



Executive Summary Report

hello

Study Participant
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Your sponsor phrase goes here.

Introduction

The effectiveness of any organization is dependent upon the health and productivity of its employees. Taking steps to protect and improve their health is good business and pays real dividends in:

- Lower healthcare costs
- Less sickness and work-loss time
- Improved productivity
- Improved morale



Participation Rates

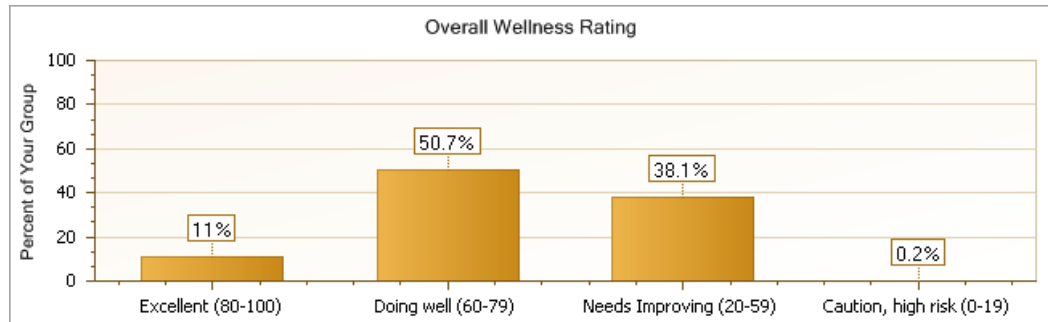
A critical factor in the success of any wellness program is to achieve a high participation rate. Organizations desiring to significantly lower their healthcare costs should aim for participation rates of 85% or higher.¹ Your participation results are listed below:

Number of eligible employees	Number who participated	Percent participation	Company Goal [†]
2479	499	20%	20% +

[†] Edited by company

Overall Wellness Rating and Scores

Research has identified specific health risks linked to chronic disease, high healthcare costs, decreased productivity, and decreased life span. The presence or absence of these health risks determines an overall wellness score (0-100). The higher the score, the higher the wellness rating and health of your employees. High wellness scores are also linked to lower healthcare costs. Here is how your organization scored:



The average wellness score for your organization is 64 out of a possible 100 points. Your organization's rating is "Doing Well."

Health Age

Each person's "health age" was determined by their health practices. People who live healthfully may be physically or biologically younger than their actual age. People with poor health practices may be older than their chronological age. Here are the results in your organization:

- 22.4% had a "health age" younger than their actual age.
- 77.6% of employees had a "health age" greater than or equal to their actual age.
- The average person could add 8.1 years to their life by adopting a healthier lifestyle as recommended in their personal report.

Priority Health Recommendations

When planning your worksite wellness program, consider these important factors:

- Which health risks are most prevalent?
- What do employees want to change?
- How ready are they to make changes?
- Which health problems are the most costly?
- What can make the greatest health impact?

Most of these questions can be answered by reviewing this Executive Summary. From the list below, check the priorities you want to address first in your organization.



Top Six Priorities Based on Prevalence of Risks

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | Good Nutrition | Good nutrition lays the foundation for good health. Choosing primarily unrefined, plant-based, low-calorie, low saturated-fat foods can greatly decrease risk of heart disease, diabetes, and many cancers. In your organization, 388 people (77.8%) are at increased risk with 6+ nutritional risk factors; 198 (39.7%) are at high risk with 10+ nutritional risk factors. |
| <input type="checkbox"/> | Fitness Promotion | Physical activity helps prevent obesity, high blood pressure, diabetes, heart disease, and depression. In your organization, 375 people (75.2%) get less than 5 days/week of physical activity which is recommended for good health, and 104 people (20.8%) get no regular exercise. Physical activity interventions are among the most effective worksite wellness programs for improving health. |
| <input type="checkbox"/> | Weight Management | Excess weight is one of our nation's most common health problems. In your organization, 168 people (33.7%) are overweight (BMI 25 - 29.9), and another 174 (34.9%) are obese (BMI 30+) or at high risk. Weight management helps prevent more serious health problems in the future, curtails high healthcare costs, and improves productivity in the workforce. |
| <input type="checkbox"/> | Osteoporosis | Osteoporosis affects 44 million Americans and is a major cause of fractures and high healthcare costs. Healthy eating, regular physical activity, and not smoking can largely prevent this problem, especially if started early in life. In your organization, 340 people (68.1%) have 2+ risk factors, and 1 (0.2%) have 4 or more risks for osteoporosis. |
| <input type="checkbox"/> | Blood Pressure Reduction | High blood pressure is a common health problem and a marker for high healthcare costs. Untreated it increases a person's risk for heart disease, stroke, dementia, kidney failure, and eye disease. In your organization, 170 people (34.1%) have prehypertension (120/80 - 139/89), and 73 (14.6%) already have high blood pressure (140/90+). |
| <input type="checkbox"/> | Sleep | A lack of adequate sleep (7-8 hours per night) increases a person's risk for weight gain, high blood pressure, stress and depression, and early death. It also decreases productivity. In your organization, 214 people (42.9%) get inadequate sleep. Encourage your employees to get 7-8 hours of sleep on a regular basis. |

Coronary Risk

Keeping the heart in good condition is a critical goal for any worksite wellness program. The key to heart health is to actively eliminate any known risk factors. If a person waits for symptoms to occur before taking action, the first symptom may be a fatal heart attack. Large population studies show that 70-80% of heart disease is linked to modifiable risks.²

Coronary risks found in your organization are listed below. Note the coronary risks you want to target in your worksite wellness program.



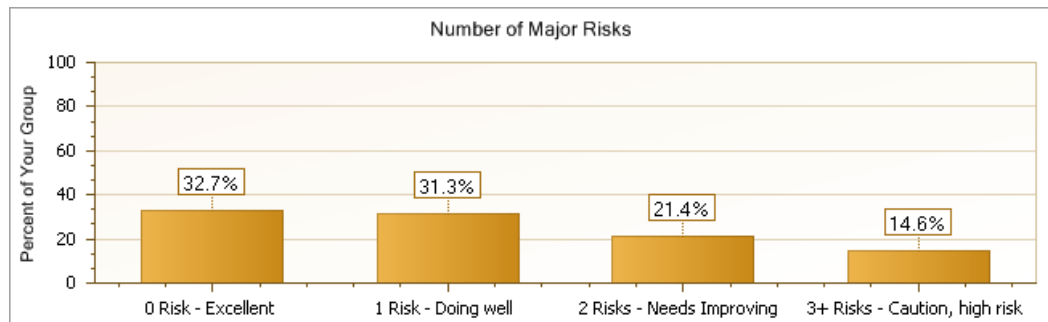
Modifiable Risks

Coronary Risk Factors	Your Results Number	Your Results (%)	National Norms ³
Existing heart disease	11	2.2%	7%
Elevated cholesterol (LDL 130 - 159.9mg/dL)	4	0.8%	32%
High cholesterol* (LDL 160+ mg/dL)	1	0.2%	17%
Low HDL cholesterol* (HDL < 39.9 mg/dL)	2	0.4%	17%
Elevated blood pressure (120-139/80-89)	170	34.1%	16%
▶ High blood pressure* (140/90+)	73	14.6%	32%
Prediabetes* (glucose 100-125.9 mg/dL Fasting, 140-199.9-mg/dL Non-Fasting)	14	2.8%	28%
Diabetes* (glucose 126+ mg/dL Fasting, 200+ mg/dL Non-Fasting)	41	8.2%	11%
Current smoker*	35	7%	21%
Overweight (BMI 25-29.9)	168	33.7%	34%
▶ Obese* (BMI 30+)	174	34.9%	32%
Elevated triglycerides (150-199.9mg/dL)	2	0.4%	14%
High triglycerides (200+ mg/dL)	2	0.4%	13%
Stress levels continually high	39	7.8%	16%
Low physical activity (1-4 days/wk)	271	54.3%	56%
▶ No regular physical activity*	104	20.8%	27%
Metabolic syndrome* (3+ indicators)	20	4%	23%
Low fruit/vegetable intake (<5 cups/day)	439	88%	72%
Low whole-grain intake (<3 serv/day)	322	64.5%	56%
High saturated fat intake	150	30.1%	27%
High cholesterol (TC 240+ mg/dL)	2	0.4%	16%

* Major Risks ▶ Top three major coronary risks in your organization

Overall Coronary Risk

(includes non-modifiable risks of age, gender and health history)



Cancer Risk

Cancer is the second leading cause of death overall and the leading cause of death for persons of working age. The good news is that at least two-thirds of all cancer deaths can be prevented according to a report by the American Cancer Society.⁴

There are two key strategies to reduce cancer: (1) eliminate any known cancer risks, and (2) get the proper cancer checkups as recommended for a person's age and gender.⁵

Modifiable cancer risks found in your organization are listed below. Note the cancer risks you want to target in your worksite wellness program.



Modifiable Risks

Cancer Risk Factors	Your Results Number	Your Results (%)	National Norms ³
A personal history of cancer	17	3.4%	7%
Current smoker*	35	7%	21%
▶ Excessive weight* (BMI 30+)	174	34.9%	32%
Low fruit/vegetable intake (<5 C/day)	439	88%	72%
High red meat/saturated fat intake	220	44.1%	30%
▶ Diabetes* (glucose 126+ mg/dL fasting, 200+ mg/dL non-fasting)	41	8.2%	11%
Low whole-grain intake (< 3 serv/day)	322	64.5%	56%
▶ No* or low physical activity (<5 days/wk)	375	75.2%	83%
High alcohol intake (women 8+ drinks/week, men 15+ drinks/week)	26	5.2%	8%
Excess sun exposure	92	18.4%	24%

* Major Risks ▶ Top three major cancer risks in your organization

Cancer Screening

A proven way to lower a person's risk of death from cancer is to get the cancer checkups recommended for the person's age and gender. Compliance rates for people in your organization are shown below:

Mammograms - 75% of women are current on exams; 19.7% are not.

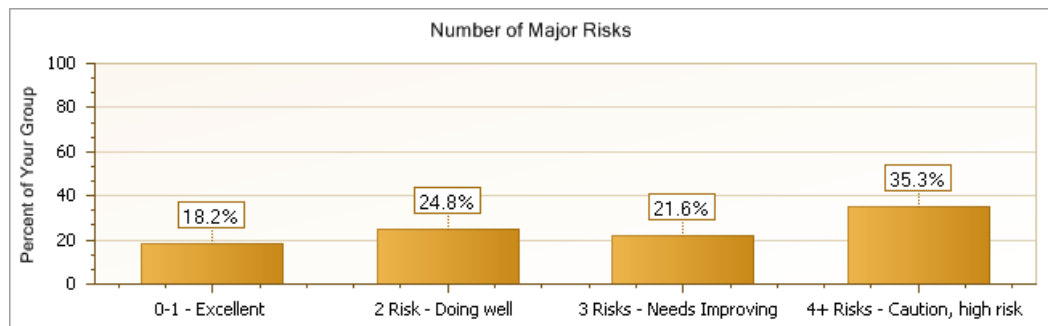
PAP tests - 85.8% of women are current on exams; 12.8% are not.

Prostate check - 84.2% of men are current on exam; 10.5% are not.

Colon screening - 80.6% of men and women are current on exam; 16.1% are not.

Overall Cancer Risk

(includes non-modifiable risks of age, gender and health history)



Diabetes Risk

About 24 million Americans (10.7% of adults) currently have diabetes.⁶ One third of these don't even know they are diabetic. Another 57 million Americans have prediabetes. Diabetes is increasing rapidly and is now the 6th leading cause of death in America. It is projected that 1 out of 3 persons born today will develop diabetes in their lifetime.

The good news is that type 2 diabetes is largely preventable.⁷ The NIH Diabetes Prevention Trial⁸ showed a 58% decrease in risk of developing diabetes in people with prediabetes as they improved their diet and activity levels. Modifiable risks for diabetes in your organization are listed below.



Modifiable Risks

Diabetes Risk Factors	Your Results Number	Your Results (%)	National Norms ³
Diabetes* (glucose 126+ mg/dL fasting, 200+ mg/dL non-fasting)	41	8.2%	11%
Prediabetes* (glucose 100-125.9 mg/dL fasting, 140-199.9 mg/dL non-fasting)	14	2.8%	28%
Current smoker*	35	7%	21%
Overweight (BMI 25-29.9)	168	33.7%	34%
▶ Obese* (BMI 30+)	174	34.9%	32%
▶ Nutrition factors linked to diabetes*	326	65.3%	59%
▶ Low physical activity* (<3 days/week)	222	44.5%	55%
High triglycerides (200+ mg/dL)	2	0.4%	7%
Low HDL cholesterol* (HDL <39.9 mg/dL)	2	0.4%	17%
High blood pressure* (140/90+)	73	14.6%	32%
A1C high in nondiabetes (5.7%+)	6	1.2%	25%

* Major Risks ▶ Top three major diabetes risks in your organization

Diabetes Screening

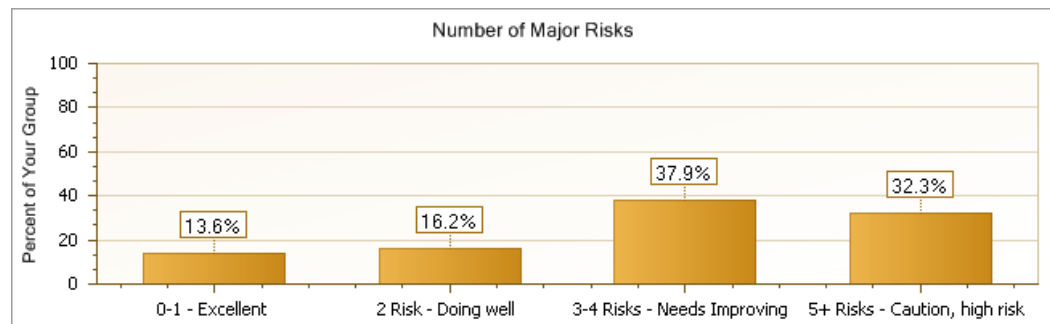
Anyone 45 years or older should be tested for diabetes. Persons younger than 45 who are obese (BMI 30+) and have one or more other risk factors should also be tested using a blood glucose test.⁹

Number of people in your organization who need screening: 480 96.2%

Number of people in your organization getting screened: 33 6.6%

Overall Diabetes Risk

(includes non-modifiable risks of age, gender and health history)



Osteoporosis Risk

Keeping bones strong and healthy is essential for preventing fractures and the costly medical care following a spine or hip fracture. Osteoporosis, or porous bone, leads to bone fragility and fractures. The National Osteoporosis Foundation (NOF) estimates that 44 million Americans (55% of persons 50 or older) have weakened bones (low bone mass).

By living an active lifestyle, eating nutritiously, and eliminating known risks, osteoporosis is a largely preventable disease, especially when a bone-healthy lifestyle is practiced over a lifetime. Modifiable risks for your organization are listed below.



Modifiable Risks

Osteoporosis Risk Factors	Your Results Number	Your Results (%)	National Norms ³
▶ No regular physical activity*	104	20.8%	40%
▶ Low physical activity* (1-2 days/week)	118	23.6%	28%
Current smoker*	35	7%	21%
Underweight (BMI < 18.5)	7	1.4%	20%
▶ Low dairy (<1 serv/day) and no calcium supplement*	165	33.1%	19%
Low fruit/vegetable intake (<5 C/day)	439	88%	72%
High alcohol intake (women 8+ drinks/week, men 15+ drinks/week)	26	5.2%	8%
Elevated blood pressure (120-139/80-89)	170	34.1%	16%
High blood pressure (140/90+)	73	14.6%	32%

* Major Risks ▶ Top three major osteoporosis risks in your organization

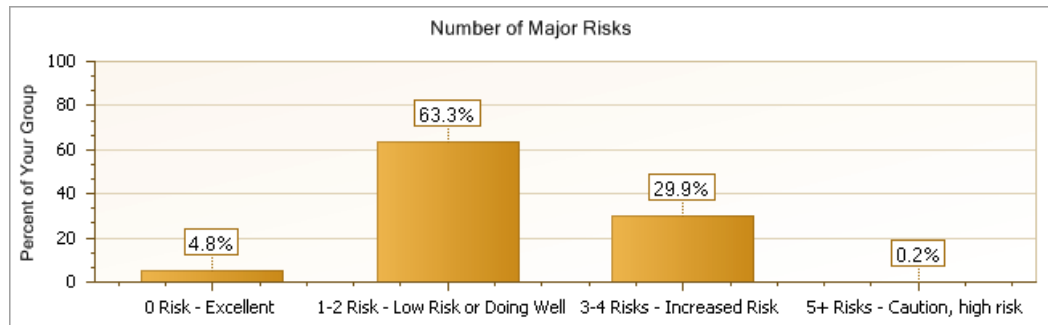
Recommendations

Key recommendations of the National Osteoporosis Foundation:¹⁰

- Get recommended levels of calcium and vitamin D daily.
- Engage in daily weight-bearing exercise.
- Avoid smoking and excess alcohol intake.
- Encourage people to talk with their doctor about bone health, and get a bone density test (recommended for all women over age 65 and any person at high risk).

Overall Risk

(includes non-modifiable risks of age, gender, race and health history)



Nutrition

Good nutrition is vital for energy, good health, and prevention of disease. Poor eating habits lead to obesity, diabetes, high blood pressure, cancer, coronary heart disease, and stroke.

Listed below are nutritional risk indicators that are linked to early disease. The number and percentage of employees in your organization who need improvement in these areas are listed below. Choosing nutritious foods plays an important role in keeping employees healthy and productive.



Modifiable Risks

Nutrition Risk Factors	Your Results Number	Your Results (%)	National Norms ³
▶ Low in whole grains (<3 serv/day)	322	64.5%	56%
▶ Low fruit/vegetable intake (<5 C/day)	439	88%	72%
High intake of saturated fats	150	30.1%	27%
High-fat meats (eaten most days)	192	38.5%	15%
Choose primarily unhealthy fats	78	15.6%	20%
Choose mostly high saturated fat proteins	192	38.5%	15%
▶ Seldom eat nuts (<3 times/wk)	412	82.6%	72%
Low dairy intake (<2 serv/day and no calcium supplement)	165	33.1%	19%
High sweets intake (3+ serv/day)	120	24%	27%
Food intake high in sodium (salt)	78	15.6%	12%
Skipping breakfast often	84	16.8%	14%
Low intake of water (<5 cups/day)	318	63.7%	42%
Excess calorie intake (BMI 30+)	174	34.9%	32%

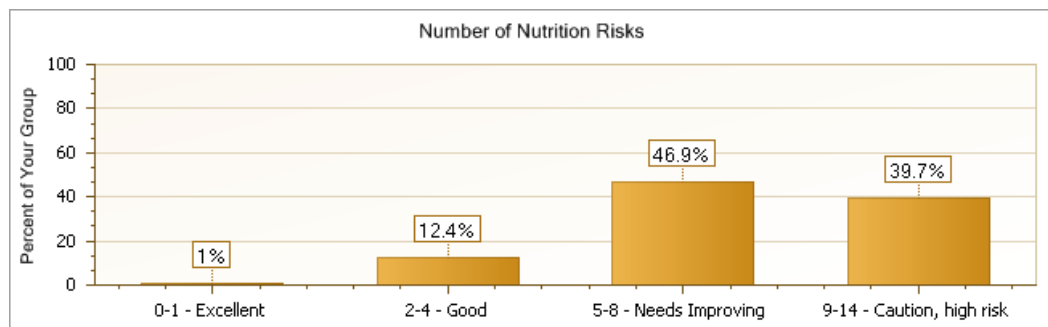
▶ Top three nutrition needs in your organization

Dietary Guidelines

Key Dietary Guidelines:¹¹

- Eat a variety of fresh fruits and vegetables - 5-9 servings daily.
- Eat primarily whole-grain breads and cereals - 3+ servings daily.
- Limit animal/saturated fats. Use vegetable oils in their place.
- Limit sugar/sweets, desserts, and other refined carbohydrates.
- Balance weight with lower-calorie foods and regular activity.
- Limit sodium (salt) in the diet to less than 2,300 mg per day.

Overall Risk



Fitness

Regular physical activity keeps the muscles, bones, and waistline in better shape. Exercise has also been shown to decrease one's risk for high blood pressure, heart disease, diabetes, certain cancers, and stroke.

Fit people are also sick less often, require less healthcare, are happier, and are more productive employees. Regular physical activity is a key element in any organization's employee wellness program. Exercise programs pay good dividends for both the employee and for the organization.

Modifiable Risks

Fitness Indicators	Your Results Number	Your Results (%)	National Norms ³
▶ Low physical activity (1-2 days per week)	118	23.6%	45%
▶ No regular physical activity (0 day per week)	104	20.8%	39%
▶ No regular strength training (<2 days per week)	359	71.9%	64%
▶ No regular stretching regime (<2 days per week)	323	64.7%	69%

▶ Top three fitness needs in your organization

Recommendations

Suggestions for Physical Activity Interventions:

- Pedometer program - Set a goal of 8,000-10,000 steps daily.
- Walking program - Recommend 30 minutes, 5+ times per week.
- Running program - Aim for 20-30+ minutes, 3-5 days per week.
- Encourage employees to walk or bike to work if they are able.
- Assist with gym memberships for employees/family members.
- Initiate an online exercise logging system.

Exercise Guidelines

All healthy adults need 30 minutes of moderate-intensity aerobic activity 5 or more days per week, or vigorous activity for 20+ minutes 3 or more days per week.^{1,2} Combinations of moderate and vigorous activity can meet this goal.

To further improve personal fitness, reduce risks for chronic diseases, or to help prevent weight gain, the recommendation is 45-60 minutes daily.

In addition, do muscular strength and stretching activities 2 days per week.





Overall Risk

Stress and Coping

High levels of stress and poor coping ability are significant causes of high healthcare claims, impaired productivity, and low job satisfaction. They also contribute to depression, anxiety, and other chronic health conditions.

In this report, stress is defined as "feelings of tension, irritability, and anxiety often resulting in difficulty sleeping." See below how stress is affecting people in your organization.

Modifiable Risks

Stress Risk Factors	Your Results		National
	Number	(%)	Norms ³
 High levels of stress at home	47	9.4%	3%
 High levels of stress at work ¹³	80	16%	26%
High levels of financial stress	36	7.2%	12%
2+ major life events causing stress	35	7%	54%
Feelings of little or no control over life	3	0.6%	1%
Negative outlook on the future	25	5%	2%
 Depressed mood - feeling down, unhappy, or hopeless	64	12.8%	18%
 Top three stress indicators needing attention in your organization			

Recommendations

Suggestions for Stress-Reduction Interventions:

- Hold a class on improving coping skills.
- Provide an online intervention for stress reduction.
- Make available a self-study guide on reducing stress.
- Refer persons needing help to an employee assistance program.
- Promote regular physical activity - a great stress reducer.
- Provide a financial planning program for employees.
- Provide job training as needed for new employees.
- Develop a corporate culture and management practices that help create a stress-free work environment.

Overall Risk




* Even one high-stress indicator can have a negative impact on health and productivity.


Safety

Promoting safety at work and home is an excellent way to reduce high healthcare costs due to accidents, injuries, and disability. For persons under the age of 40, accidents are the leading cause of disability and injury.

The report below identifies unsafe practices by people in your organization that need attention. Make safety a major goal and value for your employees. Remember, most accidents can be prevented!

Modifiable Risks

Safety Factors	Your Results Number	(%)	National Norms ³
Not always wearing a safety belt	45	9%	20%
Driving high miles yearly	44	8.8%	18%
 Not always using good lifting technique	284	56.9%	3%
Not always wearing a helmet when needed	47	9.4%	18%
No smoke detectors at home	17	3.4%	5%
 Driving soon after drinking alcohol (or riding with someone who has)	48	9.6%	5%
Not using child seats when needed	0	0%	1%
 Excessive sun exposure	92	18.4%	24%

 Top three safety needs in your organization

Recommendations

Suggestions for Improving Safety:

- Have a safety committee in your organization.
- Provide awards for departments with good safety records.
- Conduct safety campaigns yearly to highlight safety needs.
- Display posters on safety throughout the year.

Overall Risk

* Even one major accident can have a significant impact on healthcare costs for the year.

Weight

Excess body weight is one of the most common health conditions linked to chronic disease and higher healthcare costs. Excess body weight increases a person's risk for high blood pressure, diabetes, coronary heart disease, stroke, depression, and disability.

The prevalence of overweight and obesity in your organization is shown below. Taking steps to prevent and deal with excess weight needs to be an important component of every employee wellness program.

Modifiable Risks

Weight/Body Composition:	Your Results		National Norms ³
	Number	(%)	
Underweight (BMI < 18.5)	7	1.4%	5%
Healthy weight range (BMI 18.5-24.9)	150	30.1%	33%
Overweight (BMI 25-29.9)	168	33.7%	34%
Obese, high risk (BMI 30-34.9)	107	21.4%	20%
Very obese, very high risk (BMI 35+)	67	13.4%	12%
High waist circumference (men 40+ inches, women 35+ inches)	144	28.9%	21%
Obese and no exercise* (<2 days/wk)	78	15.6%	9%

* Regular physical activity helps offset many of the health risks of obesity

Recommendations

Suggestions for Managing Excess Body Weight:

- Provide an onsite weight-loss support group.
- Make available self-study guides for weight loss.
- Promote physical activity programs, such as walking and using pedometers, biking to work, and gym memberships.
- Provide periodic nutrition programs featuring low-calorie meals.
- Provide incentives for those who are overweight to exercise regularly. Research shows that people who exercise have reduced healthcare costs, even if they don't lose weight.¹⁴

Overall Risk

Chronic Health Conditions

A major factor driving healthcare costs in any organization is the number of chronic health conditions present. Persons with high blood pressure, asthma, diabetes, and other chronic conditions have significantly higher medical claims. It is important that these people get good medical care and help in managing their condition to prevent future problems and complications. It also helps minimize healthcare costs in the future.

Common chronic conditions found in your organization are listed below.

Modifiable Risks

Chronic Health Conditions:	Your Results Number	(%)	National Norms ³
▶ Allergies	235	47.1%	30%
Asthma	49	9.8%	11%
▶ Arthritis	67	13.4%	8%
Chronic back pain	33	6.6%	6%
Chronic lung disease (COPD)	5	1%	7%
Chronic sinus problem	19	3.8%	5%
Coronary heart disease	11	2.2%	25%
Cancer	17	3.4%	7%
Diabetes	41	8.2%	11%
Stroke	5	1%	3%
Broken bones in last 10 yrs	37	7.4%	6%
▶ High blood pressure (140/90+)	73	14.6%	32%
Depressed mood for 2 or more weeks	64	12.8%	18%

▶ Top three chronic health conditions in your organization

Recommendations

Suggestions for Managing Chronic Conditions:

- Encourage people with health problems to get regular medical care. This can help prevent more serious complications in the future. This is especially important for diabetics and people with high blood pressure.
- Make self-study guides available that pertain to their health problems.
- Offer help from a health coach to assist them in managing their health problems and reducing their risks.

Overall Risk

Health Interests

When planning your wellness program, it is important to know the health needs and interests of your employees. The following tables show the health needs and interests of your employees:

Prevalence

Health Interests:	Your Results Number	(%)	National Norms ³
▶ Nutrition/healthy eating	222	44.5%	49%
▶ Weight management	223	44.7%	46%
Group fitness class	140	28.1%	21%
Walking group	131	26.3%	15%
Cholesterol reduction	104	20.8%	17%
Blood pressure reduction	77	15.4%	11%
Reducing diabetes risk	64	12.8%	12%
Men's health issues	7	1.4%	14%
Reducing coronary risk	48	9.6%	10%
Reducing cancer risk	83	16.6%	12%
Alcohol/drug help	6	1.2%	1%
Medical self-care	90	18%	12%
Healthy back	73	14.6%	16%
▶ Stress reduction	177	35.5%	31%
Women's health issues	96	19.2%	30%
Dealing with depression	47	9.4%	14%

▶ Top three health interests in your organization

Lifestyle Change Desired: *	Number	(%)
Be physically active	275	55.1%
Practice good eating habits	265	53.1%
Avoid smoking or using tobacco	25	5%
Lose weight or maintain a healthy weight	286	57.3%
Cope better with stress	133	26.7%
Lower or maintain healthy cholesterol	49	9.8%
Lower or maintain healthy blood pressure	16	3.2%
Avoid alcohol or drink in moderation	35	7%
Live an overall healthy lifestyle	197	39.5%

* Recently started or expressed a desire to change within the next 1 to 6 months.

Recommendations

Suggestions for Providing Health Programs:

- Invite experts to present on specific health topics.
- Make self-study guides available for topics of interest.
- Offer health coaching to assist employees in managing changes.
- Provide online interventions.
- Refer employees to helpful programs in your community.

Health Culture

Demographics

Age, gender, and race are important considerations in assessing risk and planning interventions. Many health conditions are more prevalent in certain ethnic groups. Increasing age is a strong indicator of healthcare costs. Planning age/gender specific interventions can help improve participation and effectiveness of corporate wellness programs. Key demographic indicators for your organization are listed below.

Percentages

Gender	Your Results	
	Number	(%)
Men	133	26.7%
Women	366	73.3%
Total number of people in the group	499	100%

Age	Your Results	
	Number	(%)
<20 years	292	58.5%
20-29	43	8.6%
30-39	62	12.4%
40-49	40	8%
50-59	40	8%
60+	22	4.4%

Race/Ethnicity	Your Results	
	Number	(%)*
White/Caucasian	332	66.5%
African American	127	25.5%
Hispanic/Latino	9	1.8%
Asian	7	1.4%
Native American	3	0.6%
Other	2	0.4%

* based on self-reported responses

Health perception

In general, I would say my health is....

References

1. Edington DW. Corporate Wellness Conference. University of Michigan.
2. Stamler J, Stamler R, Neaton J, et al. Low risk-factor profile and long-term cardiovascular and noncardiovascular mortality and life expectancy. *Journal of the American Medical Association*. 282 (21):2012-2018.
3. National Center for Health Statistics. Health, United States, 2007. Centers for Disease Control and Prevention. Available at: <http://www.cdc.gov/nchs/hus.htm>. Statistics not available through NCHS are derived from aggregate group results gathered from a database of 200,000+ employees nationwide.
4. Kushi LH, Byers T, Doyle C, et al. American Cancer Society guidelines on nutrition and physical activity for cancer prevention. *CA - A Cancer Journal for Clinicians*. 2006; 56:254-281.
5. American Cancer Society website at <http://www.cancer.org/healthy/index>
6. American Diabetes Association. Diabetes Statistics. Available at: <http://www.diabetes.org/>.
7. Hu FB, Manson JE, Stampfer MJ, et al. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. *New England Journal of Medicine*. 345: 790-7.
8. National Institute of Diabetes and Digestive and Kidney Diseases. Diabetes Prevention Program. National Institutes of Health. Available at: <http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram/>.
9. National Institute of Diabetes and Digestive and Kidney Diseases. Diagnosis of diabetes. National Institutes of Health. Available at: <http://diabetes.niddk.nih.gov/dm/pubs/diagnosis/>.
10. National Osteoporosis Foundation. Prevention. Available at: <http://www.nof.org/learn/prevention/>.
11. U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary guidelines for Americans. Key recommendations for the general population. Available at: <http://www.health.gov/dietaryguidelines/>.
12. Haskell, W L, et al. Physical activity and public health: Updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Medicine and Science in Sports and Exercise*. 39(8):1423-34.
13. DHHS (NIOSH) Publication No. 99-101, <http://www.cdc.gov/niosh/docs/99-101/>, National Institute for Occupational Safety and Health 4676 Columbia Parkway, Cincinnati, OH 45226-1998 Fax number: (513) 533-8573, 1-800-35-NIOSH (1-800-356-4674)
14. Feifei W, McDonald T, Champagne L, Edington DW. Relationship of body mass index and physical activity to health care costs among employees. *Journal of Occupational and Environmental Medicine*. 46(5):428-436.

Note: Scoring algorithms for overall risk developed by Don R. Hall, DrPH, CHES, and Gerard D. McLane, DrPH, CHES, after reviewing large-population data from national and international studies and from guidelines established by the National Institutes of Health.

Glossary

This glossary can give you a better understanding of terms and risk factors mentioned in this report. If further help is needed, ask your health coordinator or a health professional for specific guidance.

A1C

A1C is an abbreviation for **glycated hemoglobin**, a blood test that reflects how high the blood sugar levels have been over the past three months. For non-diabetics, an A1C of less than 5.7% is normal; a level of 5.7 to 6.4% is called prediabetes and indicates increased risk for coronary heart disease and diabetes. An A1C level of 6.5% or higher indicates diabetes. For diabetics, an A1C of less than 7.0% is recommended and indicates good glycemic control.

Blood pressure

Blood pressure is an indicator of health that is reported as two numbers separated with a slash such as 110/70. The first number represents the **systolic** pressure in the arteries, when the heart is contracting. The second number represents the **diastolic** pressure in the arteries between heart beats, when the heart is resting. If either number gets too high, it signals the potential for damage to the heart, arteries, eyes, kidneys, and brain. Normal blood pressure is less than 120/80. Prehypertension is indicated by blood pressure of 120/80 to 139/89. High blood pressure is 140/90 or higher.

BMI

BMI, or **body mass index**, is a measure of weight in relation to height. According to research, a healthy weight is indicated by a BMI in the range of 18.5 to 24.9, overweight is a BMI of 25 to 29.9, and obesity or high risk is a BMI of 30+. Use a BMI calculator to determine BMI and health risk.

Bone density

All healthy bones lose some density as people grow older. The condition called **osteopenia** is a thinning of the bones. A more advanced bone density loss is called **osteoporosis**. Because bones are living tissue, they can become stronger and denser with exercise – specifically, weight-bearing exercise. Potassium and magnesium are nutrients found in high concentrations in many fruits and vegetables. They, even more so than calcium, are vitally important to bone health.

Cholesterol

Cholesterol is a fatty substance normally found in the blood. However, if the cholesterol level becomes too high, it can accumulate in the arteries which can lead to atherosclerosis, coronary heart disease, and stroke. Cholesterol comes in various forms. HDL (the “good” cholesterol) is considered protective because it helps remove excess cholesterol from the artery walls, thus preventing heart disease. High levels of LDL (the “bad” cholesterol) will clog the arteries and contribute to heart disease. Norms for each are shown below:

Risk Rating	Total cholesterol	LDL cholesterol	HDL cholesterol
Ideal	Less than 160	Less than 100	60+ mg/dL
Desirable	Less than 200	Less than 130	45+ men, 55+ women
At risk	200+ mg/dL	130+ mg/dL	Less than desirable
High risk	240+ mg/dL	160+ mg/dL	Less than 40 mg/dL

People at high risk, such as diabetics or those with heart disease, should aim for the “ideal” goal.

Diabetes

Diabetes is a disease characterized by high blood sugar (fasting glucose level of 126 mg/dL or higher; nonfasting glucose of 200 mg/dL or higher; or A1C level of 6.5% or higher). The high sugar in the blood can damage the arteries resulting in heart disease and stroke. High blood sugar can also damage the eyes and kidneys causing blindness and kidney failure, and lead to other complications, such as poor circulation and nerve damage. A healthy lifestyle (including regular physical activity, healthy meals low in saturated fat and refined carbohydrates, and high in fiber) and good glycemic control (including insulin or other medications if needed) can minimize these serious complications. All people age 45 or older – or younger than 45 if they have risk factors such as obesity or a family history of diabetes – should be screened for diabetes with a fasting blood sugar (glucose) test.

Fruits and vegetables

Fruit and vegetable intake is linked to a decreased risk of heart disease, cancer, stroke, and osteoporosis, and to overall good health and longevity. The MyPyramid.gov and the DASH Diet by NIH recommends 7 to 10 servings of fruits and vegetables daily. One serving = 1/2 cup chopped or cooked vegetables; 1 cup raw leafy vegetables; 1 medium apple, banana, orange, or pear; 1/2 cup of chopped, cooked, or canned fruit; and 3/4 cup fruit juice.

Glucose

Glucose is another name for blood sugar. Glucose is required for energy. If the glucose levels get too low (hypoglycemia) it causes symptoms such as hunger, shakiness, headache, inability to concentrate, and emotional effects. Eating food with carbohydrate relieves the system. If the blood sugar level gets too high, it can damage the arteries, heart, eyes, and kidneys, and increase the risk for cancer and cardiovascular disease. Norms are listed below:

Blood sugar (glucose) norms	Fasting	Non-fasting
Normal	60-90 mg/dL	Less than 200

High normal	90-99.9 mg/dL	100-139.9 mg/dL
Prediabetes	100-125.9 mg/dL	140-199.9 mg/dL
Diabetes	126 mg/dL or higher	140 mg/dL or higher

HDL cholesterol

HDL stands for **high-density lipoproteins**, a protein-fat complex that transports cholesterol and fat in the blood. Cholesterol carried in association with HDL (the “good” cholesterol) is desirable because it is being carried out of the body rather than being deposited in an artery wall. People with high HDL levels (60 mg/dL or higher) seldom have heart or circulatory problems because HDL removes excess cholesterol from arteries and prevents coronary artery disease. The higher the HDL cholesterol level, the lower the risk of heart disease. Low HDL levels (40 mg/dL or lower) are linked to a high risk of coronary heart disease. Most research shows that HDL cholesterol level is a better indicator of risk than either total cholesterol or LDL level. Average HDL cholesterol level is 45 for men and 55 for women.

The remaining types of cholesterol are **non-HDL**, or “bad” cholesterol. They include LDL (low-density lipoprotein), IDL (intermediate-density lipoproteins), and VLDL (very-low-density cholesterol). VLDL is made up mostly of triglyceride (blood fat) and a small amount of cholesterol. All non-HDL cholesterol is atherogenic, meaning it can damage the heart by advancing atherosclerosis.

Health age

A person’s “health age” is determined by his or her health practices. People with poor health practices could have a health age that is much older than their chronological age. People who live healthfully could be physically or biologically younger, and therefore have a younger health age than their actual age.

Heart disease

The term “heart disease” refers to several abnormal conditions including: **coronary artery disease** (hardened, narrowed arteries that reduce blood flow to the heart) that can cause **angina** (chest pain) or **heart attack** (from a severely or completely blocked artery that stops blood flow to the heart), **heart failure** (when the heart has difficulty pumping blood), and **arrhythmias** (changes in the heartbeat). Heart disease often has no immediate symptoms. However, shortness of breath, chest or arm pain, dizziness, nausea, or abnormal heartbeats can be symptoms of heart disease and warning signs of a heart attack.

Hypertension

Hypertension, also called “high blood pressure,” is a blood pressure reading at or above 140/90. The top number is the systolic pressure – the pressure created when the heart contracts. The bottom number is the diastolic pressure – the pressure inside blood vessels when the heart is at rest.

If blood pressure is at or above 140/90, the heart is working harder than it should just to keep enough blood flowing throughout the body. This extra effort could damage the heart muscle and cause a heart attack, a stroke, kidney failure, or brain damage. The most common causes of high blood pressure are: smoking, a diet high in saturated fat and salt, a lack of exercise, being overweight, and drinking an excessive amount of alcohol.

LDL cholesterol

Cholesterol is carried in protein-fat complexes (called lipoproteins) in the blood. **Low-density lipoproteins** (LDL) carry cholesterol that is likely to be deposited in the arteries, if the LDL level in the blood is high. The recommended level of LDL (or “bad” cholesterol) is less than 130 mg/dL – or less than 100 mg/dL if a person already has coronary heart disease or diabetes. Eating low-cholesterol, high-fiber meals, maintaining a healthy weight, and getting regular exercise helps keep LDL cholesterol levels within a healthy range.

Metabolic syndrome

Metabolic syndrome is a cluster of “moderate” health risks. However, when these health risks occur together, it significantly increases the risk for heart disease, stroke, and diabetes. A person with any 3 of the following conditions has metabolic syndrome:

- Elevated blood pressure: 130/85 or higher
- Insulin resistance: indicated by elevated fasting blood glucose levels of 100 mg/dL or higher
- Elevated triglycerides: 150 mg/dL or higher
- Abdominal obesity: waist circumference of 40+ inches (men) or 35+ inches (women)
- Low HDL cholesterol: less than 40 mg/dL (men) or less than 50 mg/dL (women)

It is estimated that 1 out of 4 adults in the United States has metabolic syndrome.

METs

METs are multiples of resting metabolism and are measures of intensity of physical activity. At rest, a person’s metabolism is 1.0 MET. Walking fast is a 4.0 MET activity. Running a mile in ten minutes is a 10 MET activity. While running at this speed a person burns 10 times as much energy as when sitting quietly at rest.

NIH

NIH is an abbreviation for the National Institutes of Health, a government agency that is part of the U.S. Department of Health and Human Services. The NIH provides information and guidelines for identifying, treating, and preventing disease and improving health, and is composed of many institutes, each focusing on its specific health concerns. NIH institutes include the National Heart, Lung, and Blood

Institute; the National Cancer Institute; and others that direct research for metabolic diseases, digestive diseases, and many other disorders. The NIH is recognized as a major source of evidence-based knowledge in health and medicine.

Non-HDL cholesterol

Cholesterol in the blood is actually a cholesterol-protein package. HDL (high-density lipoprotein, the "good" cholesterol) contains the highest amount of protein and lowest amount of cholesterol. HDL cholesterol acts to remove cholesterol from the blood, which protects against heart disease.

Obese

Obese is a medical term that refers to being significantly overweight (excess fat weight) and at increased risk for development of serious diseases including high blood pressure, heart disease, cancer, stroke, and diabetes. Obesity is generally defined as having a BMI (body mass index) of 30 or higher.

Osteoporosis

Osteoporosis is a disease in which bones become porous and fragile. This disease usually progresses unnoticed until a bone breaks, most often in the hip, wrist, or spine. A diet rich in calcium, potassium, magnesium, and vitamin D (which helps calcium absorption) can keep bones strong. Risk factors for osteoporosis include being small-boned and thin, being Caucasian or Asian, being female over age 50, not exercising, and being a smoker.

Overweight

A person who has more body fat than is optimally healthy, and has a BMI (body mass index) of 25 to 29.9, is considered overweight. Approximately 64% of the U.S. adult population is overweight, and more than 17% of U.S. children and adolescents are overweight. These percentages continue to rise every year.

Physical activity

Physical activity is an important part of weight management. While most weight loss occurs because of reduced calorie intake, weight regain is greatly prevented by sustained physical activity. Physical activity also reduces the risk of cardiovascular disease and diabetes beyond the reduced risk produced by weight loss alone.

Moderate physical activity burns 3.5 to 7 calories per minute, requires deep breathing, and would be described as "fairly easy" to "somewhat hard."

Examples of moderate physical activity (3-6 METs):

- Walking 2 miles in 30-35 minutes
- Bicycling 8-9 mph for 30 minutes
- Low-impact aerobics to music for 30 minutes
- Active dancing for 30+ minutes
- Playing 9 holes of golf, walking
- Swimming laps for 20-30 minutes
- Active gardening for 30-45 minutes

Vigorous physical activity burns more than 7 calories per minute, is characterized by a large increase in breathing or heart rate (making conversation difficult), and would be described as "somewhat hard" to "hard."

Examples of vigorous physical activity (6.1 METs or higher):

- Fast walking (less than a 15 min/1 miles) for 30+ minutes
- Jogging/running for 20-30+ minutes
- Hill climbing for 30-60 minutes
- Bicycling 12-15 mph for 30-60 minutes
- Playing tennis, racquetball or basketball for 30-60 minutes
- Step aerobics for 30+ minutes
- Downhill or cross-country skiing for an hour or more

Prediabetes

Prediabetes is the condition where a person's blood glucose levels are higher than normal (100-125.9 mg/dL) but not yet high enough to be called diabetes. Pre-diabetes, which affects 54 million Americans, is usually present before a person is diagnosed with type 2 diabetes. Long-term damage to the body, especially to the heart and circulatory system, can occur with prediabetes.

In a research study, diet and exercise worked better than medication did to stop diabetes from developing. Thirty minutes of moderate physical activity a day along with a 5-10% weight reduction resulted in a 58% reduction in diabetes cases. Fasting blood sugar levels of 100 to 125.9 mg/dL, or A1C levels of 5.7% to 6.4%, indicates prediabetes.

Prehypertension

Normal blood pressure is less than 120/80 mmHg. High blood pressure, or hypertension, is 140/90 or higher. The measurement in between – 120/80 to 139/89– is prehypertension. People with prehypertension don't have high blood pressure yet, but are likely to develop it. Adopting a healthy lifestyle – eating fruits, vegetables, whole-grain high-fiber foods, fat-free and low-fat dairy products,

legumes, lean meats, fish, and low-sodium foods, and engaging in at least 30 minutes of physical activity most days – can lower blood pressure.

Prevalence

Prevalence is the total number of cases of a disease or condition in the population at any given time.

Stress

Stress is a normal part of life that, when kept manageable, does not pose a health risk. Stress becomes harmful, however, when it is continual and affects a person's ability to function normally. When someone feels stressed, the cycle of stress needs to be broken – for example, by practicing deep breathing or relaxation techniques, taking a break from the stressful situation, or by being physically active.

It is not known if stress is an independent risk factor for cardiovascular disease. But chronic stress can lead to other risk factors – such as smoking, physical inactivity, overeating, high blood pressure, and high cholesterol levels – that do increase the risk of heart disease.

Triglycerides

Triglyceride (also referred to as triacylglycerol) is the name for fat found in the blood. The body quickly converts any unused calories into triglycerides, which are then stored in the fat cells. If blood fats get too high they contribute to blood clotting and coronary heart disease. A fasting blood test is the most accurate measure of triglyceride levels. Fasting blood triglyceride levels of less than 150 mg/dL are normal. Fasting blood triglyceride levels of 150 to 199.9 mg/dL are elevated, while 200 mg/dL or higher are considered high risk. A fasting blood triglyceride level of 250 mg/dL or higher is a risk indicator for diabetes. Recommendations for lowering triglyceride levels include regular physical activity, weight loss if overweight, limiting refined and high-glycemic carbohydrates (i.e., white bread, white potatoes, candy bars, soft drinks) and avoiding or limiting alcohol.

Wellness score

The overall wellness score (from 0 to 100) reflects how many good health factors linked healthy living and a long life, you currently incorporate in your lifestyle. The higher the score, the higher the wellness rating and the better your health. High wellness scores are also linked to lower healthcare costs for employers. A wellness score of 60 or higher indicates you are doing well; 80 or higher is excellent, and a score of 100 is perfect!