

## **Pilot HRA Data**

- Health Risks at Marriott Compared to Norm
- Changes in Health Risks

Summary of one departments informal study of sick days: Credit Union Health Club Program

Summary of Program Satisfaction Surveys

An Issue of our Wellness Newsletter that Includes Associate Quotes

Letter from "Options and Choices", administrators of Healthy Expectations Maternity Education Program - Summarizes cost savings of the program.

## **Health Risks at Marriott International and Host Marriott Corp. Compared to a Norm Group\***

The five most prevalent health risks among the 281 pilot re-test participants are:

- Stress - 70%
- Cholesterol - 51%
- Eating Habits - 49%
- Exercise - 43%
- Self Care - 41%

The chart below compares Marriott participants to a norm group of salaried and hourly workers. Meaningful differences in risk levels occur in the following areas:

- More Marriott participants are at risk in two areas: Exams and Stress
- Fewer Marriott participants are at risk in eight areas: Blood Pressure, Smoking, Driving, Alcohol, Eating Habits, Back Care, Exercise, and Self Care
- The greatest difference in risk levels, based on the ratio of Marriott to norm group risk, are in the following three areas: Blood Pressure, Smoking and Exams
- 28% have two or fewer health risks, compared to 19% in the norm group
- 53% have three to five risks, compared to 50% in the norm group
- 20% have six or more health risks, compared to 31% in the norm group

\*Staywell Health Management Systems, Inc.

## **Changes in Health Risk for Marriott International and Host Marriott Corp. Pilot Participants\***

281 of the original 513 members of the pilot group participated in both the baseline HRA assessment, as well as the re-assessment 1.8 years later.

Among the 281 re-assessed participants, the greatest changes since the baseline assessment in the number at risk are in the following areas:

- Blood Pressure - 57% decrease
- Driving - 33% decrease
- Alcohol - 25% decrease
- Weight Control - 22% increase
- Self Care - 18% decrease

Among the 281 participants with two assessments, the number of risky habits changed as follows since their baseline assessment:

- The percentage with two or fewer health risks increased from 19% to 27%
- The percentage with three or five health risks decreased from 54% to 52%
- The percentage with six or more health risks decreased from 27% to 20%

\*Staywell Health Management Systems, Inc.

## **Marriott Employees' Federal Credit Union: Informal Study Relationship between Health Club Membership and Sick Days**

The Marriott Employees' Federal Credit Union implemented a program in 1993 to reimburse associates for the monthly membership dues to the Corporate Fitness Facility (Health Club) if their attendance at the Health Club averages at least twice per week on a quarterly basis.

### **Methodology**

The following data was compiled for 1993 and 1994 for employees of MEFCU:

- number of sick days taken per quarter
- total number of days worked per quarter
- total number of days that could be worked
- hire dates
- start dates for participation in the Health Club Program

Total Employees = 69

Participants in the Health Club Program = 19

Non-Participants in the Health Club Program = 50

### **Significant Findings**

For the fourth quarter 1994, the average number of sick days for the non-Health Club participants increased by 0.28 days over the same period in 1993.

For the fourth quarter 1994, the average number of sick days for Health Club participants who had been in the program for at least one quarter decreased by 0.89 days over the same period in 1993.

The combined difference between non-participants and participants is 1.17 days for the quarter.

While no definitive conclusion can be reached - as this was not a controlled study - the data seems to suggest a strong correlation between those enrolled in the Health Club Program and a reduction in the number of sick days taken during the year. Further tracking of sick days for the remainder of 1995 should allow us to confirm the correlation.

Healthy Expectations was first offered to Marriott Corporation's employees and their families beginning in January 1989. In 1993, Healthy Expectations was offered to employees of Marriott International and Host Marriott. Its purpose is to educate families about how to have healthy pregnancies and babies.

The health risk factors of the group enrolled in Healthy Expectations have been high over the course of the program at 36-44% of participants. This means that Healthy Expectations participants have a high risk for cesarean sections, and preterm births, as well as other poor birth outcomes, such as stillbirth or neonatal death.

The costs of premature and low birth weight infants vary widely depending on their gestational age and weight. We have estimated the average cost of a preterm birth to be about \$18,000.

In the first half of 1994, 2 preterm births were avoided for a cost savings of \$36,000. However, we have noted in the semi-annual report to Marriott International that 1994 was an extraordinarily high risk year for Healthy Expectations. 7 pairs of twins delivered in the first 6 months of 1994, far above the 1 set of twins we would normally expect in that time period. In 1993, 18 preterm births were avoided, at a cost savings in one year of \$342,000. From 1991 through 1993, an average of 15 preterm births were avoided per year. That would suggest savings of \$270,000 per year on average of those years.

Certain costs are not even factored into this equation. Recent studies suggest that the very smallest of the preterm and low birth weight babies can average medical costs of \$10,000 in the first six months after hospitalization, whereas full term babies average \$1200. For the rest of the first year, costs are similar.

Cesarean section costs have increased over the years, and Metropolitan Life Insurance Co. has recently reported their average national costs of uncomplicated vaginal births and cesarean section births. Nationally,

an uncomplicated vaginal delivery costs \$6430 when hospital, doctor's fees, etc. are added in. Cesarean sections, however are now averaging \$11,000, for a difference of \$4570. Maryland and Virginia are close to these averages, however in Washington, DC, a vaginal birth costs \$9070 and a cesarean section costs \$14,450 on average.

In looking over the date from 1991 through the first half of 1994, there have been approximately 9 cesareans avoided per year through VBAC, at a cost savings of \$41,130 on average per year. The overall cesarean rate in Healthy Expectations has also decreased, possibly as a result of the increased use of VBAC.

Overall Healthy Expectations cost savings for the first half of 1994 could be estimated at \$58,800, while average cost savings ran approximately \$305,000 per year from 1991 through 1993.

These cost savings don't tell the whole story. Healthy babies mean less lost work time by employees caring for sick infants in the hospital or at home. Prevention of cesarean sections also decreases the amount of lost work time and disability. Lost work time means productivity loss to Marriott International and Host Marriott. While the costs of productivity loss are harder to measure, they are significant. One California utility company estimated that one day's lost productivity by a clerical employee cost the company \$300. Reducing productivity loss adds substantially to the benefit of the Healthy Expectations program and to the Marriott International's and Host Marriott's bottom lines.