BSR Insurance

Assessing the Value of BSR Pilot Health Programs

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BSR's strategic disposition yields to making profit and people inextricable from one another. The organization's commitment to making market driven decisions while embracing a triple bottom line ethos differentiates the company from its competitors. As shown by the company's financial and stock price performance, putting people first has always delivered superb results. The three health intervention programs (Sleep Quality, Tobacco Cessation, and Fitness Enhancement) aimed at increasing the bottom line and positively impacting people have proven to be no different. The content below assesses each program's value and effectiveness.

In assessing the value of the Sleep Quality program, we found a rather significant correlation between hours of sleep and commute time. As the minutes of commute time increase, the number of hours of sleep decreases. People who must commute further distances need to wake up earlier in order to prepare and commence their commute. We also found employee level to be a factor, in which employees at the management or director level had lower numbers in both hours and quality of sleep. However, after the intervention we noticed a 2-point increase in overall sleep score (*see appendix for calculation*) for directors induced by reported quality of sleep. Overall, we believe the effectiveness of the sleep program poses an opportunity to further engage upper-level management about the importance of sleep hours and quality.

In terms of Smoking Cessation, we found that those who quit smoking saw their Global Health Score (GHS) significantly increase above the average change in GHS by 3.1 points post intervention. We also found the program to be the most impactful among junior employees and those in the Customer Service Job Family. Perhaps what's even more insightful is when employees were shown as having a High Level of Commitment to Change, their GHS increased by 7 points on average. When we put the cost in perspective of the people benefits, we see an enormous benefit to maintaining the Smoking Cessation program.

The "Get Fit" program targets employees' overall fitness levels as measured by BMI and daily exercise. A "positive" outcome in terms of program effectiveness would be an increase in daily exercise with a concomitant decline in BMI. Demographically, we found that BMI tends to be higher in the Midwest states (MI and IL) than in the Western States (UT and CO) and daily exercise (in minutes) is very slightly lower. We see an overall improvement in the composite fitness score across the entire population, with more significant improvement in the Midwest offices. We see that average BMI goes up slightly in some offices, whereas daily exercise shows an improvement everywhere. Overall, we evaluate that the program is more impactful on increasing daily exercise than on reducing BMI.

In conclusion, we conclude that these programs provide both profit and people benefits. With a Return on Investment ranging from 137.9% in year one to 311.6% projected by year five, we would be hard pressed not to recommend keeping these programs for their sheer monetary value. However, what's of greater import is the positive impact that these programs are having on BSR's most important asset: its people. And that is priceless.

Appendix Material

Calculated Fields, Sets and Parameters used in Dashboards

"Get Fit" Dashboard (note that calculations are not repeated but may be used in subsequent dashboards)

- West Region – This is a set created to divide office location into Western States (CO and UT) and other states (MI and IL)
- Which BMI Demographic? – This is a calculated field that controls which BMI visualization is shown on the Demographic Pre-Intervention "Get Fit" dashboard.
- Which Daily Exercise Field? – This is a calculated field that controls which Daily Exercise visualization is shown on the Demographic Pre-Intervention "Get Fit" dashboard.
- Change in BMI – Post: BMI minus Pre: BMI.
- Change in Composite Fitness Score – The difference between the pre- and post-composite fitness score.
- Change in Exercise – The difference between the pre- and post-daily exercise fields.
- Lower Std Error (Exercise) – Used to draw the std err range on some of the exercise visualizations.
- Upper Std Error (Exercise) – Used to draw the std err range on some of the exercise visualizations.
- Lower Std Error BMI – Used to draw the std err range on some of the BMI visualizations.
- Upper Std Error BMI – Used to draw the std err range on some of the BMI visualizations.
- Percent Change BMI – Shows the percentage difference between pre- and post-BMI.
- Percent Change Exercise – Shows the percentage difference between pre- and post-exercise.
- Post: Absenteeism (Corrected) – Cleans the Post: Absenteeism field by setting values less than zero to zero (you cannot be absent fewer than zero days) and sets nulls to zeroes.
- Post: Composite Fitness Score – Calculates a single measure intended to represent the contribution of the BMI measure and the Daily Exercise measure to overall health.
- Pre: Composite Fitness Score – Calculates a single measure intended to represent the contribution of the BMI measure and the Daily Exercise measure to overall health.
- Post: Composite normalization – Since the composite fitness score is negative for most individuals in a typical range for its components, this calculated field is used to obtain the minimum such score so that it can be normalized to zero.
- Pre: Composite normalization – Since the composite fitness score is negative for most individuals in a typical range for its components, this calculated field is used to obtain the minimum such score so that it can be normalized to zero.
- Post: Normalized Composite Fitness Score – This is the actual normalized score, represented as a positive number with higher values meaning "better" fitness based on BMI and daily exercise. *(1 - [Post: Composite Fitness Score] / [Post: Composite Normalization])*
- Pre: Normalized Composite Fitness Score – This is the actual normalized score, represented as a positive number with higher values meaning "better" fitness based on BMI and daily exercise. *(1 - [Pre: Composite Fitness Score] / [Pre: Composite Normalization])*
- Pre-Intervention GHS – The Global Health Score, an overall measure of wellness. *(Max(Round([Pre: Hours of sleep] + 2 * [Pre: Quality of sleep] + [Pre: Daily exercise (Min)] / 6 - [Pre: BMI]/3.5 - [Pre: Smoking] / 2.6), 0))*
- Std Error BMI – Used to display the std error range on BMI visualizations.
- Std Error Exercise – Used to display the std error range on exercise visualizations.

Sleep Dashboard

- Overall Sleep Score Pre: *[Pre: Hours of sleep] + (2 * [Pre: Quality of sleep])*
- Overall Sleep Score Post: *[Post: Hours of sleep] + (2* [Post: Quality of sleep])*

- Sleep Quality Cost: *600*COUNT([Employee ID])*

Smoking Dashboard

- Pre: Does smoke at all - *[Pre: Smoking] > 0*
- Did Quit Smoking - *[Pre: Does Smoke More than Five] and not [Post: Does Smoke More than Five]*

Holistic Dashboard

- Composite Engagement (Pre) - composite score that equally weights all engagement questions *([Pre Engagement question 1]+[Pre-Engagement question 2]+[Pre Engagement question 3]) /(int([Pre Engagement question 1] > 0) + int([Pre Engagement question 2] > 0) + int([Pre Engagement question 3] > 0))*
- Composite Engagement (Post) - composite score that equally weights all engagement questions ([Post Engagement question 1]+[Post Engagement question 2]+[Post Engagement question 3])/(int([Post Engagement question 1] > 0) + int([Post Engagement question 2] > 0) + int([Post Engagement question 3] > 0))
- Composite Satisfaction (Pre)- composite score that equally weights all satisfaction questions *([Pre Satisfaction question 1]+[Pre Satisfaction question 2]+[Pre Satisfaction question 3])/(int([Pre Satisfaction question 1] > 0) + int([Pre Satisfaction question 2] > 0) + int([Pre Satisfaction question 3] > 0))*
- Composite Satisfaction (Post) - composite score that equally weights all satisfaction questions *([Post Satisfaction question 1]+[Post Satisfaction question 2]+[Post Satisfaction question 3])/(int([Post Satisfaction question 1] > 0) + int([Post Satisfaction question 2] > 0) + int([Post Satisfaction question 3] > 0))*
- Change in Composite Engagement - *[Composite Engagement (Post)]-Composite Engagement (Pre)]*
- Change in Composite Satisfaction - *[Composite Satisfaction (Post)]-Composite Satisfaction (Pre)]*
- Change in Global Health Score - *[Global Health Score - Post]-[Global Health Score - Pre]*
- Absenteeism Savings per Year: *((([Pre: Absenteeism (days/month)] - [Post Absenteeism (corrected)])*12)*250)*
- Change Commitment Category - I*f [Composite Change Commitment Score] <= 2.001 Then "Low Change Commitment" ELSEIF [Composite Change Commitment Score] > 2.001 AND [Composite Change Commitment Score] <= 3.260 THEN "Average Change Commitment" ELSEIF [Composite Change Commitment Score] > 3.260 THEN "High Change Commitment" END*
- Did Quit Smoking – Indicates whether the employee did or did not reduce from more than five to less than five cigarettes per day.
- Pre: Does Smoke More than Five – Employee smokes more than five PRE
- Post: Does smoke more than Five: Employee smokes more than five POST
- West Region – A set defining office locations in the west (UT and CO)
- Cessation Cost Saving – The total cost savings of the cessation program alone.
- Cot of Get Fit – Cost of the Get Fit Program alone.
- Cost of Sleep Program – Cost of the sleep program alone.
- Cost of Tobacco Cessation – Cost of smoking cessation program alone.
- Engagement, Productivity Cost Savings – Cost Savings attributable to engagement and productivity measures.
- Get Fit Cost – Cost of Get Fit program alone.
- Overall ROI Years 1, 2, and 3 – Calculated ROI for each year projected.
- Reduction in Absentee, Health Care Costs – Cost Savings attributable to these two programs.
- Total Cost Savings – Total Cost of all Programs.