



PACIFIC COAST UNIVERSITY  
FOR WORKPLACE HEALTH SCIENCES



# Total Health Approach for Workplaces: Linking Prevention and Return to Work

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**Legal**  
**Moral**  
**Financial**

**Value  
Proposition of  
Investing in  
Workplace  
Health and  
Productivity**

# How do we reduce the likelihood of injury and illness in workers?

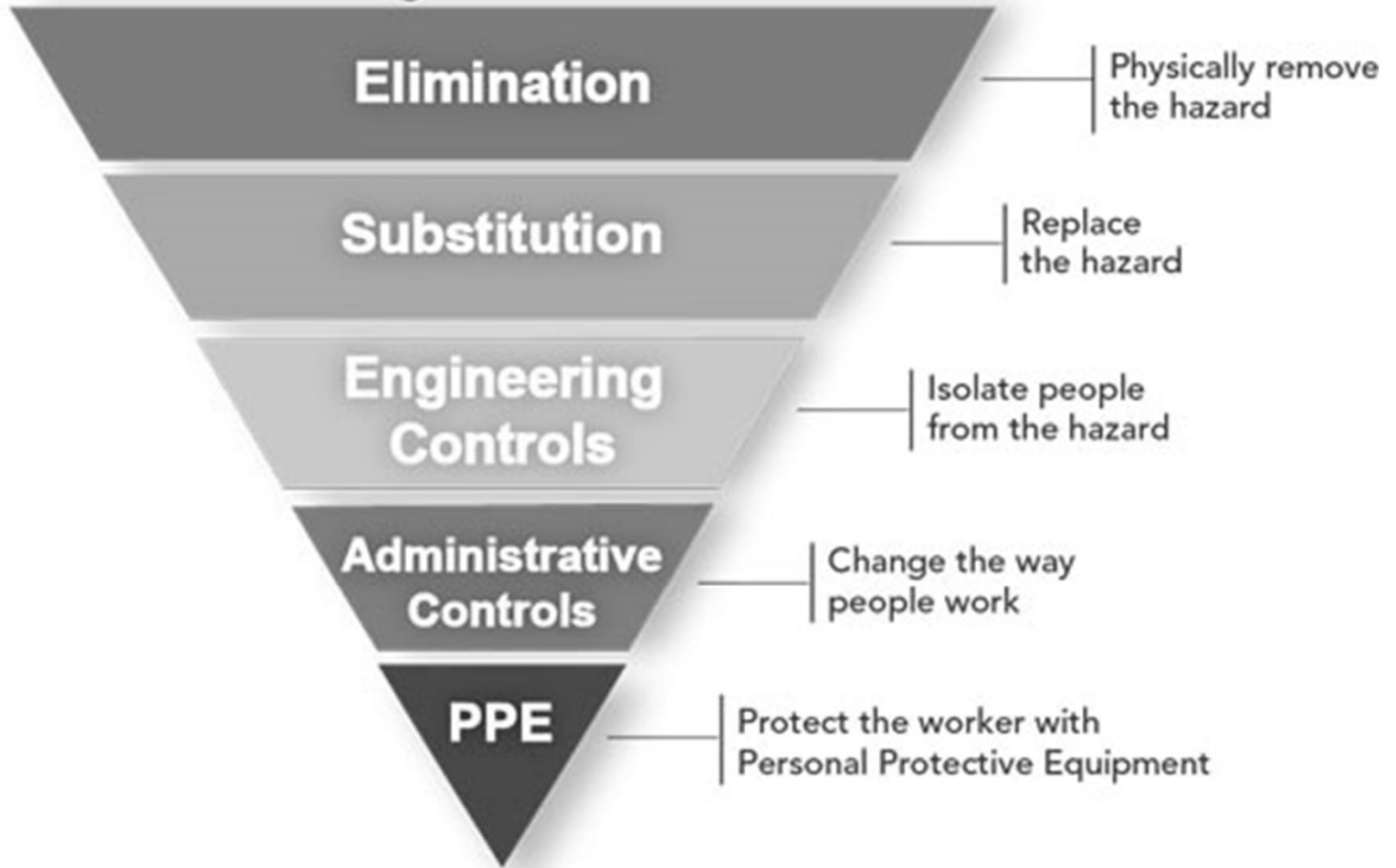
- Safety programs and supporting cultures focused on
  - Hazard identification, assessment and control
- Generally deal with the concepts of Hazard and Risk
  - Chemical, Ergonomic (job, tool design), Health, Physical etc.

# Hierarchy of Controls

Most effective



Least effective



# How do we reduce the likelihood of injury and illness in workers?



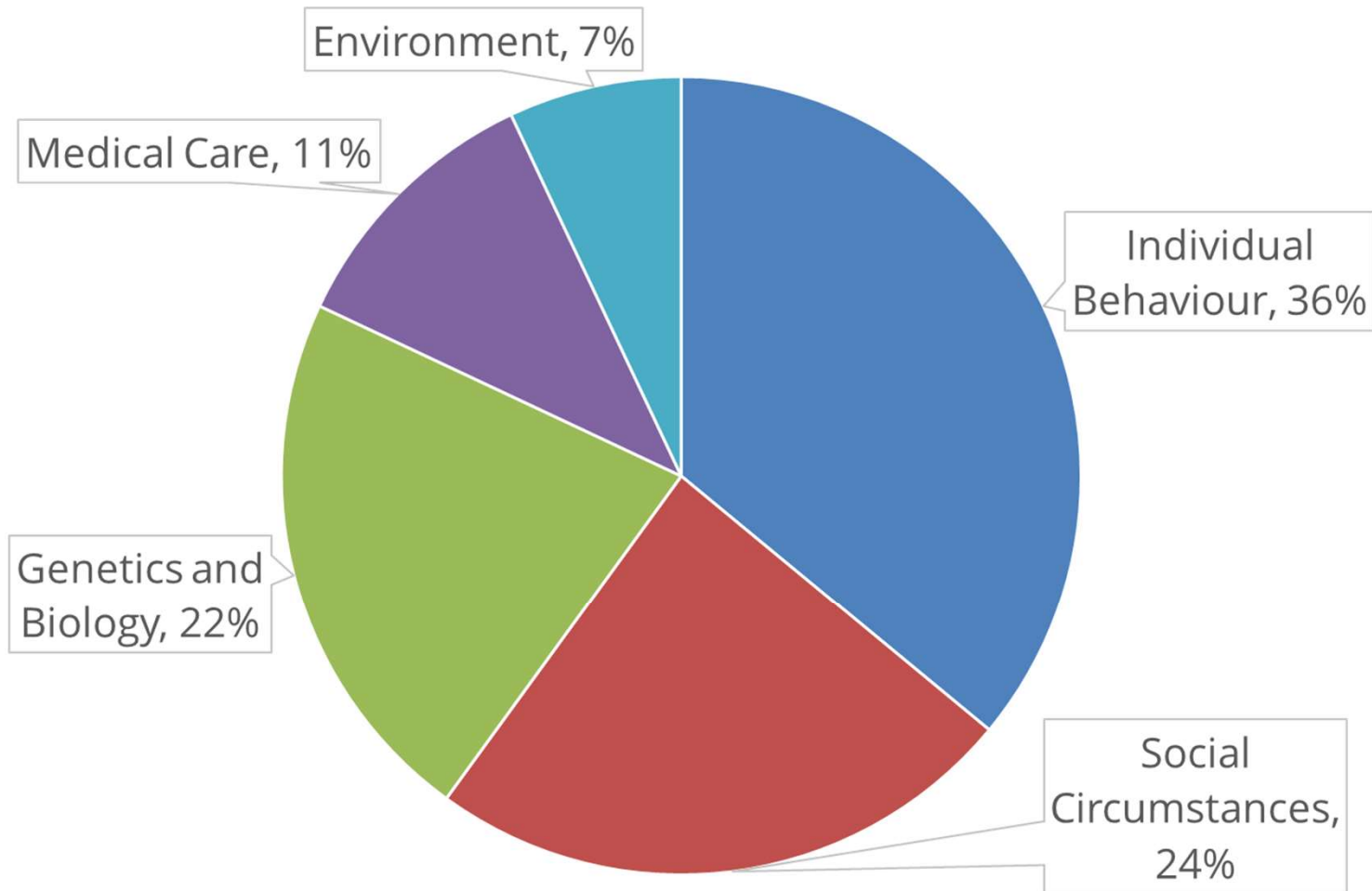
- Wellbeing programs focused on
  - ‘Off’ the job health (smoking, obesity, diabetes, physical activity, heart health etc.)
- When workers are injured or ill, there are sophisticated programs in place that have a SAW and RTW component

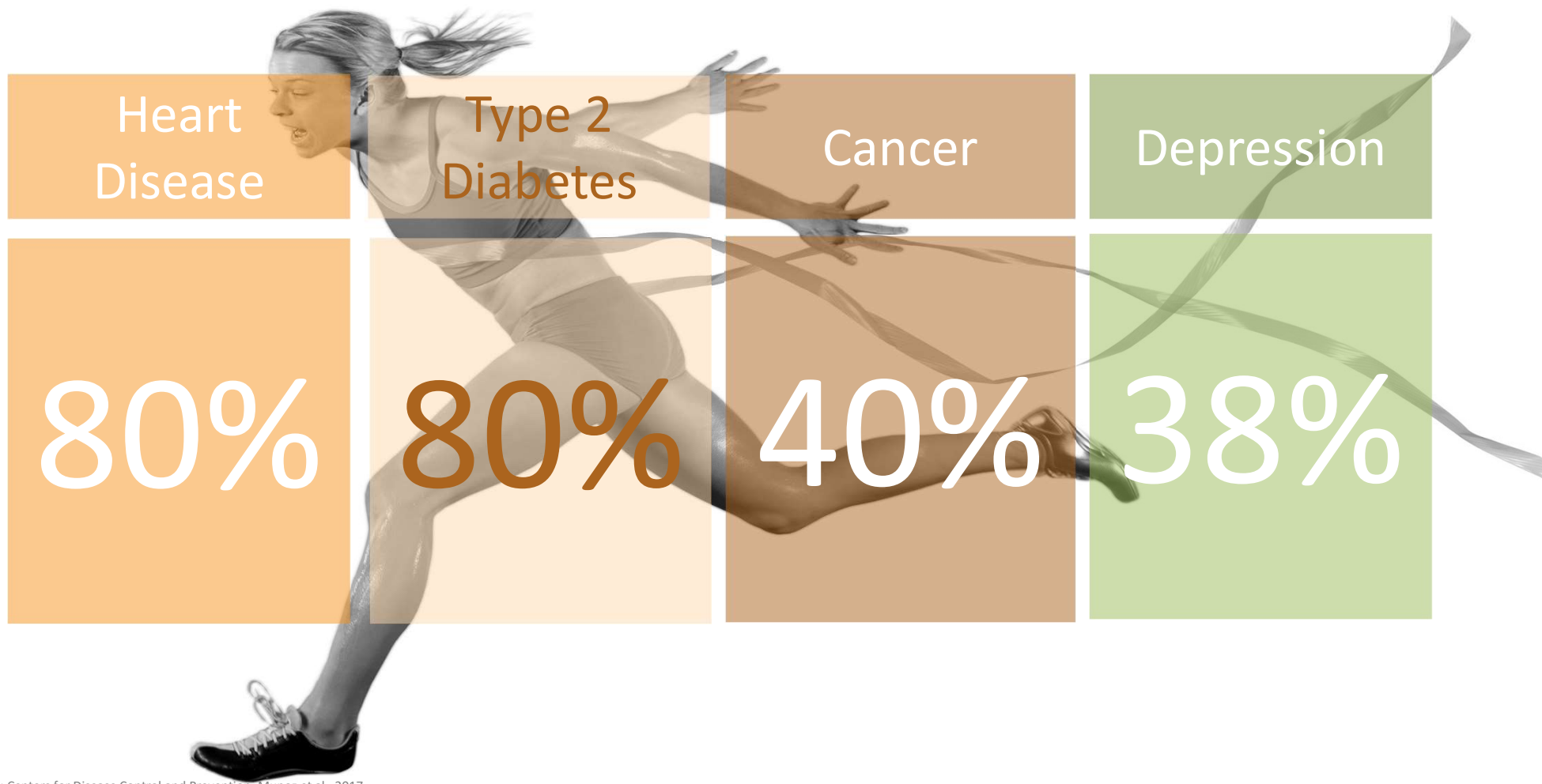
# Are we missing something?



- This approach has expanded to include psychological, psychosocial and mental health components both on and off the job
  - Due primarily to the increase in prevalence of mental health issues in adults of working age
  - Fitness for duty should be looked at in a different light

# The Determinants of Health





Source: Centers for Disease Control and Prevention, Munoz et al. 2017

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## Chronic diseases impacting health and productivity in **your** workplace

**Asthma (7.6%)**

Fibromyalgia (1.1%)

**Arthritis (9.8%)**

**Back problems (17.5%)**

**Diabetes (4.0%)**

COPD (1.6%)

**Migraine (10.3%)**

Heart disease (2.2%)

**Cancer (3.5%)**

Intestinal/stomach ulcers (2.3%)

Urinary incontinence (1.3%)

Multiple chemical sensitivities (2.4%)

**Anxiety disorders (3.9%)**

**Mood disorders (5.3%)**

Bowel disorders (3.8%)

Chronic fatigue syndrome (0.8%)

### **BMI (Body Mass Index)**

Normal 47.9%  
Overweight 34.6%  
Obese 17.6%

### **Alcohol**

Regular 72.3%  
Occasional 13.8%  
None 13.9%

### **Activity**

Active 29.5%  
Moderate 26.8%  
Inactive 43.7%

### **Tobacco**

Current Daily 17.2%  
Current Occasional 5.9%  
Former Daily 20.6%  
Former Occasional 16.9%  
Never 39.5%

### **Work Stress**

Not at all Stressful 9.0%  
Not very Stressful 19.1%  
A bit Stressful 42.2%  
Quite a bit Stressful 24.6%  
Extremely Stressful 5.1%



Impact of health and productivity investments -  
What does this mean for **you**? Employees? Stakeholders?



**Absenteeism**  
(Measure in real time)



**Presenteeism**  
(Estimate at 5x, 7.5x and 10x  
Absenteeism)

7.8 Days  
Private

8.9 Days  
Mean

12.7 Days  
Public

**ABSENTEEISM**

**7.5X**

**PRESENTEEISM**

58.5 Days  
Presenteeism

66.8 Days  
Presenteeism

95.3 Days  
Presenteeism

**\$16.6**

**Billion**

**Cost of Absenteeism**

**\$124.5**

**Billion**

**Cost of Presenteeism**

**28%**  
Of Workers  
Reporting  
Absences

Number of Absent Workdays (reasons)	Previous 3 Months	1 Year	CBOC	%
All health reasons	1.35	5.4	8.9	61%
Chronic disease	0.42	1.68		
Injuries	0.22	0.88		
Infectious disease	0.37	1.48		
Other health problems	0.34	1.36		



<b>Chronic Condition</b>	<b>%</b>	<b>PD* 3 Months</b>	<b>PD* 12 Months</b>	<b>\$ Millions</b>
Asthma	7.6%	1.43	5.72	\$124
Arthritis	9.8%	1.39	5.56	\$135
Back problems	17.5%	1.76	7.04	\$621
Diabetes	4.0%	1.53	6.12	\$83
Migraine	10.3%	1.58	6.32	\$245
Cancer	3.5%	1.79	7.16	\$115
Intestinal/stomach ulcers	2.3%	1.8	7.2	\$77
Anxiety disorders	3.9%	1.25	5	\$25
Mood disorders	5.3%	2.25	9	\$299
Bowel disorders	3.8%	1.89	7.56	\$144



## Depression in the workplace

A woman is shown in a yoga pose, lying on her back with her legs raised and feet resting on a large, light-colored exercise ball. The image is split vertically: the left side is green and the right side is blue. The woman is wearing a grey tank top and dark shorts.

4%

Point Prevalence

1.3

Million



**77%**

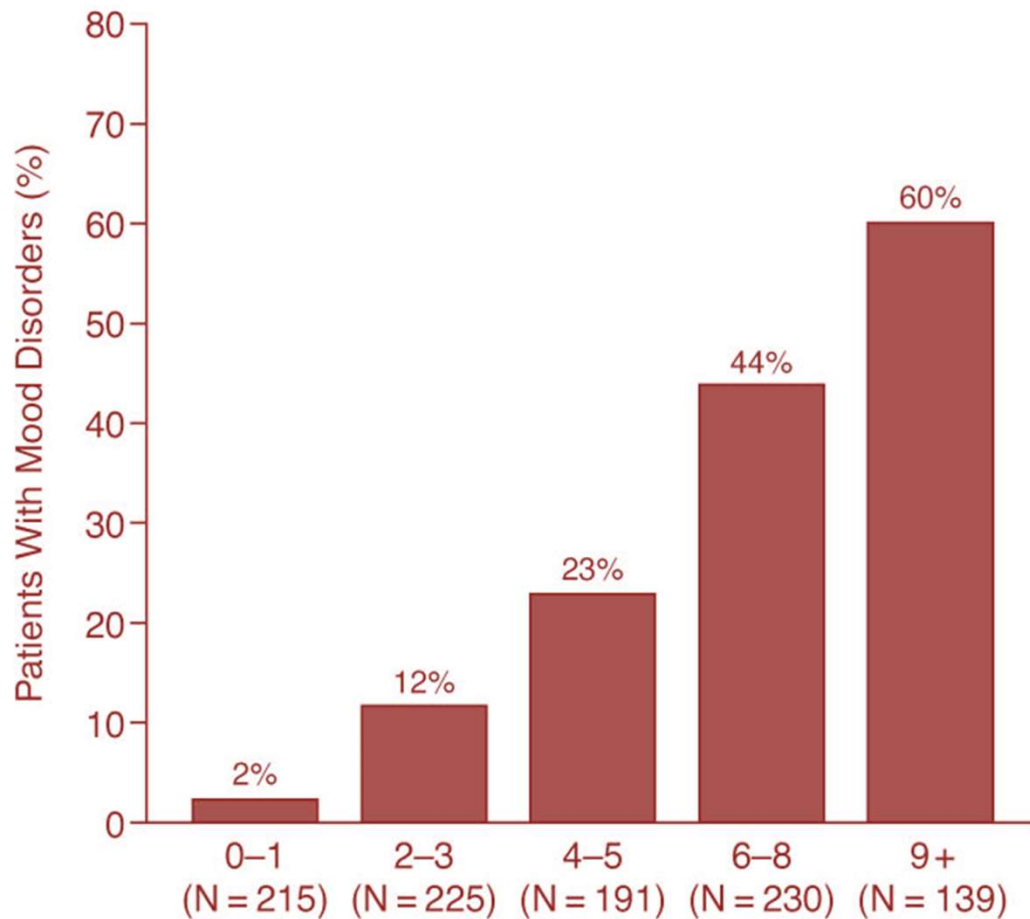
**In the  
Workplace**

Source: Conference Board of Canada 2017

**40%**

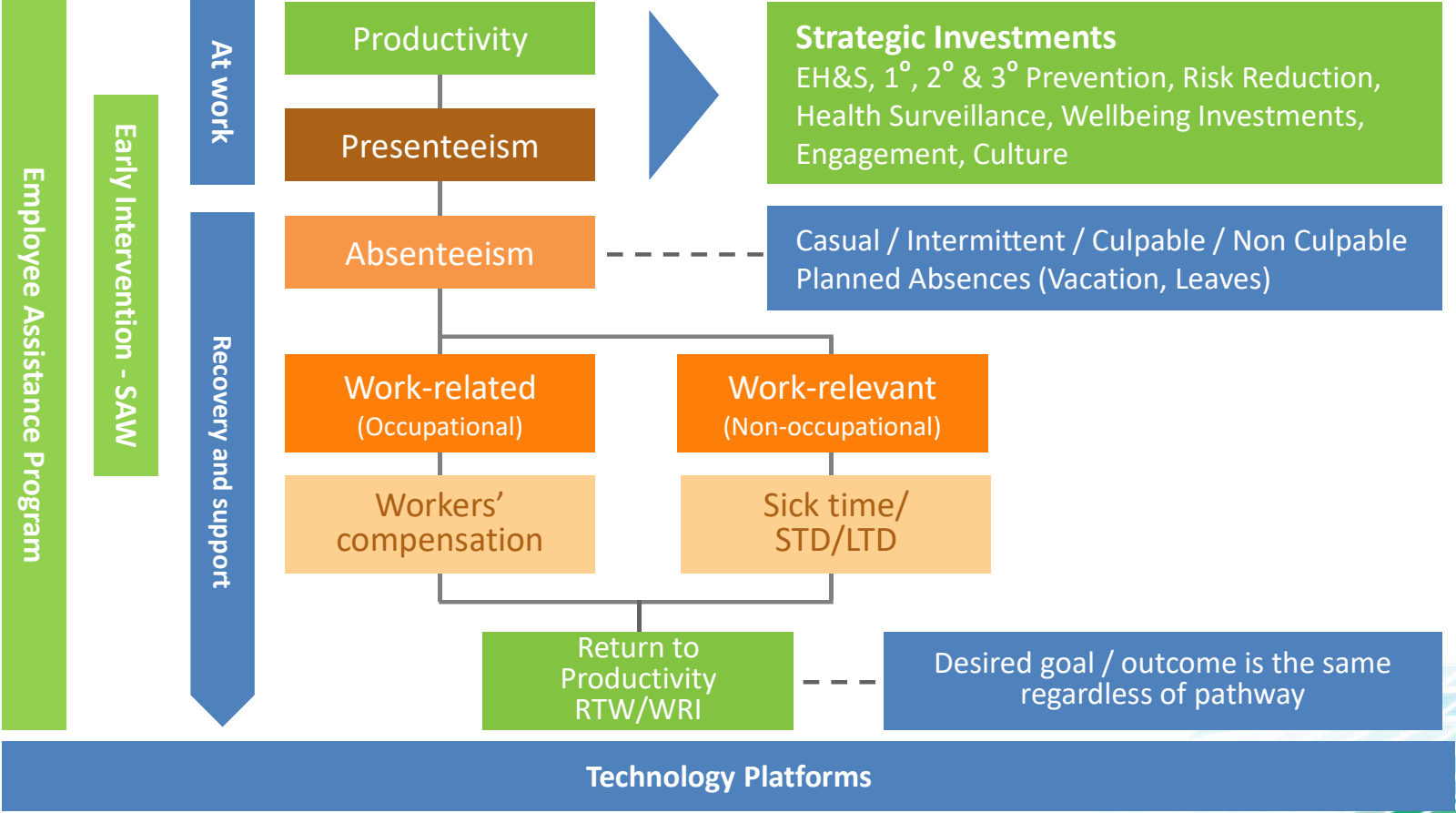
**Impacted by  
Presenteeism**

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Relationship between mental health issues (**mood disorders**) and the number of physical health symptoms

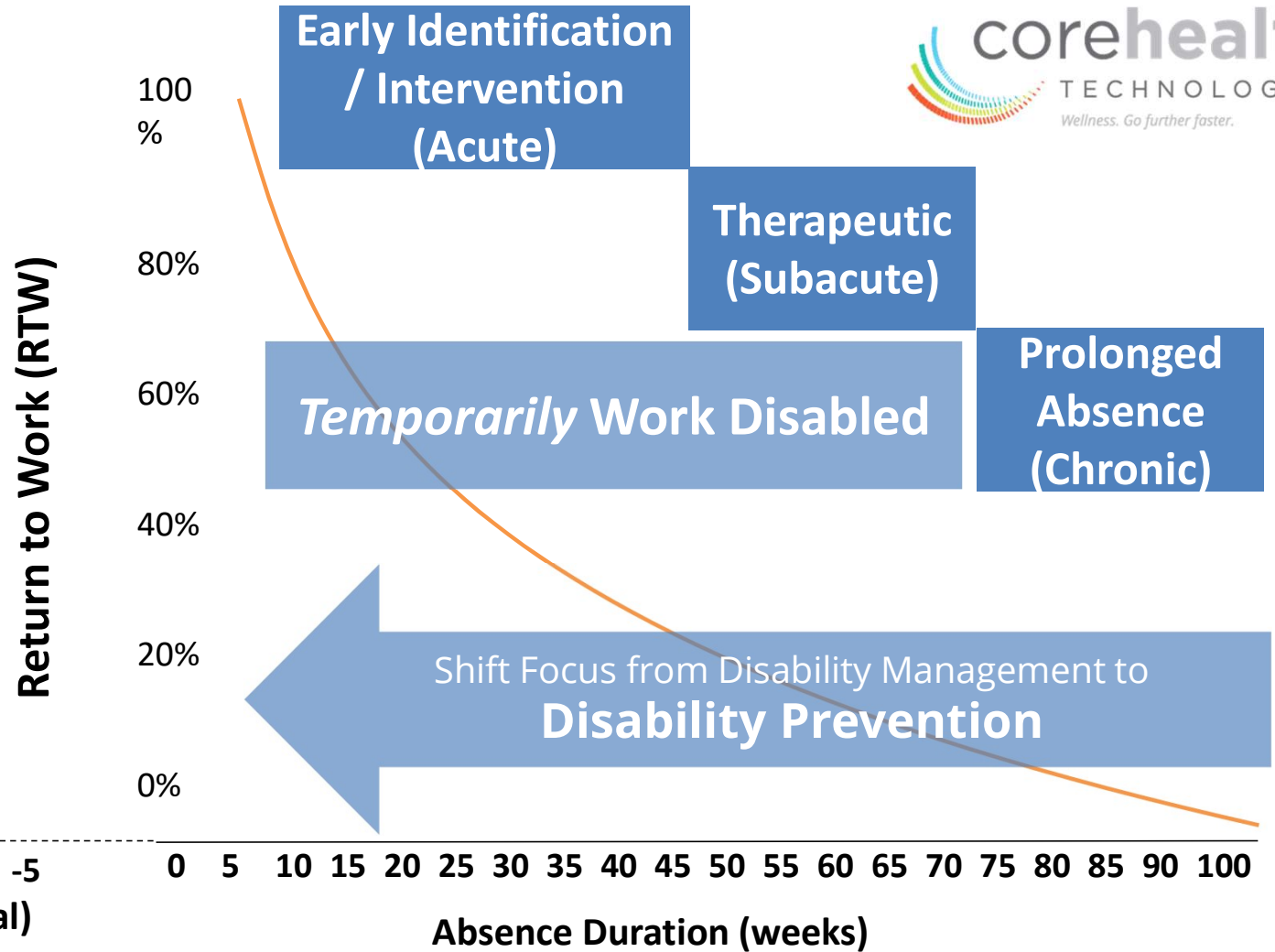
# An integrated schematic of health and productivity



Source: Amell 2016

Workplace Investments in:

- Benefits
- Leaves
- EAP
- Training
- Wellbeing Programs
- Health Promotion
- Health and Safety
- Hazard Identification
- Hazard Control
- Insurance
- WC
- STD/SI
- LTD
- Vacation

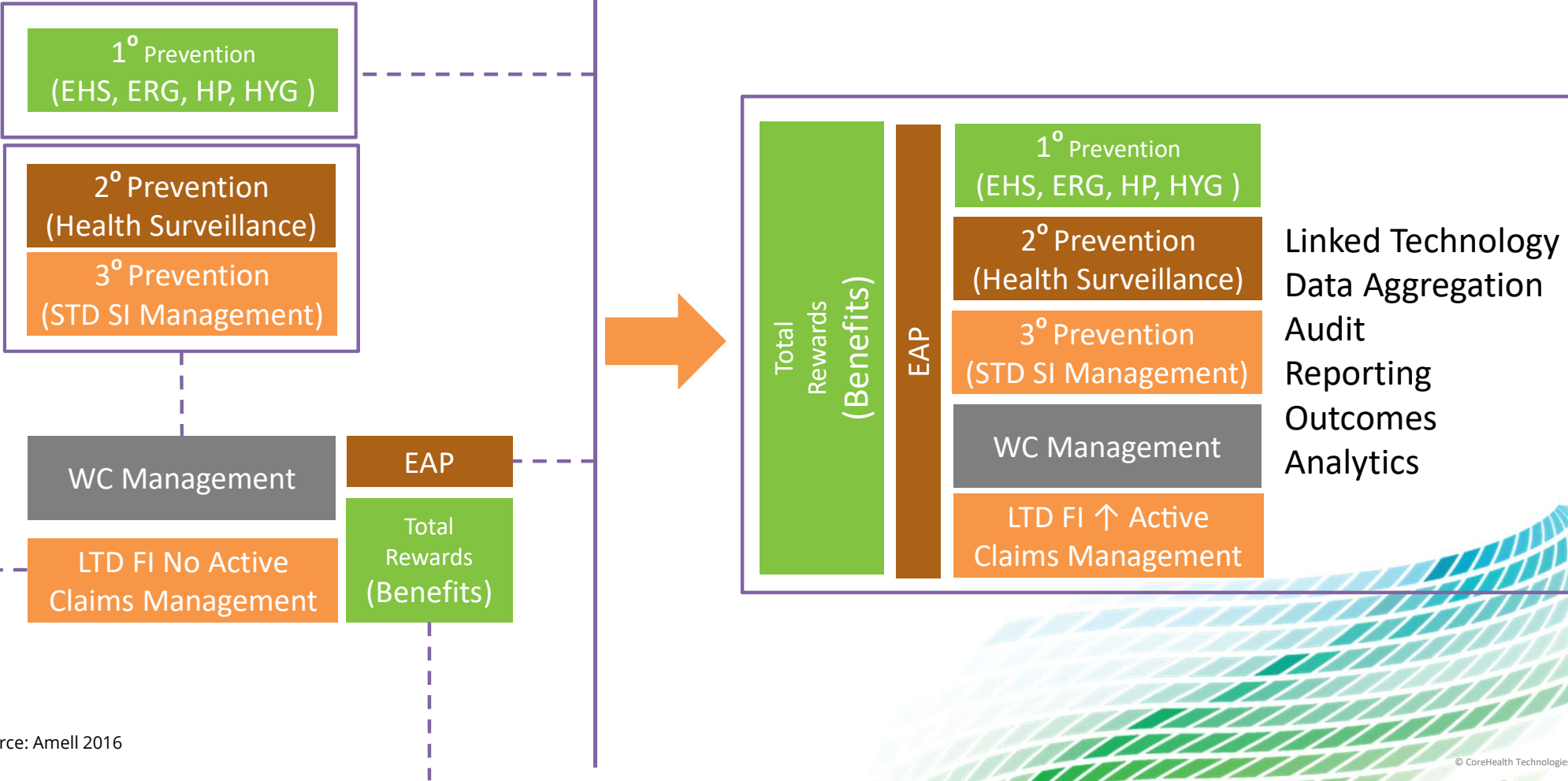


-40 -35 -30 -25 -20 -15 -10 -5  
Pre-Absence State (aka Normal)

**SAW / Presenteeism**

Source: Amell 2016

# Case study in workplace organization



Source: Amell 2016



## ROI

### Rationale for Investment in Total Workplace Health & Productivity

- Manage or reduce health care costs, medical costs, pharmacy benefit spend
- Reduce the number of absence days
- Manage/reduce work disability claims (disability prevention)

### Measurement Strategies

- Health, medical, pharmacy, absenteeism and work disability data
- These are easier to evaluate because data are more readily available
- These are financial measures reported in dollars

## VOI

### Rationale for Investment in Total Workplace Health & Productivity

- Increase discretionary effort & employee engagement
- Improve employee and workforce productivity
- Reduce employee health risks
- Improve employee job satisfaction and morale
- Increase on-the-job safety
- Reduce presenteeism
- Attract or retain talented employees
- Improve employee energy levels at work
- Impact business performance and profitability
- Improve comradery and team effectiveness
- Have fun



## VOI

### Measurement Strategies

- These outcomes are more difficult, if not impossible to accurately measure
- Special efforts and expense are required to get these data
- They are considered “softer” measures because they are often self-reported
- They are not easily reported in dollars

OPEN

# The Stock Performance of C. Everett Koop Award Winners Compared With the Standard & Poor's 500 Index

Ron Z. Goetzel, PhD, Raymond Fabius, MD, Dan Fabius, DO, Enid C. Roemer, PhD, Nicole Thornton, BA, Rebecca K. Kelly, PhD, RD, and Kenneth R. Pelletier, PhD, MD (hc)

325% vs 105%

**Objective:** To explore the link between companies investing in health and well-being programs of their employees and stock market performance.

**Methods:** Stock performance of C. Everett Koop National Health Award winners ( $n = 26$ ) was measured over time and compared with the average performance of companies comprising the Standard and Poor's (S&P) 500 Index. **Results:** The Koop Award portfolio outperformed the S&P 500 Index. In the 14-year period tracked (2000–2014), Koop Award winners' stock values appreciated by 325% compared with the market average appreciation of 105%. **Conclusions:** This study supports prior and ongoing research demonstrating a higher market valuation—an affirmation of business success by Wall Street investors—of socially responsible compa-

- Learning Objectives
- Discuss the authors' proposed framework for how company health and wellness programs affect business performance, including the roles of corporate social responsibility and job satisfaction.
  - Summarize the new findings on the stock market performance of companies that won the C. Everett Koop Award, compared to the S&P 500.
  - Discuss the insights and critiques presented in the accompanying editorial by O'Donnell, including the similarities and differences in the findings of the three new

**3.7:1**

ROI Work  
Reintegration

**3.3:1**

Wellbeing  
Programs

**3.8:1**

Disease  
Management

**2.2:1**

ROI  
Prevention

**2.7:1**

Absenteeism  
Savings

**0.5:1**

Lifestyle  
Management





**Modified Duties  
Supporting  
Stay at Work (SAW)  
Practices**

**Rethink**

**Fitness for Duty**

**Bossectomy**



**Work Disability is  
Rarely Medically  
Required**

**Psychographics**

**Stakeholder  
Involvement**

**Employee Engagement  
Level**

**Temporary Work  
Disability  
Experience of Worker**

**Culture of Entitlement  
at Organization**

**Amount of  
Discretionary Effort**

**Workers' Relationships**

**Iatrogenic Nature of  
Work Disability  
Programs**

# Development of a Computer-Based Clinical Decision Support Tool for Selecting Appropriate Rehabilitation Interventions for Injured Workers

Douglas P. Gross · Jing Zhang · Ivan Steenstra ·

Susan Barnsley · Calvin Haws · Tyler Ames ·

Greg McIntosh · J. Scott Cooper · Ross Macie

Published online: 7 March 2013

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**Abstract** *Purpose* To develop a classification algorithm and accompanying computer-based clinical decision support tool to help categorize injured workers toward optimal

on empirical data, was the foundation of our approach to build a classification system with multiple independent and dependent variables. *Results* The population included

The use of machine learning classification techniques appears to have resulted in classification performance better than clinician decision-making.

Complete

Health

Program

Assess  
Individual  
Health Risk

(wearable tech)

Assess  
Willingness to  
Change

Assess  
Individual  
Discretionary  
Effort

Customized  
Programming  
To Shift  
Behavior



**Work is good  
for us!**

**Not working may  
be even worse  
for us!**



**“You don’t get ill workers well to put them  
back to work. You put them back to work to get  
them well.”**