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An Unhealthy America:
The Economic Burden of Chronic Disease

Charting a New Course to Save Lives and Increase Productivity and Economic Growth

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Economic Burden of Chronic Disease

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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

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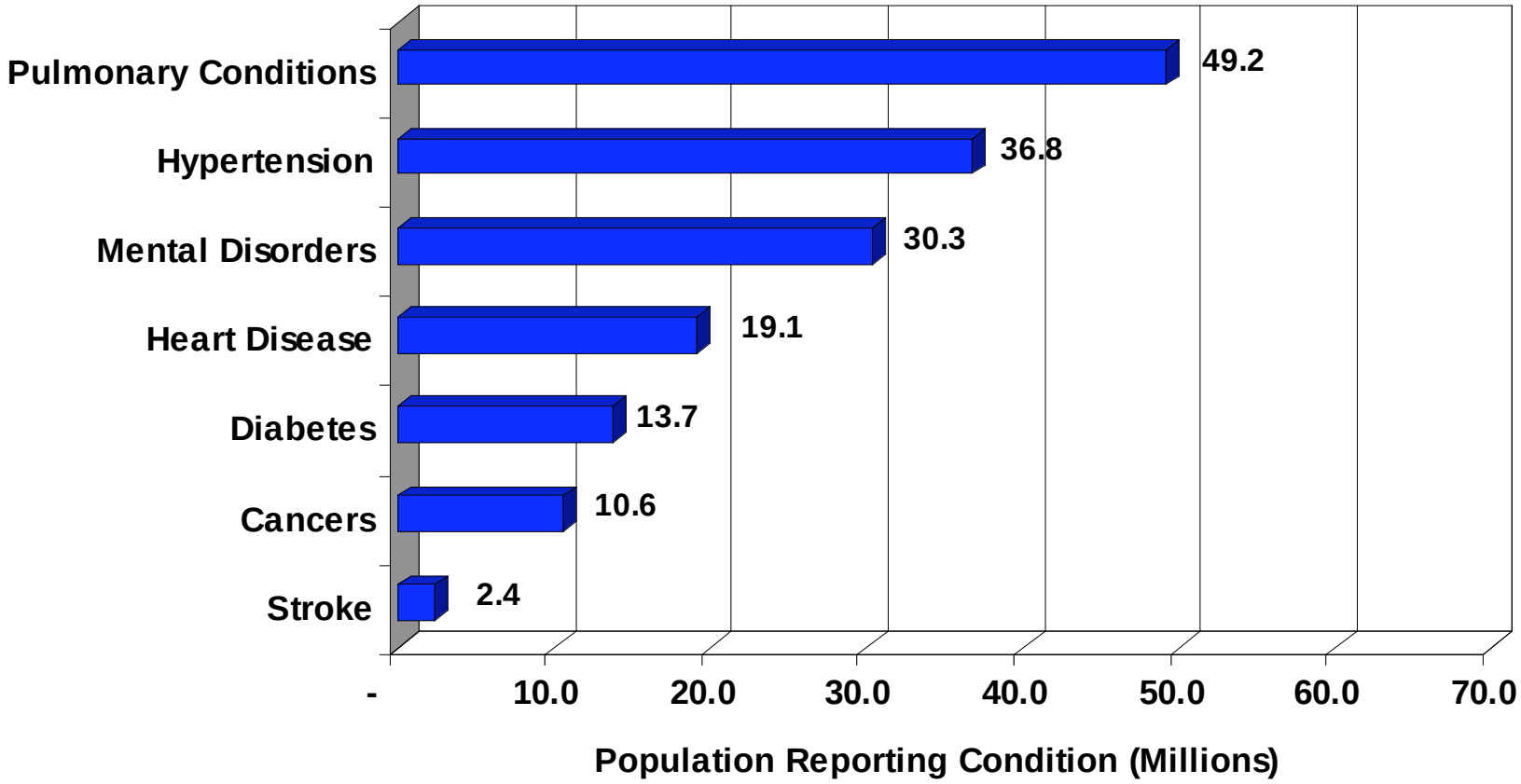
Number Reporting Seven Common Chronic Diseases, U.S., 2003



The Human Cost: Number of People Reporting Selected Cancers

U.S., 2003

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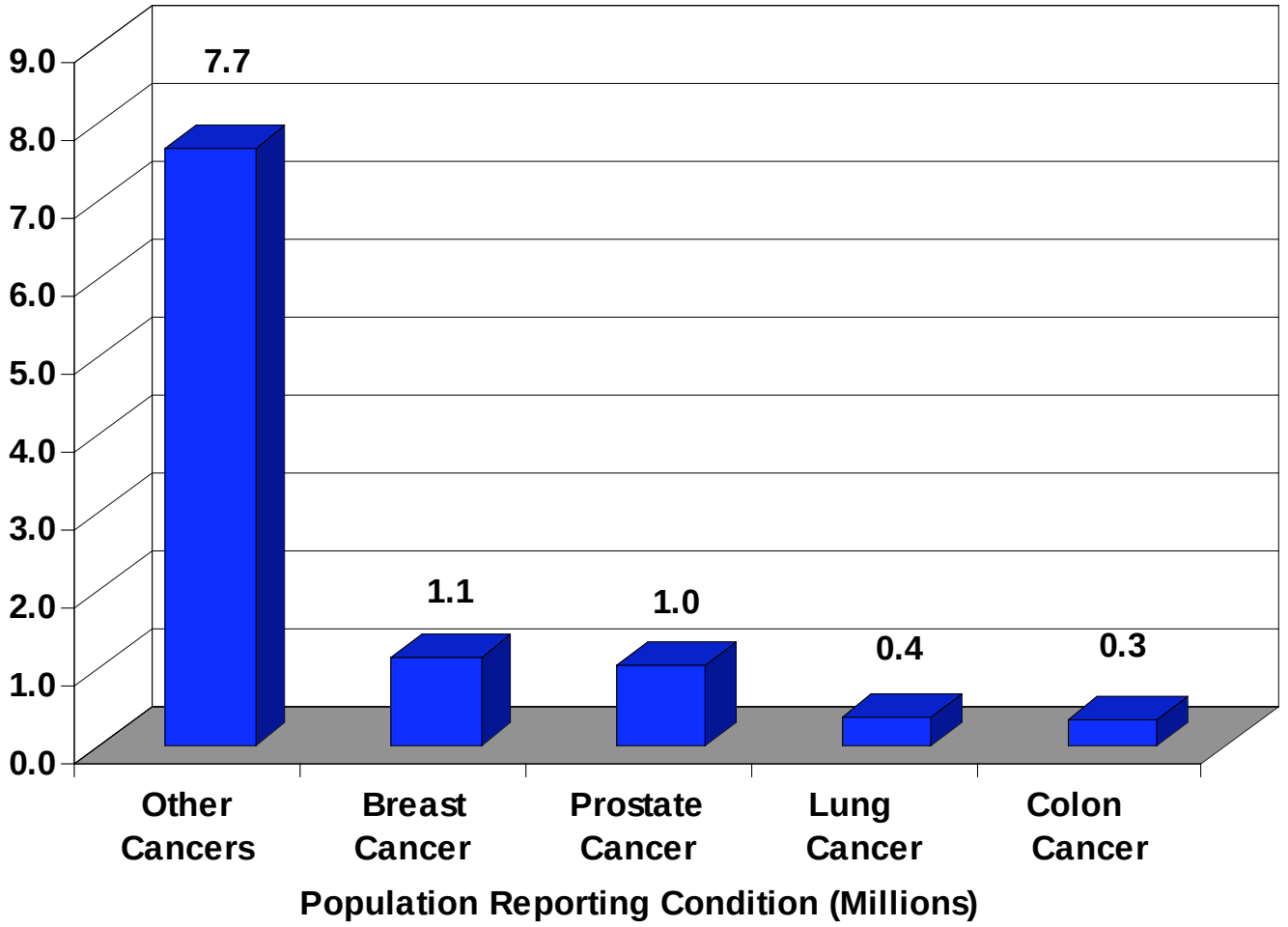

The Human Cost: Number of People Reporting Chronic Disease

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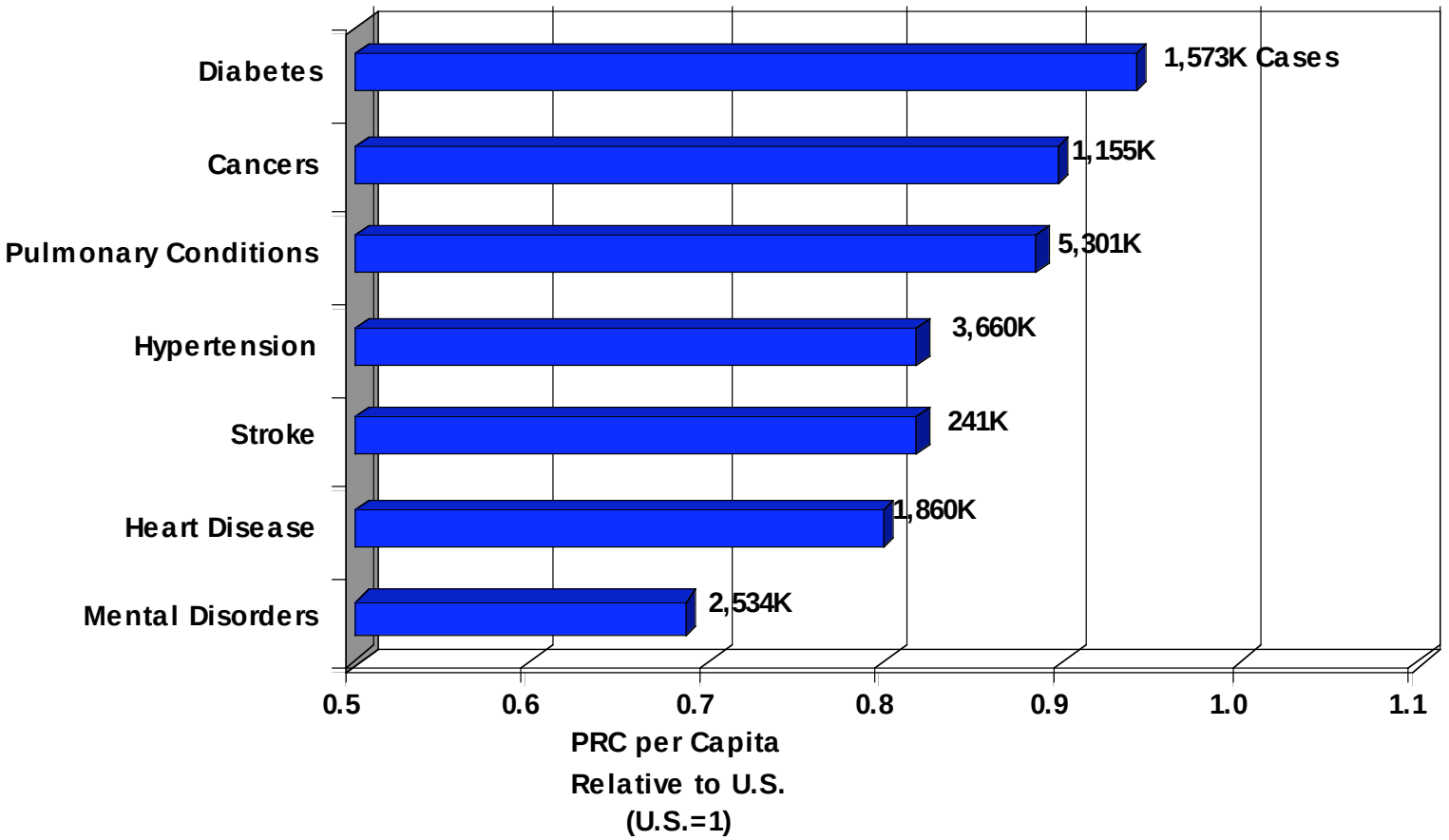
Number Reporting Seven Common Chronic Diseases, California, 2003



The Human Cost
Milken Institute State Chronic Disease Index:

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

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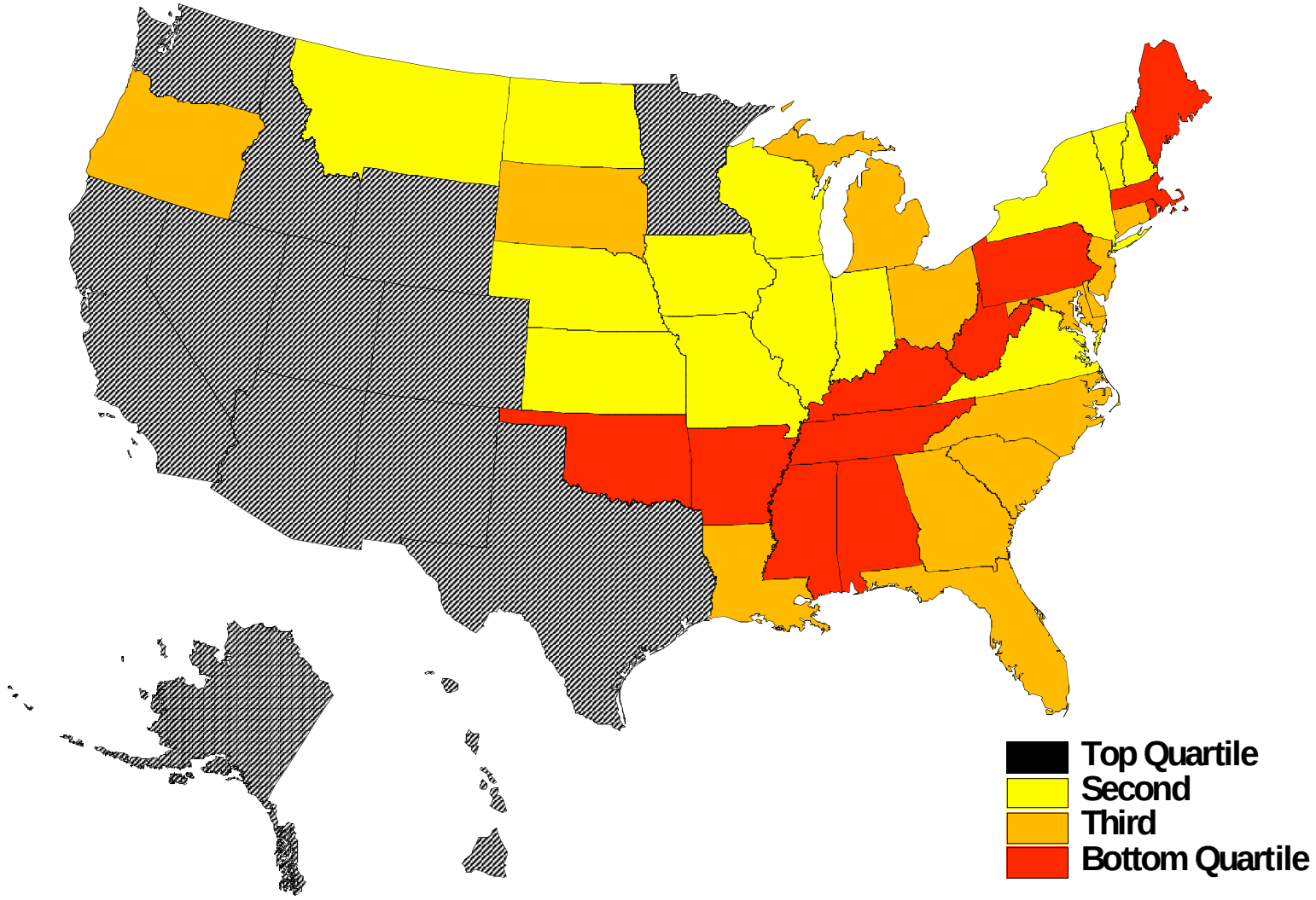

The Human Cost:
Milken Institute State Chronic Disease Index
Composite Scores

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State	Rank	Composite Score	State	Rank	Composite Score
Utah	1	100.00	Vermont	26	75.62
Alaska	2	96.58	Maryland	27	75.05
Colorado	3	95.29	Michigan	28	74.82
New Mexico	4	93.50	Ohio	29	74.71
Arizona	5	91.50	Oregon	30	74.48
California	6	89.83	Georgia	31	74.12
Hawaii	7	88.38	New Jersey	32	74.10
Idaho	8	87.68	North Carolina	33	74.08
Washington	9	86.43	Connecticut	34	73.28
Wyoming	10	83.13	Delaware	35	73.18
Minnesota	11	82.59	South Dakota	36	72.20
Texas	12	82.26	Louisiana	37	70.55
Nevada	13	80.80	Florida	38	70.15
North Dakota	14	80.64	South Carolina	39	68.76
Illinois	15	80.04	Massachusetts	40	68.65
Kansas	16	79.87	Alabama	41	68.59
Nebraska	17	79.61	Oklahoma	42	67.76
New Hampshire	18	79.29	Maine	43	67.60
Montana	19	79.05	Rhode Island	44	66.76
Virginia	20	77.68	Pennsylvania	45	66.37
Wisconsin	21	77.29	Mississippi	46	66.17
New York	22	77.26	Kentucky	47	65.98
Indiana	23	77.14	Arkansas	48	65.68
Iowa	24	76.91	Tennessee	49	65.31
Missouri	25	76.12	West Virginia	50	62.19

The Economic Cost:
Treatment Expenditures by Chronic Disease

U.S., 2003

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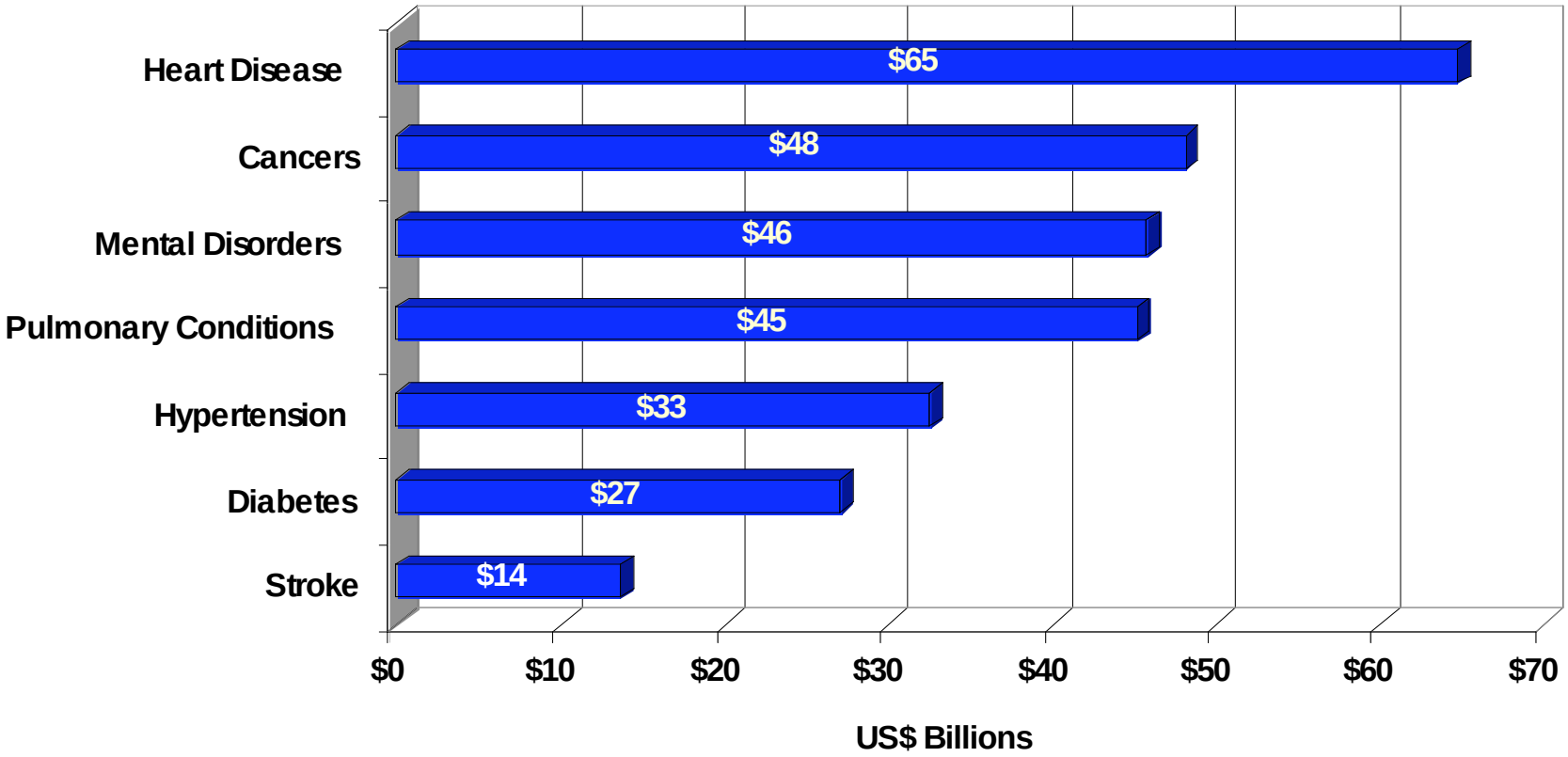

The Economic Cost: Lost Productivity by Source, U.S.

US$ Billions, 2003

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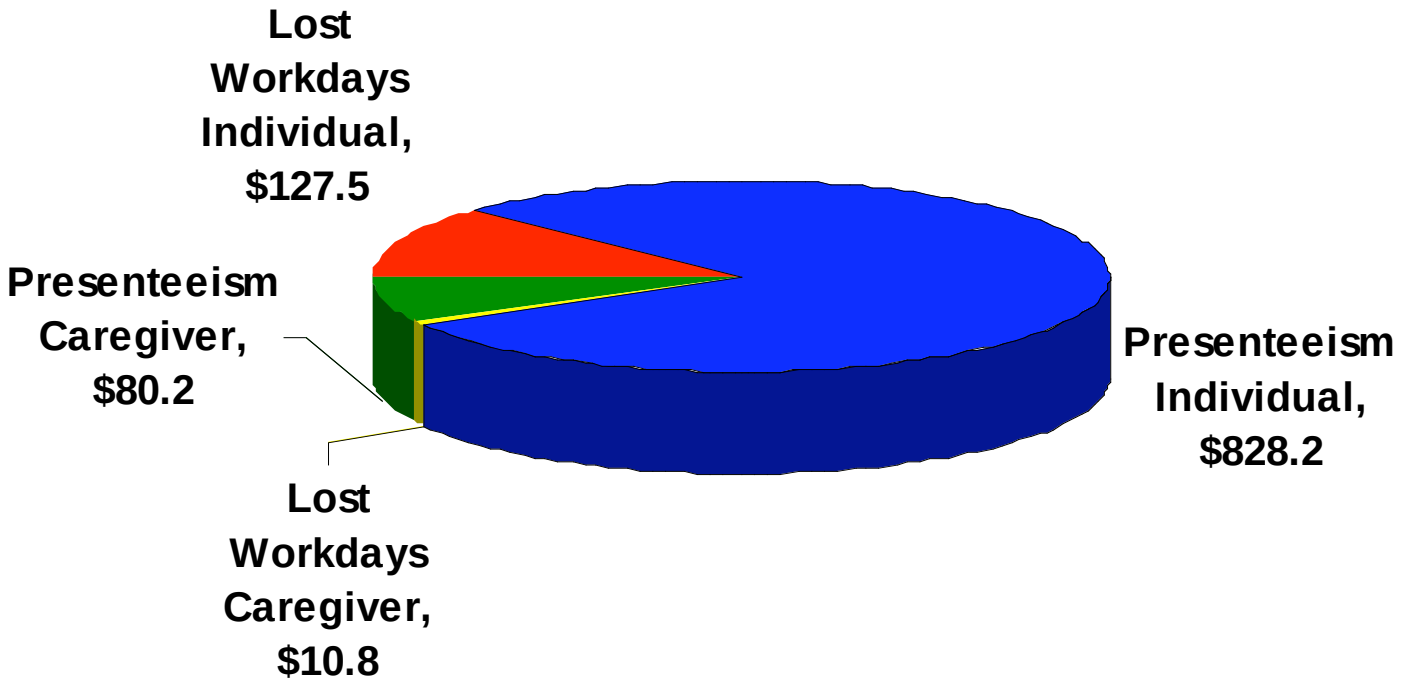

Total Lost Productivity in 2003 = $1,046.7

The Economic Cost: Lost Productivity by Chronic Disease

U.S., 2003

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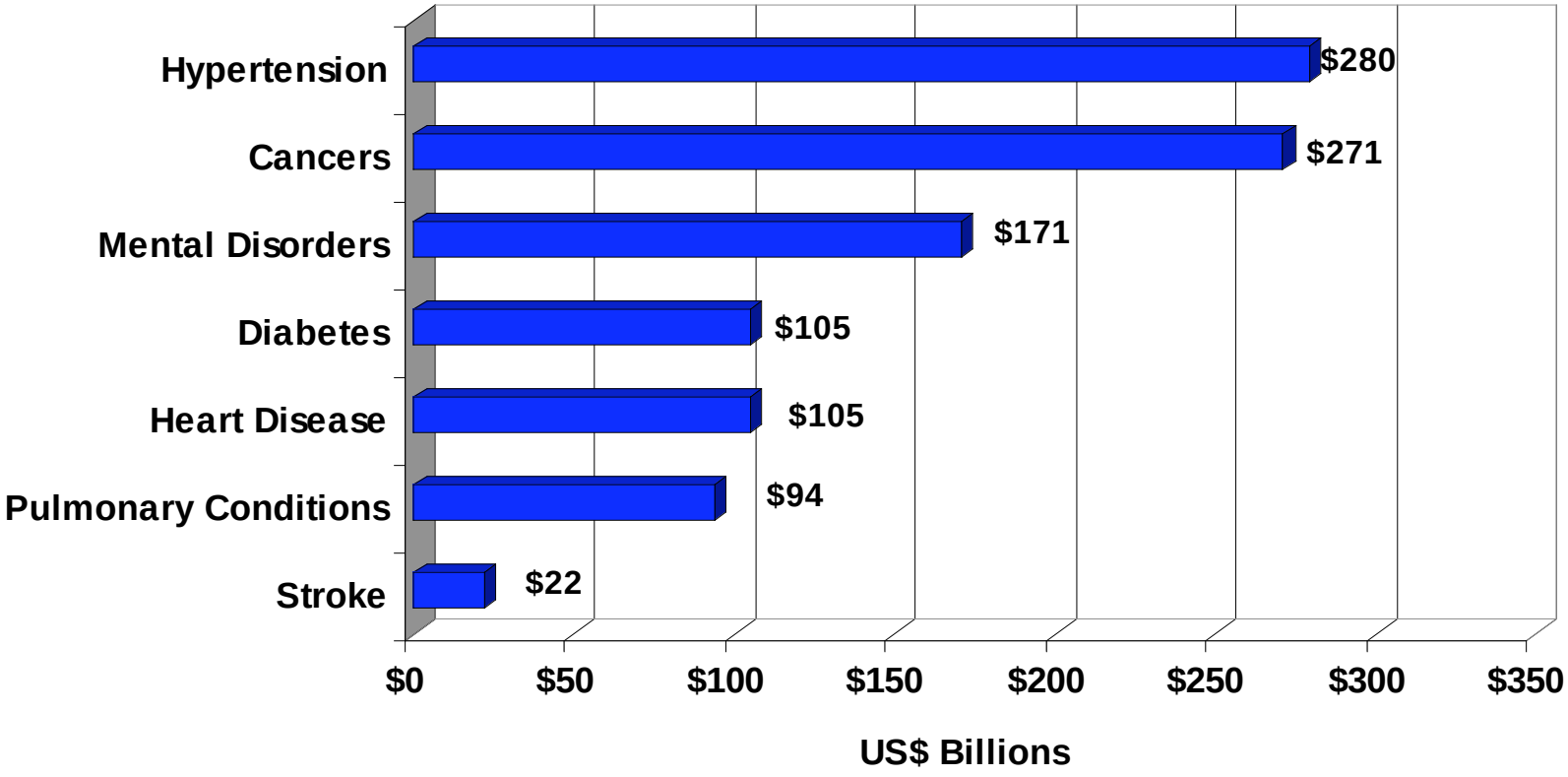

Total Economic Cost of Chronic Disease

U.S., 2003

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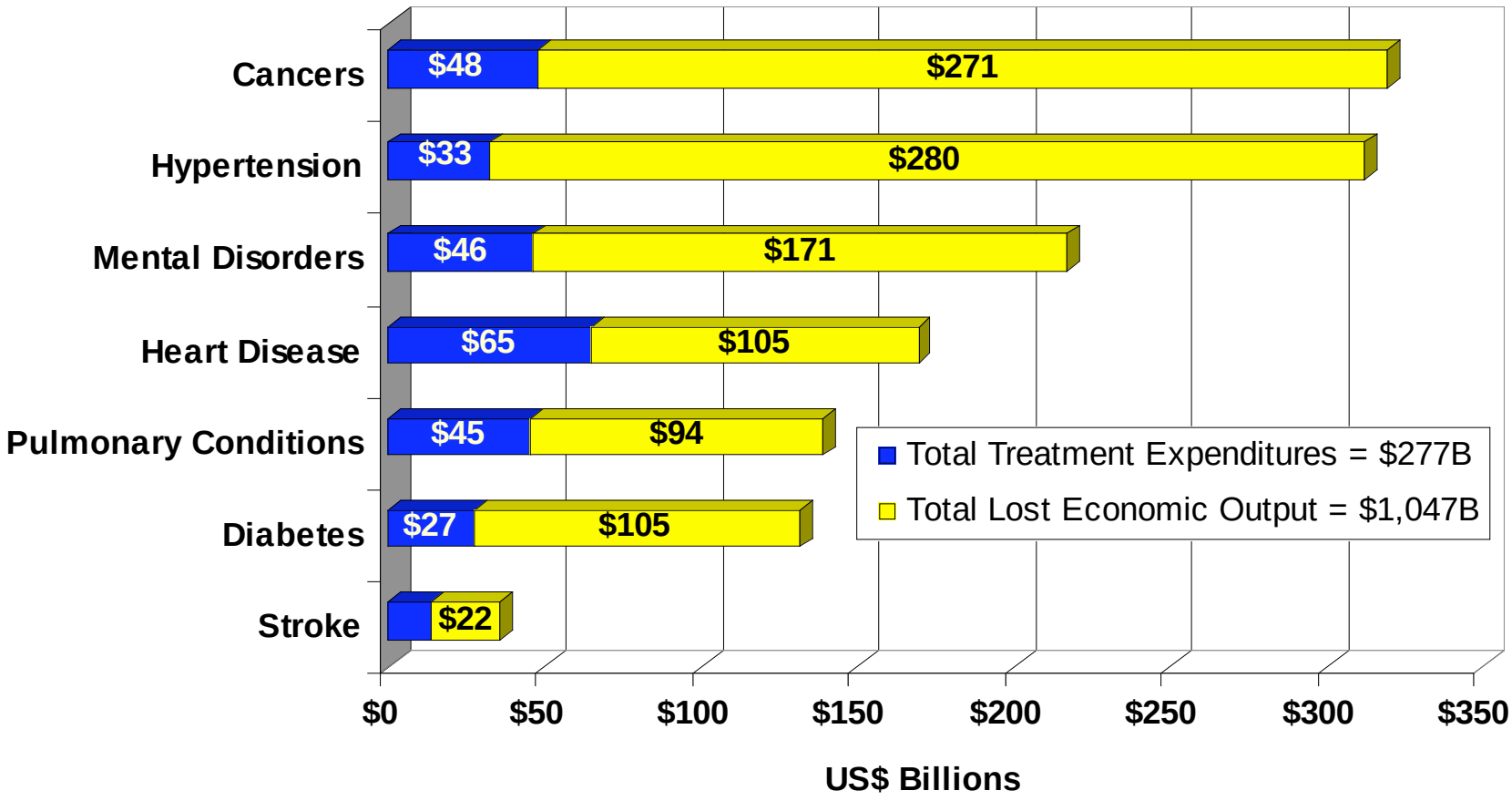

Total Economic Cost of Chronic Disease

California, 2003

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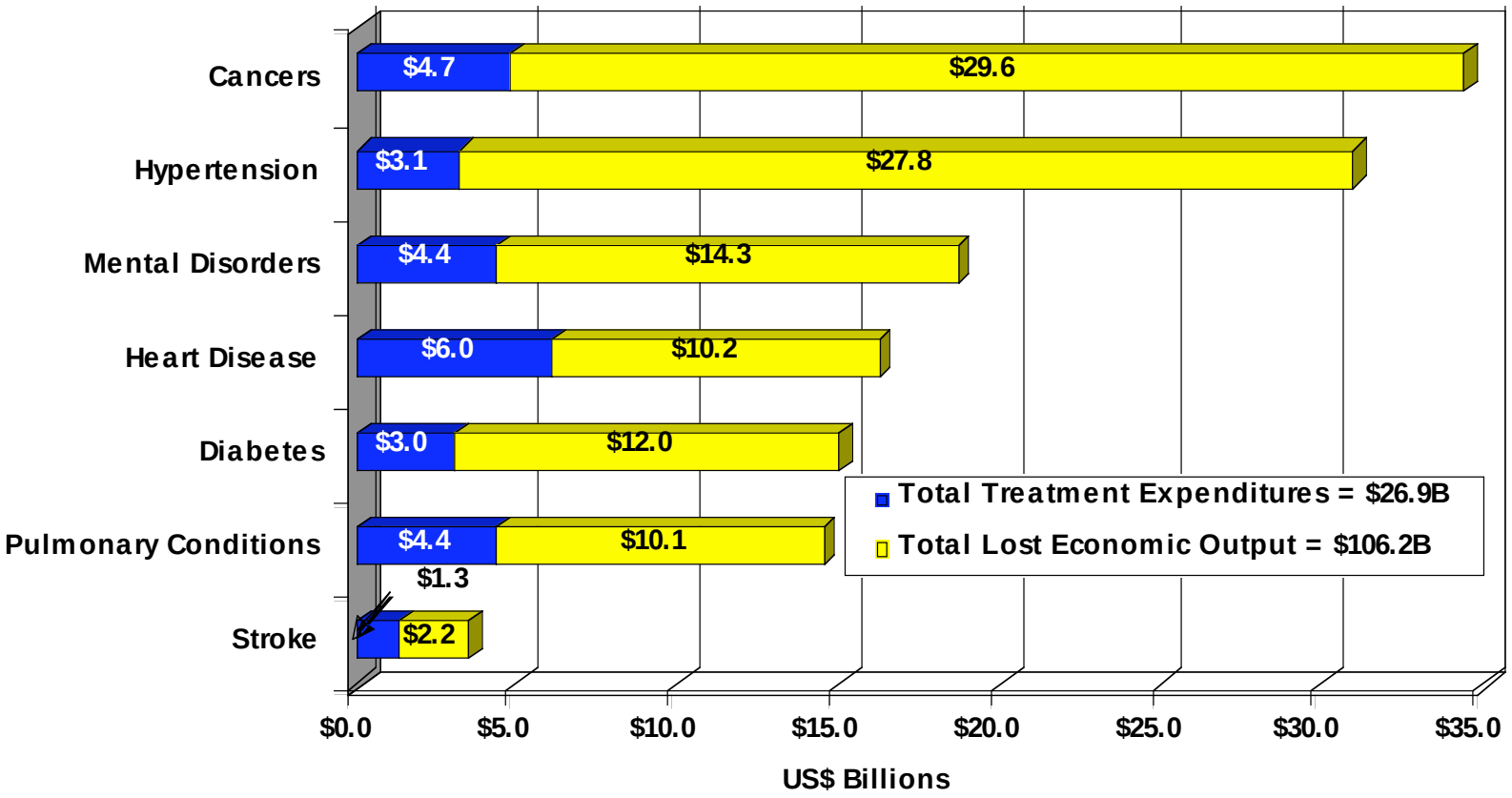

Projection of Cases and Treatment Costs

Baseline vs. Optimistic Scenario Process

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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

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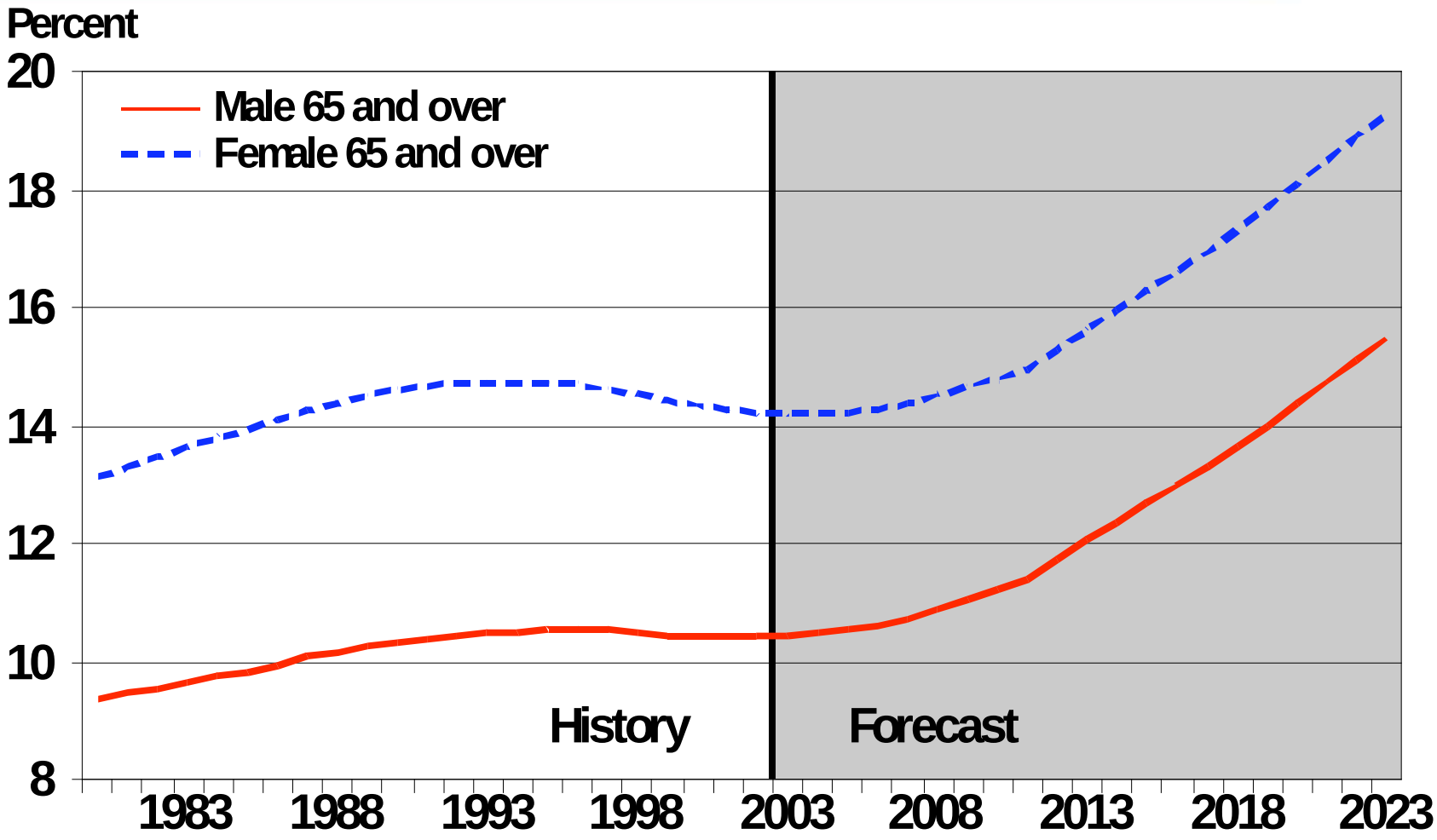

Our Current Path:
Projected Rise in the Cases of Chronic Disease

U.S., From 2003 to 2023

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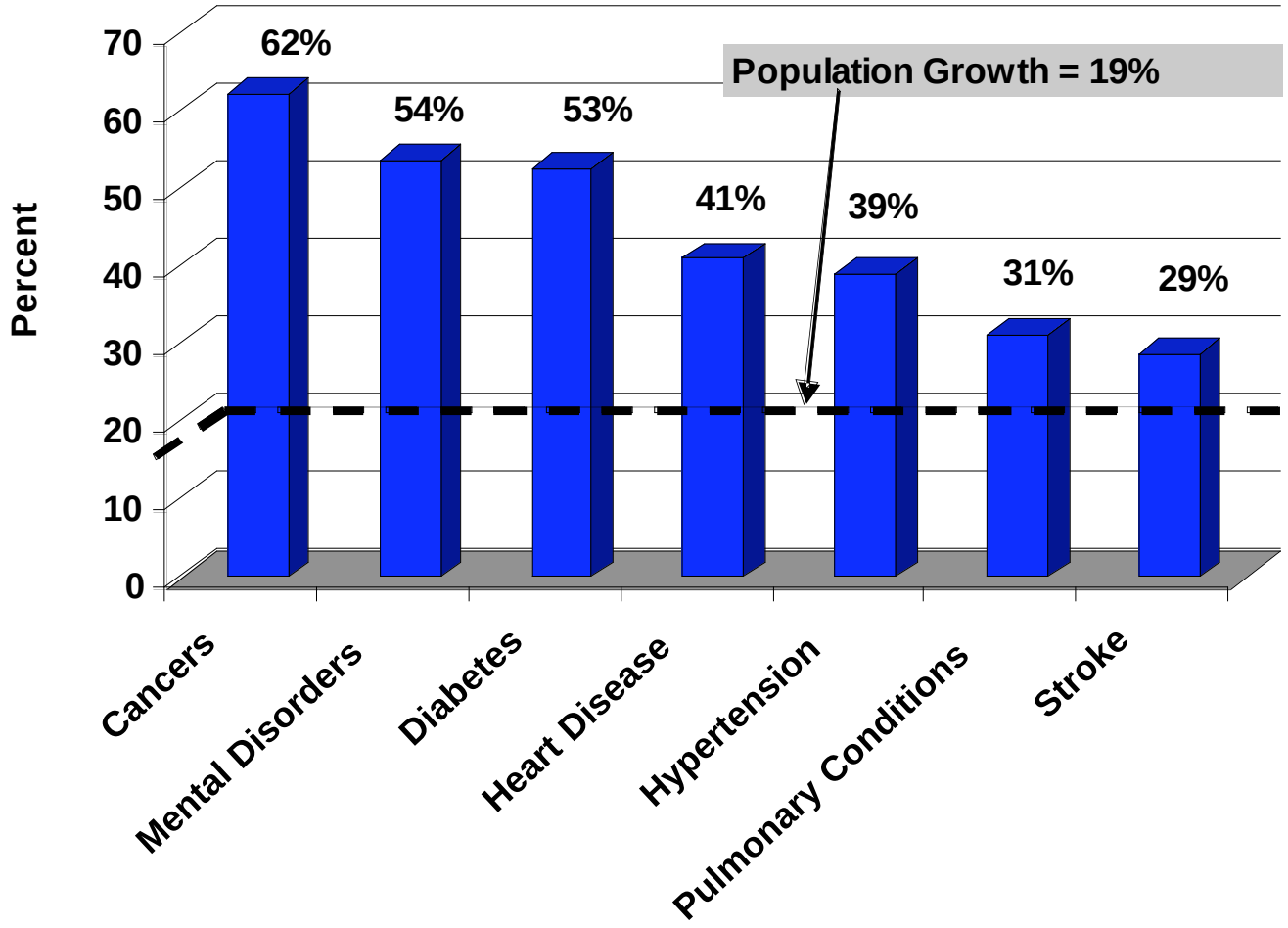

Our Current Path

Combined Value of Treatment Expenditures and Productivity Losses, U.S.

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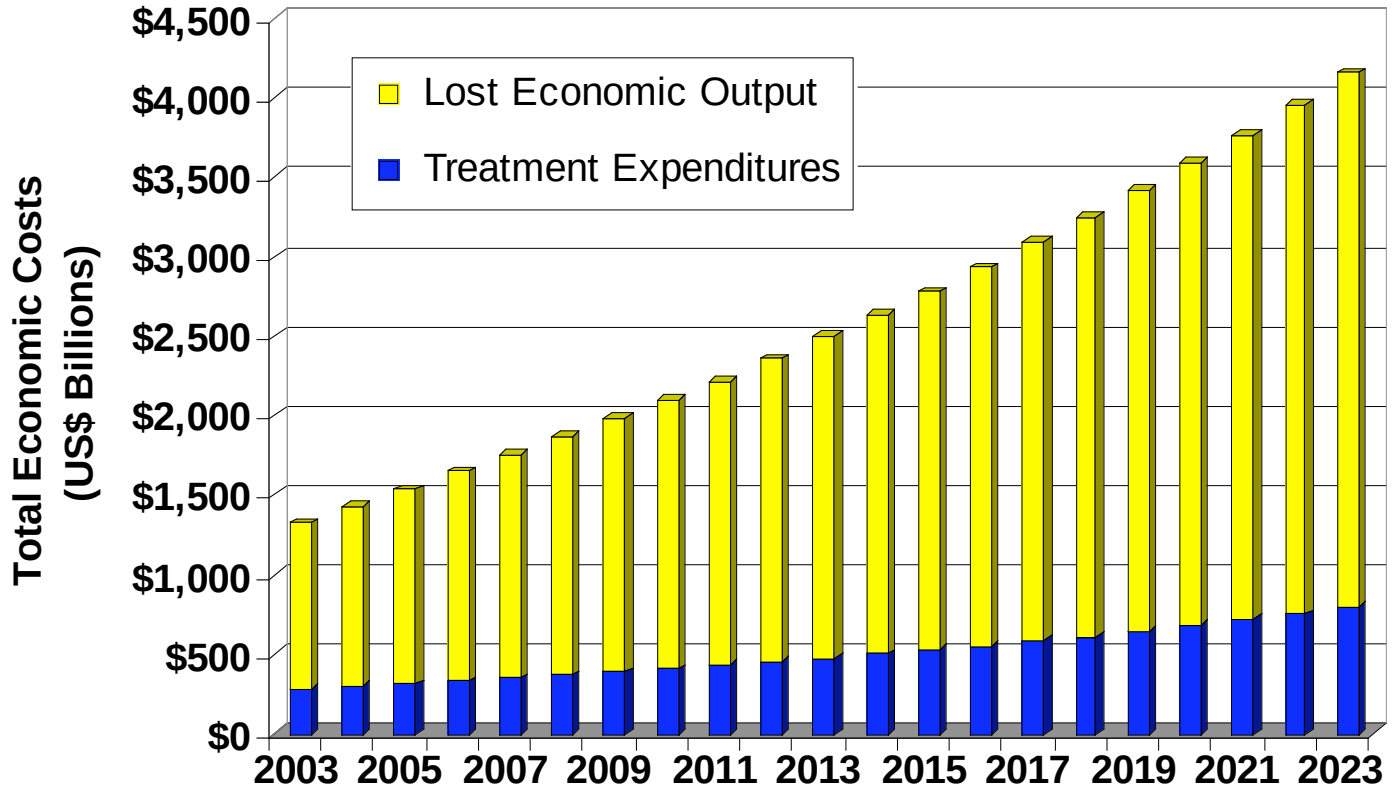

Percent Growth in Number of People Reporting Chronic Diseases

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

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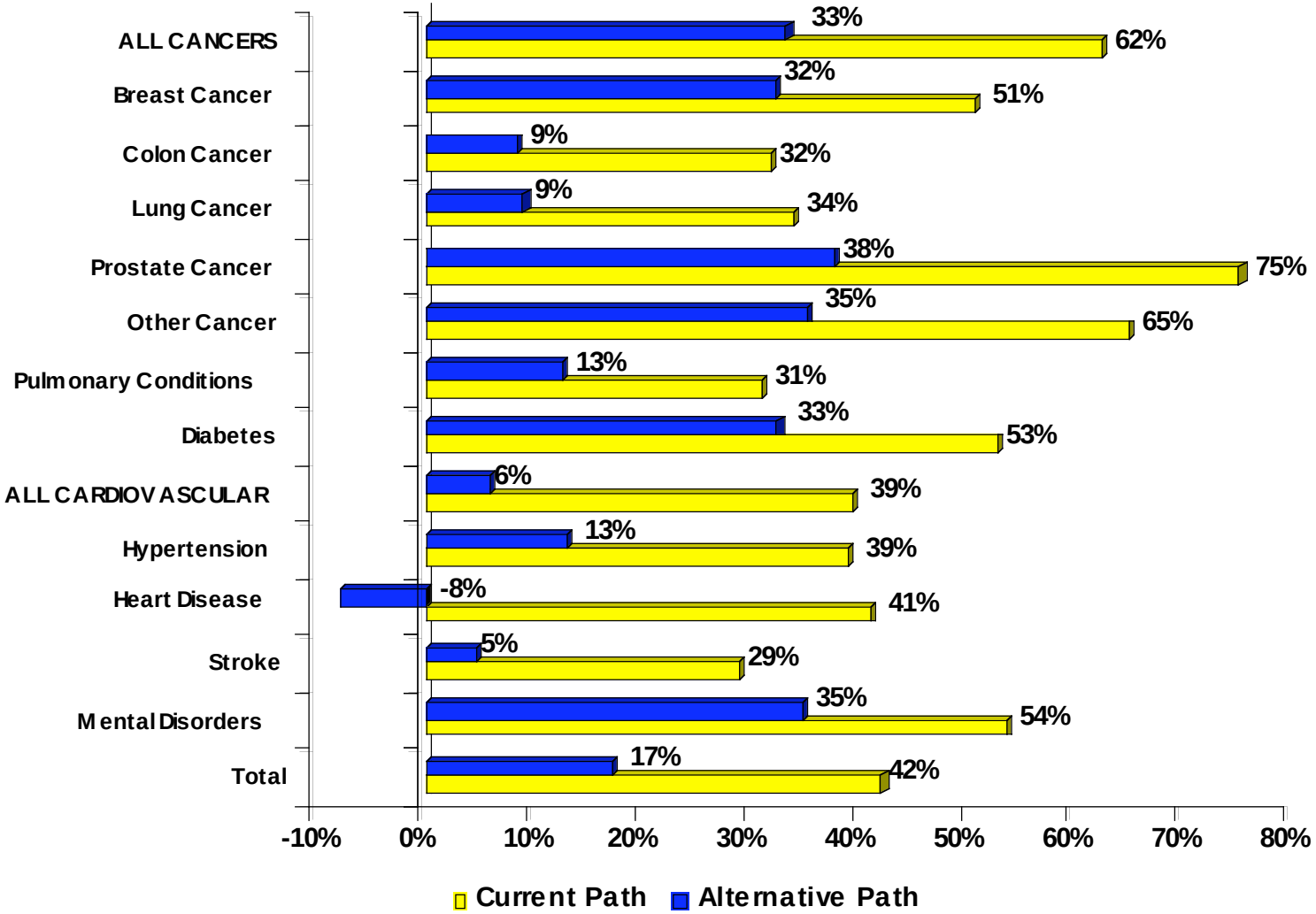

Avoidable Treatment Expenditures

U.S., 2023

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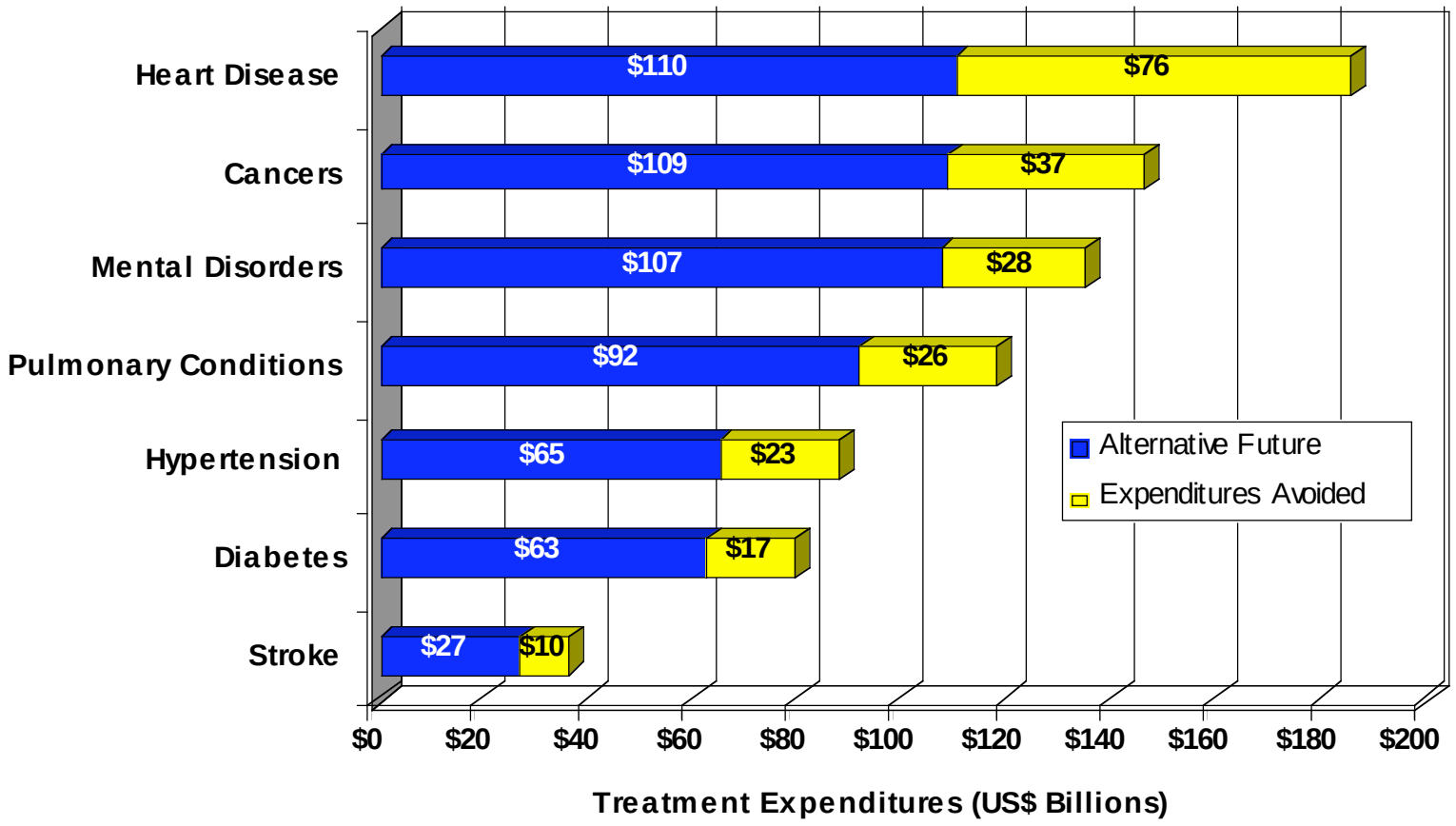

Avoidable Productivity Losses

U.S., 2023

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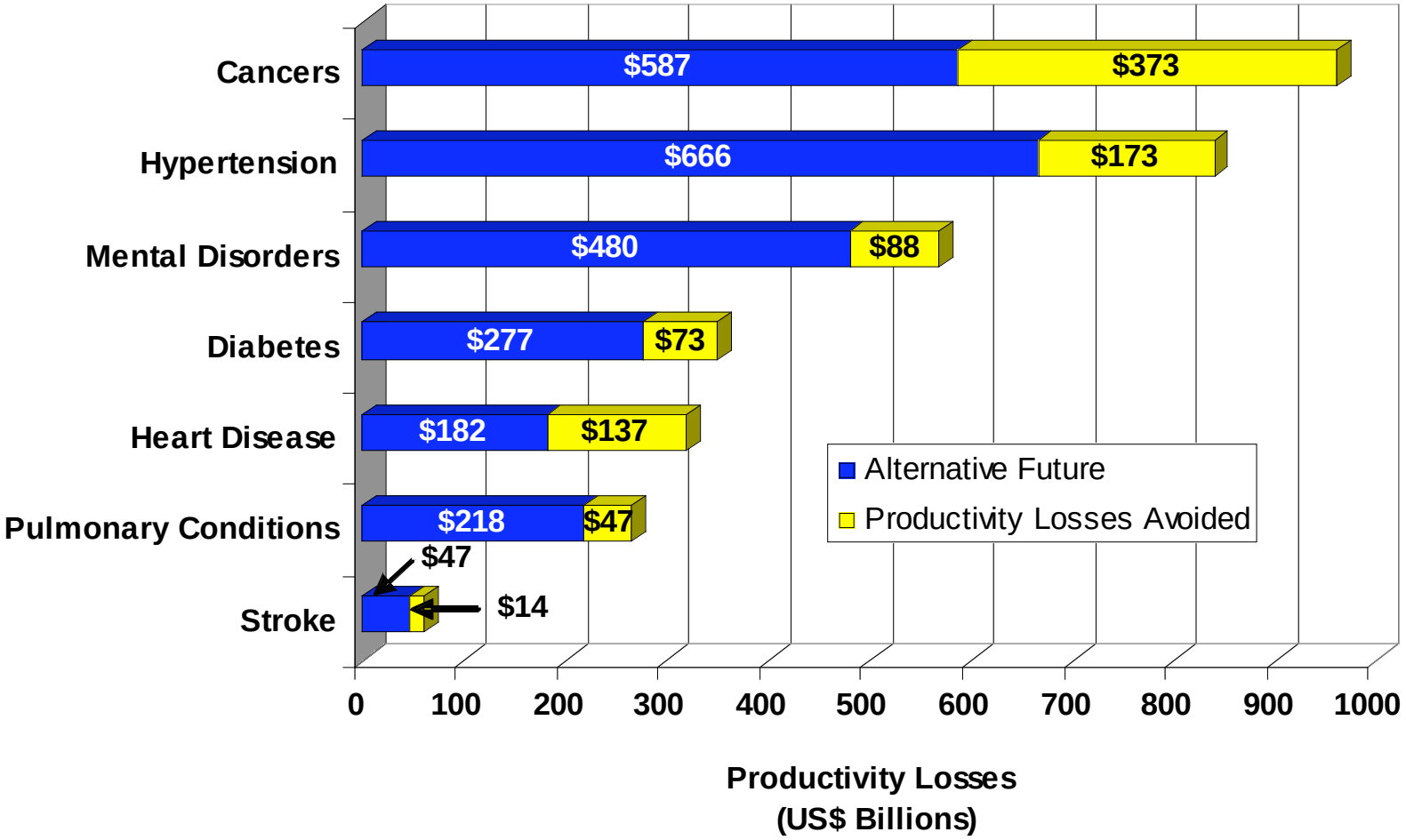

Avoidable Treatment Costs and Output Losses

U.S., 2023

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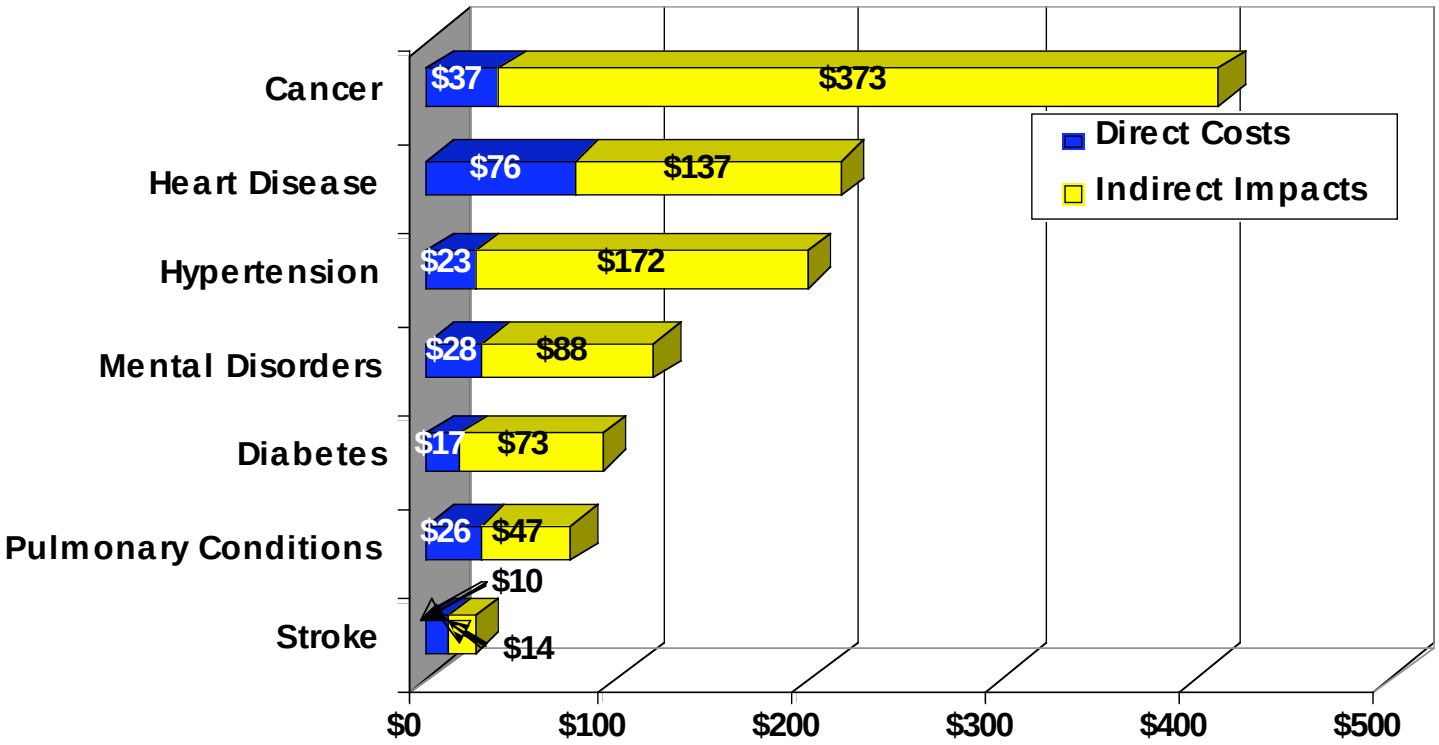

Avoided Treatment Costs and Output Losses

California, 2023

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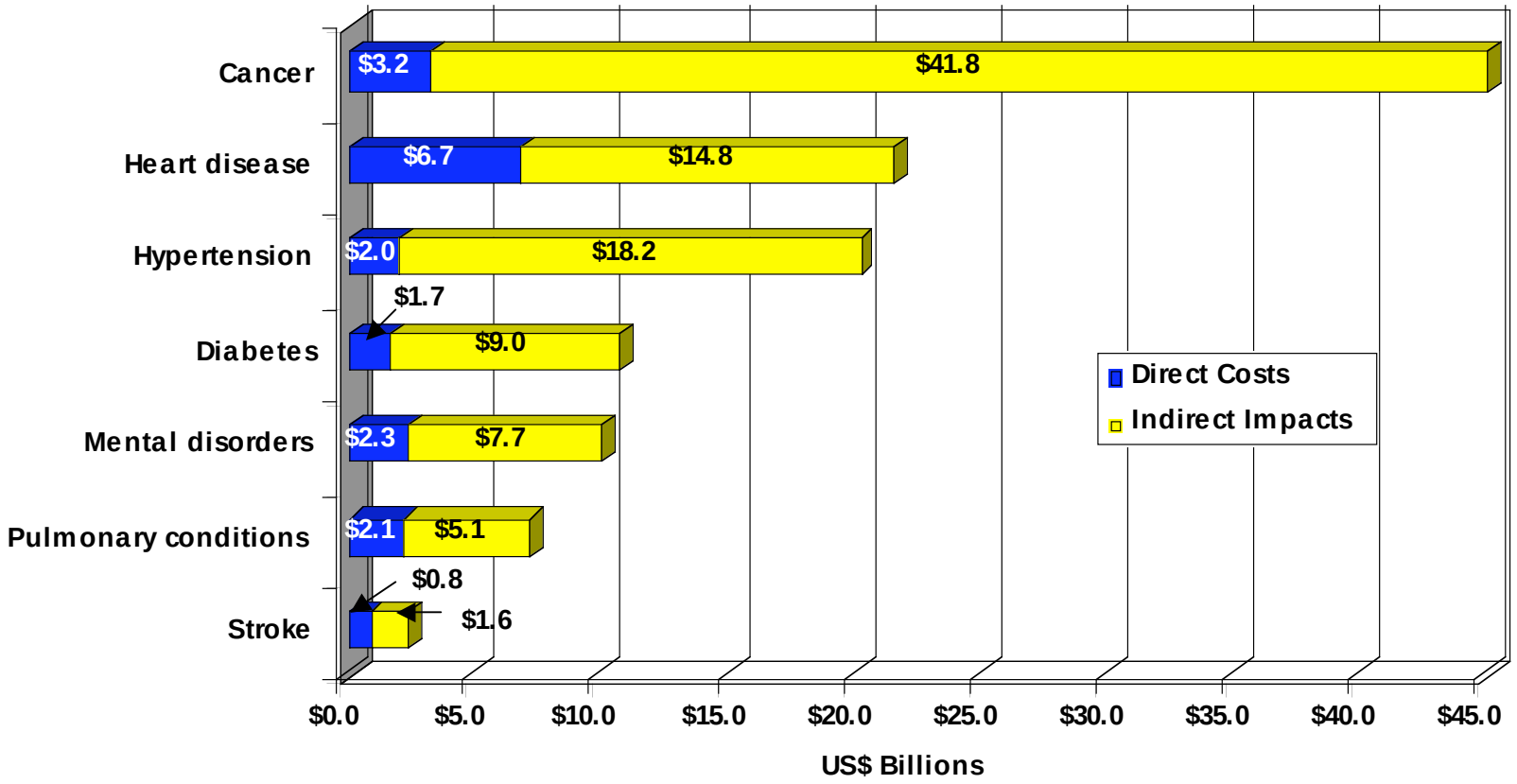

Costs That Can Be Avoided Each Year

US$ Billions

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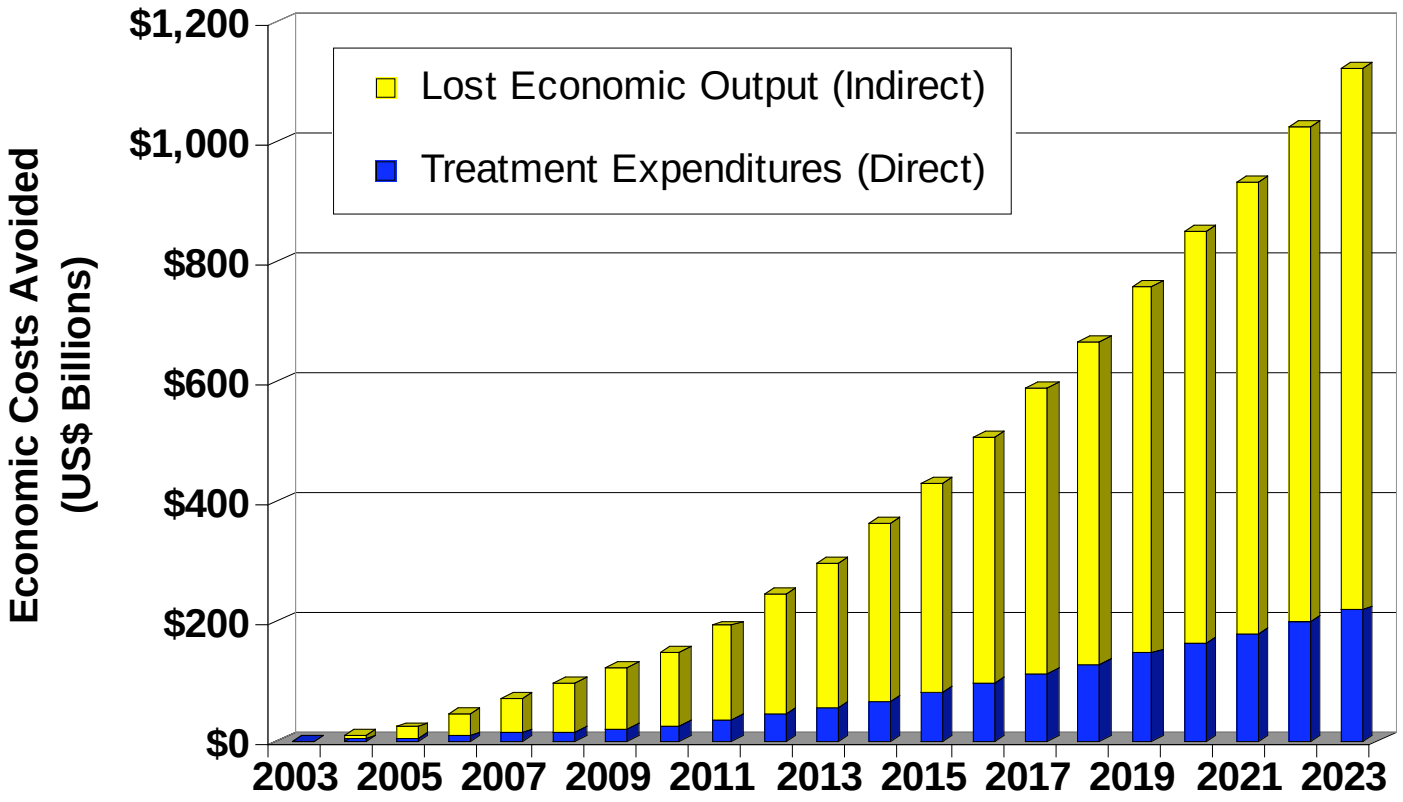

Avoidable Economic Costs Attributable to Decline in Obesity

U.S., 2023

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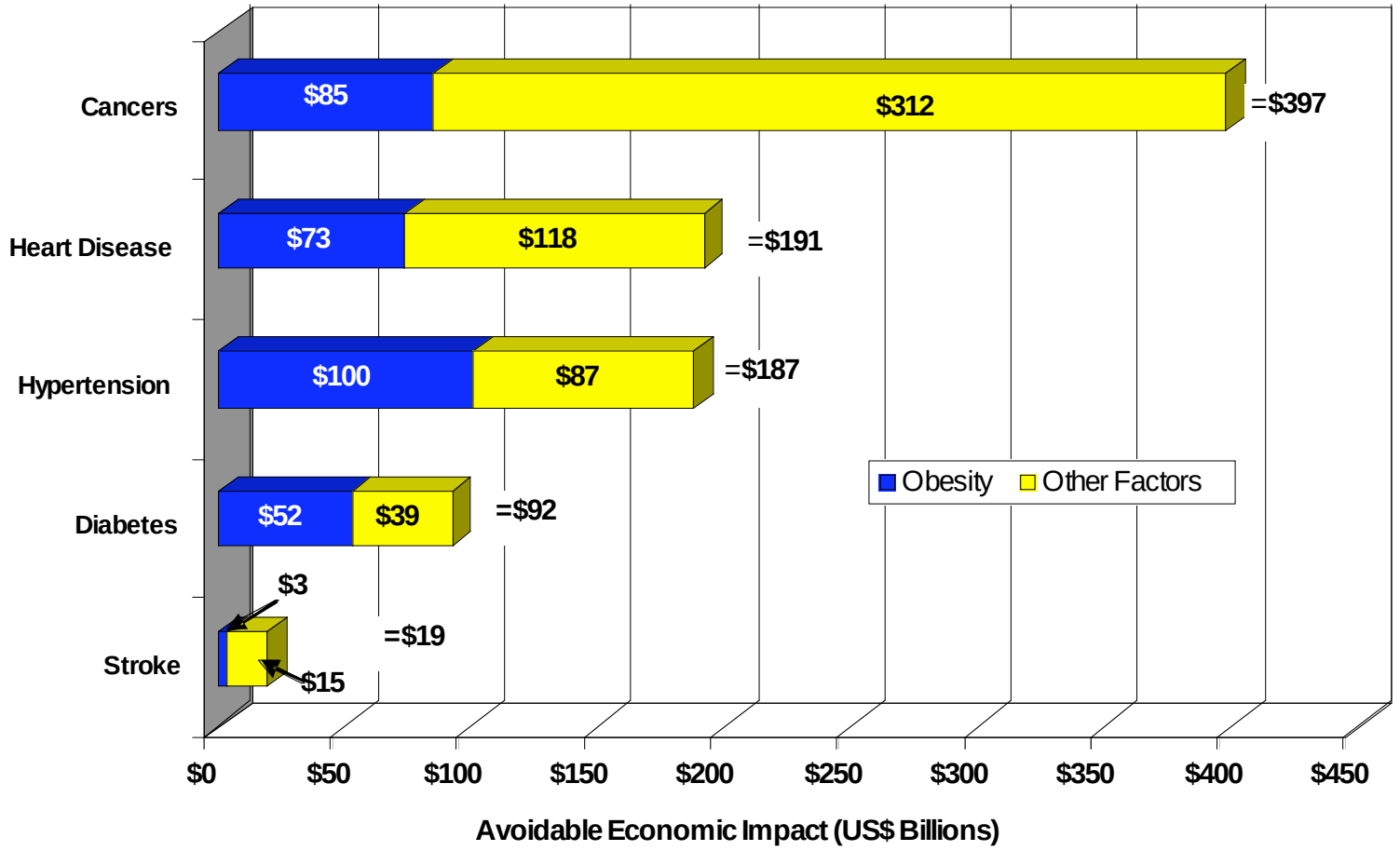

Long-Term Economic Impacts

Overview

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- **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 to 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**

Intergenerational Impact of Health on Education

2000, Actual versus Fitted Explained by Life Expectancy

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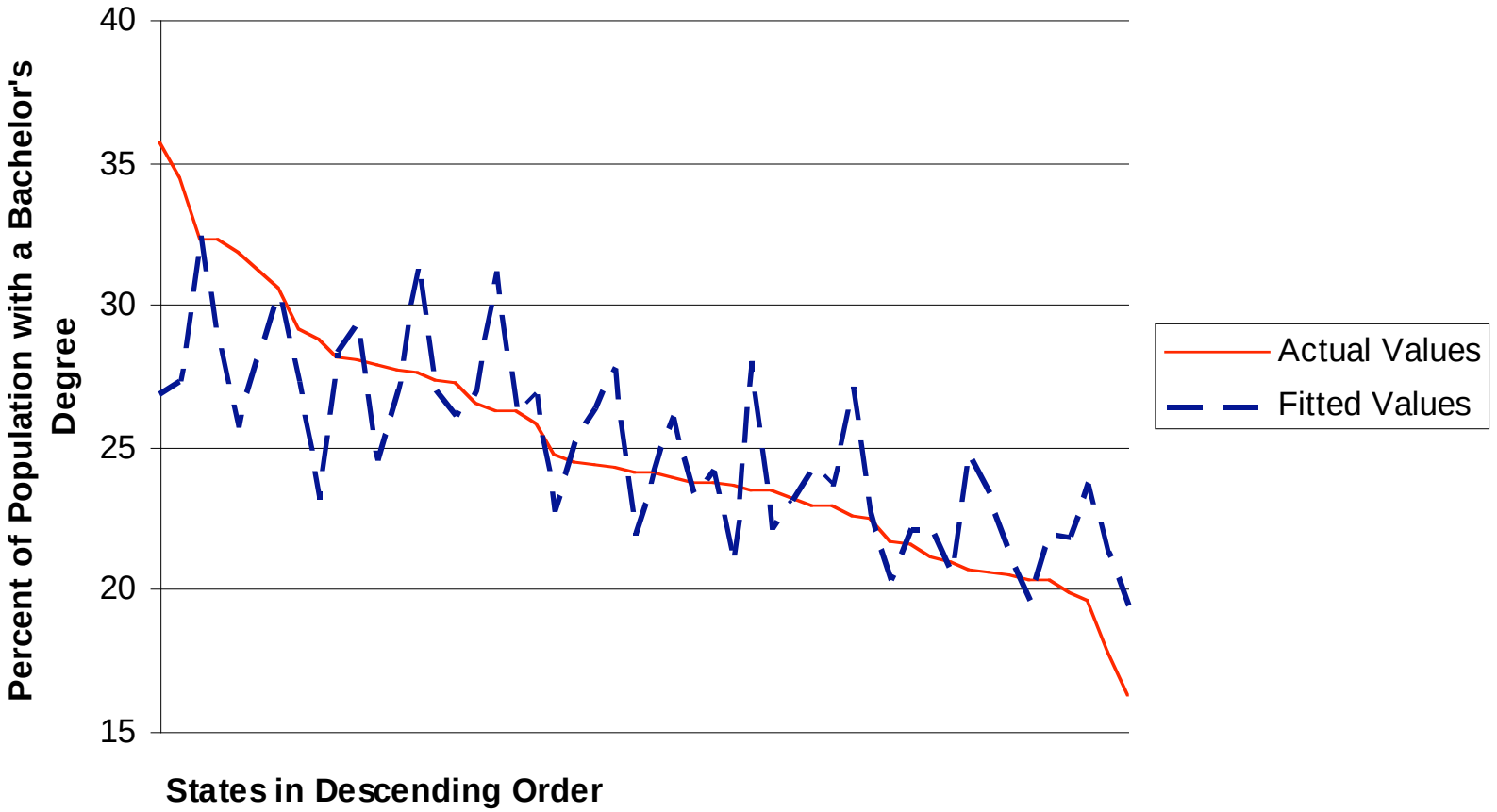

Health and Human Capital

2003

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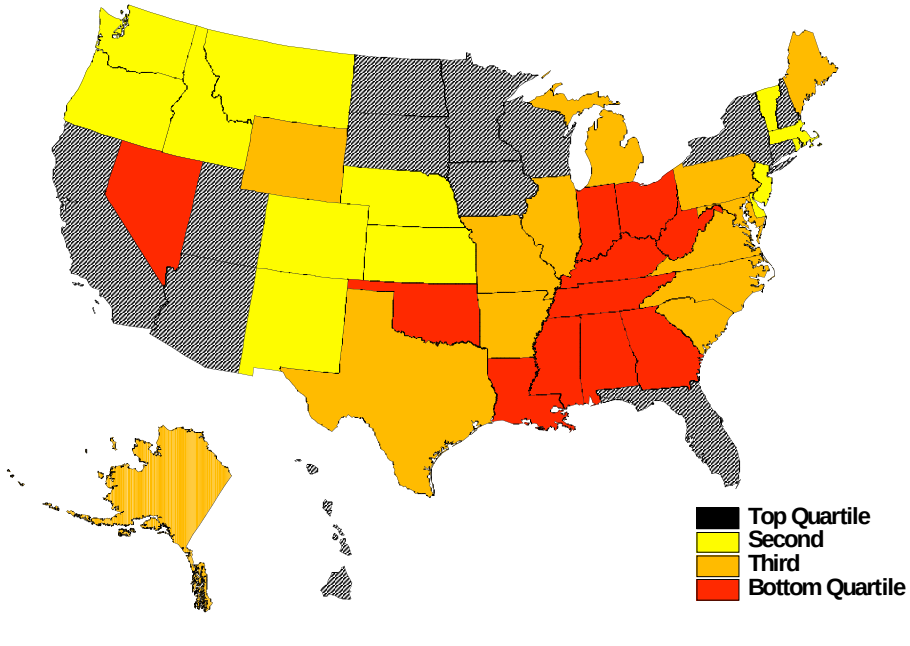
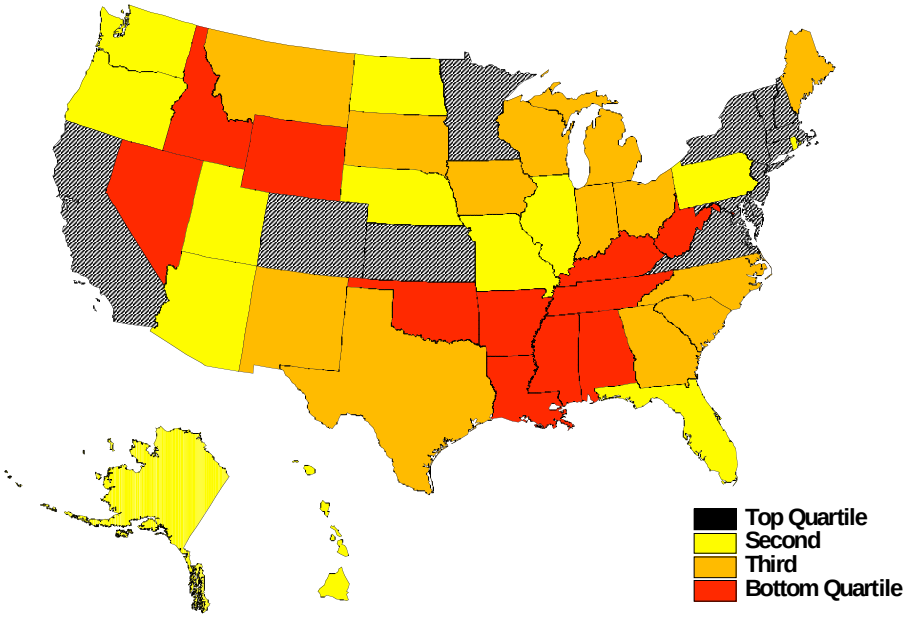
Life Expectancy at 65



Population with Bachelor's Degree, Percent



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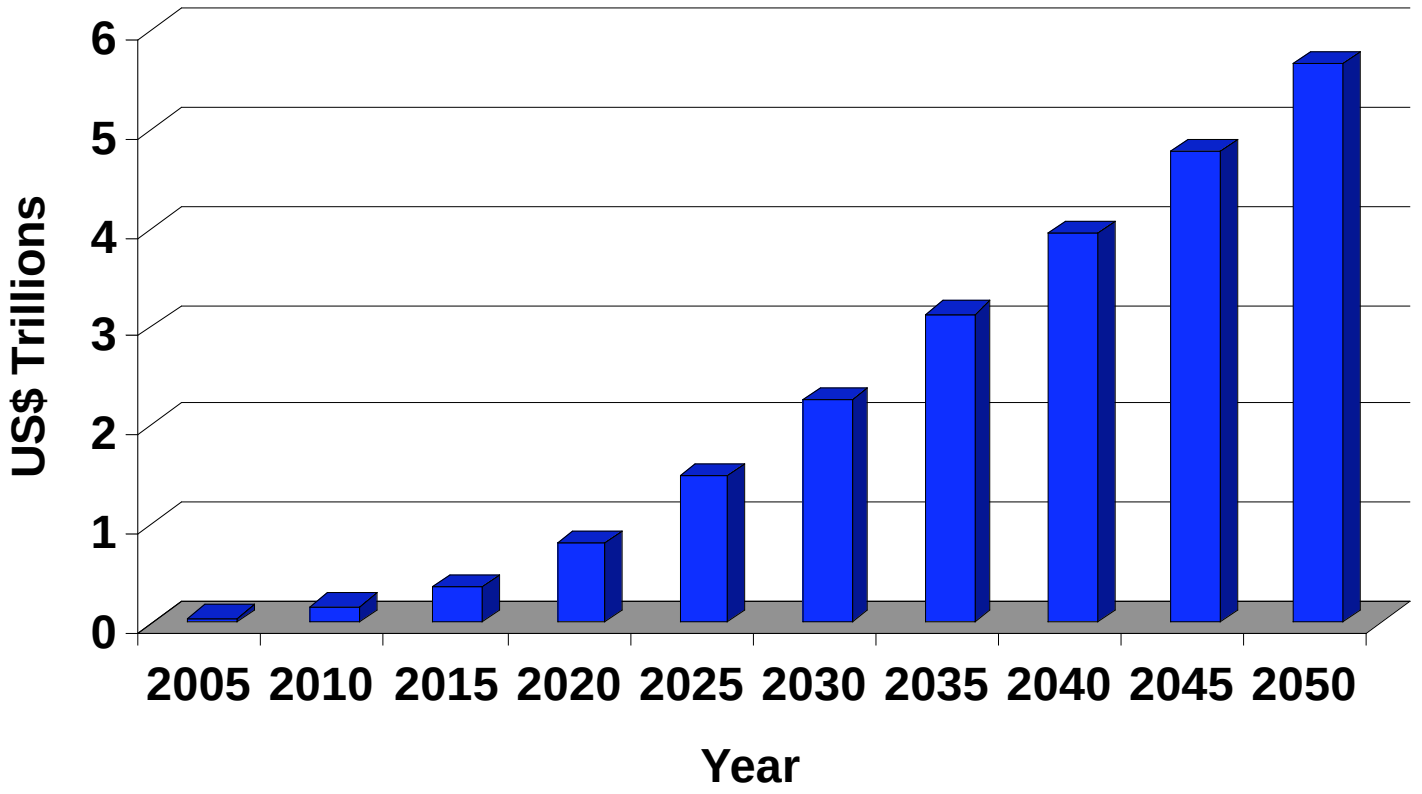
U.S. Long-Term Forgone Economic Output

Change in Real GDP Between Baseline and Optimistic Scenarios



California Long-Term Forgone Economic Output

Change in Real GDP Between Baseline and Optimistic Scenarios

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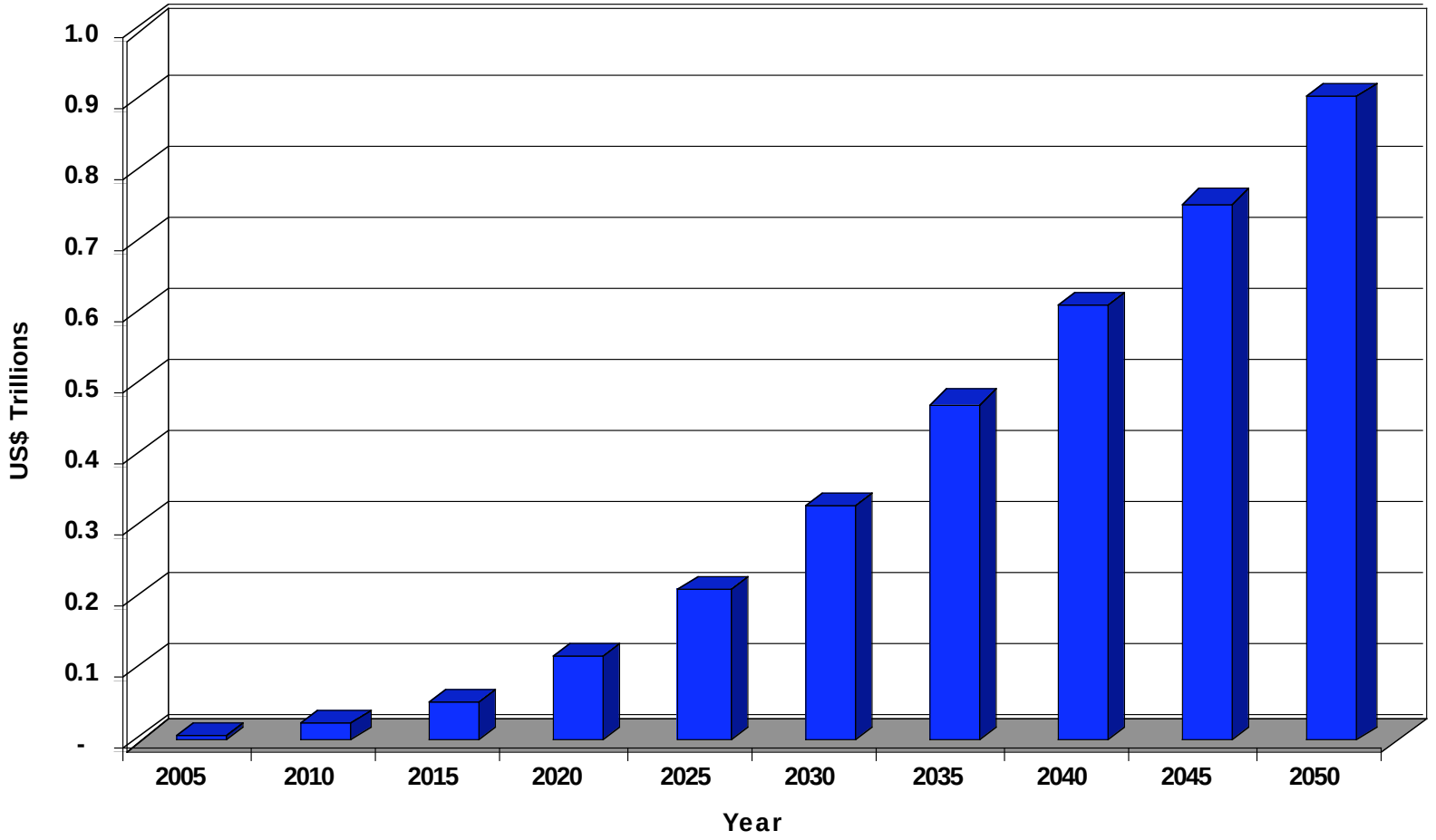

Economic Burden of Chronic Disease: *Conclusions and Recommendations*

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Conclusions:

- Lost Productivity Surpasses Treatment as the Cause of Economi Burden
- Early Interventions and Medical Innovations Improve Quality an 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