

2015-2017 Comparison Aggregate Group Report

Betts Company
Health Risk Assessment and Biometrics

INTRODUCTION

Pinnacle Training Systems Health Risk Assessment (HRA) has been designed to measure health factors and interpret current health status at the individual and group levels. This Aggregate Group Report summarizes HRA results and provides direction for individual improvement. This report represents only those data for associates who have completed all three possible screenings which include blood work.

SAMPLE

Betts Company had 25 people participate in the biometric screenings during the January-February 2015, January-February 2016 and June-July 2016 screening period. The biometric data contains three time periods, while the blood work and personal wellness assessment information are from the first two screening periods. A summary of demographics of the participants is shown below.

DEMOGRAPHICS OF PARTICIPANTS		
Gender	Number	Percent
Male	18	72%
Female	7	28%

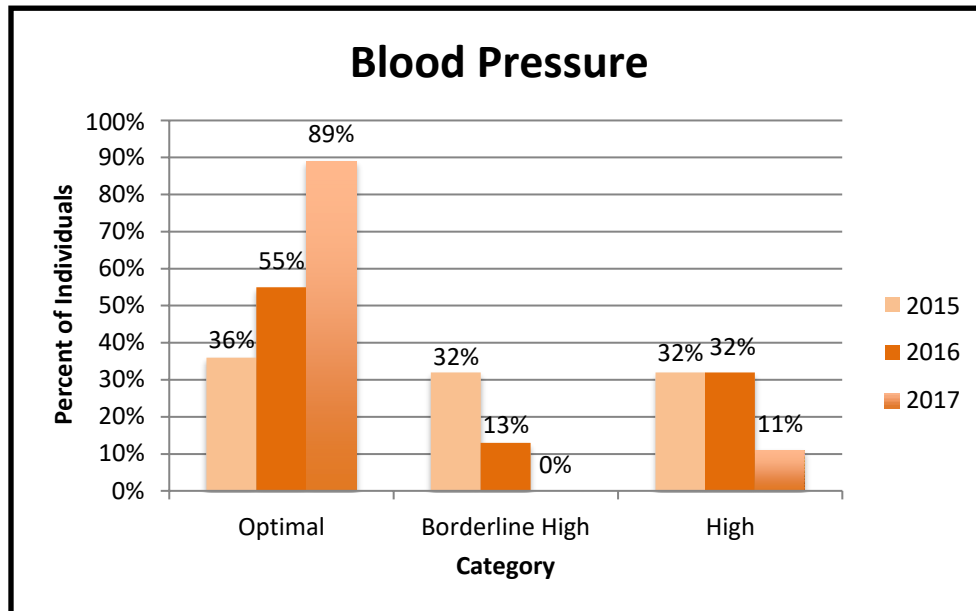
PARTICIPATION

In our first year of the program (2015) we had 126 individuals participate. In January of 2016, 96 participated in the screening while in January 2017, 88 Associates were involved. Twenty-five of these participants have completed the screening all three times.

HEALTH RISK FACTORS

This report will focus primarily on the biometric screening results conducted in January of 2015, 2016 and 2017 since this is the screening where cardiovascular and diabetes disease risk is assessed through blood work. This most improved biometric result was in blood pressure. This variable has a strong relation with cardiovascular disease like hypertension, coronary heart disease, and diabetes. When evaluating the blood work and the personal wellness assessment data from January 2015 and January 2016, we see significant improvements in risk for cardiovascular disease.

Blood Pressure Summary

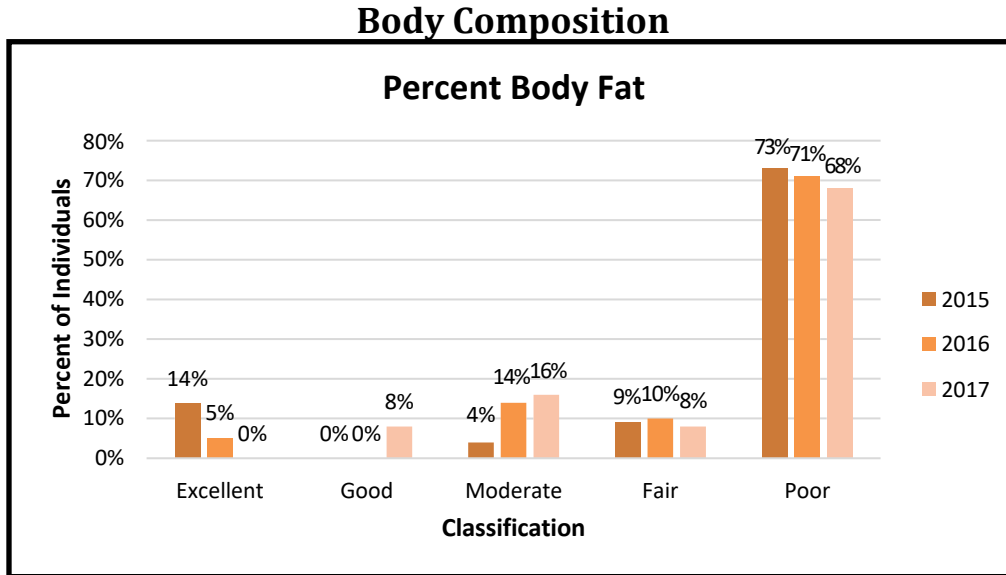


Average Blood Pressure: 134/84 mmHg (January 2015)
127/82 mmHg (January 2016)
125/77 mmHg (January 2017)

PERSPECTIVE

High blood pressure (hypertension) in adults is defined as a resting blood pressure above 140/90 mm Hg and ideal blood pressure is a reading of less than 135/85 mmHg.

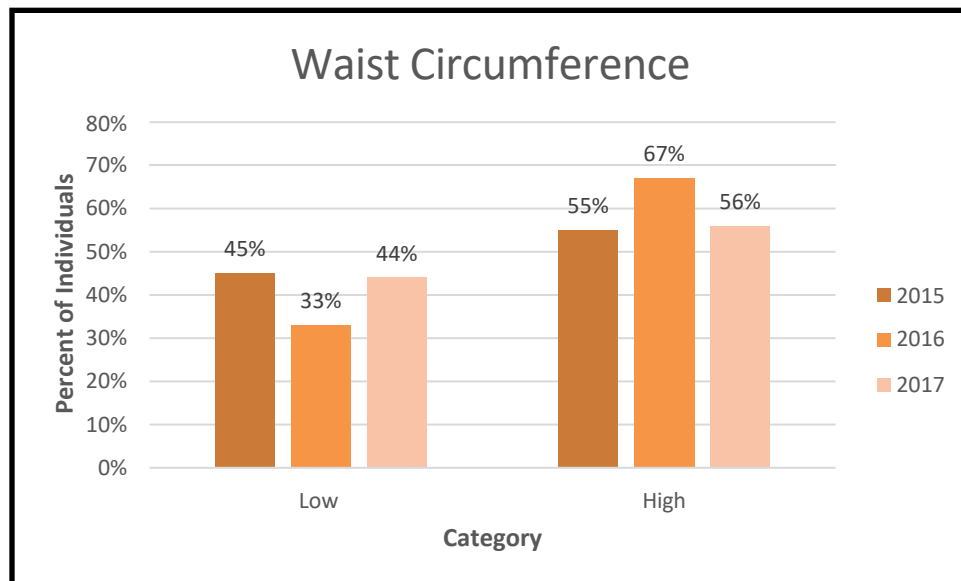
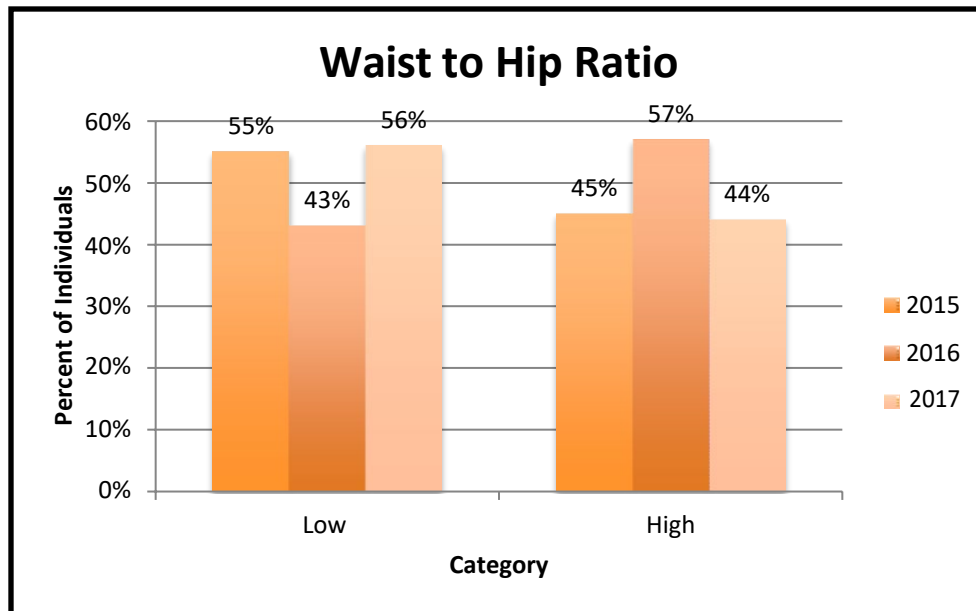
As evidenced above, of those tested, the percent of individuals with optimal blood pressure has increased significantly from January 2015 (36%) and January 2016 (55%). In addition, those with borderline and high blood pressure has also significantly been reduced. In 2017 we changed the criteria defining optimal and borderline blood pressure, hence the large increase in the number of people in the "optimal" category. Despite this, we see a decrease in average blood pressure of those participating in the program as well as a reduction in the number of people with hypertension.



PERSPECTIVE

There are various methods to classify body composition. Body composition refers to the breakdown of fat free mass (muscle tissue, bones, etc.) and fat mass (adipose tissue) in percentages. Individuals who have higher percentages of body fat than recommended increases the chance of lifestyle related diseases such as heart disease, stroke, cancer and type II diabetes. A high percentage of individuals are still being classified in the poor category. Since body composition is an important aspect of health, reducing body fat should be a focus of future health and wellness efforts.

While we are seeing a reduction in those classified as excellent, we are also seeing a reduction in those classified as having poor body composition.

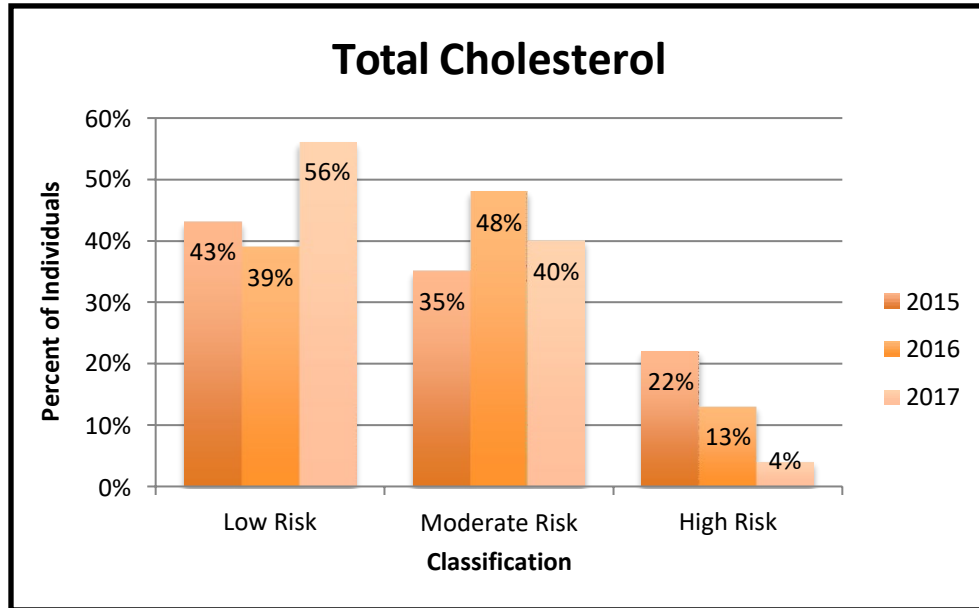


PERSEPCTIVE

A high waist-to-hip ratio and a high waist circumference are linked to diseases such as diabetes and heart disease. Overall, we are seeing a reduction in those categorizes as high risk from 2016 to 2017.

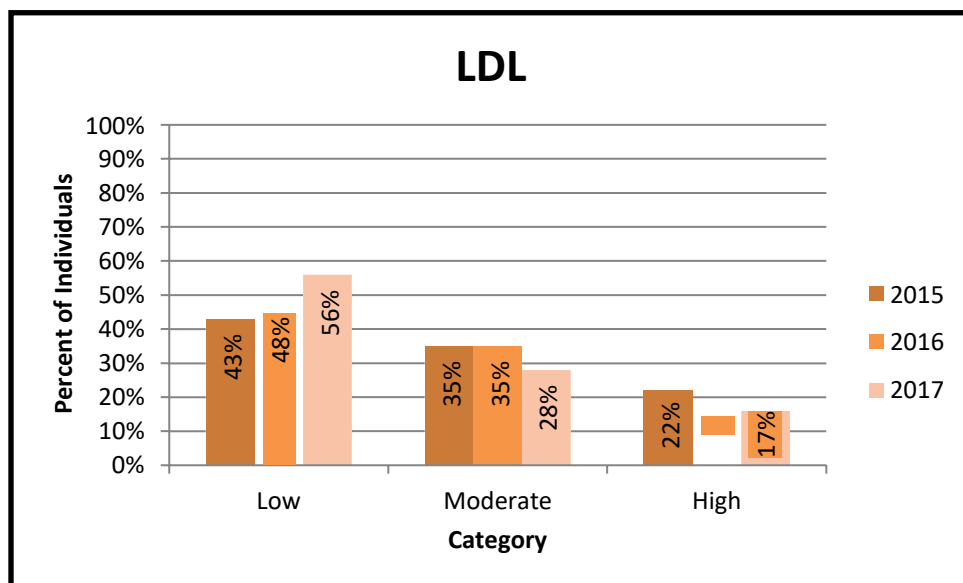
Blood Work and Personal Wellness Assessments

Blood Lipid Summary



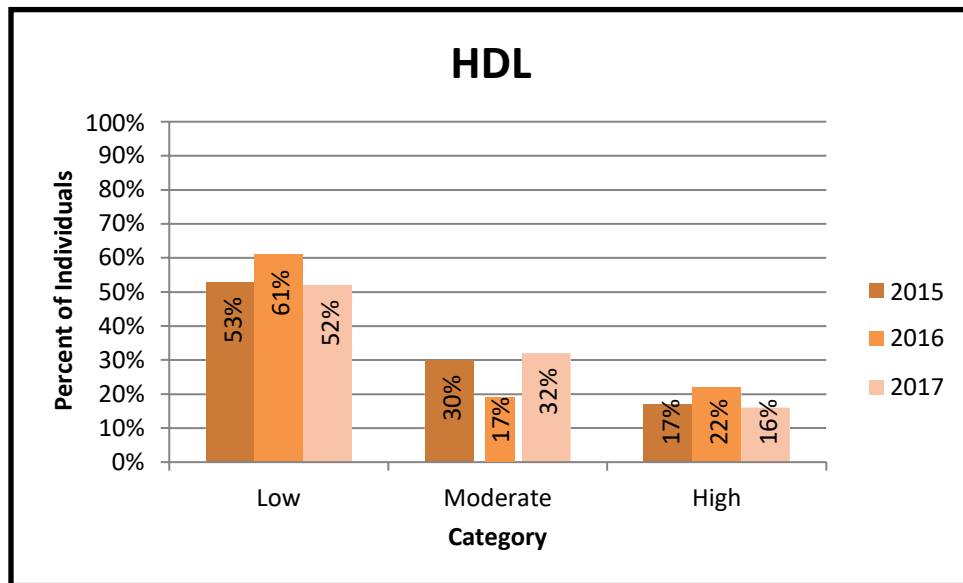
PERSPECTIVE

As demonstrated in the graph above, there was a significant reduction in individuals who are categorized as high risk. Pinnacle Training Systems has and will continue to target those at high risk and provide them with specific action plans in an attempt to reduce their cholesterol levels.



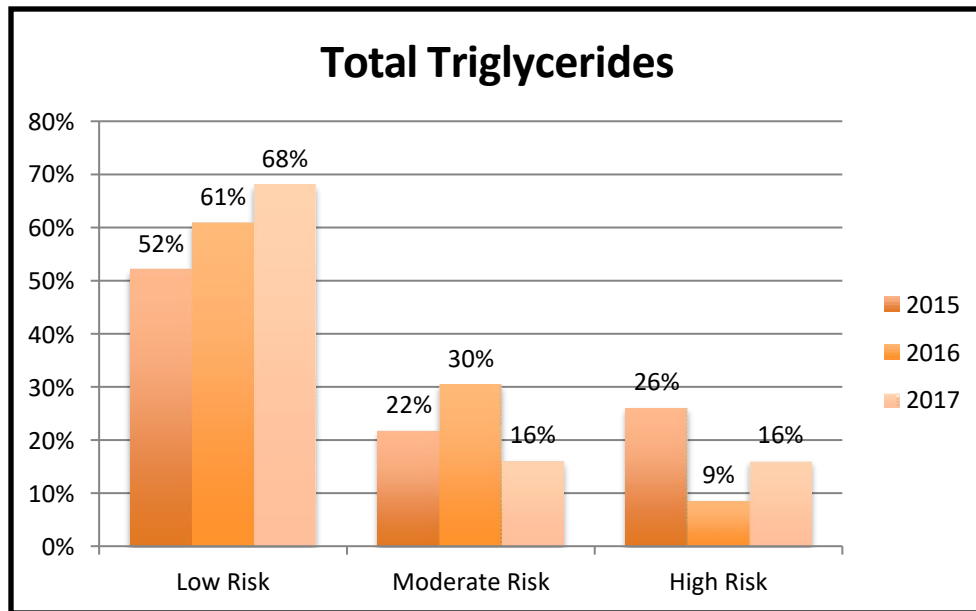
PERSPECTIVE

Low density lipoproteins (LDL) are considered the “bad cholesterol” as they are responsible for carrying plaque throughout the body and depositing them in the arteries. When arteries become blocked, blood cannot flow to and from the heart properly, increasing chance of heart disease. Individuals with high LDL levels are at a significantly increased risk for cardiovascular events. There was a increase in those employees with low LDL Cholesterol.



PERSPECTIVE

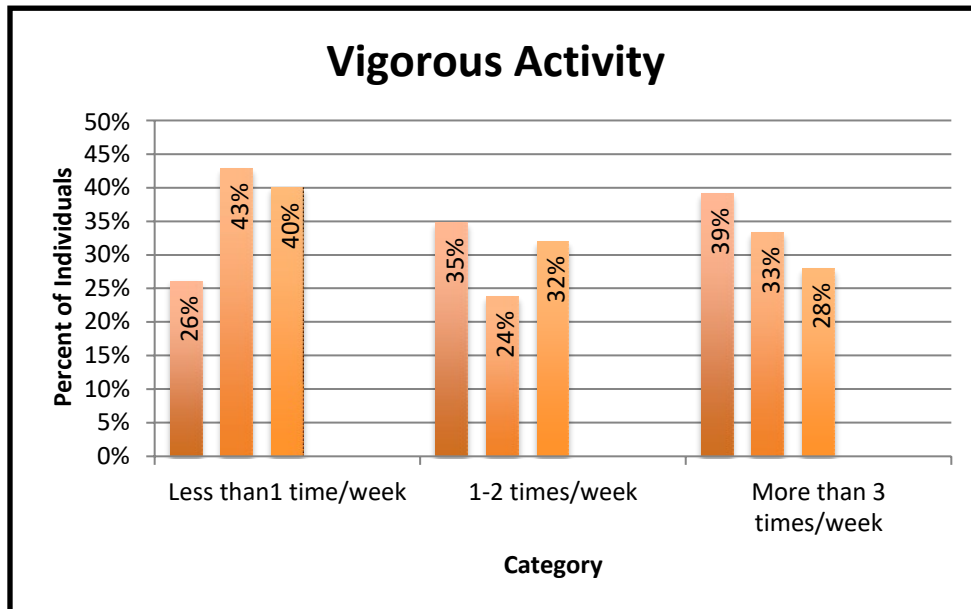
HDL Cholesterol is nicknamed “good cholesterol”, so it is important to have a high value. When assessing an individual’s risk for cardiovascular disease, we need to look at all values in their entirety. Just because someone has a high blood cholesterol value, does not necessarily mean they are at risk. Their HDL levels need to be factored in as well.



PERSEPCTIVE

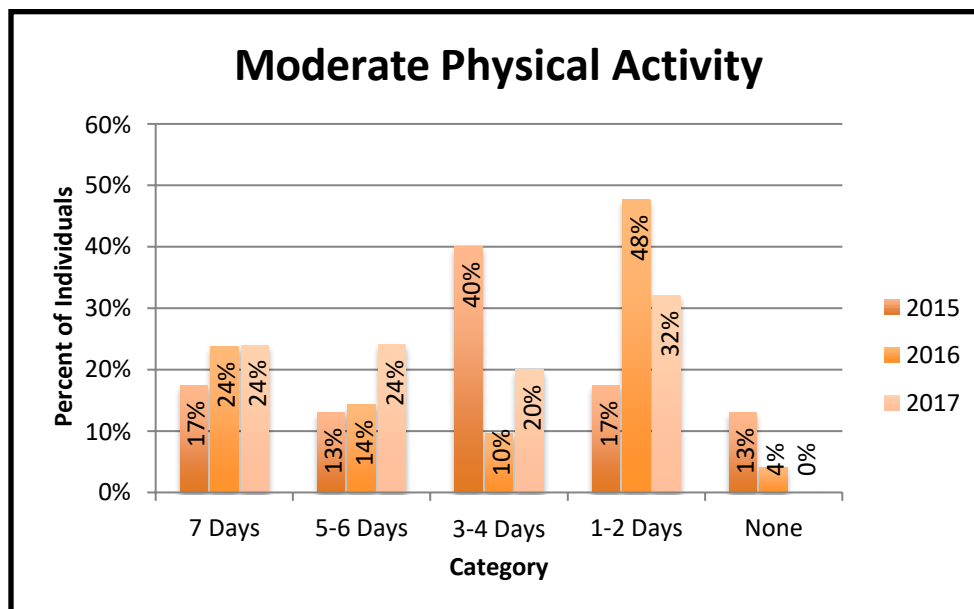
Blood lipids are the fats that are found in the blood. High triglyceride levels have been linked to a greater chance for heart disease. Normal triglycerides means there are less than 150 milligrams per deciliter (mg/dL). Borderline high triglycerides = 150 to 199 mg/dL and high triglycerides are levels over 200 mg/dL. Based on the data we acquired, there has been an increase in the number of associates deemed high risk from each year. Overall, according to the blood lipid data acquired, these individuals have significantly reduced their risk of cardiovascular disease.

Physical Activity Habits



PRERSPECTIVE

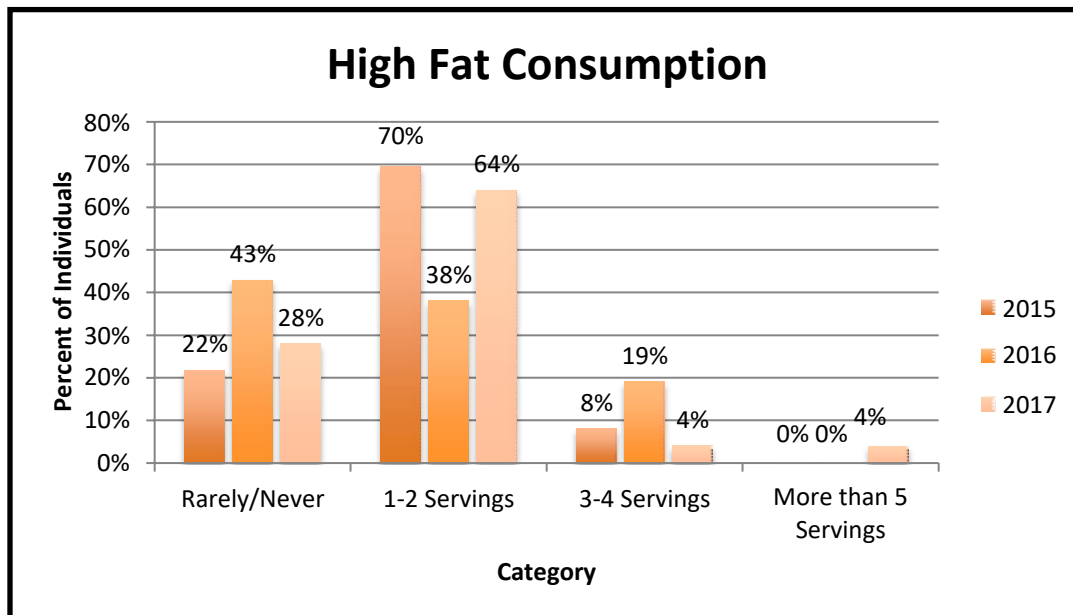
Vigorous physical activity refers to exercise where heart rate is elevated and breathing is labored; it is what most people think of when they hear the word “exercise”. This is one of the most important aspects of improving risk for cardiovascular disease. Research demonstrates that lack of fitness increases risk for cardiovascular disease and all-cause mortality by over 200%, more than smoking, high blood pressure, obesity or high cholesterol.



PRERSPECTIVE

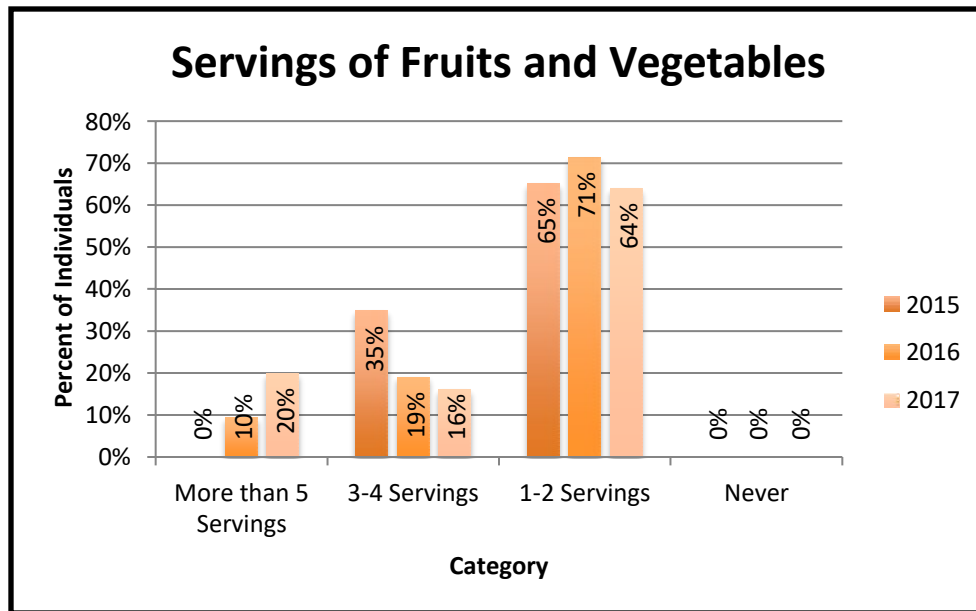
Moderate physical activity refers to active living such as taking the stairs instead of the elevator, manually washing the car, gardening etc. The American College of Sports Medicine recommends participating in moderate physical activity for 30 min most days of the week. This will reduce risk of cardiovascular disease and all-cause mortality by over 50%. Forty-eight percent of associates are meeting the ACSM recommendations for moderate physical activity in 2017. This is an improvement over previous years.

Dietary Habits



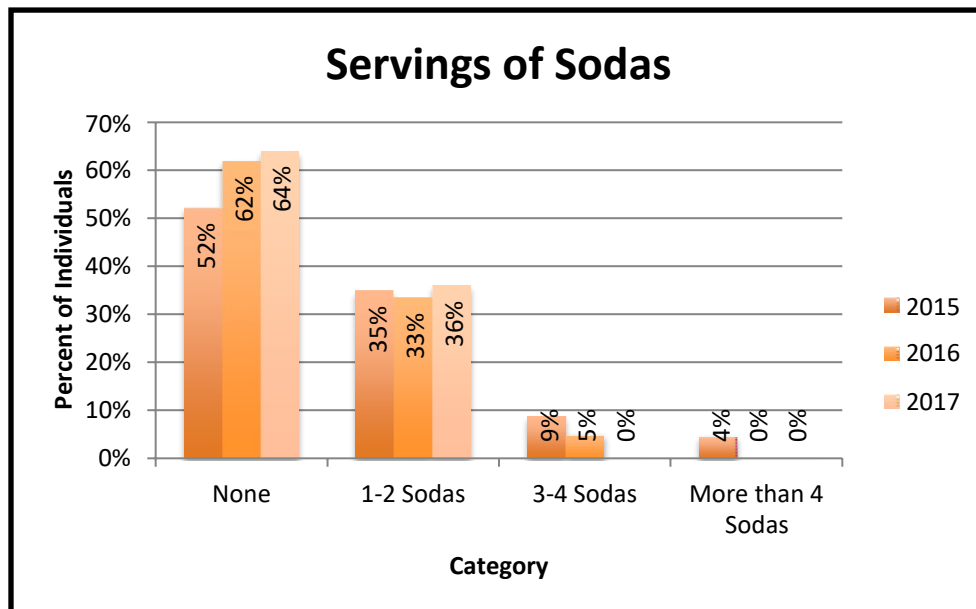
PERSPECTIVE

Many Americans consume high amounts of fat each day. The American Dietetic Association and the American Heart Association recommends that less than 30% of our total caloric intake comes from fat. Yet, the average American consumes over 40%. There is a high correlation between a fat intake and cardiovascular disease.



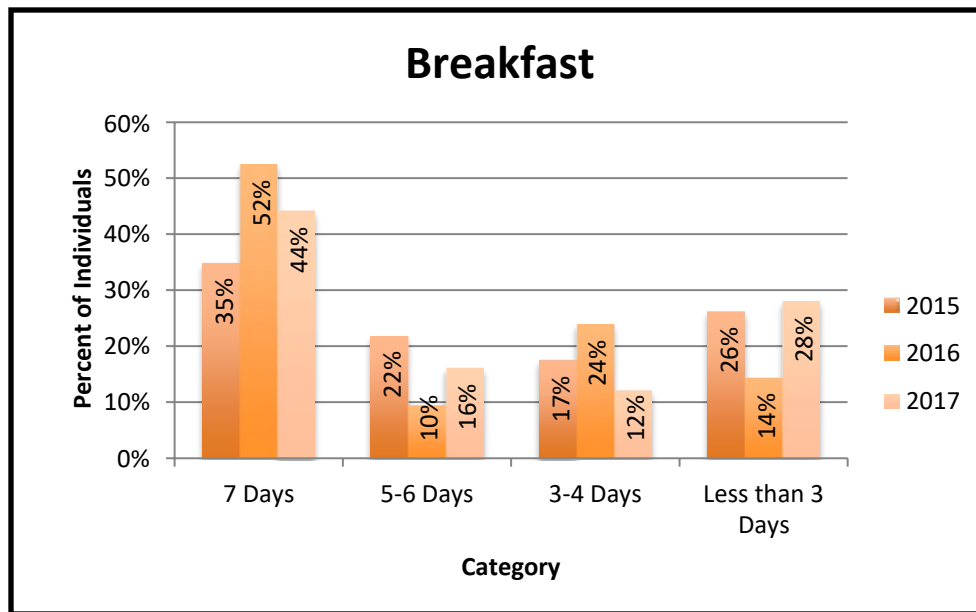
PERSECPECTIVE

Healthy diets rich in fruits and vegetables may reduce the risk of cancer and other chronic diseases such as cardiovascular disease. Fruits and vegetables provide essential vitamins, minerals and fiber and are naturally low in fat. Furthermore, they create the feeling of being full which can help lower overall calorie intake. The American Dietetic Association recommends 2 servings of vegetables per day (1 serving = $\frac{1}{2}$ cup) and 3 servings of fruit per day. This is an area where Betts Company individuals have shown improvement



PERSPECTIVE

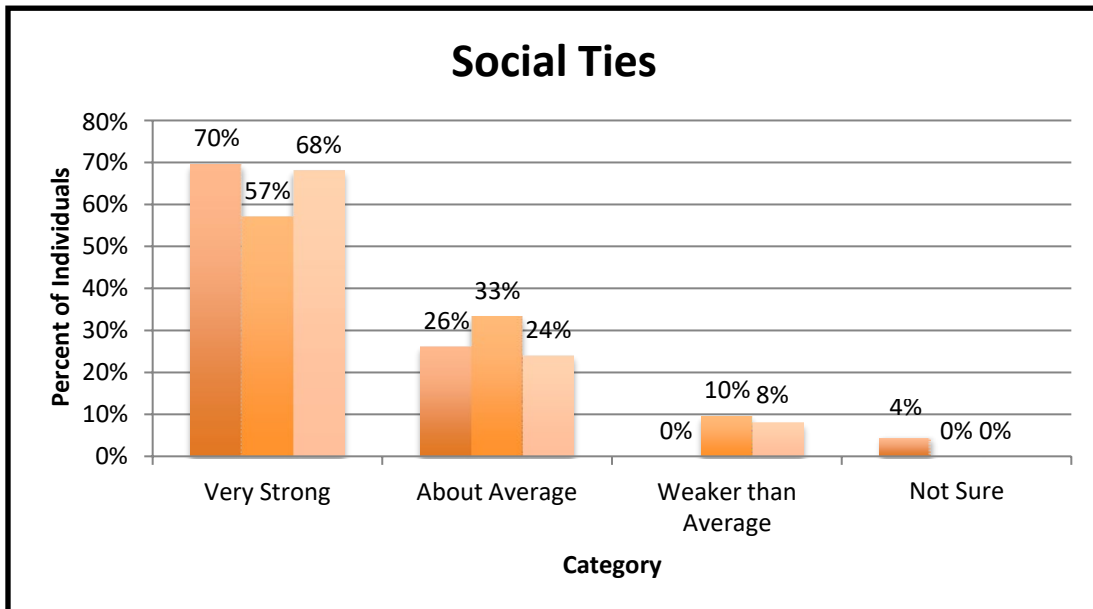
Sodas contain a high amount of sugar adding calories to dietary intake. High intake of sugar is linked to obesity, diabetes and increased risk of cardiovascular disease. Soda is the most common vehicle for sugar intake among Americans. The average American drink 412 8-oz soda drinks per year more than any other country in the world. Betts Company personnel are doing great in this area and have improved over the past two years.



PERSPECTIVE

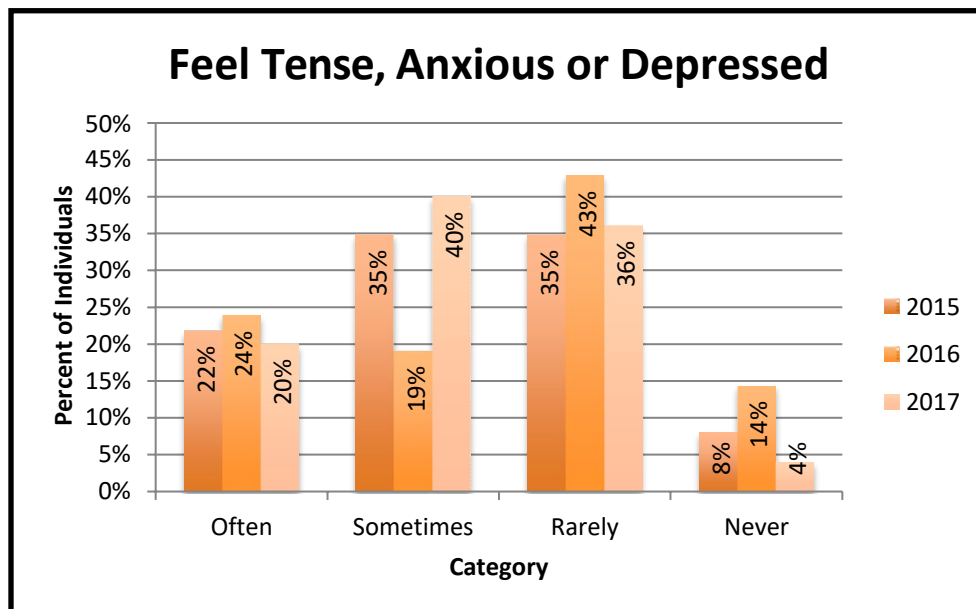
Research has demonstrated that breakfast is the most important meal of the day. When waking up in the morning, the body has been fasting, or going without food, during the hours of sleep. Eating breakfast, results in feeling more satisfied and be less likely to overeat later in the day. Breakfast is also a great opportunity to eat nutritious foods like whole grains, fruits, and low fat dairy products.

Other Health Indices



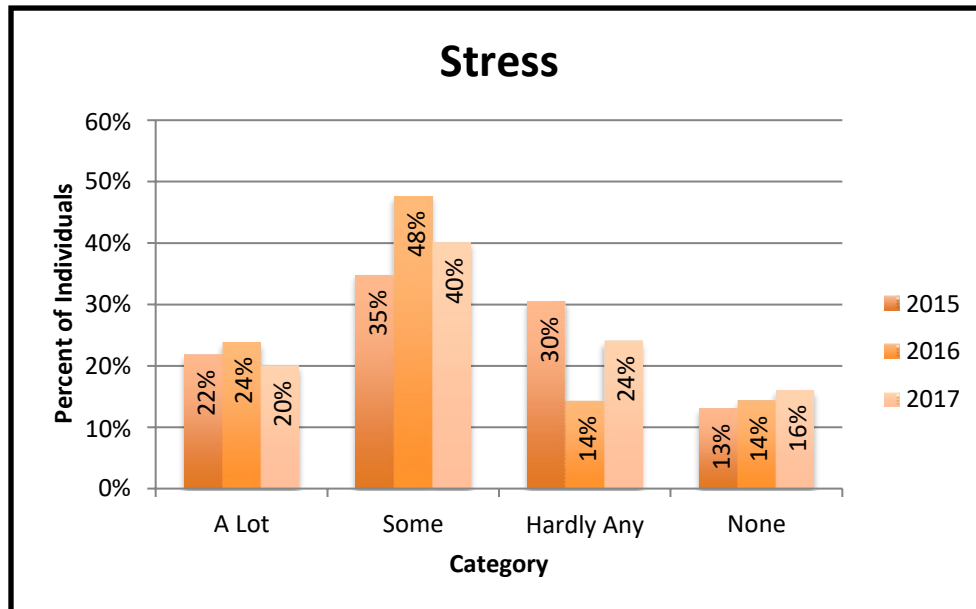
PERSPECTIVE

Research from as early as 1974 suggests strong evidence that social integration leads to reduced mortality risks, and to a better state of mental health. Furthermore, there is extensive research linking social relations to physical health and all-cause mortality.



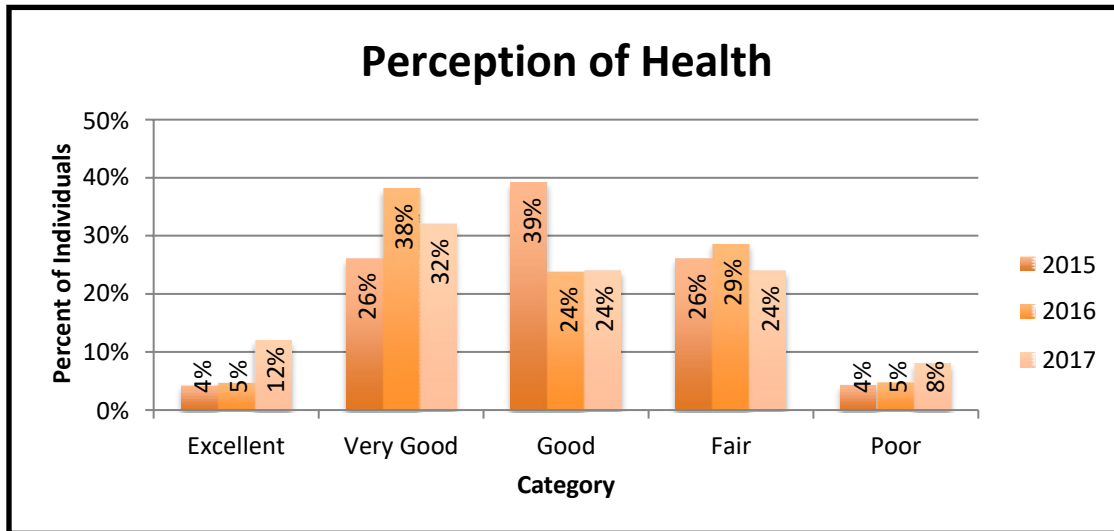
PERSPECTIVE

The interaction between the mind/mental wellness and physical wellness is becoming more understood. There are data which indicate that a high level of tension, anxiety and depression can significantly affect physical health and wellbeing.



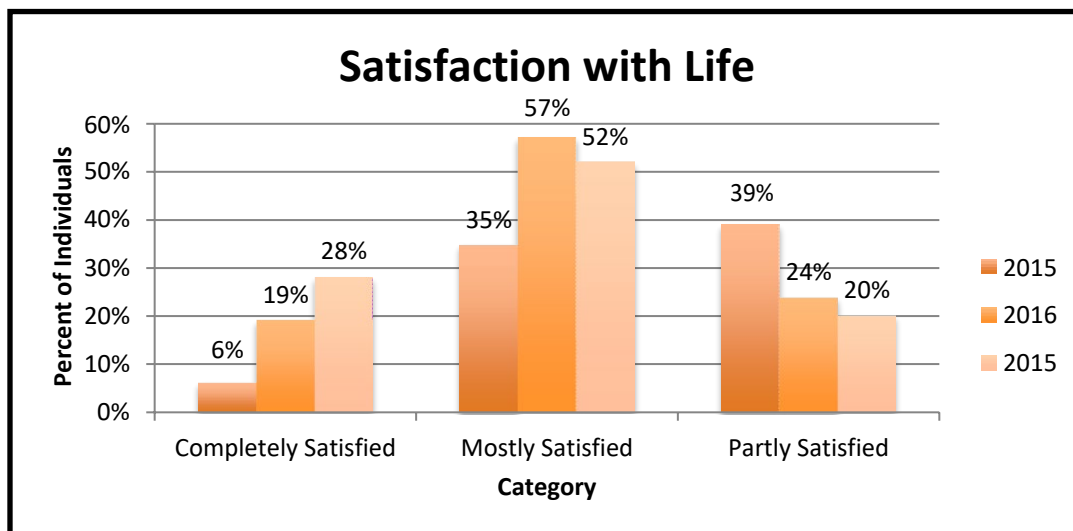
PERSPECTIVE

There is no way to completely avoid stress. It is the level of stress and how the individual handles stress that is important to overall health and wellness. Research indicates that high levels of chronic stress results in an increase in cardiovascular disease and may significantly impact both physical and psychological health. Overall, Betts Associates report a reduction in stress levels over the years.



PERSPECTIVE

A person's perspective of their own health is an important factor in overall health and wellbeing. It can serve as a motivator for behavior change or to seek professional help. Once a person begins to improve aspects of their own health and wellness, confidence is increased which can lead to further positive lifestyle behavior changes.



PERSPECTIVE

As with perception of one's own health, satisfaction with life can significantly affect overall health and wellness. Not only can physical health be affected, but mental, social and emotional health can be adversely impacted when one is unhappy with life circumstances. This can negatively not only impact the individual at home, but also at work.

Overall Conclusions:

Health Risk Assessment (HRA) data is important as a benchmark for employees to learn about their overall risk for disease. Furthermore, an effective risk assessment will allow an organization to identify the areas in which employees are most obviously at risk, and develop strategies to mitigate these risks. The primary purpose of the current HRA and biometric screenings was to determine the risk of employee's to cardiovascular disease since this is the number one cause of death in America today.

When comparing the three years of data among the same individuals, we see many important improvements. Blood pressure and blood work indicate people are at lower risk for cardiovascular disease as the wellness program has progressed. We also see people engaging in more moderate physical activity.

Based on these comparison data, nutrition education should be the focus for future Betts Company wellness initiatives. Continued encouragement of engagement in physical activity should also be provided. Betts Company is improving the way they move based on these data.