

An Unhealthy America:
The Economic Burden of Chronic Disease
*Charting a New Course to Save Lives
and Increase Productivity and Economic Growth*

Kevin Klowden

Managing Economist
Milken Institute
(310) 570 4626
kklowden@milkeninstitute.org
www.milkeninstitute.org

Presentation for

Pan-American Health Organization

The Economic, Fiscal and Welfare Implications of
Chronic Diseases in the Americas
Washington, D.C.
November 23-24, 2009

Economic Burden of Chronic Disease

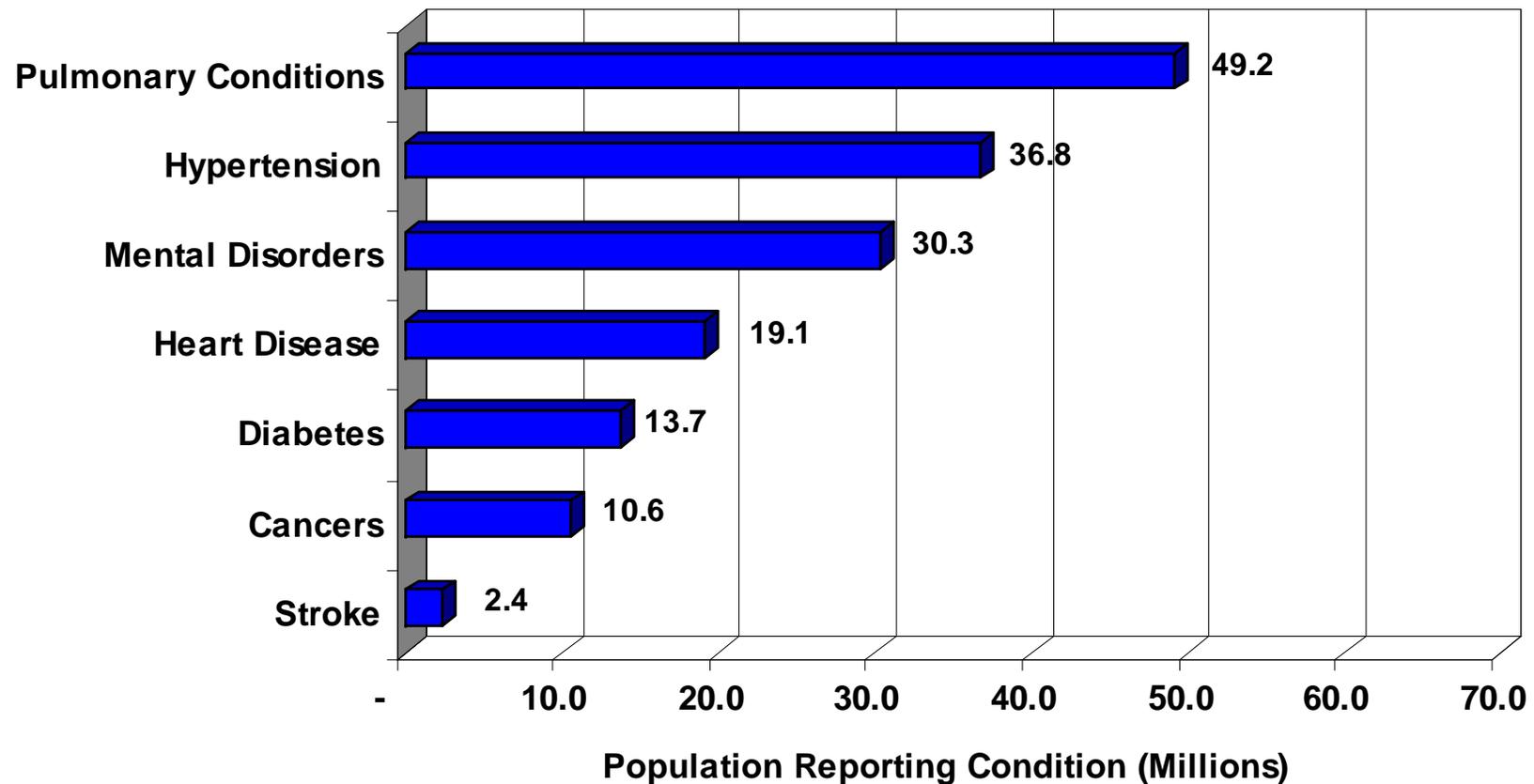


Introduction: Two Paths, Two Choices

- 1. What Does Chronic Disease Currently Cost Us?**
- 2. Where Is the Current Course Taking Us?**
- 3. What Costs Are Avoidable If We Make Improvements in Prevention and Treatment?**
- 4. What Are the Impacts of Chronic Disease at the State Level?**
- 5. What Is the Long-term Impact of Reducing the Disease Burden?**
- 6. What Are the Conclusions and Recommendations of our Findings?**

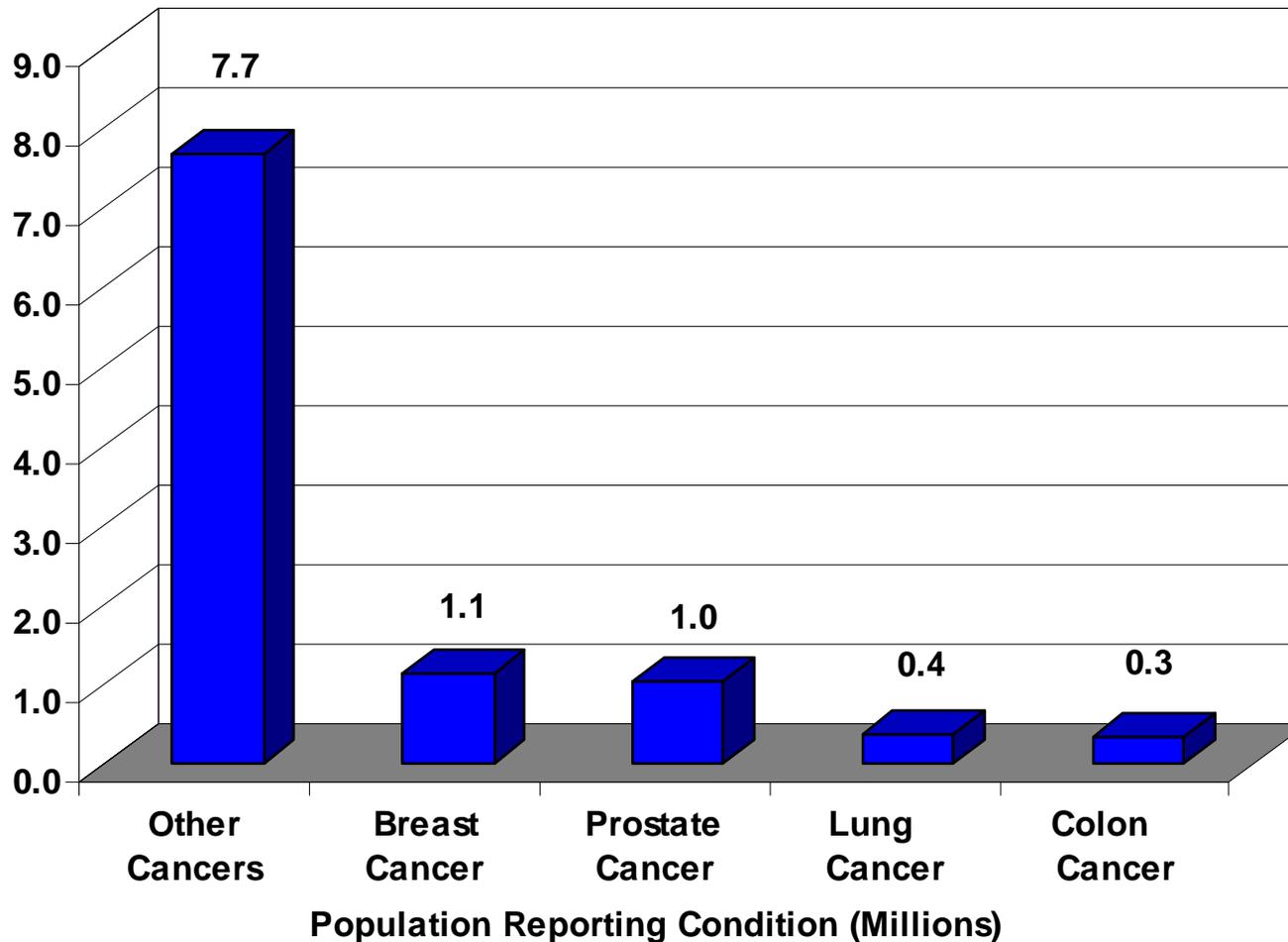
The Human Cost: Number of People Reporting Chronic Disease

Number Reporting Seven Common Chronic Diseases, U.S., 2003



The Human Cost: Number of People Reporting Selected Cancers

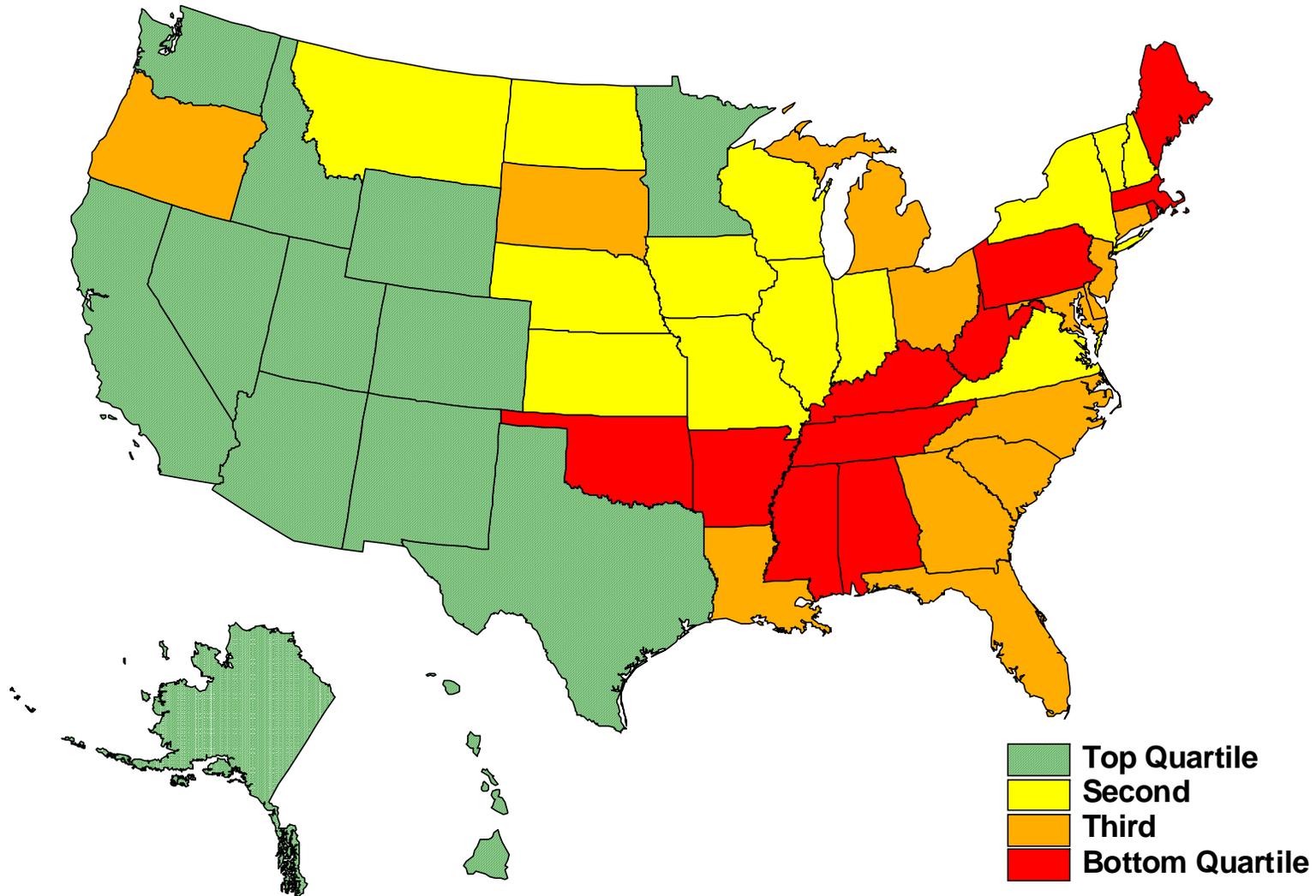
U.S., 2003



The Human Cost Milken Institute State Chronic Disease Index:

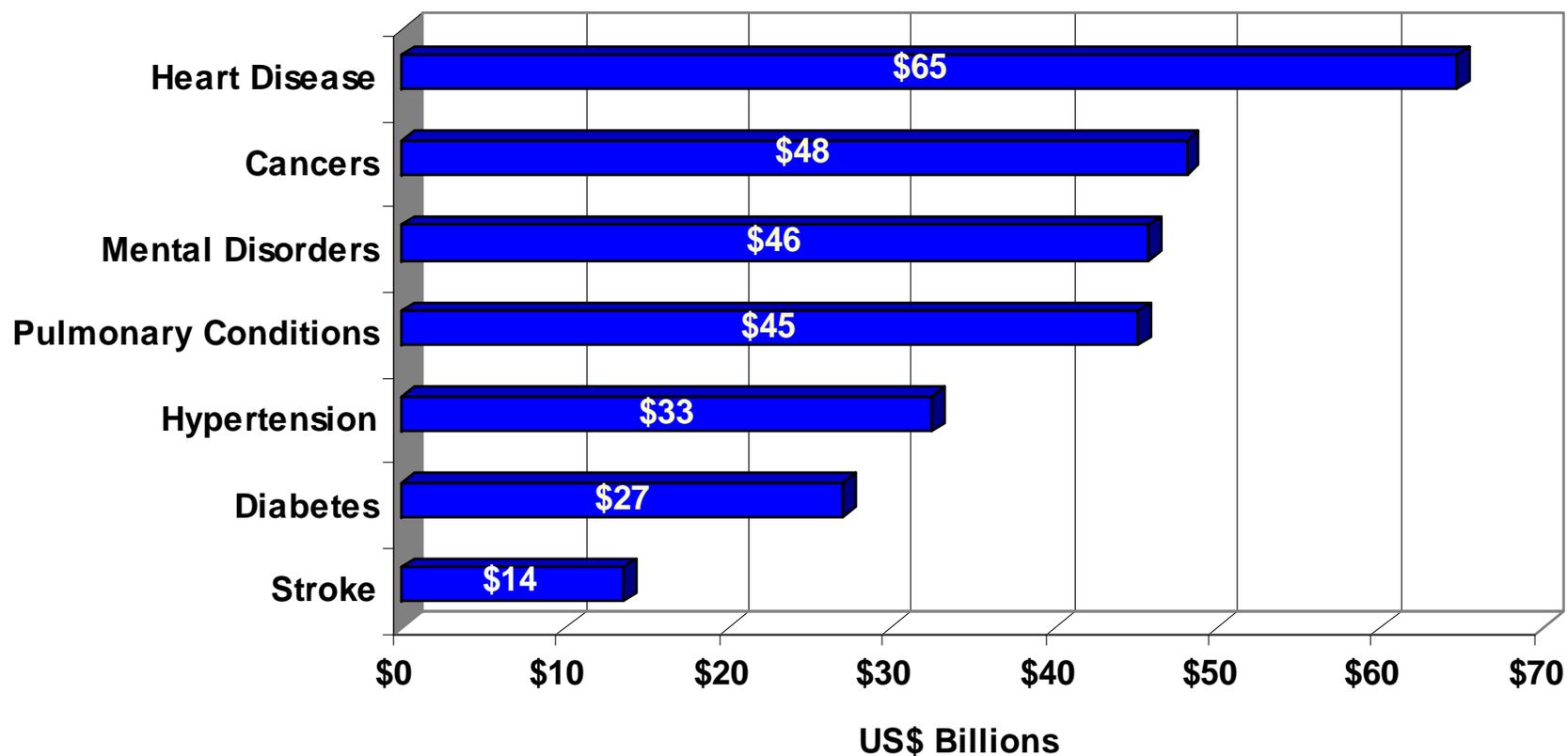


*States in Top Quartile have the Lowest Rates of
Seven Common Chronic Diseases*



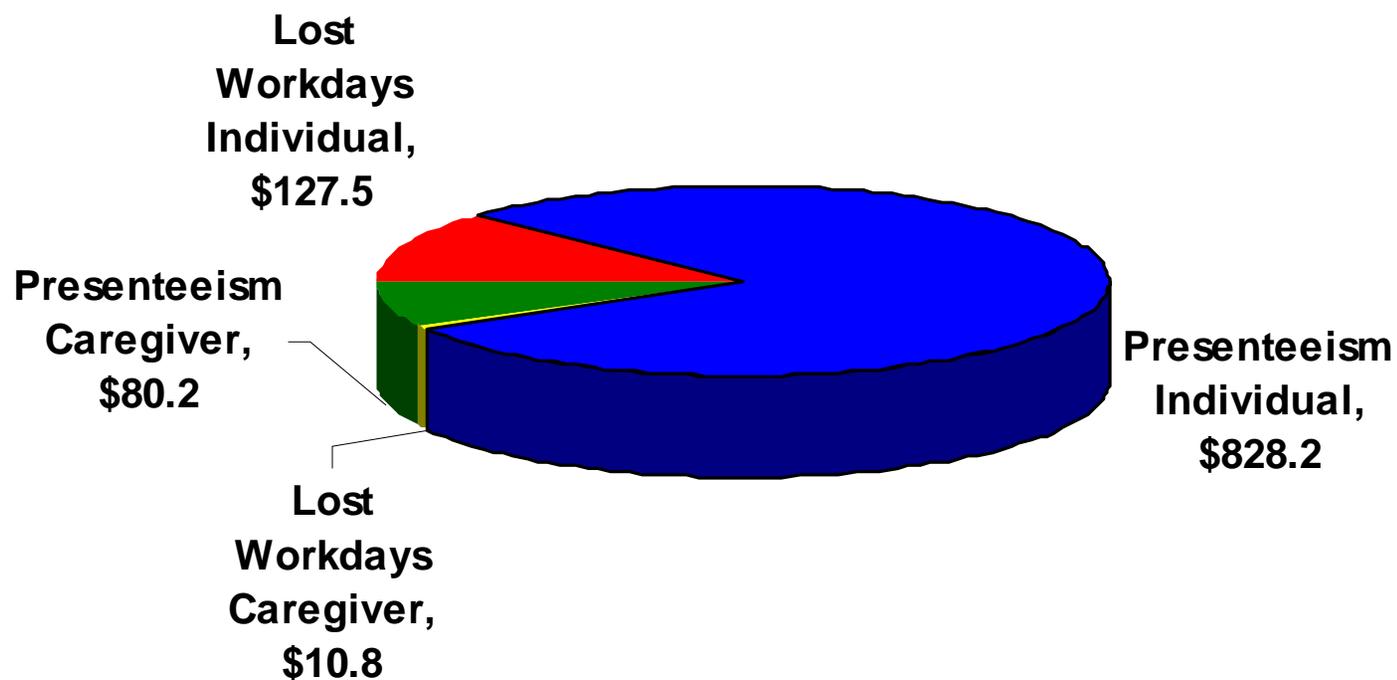
The Economic Cost: Treatment Expenditures by Chronic Disease

U.S., 2003



The Economic Cost: Lost Productivity by Source, U.S.

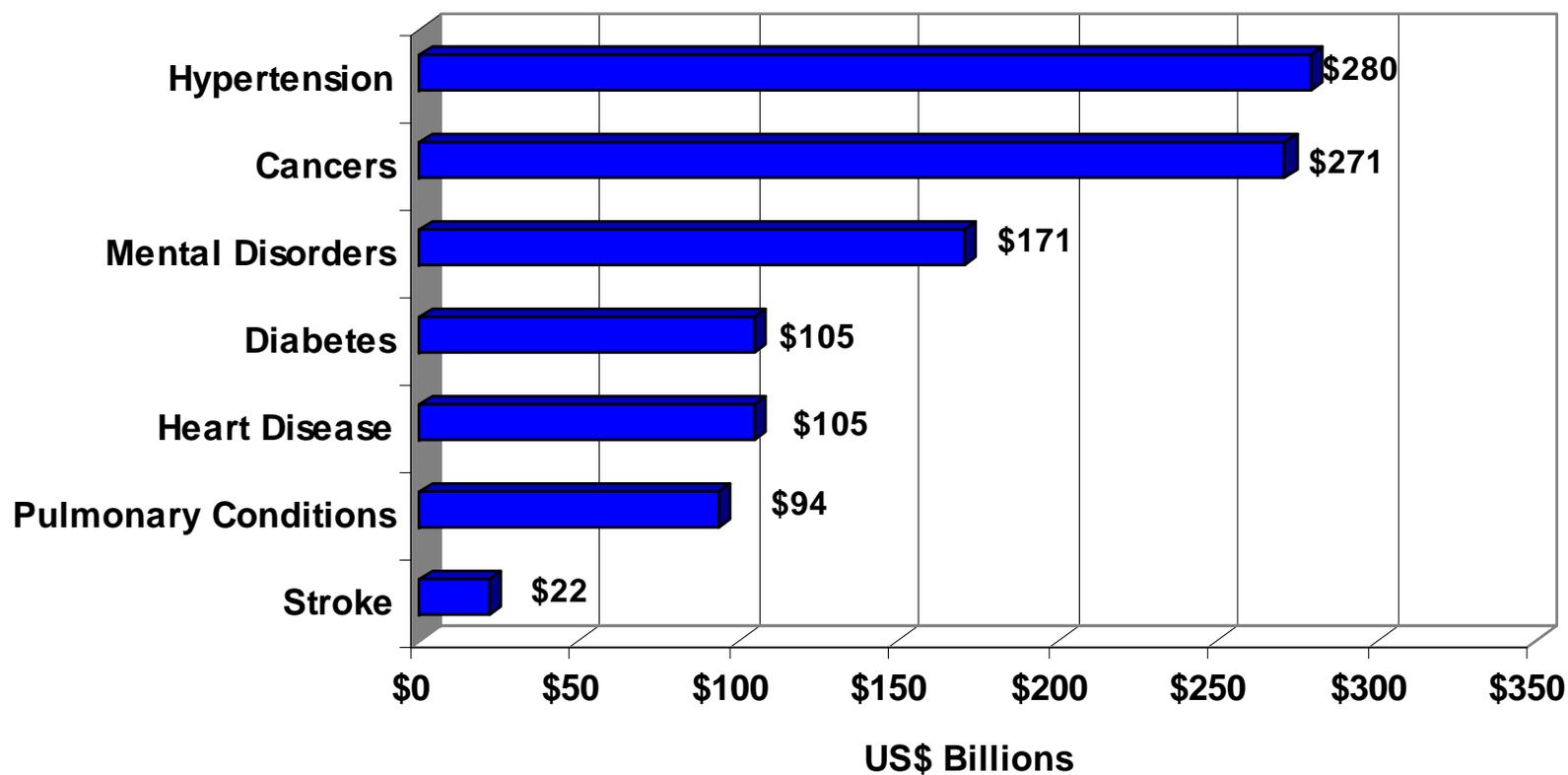
US\$ Billions, 2003



Total Lost Productivity in 2003 = \$1,046.7

The Economic Cost: Lost Productivity by Chronic Disease

U.S., 2003



Avoidable Chronic Disease Treatment and Productivity Costs if Obesity were Eliminated

2008



Disease	Treatment		Productivity		Cases	
	Billions \$	Percent Diff	Billions \$	Percent Diff	Millions	Percent Diff
Cancer	17.23	26.3	127.58	31.6	3.85	31.2
Breast cancer	2.53	34.0	15.57	34.0	0.44	34.0
Colon cancer	0.08	1.7	0.51	1.1	0.006	1.7
Prostate cancer	3.15	52.0	19.36	52.1	0.65	52.0
Other cancers	11.47	30.4	92.14	37.9	2.75	30.4
Diabetes	13.42	36.5	53.18	34.4	6.02	36.5
Hypertension	13.48	31.0	124.21	31.0	12.87	31.0
Heart disease	45.86	52.4	78.10	52.4	11.25	52.4
Stroke	1.66	10.1	4.41	15.0	0.66	10.1
Total	91.59	36.7	387.48	34.1	34.64	38.2

Source: Milken Institute.

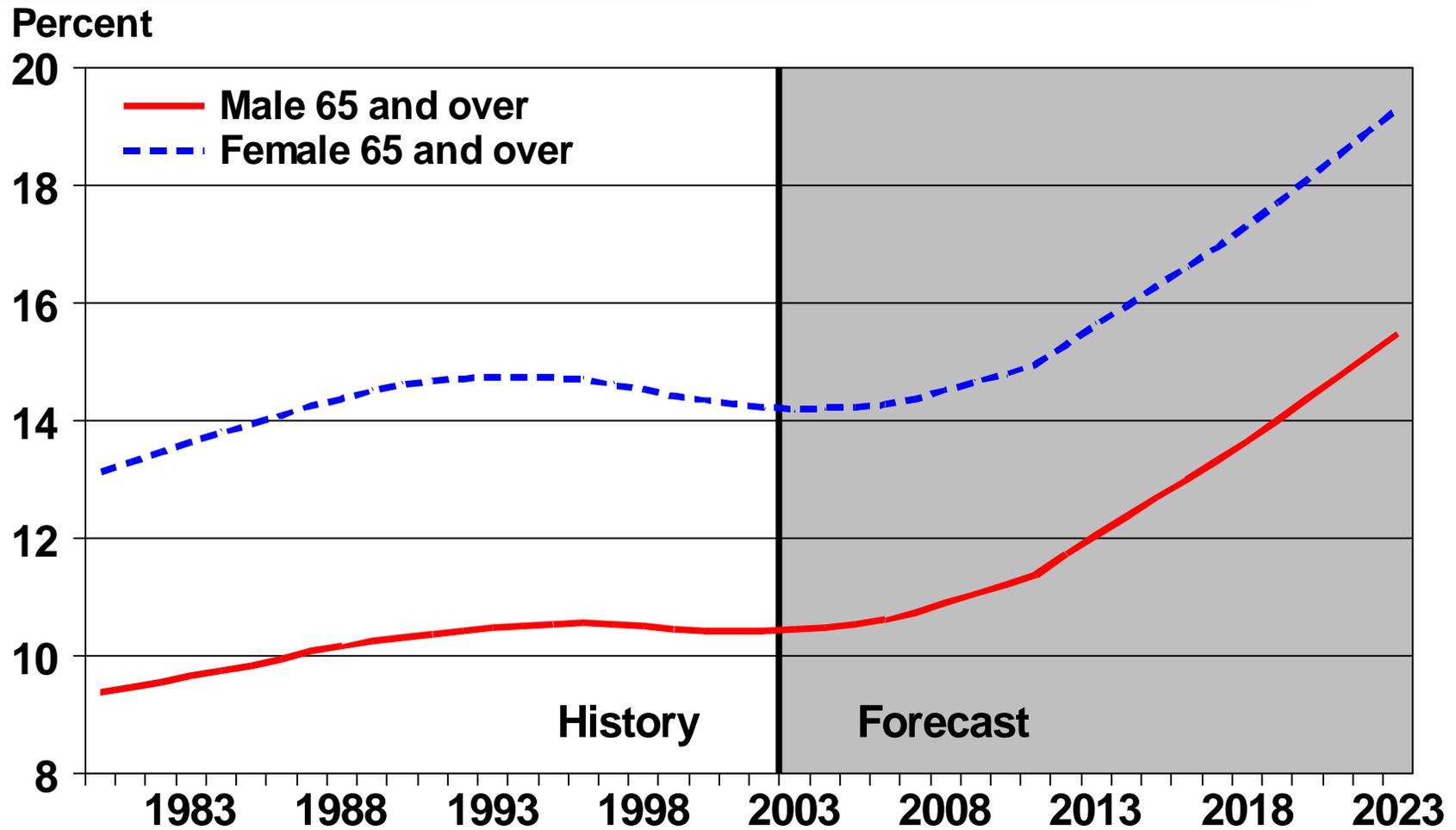
Projection of Cases and Treatment Costs

Baseline vs. Optimistic Scenario Process

- 1. Develop Based on Aging Population**
- 2. Develop Based on Behavioral Risk Factors and Other Demographics**
- 3. Develop Based on Screening, Early Detection and Medical Innovations**
- 4. Develop Based on Different Health Care Cost Growth**
- 5. Avoidable Cost = Difference in Expenditure Between Baseline and Optimistic Scenarios**

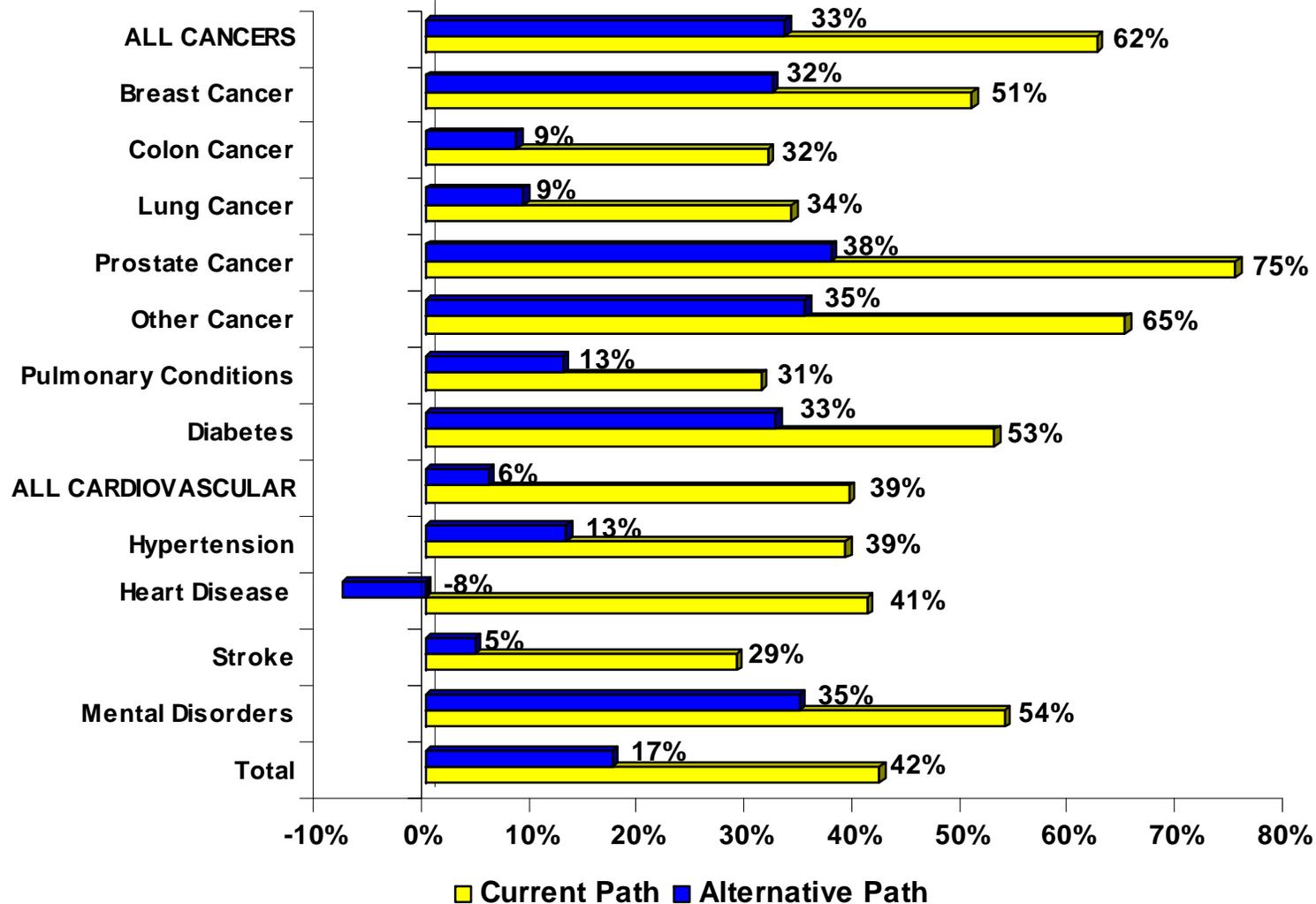
Population Projections

U.S., 65 and Over



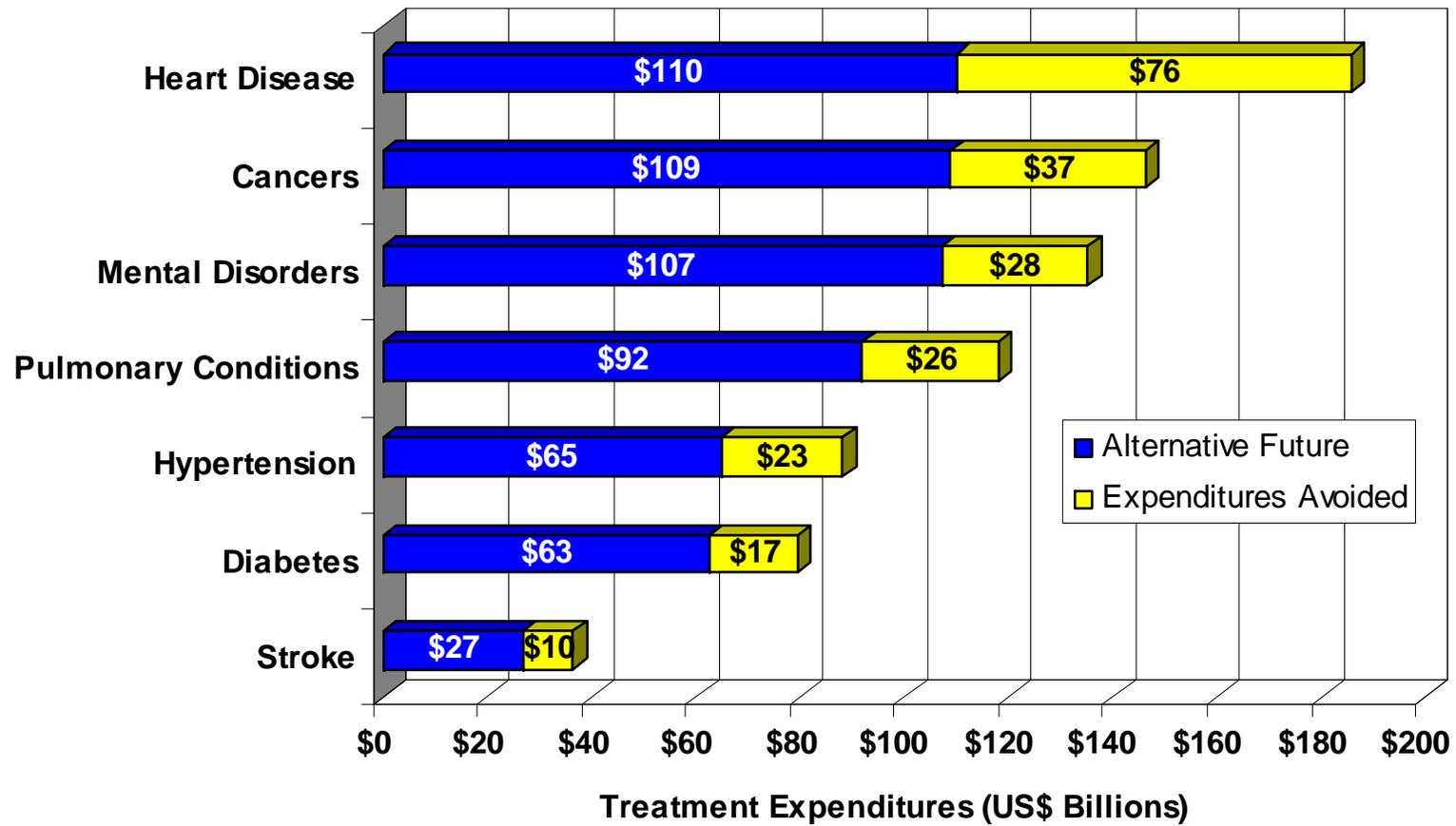
Percent Growth in Number of People Reporting Chronic Diseases

Current Path Versus Alternative Path, U.S., 2003-2023



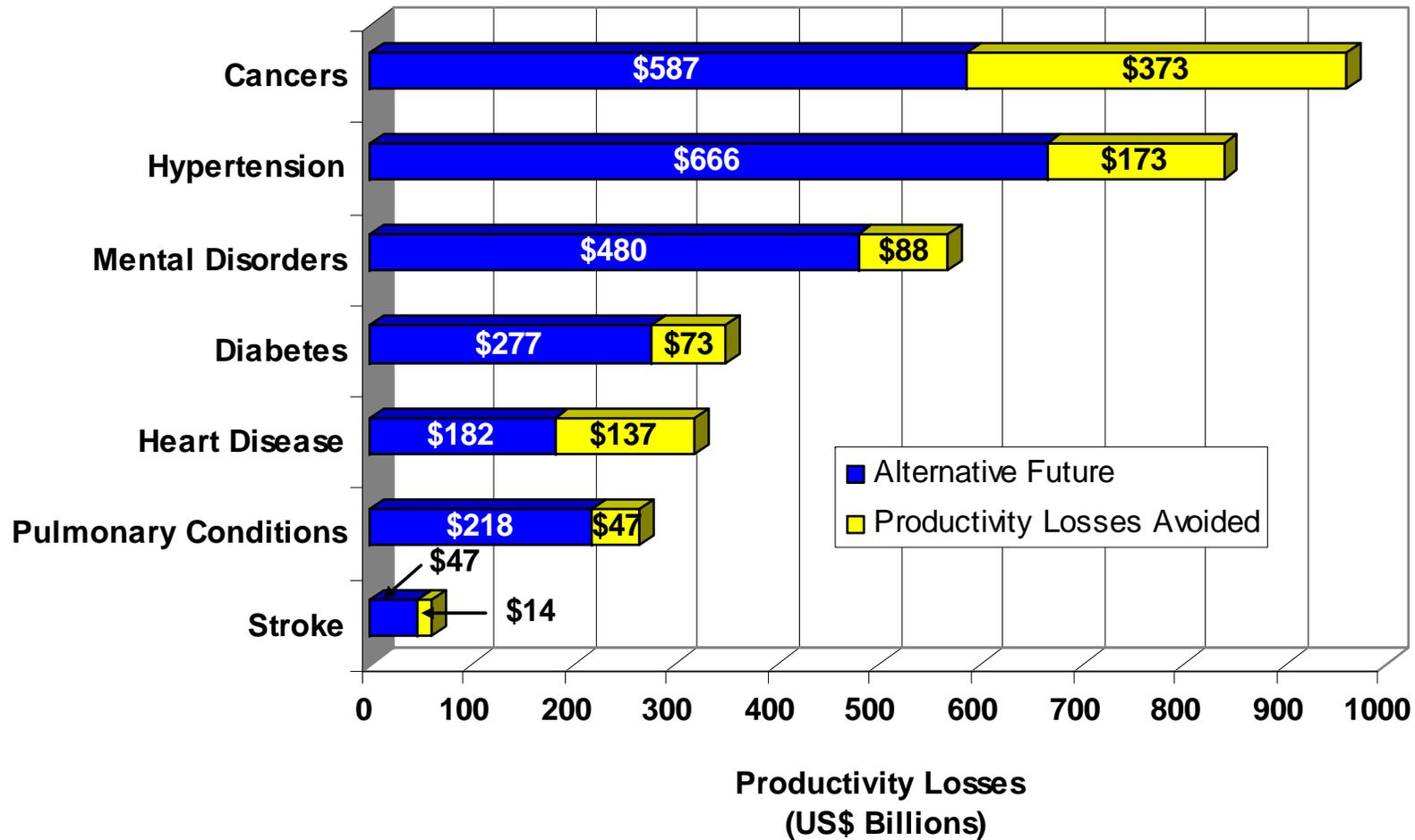
Avoidable Treatment Expenditures

U.S., 2023



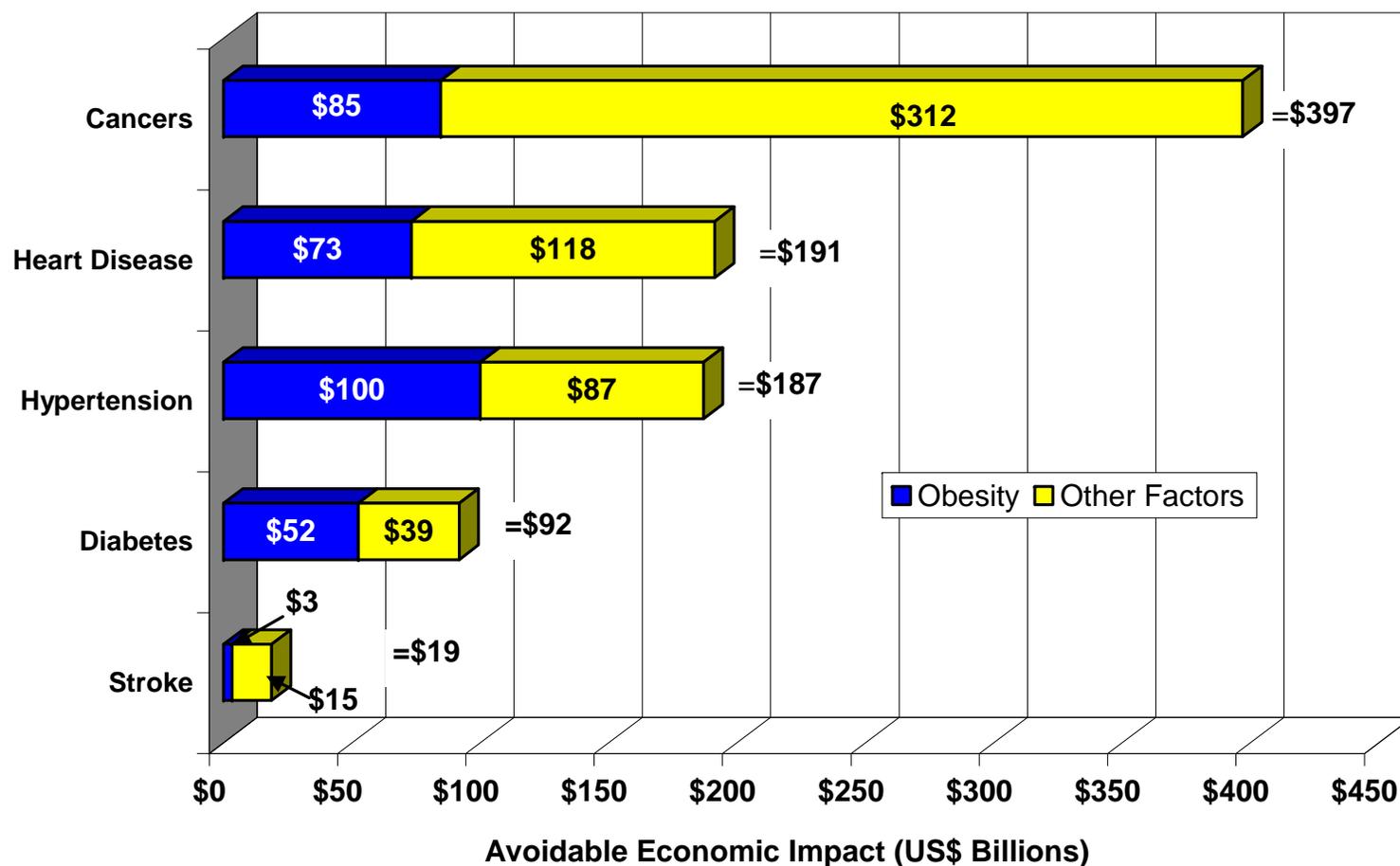
Avoidable Productivity Losses

U.S., 2023



Avoidable Economic Costs Attributable to Decline in Obesity

U.S., 2023



Long-Term Economic Impacts

Overview

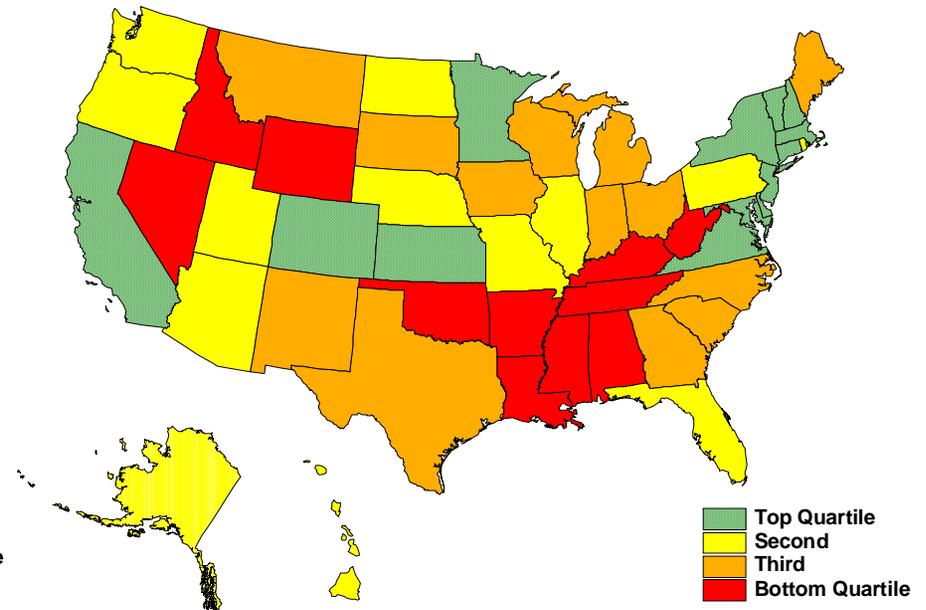
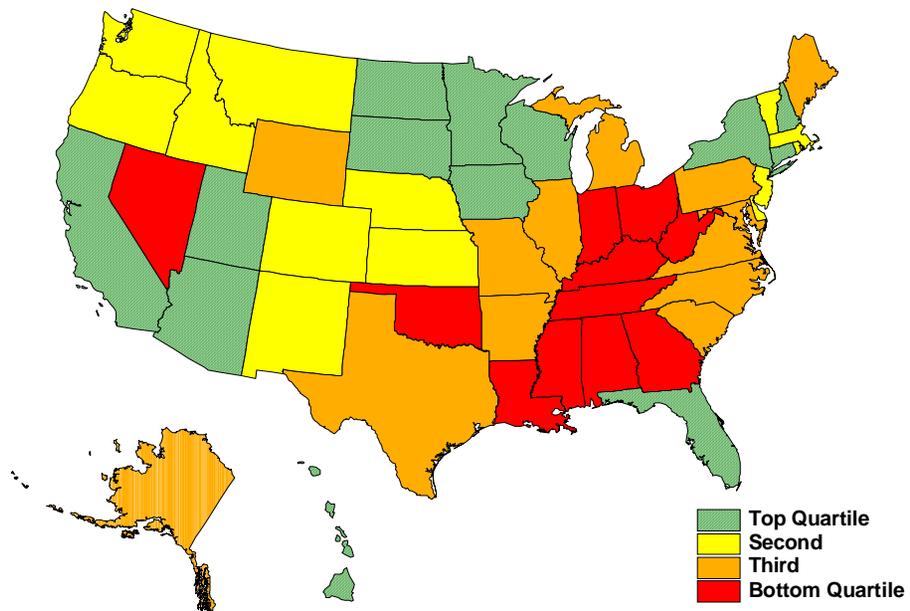
- **Attempt to quantify health (chronic disease) impact**
 - on human and physical capital formation
 - the restrictions imposed on intergenerational economic growth
- **Determinants of economic growth and model specification**
 - Historically, only few have been found to be significant in explaining growth
- **Human capital's role**
 - Dynamic economic growth depends upon
 - health (*life expectancy at 65*),
 - stock of labor (*labor force*),
 - quality of labor (*percent of adult population with bachelor's degree or above*),
 - physical capital (*real stock of equipment and structures*)
 - Good health increases the rate of return on investments in education
 - Improves the nation's competitiveness in the long-term
 - The higher the income earner's human capital, the greater the probability that they will invest in their children's and grandchildren's education

Health and Human Capital

2003

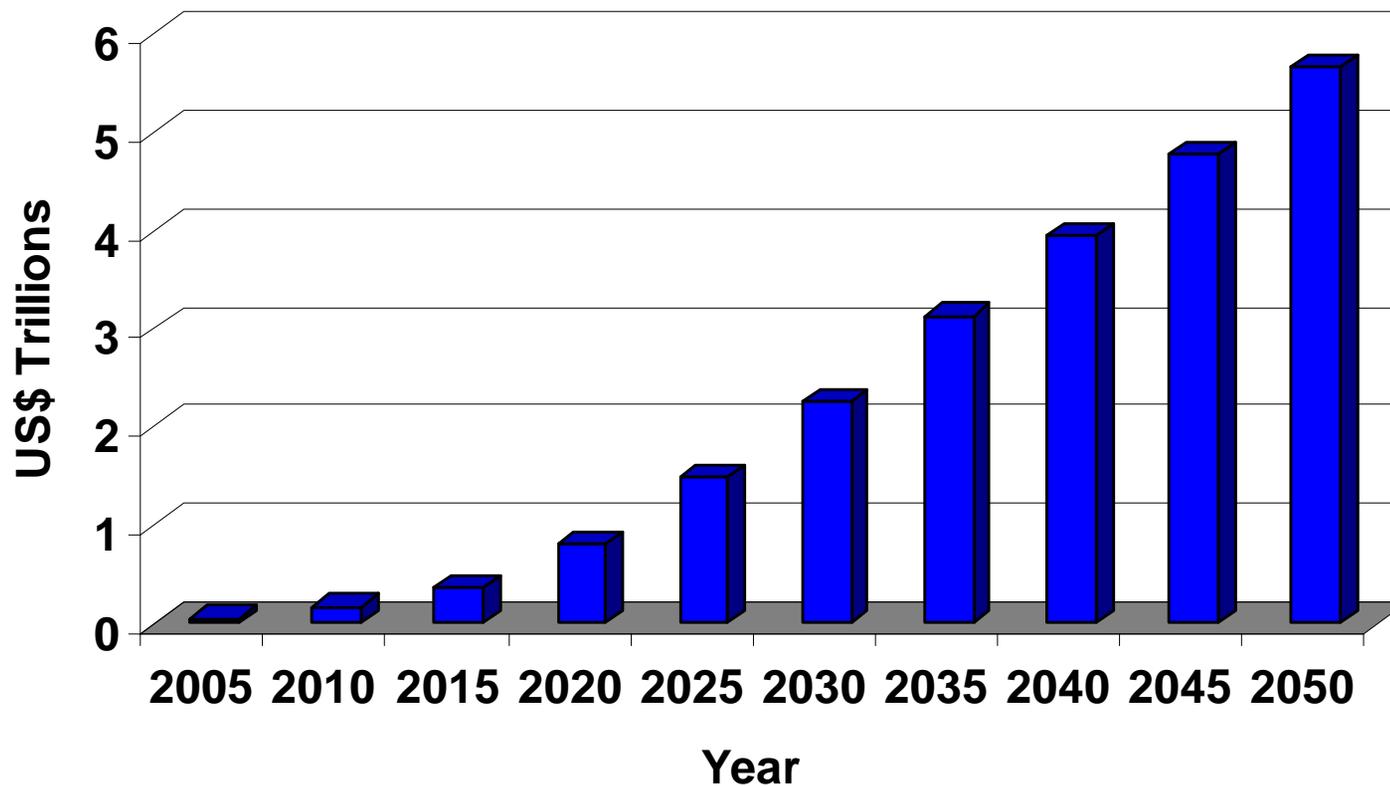
Life Expectancy at 65

Population with Bachelor's Degree, Percent



U.S. Long-Term Forgone Economic Output

Change in Real GDP Between Baseline and Optimistic Scenarios



Economic Burden of Chronic Disease: *Conclusions and Recommendations*

Conclusions:

- **Lost Productivity Surpasses Treatment as the Cause of Economic Burden**
- **Early Interventions and Medical Innovations Improve Quality and Longevity of Life**
- **Healthcare Expenditure Accounts by Disease Are Needed**
- **Good Health Is an Investment in Economic Growth**

Recommendations:

- **Incentives for Prevention and Early Intervention**
 - **We need private-public partnerships to incentivize patients and providers to prevent chronic disease effectively**
- **“Healthy Body Weight Initiative”**
 - **We need a strong, long-term national commitment to promote health, wellness, and healthy body weight**

Hungry Man “All Day Breakfast”



Nutrition Facts	
Serving Size 1 package (456g)	
Amount Per Serving	
Calories 1170	Calories from Fat 550
% Daily Value*	
Total Fat 61g	94%
Saturated Fat 21g	103%
Cholesterol 255mg	85%
Sodium 1790mg	74%
Total Carbohydrate 125g	42%
Dietary Fiber 7g	29%
Sugars 38g	
Protein 31g	