

# Putting Food First:

## An Integrated Collaboration Between Health Care & The Food Industry

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# Do we know what good food is?

- How do you define “whole food”?
- How many servings of fruits and vegetables should you eat in a day?
- How much fat should be in your diet?
- How do you define refined food?
- Think about what you just had for lunch...  
How did it make you feel?

# The Simple Truth

- There is an epidemic of preventable, lifestyle-driven diseases
- The cost, financial and human, is simply unsustainable

# The Simple Facts

- 75% of healthcare costs are the result of completely preventable lifestyle-driven diseases.
- 50% of Americans suffer from at least one preventable chronic condition.
- After payroll, healthcare costs are the 2nd largest expense for employers.

“...one personal choice seems to influence long-term health prospects more than any other—what we eat.” (C. Everett Koop, MD -- Former Surgeon General)

# The Simple Facts (continued)

- The Center for Disease Control and Prevention estimates that if the major lifestyle risk factors for chronic disease were eliminated,
  - ✓ at least 80% of all heart disease would be prevented
  - ✓ at least 80% of all strokes would be prevented
  - ✓ at least 80% of all type 2 diabetes would be prevented
  - ✓ more than 40% of cancer cases would be prevented

“Insanity is doing the same thing over and over again and expecting different results.” *(Albert Einstein)*

# The Cost of Poor Health is Bigger Than the Medical Bill

Medical &  
Pharmacy Costs **25%**

## Personal Health Costs

Medical Care  
Pharmacy

Health-Related  
Productivity Costs **75%**

## Productivity Costs

Absenteeism

Short Term Disability  
Long Term Disability

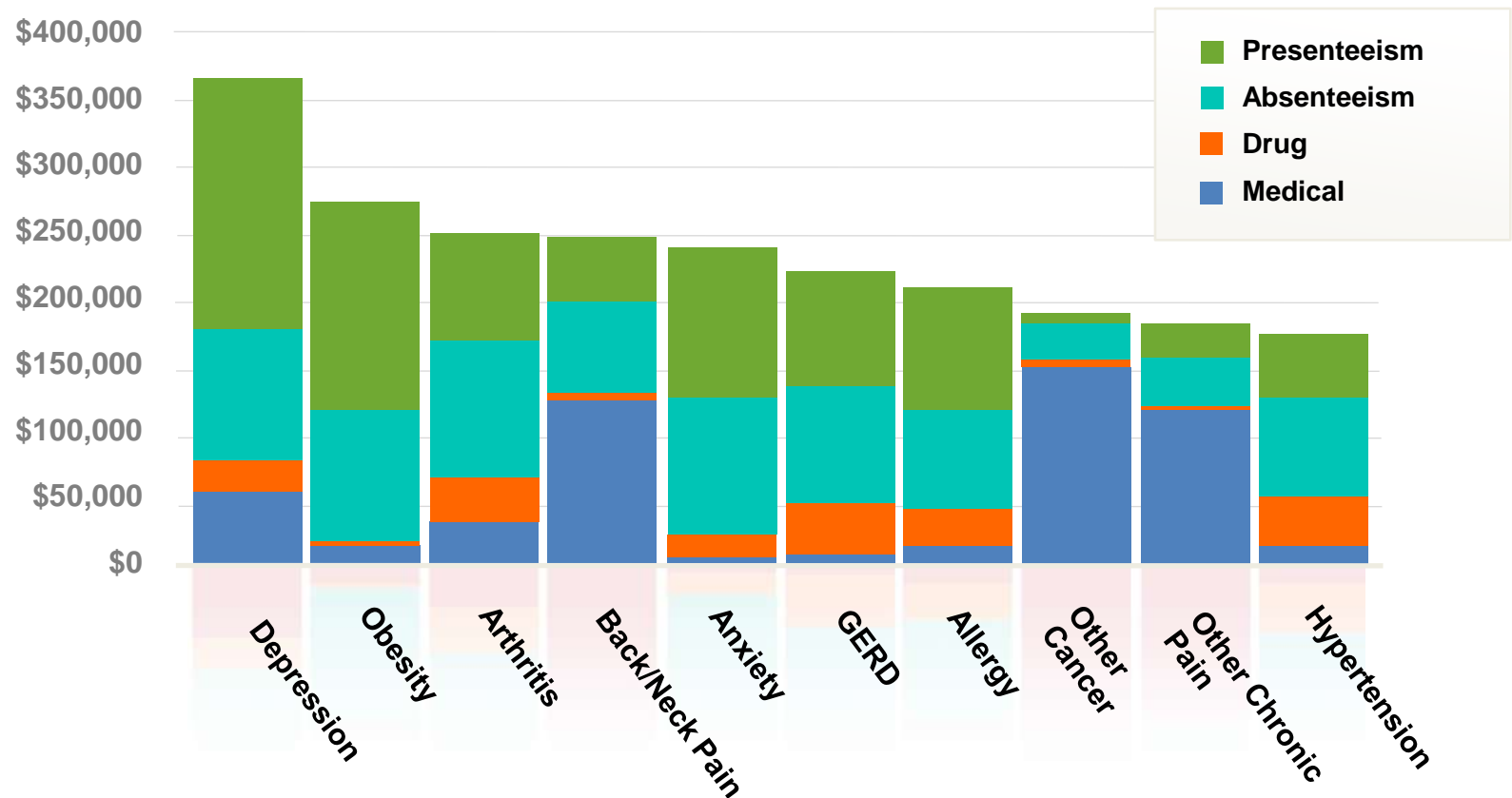
Presenteeism

Overtime  
Turnover  
Administrative Costs  
Replacement Training  
Off-site Travel For Care  
Customer Dissatisfaction  
Variable Product Quality

Sources: 2006 Mercer Employer Annual Survey, Edington DW Burton WN *Health and Productivity*.  
In McCunney RJ, Editor *A Practical Approach to Occupational and Environmental Medicine*, 3<sup>rd</sup> edition  
Philadelphia PA. Lippincott, Williams and Wilkins, 2003; 40-152. Loeppke, R. et al. Health-Related Workplace  
Productivity Measurement General and Migraine Specific Recommendations from the ACOEM Expert Panel.  
*JOEM* April 2003, Volume 45, Number 4, Pages 349-359.

# ...And We're Often Looking in the Wrong Places

## Top 10 Drivers of Cost to Employers



Loeppke R, et.al., "Health and Productivity as a Business Strategy: A Multi-Employer Study": *JOEM*. 2009; 51(4): 411-428.

Note: \$ per 1000 FTEs from six large employers

# Any Approach Must Deal With Who We Are

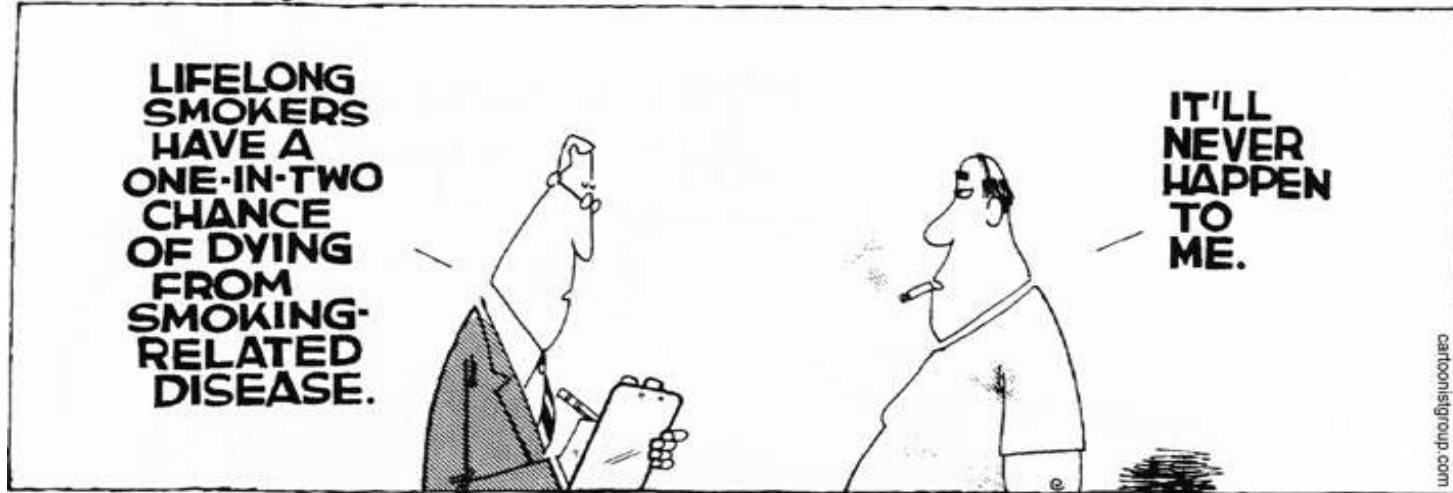
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## The shift in thinking

- We are not *rational creatures* who are *sometimes emotional*
- We are *emotional creatures* with the *capacity to be rational*

# And In Case You Don't Believe That...

*Steve Kelley Editorial Cartoon*



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# Any Approach Recognizes Our Responsibility

## Asymmetric Paternalism



...helping an irrational species make choices  
in our own best interests!

# We Started With a Solid Understanding of What We are About

John Hancock...

- Our brand: “The Future is Yours” – human, empathetic, confident
- Our value proposition – opportunity, vibrancy, conscience
- Our employee programs – data-based, distinctive, iterative

# We Considered What Makes Our Employees Tick

- An employee engagement survey tells us 75% of employees are either engaged or highly-engaged
- A conjoint-analysis study tells us the ROI to improve employee engagement scores is most “efficient” with investments in health & financial wellness initiatives
- A “Living Well” (market) segmentation analysis tells us that...

25% of employees	Determined	Make it effective & make it matter
60% of employees	Daring	Make it a fun & enjoyable experience
15% of employees	Disinterested	Make it quick, easy and worth my time

# We Considered Our Employees' Health and Health Engagement

- Our employees most common health conditions are lifestyle-driven
- 35-40% of employees participate in various health & productivity maintenance/improvement programs that are clinically-based and sustainable
  - ✓ ~60% improved BMI, cholesterol and blood pressure
  - ✓ - \$111/member in 2009 savings increased to \$261/member in 2010

# Our Next Step Was to Change the Starting Point: What Our Employees Eat

Within  
year 1

## CLINICAL METRICS

- Reduced weight, BMI, waist circumference, % body fat
- Reduced blood pressure
- Reduced C-Reactive Protein
- Reduced total cholesterol, improved total:HDL ratio
- Stabilized blood glucose, increased insulin sensitivity, reduced HbA1c

## BEHAVIORAL AND QUALITY OF LIFE METRICS

- Improved compliance with USDA dietary guidelines
- Improved productivity and reduced absenteeism and presenteeism
- Increased physical activity
- Improved quality of life and health status

Within  
year 2

## UTILIZATION RATES

- Reduced office visits, ER visits, hospitalizations
- Increased compliance with prevention measures including medications, screenings

Within  
year 3

## HEALTHCARE COSTS

- Reduced costs related to reduced utilization rates

Food-based disease prevention and food-based disease management is effective and profitable.

Analyses of Enrollees:

- Clinical: Blood and body metrics
- Behavioral: HRA (measures Self Efficacy for Managing a Chronic Illness and Patient Activation Measure (PAM) to assess a patient's knowledge, skills and confidence in managing one's own health), dietary pattern, physical activity level and subjective survey (at 3, 6, 9, and 12 months)
- Financial: Claims data and productivity/absenteeism measures

# Our Next Step Was to Change the Starting Point: What Our Employees Eat

## The Real Experience

- The food
- The physical activity
- The self-competition
- The learning
- The supporters
- The detractors

# The Pilot Study: Population Profile

- Seven employers – ranging from IT to municipality to engineering
- 912 employees
- Average age: 49
- 25% male/75% females
- 1 or more chronic conditions: 35%
- 1 or more risk factors: 82%
- 3 or more risk factors: 34%

# The Pilot Study: Clinical Outcomes

<b>Top Biometric Risk Factors – Baseline</b>	
<b>BMI: &gt; 25</b>	<b>64%</b>
<b>Total cholesterol: <math>\geq</math> 200 mg/dL</b>	<b>36%</b>
<b>Average estimated blood glucose: &gt;115mg/dL</b>	<b>16%</b>
<b>Blood pressure: &gt;140/90 mmHg</b>	<b>15%</b>

<b>Results</b>	<b>12 month</b>
<b>Lost weight</b>	<b>52%</b>
<b>Percent w/ <math>\uparrow</math> BMI ~ improved</b>	<b>59%</b>
<b>Percent w/ <math>\uparrow</math> cholesterol ~ improved</b>	<b>95%</b>
<b>Percent w/ <math>\uparrow</math> average blood glucose ~ improved</b>	<b>80%</b>
<b>Percent w/ <math>\uparrow</math> BP (systolic and/or diastolic) ~ improved</b>	<b>90%</b>

# The Pilot Study: Behavioral Outcomes

<b>Behavioral Changes Reported</b>	<b>12 month n=272</b>
Increased intake of health-supporting foods	<b>89%</b>
<i>Eating more vegetables</i>	58%
<i>Eating more fruit</i>	41%
<i>Eating more whole grains</i>	59%
<i>Eating more beans</i>	21%
Decreased intake of health-depleting foods	<b>86%</b>
Greater awareness of foods eaten	<b>80%</b>
Trying new health-supporting foods	71%
Increased motivation to improve health	52%
Learning new recipes and cooking more	57%
Increased physical activity level	<b>71%</b>
Improved sleep quality	<b>34%</b>

# The Pilot Study: The Value of Wellness Outcomes

**Harvard Pilgrim's Value of Wellness<sup>SM</sup>** tool employs extensive epidemiological research proving the relationship between poor lifestyle habits and adverse clinical and financial outcomes.

Health Risk Factors	Baseline	Interim Results	Incremental Change
Deviation From Ideal Body Weight	67.8%	66.2%	-1.6%
High Blood Pressure	29.6%	20.4%	-9.2%
High Cholesterol	11.2%	4.6%	-6.6%
High Blood Glucose	2.4%	2.0%	-0.4%
High Stress	41.6%	28.3%	-13.3%
Poor Exercise Habits	39.8%	13.9%	-25.9%
Depression	5.8%	4.8%	-1.0%
Current Smoker	5.0%	5.0%	0.0%
Heavy Alcohol Use	1.3%	1.3%	0.0%

# The Pilot Study: The Savings Outcomes

	Baseline	Year 1 No Change	Year 1 Actual	PMPY Savings	ROI
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<b>Actual Medical Costs Per Member Per Year</b>	\$2,961	\$3,037	\$2,748	\$289	
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<b>Gross Medical Claims Savings</b>				\$114,918	
<b>Medical Claims and Productivity Savings (factor of 3)</b>				\$459,672	2.6 : 1
<b>Medical Claims and Productivity Savings (factor of 2)</b>				\$344,754	1.9 : 1

# The Pilot Study: The Life Outcomes

- For me success wasn't measured only by how I feel, but also the changed behavior of my family.
- I think the program is great and by helping us you are helping our families. So you are actually helping many people be more aware and I thank you.
- In less than three months, The Full Yield has become a way of life for my family and me. It is not a deprivation diet, which I have tried unsuccessfully in the past. It directs you to good and healthy choices from regular life, and I like the better choices. I lost the taste for processed foods. It's amazing how quickly the body resets.
- The Full Yield is revolutionary because I am now part of a community of people committed to this change.
- I would not have discovered The Full Yield without my employer and for that I will be eternally grateful.

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