

Wellness Reimbursement Initiative Study

Executive Summary

In 2000, Motorola formed the North American Wellness Initiatives team and gave it the charge to strategically coordinate wellness efforts, improve employee health and impact business results. A key part of the team's job is measuring and quantifying the benefits of wellness programs to both Motorola and its employees.

Prepared by the Wellness Initiatives team, the attached executive summary highlights results of the baseline study conducted to evaluate how the Motorola Wellness Centers and the Wellness Reimbursement Initiative impact Motorola's healthcare costs. Based on 2000 data, the study demonstrates that these programs provide Motorola with a solid, positive return on investment.

Recognizing that the findings clearly demonstrate Motorola's approach to wellness as a strategic business tool were quite favorable, Motorola asked seven highly reputable experts from various disciplines in the field of health promotion to review the study results and to provide their opinions on the validity of the research. Their comments position Motorola as a cutting-edge, research-based health promotion leader.

"The study was very, very compelling for continued support. Motorola is certainly a gold standard for many organizations venturing into employee health. You are headed in the right direction... It was clear from the data collected that those Motorolans who participate in the Wellness Centers and programs show improved health, which also impacts healthcare costs."

-Judy Gerber, M.S., R.D., C.L.C., CARDIA/MacArthur Clinic Coordinator, Northwestern University Medical School, Department of Preventive Medicine

"The study methodology looks sound and thorough, not to mention that your results are very impressive. The fact that you pulled data from as many sources as you did is very important. The results of this study will be an important guide for Motorola wellness initiatives going forward and for the entire corporate health promotion field."

-Peter A. Egan, Ph.D., Chief Knowledge Officer, HealthCalc.Net, Inc.

"This health promotion impact study sponsored by Motorola speaks volumes about what the potential truly is for corporate America. This Motorola study shows that when health promotion is viewed as a strategic business initiative, it can have a major impact on an organization that is far-reaching. I applaud Motorola for taking a leadership position in the field of worksite health promotion."

-Ralph F. Colao, Director, Operations, Johnson & Johnson Health Care Systems, Inc., Health & Fitness Services and President, The Association of Worksite Health Promotion (AWHP)

“What an impressive document! This is a very important study to the field of health promotion. There are so few studies that document the effectiveness of prevention that I hope you seriously consider publishing the results in a professional journal.... The results are amazing.”

-H. Virginia McCoy, Ph.D., Associate Professor and Chair, Florida International University, Department of Public Health

I. Wellness Reimbursement Initiative

Motorola believes that through active promotion of healthy lifestyles, the company can help employees to improve both their health and their productivity. Based on this philosophy, the Wellness Reimbursement Initiative was launched in 2000 to provide U.S. employees with either:

- the cost of membership at the on-site Motorola Wellness Centers, or
- an annual reimbursement of up to \$240 (minus applicable taxes) toward the cost of membership at a non-Motorola fitness center. The external membership reimbursement feature allows support for all Motorolans, even those that do not have access to a Motorola center or for whatever reason, choose not to join a Motorola center.

II. SCOPE/BACKGROUND

The purpose of this study was to assess the impact of both the on-site Motorola Wellness Centers (10 locations) and the Motorola Wellness Center Reimbursement Program (external) on employee health status as measured through a variety of quantifiable, health-related outcome measures. The study results also would be used to determine and calculate a financial return-on-investment for the Wellness Reimbursement Initiative (internal and external) that can be shared with the Rewards-Benefits management and business unit customers supporting these efforts.

Note: The medical and disability costs noted in this study include only claims for medical and disability costs that are lifestyle related claims: alcohol use, hypertension, lack of physical activity, obesity, stress/anxiety/depression, tobacco use and poor nutrition.

III. STUDY DESIGN

Three groups of Motorola employees were identified to provide measures of comparison between Wellness participants and non-participants.

Group A - 9,611 Employees (25%)

Employees who were members in one of the 10 Motorola Wellness Centers included in this study between January 1, 2000 and December 31, 2000, and who were participants in the Motorola Health Advantage Plan or Basic Medical Plan.

Group B - 3,521 Employees (9%)

Employees who filed a claim for reimbursement from the Motorola Wellness Center Reimbursement Program (for membership at an external fitness facility) between January 1, 2000 and March 31, 2001 using a receipt dated between January 1, 2000 and December 31, 2000, and who were participants in the Motorola Health Advantage Plan or Basic Medical Plan.

Group C - 24,761 Employees (66%):

Employees who are not members of any Motorola Wellness Center nor have filed a claim for reimbursement from the Motorola Wellness Center Reimbursement Program (for membership at an external fitness facility), but are participants in the Motorola Health Advantage Plan or Basic Medical Plan.

IV. Analysis Summary

A. Medical Claims Experience for Lifestyle Diagnoses

Evaluation of medical costs for employees participating in Motorola's Wellness Initiatives revealed lower annual increases in per-employee medical costs for lifestyle-related diagnoses compared with non-participants. Total savings realized from Wellness Center [\$4,646,282] and Wellness Center Reimbursement Program (external) [\$1,833,391] participation in 2000 was \$6,479,673 for medical costs including inpatient, outpatient, prescription, claims and administration.

B. Disability Claims Experience for Lifestyles Diagnoses

Evaluation of disability direct costs for employees participating in Motorola's Wellness Initiatives over the two-year period of 1999 and 2000 revealed lower per-case costs for lifestyle-related diagnoses than non-participants. Direct savings realized from Wellness Center [\$3,326,456] and Wellness Center Reimbursement Program (external) [\$1,218,504] participation over the two-year period of 1999 and 2000 was \$4,544,960 for disability costs including costs for both claims and administration. Indirect hidden savings realized from disability costs related to these disability incidences totaled \$5,910,349. Total direct and indirect savings attributable to Wellness Center and Wellness Center Reimbursement Program (external) participation was \$10,455,309 for disability costs.

C. Health Screening and Health Power PProfile Program Experience

Wellness Center and Wellness Center Reimbursement Program (external) participants scored better on measures of blood pressure and total cholesterol biometrics as well as employee statements about frequency of aerobic exercise and tobacco use.

D. Wellness Center Experience

Based on 1997-2000 data, the medical cost for lifestyle-related diagnoses for Wellness Center participants is increasing at a rate of 2.5% while medical cost for non-participants' is increasing at a rate of 18%.

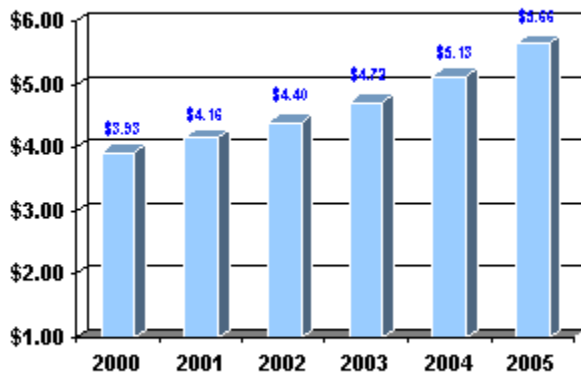
V. 2000 Wellness Participant vs. Non-Participant ROI

\$ 16,924,982 Medical and Disability Cost Savings (\$6,479,673 + \$10,445,309) \$ (3,141,623) Motorola
Wellness Center Operating Costs \$ (1,170,240) Wellness Reimbursement Program Costs \$ **12,613,119 Net Savings**

Return on Investment = \$3.93:\$1

VI. Cost-Benefit Projections– 5-Year Plan

Wellness Participants vs. Non-Participants ROI Projections

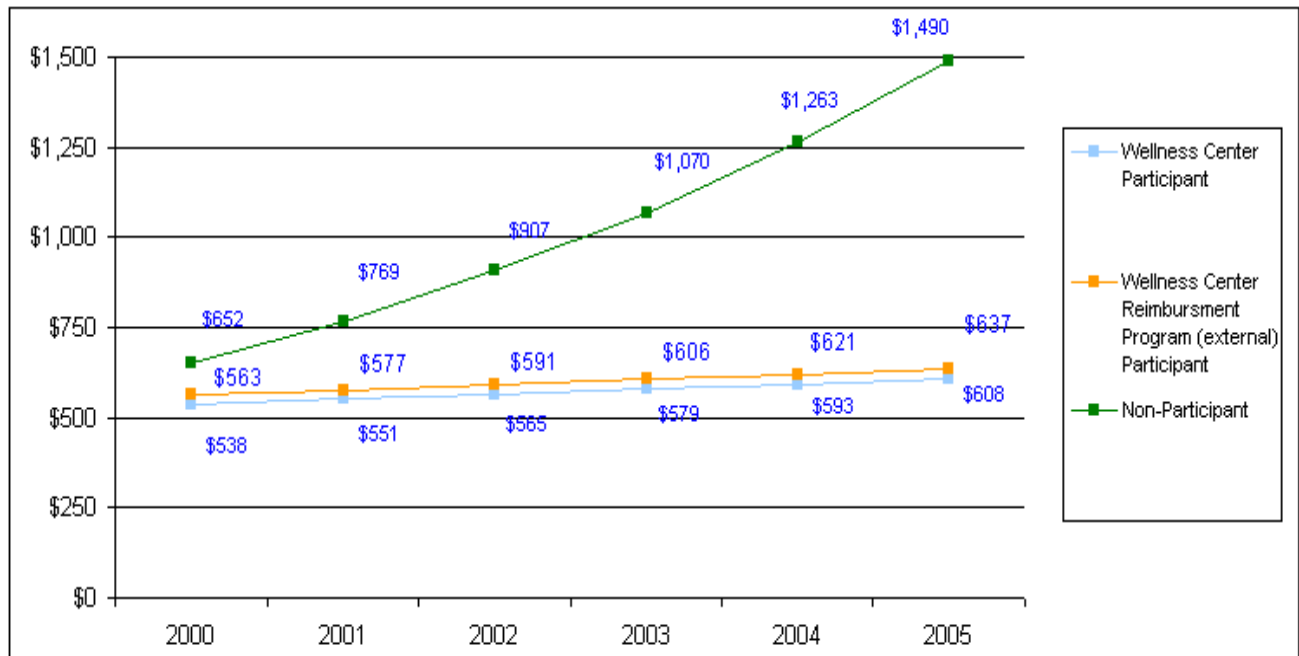


Assumptions:

- Medical costs for lifestyle-related diagnoses are increasing at a rate of 2.5% for Wellness Participants; 18% for Non-Participants. Disability cost savings are stabilized at \$10.4M each year. Motorola WellnessCenters membership increases 5% each year. Wellness Center Reimbursement Program (external) participation is stable across years.

Wellness Participants vs. Non-Participants

Per Employee Medical Cost Projections



Assumptions:

- Medical costs for lifestyle-related diagnoses are increasing at a rate of 2.5% for Wellness Participants; 18% for Non-Participants.

Net savings realized for Wellness Center participants from the Wellness Reimbursement Initiative is approximately \$12.6M. For the five-year period of 2001 to 2005, these same savings are estimated to reach in excess of \$56M. Indications point to successful reduction of long-term healthcare costs.

VII. Summary

This study does not address the employee relations value of the Wellness Reimbursement Initiative. Instead it takes a strictly economical approach in demonstrating that the program pays off for Motorola. For each dollar spent on the funding employee membership in either on-site or external fitness facilities, nearly four dollars are returned to Motorola in the form of reduced healthcare costs.

VIII. Future Direction

Motorola is presently working with MEDSTAT on a second year of analysis of Motorola's Wellness Reimbursement Initiative. MEDSTAT will determine a 10-Year Cost Projection Resulting from Change to Risk Profile - includes estimation of costs and ROI for next 10 years resulting from wellness improvement. Applies

findings derived from 1998 Hero Study to Motorola specific demographics (participants and non-participants combined), cost data and risk profile. Results/Analysis: TBD-June

Flu Vaccination Program Executive Summary 2001-2002

Abstract

Motorola Flu Vaccination Program proves a positive return on investment for all Motorola employees. Estimates of trends, related medical costs (office visits avoided, hospitalization costs avoided and labor savings due to vaccine) and participation totals are used in this study to determine the return on investment for all program participants.

I. Introduction

Since its founding, Motorola has demonstrated commitment to the health, well being and personal growth of employees, including their families and the communities in which they live and work. Many Motorola Human Resources programs, policies and practices reflect this charge.

An integral part of Motorola's commitment focuses on the science of "wellness" and the initiatives that encourage and support healthy and balanced lifestyles. Establishing the Motorola Flu Shot Program supports the continuing effort Motorola makes to keep employees, family members and retirees healthy.

Influenza (the flu) can cause a significant burden on individuals and their family, resulting in considerable healthcare costs and loss of productivity, as well as intangible costs such as suffering, grief and social disruption. The flu has remained one of the top ten causes of deaths in the United States. The Centers for Disease Control and Prevention (CDC) report that in the U.S., influenza typically contributes to approximately \$1 to \$3 billion in direct medical costs each year. Indirect costs are much higher at approximately \$10 to \$15 billion (CDC, 2001).

A typical case of the flu restricts the patient to bed for three to four days and restricts activity for several days longer. Depending on the age of the patient, physician visits range from 1.1 to 3.6 visits per episode (CDC, 2001). Drug related costs from the flu are high as well. Many physicians prescribe cough and cold medicines as well as antibiotics, which can be very costly. The flu also affects productivity in the workplace by affecting reaction time and physical energy and strength. An attack can reduce reaction times by 20 to 40 percent (Pharmacoeconomics 1999: 16 Suppl. 1:27-32). Plus, many patients tend to return to work before the alleviation of all symptoms, which impairs effectiveness and productivity and may still infect others.

The incidence of influenza is relatively high for children and young adults, however they are usually able to fully recover without serious complications. Serious complications are much more common among the very young and elderly (Pharmacoeconomics 1999: 16 Suppl. 1:27-32). The best way to prevent a person from contracting the flu is by getting a flu vaccination. According to the CDC, efficacy rates are 70 to 90 percent for persons under age 65, 30-40 percent among frail elderly people. Vaccinations also help reduce hospitalization by about 70 percent and death by about 85 percent for elderly people not in nursing homes.

II. Motorola Flu Vaccination Program

In the fall of 2000, Motorola began offering on-site flu shots to all employees, dependents and retirees at most North America locations. Employees, dependents and retirees enrolled in the Health Advantage Plan (HAP) pay no fees for the vaccine, while employees on any other health plan pay a nominal fee. The program includes flu shot coupons for HAP participants to use at participating retail store flu clinics if they do not have the convenience of the on-site program at their location. Motorola vaccinated 9,094 employees in the first year of the program.

In 2001, we enhanced the Flu Shot Program by expanding the number of on-site flu clinics and offering more participating retail stores as an off-site alternative. We also provided rewards@motorola lollipops as a warm gesture. Participation increased by 45 percent as 13,159 individuals participated in the program. The increase in participation can be due to our enhanced marketing campaign and the more abundant supply of vaccine as compared to 2000.

III. Scope/Background

Each year, Motorola measures the number of Flu Shot Program participants to determine a return-on-investment and measures satisfaction scores from customer surveys and determine ways to enhance the program for the following year. To measure return-on-investment (ROI) in 2000, we collaborated with MEDSTAT (data management vendor) to identify a model that closely represents our program and will allow us to make some ROI assumptions. MEDSTAT identified a study from the Archives of Internal Medicine that measured the ROI of a workplace flu vaccination program and developed a model that can be reused year after year.

In general, the objectives of this study are:

- To calculate a financial return-on-investment on the flu vaccination program that can be shared with Rewards-Benefits management and business unit customers supporting these efforts.
- To determine opportunities for increased return-on-investment in future flu vaccination programs.
- To compare which participation group provides the highest and lowest return-on-investment.

IV. Study Design

A. Study Groups

Three groups of individuals were identified for this analysis.

Group A:

Employees enrolled in the Health Advantage Plan (HAP) who received the flu vaccination on-site or at an off-site retail store location during Q4, 2001.

Group B.1:

Dependents enrolled in HAP who received the flu vaccination on-site or at an off-site retail store location during Q4, 2001.

Group B.2:

Retirees enrolled in HAP who received the flu vaccination on-site or at an off-site retail store location during Q4, 2001.

Group C:

All other medical plan participants (Basic Medical Plan, HMO, or who have opted out of Motorola health coverage) who received the flu vaccination on-site or at an off-site retail store location during Q4, 2001.

B. Data and Data Analysis

The MEDSTAT Group identified a medical study published in the Archives of Internal Medicine, which analyzed the return-on-investment in a corporate flu vaccination program similar to Motorola's program. MEDSTAT then developed an Excel spreadsheet using the study's model in which data could be entered to determine the return-on-investment each year the program was offered. The model required current year aggregate medical data, industry trends in medical and hospital costs and employee salary data. MEDSTAT, Motorola and Maxim (flu vaccination vendor) had to provide to input into the model.

Return-on-investment model

Data Element	Source
Number of flu program participants	Maxim Health Systems
Cost of flu vaccine	Maxim/Motorola
Average hourly salary	Motorola
Medical cost per flu episode	MEDSTAT
Side effects: medical care rate	MEDSTAT
Side effects: days lost rate	MEDSTAT
Work loss avoided	MEDSTAT
Hospitalizations avoided	MEDSTAT
Average cost per respiratory illness Admission	MEDSTAT

Satisfaction surveys

Participant satisfaction survey	Maxim
Site representative survey	Maxim

C. Project Constraints

- Availability of actual Motorola health care claim data that is correlated to the incidence of influenza episodes of flu vaccination recipients compared to non-recipients.
- Inability to determine exact number of the flu episodes since many employees do not go to the doctor when they are ill. As a result, we are unable to determine flu-related claims.
- Model uses "all respiratory illness claims data", not just those pertaining to the flu and flu-related illnesses so actual flu claims cannot be determined.
- Inability to acquire an exact comparator company benchmark hinders gap analysis conclusions.
- Inaccurate return-on-investment total for retirees because medical claims data used includes working age employees only and average medical costs are higher for the retiree population.
- Maxim and/or participant did not provide all necessary to determine employee status and health plan. A total of 957 participants were not placed in the model due to this lack of information.

V. Analysis Summary**A. Participation**

- 13,159 total participants
- 11,351 HAP participants (employees, dependents and retirees)
- 62 percent of the total participants were male, 37 percent were female, 1 percent did not respond in gender field
- Arizona: 3,034 participants (34 percent of Arizona employee population that offered an on-site clinic)
- Florida: 676 participants (14 percent of Florida employee population that offered an on-site clinic)
- Illinois: 4,263 participants (24% of Illinois employee population that offered an on-site clinic)
- Texas: 3,067 (28 percent of Texas employee population that offered an on-site clinic)
- Other states combined: 1,478 (32% of employee population within those sites that offered an on-site clinic)
- 641 coupons were used at off-site retail stores

B. Model Findings

After inputting the data collected from MEDSTAT, Maxim and Motorola into the model, we were able to see the assumed return-on-investment as shown in the journal Archives of Internal Medicine.

Group A:

Group A (HAP employees) had a 1.2:1 ROI. Medical claims, lost productivity from getting the flu vaccination while at work and lost productivity from side effects are factor into the formula for group A.

Group B.1:

Group B.1 (HAP dependents) had a 0.3:1 ROI. The low ROI is due to Motorola not saving costs on lost productivity since dependents are not employees. However, we do save on medical claims since they are covered by HAP.

Group B.2:

Group B.2 (HAP retirees) had a 0.3:1 ROI. Again, the low ROI is due to no savings on lost productivity since retirees they are no longer Motorola active employees. However, we do save on medical claims since they are covered by HAP.

Group C:

Group C (employees covered by other medical plans—Basic, HMO, opt out) had a ROI of 2.2:1. The large ROI is due to the savings from another health care company paying the cost of the vaccine and medical claims. However, Motorola does suffer from lost productivity while these employees are receiving the vaccine and any time they lose if they have negative side effects.

Overall:

Group A and B (all HAP participants) had a total ROI of 1.1:1

Overall, Motorola (group A, B and C) had an ROI of 1.2:1 based on the assumptions of the model which can be seen in Appendix A.

C. Indirect Cost Savings

- Decreased risk of infection to other family members that are covered under our health care plan.
- Decreased risk of infection to family members for which the employee is the caretaker – avoidance of productivity loss due to the employee not having to stay at home.

- Potential cost savings for group B.2 (HAP retirees) as this group's medical costs are higher than the average working employee (and this model is based on healthy working adults)

D. Serum Shortage Impact

In 2001, CDC announced a flu vaccination serum shortage that caused Motorola to postpone many of the on-site and off-site clinics. Due to this, employees may have been turned away from retail stores. Further, some participants confused the original on-site clinic date for the postponed date causing them to miss the clinic.

E. Employee Surveys

Eighty-six percent of participants that responded in satisfaction survey said they were very satisfied or satisfied with the program overall. (Response rate of 20 percent)

F. Site Representative Surveys

Ninety-four percent of the Motorola Site Representatives involved with the delivery of the on-site program responded that they were very satisfied or satisfied with the program overall. (Response rate of 4%)

VI. Cost-Benefit Projections

Cost-benefit projections for future programs will be affected by the rising cost of the vaccine. MEDSTAT has informed Motorola that the ROI will decrease each year as the vaccine increases in cost. Once the cost of the vaccine remains the same, ROI will remain the same regardless of the increase in the number of participants (MEDSTAT, 2001).

VII. Recommendations

- Increase marketing to retiree population
- Increase marketing to all employees to increase participation
- Collect absenteeism rates to determine loss productivity days
- Appendix A: Model based from Journal of Medical Archives Data collected and reviewed by MEDSTAT

Populations		HAP Employees (Group A)	HAP Dependents (Group B.1)	HAP Retirees (Group B.2)	Total HAP	Non-HAP Employees (Group C)	HAP + Non-Hap
Variables							
# Participants		9721	1406	226	11351	851	12202
Average Cost of Flu Vaccine:	\$14.50						
Average Hourly Salary	\$31.00						
Medical Cost Per Flu Episode	\$99.89						
Side Effects Medical Care Rate	0.005						
Side Effects Days Lost Rate	0.010						
Office Visits Avoided Rate	0.025						
Work Loss Avoided	0.142						
Hospitalizations Avoided	0.0003						
Overall Admission Cost (Respiratory Admits)	\$8,084.46						
Vaccine Cost		\$140,956	\$20,373	\$3,263	\$164,590	\$0	\$164,590
30 minutes Labor Cost for Vaccine Administration		\$150,675.50	0	0	\$150,676	\$13,190.50	\$163,866
Medical Cost Per Vaccine Side Effects		\$4,855.15	\$701.73	\$112.38	\$5,669	\$425.03	\$6,094
Labor Cost Per Vaccine Side Effects		\$24,108.08	0	0	\$24,108	\$2,110.48	\$26,219
Program Cost		\$320,593	\$21,074	\$3,375	\$345,042	\$15,726	\$360,768
Cost Per Participant		\$33	\$15	\$15	\$30	\$18	\$30
Office Visits Avoided Due to Vaccine		\$24,275.77	\$3,508.64	\$661.88	\$28,346.28	\$2,125.16	\$30,471.44
Hospitalization Costs Avoided		\$20,433.14	\$2,953.25	\$472.94	\$23,859.33	\$1,788.77	\$25,648.09
Labor Savings Due to Vaccine		\$342,937.44	0	0	\$342,937.44	\$30,021.58	\$372,959.02
Program Savings		\$387,646	\$6,462	\$1,035	\$395,143	\$33,936	\$429,079
Program Savings per Participant		\$40	\$5	\$5	\$35	\$40	\$35
Program Net Savings		\$67,053	-\$14,612	-\$2,340	\$50,101	\$18,209	\$68,310
Program Net Savings Per Participant		\$7	-\$10	-\$10	\$4	\$21	\$6
Program Return On Investment		1.2 : 1	0.3 : 1	0.3 : 1	1.1 : 1	2.2 : 1	1.2 : 1

Health Screening and Health Power Profile Program Executive Summary 2002

Abstract

Motorola's Health Screening and Health Power Profile Program is the cornerstone of the Health Advantage Plan. Since its inception, the Health Advantage Plan has helped Motorola maintain health care costs at or below national averages, including benchmark comparator companies. I. INTRODUCTION In 1996, Motorola introduced the largest change to its benefits package in Motorola history. The new strategy resulted in redesigning many benefit programs as well as introducing new ones. A comprehensive communication campaign rolled out the new benefit program to employees as "LifeSteps: Your Life...Your Choices".

I. Introduction

LifeSteps was conceived around a vision of providing high-quality, state-of-the-art benefits to employees and their families that supported the human life cycle—benefits that have value at different stages of life and for different personal needs. A hallmark of the LifeSteps program was the Health Advantage Plan (HAP), a new health care offering that focused on preventive care. It promoted proactive patient/physician partnerships aimed at encouraging and supporting optimal well-being for employees and their families. HAP included several “no nonsense” health promotion-oriented components such as a customized network of providers, no deductibles, low employee co-payments, vision and hearing care, well-baby care, no claim forms, no micro-management of providers, stigma-free mental health care and preventive screenings.

The last component, health screenings, drives the preventive focus of the Plan. To achieve this, HAP eligibility is contingent upon the employee receiving a preventive screening at least once every two years. The screenings serve as wellness awareness tools, encouraging employees to strengthen their relationship with their physician. The inherent logic is that by partnering with their physician, employees will receive individualized care with an emphasis on early detection and healthy lifestyle behaviors.

The LifeSteps program has evolved into the new rewards@motorola branding, yet the Health Advantage Plan still exists as a key element to support Motorola’s vision of Healthy People. The Plan’s preventive screening component thrives and continues to open many gateways for future opportunities to grow a Motorola culture of optimal health for all employees.

This report summarizes the activity and results achieved by the Motorola Health Advantage Plan Screening and Health Power Profile Program over the period January 1, 1999 through December 31, 2001. It also includes recommendations to measure and maximize continued program impact.

II. Motorola Health Screening and Health Power Profile Program

A. Motorola Health Advantage Plan Screening

To remain eligible for HAP coverage, employees must complete a health screening once every two years consisting of the following components:

- Height, weight and body fat percentage
- Blood screening (to check levels of triglycerides, total cholesterol, HDL and LDL)
- Blood pressure measurement

Based on thorough research, the original blood screening consisted of a Complete Blood Count (CBC) and Chemistry Profile. The blood test was later revised to include only the Lipid Panel (Triglyceride, Total Cholesterol, HDL and LDL) based on the following rationale:

1. High blood cholesterol is a major modifiable risk factor for coronary heart disease. The American Academy of Family Physicians, American College of Physicians and U.S. Preventive Services Task Force recommend routine cholesterol screening.
2. Screening for diabetes, as recommended by the American Diabetes Association, should be done every three years and only for adults with one or more of approximately seven risk factors.
3. According to the U.S. Preventive Services Task Force, routine screening for thyroid disorders is not warranted in asymptomatic adults or children.
4. The U.S. Preventive Services Task Force also states that "routine screening of asymptomatic persons for anemia is not recommended in the absence of clinical indications."

New in 2002: Based on Motorola-specific claims, customer request and employee demographics, four additional screenings are now offered at on-site screenings for those at risk. The four screenings are: Bone density (for osteoporosis), ColoCare® (for colorectal cancer), glucose (for diabetes) and Prostate Specific Antigen (for prostate cancer).

Though required only once every two years, screenings may be taken annually and are covered at 100 percent when participating at a Motorola on-site screening session. Employees who choose to be screened at their physician's office pay a \$10.00 co-payment directly to the provider.

The primary objectives of the screening are:

- Identification of prevalent disease/conditions that are commonly asymptomatic in early stages.
- Provide convenient, quality, professional, cost-effective services to support employees in meeting their HAP screening requirement.
- Encourage employees to take a proactive role in their health care through regular screenings for prevalent "silent" diseases and to partner with their physician for appropriate follow-up and/or additional testing.

Participant results are never shared with Motorola on an individual basis; only reports showing aggregate utilization and screening outcome data are provided to the Company. Health screenings are not diagnostic. Any employee who is experiencing symptoms, or who has a family history of disease should be under the care of a physician. Additionally, Motorola encourages employees to seek an annual check-up with their physician, at which time additional testing can be done if necessary.

Motorola contracted a third-party vendor, Wellness, Inc., to administer these screenings at all Motorola facilities that hold on-site sessions. Participants receive their analysis report in the mail from Wellness Inc., approximately four weeks after their screening session date. Wellness Inc. uses state-of-the-art laboratory analysis combined with a professional medical review. After a participant's lab results are analyzed, Wellness Inc. assigns a WELL SCORE? of 1, 2 or 3 with 3 being the most significant for health concern.

B. Health Power Profile Program

This program, an important component of the Health Screenings, provides a health risk assessment (HRA) for HAP participants at Motorola on-site screening sessions (not available for participants who receive their screening at their physician's office). Completing the Health Power Profile is optional and is therefore not considered part of the required screening. However, the tool does serve as a valuable supplement that provides awareness feedback to the individual choosing to complete it. There is no additional cost for this HRA.

Taken on a self-report basis by electronic Palm Pilot™, this tool includes approximately 50 questions and is divided into the following nine risk factor, lifestyle-related subject areas:

- Nutrition
- Fitness and Exercise
- Alcohol
- Safety
- Hygiene and Immunizations
- Early Detection and Health Care
- Tobacco
- Stress and Perceptions
- Biometrics

Wellness Inc. is responsible for the administration of the Health Power Profile at the on-site sessions. This includes communicating the availability of the questionnaire to screening participants, participant registration and assisting participants with any questions they may have concerning the use of the tool and the overall Health Power Profile Program. Wellness Inc. subcontracts with HPN Worldwide—the developer of the Health Power Profile. HPN Worldwide provides all data analysis and reporting services for completed Health Power Profiles and furnishes the outcome reports to Wellness Inc. Wellness Inc. then includes these reports with their wellness report for the screening.

III. Scope/Background

The Wellness Initiatives team has designed a study to assess the impact of both the Motorola Health Advantage Plan Screening and Health Power Profile Program through a variety of quantifiable, health-related outcome measures. The team will carry out the study with data input from Wellness Inc. and the Rewards Administration Center.

In general, the objectives of this study are:

- Analyze participation trends across demographic regions and employee groups to identify promotional and marketing needs.
- Analyze in-business partner feedback and employee/participant feedback to identify process improvement and program enhancement needs.
- Analyze aggregate health screening and HRA results, along with medical claim data to identify future screening needs.

IV. Study Design

The objectives of the study will be addressed as follows: A. Analyze participation trends across demographic regions and employee groups to identify promotional and marketing needs.

A. Analyze participation trends across demographic regions and employee groups to identify promotional and marketing needs

1. Study groups

- Arizona locations (AZ09, AZ10, AZ11, AZ34, AZ48, AZ43, AZ50, AZ80, AZ83)
- California locations (CA03, CA10, CA80, CA24, CA40, CA55)
- Florida locations (FL08, FL15, FL19, FL25, FL74)
- Illinois locations (IL01, IL02, IL08, IL21, IL24, IL27, IL57, IL67, IL75, IL92, IL93, IL94, IL105, IL106)
- Texas locations (TX05, TX09, TX11, TX14, TX30, TX32, TX41, TX48, TX72)
- Remote locations (CT08, GA15, GA25, KY06, MD04, MA07, MA19, NJ01, NJ05, OH06, PA06)

2. **Data elements** – 1999, 2000 and 2001 site-specific summary aggregate reports; 1999, 2000, 2001 workforce population by site

3. **Data analysis** – identify 1999, 2000, 2001 year-to-year participation trends for each site as a function of total eligible population.

B. Analyze in-business partner feedback and employee/participant feedback to identify process improvement and program enhancement needs.

1. Study groups

- 2001 Screening Site Representatives
- 2001 U.S. health screening participants

2. Data elements

- a. 2001 Health Screening Site Representative feedback evaluation results
- b. 2001 Health Screening and Health Power Profile Aggregate Report – evaluation/feedback form summary; rewards@motorola e-mail feedback

3. Data analysis

- a. Identify top three reported opportunities for improvement and develop action plan
- b. Identify top three requested improvements and assess feasibility

C. Analyze aggregate health screening and HRA results, along with medical claim data to identify future screening needs.

1. Study groups

- a. 2001 U.S. health screening participants
- b. 2001 U.S. HAP participants

2. Data elements

- a. 2001 Health Screening and Health Power Profile Aggregate Report
- b. 2001 U.S. medical claims costs; lifestyle-related claims codes

3. Data analysis

- a. Identify top three risks/screening abnormal values by prevalence
- b. Identify top three most costly lifestyle-related claims

V. Results/Analysis

TBD – October 2002

VI. Recommendations

Based upon the findings, determine what should be kept, enhanced, eliminated through a SWOT (Strength, Weaknesses, Opportunities, Threats) analysis.

VII. Future Direction

Motorola is seeking external consult from MEDSTAT and Wellness Inc. to determine the most effective future study parameters in order to meet our goal of demonstrating ROI for the health screening program. The following three options are currently being investigated:

1. Rigorous ROI study (6-12 months) - Comparison of medical cost & utilization of those employees who receive onsite screening, physician office screenings, or no screening. The analysis can be conducted for separate disease categories, or by pooling patients across disease categories. The former would be more expensive and take longer to complete, but would provide more targeted information on which types of screening, if any, are cost-beneficial and which are not. The analysis would also adjust for participation in other wellness program activities, demographics, etc. and could, therefore, be used to estimate the ROI for the overall wellness program too. The value of this study would be in providing targeted focus on screening initiatives related to specific disease conditions identifying ROI.
2. Rigorous Econometric Analysis (6-12 months) - This would be a multi-year study with comparisons of risk and cost before and after interventions (implementation of wellness programs). Includes calculation of ROI. Includes 1st submission for publication in peer reviewed journal. The results of this study may be suitable for Koop Award (includes solid demonstration of both cost savings and health improvement). Analytic design based on approach used for the Citibank or J&J published studies. The value of this study would be in providing pre- and post program study assessing health status and cost impact of program participation.
3. Rigorous Econometric Analysis (as above) including Disability Component (8-14 months) - Addition of the disability data (non-occupational and occupational disability), which would increase likelihood of publication.