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*Presents at the:*

EMPLOYEE BENEFITS PLANNING EBPA ASSOCIATION **Breakfast Seminar Series**

# Health & Productivity in the Workplace: An Integrated Approach

Mary K. O'Neill, MD

February 4, 2010

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# Health & Productivity in the Workplace: An Integrated Approach

- Presented By: Mary K. O'Neill, MD, MBA
  - Chief Medical Officer for CIGNA in the Pacific Northwest
  - Board Certified in Physical Medicine and Rehabilitation
  - Graduate of the University of Washington
  - Prior to joining CIGNA, Dr. O'Neill was the medical director for the State of Washington at the Uniform Medical Plan. Prior to that she was the head of Physical Medicine at Virginia Mason Medical Center.

# Session objectives

- Understand value and results of integrated health and productivity programs in improving outcomes and costs
- Recognize the latest workplace and market trends that continue to drive the need for integrated health and productivity solutions
- Understand the link between health risks, medical, disability and productivity costs and impact to employer's total costs
- Understand how to design a comprehensive solution for your clients

# Topics to be covered

- Health and productivity management overview
- Demonstrating the value: Does it really work?
- Trends impacting employers and employees
- Connection between health risks and costs
- Putting together a comprehensive and proactive solution

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# Health and productivity management overview

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# What is integrated health & productivity management?

- A comprehensive approach to managing the health, well-being and productivity of employees
- Goal:  maximize the **health and well-being** of employees while effectively managing the **total cost of injury and illness** for employers
- Total costs = medical costs + wage replacement costs + lost productivity costs

# What is the scope?

- Medical
- Behavioral health
- Short and long-term disability
- Incidental absence
- Productivity on the job (presenteeism)
- Family medical and other leaves
- Worker's compensation

# Key components

- Identification and effective management of those with health risks and/or established illness to:
  - Improve health outcomes
  - Reduce the likelihood of a disability
  - Mitigate the severity of disabilities that cannot be avoided
  - Control absence and lost productivity while at work (presenteeism)
- Coordination of medical and return to work management around the time of a disability event to:
  - Improve disability durations
  - Improve return to work
  - Improve health outcomes
  - Reduce health care cost trend
- Integrated data, analytics and reporting to:
  - Track and measure outcomes and impact across programs
  - Provide insight for program enhancements

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# Demonstrating the value: Does it really work?

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# The value of integration

*"Companies with the most effective H&P programs experienced superior performance in three significant areas: They achieved 20 percent more revenue per employee, have 16.1 percent higher market value and delivered 57 percent higher shareholder returns."*

**Building an Effective Health & Productivity Framework**
**2007/2008 Staying@Work Report, Watson Wyatt Worldwide**

# Outcomes from health & productivity management programs

- A review of 42 published studies on worksite health promotion programs showed reduced sick leave/absence, health care, disability and worker's compensation costs driving an average savings of $5.93 for every dollar spent [1]
- Companies with the most effective HPM programs experienced year-over-year decreases in the incidence of [2]
  - Short-term disability
  - Long-term disability
  - Incidental sick pay programs compared with last year

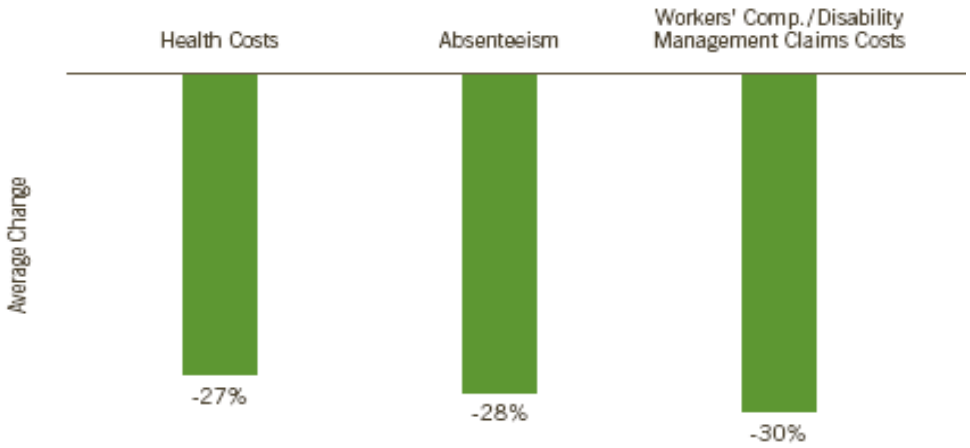
[1] Chapman, LS, the Art of Health Promotion, 2003, 6:6
[2] Watson-Wyatt Stay@Work, 2007/2008

# Return on investment (ROI)

- A well-implemented multi-component workplace health promotion program can produce sizeable changes in health risks and productivity
- Based upon salary costs alone for absenteeism and “presenteeism”, study shows ROI of 6.19 to one[1]

**Workplace health programs reduce costs to employers**

**Average Percent Change in Employers’ Costs Resulting from Workplace Health Promotion and Wellness Programs[2]**




[1]Mills PR, Kessler RC, Cooper J, Sullivan S “Impact of a health promotion program on employee health risks and work productivity” *Am J Health Promot, 2007 Sep-Oct; 22(1):45-53*

[2]Chapman, L (2003), Meta-evaluation of workplace Health Promotion Economic Return Studies, *Art of Health Promotion Newsletter*, 6 (6)

# Returning employees to work more quickly saves employers money

Potential savings from shorter STD durations through integration

**Employer Example: ■ 5,000 EEs ■ 10% STD incidence ■ 500 STD claims/yr.**

**5% RTW improvement for integrated vs. disability-only = 21 more employees return to work**

**Disability Costs**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **$4,167** *avg. wage/mo ($50,000/yr)* | x | **60%** *avg. disability benefit* | x | **21** *# of EEs* | = | **$52,504/ month** | | |

+

**Productivity Costs**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **$4,167** *avg. wage/mo ($50,000/yr)* | + | **$1,250** *avg. benefit/mo (30% of wage)* | x | **21** *# of EEs* | x | **1.28[1]** *absence multiplier* | = | **$145,609/ month** | | |

**Total Savings = $198,113/month**

[1]Nicholson, Sean, Mark V. Pauly, Daniel Polsky, Claire Sharda, Helena Szrek, and Marc L., Berger, 2004a, *Measuring the Effects of Workloss on Productivity With Team Production.*

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# Trends impacting employers and their employees

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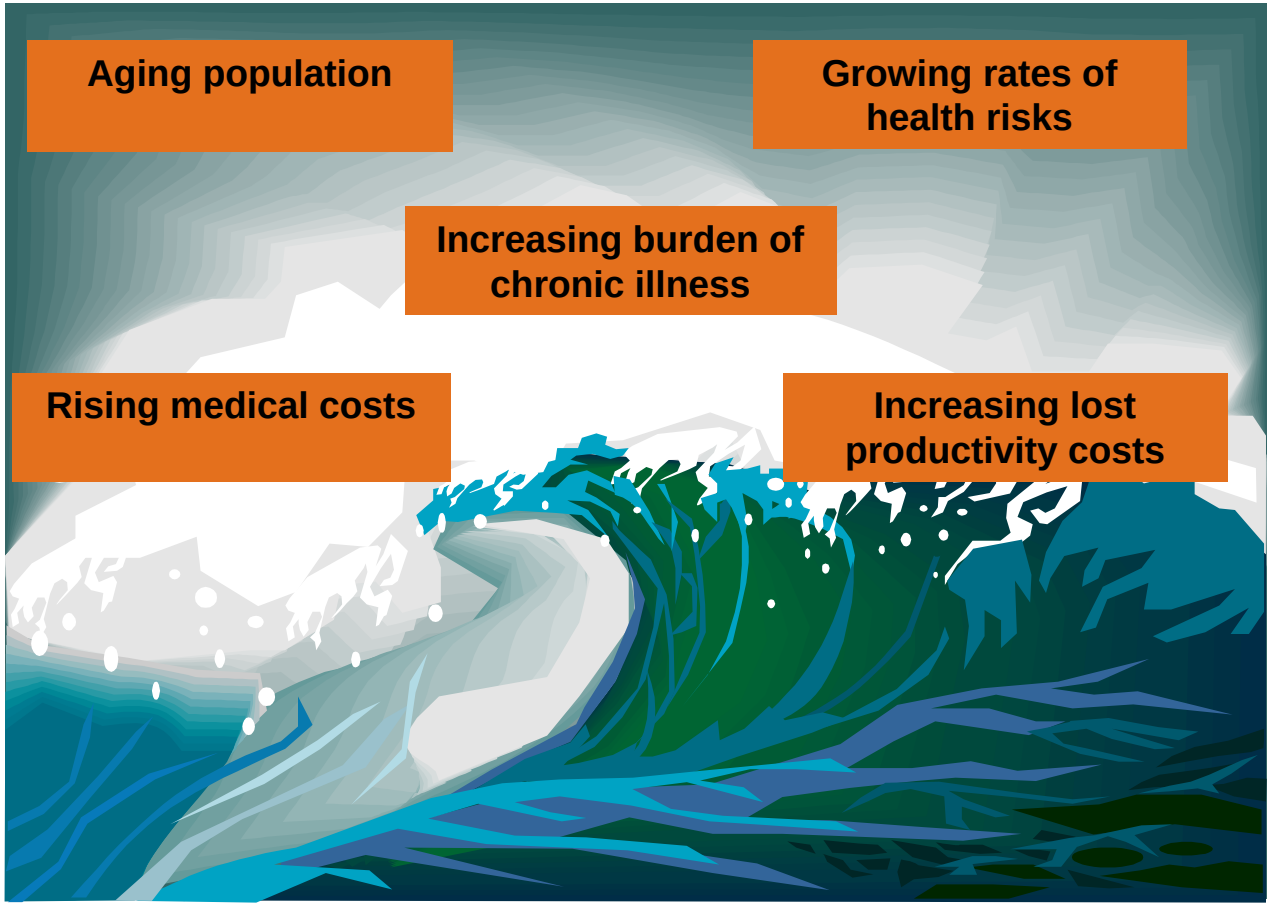
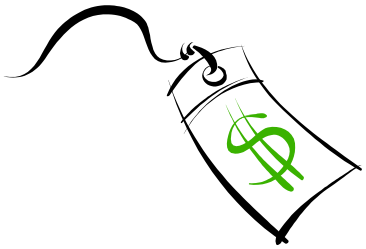
# The challenge



# Making the problem “real”

If food prices had risen at the same rate as medical inflation since the 1930’s, here would be the cost today of some common grocery Items….



1 dozen eggs $ 80.20

1 pound sugar $ 13.70

1 roll toilet tissue $ 24.20

1 dozen oranges $ 107.90

1 pound butter $ 102.07

1 pound bacon $ 122.48

1 pound of coffee $ 64.17

American Institute for Preventive Medicine, 2007

# Workers are getting older

- By 2011, 51% of the labor force will be over 40 and the first baby boomers will reach age 65[1]
- More baby boomers will work past traditional retirement age due to low savings, high health care costs and the rise in Social Security retirement age[2]
- As baby boomers continue to age and retire, there will be dramatic slowing in growth of the U.S. workforce, making it harder to recruit and retain qualified employees

*Disability durations for older workers can be up to one-third longer[1]*

[1] U.S. Census Bureau, December 2005

[2] FDIC Outlook, Spring 2006

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# A shrinking workforce

- The number of U.S. workers between ages 55 and 64 will grow 51 percent to 25 million by 2012, meaning the fastest-growing portion of the workforce is the one at most risk of retiring soon
- At the same time, the number of workers between ages 35 and 44 is expected to shrink by 7 percent

Occupational Outlook Quarterly, Fall 2007

# Health risks are common

In a typical population of 100 people:

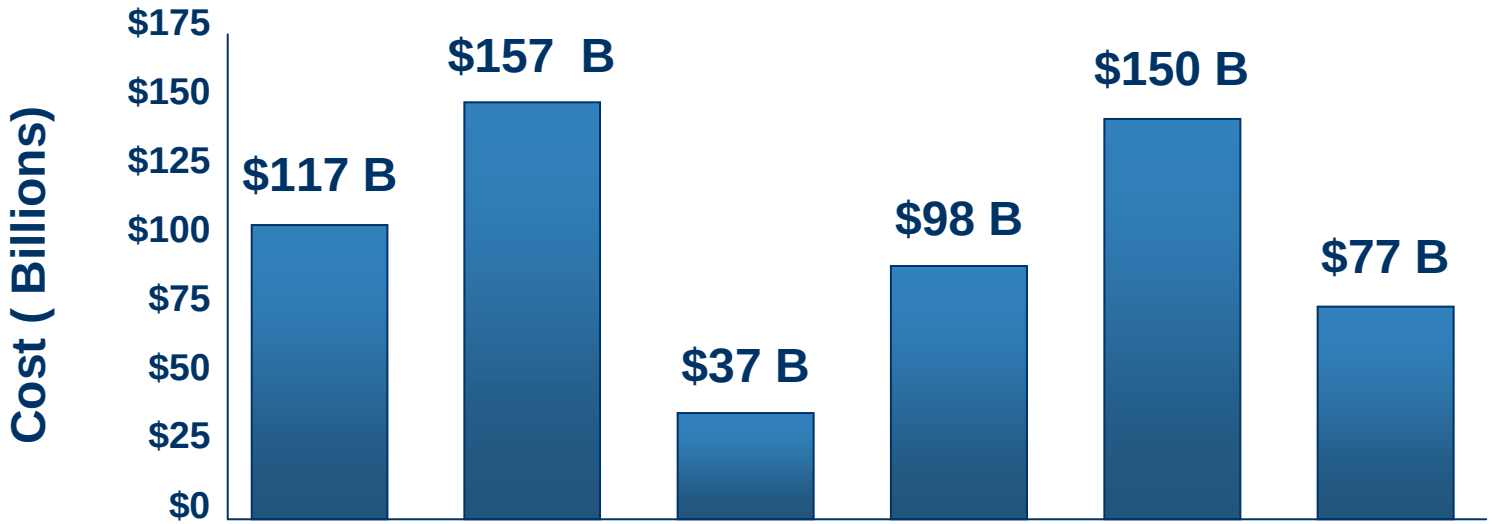
- 48 are overweight
- 44 suffer from stress
- 24 don't exercise
- 26 have high blood pressure
- 30 have high cholesterol
- 21 smoke
- 31 use alcohol excessively
- 20 don't wear seatbelts

Department of Health and Human Services, 2007

# What health risks have the greatest costs?

- Obesity ☐
- Smoking ☐
- Hypertension ☐
- Diabetes ☐
- Stress ☐
- Inactivity ☐

# Economic impact of health risks: the cost of “un-wellness”




| | Obesity | Smoking | Hypertension | Diabetes | Stress | Inactivity |
|---|---|---|---|---|---|---|
| Cost/employee | $800 | $1060 | $250 | $660 | $1010 | $520 |

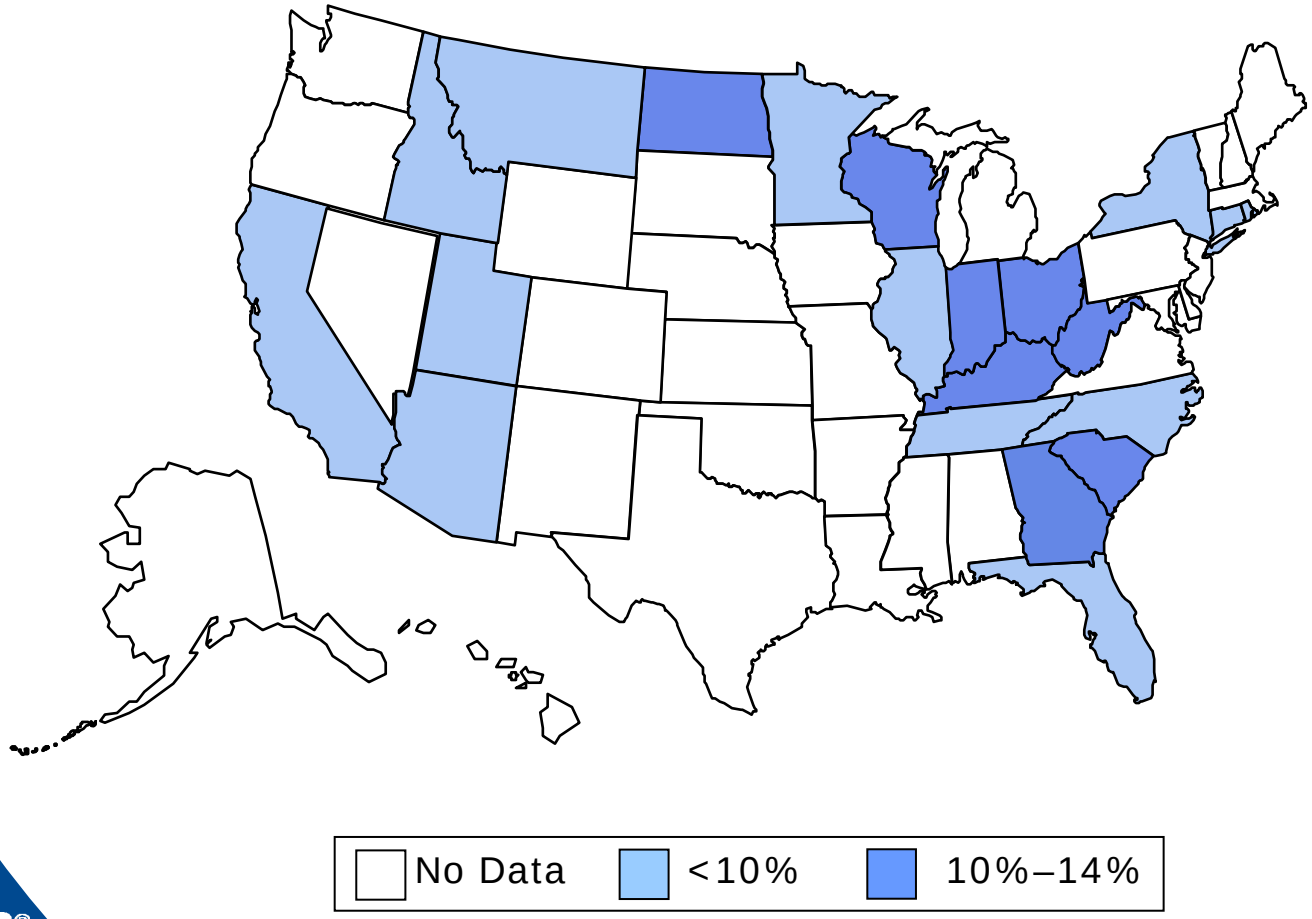
Health Promotion Advocates, www.healthpromotionadvocates.org, from statistics kept by:

- CDC, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Journal of Occupational & Environmental Medicine

Cost/employee calculation uses size of civilian workforce per U.S. Bureau Labor Statistics, November. 2005

# Obesity trends among U.S. adults

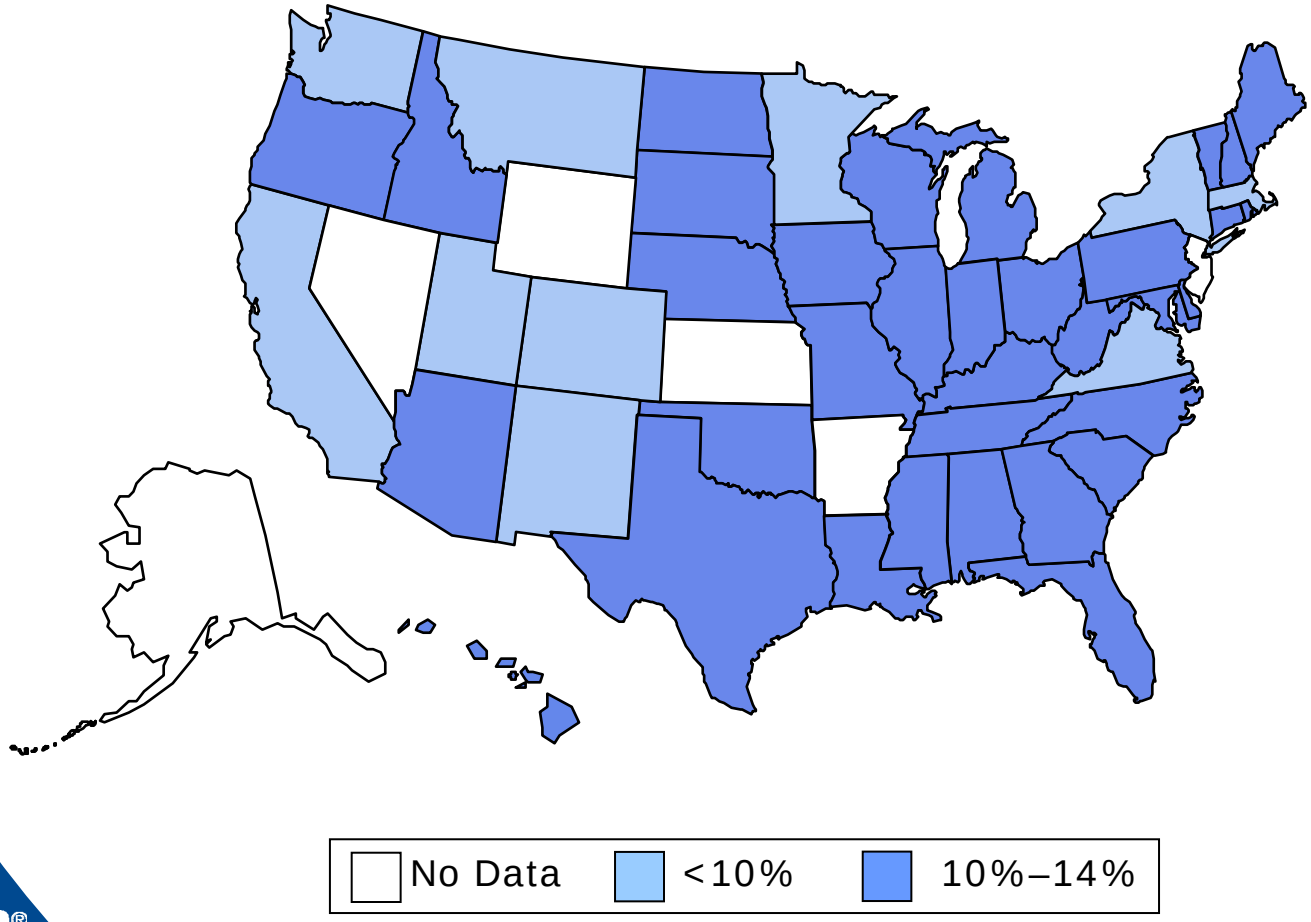
## 1985




Centers for Disease Control and Prevention, U.S. Obesity Trends 1985-2006

# Obesity trends among U.S. adults

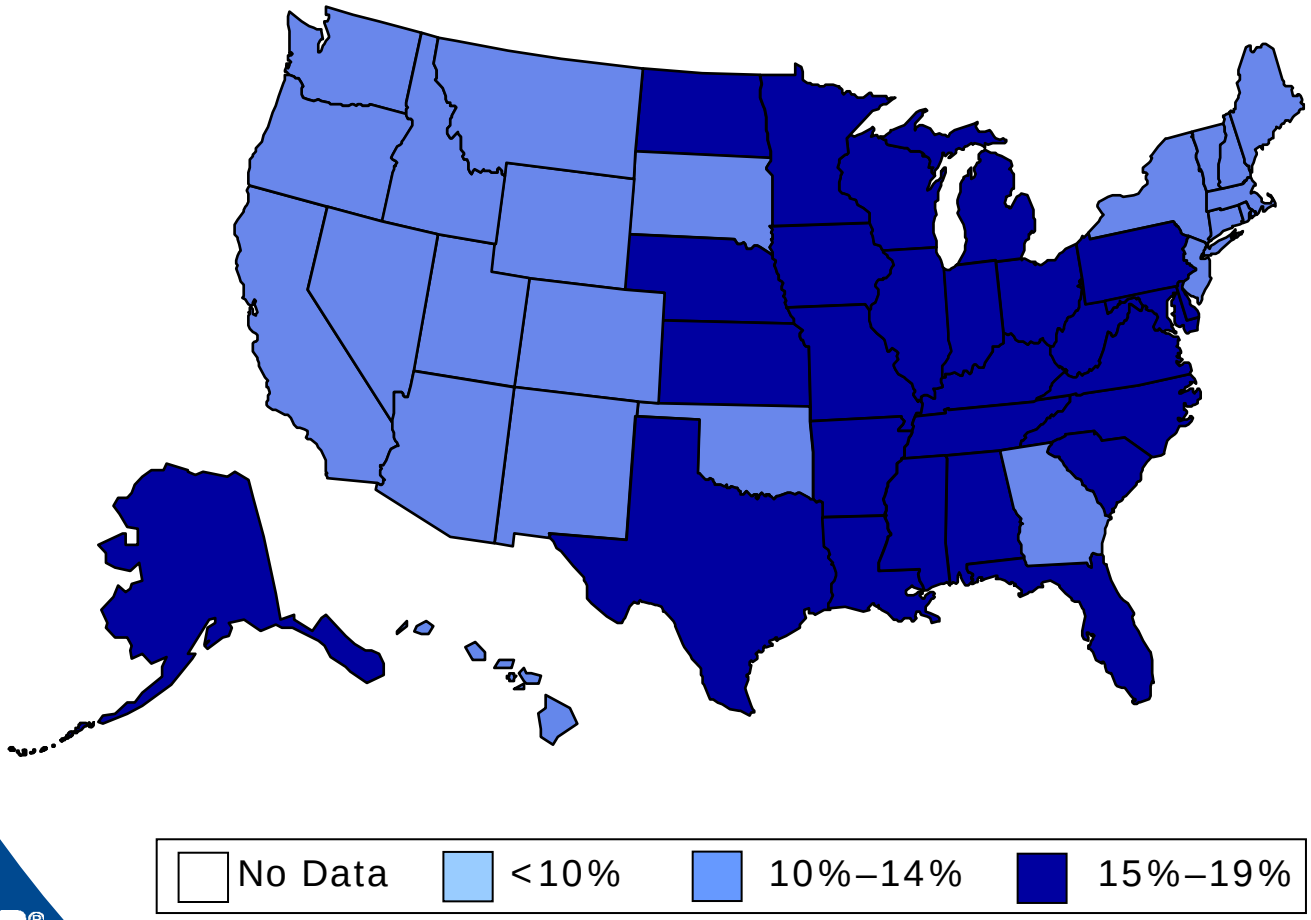
## 1990




Centers for Disease Control and Prevention, U.S. Obesity Trends 1985-2006

# Obesity trends among U.S. adults

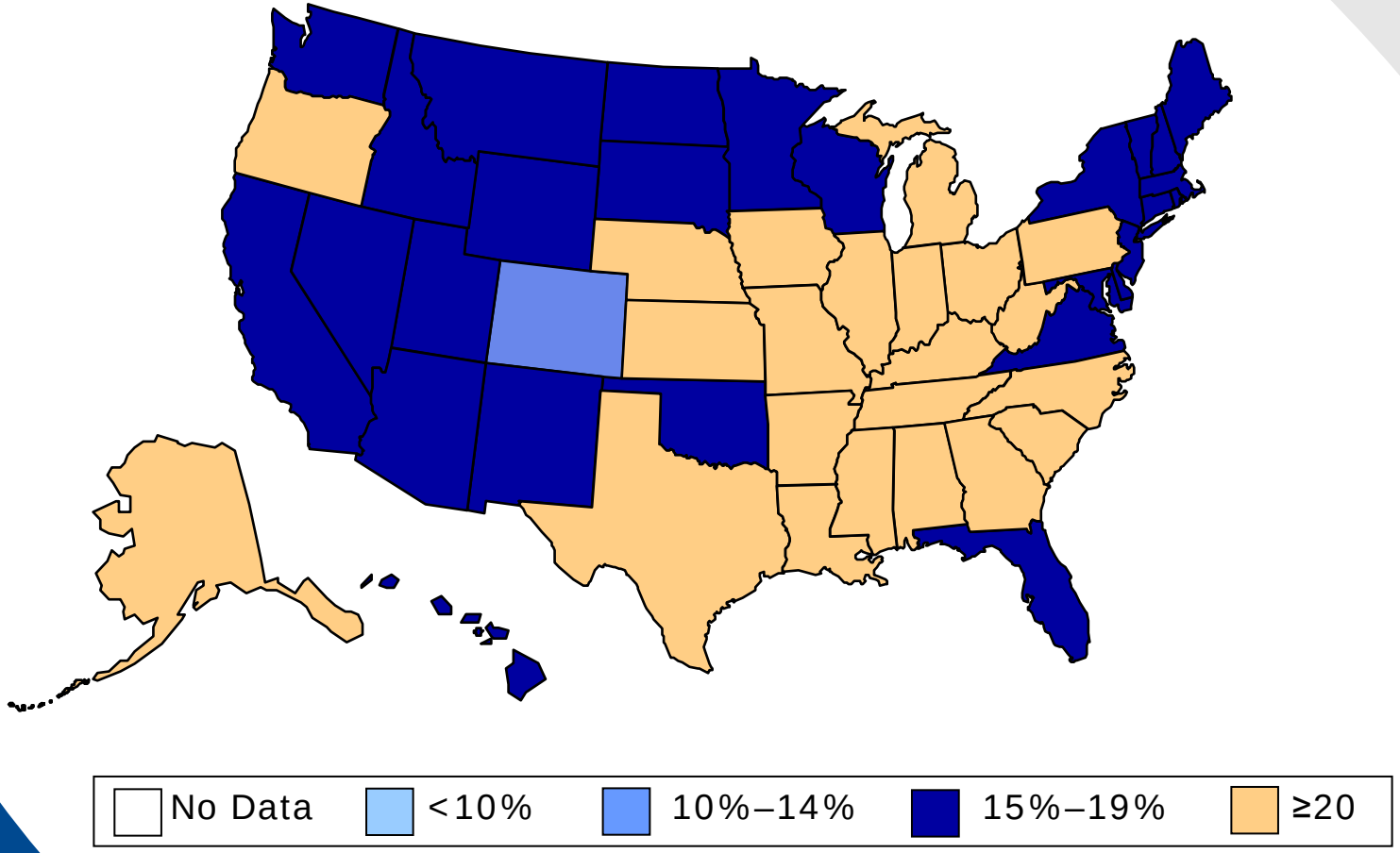
1995




Centers for Disease Control and Prevention, U.S. Obesity Trends 1985-2006

# Obesity trends among U.S. adults

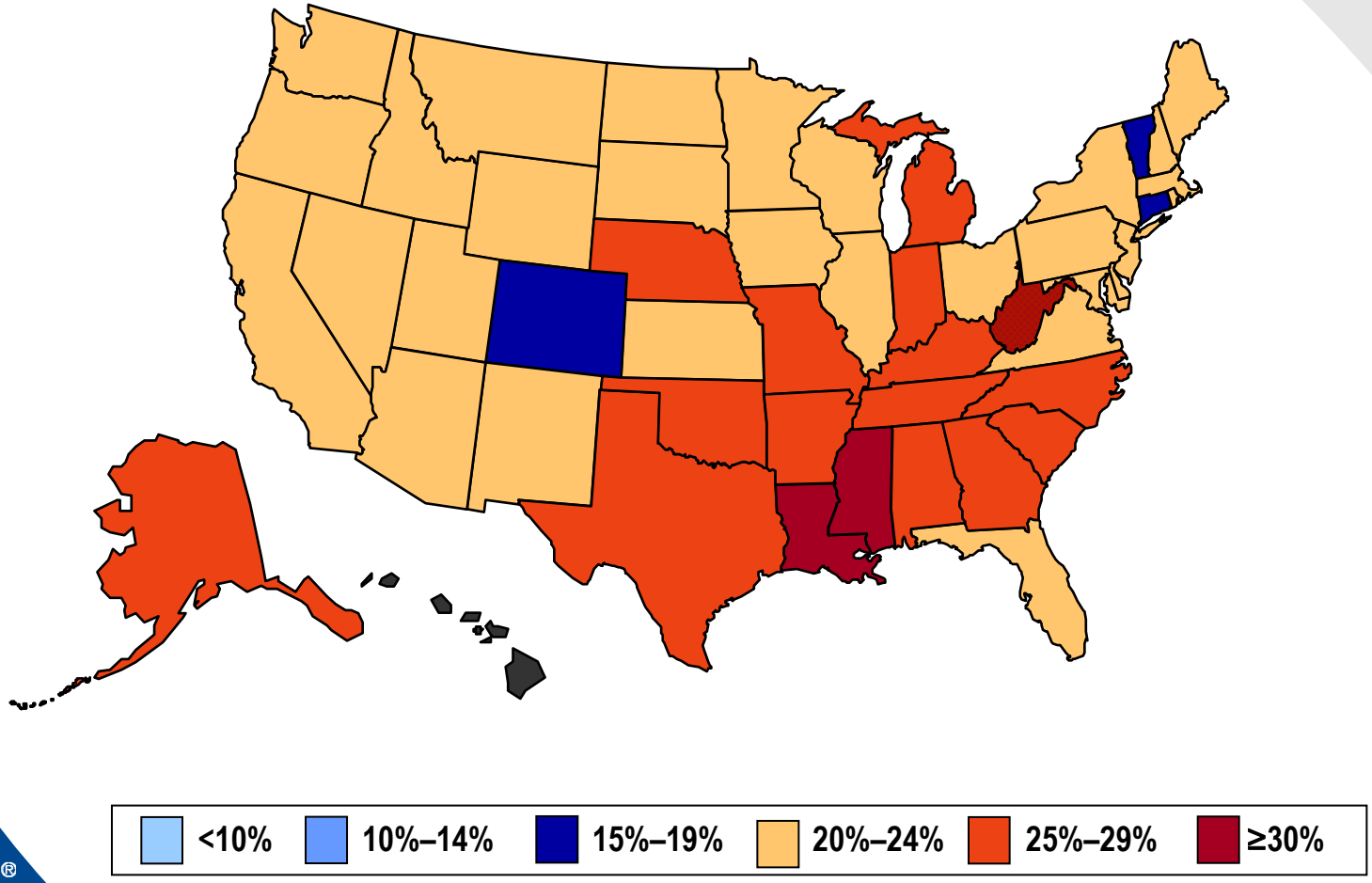
2000




Centers for Disease Control and Prevention, U.S. Obesity Trends 1985-2006

# Obesity trends among U.S. adults

2005




Centers for Disease Control and Prevention, U.S. Obesity Trends 1985-2006

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# Impact of rise in obesity*

- Obesity is associated with the fastest growing causes of disability (diabetes and musculoskeletal) and plays a major role in disability at all ages
- Obese adults spend more on health care services and medications
- Obese adults are more likely to be limited in performing Activities of Daily Living (ADL) limitations
- Obesity is linked to higher health care costs than smoking or drinking
- Obese workers have the highest prevalence of work limitations – 7%, compared with 3% among normal weight employees

Obesity-related disabilities can cost employers up to $8,720 per claimant per year

*Centers for Disease Control and Prevention, 2003

# Chronic illness facts

- In 2005, 133 million Americans (almost half of the population) suffered from one or more chronic conditions[1] - expected to reach 157 million by 2020[2]
- 75 percent of the nation's $2 trillion medical care costs attributed to people with chronic diseases[1]
- 1 in 3 Americans born in 2000 will develop diabetes[2]

[1]Centers for Disease Control and Prevention, March 2008

[2]Centers for Disease Control and Prevention, 2003

# Chronic illness facts (cont)

Per the Milken Institute report, the 7 common chronic conditions are:

- Cancer
- Diabetes
- Hypertension
- Stroke
- Heart disease
- Pulmonary conditions
- Mental disorders

"An Unhealthy America: The Economic Burden of Chronic Disease" Milken Institute 2007

# Chronic illness facts (cont)

- Reducing overweight and obesity rates back to 1998 levels (32.2% and 19.0%, respectively) by 2023 could result in:
  - Reduction in the number of cases of chronic illnesses by 15 million
  - Decrease in medical costs by about $60 billion
  - Increase in productivity by about $250 billion in 2023
- Based on current trends adult smoking rates are projected to fall to 19% by 2023 - if we can achieve a 15% rate, that could result in:
  - 9.4 million fewer chronic illnesses
  - $31 billion less in treatment costs
  - $79 billion in added productivity

"An Unhealthy America: The Economic Burden of Chronic Disease" Milken Institute 2007

# Mental health & productivity costs

- Mental health costs are a big factor driving workplace costs:
  - Depression results in more workplace costs than almost any other physical disorder[1]
  - Behavioral health disorders affect more than 20% of the nation's workforce[2]
  - Nationwide, 1.3 billion disability days result from mental conditions[2]
  - Every year, U.S. businesses lose nearly $312 billion through lost productivity and absenteeism caused by mental illness[3]

**Workplace cost = lost productivity = absenteeism + presenteeism**

[1]Rand Corporation 2004
[2]National Institute of Mental Health 2007
[3]National Institute of Occupational Safety and Health

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# Connection between health risks and costs

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# Connecting health risks and total costs

*"A system that waits for disease and illness to occur can never be optimally effective. The logical strategy is to maintain people at the lowest or most appropriate level of health care use possible."*

**Dee Edington, Ph.D.**
**Director, Health Management Research Center**
**University of Michigan**

# The full cost of workplace health

- Full costs of absence are more than *4 times* medical spending when health-related lost productivity is added
- ACOEM/IBI Total Cost of Illness study of 4 U.S. companies with 57,000 employees and15,000 participants
- Compared medical & pharmacy claims to self-reported employee health & productivity, using Health and Work Performance Questionnaire (HPQ)

***Key Findings***

- *Health-related productivity costs accounted for slightly over 80% of the total cost*
- *The full cost of poor health is driven by different health conditions than those driving medical and pharmacy costs alone*

American College of Occupational and Environmental Medicine, 2007

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# Top 10 conditions by Medical and Pharmacy Costs

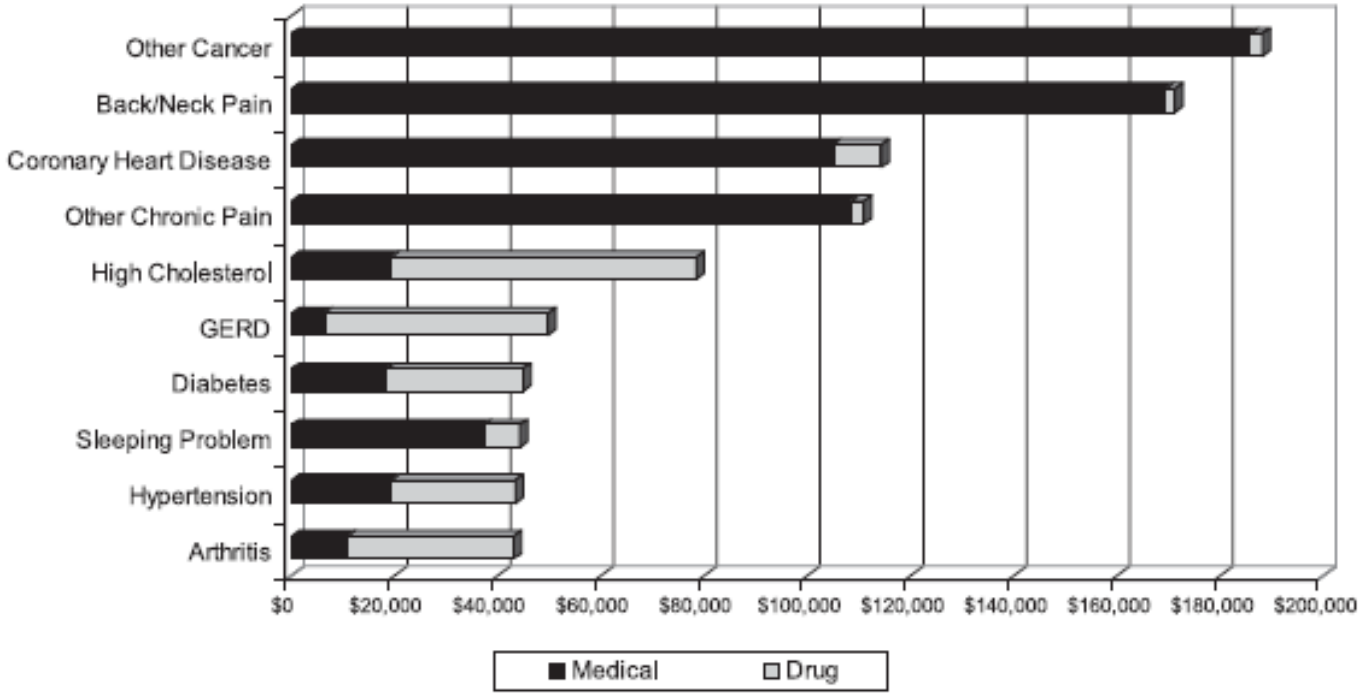


Fig. 1. Top 10 medical conditions by annual medical and drug cost per 1000 FTEs for all companies.

Loeppke, et. al., Journal of Occupational and Environmental Medicine, July 2007

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# Top 10 conditions, by Total Cost

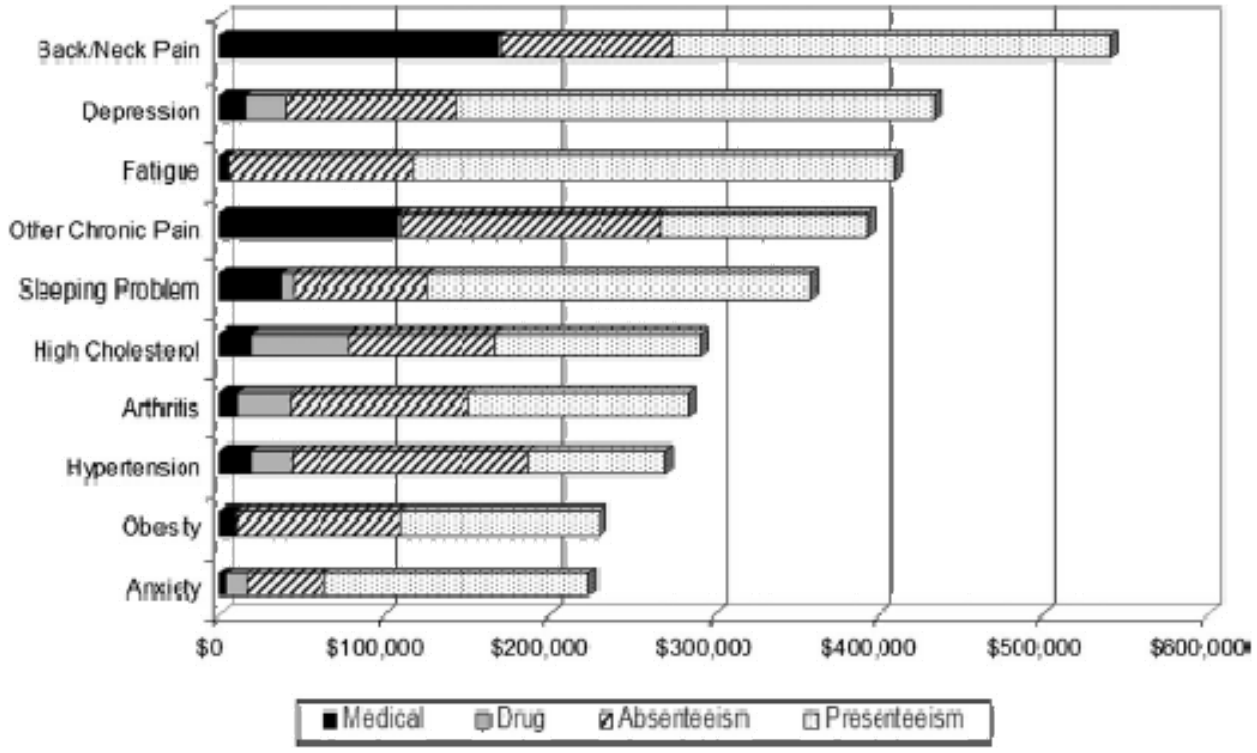


Fig. 2. Top 10 medical conditions by annual medical, drug, and productivity cost per 1000 PPIs for all employees.

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# Traditional versus Total Cost view of top 10 conditions

| | Medical | Pharmacy | Medical and Pharmacy | Productivity | Total Cost |
|---|---|---|---|---|---|
| 1 | Other cancer | High cholesterol | Other cancer | Fatigue | Back/neck pain |
| 2 | Back/neck pain | GERD | Back/neck pain | Depression | Depression |
| 3 | Other chronic pain | Arthritis | CHD | Back/neck pain | Fatigue |
| 4 | CHD | Diabetes | Other chronic pain | Sleeping problem | Other chronic pain |
| 5 | Sleeping problem | Depression | High cholesterol | Other chronic pain | Sleeping problem |
| 6 | High cholesterol | Hypertension | GERD | Arthritis | High cholesterol |
| 7 | Hypertension | Asthma | Diabetes | Hypertension | Arthritis |
| 8 | Diabetes | Allergy | Sleeping problem | Obesity | Hypertension |
| 9 | Headache | Anxiety | Hypertension | High cholesterol | Obesity |
| 10 | Depression | CHD | Arthritis | Anxiety | Anxiety |

American College of Occupational and Environmental Medicine, 2007

GERD = gastroesophageal reflux disease
CHD = coronary heart disease

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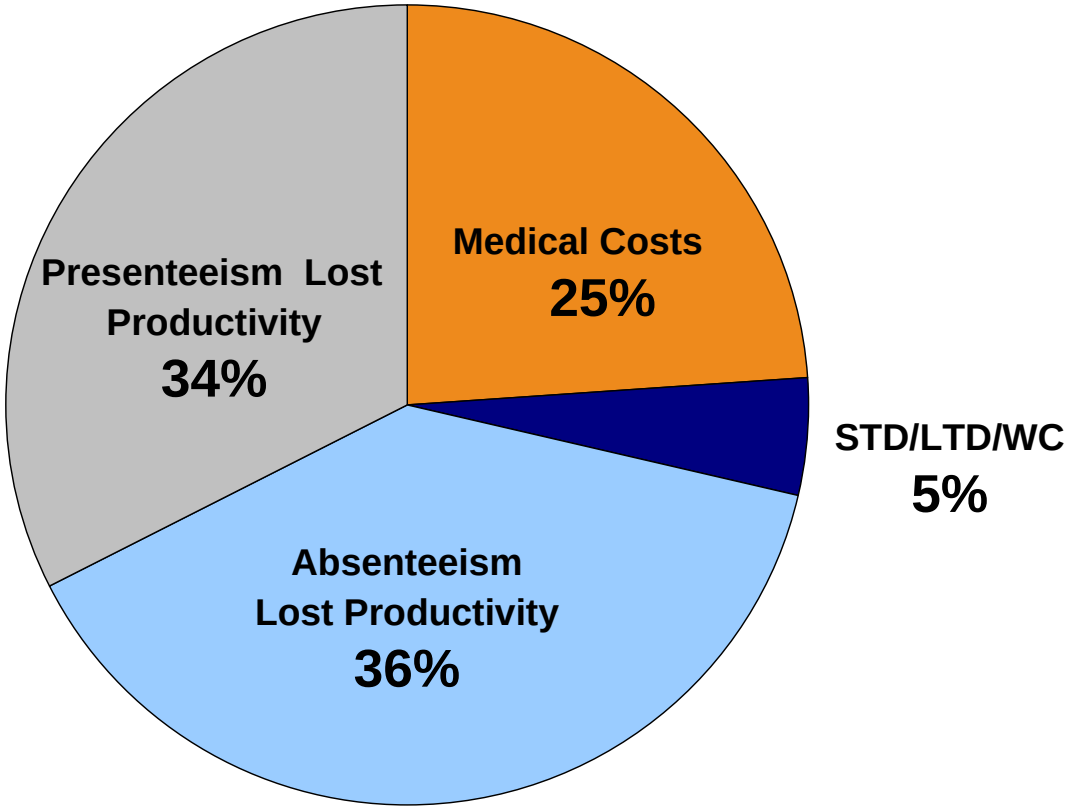
# Lost productivity related to absence & presenteeism compared to medical & pharmacy costs




IBI Research Insights, May 2007 - Single employer example

# Components of lost productivity costs


- Wage replacement
- Overtime pay
- Temporary staff
- Hiring & training new staff

- Lost productivity
- Lost revenue from:
  - Goods and services not produced
  - Customer dissatisfaction due to work not being completed

# Employee costs increase greatly as they move across the health care continuum

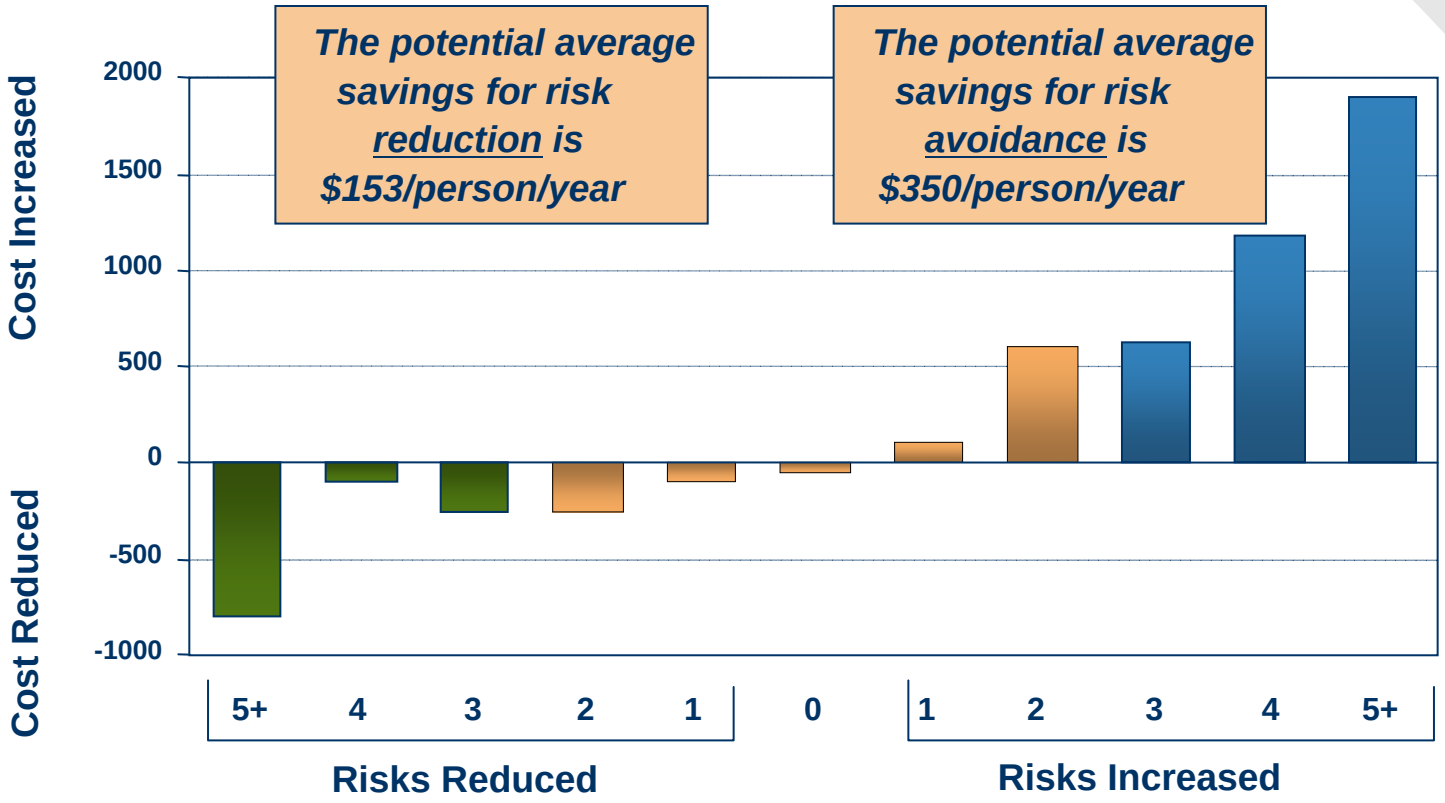
| Outcome Measure | Low-Risk *(N=671)* | Medium-Risk *(N=504)* | High-Risk *(N=396)* | Excess Cost Percentage |
|---|---|---|---|---|
| Short-Term Disability | $ 120 | $ 216 | $ 333 | 41% |
| Medical and Pharmacy | $ 1,158 | $ 1,487 | $ 3,696 | 38% |
| Absence | $ 245 | $ 341 | $ 527 | 29% |
| Workers' Compensation | $ 228 | $ 244 | $ 496 | 24% |
| Total | $ 1,751 | $2,288 | $ 5,052 | 36% |

Costs more than **double** moving from medium to high risk status

On average, costs for people with medium or high risk are **36% higher** than those at low risk

Wright, Beard, Edington. JOEM. 44(12):1126-1134, 2002

# Change in costs associated with change in risks




[1]Dee Edington, University of Michigan Health Management Resource Center

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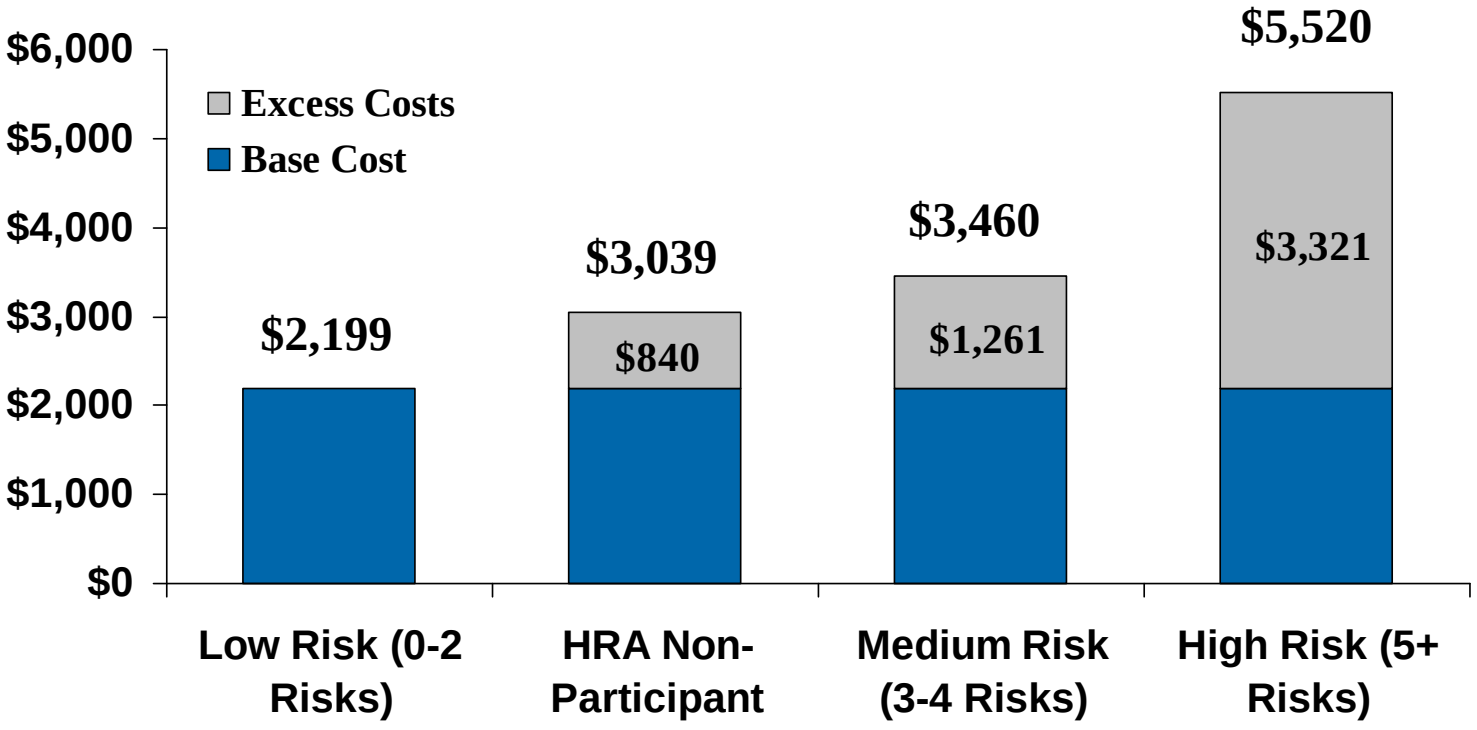
# Health risks are connected to total costs

***Employees with a greater number of health risks have higher medical costs***




**Edington, AJHP. 15(5):341-349, 2001**

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# Putting together a comprehensive and proactive solution

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# Putting together a comprehensive and proactive solution

*"If employers do nothing, up to 2% of their population will automatically migrate to a higher risk status each year."*

**Dee Edington, Ph.D.**
**Director, Health Management Research Center**
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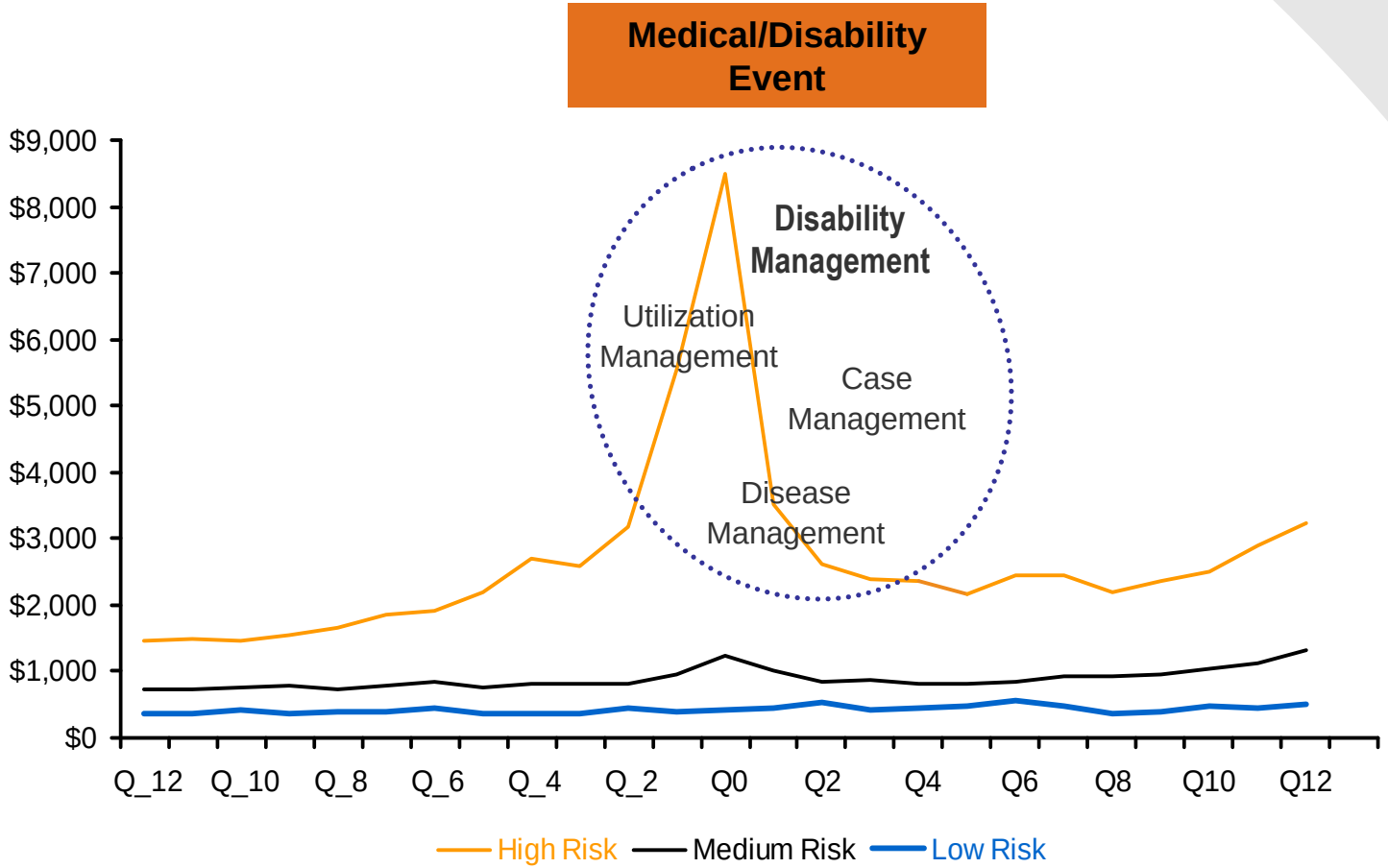
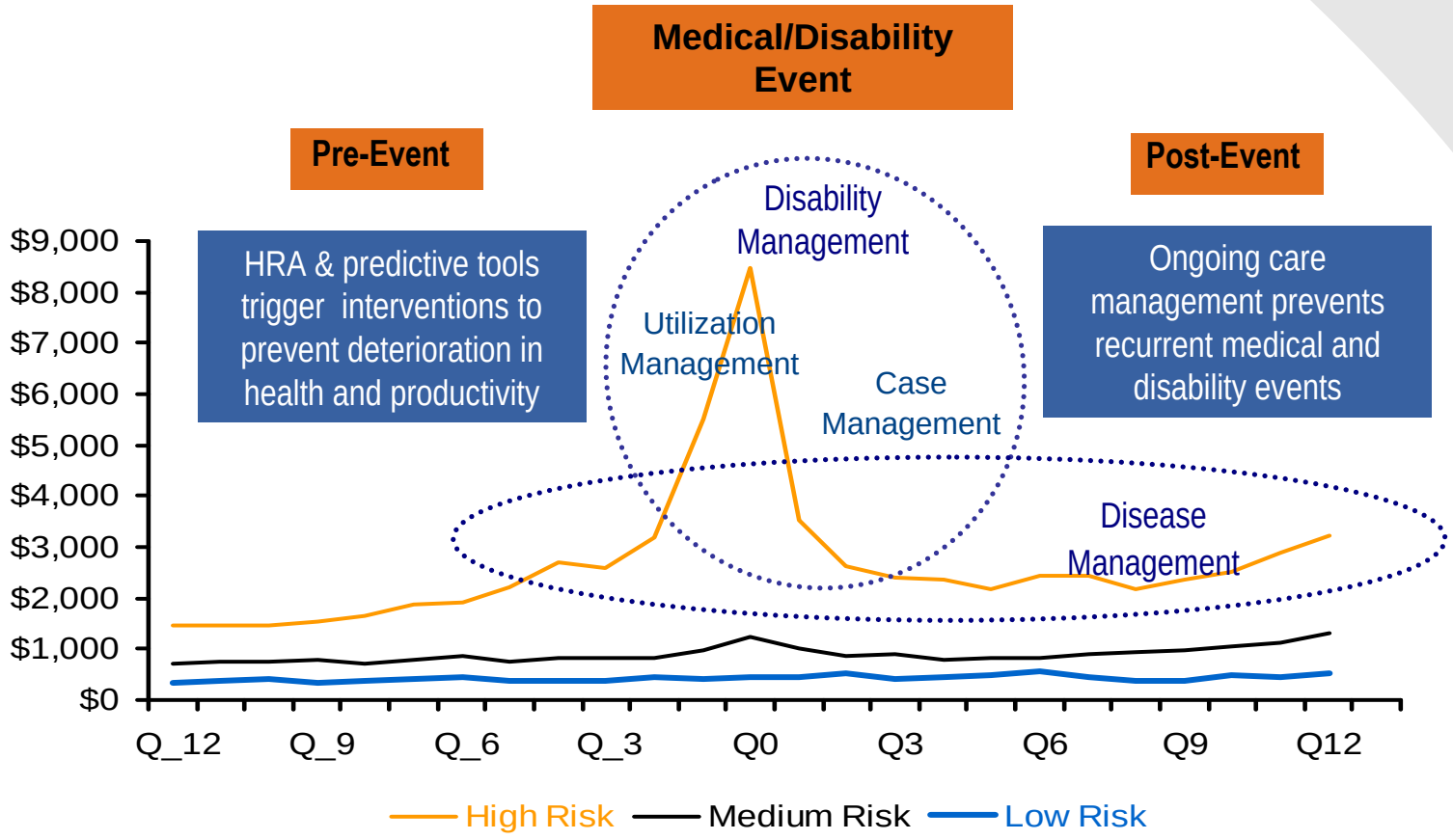
# Traditional focus - managing the event




Original chart source: Musich,Schultz,Burton,Edington. DM&HO. 12(5):299-326, 2004

# Broadening the focus




Original chart source: Musich,Schultz,Burton,Edington. DM&HO. 12(5):299-326, 2004

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# Driving the effectiveness of health & productivity management programs

- A corporate culture of health, wellness, and safety
- Integrated the delivery of health, wellness, time off and income security programs
- A strong, integrated, customer-focused health advocacy model

# Total population health & productivity management

| | Well<br>No Obesity | At Risk<br>Obesity<br>High Cholesterol | Acute Illness<br>Pneumonia<br>Fracture | Chronic Illness<br>Diabetes<br>Heart Disease | Catastrophic Illness or Injury<br>Cancer |
|---|---|---|---|---|---|
| **Lost Time/ Productivity Management Programs** | • Presenteeism<br>• Absenteeism<br>• FML | • Presenteeism<br>• Absenteeism<br>• FML<br>• STD | • Presenteeism<br>• Absenteeism<br>• FML<br>• STD | • Presenteeism<br>• Absenteeism<br>• FML<br>• STD<br>• LTD | • Presenteeism<br>• Absenteeism<br>• FML<br>• STD<br>• LTD |
| **Medical Care Management Programs** | • Health Coaching<br>• Worksite Wellness | • Targeted Health Coaching for Risk Reduction<br>• Worksite Wellness | • Case Mgmt<br>• Utilization Mgmt<br>• Treatment Decision Support | • Disease Mgmt<br>• Case Mgmt<br>• Treatment Decision Support<br>• Pre-habilitation | • Case Mgmt<br>• Utilization Mgmt<br>• Treatment Decision Support |

EAP & Behavioral Health | Pharmacy Management | Gaps in Care
Health/Disability Risk Assessment | Health Information & Tools | Dental & Vision Care

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# Practical strategies that make an impact

- Employers can improve health and productivity by following a model that brings together medical, behavioral, pharmacy, disability, dental, vision, disease management, leave management, and other employee programs to sustain and improve worker health and productivity:
  - Match the right people to the right programs
  - Provide the right resources at the right time
  - Use the right information to connect employee health and productivity to the health of your business

# A model for integration




- **Identification** – Using employee information and leveraging clinical interactions to identify, early, those at risk of a disability claim and then matching the right people to the right programs
- **Intervention** – Providing the right combination of programs and resources at the right time to impact employee health and productivity
- **Information** – Using robust data analytic and reporting tools to help connect the health and productivity of employees to the health of the employer's business

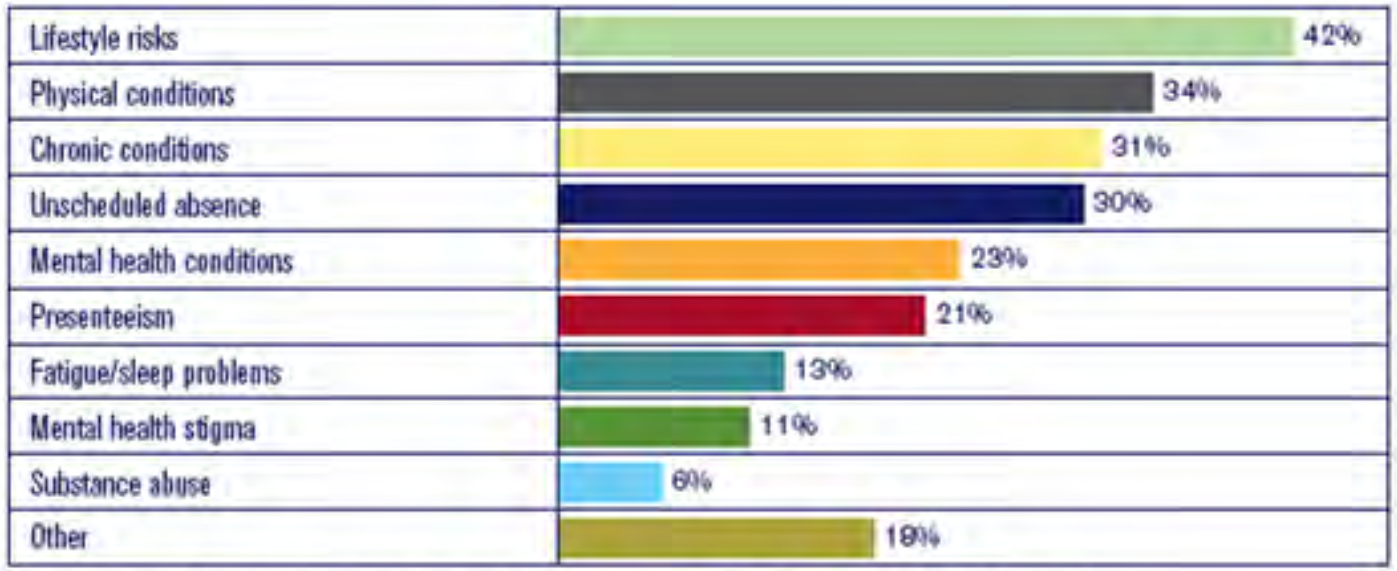
# Identifying those at risk of lost productivity

*Strategy: Identification – based on data from various sources*

- Health risk appraisals
- Predictive tools and models:
  - Medical, pharmacy and behavioral claim data
  - Data re: historical disability and absence patterns
  - Data re: satisfaction with job, manager, co-workers

# Driving the effectiveness of health & productivity management programs

**Preventable Factors Top List of Health Issues Affecting Business Performance***

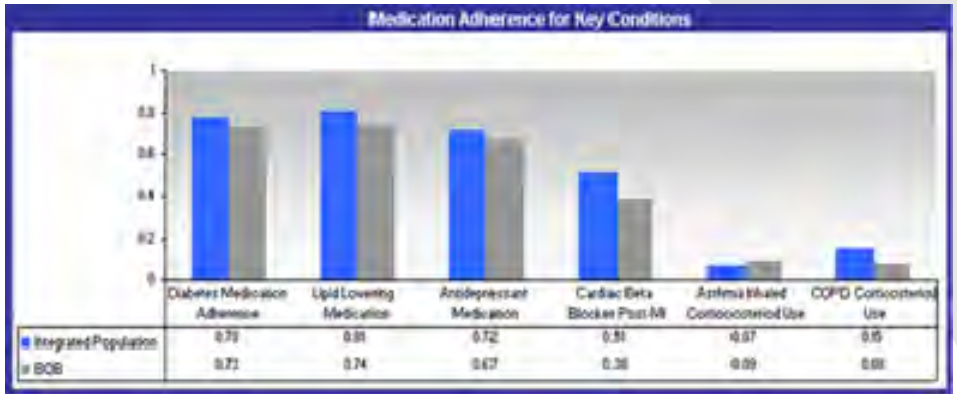


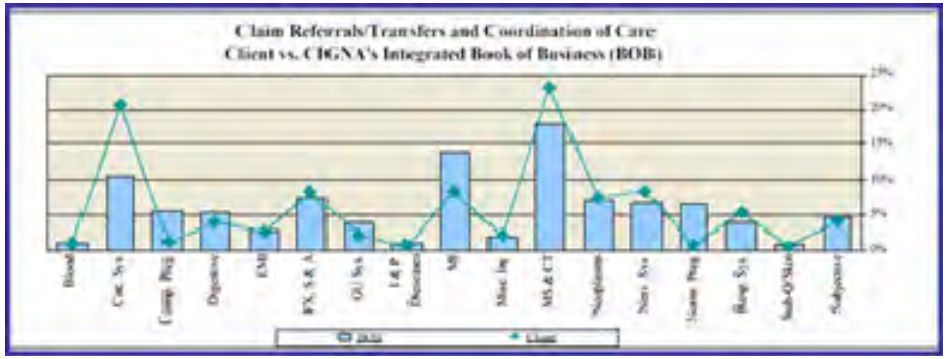

*Percentage of respondents indicating "to a great extent" or "to a very great extent."

Building an Effective Health & Productivity Framework
2007/2008 Staying@Work Report, Watson Wyatt Worldwide

# The power of shared information

- Speeds disability claim decision/approval process
- Enhances effectiveness of disability management
  - Medical diagnoses
  - Medications
  - Medication compliance
  - Behavioral health
  - Program participation: disease management, case management and health advocacy information
- Helps health care professionals understand work-related issues

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# Highly effective health & productivity companies integrate programs

| Integrate programs | High effectiveness | Low effectiveness |
|---|---|---|
| Health risk appraisals and lifestyle management | 43.5% | 13.0% |
| . . .AND employee assistance program | 32.4% | 0.0% |
| . . .AND disease management | 26.9% | 0.0% |
| . . .AND short-term and long-term disability | 13.9% | 0.0% |

**The ratio of high to low is not applicable given the zero values associated with the low-effectiveness group.*

Building an Effective Health & Productivity Framework
2007/2008 Staying@Work Report, Watson Wyatt Worldwide

# Future trends and opportunities

- Predictive models and health risk assessments
- Single intake/outreach
- “Stay at work programs”
- Create a work environment that engages employees in health & productivity
- Incentive programs
  - Rewards but also leverage all benefits programs to incent employees to do the right thing

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# Summary

- Integration does work!
  - Medical and return to work management can result in improved outcomes
- The challenges are daunting but must be addressed
  - Aging population, increasing rate of health risks, chronic illnesses poses a major health, medical cost and lost productivity cost problem
- Health risks drive cost
  - Lost productivity related to disability, absence and presenteeism represents a large portion of the total cost of injury and illness to an employer – health risks drive costs
- There are solutions that are working
  - We have an opportunity to improve health and address those lost productivity costs by working with consumers to mitigate health risks and better control established illness

# A case for integration

- Case Study 1:  Integration in action: identification
- Case Study 2:  Integration in action: intervention

# Integration in action: identification

Scenario:

- 38 year-old female with a history of high risk pregnancies
- Assigned to bed rest and treatment with weekly progesterone injections

What CIGNA did:

- Disability nurse case manager contacted medical high risk case manager, who worked to negotiate a substantially reduced treatment cost for injections
- Disability nurse case manager and medical high risk case manager stayed in touch with the employee and the medical high risk case manager monitored her compliance with the treatment plan

Results:

- Employee delivered healthy, full-term baby and returned to work full-time four weeks after delivery, ahead of schedule

# Integration in action: intervention

*Coordination of disability, health care, and behavioral health services helps employee with traumatic brain injury return to work*

Scenario:

- 31 year-old male who suffered a motor vehicle accident resulting in multiple injuries
- Treated by multiple physicians with multiple therapies – occupational, speech, physical

What CIGNA did:

- Disability nurse case manager worked with medical nurse case manager who coordinated employee's cognitive therapy and monitored employee's compliance with his therapies
- Disability nurse case manager referred mother to a behavioral health counselor to help with emotional issues

Results:

- Employee recovered and returned to work full-time to his former position 15 months after accident

# Closing comments and questions