

Health Management as a Serious Business Strategy

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**THE UNIVERSITY OF MICHIGAN
HEALTH MANAGEMENT RESEARCH CENTER**



- ✓ Steelcase
- ✓ Bank One
- ✓ Progressive
- ✓ We Energies
- ✓ General Motors
- ✓ Crown Equipment
- ✓ Foote Health System
- ✓ Medical Mutual of Ohio
- ✓ St Luke's Health System
- ✓ Cuyahoga Community College
- ✓ Blue Cross Blue Shield Rhode Island
- ✓ United Auto Workers-General Motors
- ✓ Wisconsin Education Association Trust
- ✓ Southwest Michigan Healthcare Coalition
- ✓ Australian Health Management Corporation

UM-HMRC Corporate Consortium

- ✓ Kellogg
- ✓ Gulf Power
- ✓ Weyerhaeuser
- ✓ Delphi Automotive
- ✓ Network Health Plan
- ✓ Florida Power & Light

*The consortium members provide health care insurance for over two million Americans. Data are available from eight to 18 years.

Meet on First Wednesday of each December in Ann Arbor



Agenda

Health Management as a Serious Business Strategy

Troy Chamber: November 3, 2005

1. General Concepts
2. Key Beliefs about Health Status and Economics
3. Three Key Business Concepts
 1. Do Nothing Strategy
 2. Consequences and Opportunities for Business
 3. You Can Make a Difference
4. Implementing the Business Plan

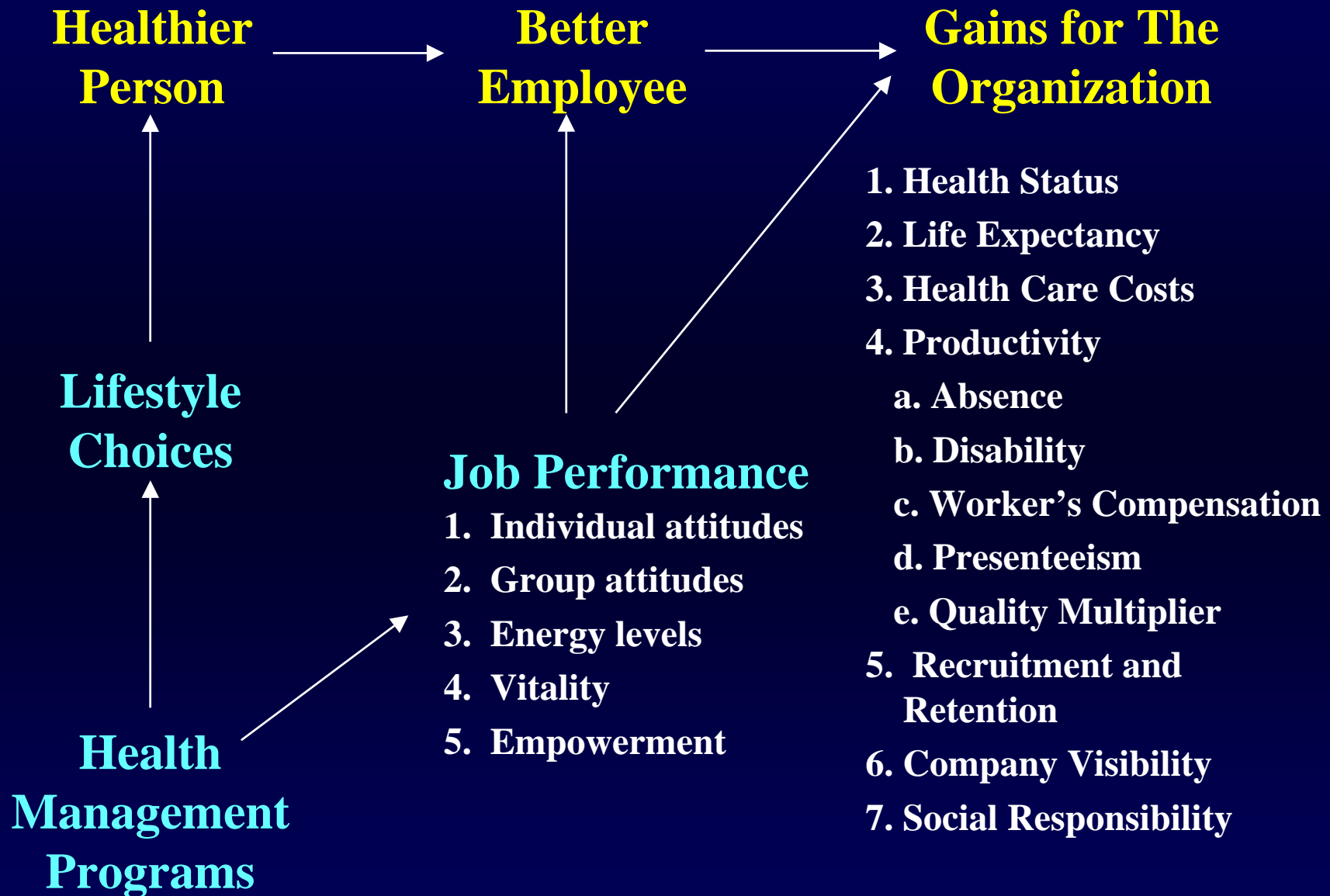


Section I

General Concepts

(Why Are You Here?)

Health Management in the Workplace



Supply-Side Emphasis results in

1. Focus on Treatment of Disease

2. Emphasis on Whose is at fault?

**Government, HealthPlans, Providers,
Employers, Individuals**

**3. Leads to Lowest Cost Solutions and to
Higher Numbers of Uninsured**

**4. We have Proven that we can't Manage
Costs by Managing Costs!!!**

Demand-Side Emphasis results in

- 1. Focus on Maintenance of Health and Management of Disease**
- 2. Emphasis on Partnerships between Government, HealthPlans, Providers, Employers, Individuals**
- 3. Leads to Quality-care Solutions and eventually to lower costs, higher quality of life and fewer uninsured**
- 4. We can control Costs by managing Health and Disease.**

Health Behaviors and Disease

Health Risk Measure

High Risk Criteria

Alcohol

More than 14 drinks/week

Blood Pressure

Systolic >139 mmHg or Diastolic >89 mmHg

Body Weight

BMI \geq 27.5

Cholesterol

Greater than 239 mg/dl

Existing Medical Problem

Heart, Cancer, Diabetes, Stroke

HDL

Less than 35 mg/dl

Illness Days

>5 days last year

Life Satisfaction

Partly or not satisfied

Perception of Health

Fair or poor

Physical Activity

Less than one time/week

Safety Belt Usage

Using safety belt less than 100% of time

Smoking

Current smoker

Stress

High

OVERALL HEALTH STATUS

Low Risk

0 to 2 high risk factors

Medium Risk

3 to 4 high risk factors

High Risk

5 or more high risk factors



**New way to do Health and Productivity Management
In America and Worldwide**



Section II

Three Key Business Beliefs about Health Status and Health Economics



Key Business Beliefs

- 1. Individuals Can Maintain Low-Risk Health Status even as they Age**
- 2. A Health Plan and an Employer can Help its Members Maintain Low-Risk Health Status**
- 3. The Major Economic Benefit is in Paying Attention to Individuals with Low-Risk Health Status**



Section III

Key Data-Driven Business Concepts



Business Concepts

Part I

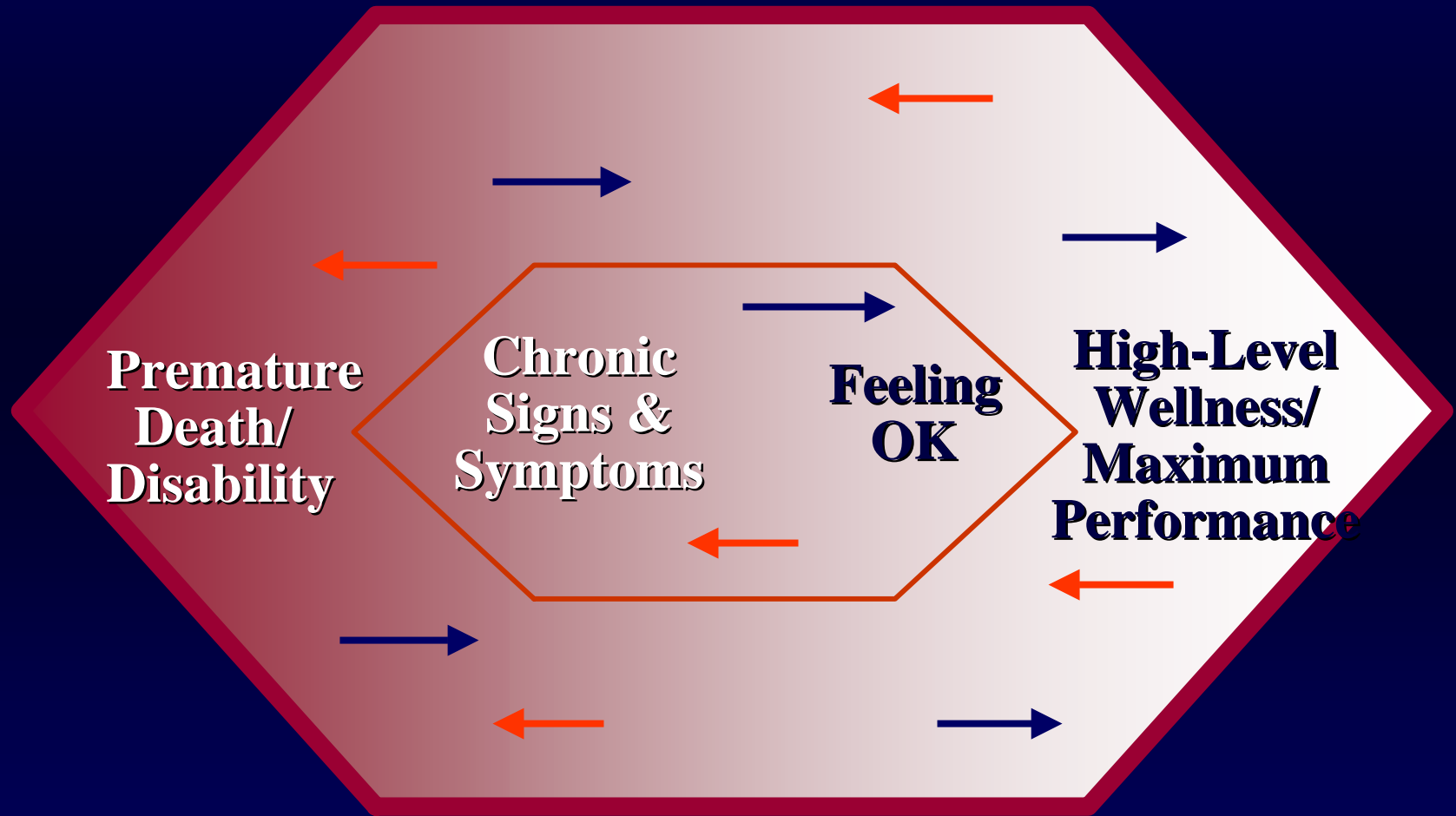
The Do-Nothing Strategy



Business Concept 1

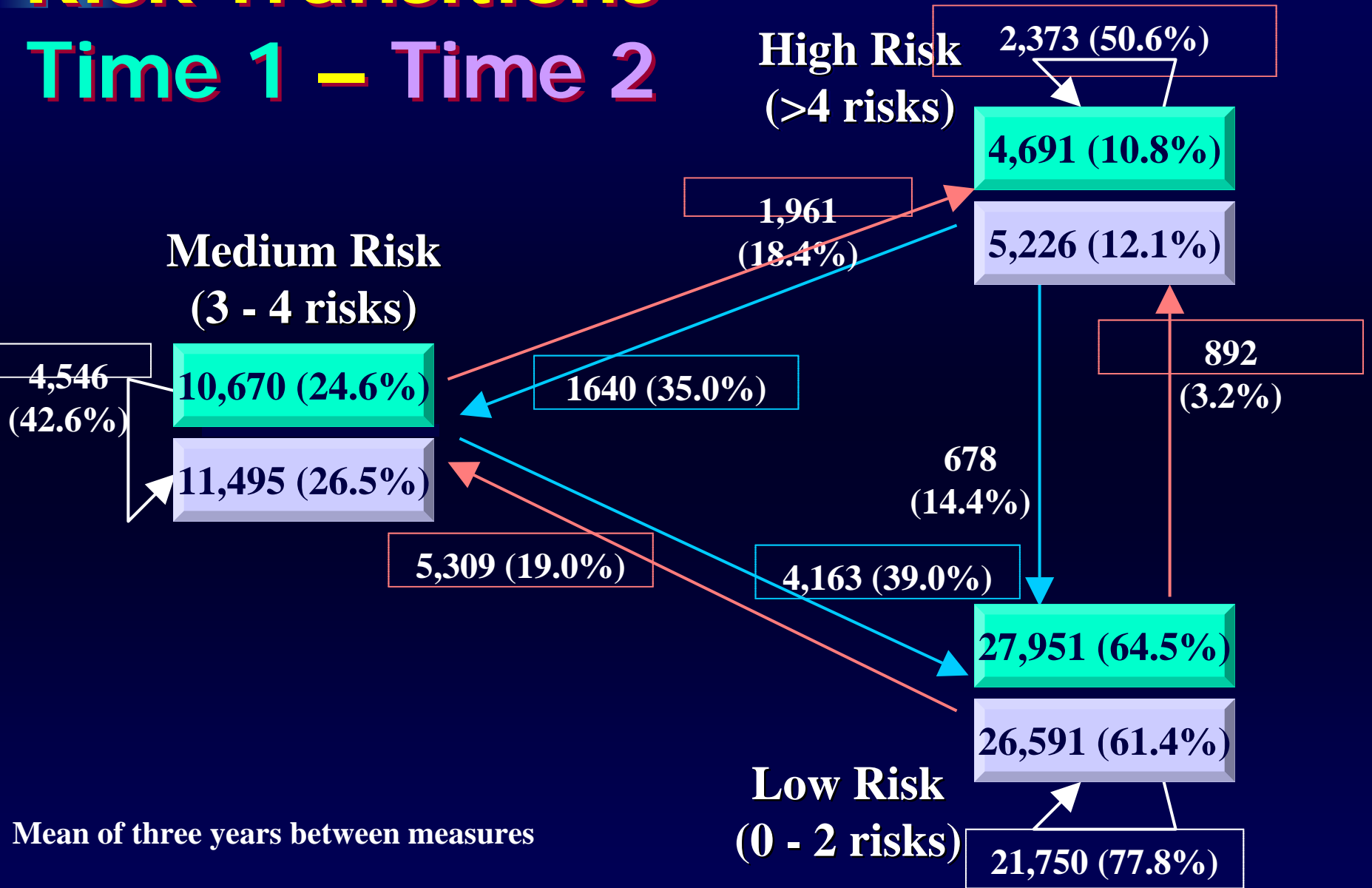
The Natural Flow of Health Status

Lifestyle Scale for Individuals or for any Population



Risk Transitions

Time 1 – Time 2



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

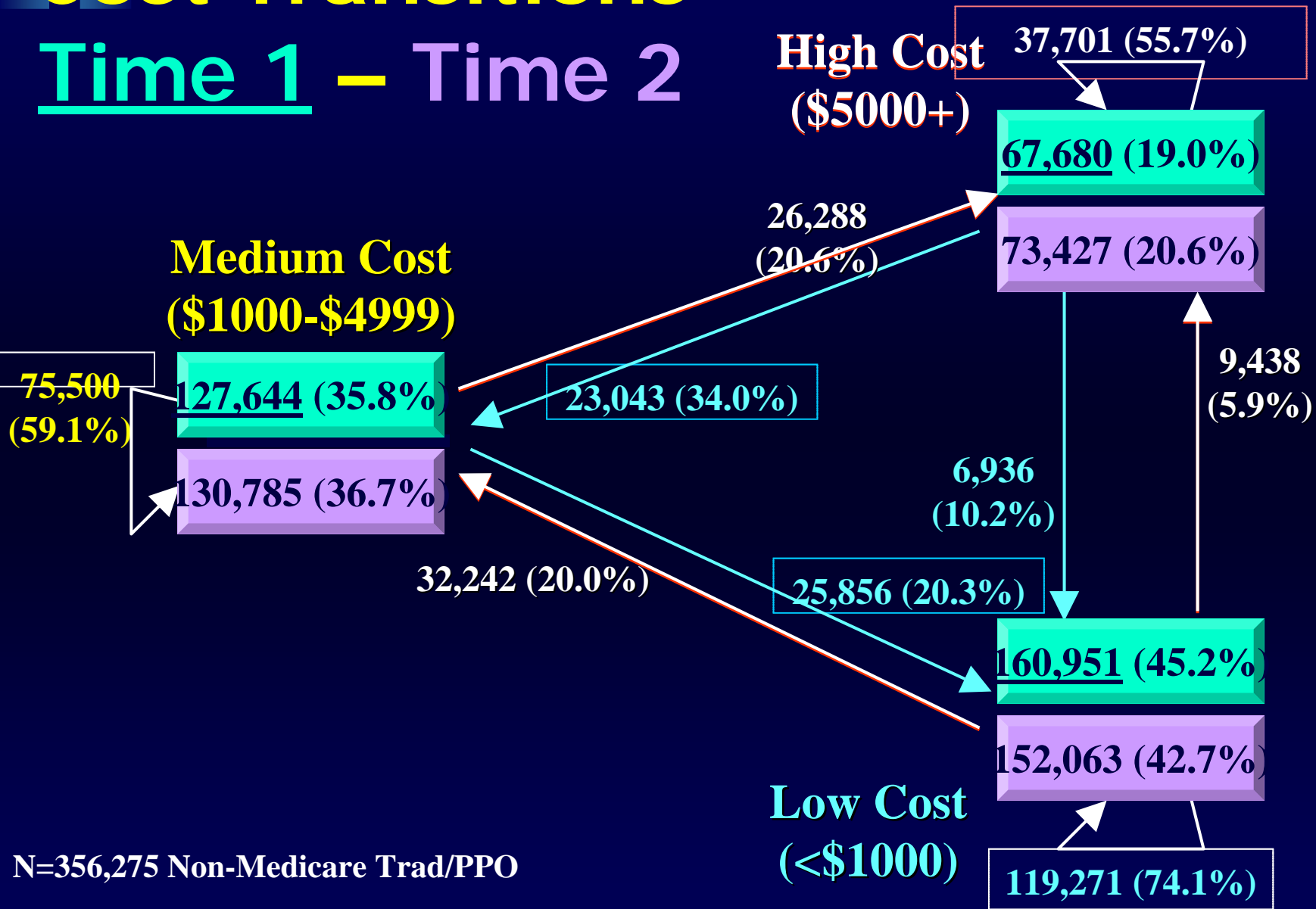


Business Concept 2

The Natural Flow of Health Care Costs

Cost Transitions

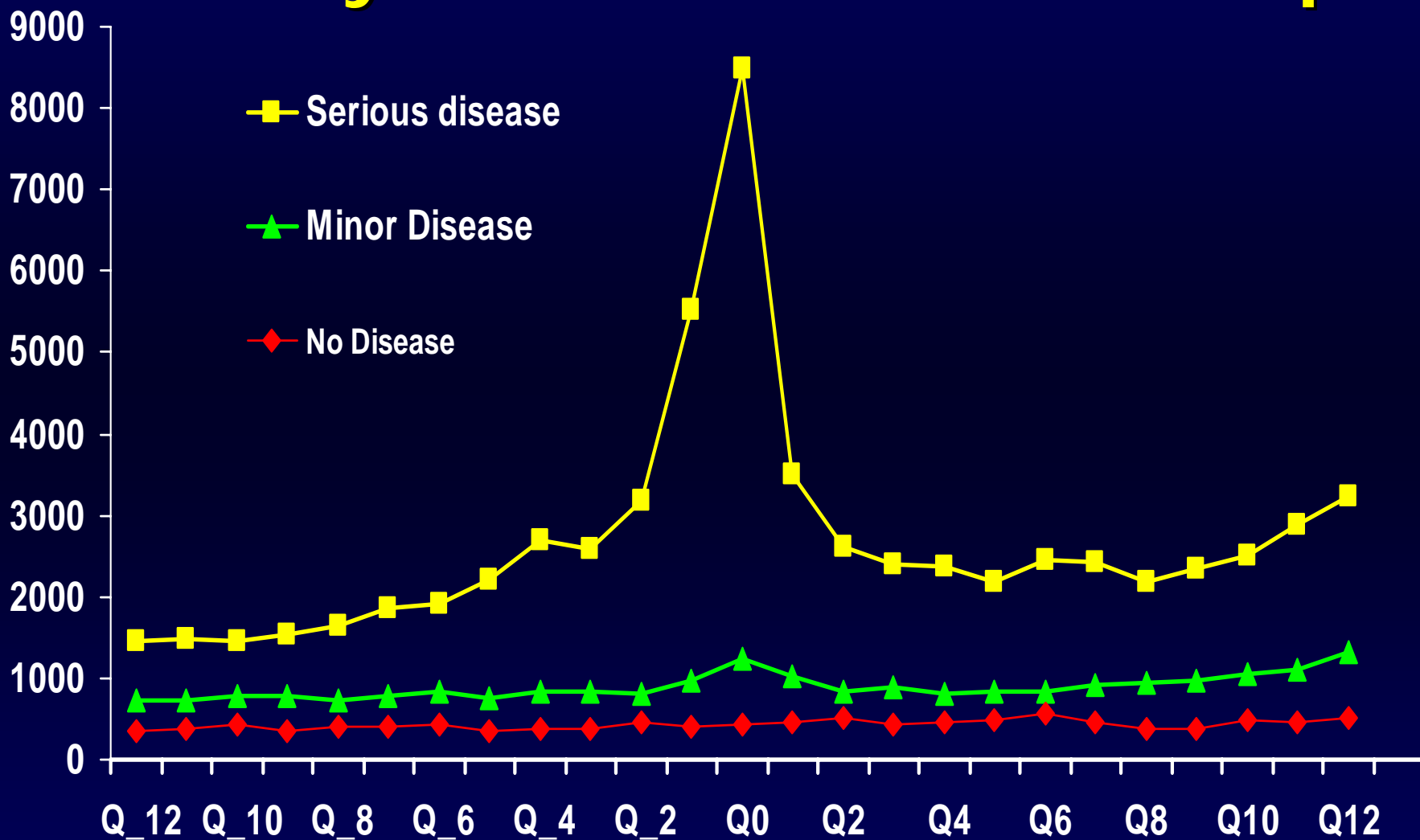
Time 1 – Time 2



N=356,275 Non-Medicare Trad/PPO

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

Total Medical and Pharmacy Costs Paid by Quarter for Three Groups





Business Concepts

Part II

Consequences and Opportunities of Managing Risks, Disease and PEOPLE



Business Concept 3

Health Care Costs follow Risks

Pattern of Expenditures by Medical/Drug Cost Levels

Medical Cost Category	N*	%	% Med Paid	% Drug Paid	Average Age	Average # risks
<\$500	25,961	41.4%	0.9%	2.5%	40.0	1.8
\$500-\$999	6,931	11.1%	1.5%	4.4%	45.1	1.9
\$1000-\$4999	19,234	30.7%	14.7%	38.8%	49.0	2.4
\$5000-\$9999	5,698	9.1%	16.1%	23.2%	50.0	3.0
\$10000+	4,864	7.8%	66.8%	31.1%	51.1	3.4
Total Cost	62,688	100.0%	\$160.9 million	\$60.3 million	45.1	2.3

* In 2002 Personnel and with Trad/PPO Coverage only and age>=19



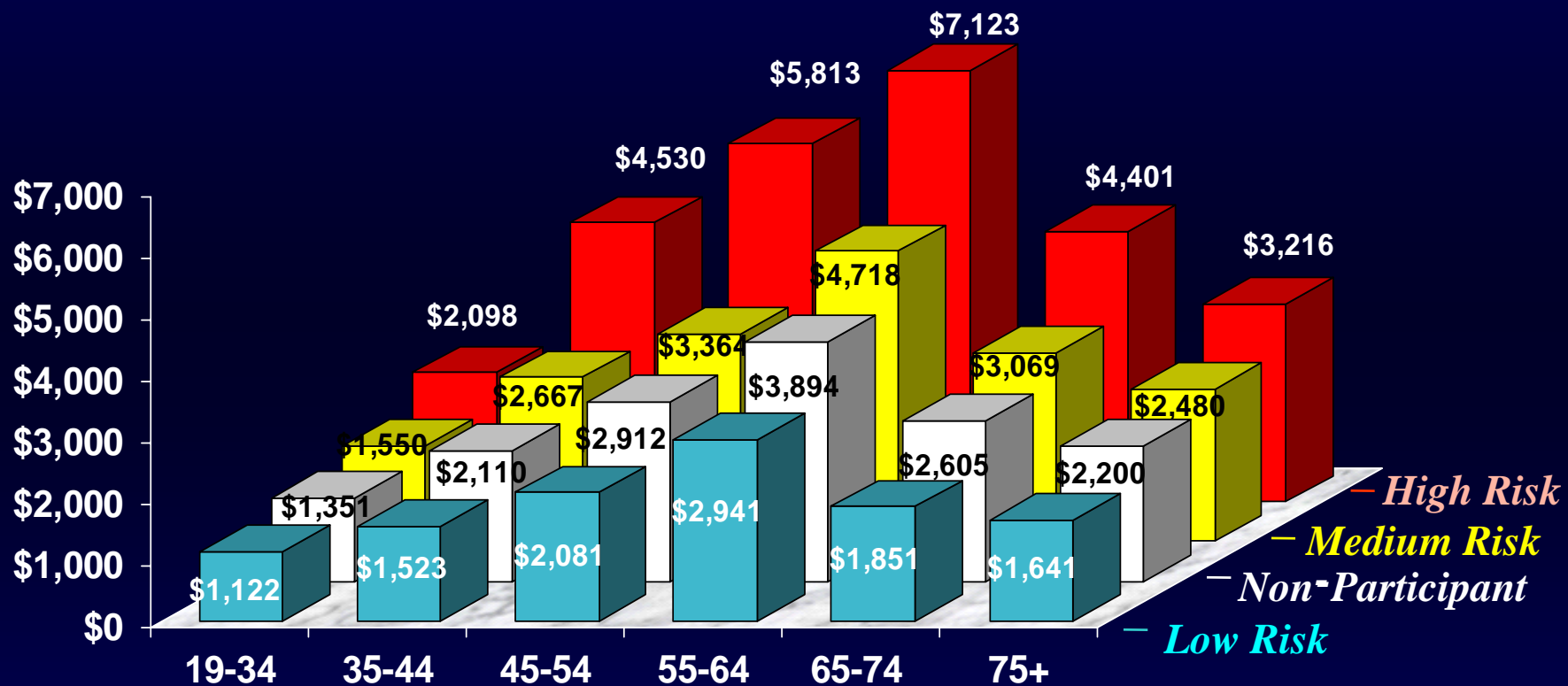
Business Concept 4

**Manage the Person
not the
Risk or the Disease**



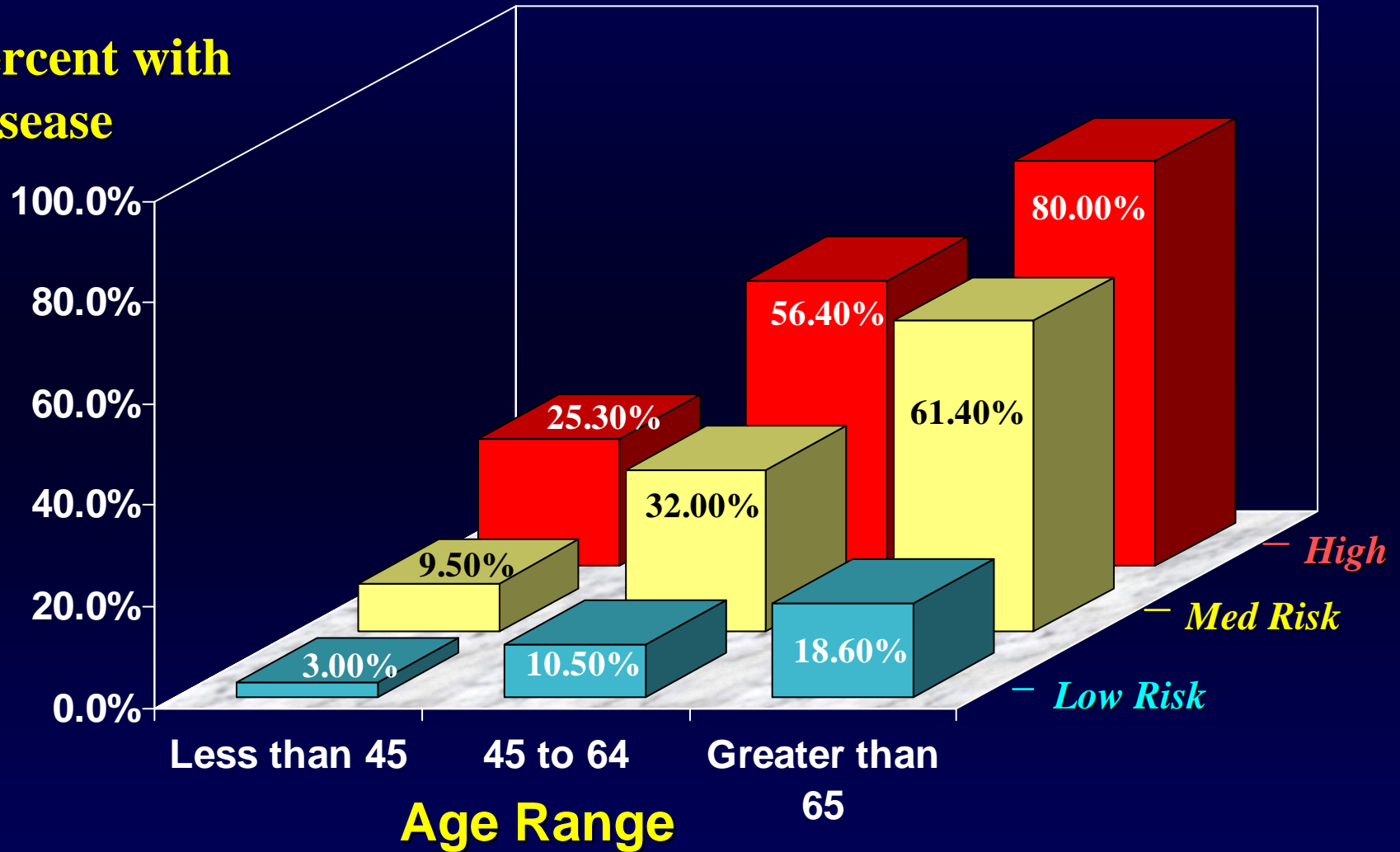
Costs Associated with Risks

Medical Paid Amount x Age x Risk



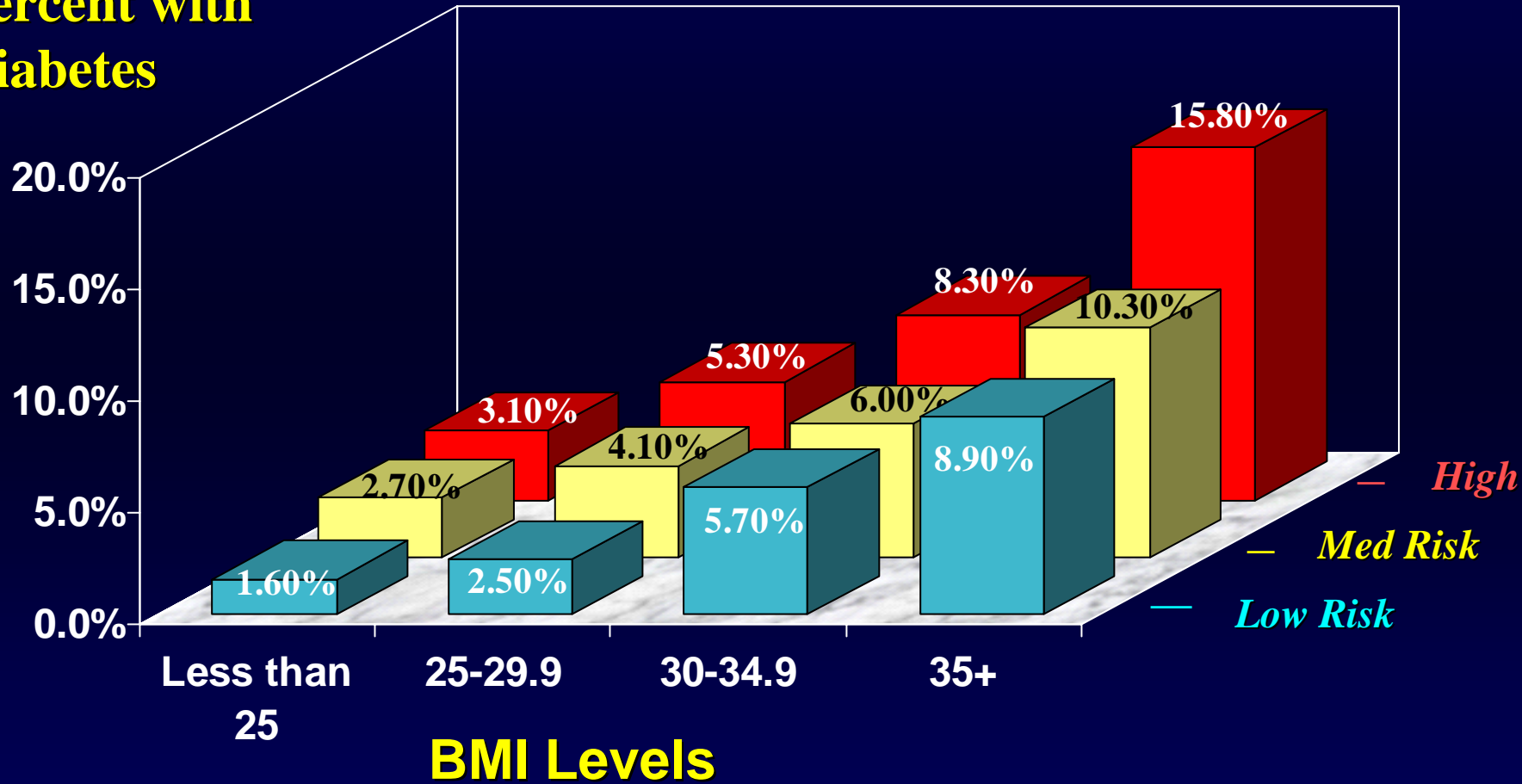
Excess Self-Reported Major Diseases Associated with Excess Risks

Percent with Disease



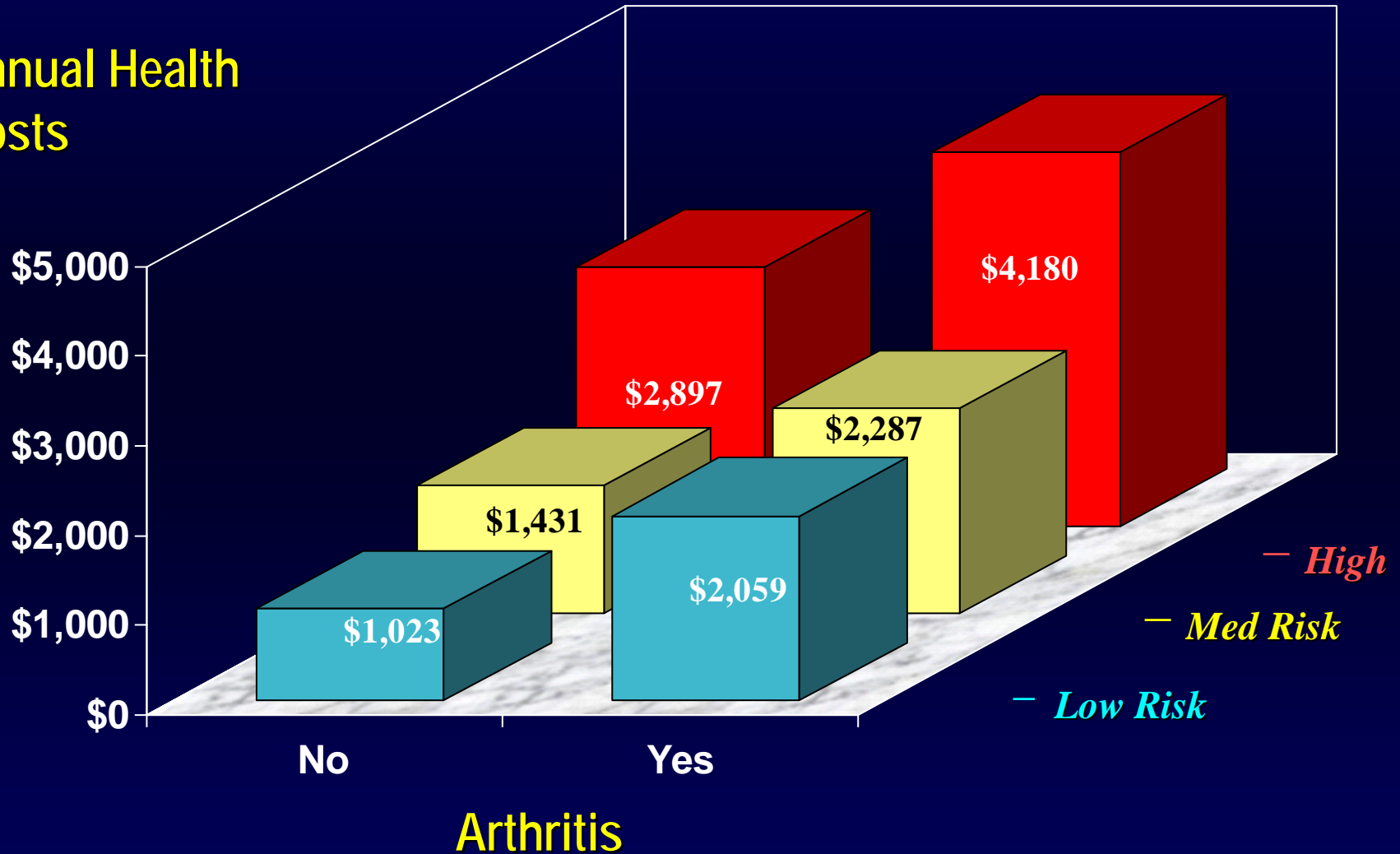
Self-Reported Diabetes Associated with Levels of Body Mass Index

Percent with Diabetes



Total Health Costs* Associated with Arthritis and Risk

Annual Health Costs





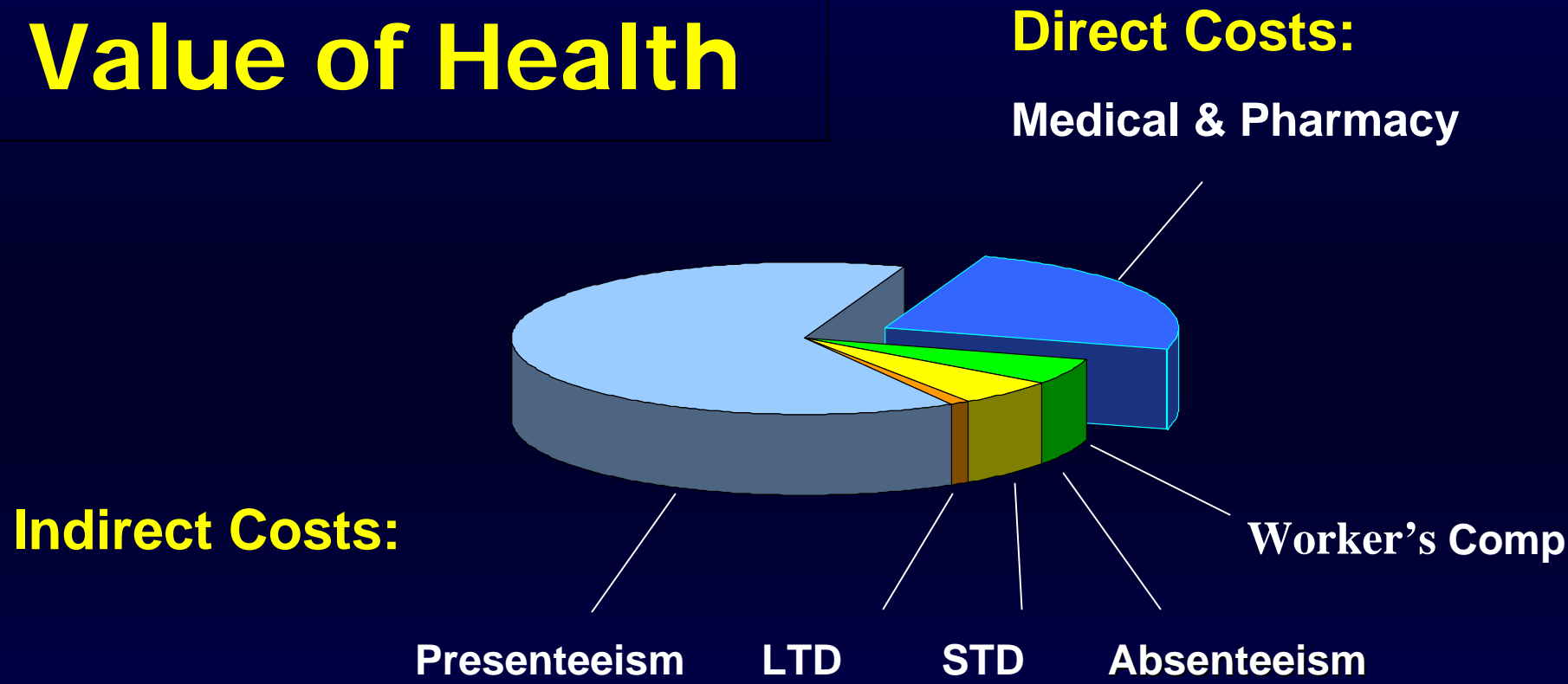
Business Concept 5

Relationships of Risks and Disease

with

Measures of Productivity

Relative Costs of Poor Health: Total Value of Health



Edington, Burton. A Practical Approach to Occupational and Environmental Medicine (McCunney). 140-152. 2003



Business Concept 5a

Relationships of Risks and Disease

with

**Measures of Productivity
(Time away from work)**

Percentage of Employees with a Disability Claim by Risk Status*

HRA Participants 1998-2000 HRA	Low Risk 0-2 Risks (N=685)	Medium Risk 3-4 Risks (N=520)	Non- Participants (N=4,649)	High Risk 5+ Risks (N=366)
WC Claims	25.4%	30.2%	30.2%	38.0%
STD Claims	23.4%	30.8%	29.6%	46.7%
Absence Record	49.9%	63.1%	41.0%	69.7%
Disability Claim	61.3%	72.5%	64.4%	81.7%

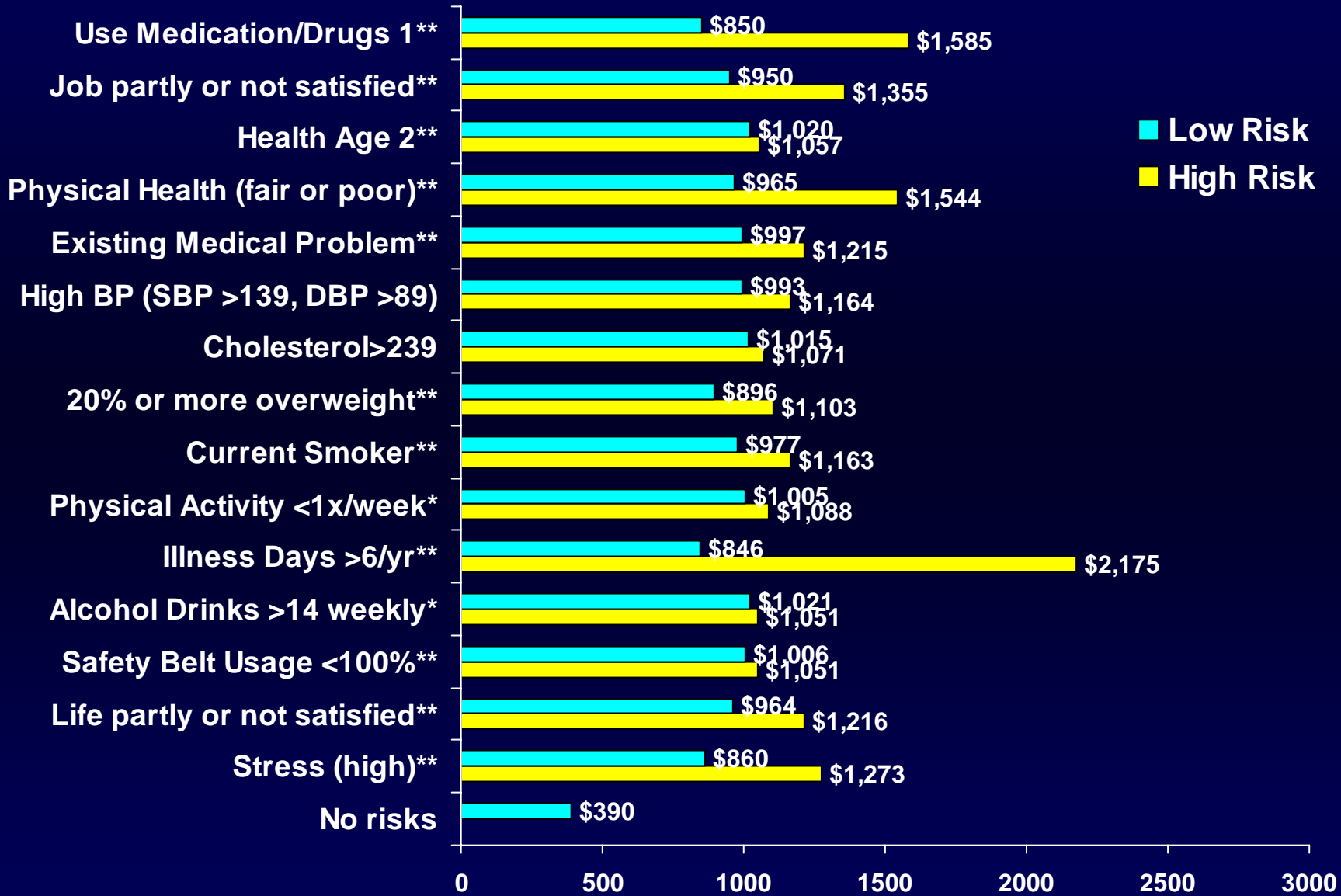
*Over three years 1998-2000

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



Total Disability Cost by Risk Status

1998-2000 Mean Annual Costs





Business Concept 5b

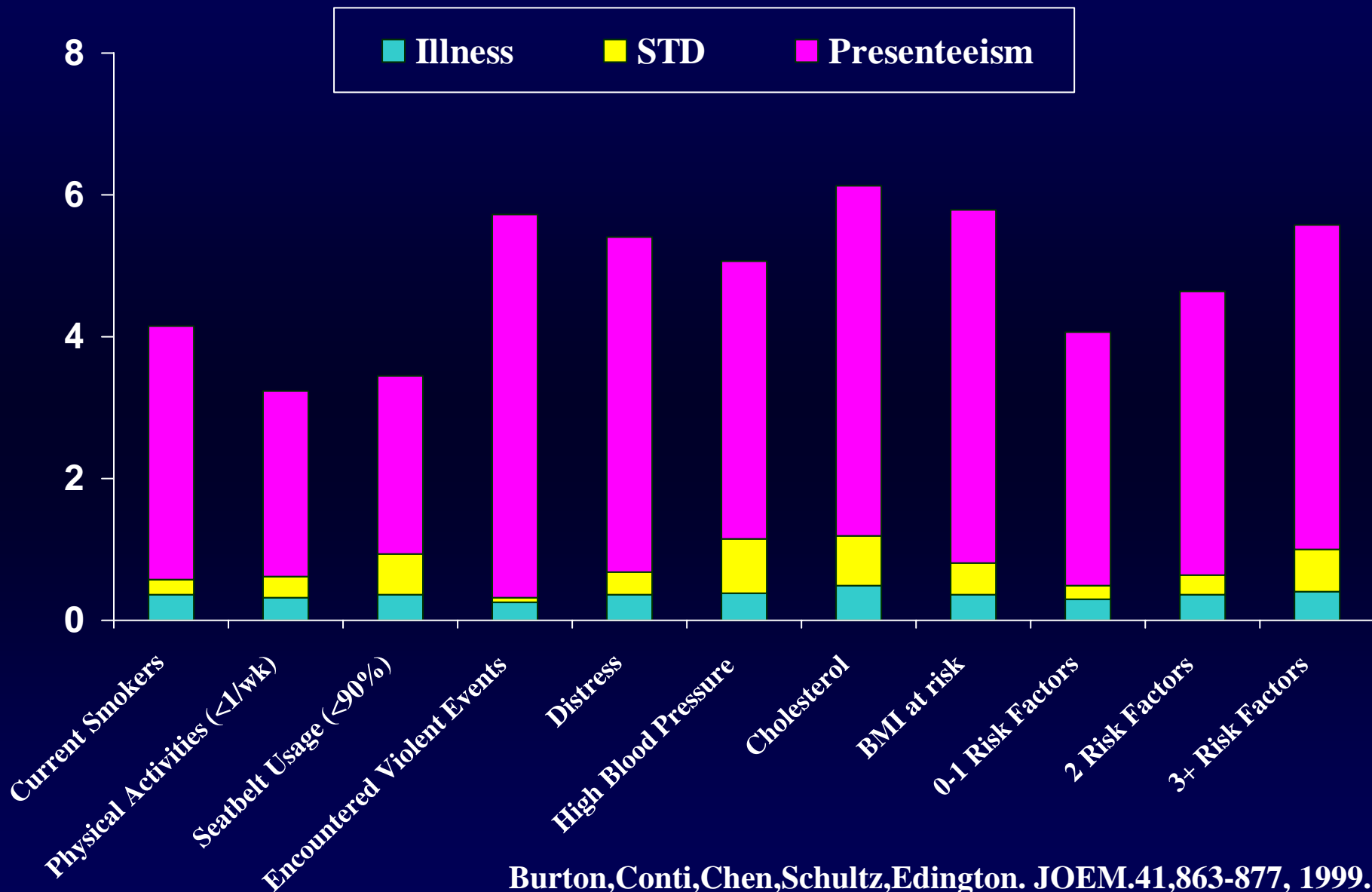
Relationships of Risks and Disease

with

**Measures of Productivity
(Presenteeism)**

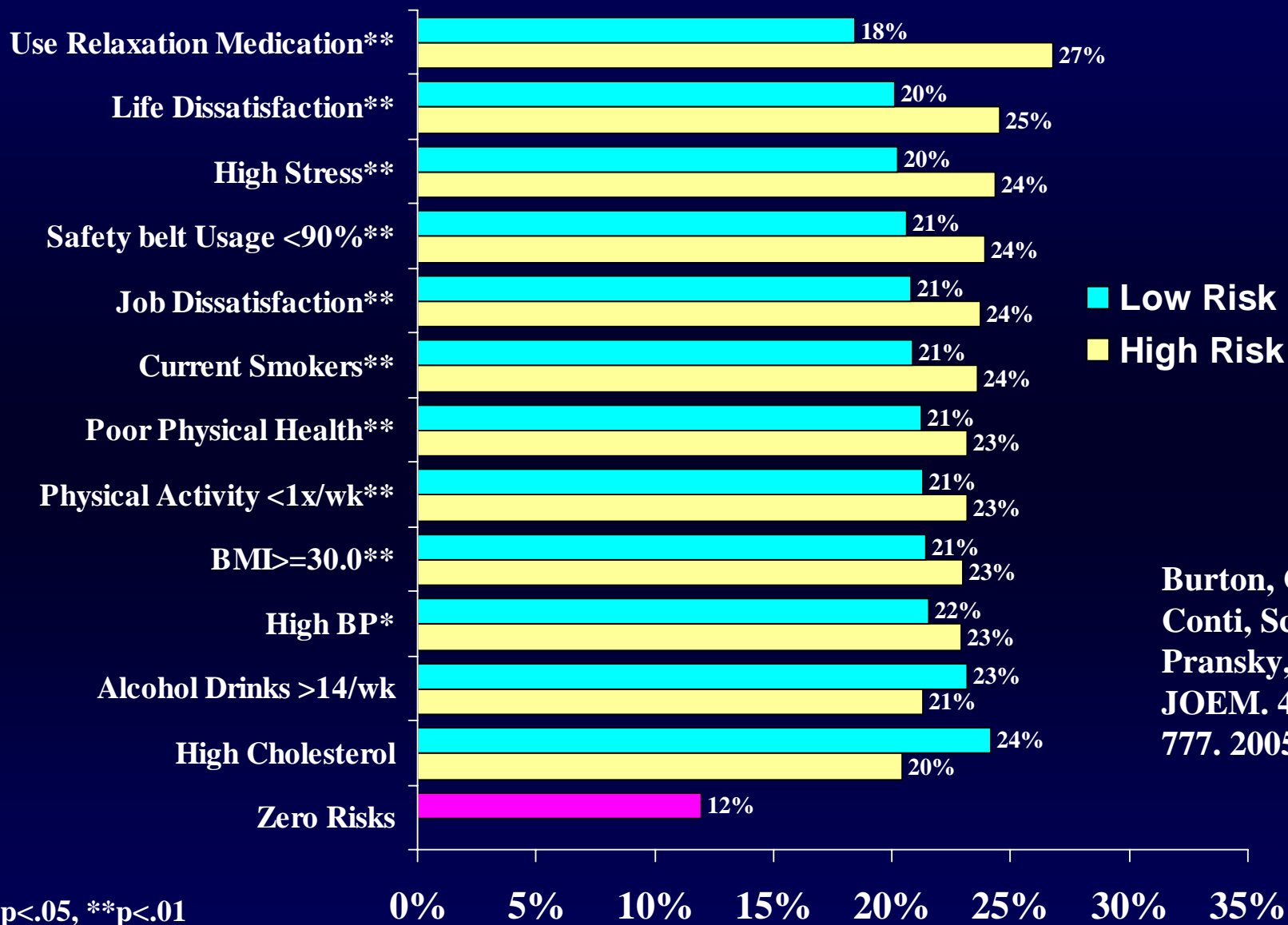


Health Risks and Behaviors X hours Lost



Burton,Conti,Chen,Schultz,Edington. JOEM.41,863-877, 1999.

Estimated Loss of Productivity by Risk Status



Burton, Chen,
Conti, Schultz,
Pransky, Edington.
JOEM. 47(8):769-
777. 2005

*p<.05, **p<.01

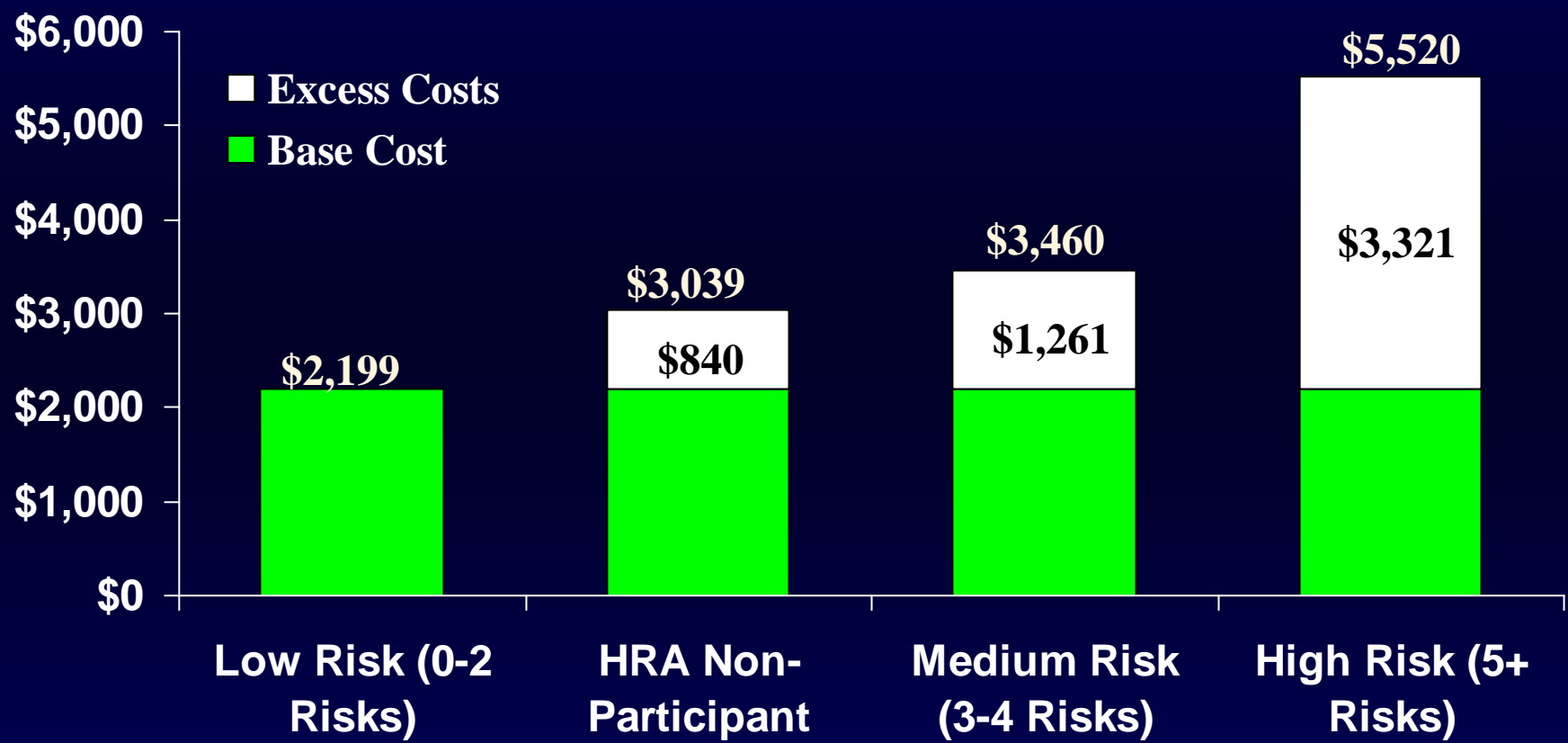


Business Concept 6

Excess Costs follow Excess Risks



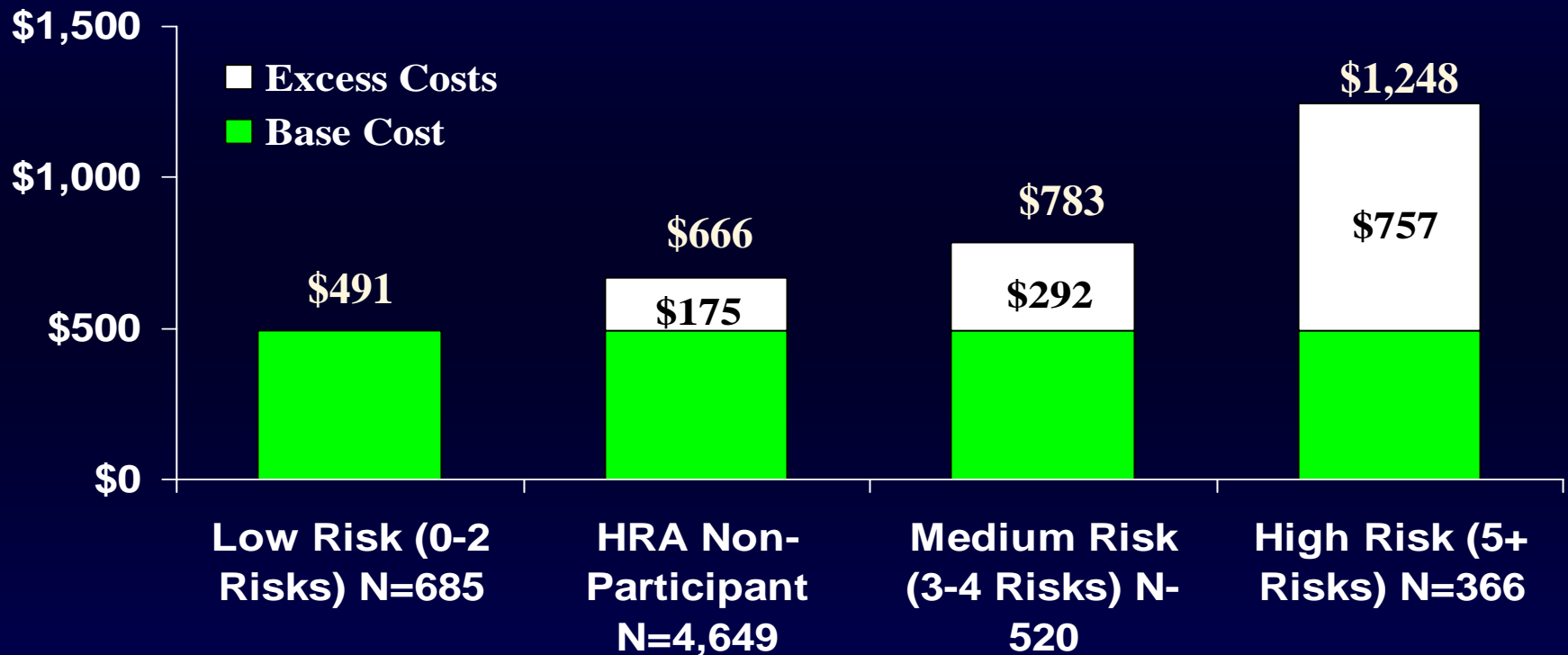
Excess Medical Costs due to Excess Risks



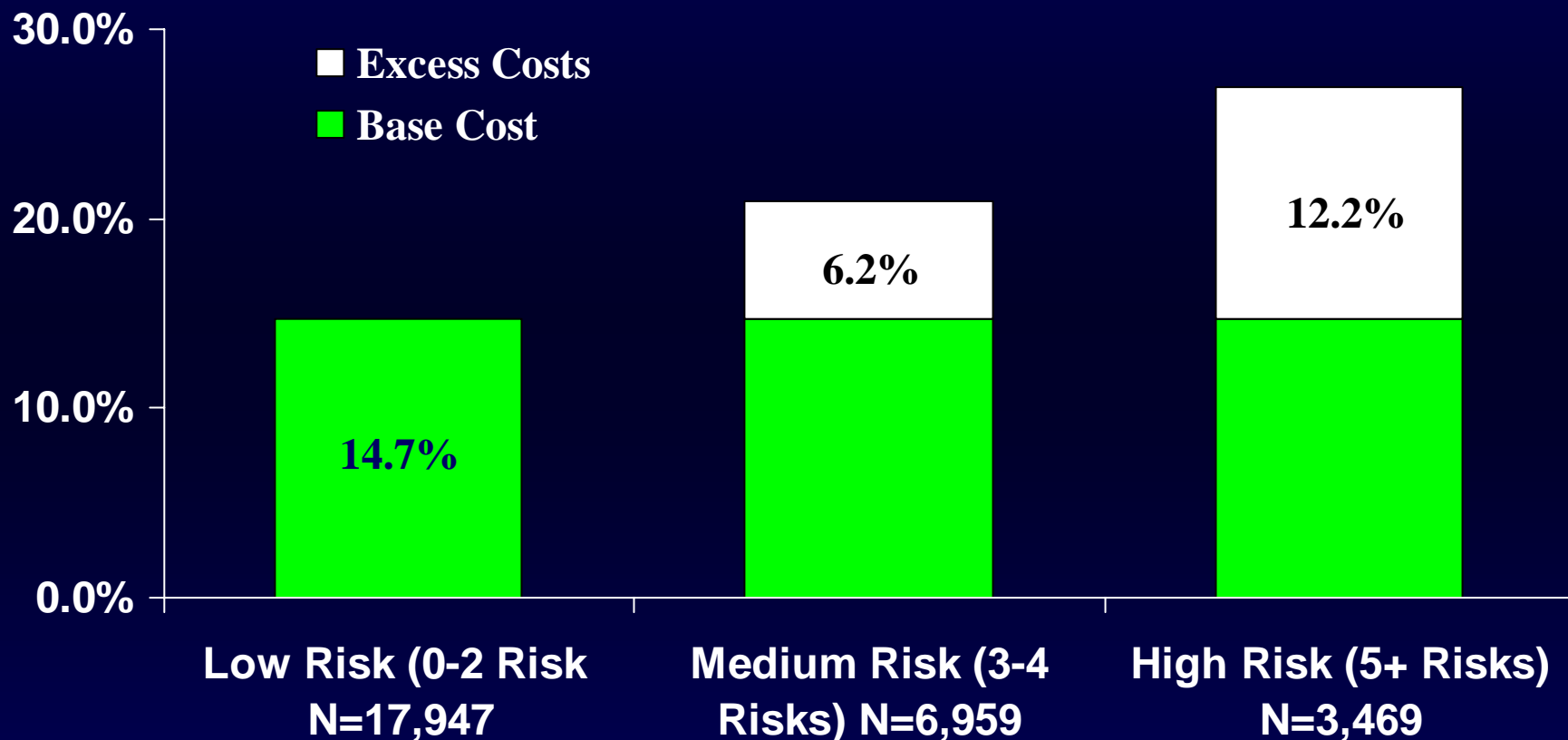
Edington, AJHP. 15(5):341-349, 2001

Excess Disability Costs due to Excess Risks

36% of Absence, STD, Worker's Comp



Excess On-The-Job Loss due to Excess Risks



Burton, Chen, Conti, Schultz, Pransky, Edington. JOEM. 47(8):769-777. 2005



Business Concepts

Part III

You Can Make a Difference



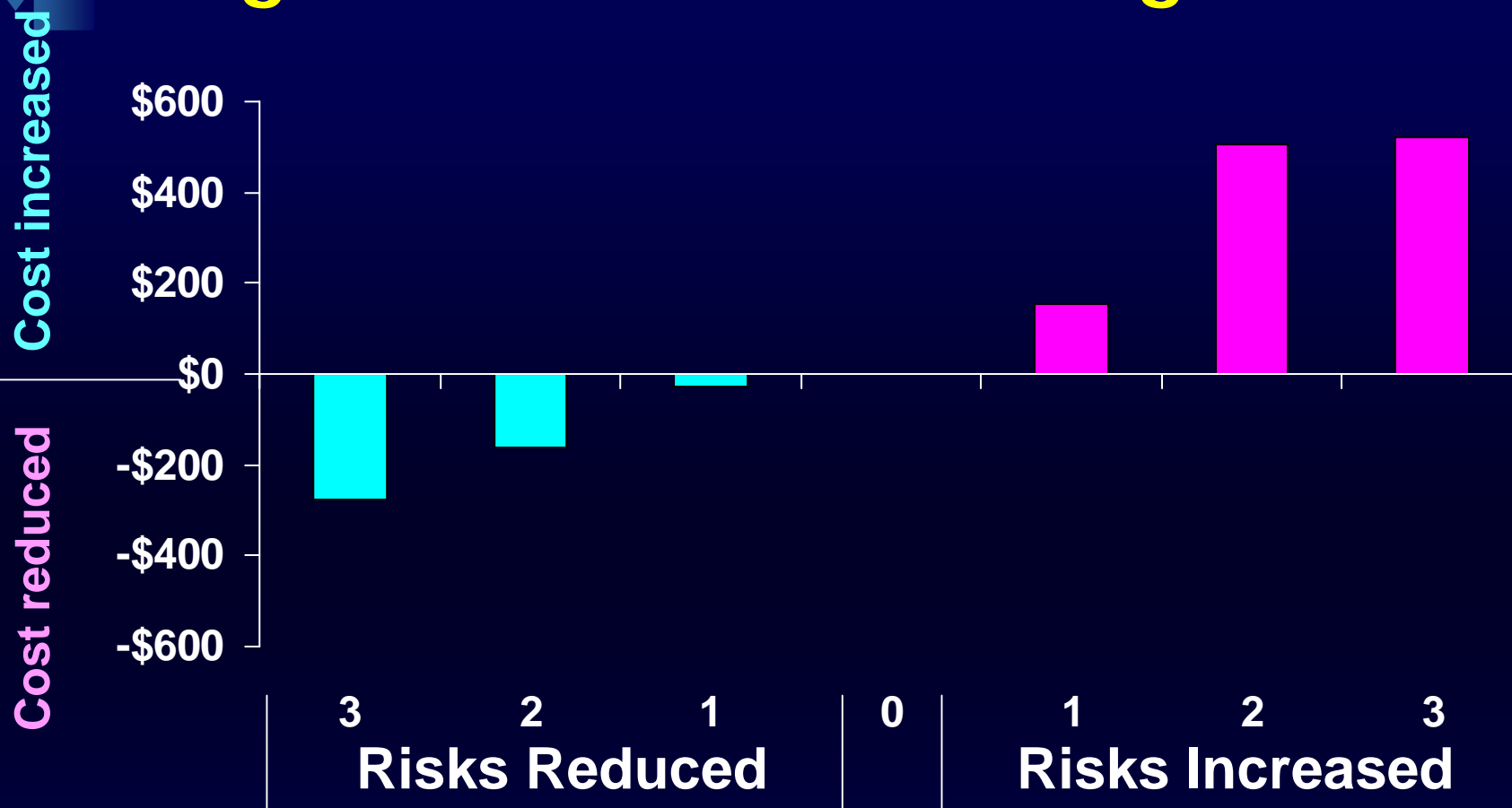
Business Concept 7

Change in Costs

follow

Change in Risks

Change in Costs follow Change in Risks



Overall: Cost per risk reduced: \$215; Cost per risk avoided: \$304

Actives: Cost per risk reduced: \$231; Cost per risk avoided: \$320

Retirees<65: Cost per risk reduced: \$192; Cost per risk avoided: \$621

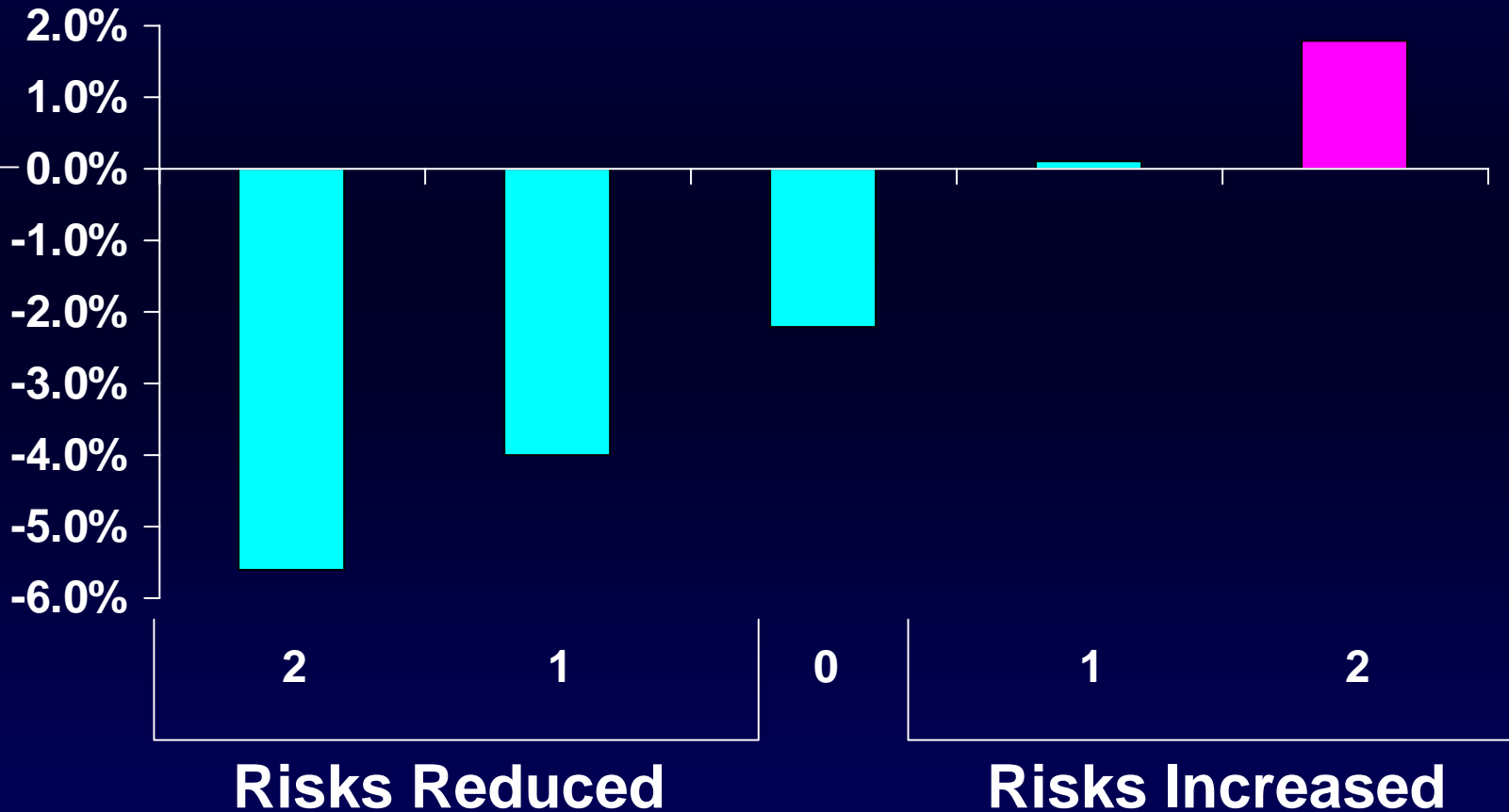
Retirees>65: Cost per risk reduced: \$214; Cost per risk avoided: \$264



Change in Productivity Loss follows Change in Risks

percent increased

Percent reduced





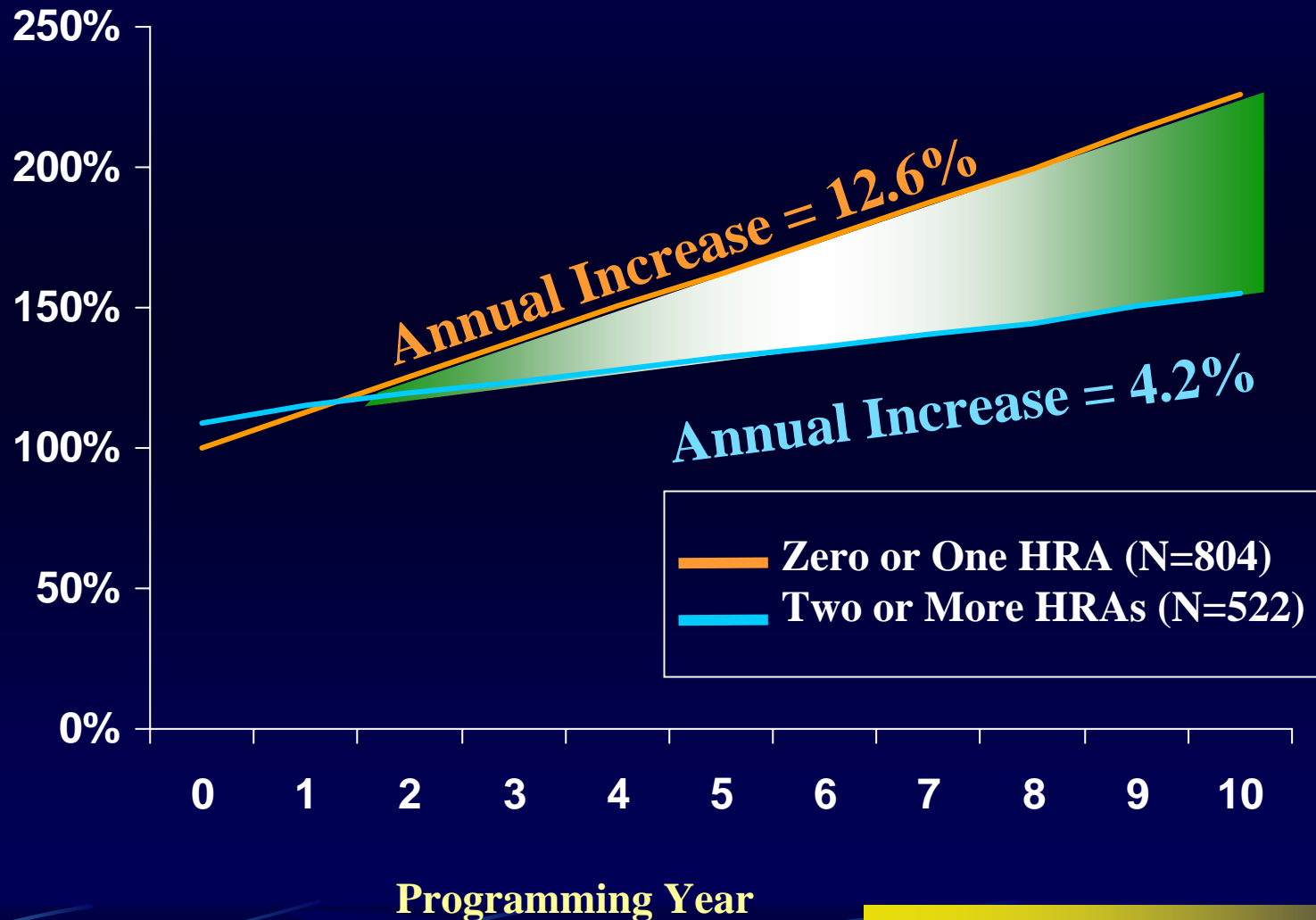
Business Concept 8

Change in Costs

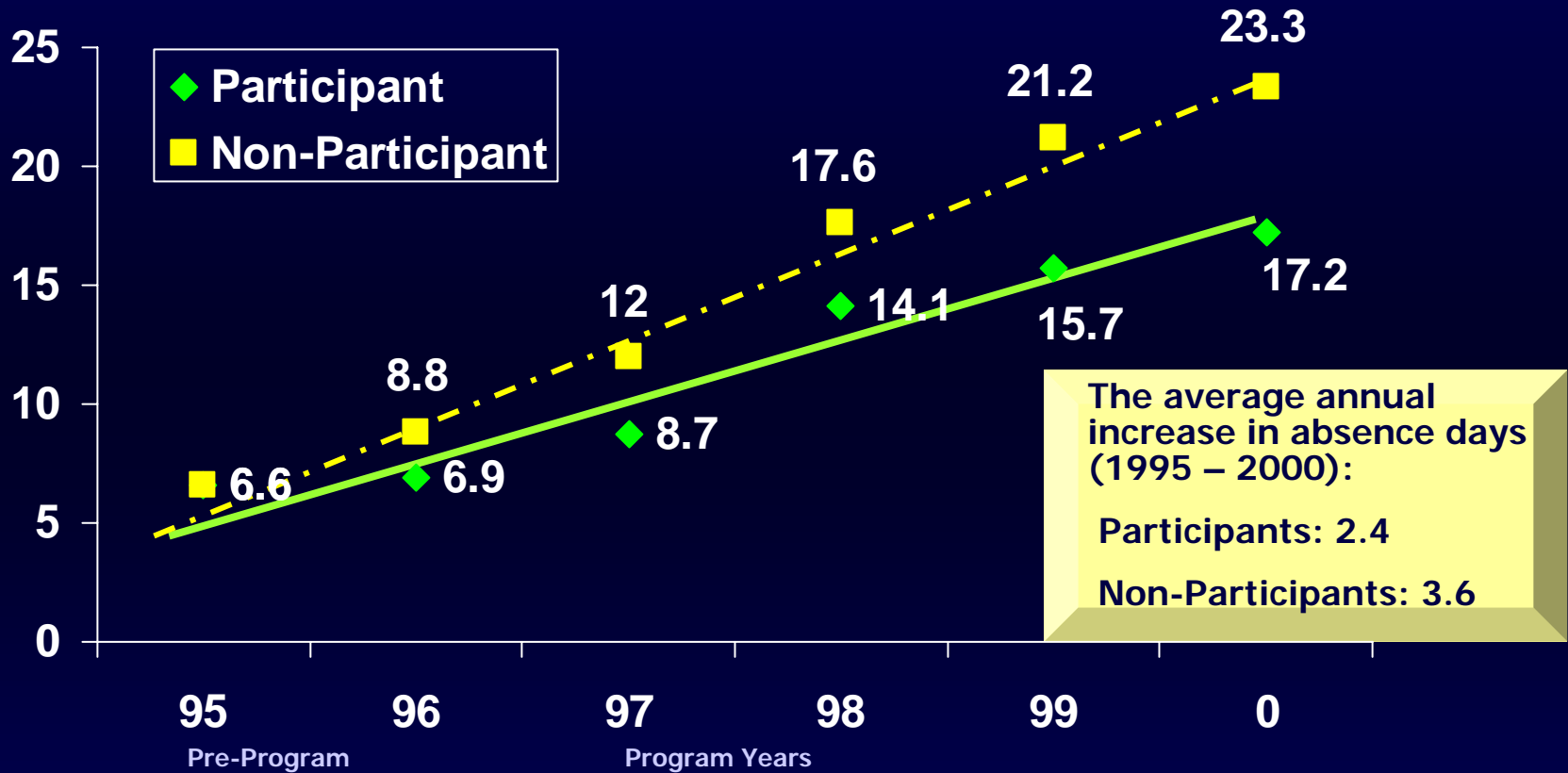
follow

Engagement

Cost Savings Associated with Program Involvement from 1985 to 1995



Yearly Average Disability Absence Days by Participation



Schultz, Musich,
 McDonald,
 Hirschland, Edington.
 JOEM 44(8):776-780,
 2002

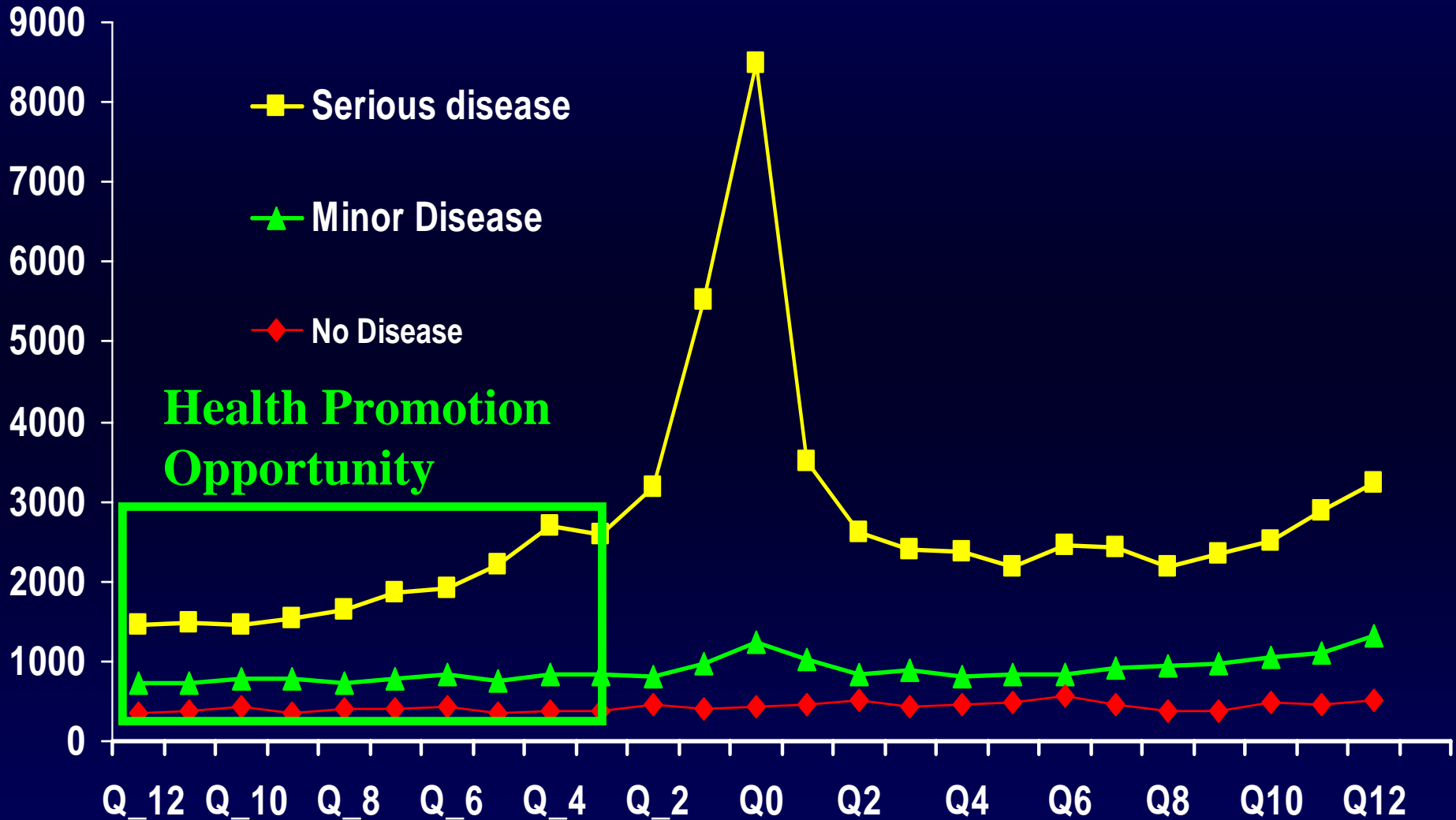
$$\begin{array}{r}
 \underline{\$200} \\
 \text{Work Day}
 \end{array}
 \times
 \begin{array}{r}
 \underline{1.2 \text{ Work Days}} \\
 \underline{\text{Participant}} \\
 \text{Year}
 \end{array}
 \times
 2,596 \text{ participants}
 =
 \begin{array}{r}
 \underline{\$623,040} \\
 \text{Year}
 \end{array}$$



Business Concept 9

Stratification of the Population for Intervention

Stratification In the Health Promotion Opportunity





Cluster Analysis

Health Measure	Cluster 1: Risk taking (N=6688)	Cluster 2: Low Risk (N=3164)	Cluster 3: Biometrics (N=3100)	Cluster 4: Psychological (N=3927)
Smoking	31%	0%	16%	27%
Alcohol	10%	0%	3%	5%
Physical activity	28%	0 %	19%	26%
Safety belt usage	36%	0 %	22%	31%
Body mass index	27%	25 %	38%	27%
Systolic blood pressure	9%	0 %	81%	23%
Diastolic blood pressure	5%	0 %	61%	20%
Cholesterol	19%	19 %	27%	22%
HDL cholesterol	34%	10 %	33%	24%
Self-perceived health	13%	0 %	9%	28%
Life satisfaction	4%	0 %	2%	73%
Stress	9%	0 %	2%	76%
Illness days	21%	0 %	12%	26%
Overall Risks				
Low risk (0-2 risks)	50.2%	97.6%	26.5%	18.9%
Medium risk (3-4 risks)	35.7%	2.4%	48.9%	35.9%
High risk (5+ risks)	14.1%	0	24.7%	45.2%
Average Number of risks	2.8	0.6	3.6	4.4



Data Sources

- Medical
- Pharmacy
- Absent Days
- STD
- Worker's Comp
- Presenteeism
- HRAs

Trend Management

- Cluster Analysis
- Dangerous Conditions
- Investment Level
- Rank Order

**Individualized
Cycle for Benefits**



Feedback

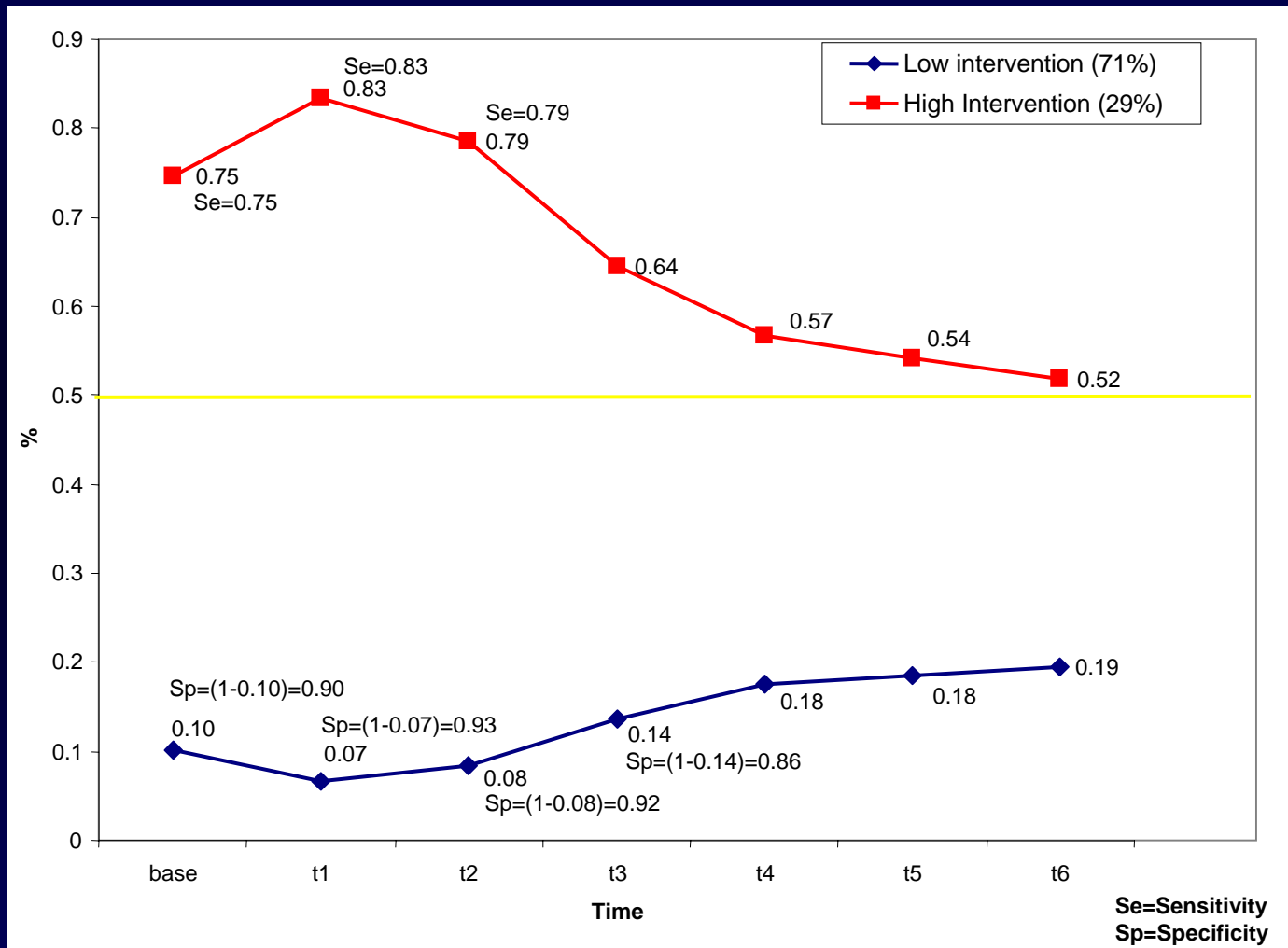
Benefit Design

- High, Medium and Low Deductibles
- Wellness and Illness Resources



Knowledge

Predictability to be at High Cost

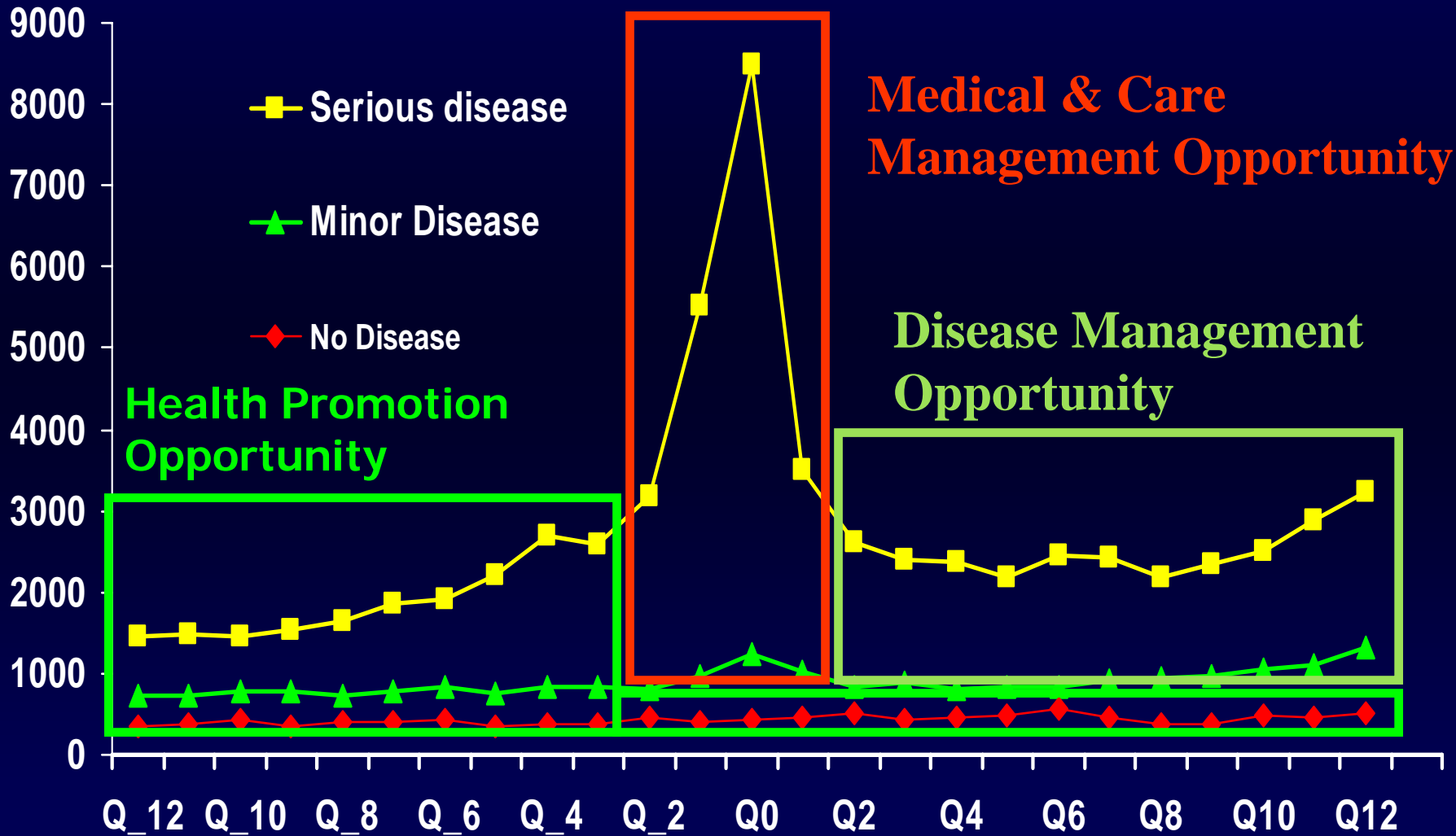




Section IV

Implementing Health Management as a Serious Business Strategy

Where are the Opportunities for Population Health Management?



Health Management as a Serious Organizational Strategy

- A. Driven from the top through leadership performance objectives and healthy work environmental policies and structures**
- B. Driven by employee participation in health risk assessments to identify areas that are critical to personal and vitality of families. Resources made available for low-risk maintenance and risk reduction opportunities, with incentives**
- C. Measurement of key indicators**
 - A. 80% participation over any three-year period**
 - B. 70% low-risk**
 - C. Maintenance and improvements in work environment**

Health Management as a Serious Business Strategy: Four Levels of Interventions



Incentive Programs by Company

Corporation	Program Components	Incentive Programs	Participation Rate
Health System	HRA + risk and disease management programs	\$60-\$84/employee for HRA as insurance credit \$180-\$288 family for HRA as insurance credit spending on which plan chosen	Cumulatively (2 years) 70% Employees
Utility	HRA + 5 activities	\$200 health credit payment for HRA +3 activities. \$300 health credit payment for HRA + 5 activities	50% each year and 83% after 3 years
Insurance Trust Company	Web or mailed HRA, telephonic high risk interventions, disease management	\$25 cash	68% annual 83% after 3 years
Light Manufacturing Company	Mandatory screening and HRA for enrollment into preferred Benefits (low cost) plan.	Enrollment eligibility for preferred health plan.	90%

Moving the Paradigm From

“The Cost of Healthcare”

(Treating disease) **To**

“The Total Value of Healthcare”

(Managing health status) **To**

“Health is Free”

(Healthcare Costs < Total Benefits)

Thank you for your attention.

Please contact us if you have any questions.

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