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# **Weight control and the workplace**

**8<sup>th</sup> Annual Obesity Treatment and Prevention  
Conference**

**June 22-24, 2016**

**Hilton Philadelphia at Penn's Landing  
Philadelphia, PA**

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# Objectives:

Participants will learn:

- ❑ **The components of traditional workplace wellness program and their utility**
  - ❑ How workplace wellness programs are thought to bring a value on investment (will provide cases)
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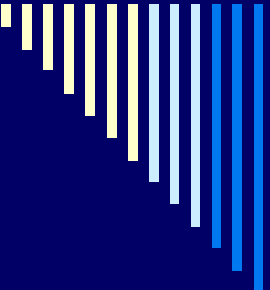
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# “Bend the Trend – Aim for Zero”

(Zero Trends, D. Edington, 2009)

- ❑ Healthcare costs increasing for employers annually
  - ❑ Employers offering wellness programs that are sufficiently effective within several years see lower rates of healthcare cost increases
  - ❑ Employers offering intensive wellness programs have had years with no increase in healthcare costs
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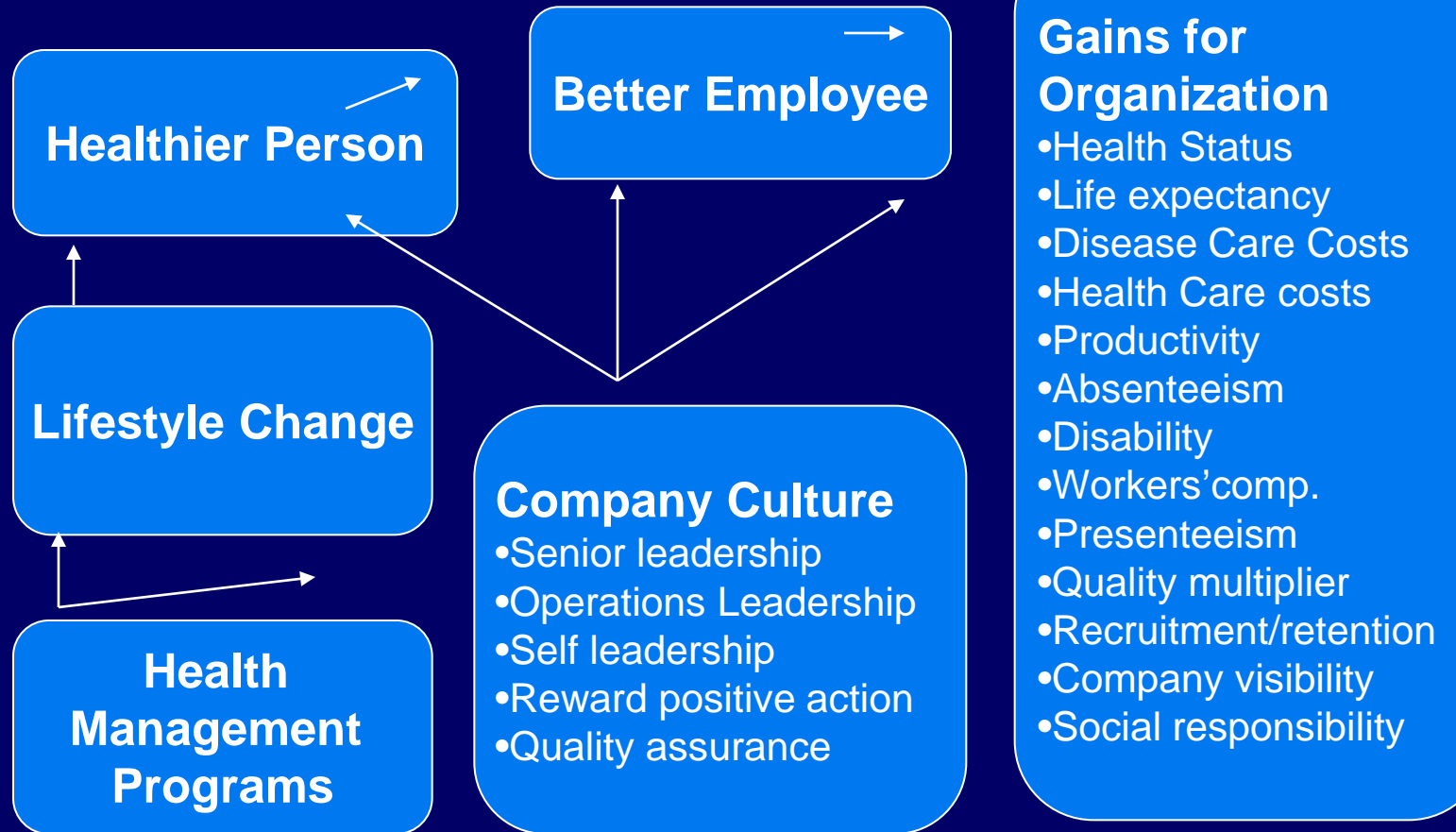


## Overall Approach — (Zero Trends, D. Edington)

- Let's help each other avoid unnecessary pain and suffering
- Let's not get worse as the first step in getting better
- Let's help those who do get sick, not get any worse
- Let's help each other stay as healthy as possible
- Let's help the healthy people stay healthy

# Theoretical model

(Zero Trends, D. Edington)





# Wellness Programs: Key Elements

(courtesy of MMO based on Welcoa program)

1. Capture CEO Support
  2. Create a Cohesive Wellness Team
  3. Collect Data To Drive Health Efforts (e.g. HRA, health screenings)
  4. Craft An Operating Plan
  5. Choose Appropriate Interventions
  6. Create a Supportive Workplace Environment
  7. Evaluate Outcomes
-



# Performance Measures: What Counts

- What percentage of people are currently engaged in wellness behavior?
- What is the rate of lifestyle change attempts?
- What is the lifestyle change success rate?
- What percentage of your people are adopting unhealthy practices?

**THE ENVIRONMENT STRONGLY IMPACTS THE ANSWERS TO THESE QUESTIONS**

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- Allen, J. (2008). *Wellness Leadership: Creating Supportive Environments for Healthier and More.* p.88

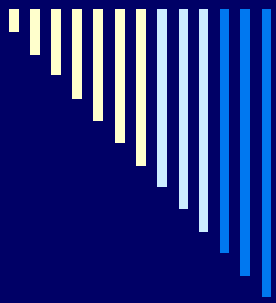


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# Putting it Together: Workplace Wellness Value on Investment Proposition

*Value on Investment:* Justifying an investment in health management and wellness programming based on many factors, including employee morale, worksite productivity, employee absence and workplace safety, in addition to medical cost reduction.

--Willis Group Holdings, 2015, *Willis Health and Productivity Survey Report*

“Value on Investment” better serves employees and employers;

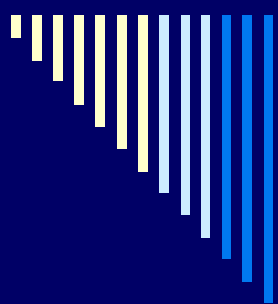
“For companies with <10,000 employees enrolled in the wellness program, ROI will take 3-5 years.”

--Berry, L.L., et al., 2010, *Harvard Business Review*

Direct Savings:  
Reduction in healthcare utilization, reduction in ED visits, improved health status (prevention)



Indirect Savings:  
Decreased absenteeism, decreased presenteeism, increased employee retention

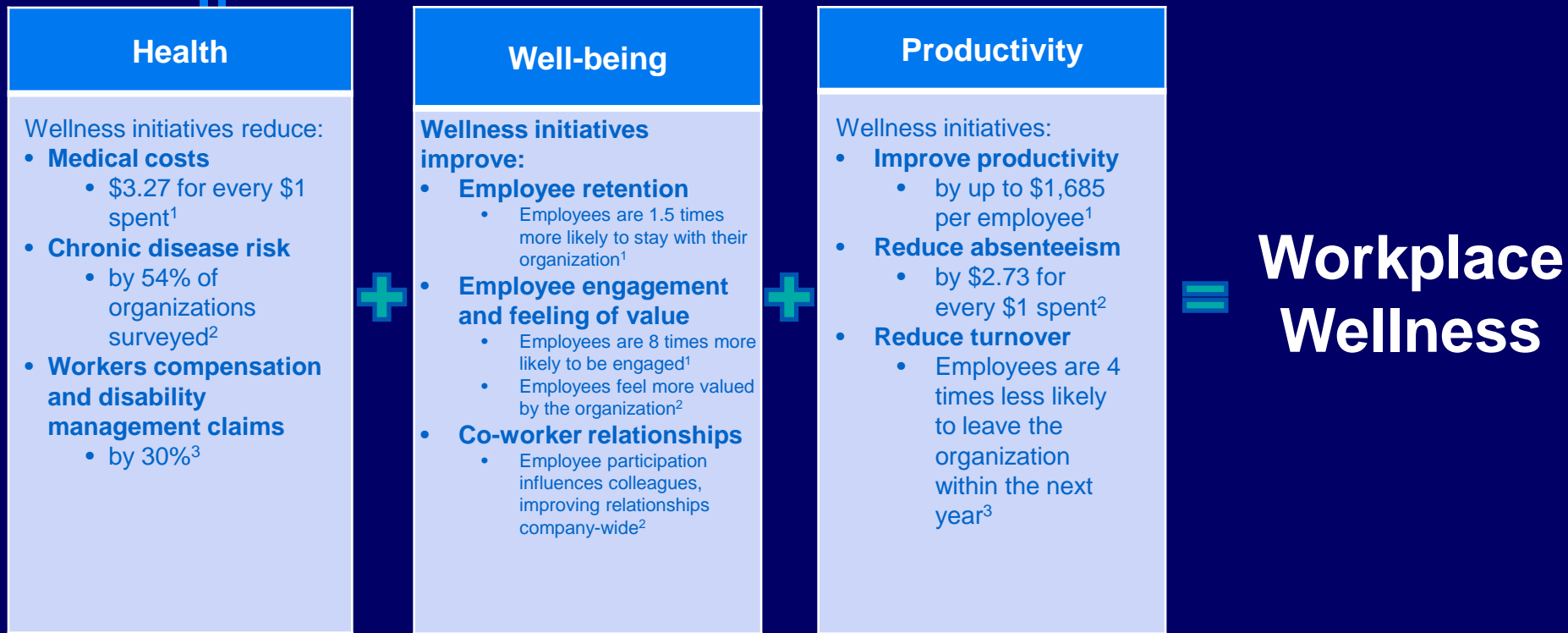


# Components of Workplace Wellness Initiatives with Proven Positive Impact

- 1. Strategic Planning: *Foundation for successful, sustainable programming***
  - Identification of modifiable health issues, program goals, target population, and overall program design
- 2. Assessment/Screening: *Can't know where to go 'til you know where you are***
  - Collection of verifiable and quantifiable health and behavioral data
- 3. Behavior Change Interventions: *Helping people make healthy choices***
  - A series of interventions, education, activities, and incentives to encourage and reward employees for making healthy behavior changes and choices
- 4. Senior Management Support: *Leadership engaged at all levels***
  - Leadership support of environmental and policy changes that reinforce the company's commitment to healthy lifestyle promotion
- 5. Measurement and Evaluation: *Understanding our process for continuous program improvement***
  - Annual reports that provide goal progress, population health risks, and program recommendations



# Workplace Wellness Works



<sup>1</sup> Baicker, K., et al., 2010, *Workplace Wellness Programs Can Generate Savings*

<sup>2</sup> Willis Towers Watson, 2015, *The Willis Health and Productivity Survey Report*

<sup>3</sup> Chapman LS., 2003, *Meta-evaluation of worksite health promotion economic return studies*

<sup>1</sup> Mudge-Riley, M., et al., 2013, *Incorporating Wellness Into Employee Benefit Strategies- Why It Makes Sense*

<sup>2</sup> VirginPulse, 2014, *The Business of Healthy Employees: A Survey of Workplace Health Priorities*

<sup>1</sup> CDC, 2015, *Workplace Health Promotion*

<sup>2</sup> Baicker, K., et al., 2010, *Workplace Wellness Programs Can Generate Savings*

<sup>3</sup> World Economic Forum, 2010, *The Wellness Imperative: Creating More Effective Organizations*

# Return on Investment for Wellness Programs

$$\text{Return on Investment (ROI)} = \frac{\text{Savings}}{\text{Program Cost}} = \$1 \text{ break-even}$$

**Well-designed employee wellness programs are cost/beneficial – they save more money than they cost, thus producing a positive return on investment (ROI)**

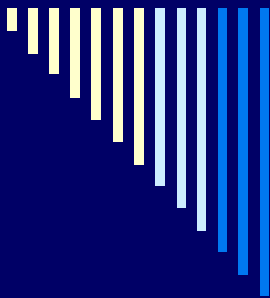
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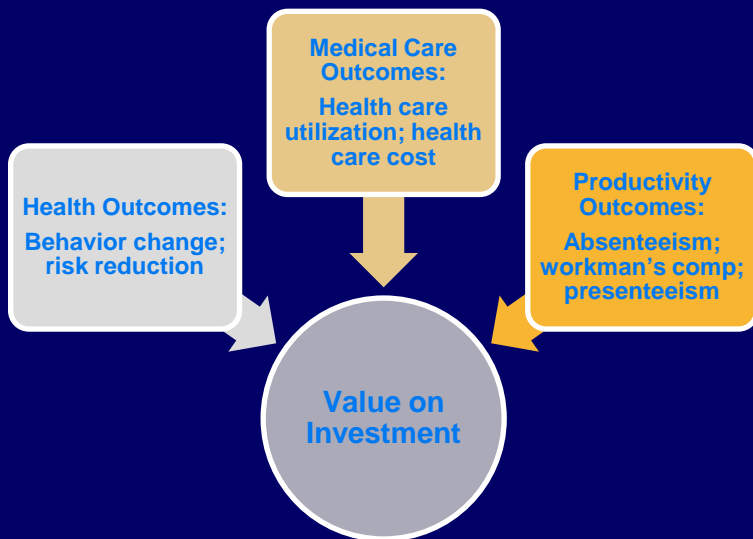
Indirect Savings:  
Decreased absenteeism, increased presenteeism, increased employee retention



*"Worksite programs achieve a 25-30% reduction in medical and absenteeism costs in an average period of about 3.6 years."  
– Chapman, L. 2005, The Art of Health Promotion*



# Value on Investment



“Value on Investment” better serves employees and employers;

“For companies with <10,000 employees enrolled in the wellness program, ROI will take 3-5 years.”

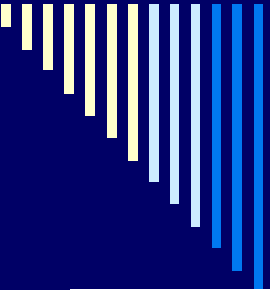
Berry, L.L., et al. ,2010, *Harvard Business Review*





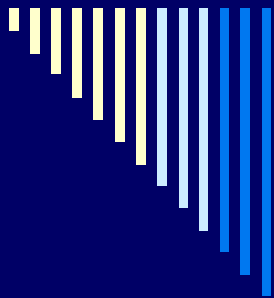
# Usual Employee Engagement Levels with Different Wellness Initiative Investments

Incentive Program	Do Nothing Company	Level One Company	Level Two Company	Champion Company	Participation Rate
No Incentive	X				2%-10%
Passive Incentive		X	X	X	15%-25%
Small Item Incentive		X	X	X	20%-35%
Cash or Premium Reduction		\$25-\$100	\$250-\$600	\$600-\$1,500	20%-40%
Premium Benefit Plan			X	X	30%-60%
Benefit Plan plus Cost Reduction				X	50%-70%
Combination of Benefits and Cash				X	75%-100%



# Measurement, evaluation, and decision support by level of engagement (Zero Trends, D. Edington)

<b>Outcome measure</b>	<b>Do nothing</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Champion Company</b>
Percent Participation (3yr cumulative)		40%	60%	90-100%
Percent Engagement (3yr cumulative)		20%	60%	85-95%
Percent low-risk		50-60%	60-65%	75-85%
Annual program cost per employee		\$75	\$150	\$400
Savings over first 3 years per employee		\$50	\$50	\$800
Savings in 4 <sup>th</sup> year per employee		\$100	\$400	\$1,600
Annual report explains efforts to integrate health into company culture				X



## Who are we?

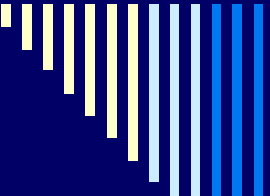
- Public health care system in Northeast Ohio established in 1837
- Affiliated with Case Western Reserve University School of Medicine
- 1 main campus, 1 skilled nursing facility, 20+ ambulatory health centers
- Services include broad range of Primary and Specialty
- 6,700 employees (2016)
- Self-funded health plan
  - 6,100 benefit eligible employees
  - 11,500+ covered lives
  - Over \$40M in health care spend



### *Our Mission:*

*Leading the way to a healthier you and a healthier community through service, teaching, discovery and teamwork.*





# What we had done prior to MetroHealthy to help health and health care costs

## Proven benefit restructuring to improve healthcare costs

- Reduced co-pays for primary care
- Increased co-pays for emergency visits
- Reduced medication cost for regular medications

## Campus Efforts to improve healthcare costs

- Tobacco ban
- Trans-fat ban in prepared foods
- Installation of walking path at main campus
- Metrocize
- Lactation rooms for over 15 years
- Participation/sponsorship of many community races and walks

**These are good supports but they do not “bend the trend” of rising costs and worsening employee health**



# MetroHealthy

## MetroHealthy Credo

Caring for ourselves to care best for others

## MetroHealthy Mission

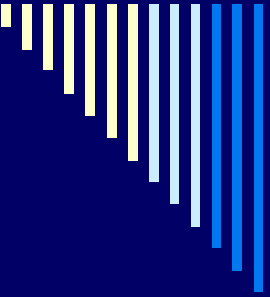
Create a sustainable workforce wellness initiative that:

- Engages employees and their families in actively caring for their health
- Builds a work environment to support healthy decisions
- Inspires employees to be role models who commit to healthy living for themselves, our patients and community

# MetroHealthy mark and logo



MetroHealthy



# Formal Board Resolution for on-going support of wellness initiatives from the Board of Trustees

*Signed and approved December 2012*

## RECOMMENDATION TO THE CEO & PRESIDENT OF THE METROHEALTH SYSTEM FOR ONGOING SUPPORT OF METROHEALTH'S WELLNESS PROGRAM AND POLICIES

### Recommendation

The Vice President of Human Resources recommends that The MetroHealth System approve ongoing support of MetroHealth's wellness program, for employees and their families building an environment and systems to support healthy decisions and commit to healthy living for our patients and our community. All costs associated with the program, to be paid out of the general operating fund.

### Background

MetroHealth has offered wellness services to employees including: affordable health care, supportive nutrition options, onsite gym, an employee assistance program, lactation rooms, support for various fitness programs and smoking cessation. In 2003, the cafeteria stopped using trans-fat in prepared foods and in 2008, the MetroHealth campus became smoke-free. Through these efforts, MetroHealth began to lay the foundation for a culture of wellness; however, a formal wellness program had yet to be established.

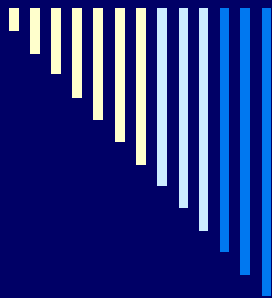
In 2010, employees from Human Resources, the Employee Health Clinic, and the Center for Healthcare Research and Policy were assembled to establish the groundwork for an employee wellness program. As a result, the 'MetroHealthy' wellness program was formally launched in 2011. The focus for the first two years of MetroHealthy was to engage and reward employees as they assess and address their own health. Program participants choose how to address their health in areas pertinent to them.

To continue to build a culture of wellness, strong leadership support is crucial for all phases of this program.



# Set appropriate governance structure in order to clarify roles





## Creating the Environment



**Caring for Ourselves to  
Care Best for Others**

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Username

Password

[Forgot Password?](#)

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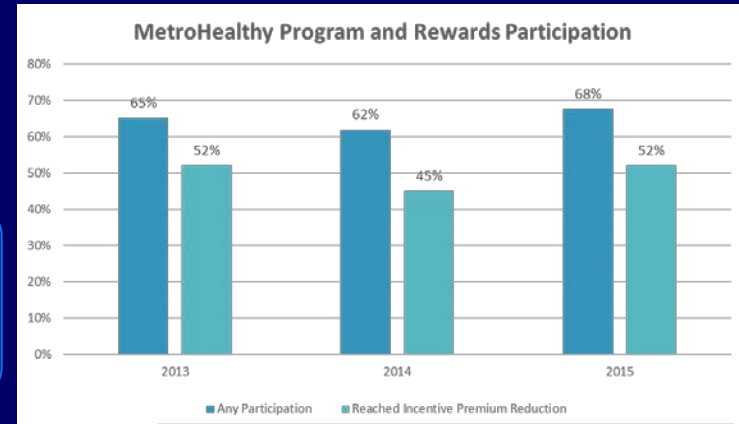
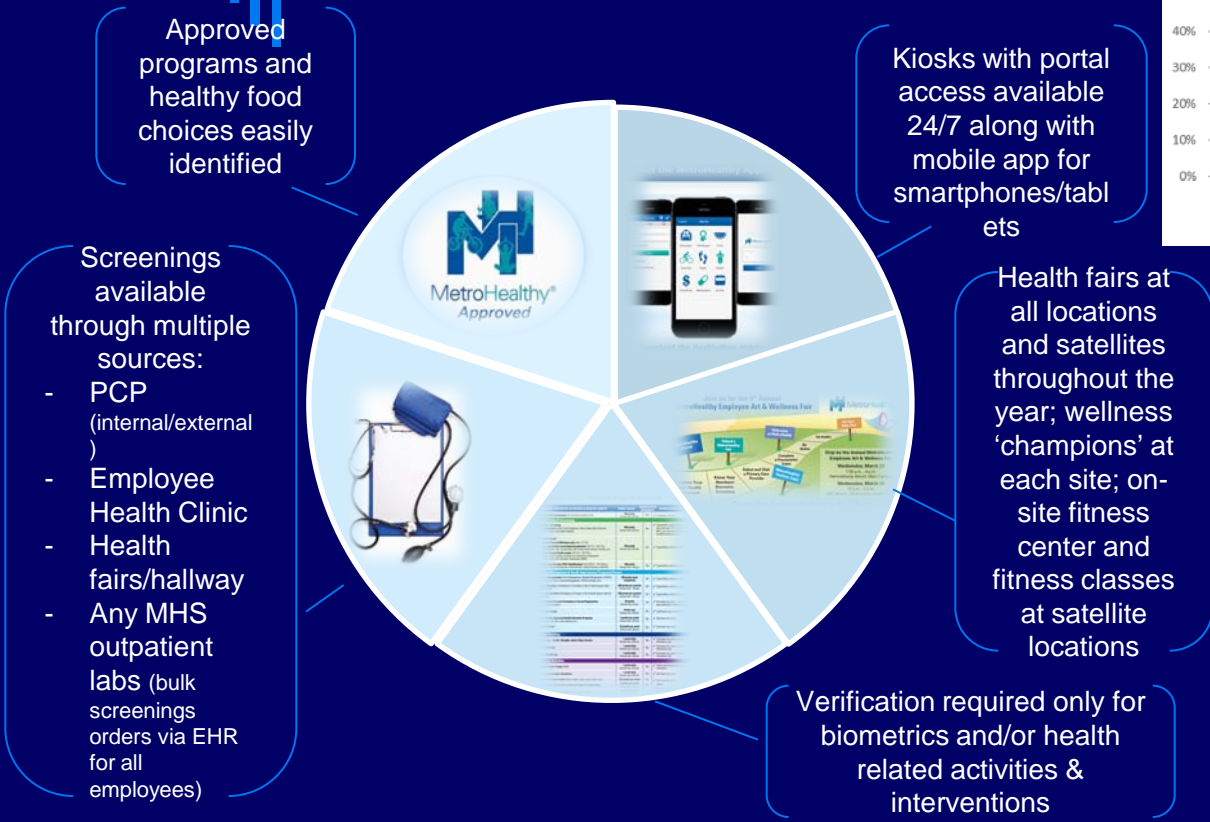
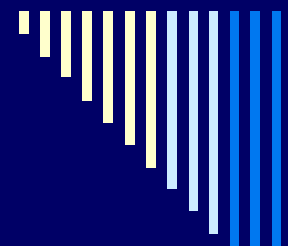
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*“If you build it accessibly and individualize it, more will come”*

# Eliminating barriers to participation and increasing access



## Notable Figures

- Exceeded active participation goals for three consecutive years
- Health benefit premium reductions for participation implemented in 2013 (\$600). In 2014, transitioned to two-level payout - \$200 for same program requirements as 2013, and \$600 with additional components.
- Verification process for Level 2 (highest premium incentive) had trend in first time PCP visits



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# Shift work

- Rotating and night shift work in studies of nurses, firefighters, other factory workers, and professional drivers is associated with higher rates of:
  - Obesity
  - Dyslipidemia
  - Incident diabetes
  - Coronary heart disease
  - Some cancers (women)
  - Back pain
  - Depression
  - Fatigue
  - Overall decreased time sleeping



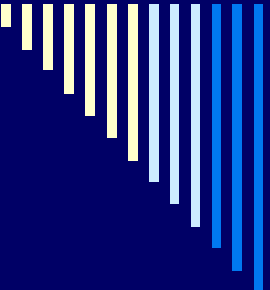
# Shift work

- ❑ Risk related to length of time doing shift work, longer total hours working, age, and total sleep time
- ❑ Risk present whether work is sedentary or active
- ❑ Studies often not able to gauge long-term results
- ❑ No significant studies with evidence for reducing or ameliorating risks of shift work



# Sedentary Jobs – Sitting down at work

- Sedentary time – Job+other time associated with higher risk for obesity and cardiometabolic disease
- Recent meta-analysis funded by the Agency for Healthcare Research and Quality found no evidence for effective workplace interventions to change this risk
- In older adults (58-82) in good health over 7 years, those with > 12 hours a day had worse cardiometabolic outcomes than those sitting <5 hours a day
- Replacing 1 sedentary hour with activity greatly reduced cardiometabolic risk



# Sedentary Jobs – Sitting down at work

- Balance balls not shown to be beneficial
- Sit-stand work stations and treadmill desk data preliminary with some positive short term changes
- Programs for short bout exercise and walking breaks with some improvements in activity but not yet evidence for improved medical outcomes
- For many worker mild and moderate home activity and active commute can mitigate work sitting
- Some evidence prolonged sitting can lead to gluteal atrophy/decreased mass which may make back pain more likely



# Sedentary Jobs – Sitting down at work

Aim of the study was to investigate if

- (a) substituting total sedentary time or long sedentary bouts with standing or various types of physical activity and
- (b) substituting long sedentary bouts with brief sedentary bouts; is associated with obesity indicators using a cross sectional isotemporal substitution approach among blue-collar workers.

**Methods** A total of 692 workers from transportation, manufacturing and cleaning sectors wore an Actigraph GT3X+ accelerometer on the thigh for 1–4 working days. The sedentary (sit and lie), standing, walking, and moderate to vigorous physical activity (MVPA) time on working days was computed using validated Acti4 software. The total sedentary time and uninterrupted sedentary time spent in brief (5 mins), moderate (>5 and 30 mins), and long (>30mins) bouts, were determined for the whole day and during work and non-work time separately. The obesity indicators, BMI (kg/m<sup>2</sup>), waist circumference (cm) and fat percentage were objectively measured.



# Sedentary Jobs – Sitting down at work

Conclusion Replacing total sedentary time and long sedentary bouts, respectively, not only with MVPA but also standing time appears to be beneficially associated with obesity indicators among blue-collar workers. Additionally, replacing long sedentary bouts with brief sedentary bouts was also beneficially associated with obesity indicators. Studies using prospective design are needed to confirm the findings.



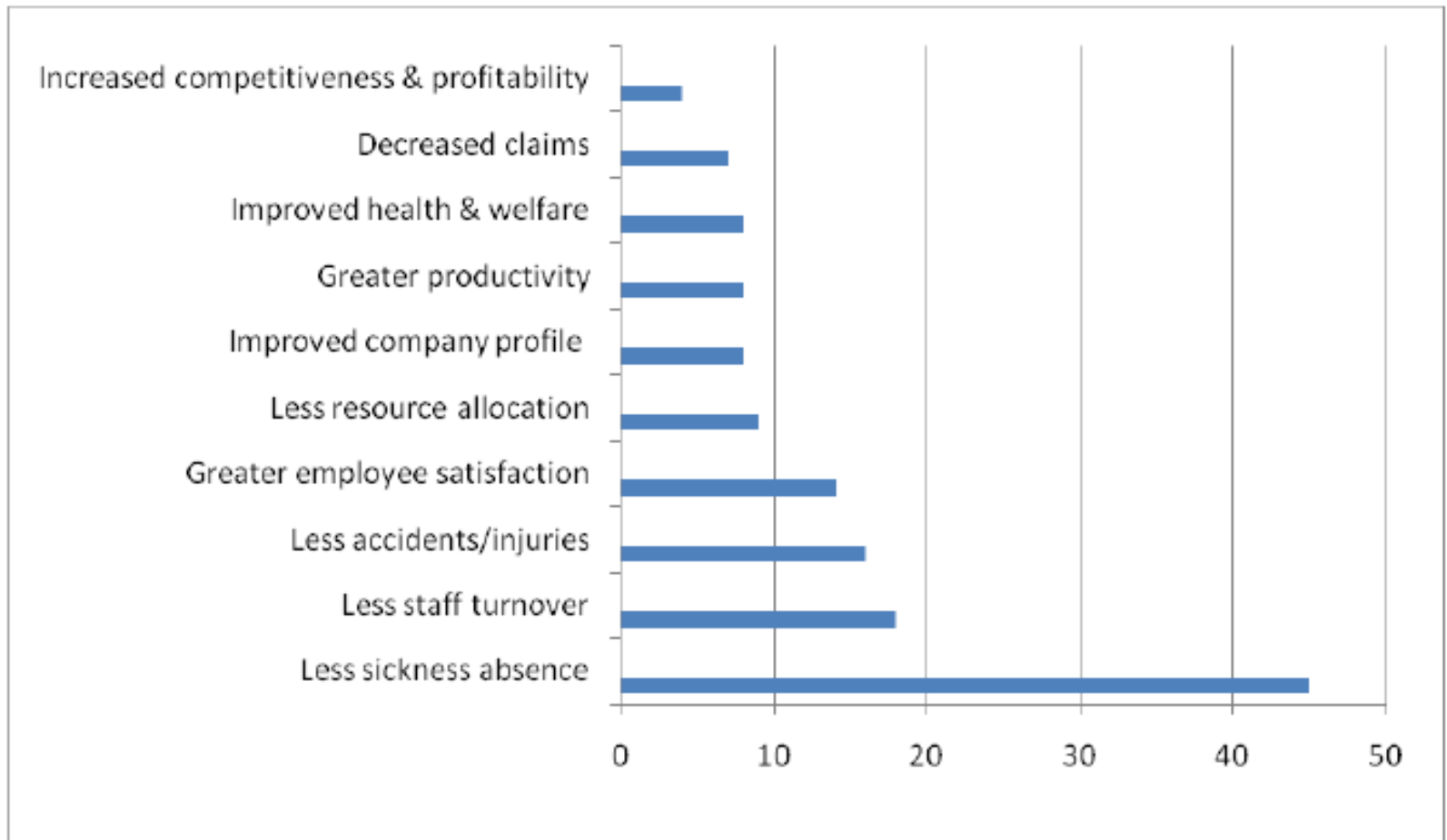
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# Evidence of Impact

Figure 1: Benefits attributed to UK workplace health initiatives



Source: PricewaterhouseCoopers, *Building the Case for Wellness* (2008):

<http://www.dwp.gov.uk/docs/hwwb-dwp-wellness-report-public.pdf>





# Evidence of Impact

- *Associated with increased activity (short term)*
  - *Point of use signage (i.e. Use the stairs) workplace exercise facility*
  - *Program challenges and other peer contests*
  - *Pedometers and goal setting*
- *Providing healthier food choices at work place and policies associated with improved eating choices*
- *No programs have shown overall BMI change but none have made this main outcome*



# Weight and Workplace Review

## Interventions

- All work based trials used a combination of strategies including self management. (n=4), diet (n=5), and physical activity (n=6) . Five of the work based interventions also included specific environmental changes as a part of their combination strategy.



# Weight and Workplace Review

- **BMI**

- The strength of evidence is low that work based combination interventions that use diet, physical activity, and environmental components prevent adult BMI gain. (4 no change 1 reduction)
  
- No studies evaluated self-management, diet, physical activity, medication, or environmental interventions alone in the work setting. outcomes, because no studies met inclusion criteria.



# Outcomes and Utilization of a Low Intensity Workplace Weight Loss Program

- Objective: evaluated weight loss outcomes, treatment utilization, and health behavior change in a low intensity phone- and web-based, employer-sponsored weight loss program.
- Intervention included three counseling phone calls with a registered dietician and a behavioral health coach and a comprehensive website.
- At six months, one third of those who responded to the follow-up survey had lost a clinically significant amount of weight ( $\geq 5\%$  of body weight).
- Clinically significant weight loss was predicted by the use of both the counseling calls and the website.



# Outcomes and Utilization of a Low Intensity Workplace Weight Loss Program

- When examining specific features of the web site, the weight tracking tool was the most predictive of weight loss. Behavior changes such as eating more fruits and vegetables, increasing physical activity, and reducing stress were all predictive of weight loss.
- Although limited by the low follow-up rate, this evaluation suggests that even low intensity weight loss programs can lead to clinical weight loss for a significant number of participants.



# Weight and Workplace Review

## Weight

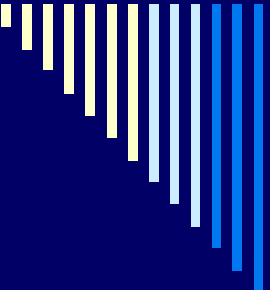
- The strength of evidence is moderate that work based combination interventions that use either diet, physical activity, and environmental components or internet based diet and physical activity counseling prevent adult weight gain. (prevented BMI increase at 12 months, one at 24 months, one no difference)
- There is insufficient evidence that self-management, diet, physical activity, medication, or environmental interventions alone in the work setting prevent weight gain in adults.



# Weight and Workplace Review

## Waist circumference

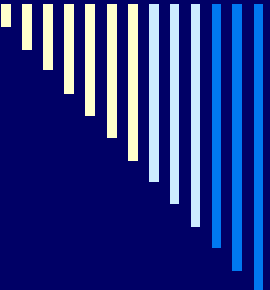
- The strength of evidence is low that work based combination interventions that use self-management and environmental components prevent adult waist circumference increase. A single work based intervention that combined self-management and environmental components resulted in meaningful and statistically significant prevention of waist circumference increase at 12 months; however, another work based combination intervention resulted in no difference
- There is insufficient evidence that self-management, diet, physical activity, medication, or environmental interventions alone in the work setting prevent waist circumference increase in adults.



## Premium-Based Financial Incentives Did Not Promote Workplace Weight Loss In A 2013–15 Study

- Employers commonly use adjustments to health insurance premiums as incentives to encourage healthy behavior, but the effectiveness of those adjustments is controversial.
- We gave 197 obese participants in a workplace wellness program a weight loss goal equivalent to 5 percent of their baseline weight. They were randomly assigned to a control arm, with no financial incentive for achieving the goal, or to one of three intervention arms offering an incentive valued at \$550..





## Premium-Based Financial Incentives Did Not Promote Workplace Weight Loss In A 2013–15 Study

- At twelve months there were no statistically significant differences in mean weight change either between the control group (whose members had a mean gain of 0.1 pound) and any of the incentive groups (delayed premium adjustment, –1.2 pound; immediate premium adjustment, –1.4 pound; daily lottery incentive, –1.0 pound) or among the intervention groups.
- The apparent failure of the incentives to promote weight loss suggests that employers that encourage weight reduction through workplace wellness programs should test alternatives to the conventional premium adjustment approach by using alternative incentive designs, larger incentives, or both.

### **What does this REALLY MEAN?**



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# Wellness in workplace environment and resources

- ❑ Increased opportunities and incentives for activity (gyms, design, trackers, challenges, devices)
  - ❑ Increased options for healthy activity
  - ❑ Reimbursement to local activity facilities
  - ❑ On-line or in person coaching for weight loss, diet, activity and/or disease management
  - ❑ Stress management resources
  - ❑ Being a workplace wellness champion
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# Benefiting from Wellness in the workplace

- Know the plan
  - Complete assessments
  - Use any activity and diet resources that fit your patient
  - Look into increased opportunities for stress, sleep, financial, disease management, and education
  - Find out if family included too
-



# Thank you!

Any Questions ?



□ The MetroHealthy Team



MetroHealthy Team- February, 2016