



Business Case for Wellness

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Agenda

- Impact of unhealthy lifestyle on organizations' medical cost and safety claims
- Best practices for successful and compliant wellness programs
- Return on investment with and without best practices



Unhealthy Lifestyles Impact on Medical Claims

Obesity

- Raises total cholesterol and blood pressure increasing risk for heart disease.
- Increases risk for stroke, type 2 diabetes, sleep apnea, asthma, arthritis, gallbladder disease, pregnancy complications and is the primary risk factor for 13 cancers.
- Related deaths 280,000 to 325,000 each year.



Unhealthy Lifestyles Impact on Medical Claims

Obesity

- Increase annual medical care costs by \$3,058. \$315.8 billion nationally.
- Obesity related absenteeism costs \$11.2 billion. Lose 13 more days from work due to injury or work illness.

What is a 5% reduction in BMI impact on claims?

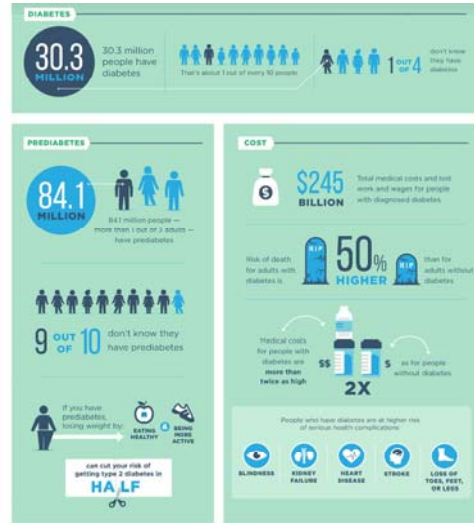
- \$10,030 with starting BMI of 45
- \$2,137 with starting BMI of 40
- \$528 with starting BMI of 35
- \$69 with starting BMI of 30

Impact is larger if individual is diabetic

Unhealthy Lifestyles Impact on Medical Claims

Diabetes

- Doubles your risk of heart attack or stroke
- Number one cause of kidney failure
- Increases risk of Alzheimer's disease by 60%



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Unhealthy Lifestyles Impact on Medical Claims

Diabetes

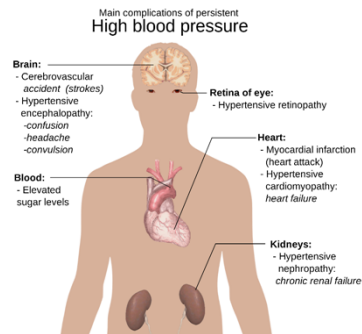
- 57% of total medical costs incurred by people with diabetes
- Average medical costs for diabetic \$16,750 annually
- \$90 billion in indirect costs including
 - \$3.3 in increased absenteeism
 - \$26.9 billion in lost productivity
 - \$37.5 billion in disability

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Unhealthy Lifestyles Impact on Medical Claims

High Blood Pressure *The Silent Killer*

- 46% of U.S. adults have HBP while only 20% know they have it.
- Only half of diagnosed patients have blood pressure under control.
- Linked to 1.5 million heart attacks and strokes each year.
- Can lead to complications including aneurysm, kidney failure, vision impairment, metabolic syndrome, cognitive function and dementia.



Unhealthy Lifestyles Impact on Medical Claims

High Blood Pressure

- \$1,920 yearly medical cost for US adults with HBP
- 2.5X higher inpatient costs and nearly double the outpatient cost
- Hypertension related absenteeism costs employer \$10.3 billion each year.

Did you know? Left untreated, individuals with a blood pressure reading over of 180/120 have nearly an 80% chance of dying within one year.

Unhealthy Lifestyles Impact on Medical Claims

Cancer

- Cancer is the second leading cause of death in the US. It is said that 1 out of 2 men and 1 out of 3 women will develop cancer during their lifetime.

Primary risk factors

1. Body fat
2. Tobacco Use
3. Alcohol Use
4. Healthy weight
5. Lack of physical activity
6. Poor diet
7. Lack of preventive screenings

Reduce Risk Factors

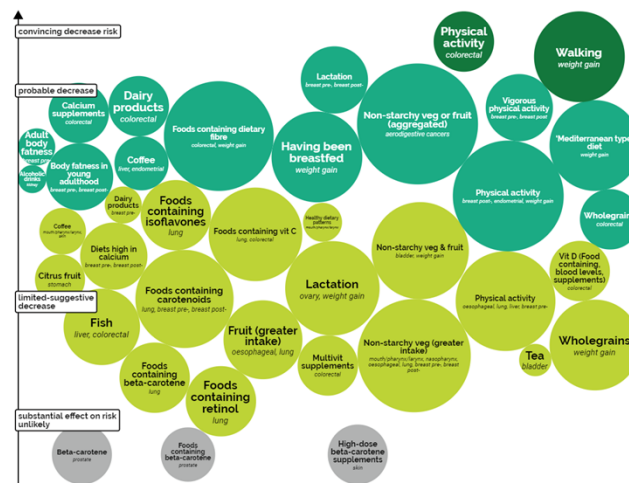
1. Plant-based diet
2. Physical activity
3. Stress management



Unhealthy Lifestyles Impact on Medical Claims

Cancer

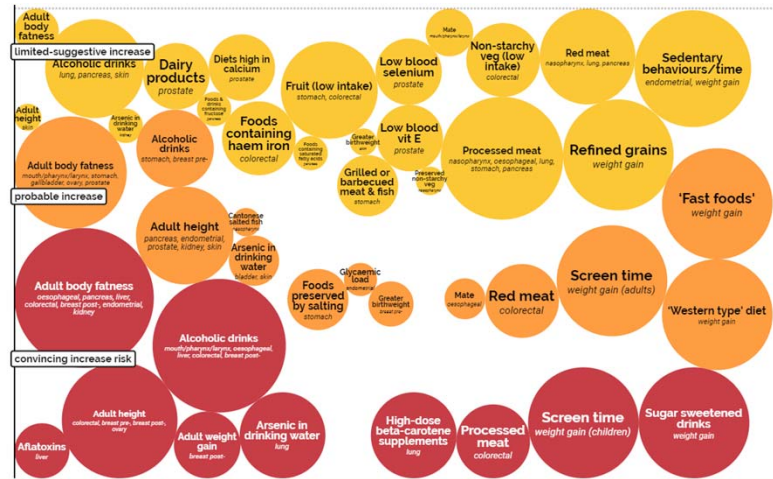
low contributors to cancer risk



Unhealthy Lifestyles Impact on Medical Claims

Cancer

high contributors to cancer risk



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Unhealthy Lifestyles Impact on Medical Claims

Cancer

- Cost of cancer dependent on type of cancer, type of treatment, and the stage of cancer. Varies from \$100,000 to millions.
- Indirect costs
 - Lost productivity
 - Absenteeism
 - Turnover

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Unhealthy Lifestyles Impact on Medical Claims

Musculoskeletal Disorders

Occupational Risk

- High task repetition
- Forceful exertions
- Repetitive or sustained awkward postures



Individual Risk

- Poor work practice
- Tobacco use, alcohol use, obesity
- Poor rest and recover
- Poor nutrition, fitness and hydration
- Systemic disease



Unhealthy Lifestyles Impact on Medical Claims

Musculoskeletal Disorders (MSDs)

MSDs are the single largest category of workplace injuries and are responsible for almost 30% of all worker's compensation costs. ([BLS](#))

- U.S. companies spent 50 billion dollars on direct costs of MSDs in 2011. ([CDC](#))
- The average MSD comes with a direct cost of almost \$15,000. ([BLS](#))
- Indirect costs can be up to five times the direct costs of MSDs. ([OSHA](#))



Contributing Factors to an Unhealthy Lifestyle

- Poor Nutrition
- Lack of Physical Activity
- Tobacco Use
- Stress
- Alcohol Use
- Poor Sleep Hygiene



Poor Nutrition

We are an overfed, undernourished society.

- In 2014 Oxfam study, in the unhealthy eating category out of 125 countries, we were ranked 120
- Current diet too high in calories, sodium, unhealthy fat, and sugar and does not have enough fruits, vegetables, whole grains, calcium and fiber.
- Only 9% to 12% adults met intake recommendations for vegetables and fruits



Poor Nutrition

- Unhealthy diet contributes to 678,000 deaths each year due to nutrition and obesity related disease such as heart disease, cancer and type 2 diabetes.
- Did you know a 1% reduction in dietary risks such as weight, blood pressure, glucose and cholesterol risk factors would save \$83 to \$103 per person per year in medical costs.
- CDC funds \$47.6 million for Division of Nutrition and Physical Activity. Hershey spends \$562 million in advertising.



Physical Inactivity

Sitting Disease - *Less than 5,500 steps per day.*

- 4th leading cause of death.
- People who sit for 4 or more hours a day have 50% increased risk of death due to obesity, heart disease, and certain cancers.
- Physical inactivity costs US employers \$9.1 billion each year.



Physical Inactivity

Regular physical activity reduces risk of heart disease, diabetes, cancer and depression/anxiety.



Walking just 30 minutes a day, three times per week

- 80% lower risk of heart disease.
- 26% reduction in risk of death from heart disease.
- 35% lower risk of heart attack and cardiac death
- 34% lower risk for stroke



Tobacco Use



- Smoking counts for 1 in 5 premature deaths.
- Smokers die average of 10 years younger than nonsmokers.
- Female smokers are 3 times more likely than male smokers to develop lung cancers or heart disease.
- 90% of lung cancer deaths and 80 to 90% of COPD deaths.
- Causes lung disease, COPD, heart disease, stroke, diabetes, and cancers.

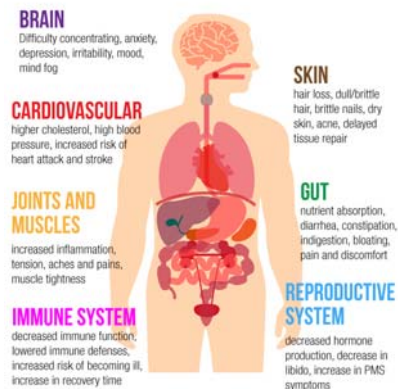


Stress

Stress Impacts our Physical Health Metabolic Syndrome

- Heart Disease (40%)
- Heart Attacks (25%)
- Stroke (50%)
- High blood pressure
- Immune system
- Pain
- Cognitive function
- Anxiety/Depression
- And more

HOW STRESS AFFECTS THE BODY



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Stress

- 75% of doctors visits are for stress-related issues
- 49% of employees at work report difficulty concentrating, poor work quality due to stress.
- Workplace stress causes 1 million workers to miss work each day.
- 40% of employee turnover due to stress
- Stress contributes between 60 to 80% of all work related injuries
- Those reporting high level of work stress are 45% more likely to develop Type 2 diabetes regardless if they are overweight.

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ACE – Adverse Childhood Experiences
Physical abuse or neglect, sexual abuse,
emotional abuse or neglect, parental
separation or divorce, domestic
violence, other

- [illegible]

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Example:
ACE Score of 4

- ## The Good News

If the stress stops and is replaced with positive practices, the brain can slowly undo many of the stress induced changes and our body can begin to heal.

Positive practices include mindfulness practices, exercise, good nutrition, adequate sleep, and healthy social interactions.

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Alcohol Use

2018 study showed alcohol use linked to

- Cardiovascular diseases
- Cancers
- Cirrhosis, diabetes, epilepsy, pancreatitis
- Communicable disease
- Intentional injuries
- Unintentional injuries
- Transportation related injuries



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Poor Sleep Hygiene

- 40% of employees do not get the recommend amount of sleep.
- Sleep deprivation alters the functions of 711 genes.
- Sleep deprivation as hazardous as drunk driving.
- 4 hours sleep loss equivalent of 6 pack of beer. Whole night of sleep loss = BAC of .19
- Those who get 5 hours of sleep or less doubled their risk of death from all causes.



Sharing
Your
Wellness
Story...

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Poor Sleep Hygiene

- Lack of sleep costs the American economy \$63 billion in lost productivity – Harvard Medical
- Lack of sleep is linked to 274,000 workplace accidents a year.
- \$31 billion in extra medical costs. Increases risk for heart disease, high blood pressure, weight gain, diabetes, weakened immunity, etc.
- Most expensive accidents 1979 Three Mile Island Nuclear Accident and 1989 Exxon Valdez Oil Spill due to lack of sleep.



Incorporate Best Practices

- **Employee Centric Design.** Tailor to the needs of the individuals.
- Create a **culture** that supports wellness
- Form a **team** to develop your wellness program.
- Implement an **effective communication** program
- **Design program to change behavior.** Provide tools needed and incentive programs to motivate employees.



Incorporate Best Practices

- **Data Management.**
- **Integrate** with EAP and Onsite Clinics
- **Evaluation is shared with organization** and used for learning and improvement.
- **Creation of supportive environment** for individual to achieve their health goals.
 - Focus on communication, company challenges, coaching, recognition, upper management support, and include spouses.

WE'RE ALL IN THIS TOGETHER

Our new and improved Wellness Program is scheduled to begin on your Wellness Month, May 1st. Employees are invited to complete their Wellness and Health Plan.

KEY TAKEAWAYS:

- 100% of participants are encouraged, encouraged, or motivated.
- 100% of participants' health plan completion rates were within the target range.
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CWS
Columbus Wellness Solutions

Be Well, Stress Less

October 9 – December 31, 2017

Complete the challenge of your choice & receive a \$75 wellness gift card.

Rethink Your Finances

Master critical financial decisions. Stay on top of your money habits and work your financial future.

Master Motivation

Start your wellness practice and begin your journey toward total peace of mind.

Don't Forget!

Register for the 2017 Wellness Screening and complete your WPA to be eligible for the 2018 premium discount.

[Click here to learn more](#)

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Meet Compliance Requirement Under HIPAA, ERISA, and ADA

- Provide wellness plan documents.
- Make sure your program is designed to promote health.
- Tell Employees how information will be used and that only Summary Health Information will be provided to the employer.
- Provide employees educational information regarding their risk factors.
- Incentives must be capped at 30% of the employee only rate.
- Offer reasonable alternative standards or build into program (recommended).

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Slide 31

A2 survey image
Alyssa, 9/5/2018

A3 sample flyer
Alyssa, 9/5/2018

Success Stories

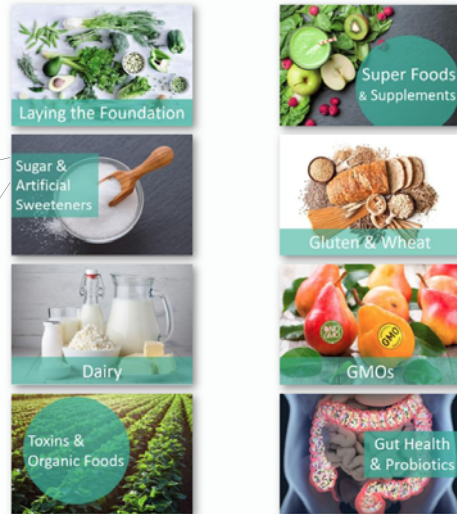
Municipality

Functional Medicine Pilot Program



Choose Your Challenge

Click on an image below to participate in that challenge



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Success Stories

Municipality

Functional Medicine Pilot Program

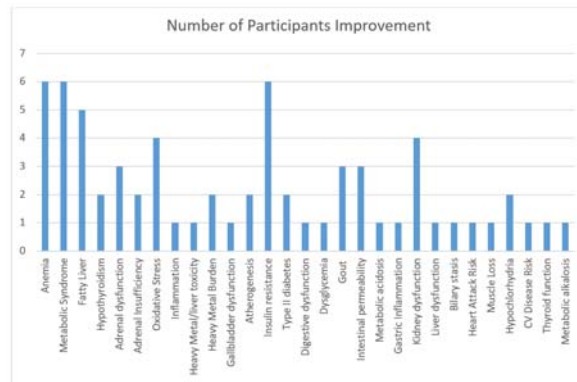
Metric	Overall Summary		
	Before	After	Pct. Δ
1. Blood Pressure			
Systolic	138.4	119.4	-13.7%
Diastolic	86.6	79.1	-8.6%
2. Weight and Cholesterol			
Weight	206.8	197.3	-4.6%
Cholesterol	203.9	185.7	-8.9%
3. Lab Results (counts)			
Improved	-	10.75	-
Moved to Standard	-	5.35	-
Out of Danger	-	0.8	-
4. Other (counts)			
Behaviors Improved	-	14.9	-
Symptoms Improved	-	15.5	-
Medications Stopped	-	.52	-
Number of Goals Met	-	2.65	-

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Success Stories

Municipality

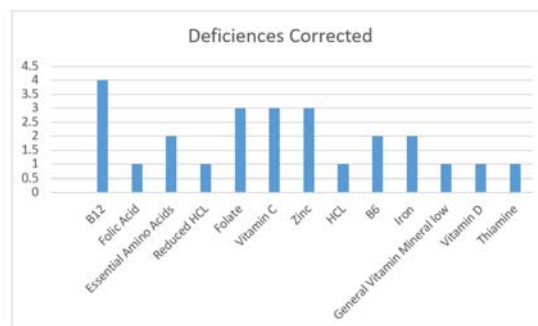
Functional Medicine Pilot Program



Success Stories

Municipality

Functional Medicine Pilot Program



Program Feedback

- I felt crippled before program. Now I am pain free.
- This program changed my life in every way. I am no longer nervous. I feel calm most of the time.
- No diarrhea for the first time in 10 years.
- Blood Pressure went from 160/98 to 120/80.
- Lost 20 pounds, Blood Pressure went from 150/80 to 126/82. Neuropathy pain is gone.
- Daily blood sugar improved from 140 to 119. Resolved digestive issues.
- Blood Pressure to normal range. No longer retaining water or swelling in joints. Reflux stopped when removed gluten.
- Lost 34 pounds, Blood Pressure to normal range.
- Blood Pressure went from 160/100 to 120/94. Off all Blood Pressure medications. "This was a remarkable experience."



Success Story

Long Haul Trucking Company

Health standard based program with spouses

Year 1 Program

- If participant completed screening/HRA and was tobacco free, no premium increase.
- If participant completed screening/HRA and used tobacco, had 15% premium increase.
- If participant did not complete screening/HRA, 30% premium increase.

Year 1 Results

- 99% participation
- 20% Blood Pressure 140/90
- 20% Blood Pressure 160/100
- 41% Tobacco Users



Success Story

Long Haul Trucking Company

- Participants received individual health score at first year screening. Health score based on BMI or body fat%, tobacco use, glucose, blood pressure, HDL, and LDL.

Year 2 Program

Hybrid Program

Employee and spouses qualify for second year incentive by

- 1) getting a health score of 75 or above,
- 2) by improving their health score by 10%, or
- 3) by completing a Reasonable Alternative Standard by the next year's wellness screening



Success Story

Long Haul Trucking Company

Year 2 Results

- 25% Blood Pressure readings 140/90 (up from 20%)
- 2% Blood Pressure readings 160/100 (down from 20%)
- 30% Tobacco Users (down from 41%)

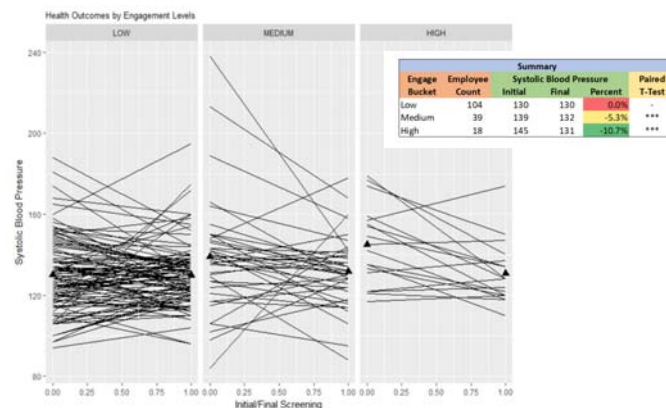
Participants also saw improvements in cholesterol levels, BMI, and self-reported lifestyle behaviors.



Success Story

Long Haul Trucking Company

Year 5 Program



Success Story

Hospital

Hybrid Program with spouses



Participants qualify for cash incentive by

- 1) getting a health score of 75 or above,
- 2) by improving their health score by 10%, or
- 3) by completing wellness programs on their wellness portal
 - Awarded \$1 per point earned
 - Quarterly payout limits for lasting engagement

✓	Complete Health Screening
✓	Complete Health Risk Assessment (HRA)
✓	Complete Tobacco Affidavit
75	Wellness Points Earned 1 st Quarter
125	Wellness Points Earned 2 nd Quarter
50	Wellness Points Earned 3 rd Quarter
50	Wellness Points Earned 4 th Quarter



Success Story

Hospital

Hybrid Program

Claim Analysis by Engagement Bucket
Rehabilitation Hospital of Indiana

Year	Employee Count		Claims (Per Employee) by Engagement Bucket					
			Mean		Median		90th Percentile	
	Low/None	High	Low/None	High	Low/None	High	Low/None	High
2016			\$2,598	\$3,963	\$142	\$55	\$4,697	\$7,080
2017	33	42	\$5,081	\$2,546	\$45	\$175	\$9,735	\$5,118
YoY Difference (\$):			\$2,484	-\$1,417	-\$97	\$120	\$5,038	-\$1,962

Notes:

- [1] Employees included in the analysis had at least one claim prior to 2016 to ensure they were active.
- [2] Analysis is restricted to health claims that are relevant to evaluate the wellness program (see ICD Codes tab).
- [3] Low engagement equates to took HRA, or screening or tracked a few items in the wellness portal.



Success Story

Hospital

Hybrid Program

ICD-10 Prefix	ICD Description	Kept for Claim Analysis
A-B	Infectious and parasitic diseases	N
C	Malignant neoplasms	N
D	Diseases of blood, blood-forming organs, immune mechanism/In situ neoplasms	N
E	Endocrine, nutritional, and metabolic disease	Y
F	Mental and behavioral disorders	N
G	Diseases of the nervous system	Y
H	Diseases of the eye and adnexa/Diseases of the ear and mastoid process	N
I	Diseases of the circulatory system	Y
J	Diseases of the respiratory system	Y
K	Diseases of the digestive system	Y
L	Diseases of skin and subcutaneous tissue	N
M	Diseases of the musculoskeletal system and connective tissue	Y
N	Diseases of the genitourinary system	N
O	Pregnancy, childbirth, and the puerperium	N
P	Certain conditions originating in the perinatal period	N
Q	Congenital malformations, deformations, and chromosomal abnormalities	N
R	Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified	N
S-T	Injury, poisoning, and certain other consequences of external causes	N
V, X, & Y	External causes of morbidity and mortality	N
Z	Factors influencing health status and contact with health services	N

Source:

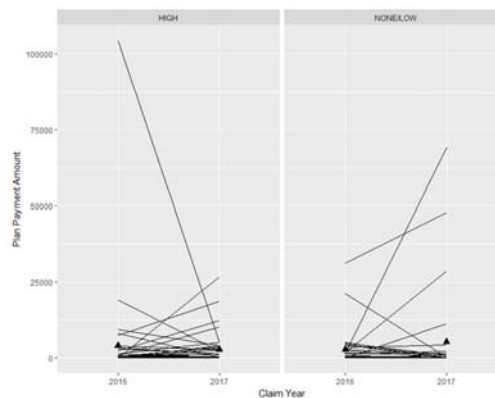
US Department of Health and Human Services (<https://www.hhs.gov/research/data/hcup/icd10usrgd.html>)



Success Story

Hospital

Hybrid Program



Notes:

[1] Each line represents an individual in the program.



Success Story

3RIVERS 3Rivers Federal Credit Union
Participation Program

- Awesome culture
- Community involvement
- Choice of quarterly wellness challenges
 - Meaningful gift card award
- Individual onsite wellness coaching
- 12-week Stop Diabetes Program
 - 19% decrease in diabetes or borderline diabetes glucose readings
- No rate increase, Qualified for carrier discount
- AchieveWell 5 Star Designation this year



iTunes	Bellabeat	Barnes & Noble
Fresh Thyme	CVS	Walgreens
Elements Massage	Massage Envy	Woodhouse Day Spa
Activity Pass of Choice	Dick's Sporting Goods	



Success Story

3Rivers Federal Credit Union

Participation Program

Stop Diabetes Program and Individual Coaching Sessions

Coaching Summary:

Coaching	Employee Overview			Weight			Systolic BP		
	Count	Age	Female (%)	Initial	Final	Change (%)	Initial	Final	Change (%)
No	117	38.4	59.8%	190.4	193.7	1.8%	120.7	123.9	2.0%
Yes	21	37.3	85.7%	194.3	193.3	-0.8%	121.0	121.6	0.2%
Coaching Impact:						-2.6%	Coaching Impact:		

Stop Diabetes Summary:

Diabetes	Employee Overview			Weight			Systolic BP		
	Count	Age	Female (%)	Initial	Final	Change (%)	Initial	Final	Change (%)
No	119	37.7	59.7%	189.6	192.7	1.6%	120.8	123.7	1.8%
Yes	19	41.3	89.5%	200.0	200.0	0.2%	120.4	122.6	1.3%
Stop Diabetes Impact:						-1.8%	Stop Diabetes Impact:		



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