

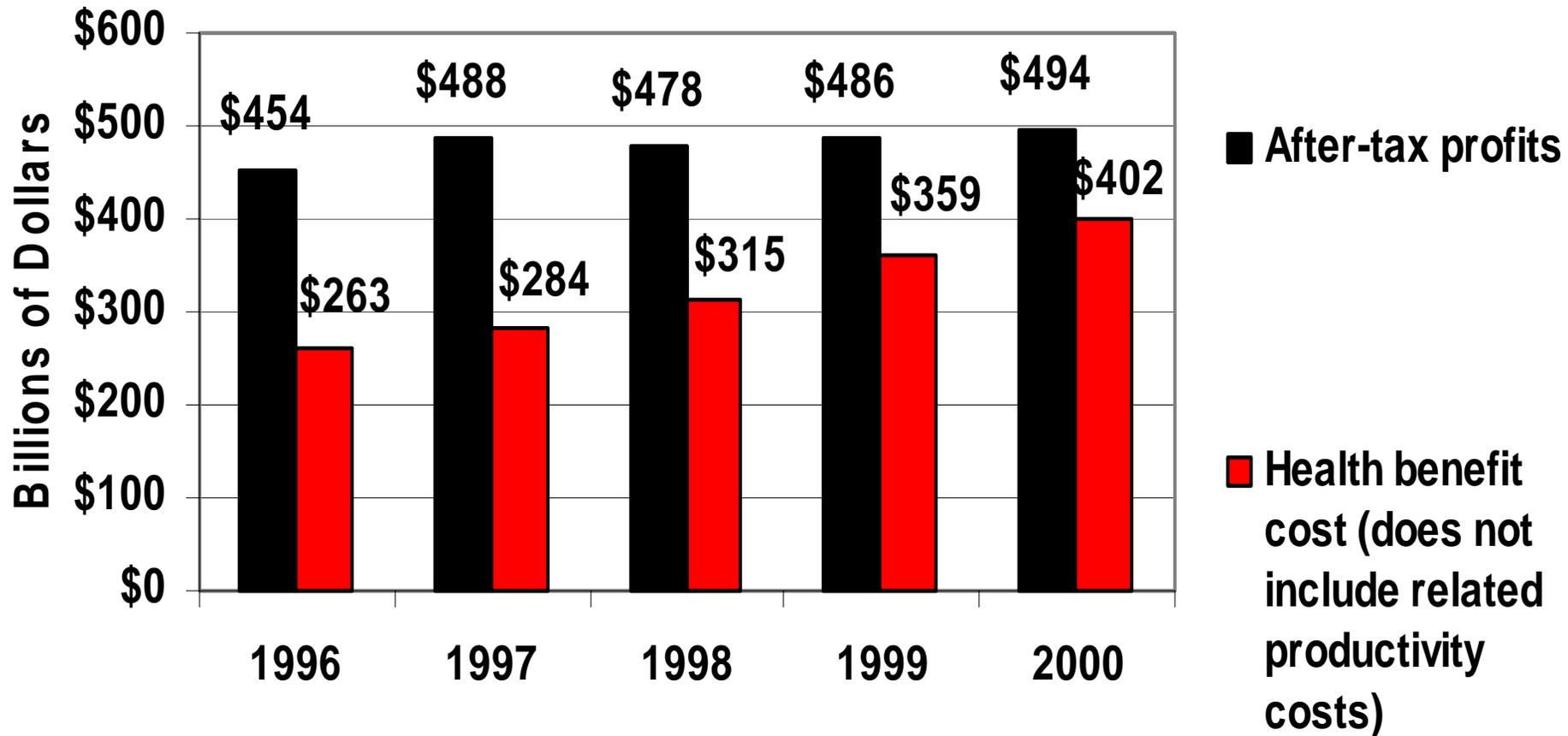
# ***The Business Impact of Health and Health-Related Productivity***

American Occupational Health Conference  
Joint Seminar #905  
Atlanta World Congress Center

Ron Loeppke, MD, MPH

May 4, 2003

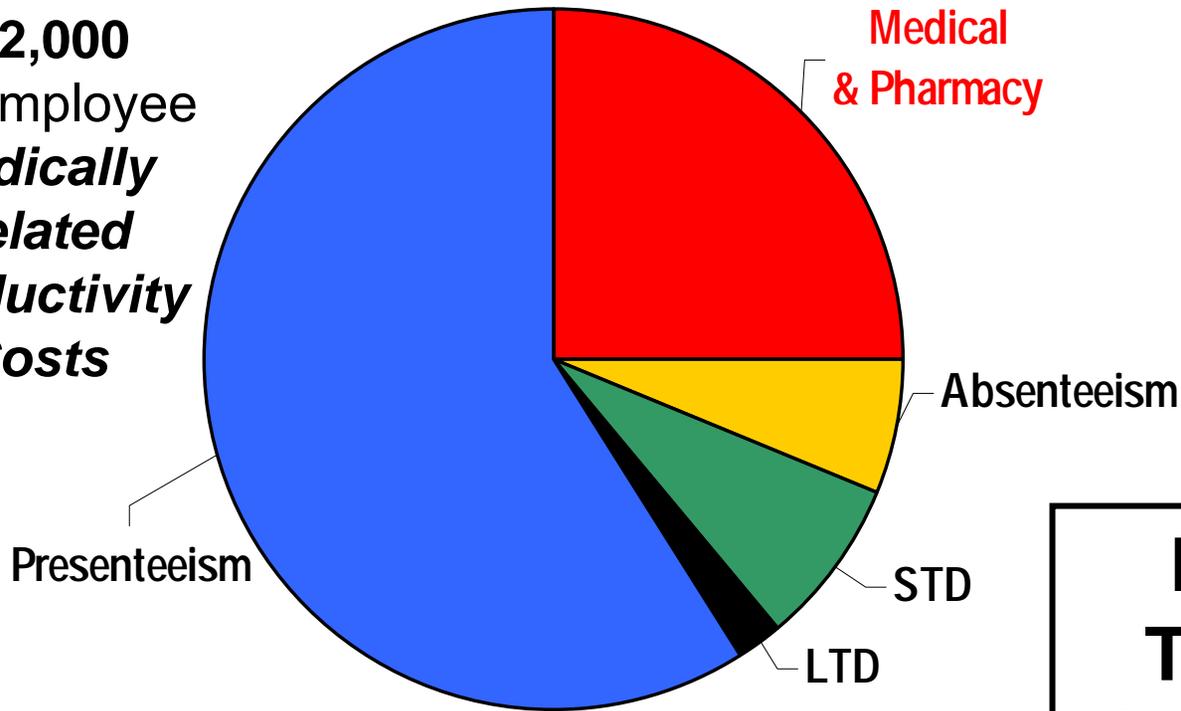
# The Problem: Rising Medical Costs/Eroding Profits



# The Real Problem: Total Costs

**Estimated  
\$12,000  
per Employee  
*Medically  
Related  
Productivity  
Costs***

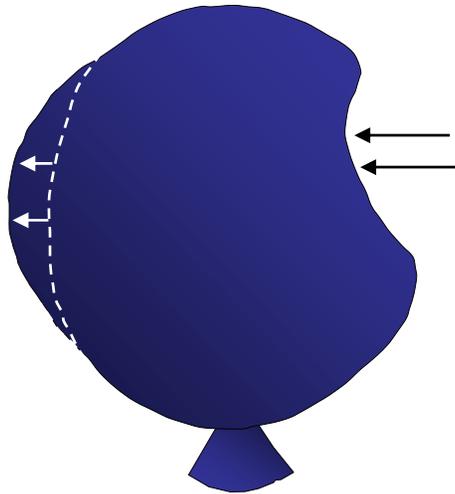
**\*\$6,000  
Per Employee  
*Direct Medical  
Costs***



**Estimated  
Total Costs  
\$18,000 PEPY**

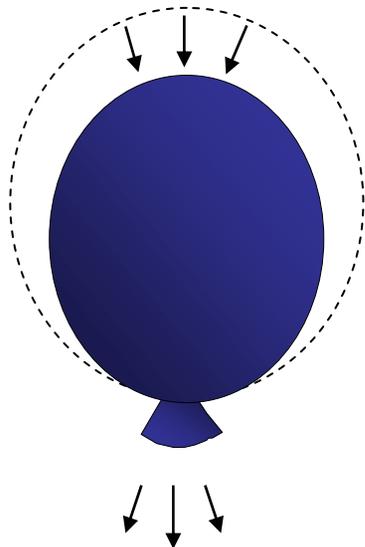
**\*2002 PEPY National Average**

# Ballooning Healthcare Costs



Tinkering with the peripheral Financial Transactions of Healthcare **does not lower Total Costs**—it only Shifts Costs

Whereas,

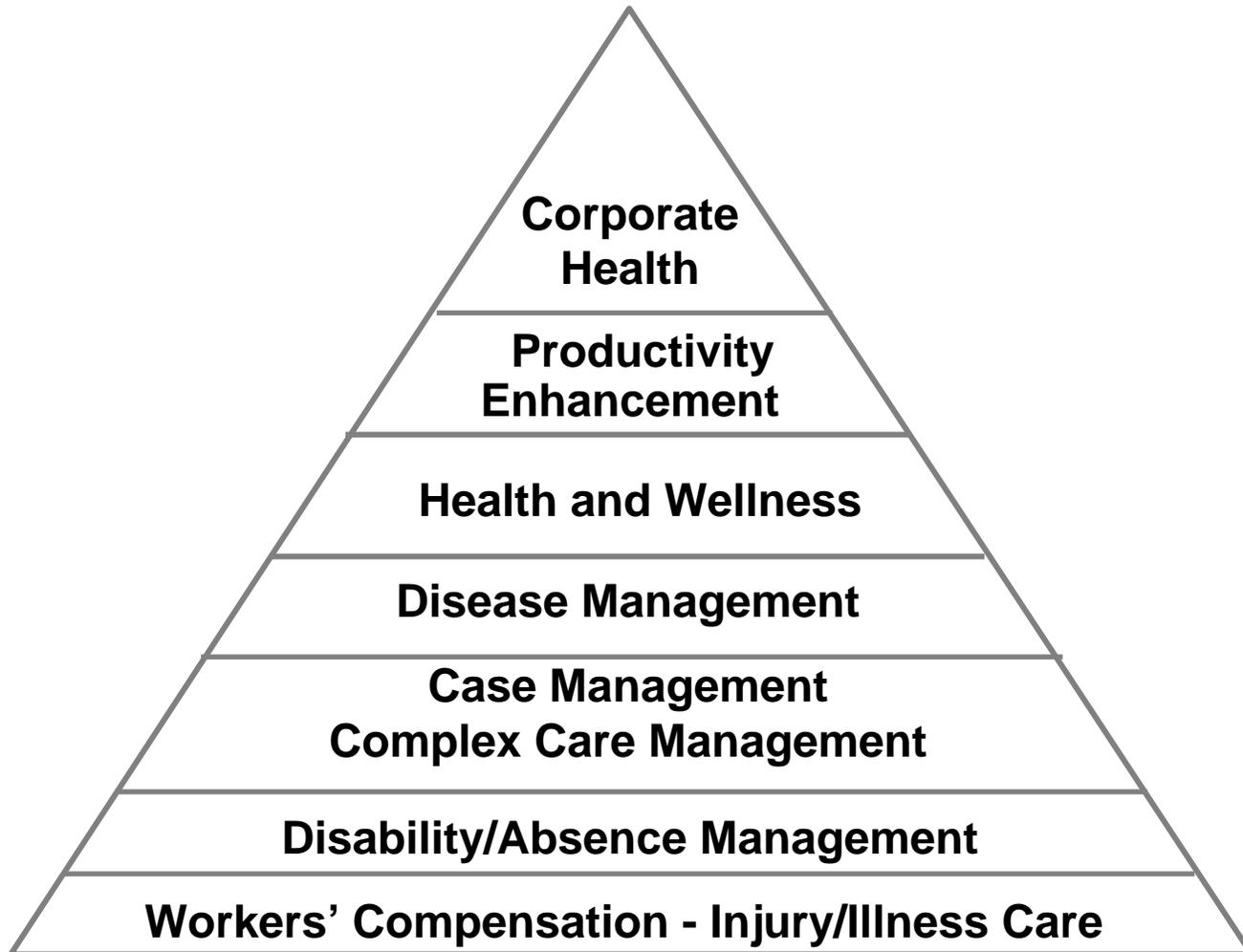


Improving the Clinical Transactions of Healthcare by better managing the Burden of Illness in the population and reducing their Health Risks, Improves the Health and Productivity of the workforce and **does lower Total Costs**

# Transformation of the System

|                 | <u>Traditional</u>  | <u>New Approach</u>  |
|-----------------|---|--|
| <u>FOCUS</u>    | Medical Cost Mgt<br>Quantity/Cost of Service<br>Illness & Injury<br>Unaligned Incentives  | <b>Total Cost Mgt</b><br><b>Quality/Value of Service</b><br><b>Health <u>and</u> Productivity</b><br><b>Aligned Incentives</b>   |
| <u>Approach</u> | Permission <u>to</u> Drs & Pts<br>Health <u>Benefit</u> Mgt<br>Fragmentation<br>Patients are <u>passive</u><br>recipients                 | <b>Empowerment <u>of</u> Drs &amp; Pts</b><br><b>Health <u>Care</u> Mgt</b><br><b>Integration / Coordination</b><br><b>Patients are <u>active</u></b><br><b>participants</b> |
| <u>Results</u>  | Lacks Patient/MD Rewards<br>for Clinical Results<br>EEs “Use it or Lose it”<br>Drs not rewarded for Quality<br>Employers “Pay for Volume” | <b>Shared Patient/MD Rewards<br/>for Clinical Results</b><br><b>EEs “Use Wisely &amp; Save”</b><br><b>Dr rewarded for Quality Care</b><br><b>Employers “Buy Value”</b>       |

# Corporate Health Hierarchy



# Transition to Corporate Health

## Industrial Medicine

- Urgent Care Focus
- Efficient Follow-up
- Improved Referrals
- Physical Exams
- Workers' Comp
- Industrial hygiene services

## Occupational Medicine

- Examinations (Pre-placement, medical surveillance)
- Hazard communication
- Toxic exposures
- Hearing conservation
- OSHA/NIOSH/EPA/ADA regulatory compliance

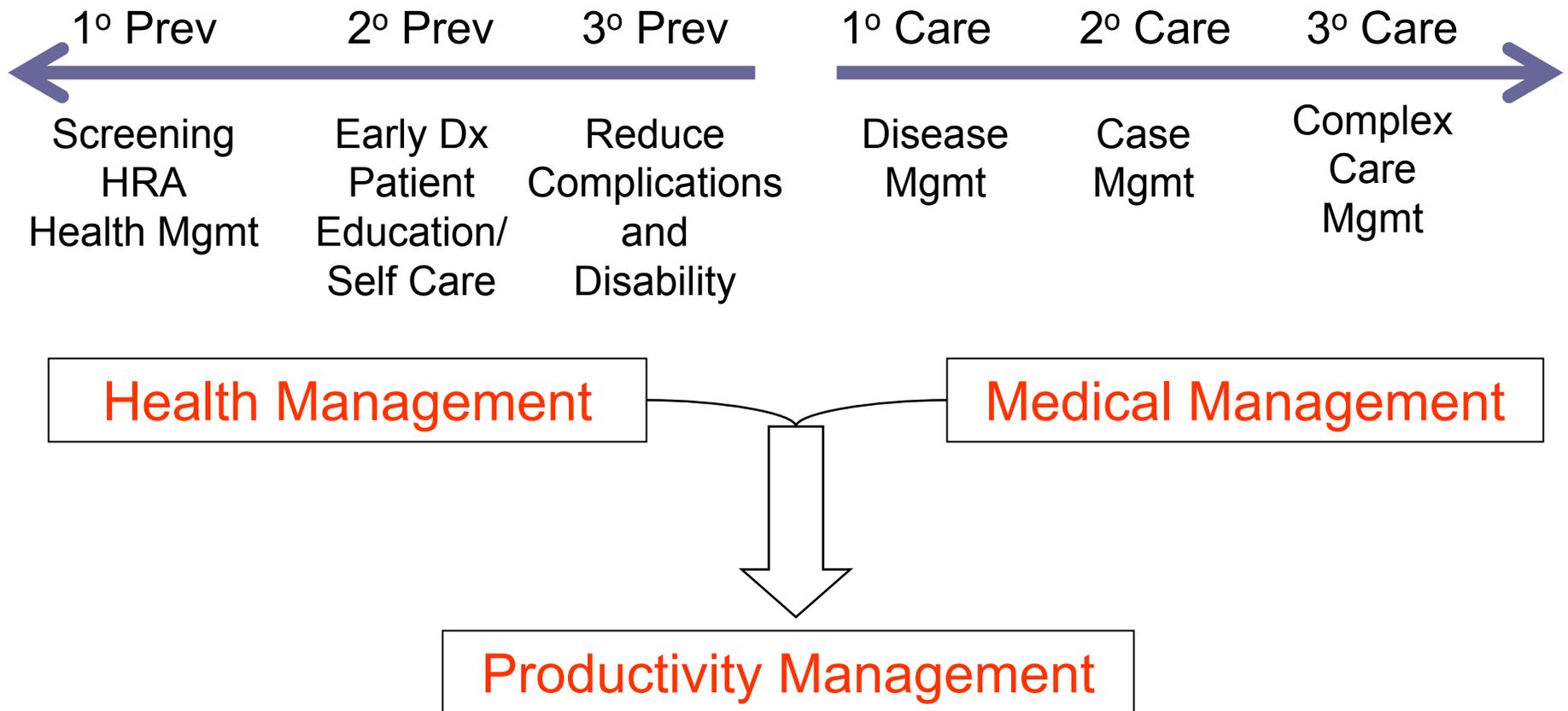
## Occupational Health

- Wellness/Health Promotion
- Ergonomics
- Case Mgmt
- Disability Mgmt
- Individual and Organizational Health Assessment

## Corporate Health

- Integration of
- Health Management
  - Disease Management
  - Absence Mgmt
  - Pharmaceutical Mgmt
  - Health Benefits Mgmt
  - Health Care Quality and Cost Mgmt
  - Chief Health Officer managing the Health Assets and Human Capital of the Workforce

# Care Management Continuum



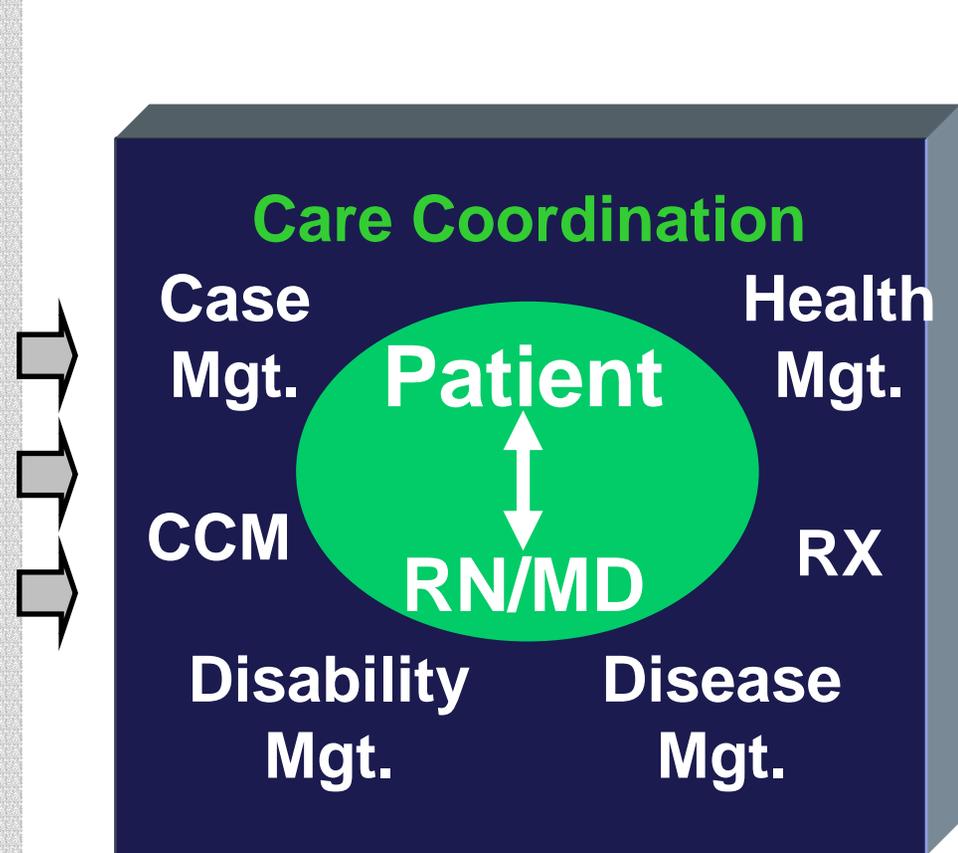
# New Approach: Integration With Quality Focus

## Current Industry



Fragmented - Uncoordinated

## New Approach



Integrated - Aligned

# Medstat Study: Opportunity Benchmark

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- Study of 43 Employers with more than 1 million workers
- 1999 Median Cost = \$9,992 PEPY
- Achieving basic benchmark results would save 26% = \$2,562 PEPY

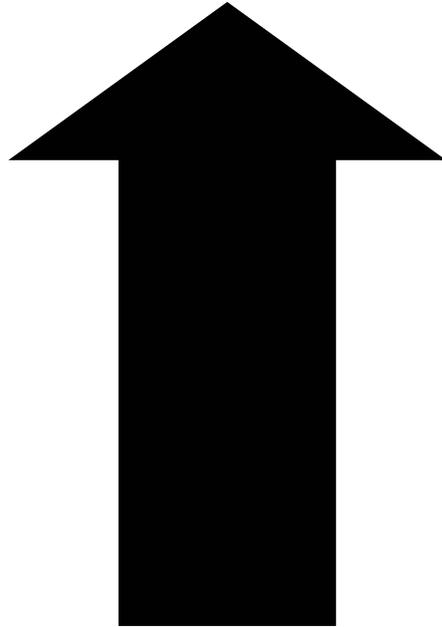
\*Goetzel, RZ, et al. Journal of Occupational and Environmental Medicine, 2001; 43(1):10-17.

# ROI from Health Management

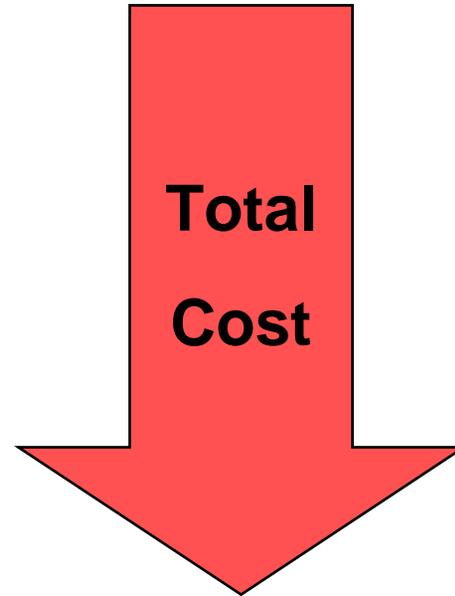
- **\*3:1** for **traditional** health management interventions
- **\*6:1** for **integrated and coordinated** initiatives including disease management, disability/WC management and worksite health promotion and health management with **Employee incentives**
- **?? :1** for integrated and coordinated care along with **aligned incentives among employees, doctors, and employers**

# Healthier Employees Yield Healthier Bottom Line

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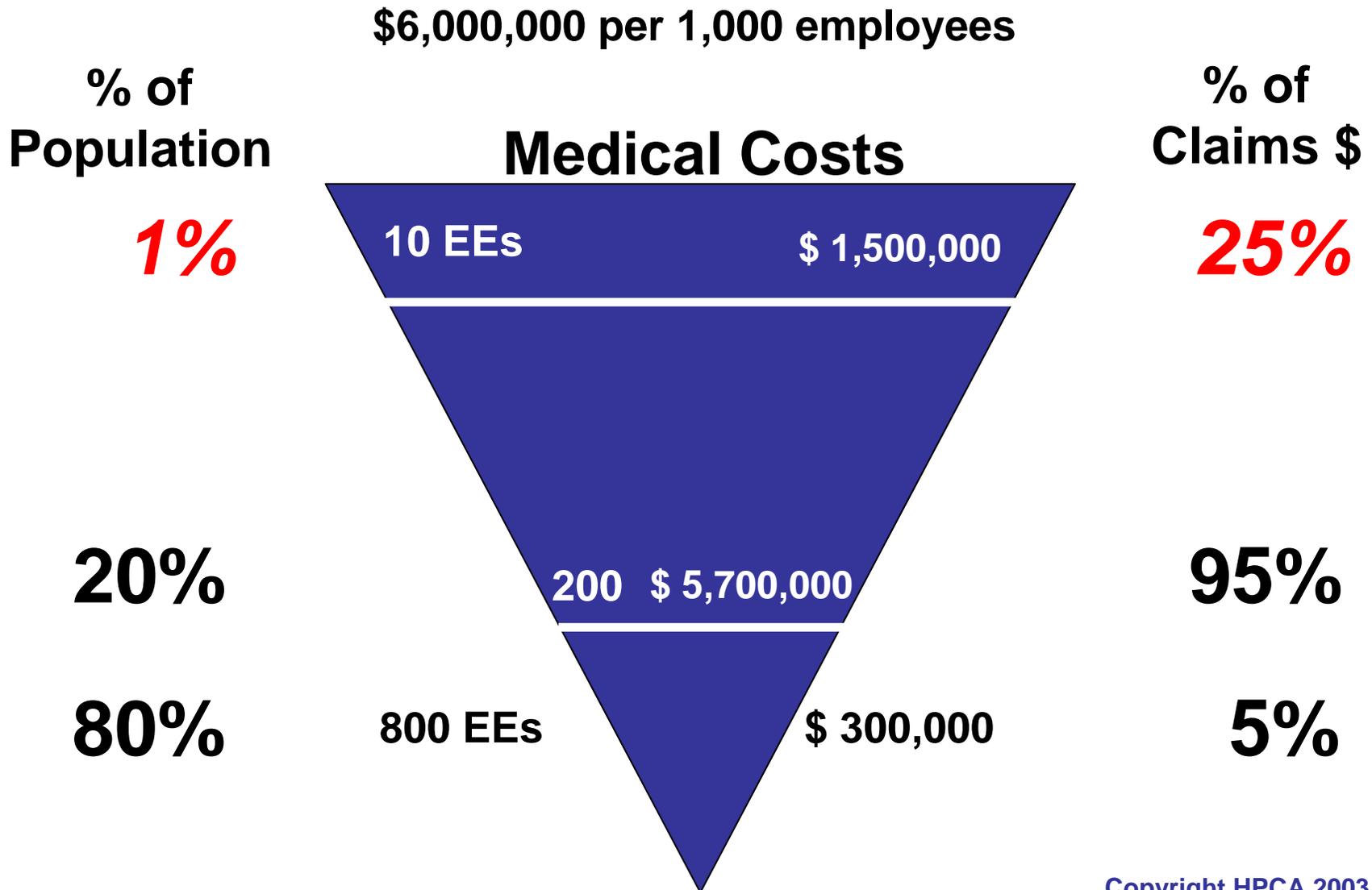
**Employee Health**



**Medical Claims  
Absenteeism  
Presenteeism  
Disability Costs**

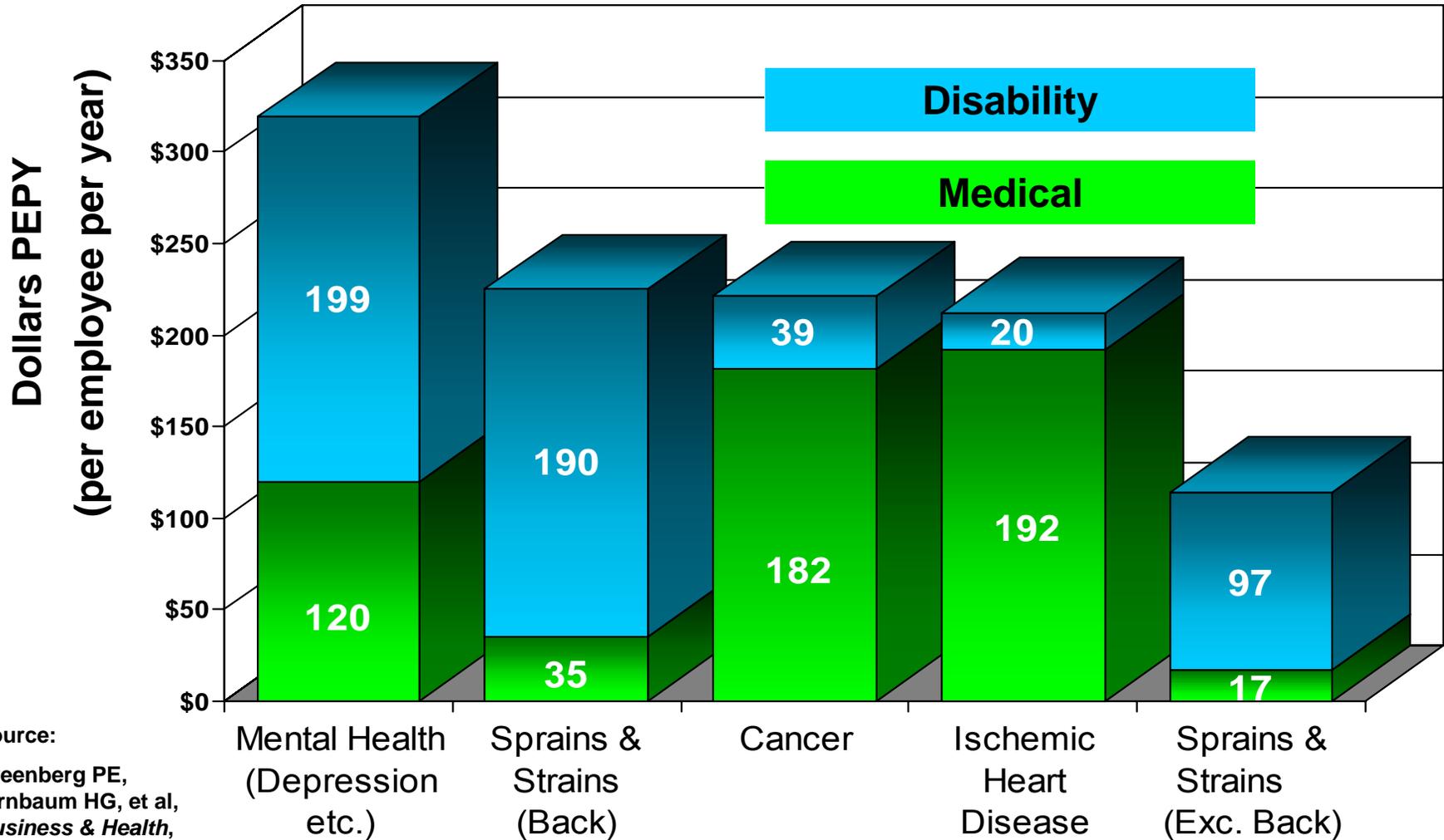


# Who Is Incurring the Medical Costs?



# Medical and Disability Costs\* Related to Medical Conditions

\* Includes direct disability costs, but does not include related absenteeism, presenteeism and productivity costs/losses.



Source:  
Greenberg PE,  
Birnbaum HG, et al,  
*Business & Health*,  
May 1999



# HPQ Health-at-Work Reporting System:™ ABC Company Survey Results

[Overview](#)

[Explore Work Loss Data](#)

[Explore Critical Incidents Data](#)

| Medical condition               | Average per ill Worker/Yr |                       |                        |                      |                           | Total for all 5,320 Workers/Yr |                      |                           |
|---------------------------------|---------------------------|-----------------------|------------------------|----------------------|---------------------------|--------------------------------|----------------------|---------------------------|
|                                 | <u>Prevalence</u>         | <u>% in Treatment</u> | <u>Total Days Lost</u> | <u>Total \$ Lost</u> | <u>Critical Incidents</u> | <u>Total Days Lost</u>         | <u>Total \$ Lost</u> | <u>Critical Incidents</u> |
| <b>Migraine Headaches</b>       | 8.8%                      | 3.0%                  | 105.6                  | \$11,272             | 10.3                      | 3508.6                         | \$472,622            | 292.4                     |
| <b>Chronic Heartburn/GERD</b>   | 7.5%                      | 3.0%                  | 81.8                   | \$12,554             | 10.1                      | 3614.5                         | \$459,415            | 219.2                     |
| <b>Depression</b>               | 6.5%                      | 6.0%                  | 124.7                  | \$11,376             | 9.0                       | 3699.5                         | \$448,675            | 298.7                     |
| <b>Congestive Heart Failure</b> | 6.5%                      | 5.5%                  | 104.0                  | \$11,755             | 7.7                       | 3515.5                         | \$437,840            | 204.6                     |
| <b>Coronary Heart Disease</b>   | 7.2%                      | 3.6%                  | 106.0                  | \$9,161              | 15.0                      | 3622.7                         | \$411,645            | 308.9                     |
| <b>Diabetes</b>                 | 5.4%                      | 3.4%                  | 99.2                   | \$10,613             | 8.4                       | 3166.4                         | \$409,830            | 118.9                     |

# Employee Health Risk Assessment

## Per 1,000 Employees

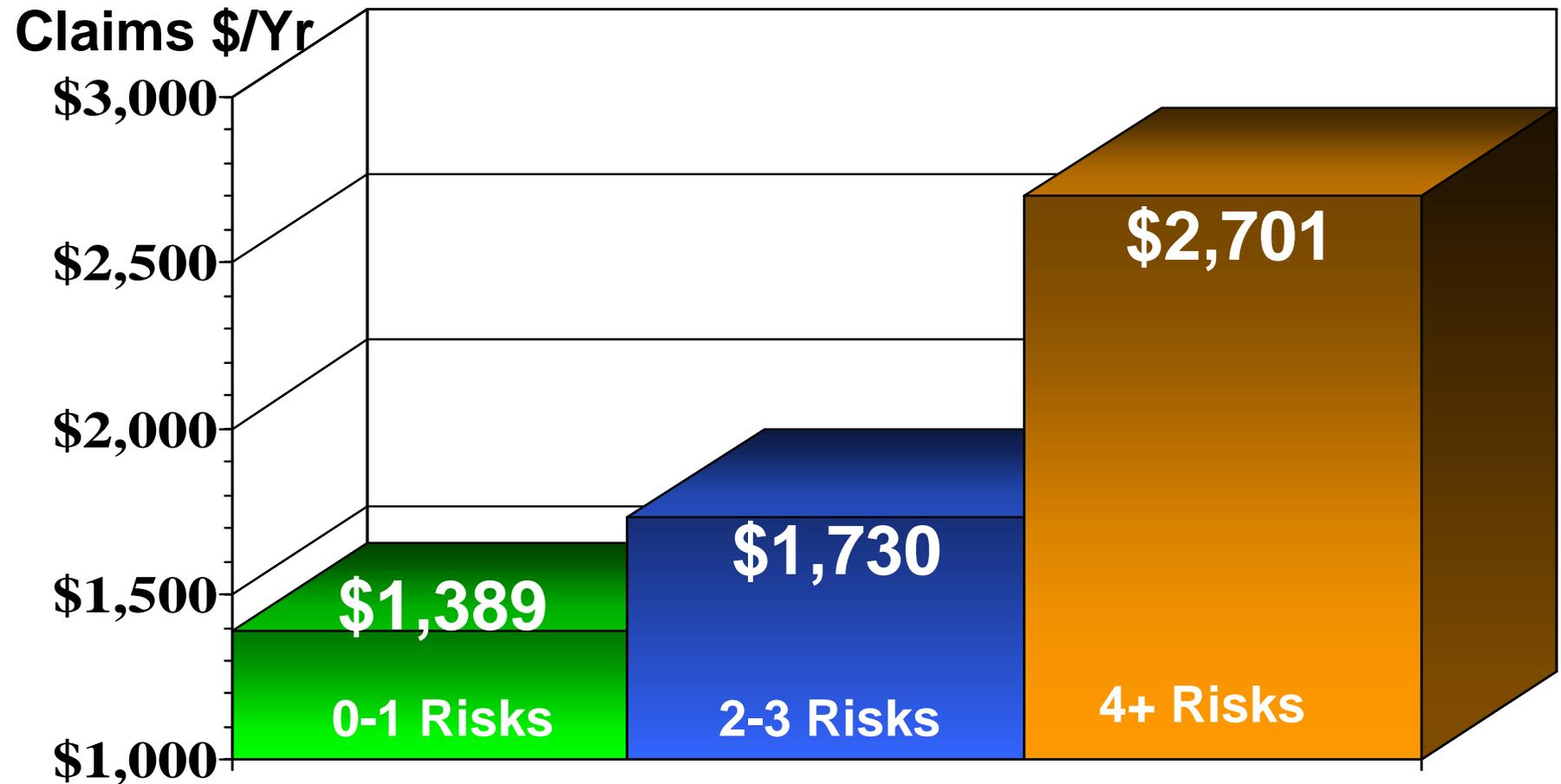
### Employees In Danger Zone of Health Risk Factors

| <u>Health Risk Factors</u> | <u>%</u> | <u>People</u> |
|----------------------------|----------|---------------|
| Nutrition                  | 68.3%    | 683           |
| Vehicle Safety             | 37.0%    | 370           |
| Body Fat                   | 35.8%    | 358           |
| Stress                     | 33.8%    | 122           |
| Physical Fitness           | 22.0%    | 220           |
| Cholesterol                | 21.7%    | 217           |
| Blood Pressure             | 20.6%    | 206           |
| Alcohol                    | 12.8%    | 128           |
| Personal Safety            | 11.7%    | 117           |
| Tobacco                    | 10.3%    | 103           |

### Employees At Risk For Future Health Conditions

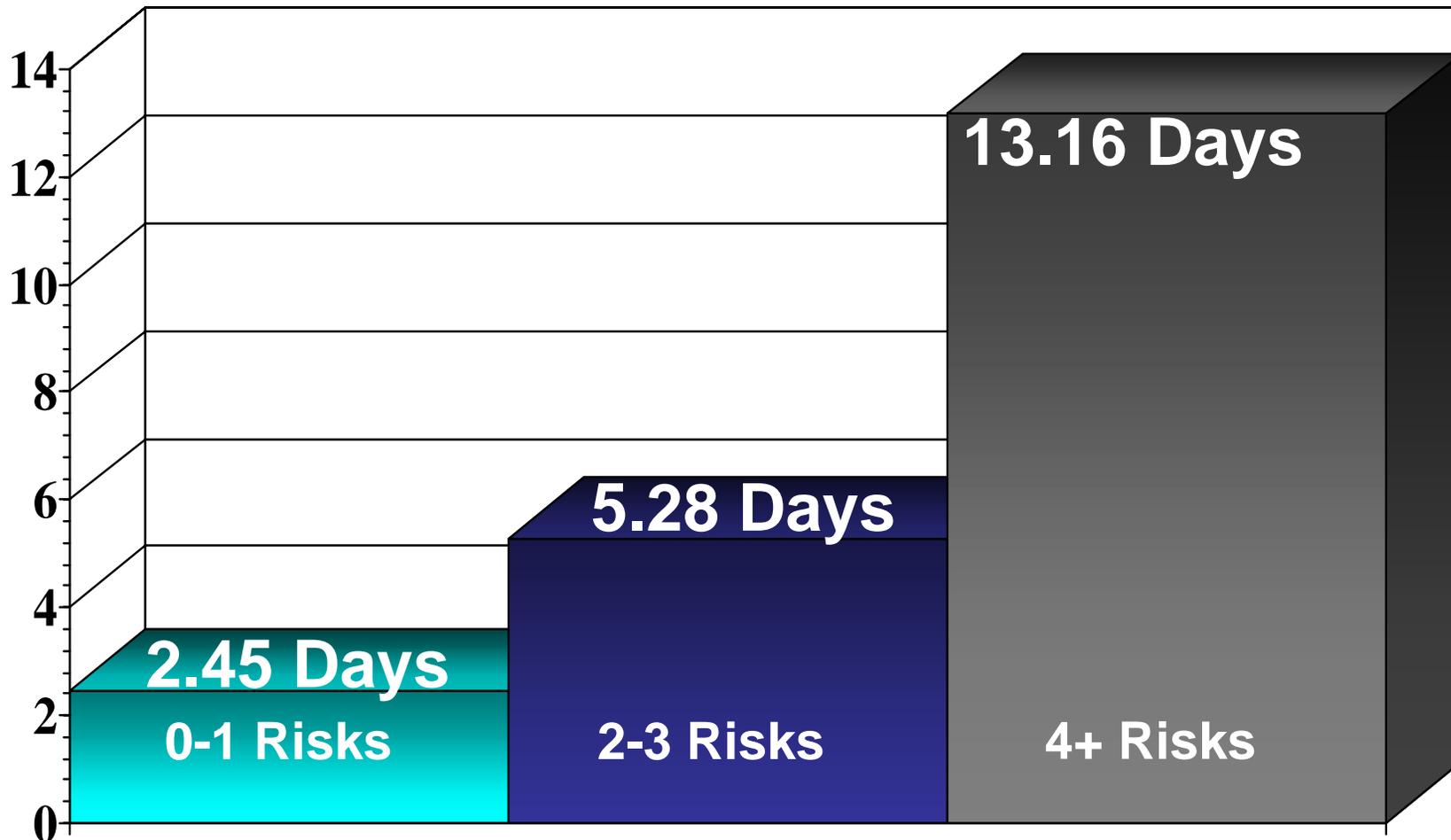
| <u>Health Conditions</u> | <u>%</u> | <u>People</u> |
|--------------------------|----------|---------------|
| Diabetes                 | 27.8%    | 278           |
| MVA's                    | 26.7%    | 267           |
| Breast Cancer (%)        | 15.3%    | 153           |
| Cirrhosis (EtoH)         | 11.1%    | 111           |
| Peptic Ulcer             | 8.5%     | 85            |
| Cardiovascular Disease   | 7.5%     | 75            |
| Stress Related Illness   | 6.9%     | 69            |
| Lung Cancer              | 6.5%     | 65            |
| Kidney Failure           | 1.4%     | 14            |

# Health Risks and Medical Claims

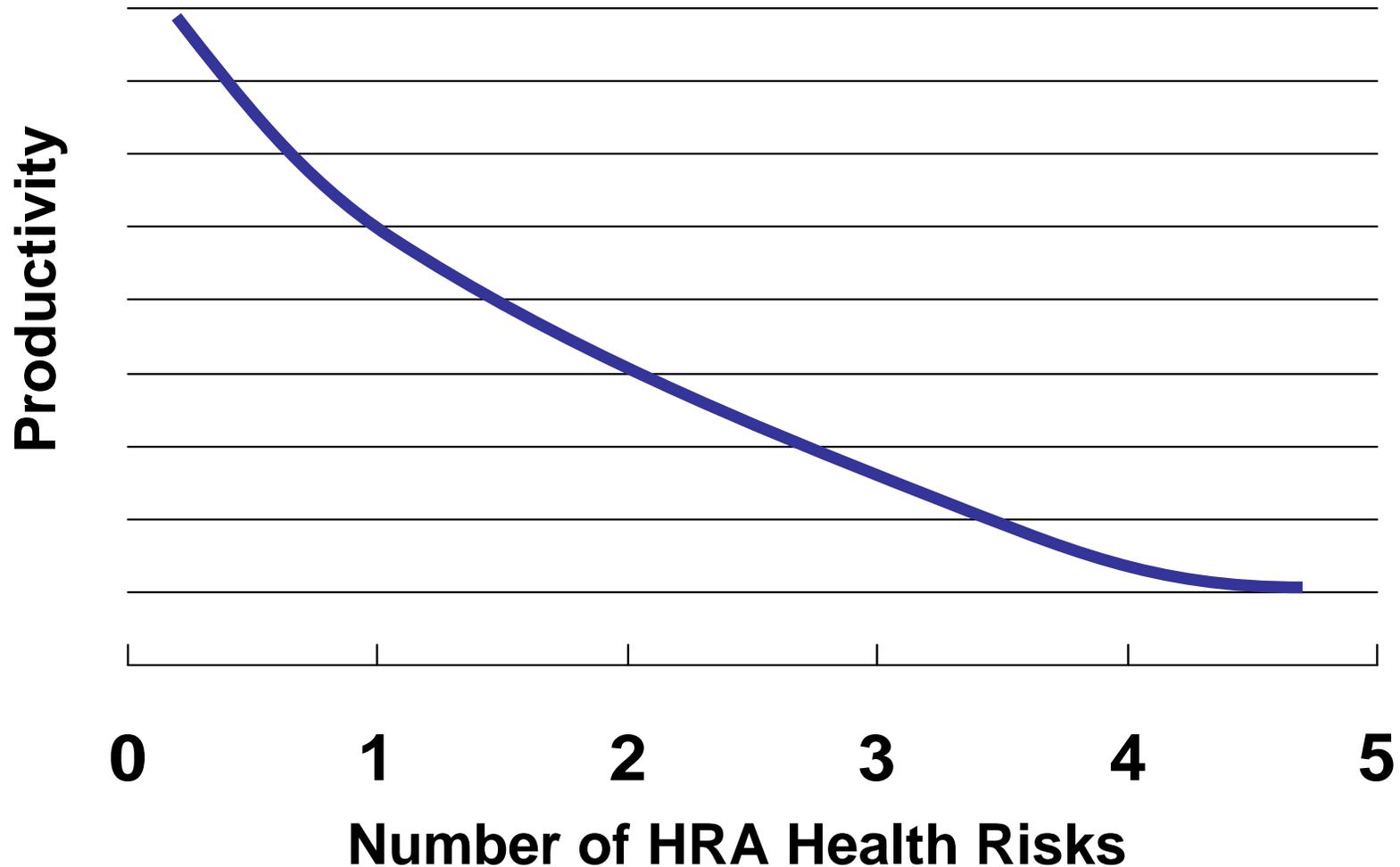


# Health Risk and Disability

## STD Days/Yr



# Health Risks & Productivity



# Drivers for Higher Health Care Costs

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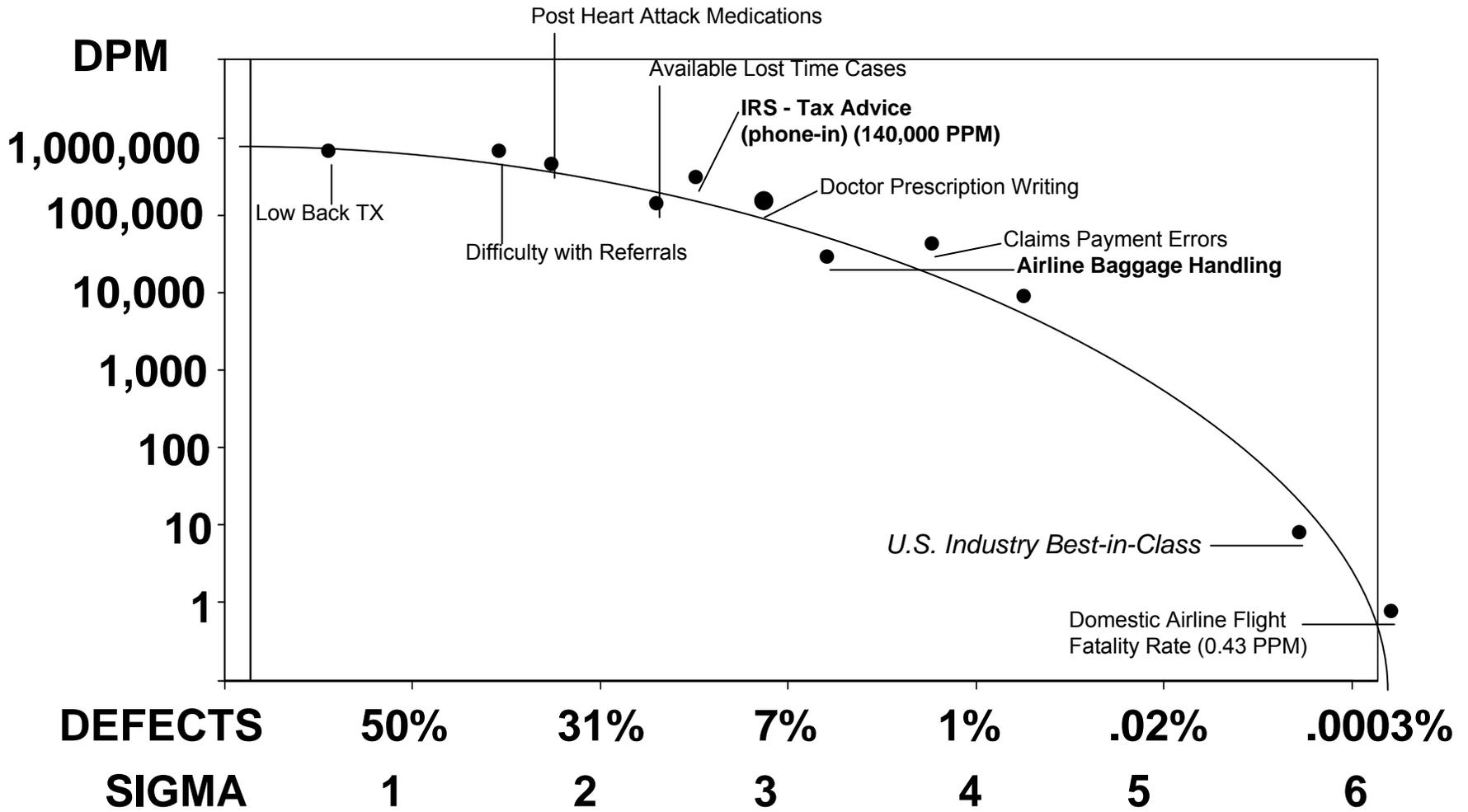
Quality Drives Costs.

**Poor Quality** Drives....

**HIGHER COSTS**

“More than 1/3 of employer healthcare dollars are spent on medical mistakes, preventable drug interactions, misprescribed medication, unnecessary surgeries, and other poor quality care.”

# Health Care Industry Benchmarks

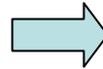
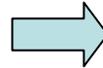
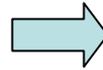


**“Health Care’s Performance Is Embarrassing At Best”**

# The Practical Meaning

## 99% Good (3.8 Sigma)

- 20,000 lost articles of mail per hour
- Unsafe drinking water for almost 15 minutes each day
- 5,000 incorrect surgical operations per week
- Two short or long landings at most major airports each day
- 200,000 wrong drug prescriptions each year
- No electricity for almost seven hours each month

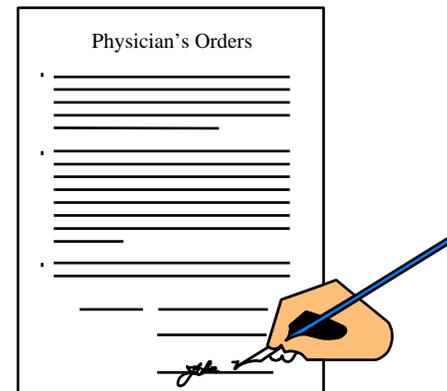


## 99.99966% Good (6 Sigma)

- Seven articles lost per hour
- One unsafe minute every seven months
- 1.7 incorrect operations per week
- One short or long landing every five years
- 68 wrong prescriptions per year
- One hour without electricity every 34 years

**The most effective  
piece of medical technology:**

**The Physician's Pen:**



# Health Care Quality

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**“Quality is King  
and  
Information is the Key  
to the Kingdom”**

**Becky Cherney  
President & CEO  
Central Florida  
HealthCare Business Coalition**

# Quality Audit for Care Management

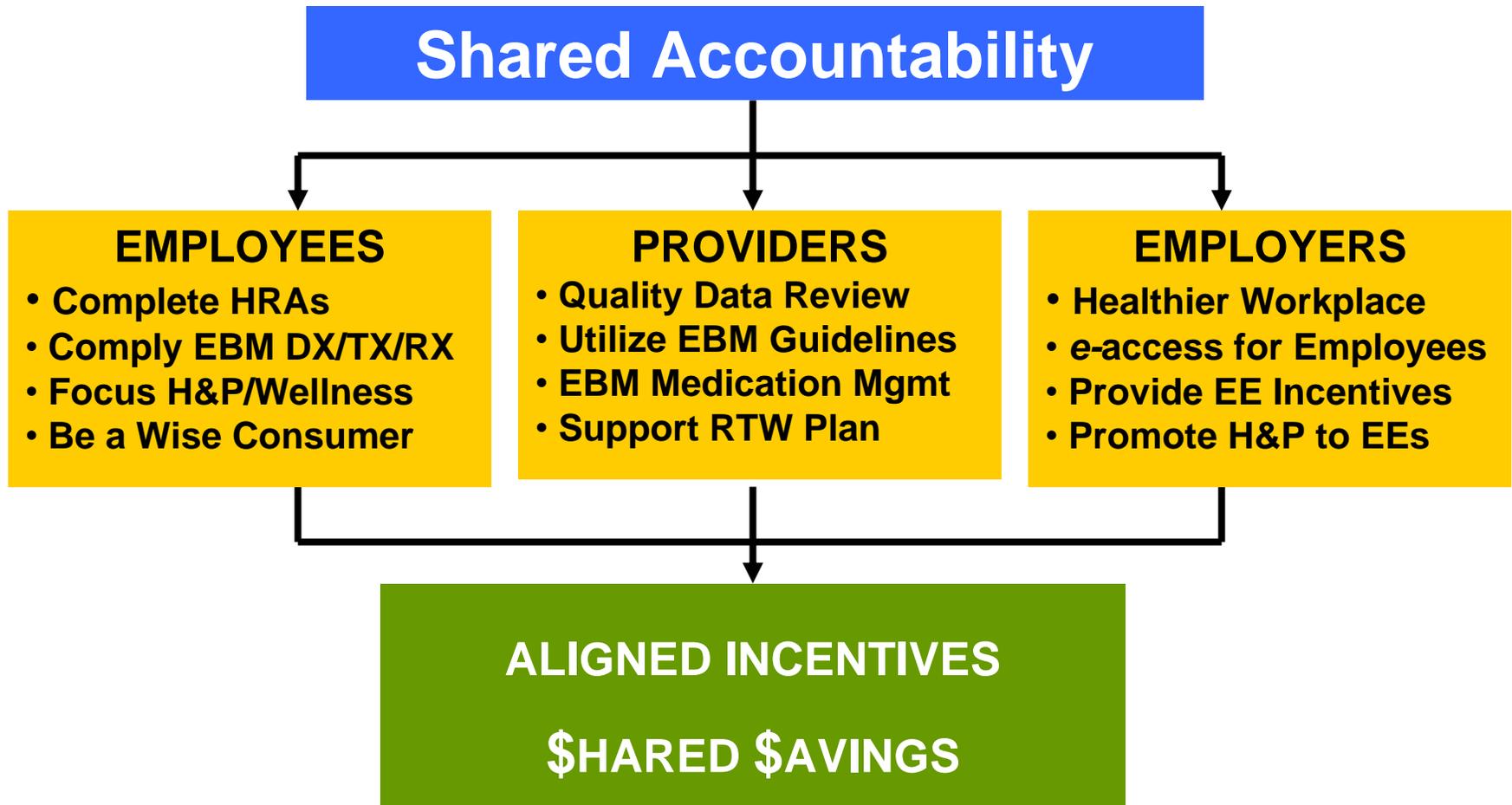
| Quality Issues #<br>▲ | Issue                                   | Criteria   | # of Members with the Issue | % of Members Meeting Criteria |                  |              |
|-----------------------|---|--|-----------------------------|-------------------------------|------------------|--------------|
| 001001                | DIABETES                                | % of members with diabetes with HgbA1c performed annually  | 4,239                       | 42.94%                        | Criteria Not Met | Criteria Met |
| 001002                | DIABETES                                | % of members with diabetes with an eye exam performed annually by an ophthalmologist                                     | 4,239                       | 45.44%                        | Criteria Not Met | Criteria Met |
| 001003                | DIABETES                                | % of members with diabetes with lipid profile performed annually   | 4,239                       | 42.42%                        | Criteria Not Met | Criteria Met |
| 001004                | DIABETES on Medication                  | % of members, with treated diabetes, that have had a HgbA1c within the past year   | 3,007                       | 36.71%                        | Criteria Not Met | Criteria Met |
| 001005                | DIABETES on Medication                  | % of Members, with treated diabetes that have had a lipid profile within the past year                                   | 3,007                       | 32.23%                        | Criteria Not Met | Criteria Met |
| 002001                | Atrial Fibrillation                     | % of members with atrial fibrillation treated with anticoagulating agent (coumadin/warfarin)                             | 1,735                       | 49.74%                        | Criteria Not Met | Criteria Met |
| 002002                | Atrial Fibrillation                     | % of members with atrial fibrillation with monthly measurement of clotting parameters (prothrombin time)                 | 1,735                       | 48.70%                        | Criteria Not Met | Criteria Met |
| 003001                | Women > 40 y/o                          | % of women with a Pap Smear performed at least as frequently as every two years  | 18,983                      | 33.25%                        | Criteria Not Met | Criteria Met |
| 003002                | Women > 40 y/o                          | % of women with a mammogram performed at least as frequently as every two years  | 18,983                      | 54.98%                        | Criteria Not Met | Criteria Met |
| 003003                | Women > 40 y/o with Ultrasound          | % of women with a follow-up office visit within 30 days of breast ultrasound evaluation                                  | 1,055                       | 57.73%                        | Criteria Not Met | Criteria Met |
| 003004                | Women >50 Years and <75 Years           | % of women who have had a mammogram performed at least annually  | 8,341                       | 63.93%                        | Criteria Not Met | Criteria Met |
| 004001                | CHF                                     | % of members with CHF treated with an ACE inhibitor  | 3,165                       | 42.05%                        | Criteria Not Met | Criteria Met |
| 004002                | CHF                                     | % of members with CHF treated with both and ACE inhibitor and beta blocker   | 3,165                       | 63.07%                        | Criteria Not Met | Criteria Met |
| 007001                | Patients w/ Carpal Tunnel Syndrome      | Patients with carpal tunnel syndrome who have received oral steroids during the period of data collection                | 1,800                       | 15.67%                        | Criteria Not Met | Criteria Met |
| 007002                | Patients w/ Carpal Tunnel Syndrome      | Patients with carpal tunnel syndrome given tricyclic medication during the period of data collection for pain management | 1,800                       | 12.83%                        | Criteria Not Met | Criteria Met |
| 010001                | Patients w/ Myocardial Infarction       | % of members with history of myocardial infarction on beta-blockers  | 656                         | 60.82%                        | Criteria Not Met | Criteria Met |
| 010002                | Patients w/ Myocardial Infarction       | % of members with history of myocardial infarction that have been treated with a statin                                  | 656                         | 53.66%                        | Criteria Not Met | Criteria Met |
| 012001                | Members with at least one Rx Claim      | Patients with pharmacy cost > 50% of medical cost  | 45,455                      | 51.88%                        | Criteria Not Met | Criteria Met |
| 013002                | Members with ER visits                  | Members observed to have made ER visits on Saturday and Sunday   | 13,618                      | 45.14%                        | Criteria Not Met | Criteria Met |
| 014001                | Patients on Proton Pump Inhibitors      | Percent of patients on proton pump inhibitors with a recorded diagnosis of Barrett's esophagus or related esophagitis    | 4,430                       | 27.25%                        | Criteria Not Met | Criteria Met |
| 015001                | Rheumatoid Arthritis Patients on TNT Rx | Evidence of previous treatment with first and/or second line medication (e.g. methotrexate)                              | 5,500                       | 0.75%                         | Criteria Not Met | Criteria Met |
| 016001                | Patients on Anti-Hyperlipidemic Agents  | Evidence of liver function tests performed at least once annually  | 9,161                       | 0.0%                          | Criteria Not Met | Criteria Met |

# Getting Back to the Basics

The 3*R*'s in Healthcare:

*Responsibilities, Risks and Rewards*

# Aligning Incentives: Shared Accountability and Shared Rewards



**Good Medicine  
is  
Good Business**



**From the Exam Room  
to  
the Board Room**