CENTER for STUDYING HEALTH SYSTEM CHANGE

Providing Insights that Contribute to Better Health Policy

Chronic Conditions: What are the Policy Options? Private-Sector Role

Rising Rates of Chronic Health Conditions: What Can Be Done?
Center for Studying Health System Change (HSC)
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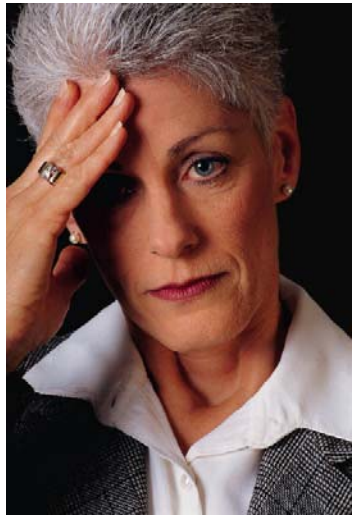
U.S. Business Concerns About Healthcare

- The United States spent $2.25 trillion in healthcare in 2007.
- Private sector share is 53.7%
- National health expenditure growth trends are expected to average about 6.6% per year through 2015.
- Health expenditures as percent of GDP:
  - 15.3 percent in 2003
  - 16.0 percent in 2006
  - 19.7 percent in 2017 (est)
  - 25.0 percent by 2030 (est)



Source: Poisal et al., *Health Affairs*, 21 February 2007

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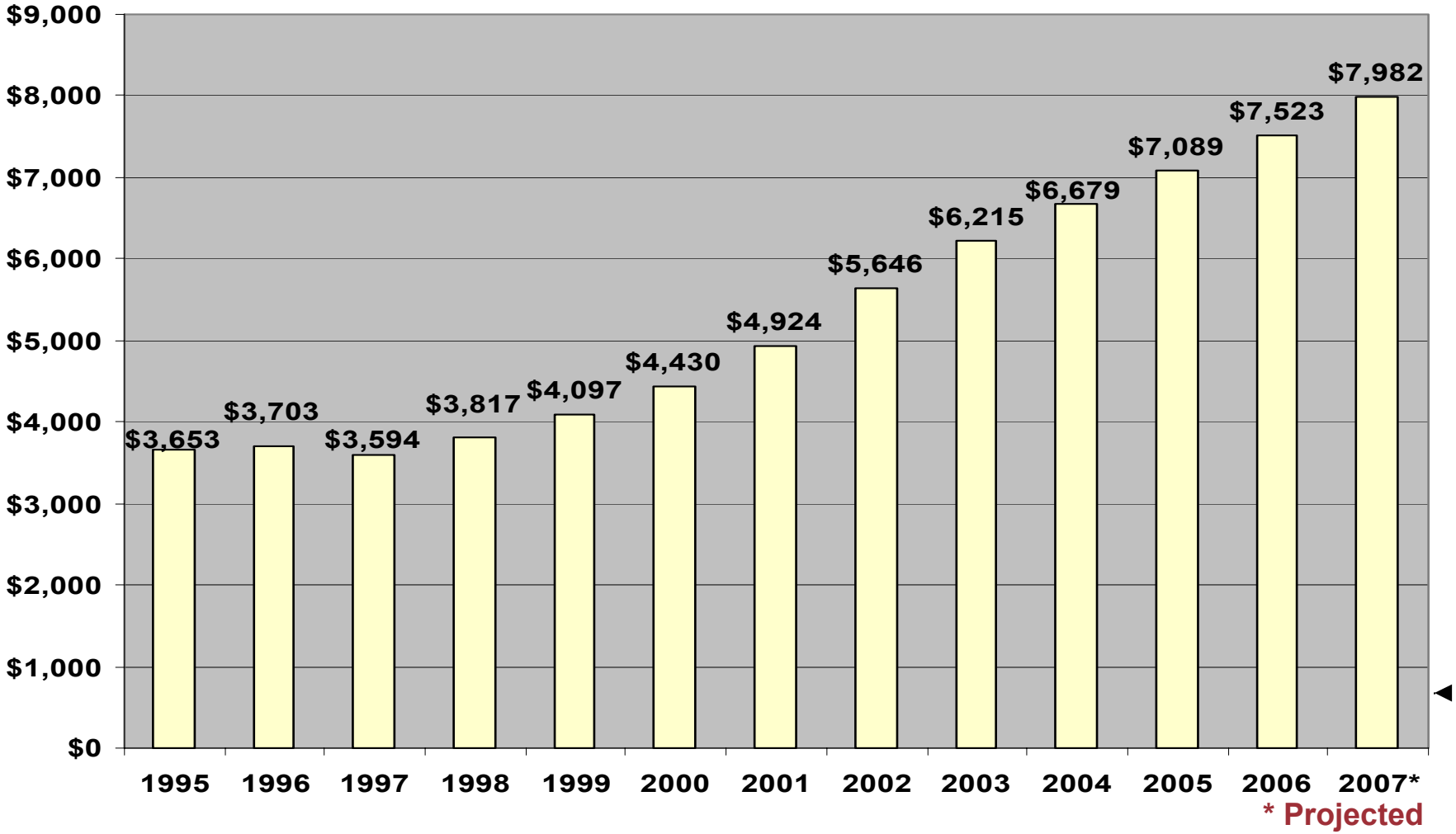
Annual Per Employee Costs for Active Employees

Includes all medical, dental, and other health benefits for all covered employees and dependents. Includes employer and employee contributions.



Mercer HR Press Release, 2/9/07, "2006 National Survey of Employer-Sponsored Health Plans, Survey Highlights" Mercer HR Press Release, 11/21/05; Active and retirees for 1988 – 1998; Trends for 1998 – 2006 for actives only; costs include employer and employee contributions

Why is health care so expensive?

- **Rise in spending for treated diseases (37%)**
  - *Innovation/advancing technology*
    - Pharmacologic, devices, treatments
      - Newborn delivery costs – five-fold increase from 1987-2002 (NICU, incubators, ventilators, C-sections)
    - New/better medicines for treating disease
      - Depression –
        - SSRI introduction -- 45% treated in 1987 to 80% treated in 1997
      - Allergies (Claritan, Allegra,…)
    - New treatment thresholds
      - Blood pressure
      - High blood glucose
      - Hyperlipidemia
  - *Waste* – the more doctors do the more money they make
- *Solution: Make the system more efficient and effective*

Ken Thorpe

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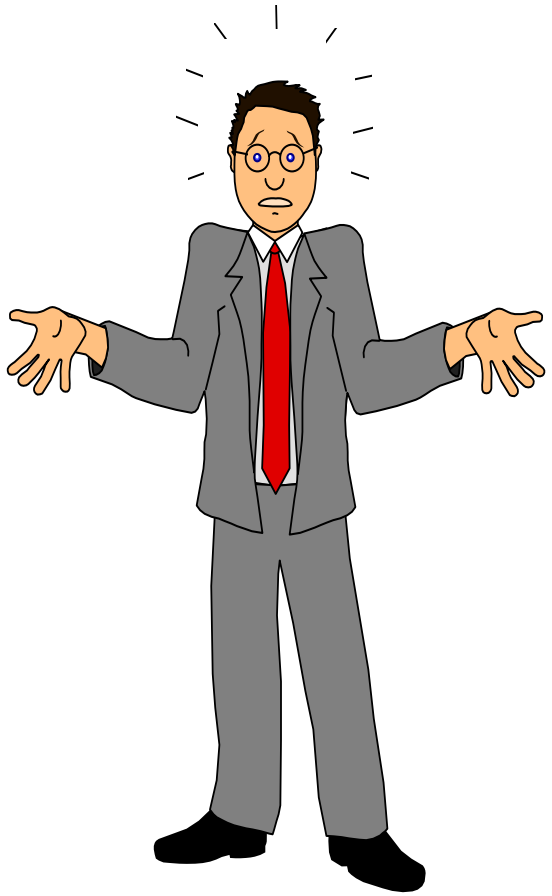
Why is health care so expensive? (Thorpe - Part 2)

- Rise in the prevalence of disease (63%)
  - About ¾ of all health care spending is focused on patients who have one or more chronic health conditions
  - Chronically ill patients only receive 56% of clinically recommended preventive health services
- And 27% of the rise in healthcare costs is associated with increases in obesity rates

What To Do?

- Manage disease
- Manage disability and absence
- Manage health and demand
- Manage stress
- Strengthen employee assistance programs
- Re-engineer
- Reorganize
- Create incentives
- Cut pharmacy benefits



What To Do – National Business Group On Health
Ten Steps to Easing Health Care Costs -- 2008

1. Establish comprehensive strategy to control costs, improve quality and safety
2. Actively promote health improvement programs and resources
3. Use co-insurance and point-of-care cost sharing
4. Provide employees tools & information to become better consumers
5. Explore the benefits of consumer directed health plans
6. Aggressively manage prescription drug use
7. Manage utilization in evidence-based, doctor and patient friendly ways
8. Insist on transparency – buy on performance
9. Audit eligibility
10. Vigorously manage retiree costs

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It seems so logical…

…if you improve the health and well being of your employees…

…quality of life improves

…health care utilization is reduced

…disability is controlled

…productivity is enhanced

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The Evidence

- A large proportion of diseases and disorders is preventable. Modifiable health risk factors are precursors to a large number of diseases and disorders and to premature death (Healthy People 2000, 2010, Amler & Dull, 1987, Breslow, 1993, McGinnis & Foege, 1993, Mokdad et al., 2004).

- Many modifiable health risks are associated with increased health care costs within a relatively short time window (Milliman & Robinson, 1987, Yen et al., 1992, Goetzel, et al., 1998, Anderson et al., 2000, Bertera, 1991, Pronk, 1999).

- Modifiable health risks can be improved through workplace sponsored health promotion and disease prevention programs (Wilson et al., 1996, Heaney & Goetzel, 1997, Pelletier, 1999, CDC Community Guide Task Force Report, 2007).

- Improvements in the health risk profile of a population can lead to reductions in health costs (Edington et al., 2001, Goetzel et al., 1999).

- Worksite health promotion and disease prevention programs save companies money in health care expenditures and produce a positive ROI (Johnson & Johnson 2002, Citibank 1999-2000, Procter and Gamble 1998, Chevron 1998, California Public Retirement System 1994, Bank of America 1993, Dupont 1990, Highmark 2008).

Diseases Caused (at Least Partially) by Lifestyle

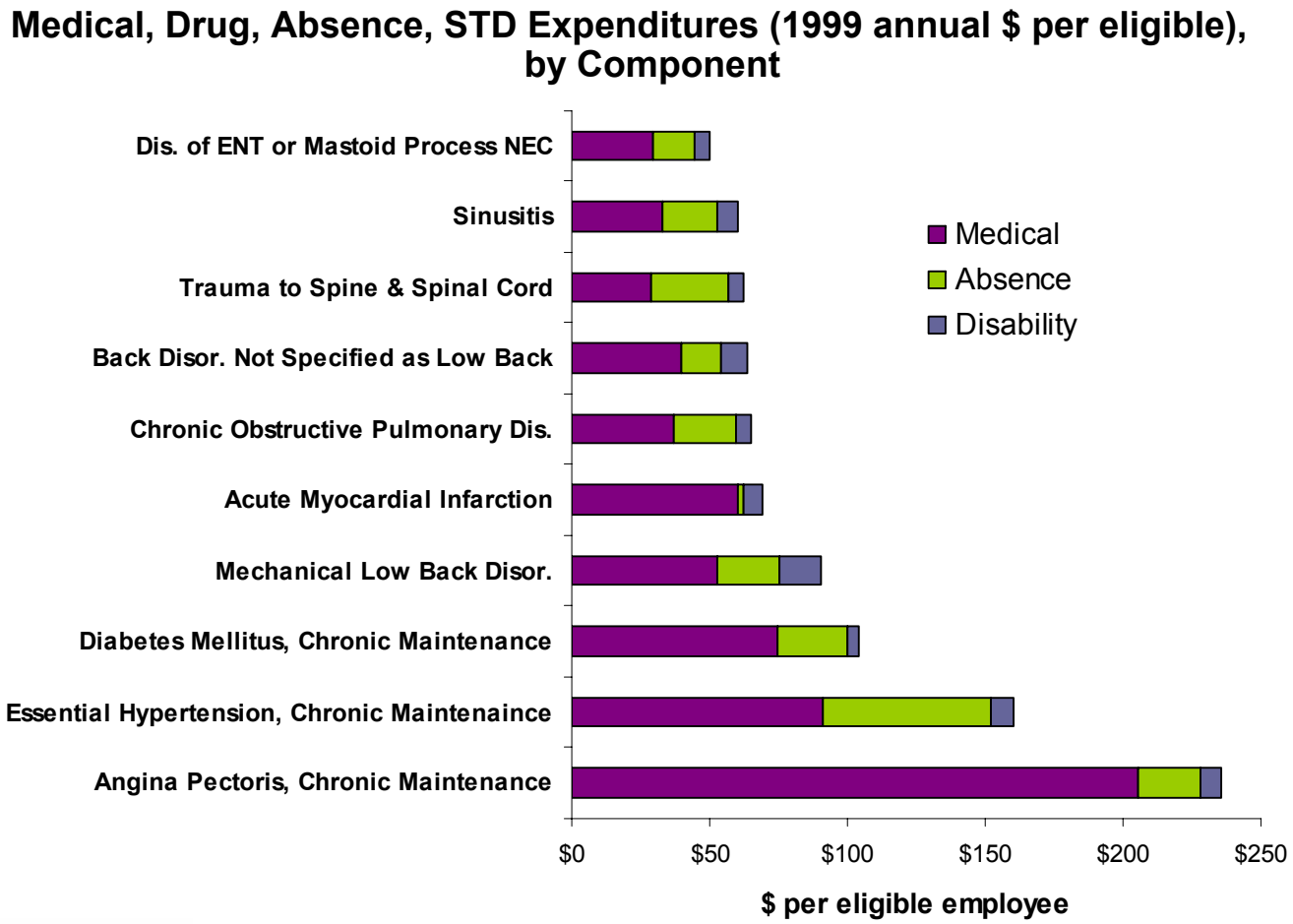
- **Tobacco Use:** Cerebrovascular Disease, Coronary Artery Disease, Osteoporosis, Peripheral Vascular Disease, Asthma, Acute Bronchitis, COPD, Pneumonia, Cancers (Bladder, Kidney, Urinary, Larynx, Lip, Oral Cavity, Pharynx, Pancreas, Trachea, Bronchus, Lung)
- **Lack of Exercise:** Coronary Artery Disease, Diabetes, Hypertension, Obesity, Osteoporosis
- **Poor Nutrition:** Cerebrovascular Disease, Coronary Artery Disease, Diabetes, Diverticular Disease, Hypertension, Oral Disease, Osteoporosis, Cancers (Breast, Colorectal, Prostate)
- **Obesity:** Cholesystitis/Cholelithiasis, Coronary Artery Disease, Diabetes, Hypertension, Lipid Metabolism Disorders, Osteoarthritis, Sleep Apnea, Venous Embolism/Thrombosis, Cancers (Breast, Cervix, Colorectal, Gallbladder, Biliary Tract, Ovary, Prostate)
- **Alcohol Use:** Liver Damage, Alcohol Psychosis, Pancreatitis, Hypertension, Cerebrovascular Disease, Cancers (Breast, Esophagus, Larynx, Liver)
- **Stress, Anxiety, Depression:** Coronary Artery Disease, Hypertension
- **Uncontrolled Hypertension:** Coronary Artery Disease, Cerebrovascular Disease, Peripheral Vascular Disease
- **Uncontrolled Lipids:** Coronary Artery Disease, Lipid Metabolism Disorders, Pancreatitis, Peripheral Vascular Disease

Poor Health Costs Money

Drill down…

- Medical
- Absence/work loss
- Presenteeism
- Risk factors

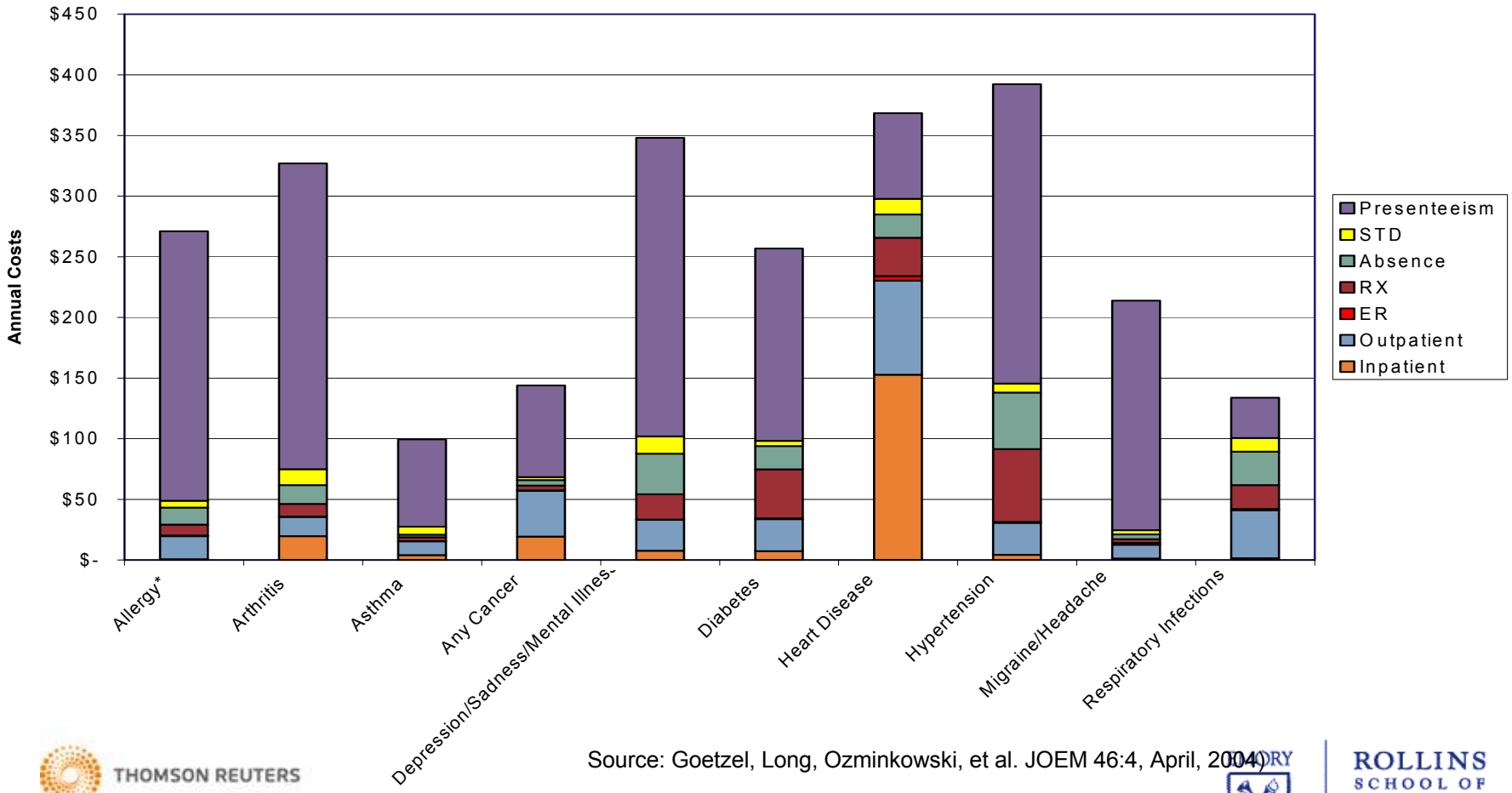
Top 10 Physical Health Conditions



Source: Goetzel, Hawkins, Ozminkowski, Wang, *JOEM* 45:1, 5–14, January 2003.

The Big Picture: Overall Burden of Illness by Condition

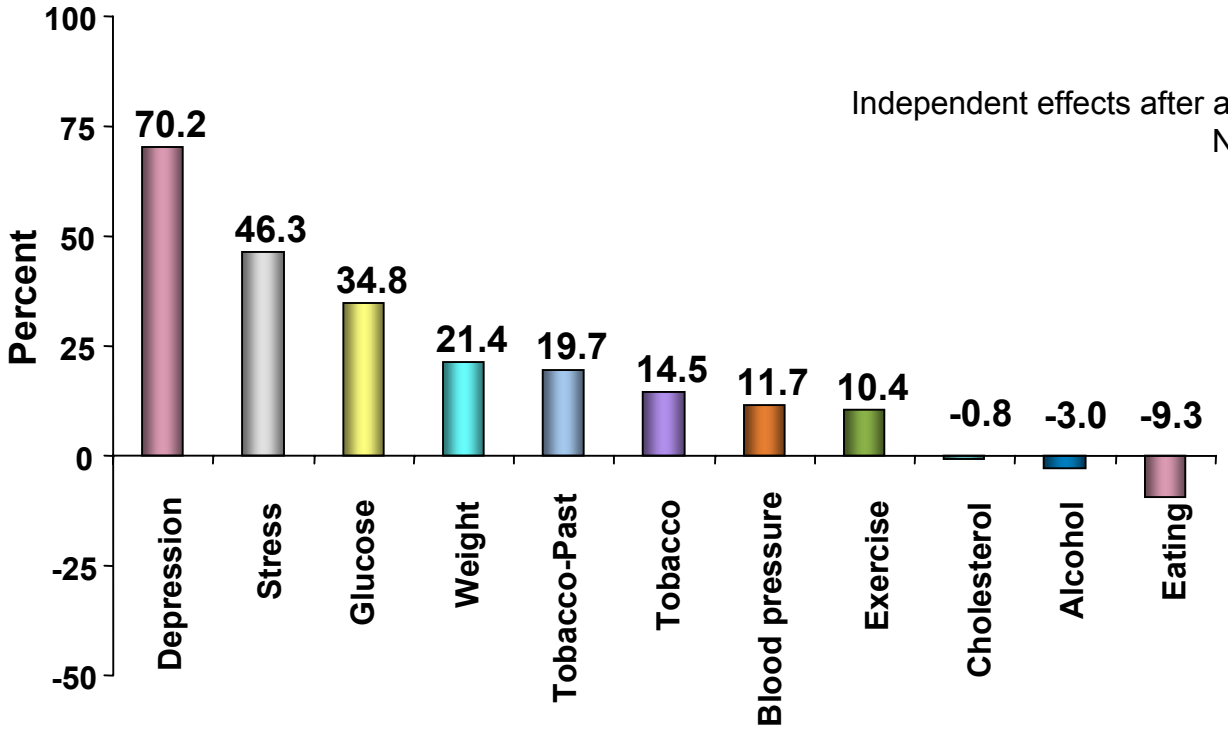
Using Average Impairment and Prevalence Rates for Presenteeism ($23.15/hour wage estimate)



Source: Goetzel, Long, Ozminkowski, et al. JOEM 46:4, April, 2004)

Incremental Impact of Ten Modifiable Risk Factors on Medical Expenditures

Percent Difference in Medical Expenditures: High-Risk versus Lower-Risk Employees



Goetzel RZ, Anderson DR, Whitmer RW, Ozminkowski RJ, et al., *Journal of Occupational and Environmental Medicine* 40 (10) (1998): 843–854.

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Case Studies

Citibank, N.A.

Health Management Program Evaluation

- **Title:** Citibank Health Management Program (HMP)
- **Industry:** Banking/Finance
- **Target Population:** 47,838 active employees eligible for medical benefits
- **Description:**
  - A comprehensive multi-component health management program
  - Aims to help employees improve health behaviors, better manage chronic conditions, and reduce demand for unnecessary and inappropriate health services,
  - And, in turn, reduce prevalence of preventable diseases, show significant cost savings, and achieve a positive ROI.
- **Citations:**

  - Ozminkowski, R.J., Goetzel, R.Z., Smith, M.W., Cantor, R.I., Shaunghnessy, A., & Harrison, M. (2000). The Impact of the Citibank, N.A., Health Management Program on Changes in Employee Health Risks Over Time. JOEM, 42(5), 502-511.
  - Ozminkowski, R.J., Dunn, R.L., Goetzel, R.Z., Cantor, R.I., Murnane, J., & Harrison, M. (1999). A Return on Investment Evaluation of the Citibank, N.A., Health Management Program. AJHP, 44(1), 31-43.

Citibank Health Management Program ROI

- Program costs = $1.9 million*
- Program benefits = $8.9 million*
- Program savings = $7.0 million*

ROI = $4.7 in benefits for every $1 in costs

Notes:

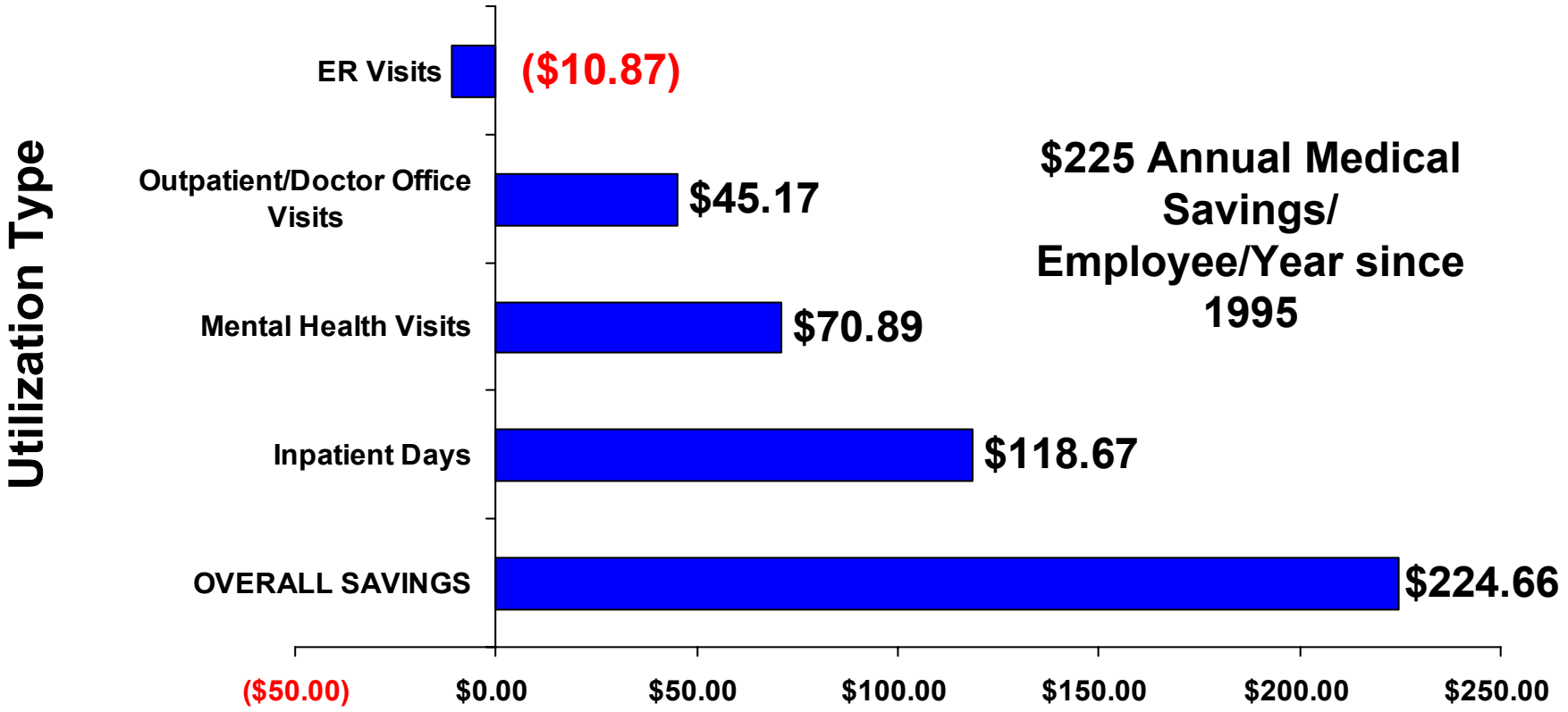
- 1996 dollars @ 0 percent discount
- Slightly lower ROI estimates after discounting by either 3% or 5% per year.
- Results very similar to RCT conducted of same Healthtrac program, by Fries, et al.

Johnson & Johnson

Health and Wellness Program Evaluation

- **Title:** J & J Health and Wellness Program (H & W)
- **Industry:** Healthcare
- **Target Population:** 43,000 U.S. based employees
- **Description:**
  - Comprehensive, multi-component worksite health promotion program
  - Evolved from LIVE FOR LIFE in 1979
- **Citations:**
  - Goetzel, R.Z., Ozminkowski, R.J., Bruno, J.A., Rutter, K.R., Isaac, F., & Wang, S. (2002). The Long-term Impact of Johnson & Johnson's Health & Wellness Program on Employee Health Risks. JOEM, 44(5), 417-424.
  - Ozminkowski, R.J., Ling, D., Goetzel, R.Z., Bruno, J.A., Rutter, K.R., Isaac, F., & Wang, S. (2002). Long-term Impact of Johnson & Johnson's Health & Wellness Program on Health Care Utilization and Expenditures. JOEM, 44(1), 21-29.

Johnson & Johnson (N=18,331 – Ozminkowski et al, 2002)
Health & Wellness Program Impact on Medical Costs



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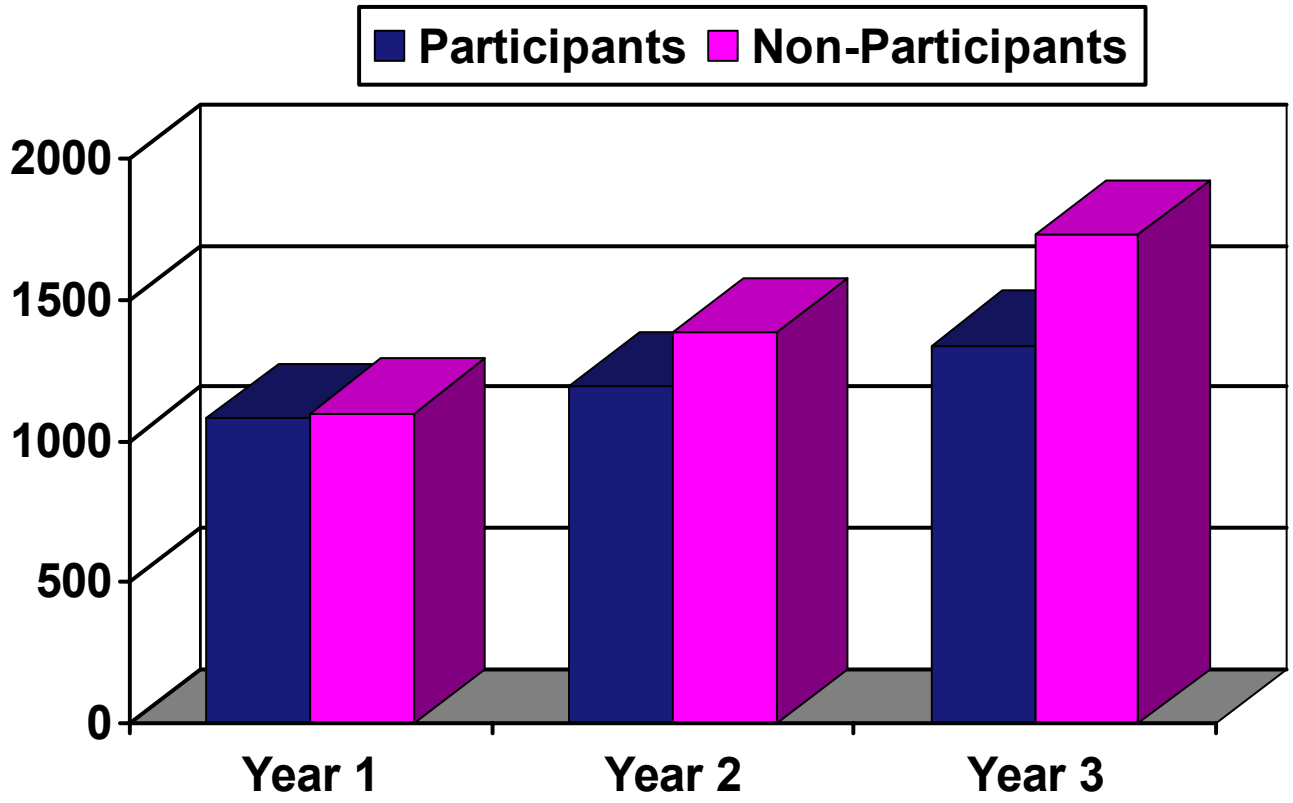
Procter & Gamble:
Total Annual Medical Costs For Participants and Non-Participants In Health Check (1990 - 1992) (N=8,334)



Adjusted for age and gender; Significant at $p < .05$

***In year 3 participant costs were 29% lower producing an ROI of 1.49 to 1.00**

Ref: Goetzel, R.Z., Jacobson, B.H., Aldana, S.G., Vardell, K., and Yee, L. *Journal of Occupational and Environmental Medicine,* 40:4, April, 1998.

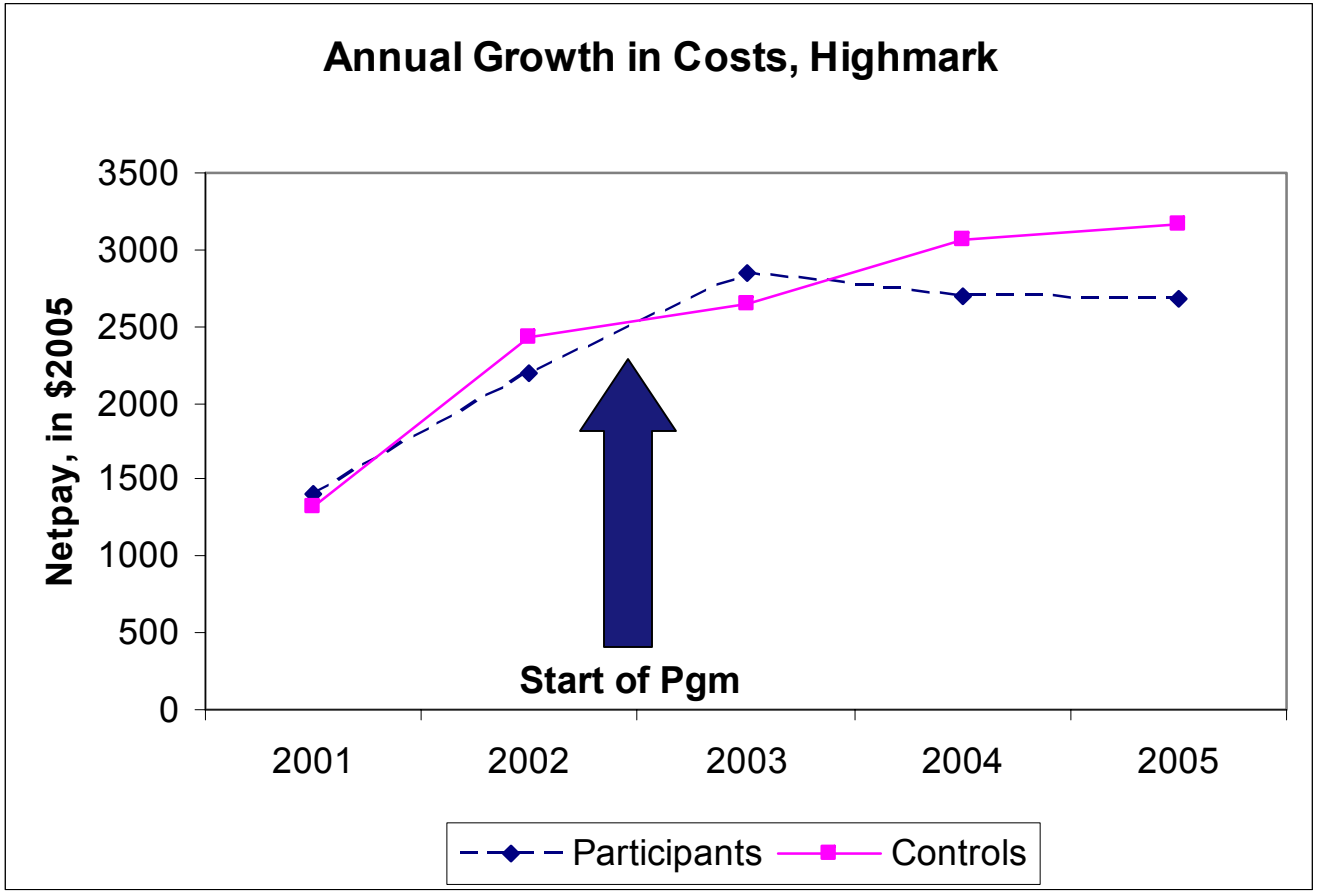
Highmark, Inc:

Estimated annual savings after four years of follow-up -- participants versus non-participants – adjusted for confounders

	Net Payments β Estimate
Participants versus Non-participants	
Intercept	-964.51†
All participants, n=1892	**-176.47***
Male gender	497.09‡
Age, per year	46.05‡
Heart disease at baseline	576.59‡
Diabetes at baseline	1704.01‡
Group 1 comorbidity	1133.20‡
Group 2 comorbidity	397.80‡
4-year savings estimate from participation (β*n)	**$333,881**
Per person estimate	**176.47**

Source: Naydeck, Pearson, Ozminkowski, Day, Goetzel.
The Impact of the Highmark Employee Wellness Programs on Four-Year Healthcare Costs.
JOEM, 50:2, February 2008

Annual growth in net payments – for matched-participants and non-participants over four years – ROI of $1.65 to $1.00 (N=3790)



Policy Implications

- Pass Tom Harkin's Healthy Workforce Act (S.1753)
  - Companies that spend $400 per employee on wellness would earn a tax credit of up to $200 per employee for the first 200 employees and $100 per employee for the rest of the payroll.
- Provide wellness program tax credits for employers and employees (HR 853, Knollenberg; HR 3717/S 1753/S 1754, Udall/Harkin; S 158, Collins).
- Sponsor venues for public recognition of exemplary programs and business leaders supporting these programs (e.g., Koop Awards).
- Identify and disseminate best practices.
- Establish public-private technical assistance and consulting services to support employer efforts.
- Increase funding of "real world" research demonstrations.

Other Policy Options

- Introduce federal legislation promoting workers' health, e.g., smoke-free workplace policies.
- Initiate pilot studies at local/state/federal agencies that test innovative models of health promotion among public employers.
- Make available tools and resources that employers can use to run programs, e.g., evaluation instruments, financial modeling programs.
- Establish ongoing measurement and performance tracking systems specific to workplace health promotion and reporting relevant metrics related to employer efforts, e.g., "healthiest places to work."
- Assure a clear focus on workplaces as part of the strategic planning for health policies and programs.

Summary

- Focusing on improving the health and quality of people's lives will improve the productivity and competitiveness of our workers and citizens.
- A growing body of scientific literature suggests that well-designed, evidence-based Health and Productivity Management Programs can
  - Improve the health of workers;
  - Lower their risk for disease;
  - Save businesses money by reducing health-related losses and limiting absence and disability;
  - Heighten worker morale and work relations;
  - Improve worker productivity; and
  - Improve the financial performance of organizations instituting these programs.

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Thank You!

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