- Demonstrated Management Commitment
- Exercise opportunities
- Project Health Track and the Medical Self-care Program

Challenges

- Highly dispersed company with complicated work schedules
- Lack of trust from unions
- Management commitment is varied from site to site

The quality audit results helped us improve our health promotion program over the last two years.

Exercise Program Evaluations

The Effect of a Corporate Fitness Program on Perceived Worker Productivity

Published in Health Values, Vol. 15 No. 5 Sept/Oct 1991

Authors: Joe Leutzinger MS; Daniel Blanke, Ph.D.

Abstract

The effect of an on-site fitness center on perceptions of worker productivity after nine months of operation was studied. Perceptions of the fitness center and the relationship between regular exercise and perceived worker productivity were measured using members and nonmembers. The results suggested a strong positive relationship exists between membership status, exercise adherence, and perceptions of the fitness center, as well as a positive relationship between regular exercise and perceptions of worker productivity. The effects of participant/adherence, gender, occupation, income, and tenure conditioned the results. The

findings from this study suggest that membership and exercise adherence in an on-site fitness program affect perceptions for worker productivity. This study provides important information for companies that are considering implementing a fitness program to improve worker productivity.

Using Diffusion and Adoption and the Health Belief Model to Enhance Participation Among Blue-Collar Workers: A Preliminary Investigation Presented at two national and on regional conference. Author: Joe Leutzinger, MS Abstract

Over 90% of UPRRs workforce are considered union blue collar workers. Well over half of these employees are transient with limited supervision. In 1989, UPRR started providing exercise opportunities, System Health Facilities (SHF), to our transient employees. Currently, we have over 70 SHF available to all 28,000 employees throughout 19 states.

In 1990-91 we conducted a study to determine what changes could be made to enhance participation in our SHF program. The evaluation was designed to address the following questions:

1. Are eligible employees aware of these facilities?
2. Why are some eligible employees not members?
3. Why are some members not using the SHF?
4. What are the perceived benefits and barriers to exercise at the SHF?
5. What is the perceived relationship between regular exercise and worker productivity?
6. Who are the informal leaders?

A survey was mailed to 1000 randomly selected employees who were eligible to join the program in 1990-1991. A returned rate of 46% was achieved. 45% of respondents were SHF members. 'Not aware of program' was the main reason cited by nonmembers. The major barriers to membership and adherence were facility availability and membership procedures.

The results concerning the relationship between regular exercise and perceived worker productivity were positive. Overall, the mean response was 3.84 +1/ -.681 agree (out of a 5 point Likert scale). The overall total score for each respondent was 23.04 out of a possible 30. Informal leaders were identified by respondents.

Action steps.

In response to this evaluation we did four things;

1. Wrote all informal leaders and asked them to publicize program to fellow employees.

2. Wrote individual replies to all employees with questions
3. Provided transportation to facility when possible to out-of-town employees
4. Put membership forms in physical exam packets

Final Results: nine months after survey;

Membership increased 101%

Participation increased 277%

How Health Fairs Can Increase Employee Health Awareness Published in Corporate Health, January-February 1989 Authors: Joe Leutzinger, MS and Patrick Budin, PA C

In 1988, the Union Pacific health promotion department conducted three health fairs in the Omaha and Council Bluffs shops. We intended the health fairs to create a greater interest in the fitness center, its programs, the development of worksite fitness programs and increase health awareness among company employees.

The health fairs we held for Union Pacific's blue-collar employees were successful in increasing their knowledge of their health status and how their lifestyles affect it. The 70 percent attendance rate indicated to us that this hard-to-reach market was indeed concerned about health promotion, and that their lack of participation in the fitness center was due not to a lack of interest but to a lack of information.

In holding the health fairs and aiming them at the company's blue-collar segment, we exercised an important principle of corporate health promotion: Don't confine your marketing efforts to the people who are using the product-go after the ones who are not. In taking health services and health information to the target population, you make it easy and painless for them to learn about health and the company's health promotion programs. And you also make it easier for them to participate.

Medical Self Care Program Evaluation Results Using Health Care Claims' Data

Introduction

The Medical Self Care (MSC) program was evaluated using claims' data from a health care provider who covered over 13,000 union employees. This population was selected due to availability of claims for both years and for being a representative and stable population. Claims' data from one year prior and one year after the intervention were examined to determine the direction for utilization and total claims payout for year quarter for non-chronic conditions.

Methodology

Claimants were grouped into two categories: chronic and non-chronic. A chronic disease diagnosis list was developed by clinicians. Chronic disease claimants were defined as those with a chronic disease diagnosis and having a large percentage of their total claims payouts going towards the chronic condition. MSC programs are not designed to affect chronic disease claimants.

The MSC program focuses on a target group of medical conditions. ICD-9 codes were assigned to each medical condition and then categorized according to an anticipated direction of change in utilization - increase, decrease or neutral. Utilization was defined as a face-to-face outpatient or ambulatory encounter with a medical professional. All services occurring on the same day as the professional encounter were included in the total charges for that 'episode'.

Results

Encounters per 1000 for non-chronic claimants declined from pre-program to post program in three of the four quarters. The rate of decrease ranged from 2.5% to 15.6%. Charges per encounter for non-chronic claimants declined in each quarter. Decreased cost per quarter ranged from 3.2% to 23.4%. Overall, employee claims decreased $1.2 million during the post program period when compared to pre program costs. Although it is difficult to say that the decreased costs were only due to the MSC program, it should be noted that over the study period, there were no other significant changes made in the benefit package.

Using chronic claimants as the control group, encounters per 1000 fluctuated from quarter to quarter with an overall 4% increase from pre to post program. Charges per encounter increased 6% over the period.

The MSC program was effective in helping people become wiser consumers of the medical care system. As a result, lower utilization and costs were experienced for chronic conditions resulting in a $1.2 million decrease in health care claims among employees - recipients of the MSC program. This study tried to build on the existing literature surrounding MSC program by narrowing the effect on specific conditions that routinely could be treated with MSC procedures.

Union Pacific Railroad Medical Self-Care Examination of Theoretical Constructs and Self Report Data on Utilization

Abstract

The purpose of this study was to examine the impact of teaching a medical self-care (MSC) program using three different interventions among a group of railroad employees. Social Cognitive Theory (SCT) provided the theoretical framework, and medical care and training costs provided the practical foundation. To date, few studies have examined the theoretical premise behind MSC or what specific theoretical constructs should be enhanced to predispose someone to use MSC materials.

Three different educational interventions were tested: a home-use videotape; a videotape within a workshop format; and a small group intervention that used discussions to solve medical situations. The Healthwise Medical Self-care book (Kemper, McIntosh & Roberts, 1991) was used in all three interventions. The independent variables for this study were the SCT constructs. The educational interventions were the dependent variables.

Six hundred railroad employees were invited to participate in the study. A total of 275 participated in one of the three interventions and completed the post (first) survey. Ninety-three percent of these participants completed the (second) survey three months later.

A MANOVA analysis suggested that self-efficacy (strength) and outcome expectancy were responsible for the significant effect. No difference was noted among the independent variables (educational interventions).

A secondary analysis examined effects of the different intervention methods among blue- and white-collar workers. Both blue- and white-collar workers scored significantly higher on behavioral capability in the home study group. The results also showed that all participants were pleased with the overall content of the program. Based on the results of this study, the authors concluded that among railroad workers, blue collar employees learned about the MSC program best in the interactive video intervention, whereas the white collar employees learned best in the independent study intervention. These conclusions are based on the scores from the SCT constructs from the two worker classification groups.

The results from this study have broad implications for planning and delivering other health promotion interventions within our company. An article has been written detailing these results and is currently under review.

Self reported utilization of the program revealed on average, that respondents used the book four times over a three month period. Conservative cost estimates demonstrated that savings from the program over the first three months paid for the distribution of the program.

Project Health Track Executive Summary

Project Health Track (PHT) is a risk identification/risk reduction program containing three components: screening (I), counseling (II), and awareness presentations (III). Employees at three sites were invited to participate in a pilot study of PHT. All eligible employees were invited to complete a health risk assessment (phase I) that contained eighteen self report questions on diet, exercise, stress and smoking. Also, five biometric measures were taken: height, weight, percent body fat, cholesterol and blood pressure.

Those employees identified as having high blood pressure (>140/90), high cholesterol (240 or greater), smoked or were 30 percent above ideal weight were asked to participate in a voluntary one-one counseling session for one year (phase II).

The third phase of PHT included group classes and short presentations focusing on raising awareness about various health topics. The remainder of this summary will evaluate the effectiveness of the individual counseling (phase II).

All employees who agreed to participate in the one-one counseling were randomly selected into one of two groups: treatment and control. The treatment group received counseling for one year, while the control group could participate in any other health promotion program besides the counseling (phase II). Six months after the counseling had begun, all participants in the treatment group were asked to attend a mid-year test. Overall, 58% of the treatment group were re-screened. Over 70% of participants at two sites attended the re-screening. Problems at the third site resulted in a low turnout brining down the overall average. The main result from the mid year screening was that 73% of the screened participants had either eliminated or were making progress toward reducing their risk.

After one year, all participants (treatment and control) were asked to attend a post screening. Over 80% attended the post screening.

An overview of the key findings are presented below.

Blood pressure - After one year, 45% of the treatment group - those who received counseling for blood pressure control - eliminated their risk. Thirteen percent are making progress towards eliminating their risk and many are continuing counseling.

Cholesterol - Importantly, 34% of the treatment group - those who received counseling - who were considered to be at high risk are no longer in that group.

Smoking - 21% of the treatment group stopped smoking. Whereas 35% have reduced their total number of cigarettes from pre to post screening and are still working on becoming smoke-free.

Overweight - 17% of the treatment group moved out of the at-risk range of 30% above ideal weight. Reducing weight to a desirable range for many will take more than one year. Our results show that 30% have improved from pre to post screening.

Two or More - We found similar results with treatment group participants who had multiple risk factors, however, some participants eliminated only one risk factor.

It should be noted that we use high levels to identify our high risk participants. Moreover, it is likely that many participants have been in the high risk category or have been moving towards it for many years. Many of the counseled participants will need more than one year to totally eliminate their risk. At the post screenings, those in the treatment group who were still at high risk were given two opportunities to continue in the counseling program. Also, control group participants who still qualified for the counseling program were encouraged to enroll.

An econometric analysis based on previous published articles reveals a positive benefit cost ratio of 1.57:1.00 for the counseling program. In the future, we plan to look at real cost savings to further define this conservative estimate. The smoking and blood pressure counseling had a positive benefit cost ratio. While it is concluded that the cholesterol and weight control counseling was cost effective, the benefit cost ratio of this counseling approach for these risk factors needs further study.

The results from this study will be used for future programming. We plan to further refine each component of PHT to better meet the needs of our employees. Tying PHT participation into our benefits design in a non-penalty format is likely to enhance participation and success in the program.

A full report of the evaluation results of PHT will be completed and submitted for publication in August 1994.