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## **Implications of Trends in Elderly Health and Socioeconomic Status for Medicare Expenditures**

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Session 10, Closing Plenary: „Increase in Life Expectancy, Health Span: Effects on Health Care Costs and Effects of Social Status“

Our Common Future, Essen, November 6th, 2010

Our Common Future, Hannover/Essen, 2-6 November 2010 ([www.ourcommonfuture.de](http://www.ourcommonfuture.de))

# Implications of Trends in Elderly Health and Socioeconomic Status for Medicare Expenditures

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# Outline

- Population aging and Medicare
- Insights from trends in health care spending in relation to trends in
  - Mortality
  - Health
  - Socioeconomic status
- Conclusions

# The Medicare Program

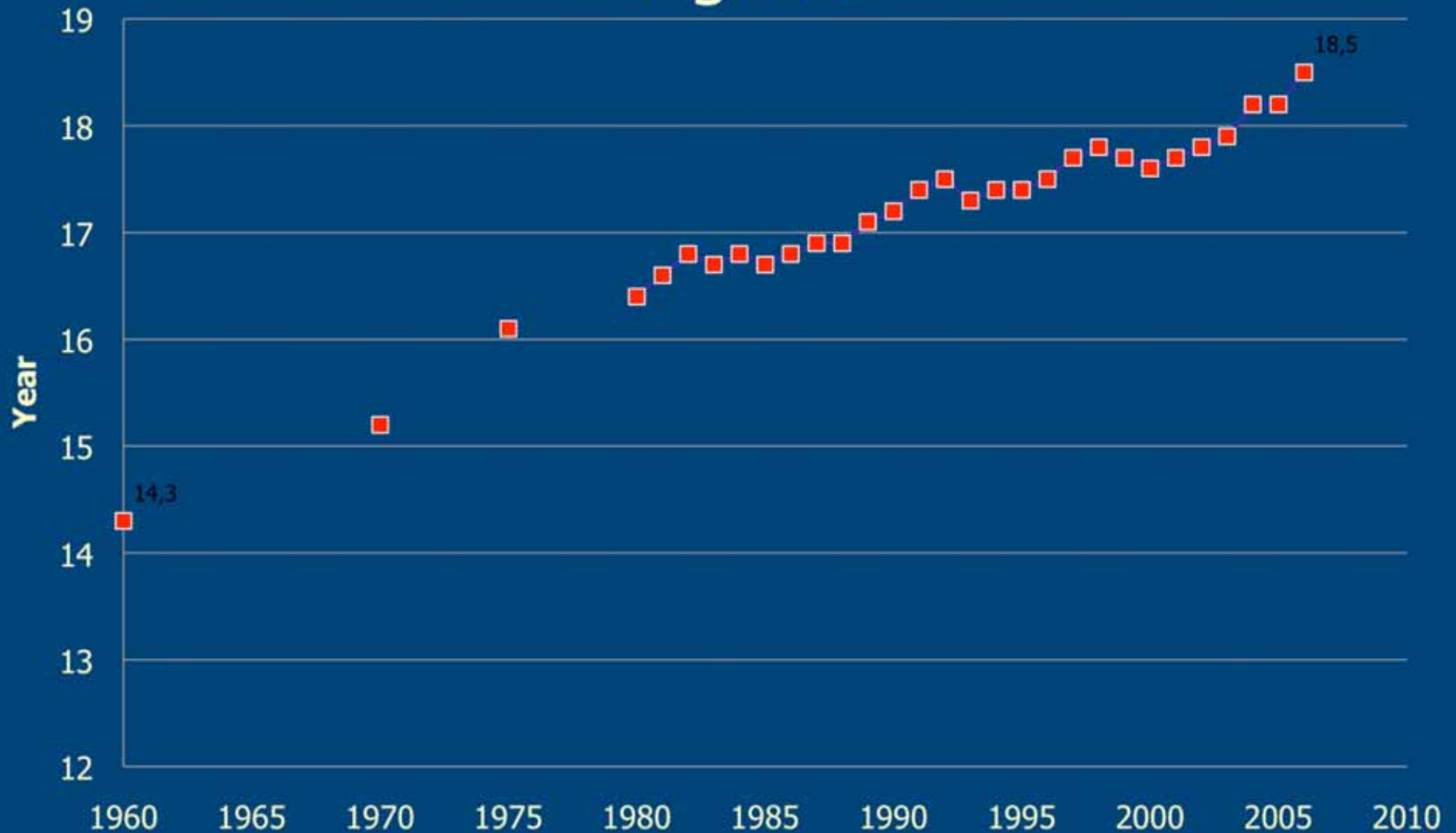
- Primary insurance coverage for over 47 million Americans that covers inpatient, outpatient, Rx, home health, hospice care, etc.
- Medicare is expected to pay \$514 billion, 20% of national health expenditure or 3.5% GDP, in 2010
- Medicare spending has grown on average 2% faster than GDP during 1975-2007

# Population Aging in the U.S.

- The retirement and aging of about 77 million baby boomers
- Profound impact on labor force participation, health care utilization and financing, etc.
- Impact on health care spending of
  - Trend in mortality
  - Trend in health
  - Trend in socioeconomic status

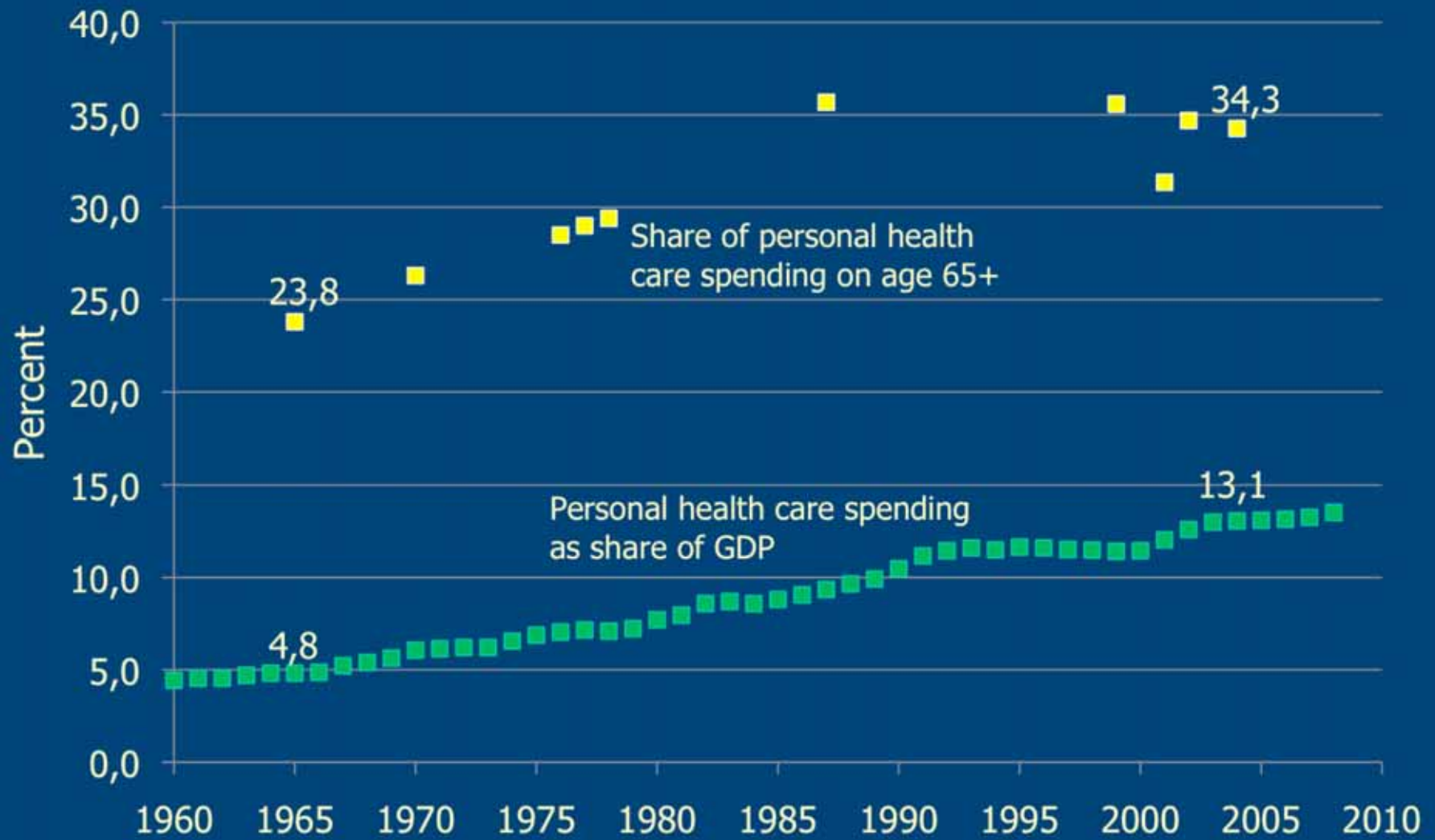
# Trends in Mortality and Spending

# Steady Increase in Life Expectancy at Age 65



Source: Health U.S., NCHS/CDC.

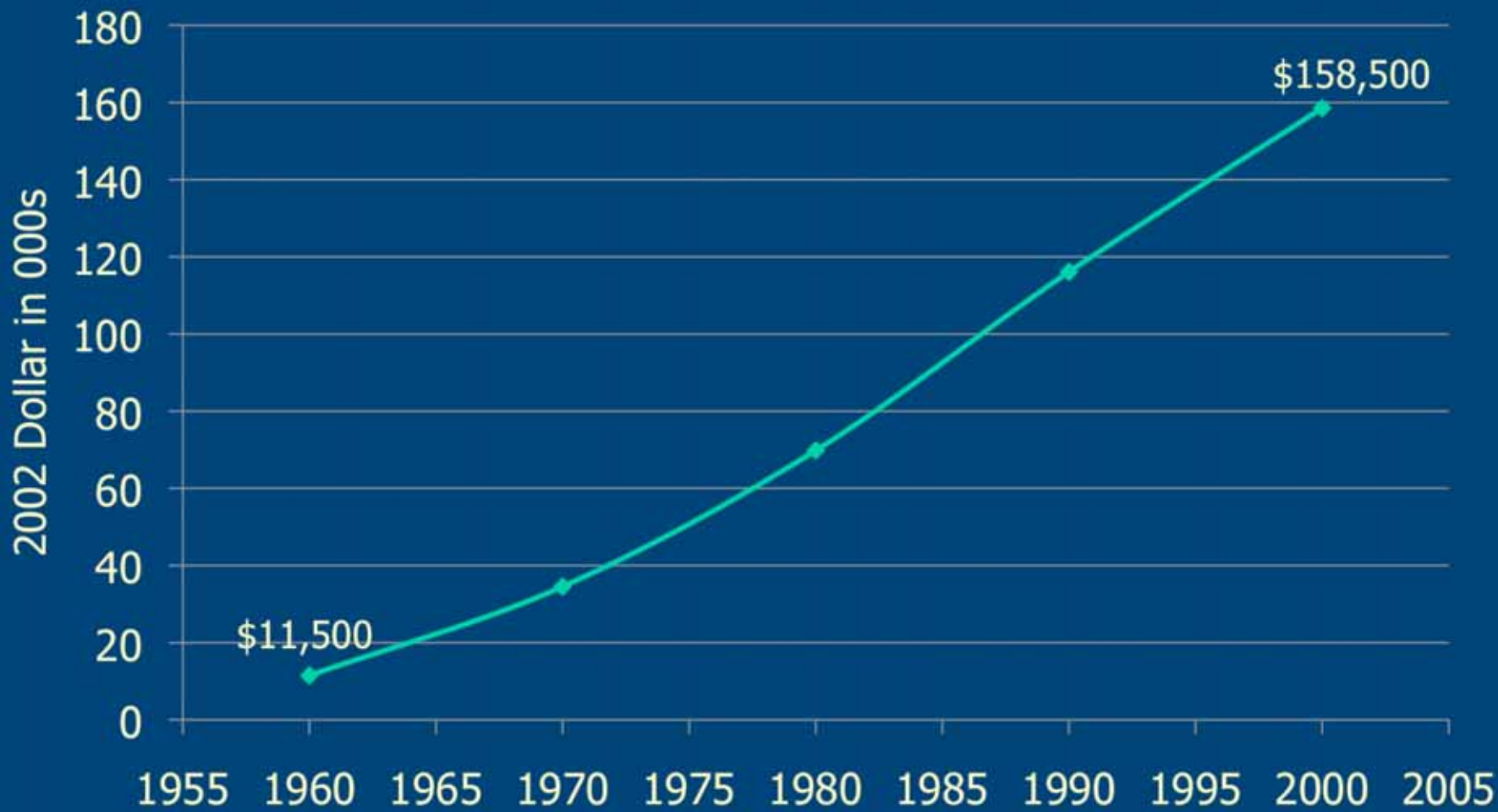
# Rapid Growth in Health Spending



Source: PHC as share of GDP is from NHEA, CMS. Share of PHC on elderly is from Fisher (1980), Waldo et al. (1989) and Hartman et al. (2008).



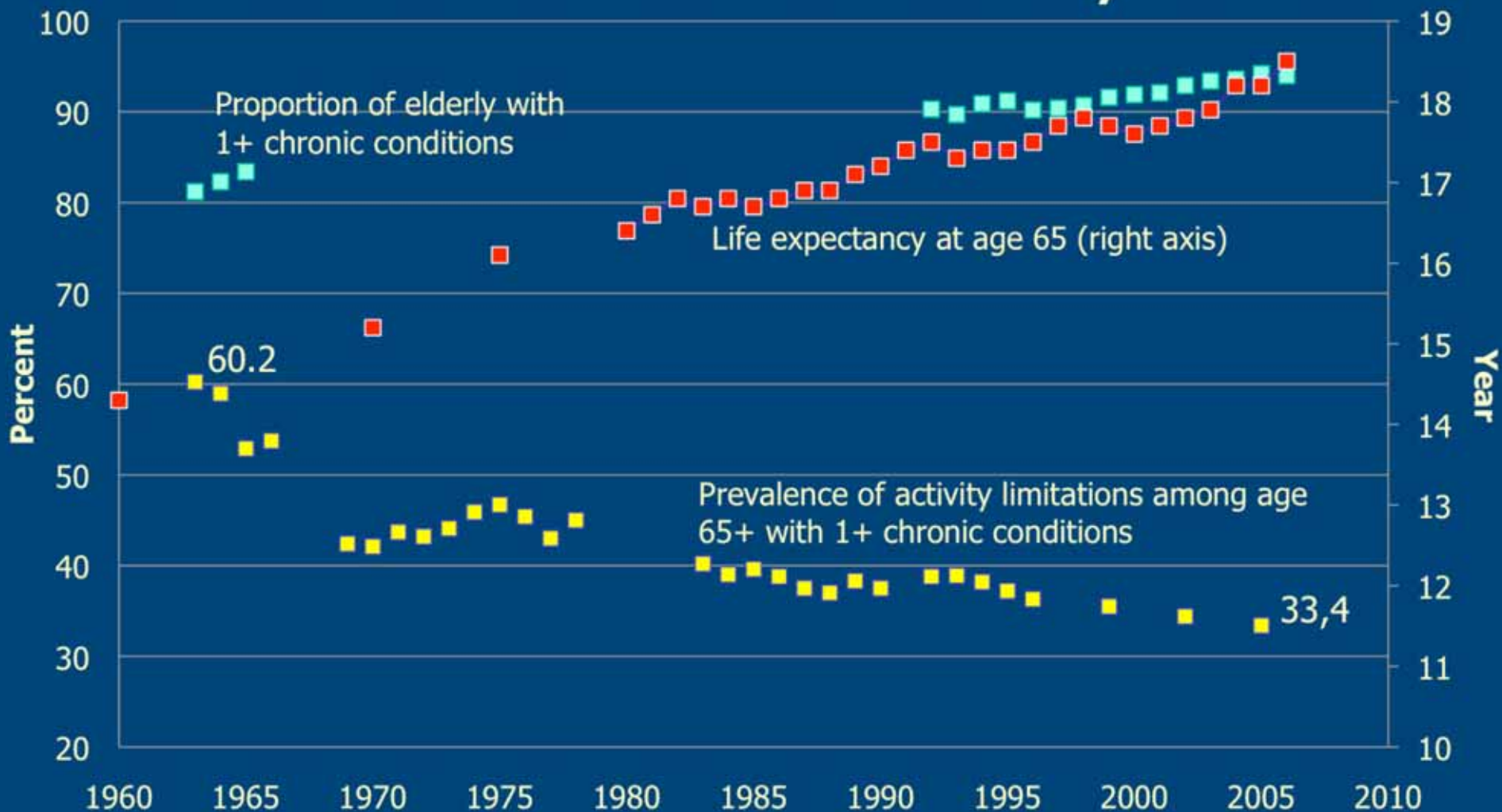
# Rising Cost Per Extra Year of Life at Age 65



Source: Cutler et al. (2006 NEJM, Table 3, in 2000 \$).

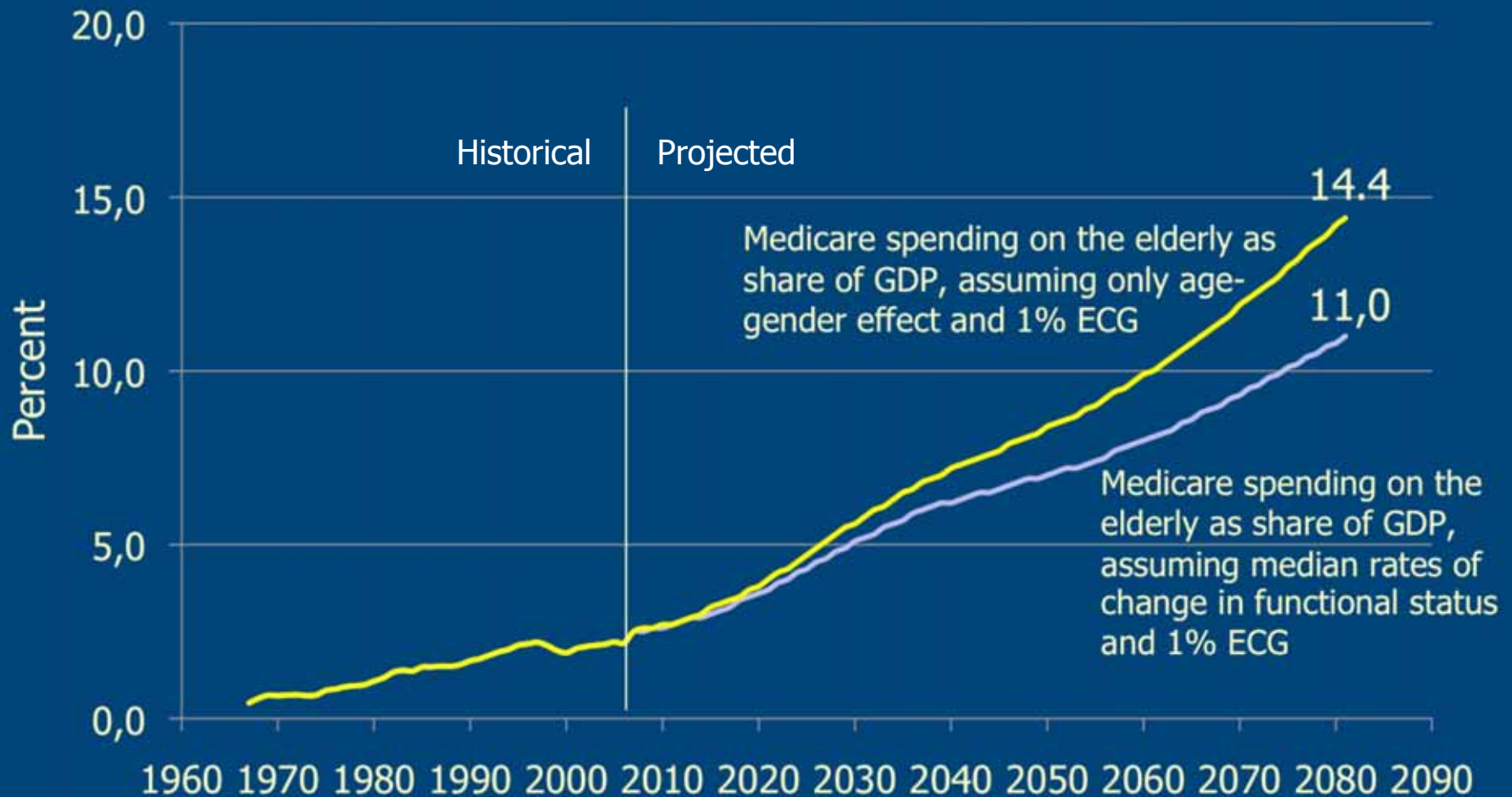
# Trends in Health and Spending

# Trends in Chronic Conditions and Functional Disability



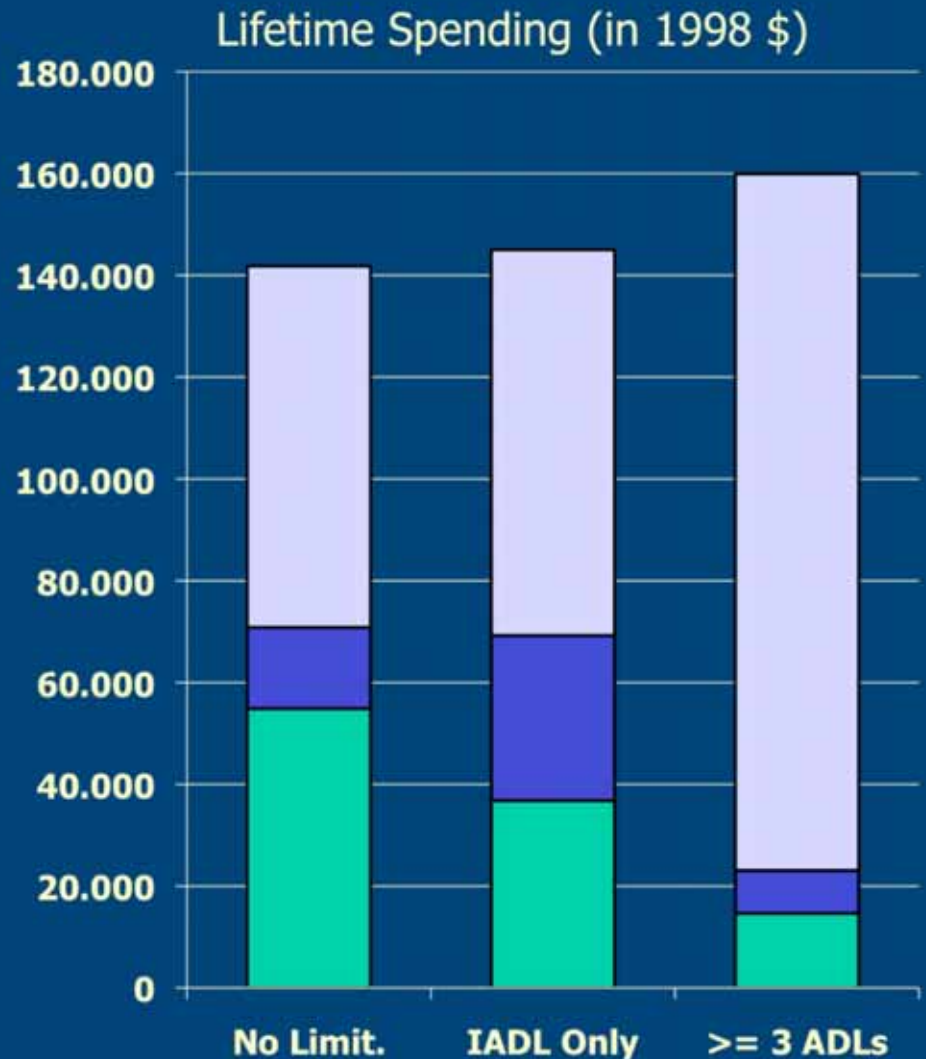
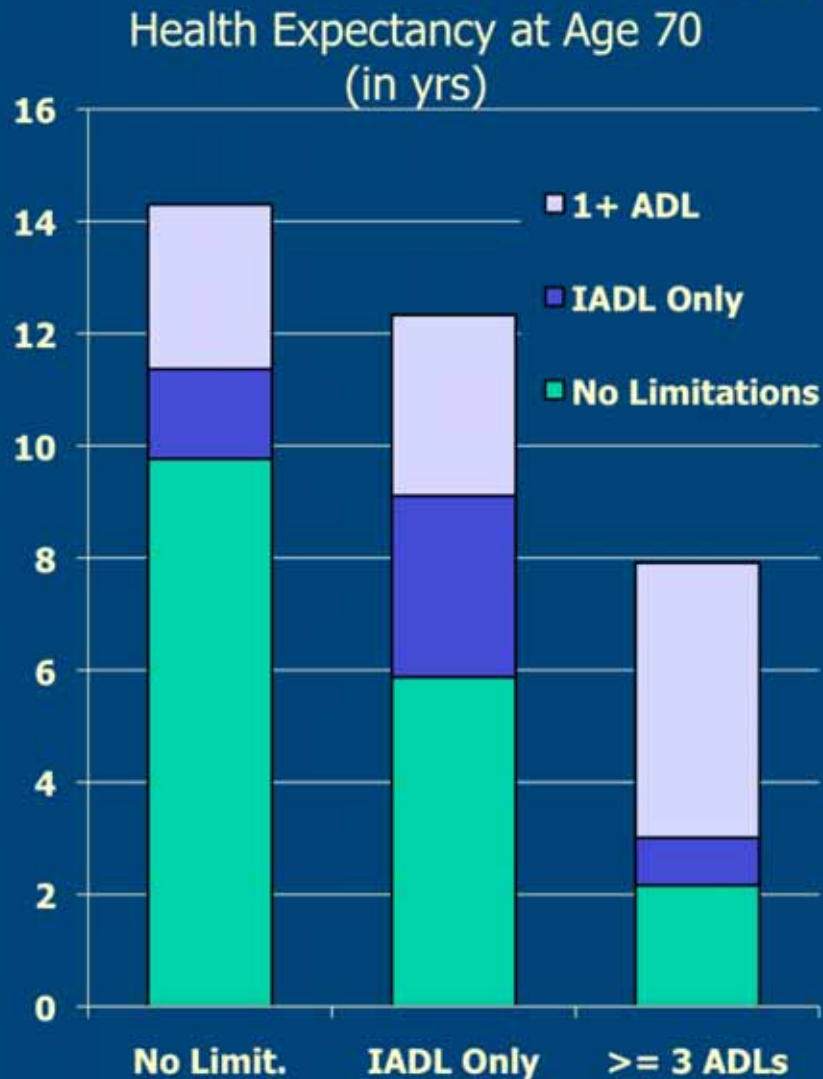
Source: NHIS & Health U.S., NCHS/CDC; MCBS, CMS.

# Impact of Trends in Disability: A Period Perspective



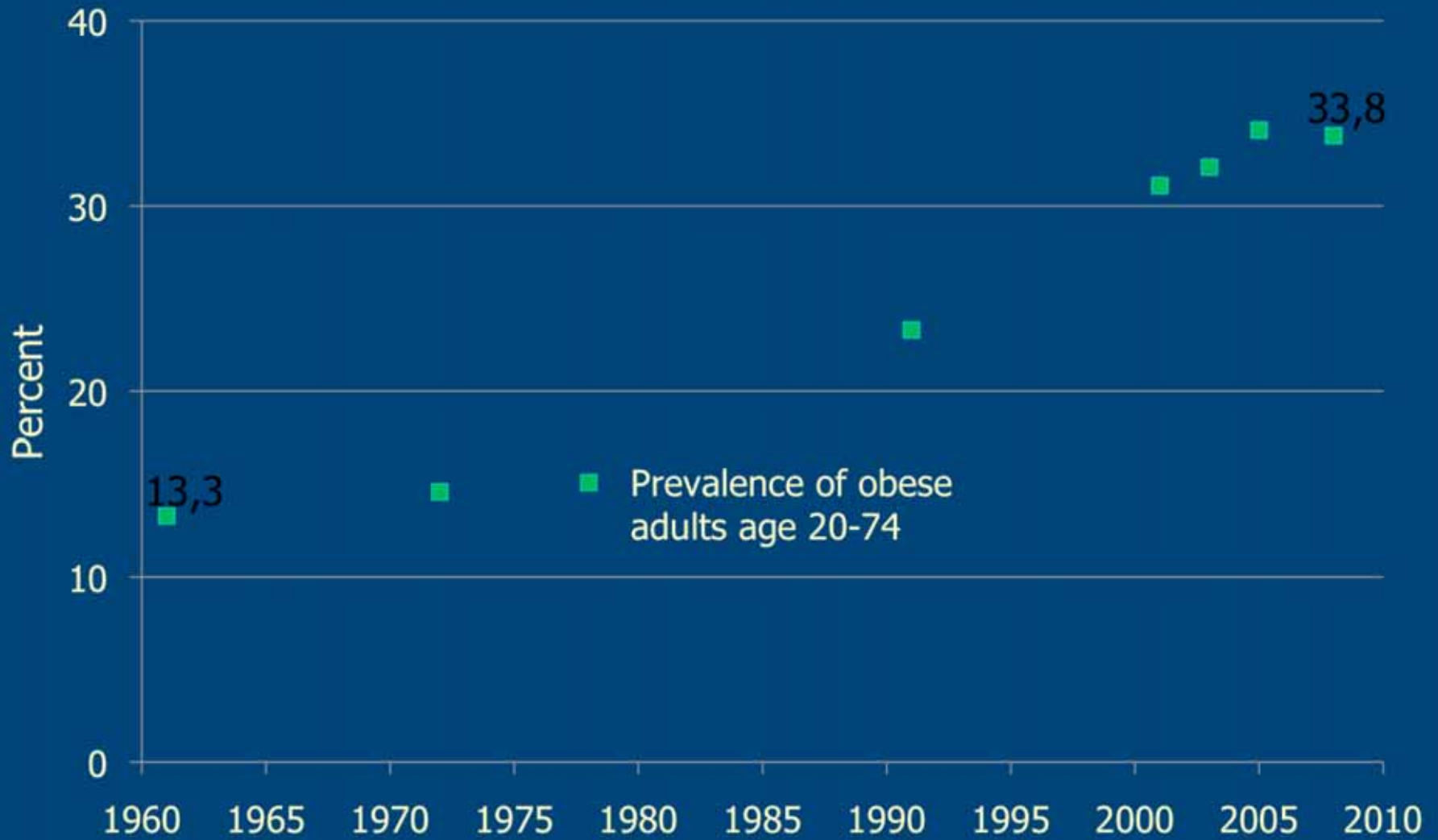
Source: CMS program data for 1967-2006; 2007-2081 estimates are based on author's calculation from 1992-2006 MCBS and SSA population projection, holding all other factors constant.

# Impact of Trends in Disability: A Cohort Perspective



Source: Lubitz et al. (NEJM, 2003)

# The Obesity Epidemic



Source: Health US, NCHS/CDC

# The Significance of Chronic Obesity

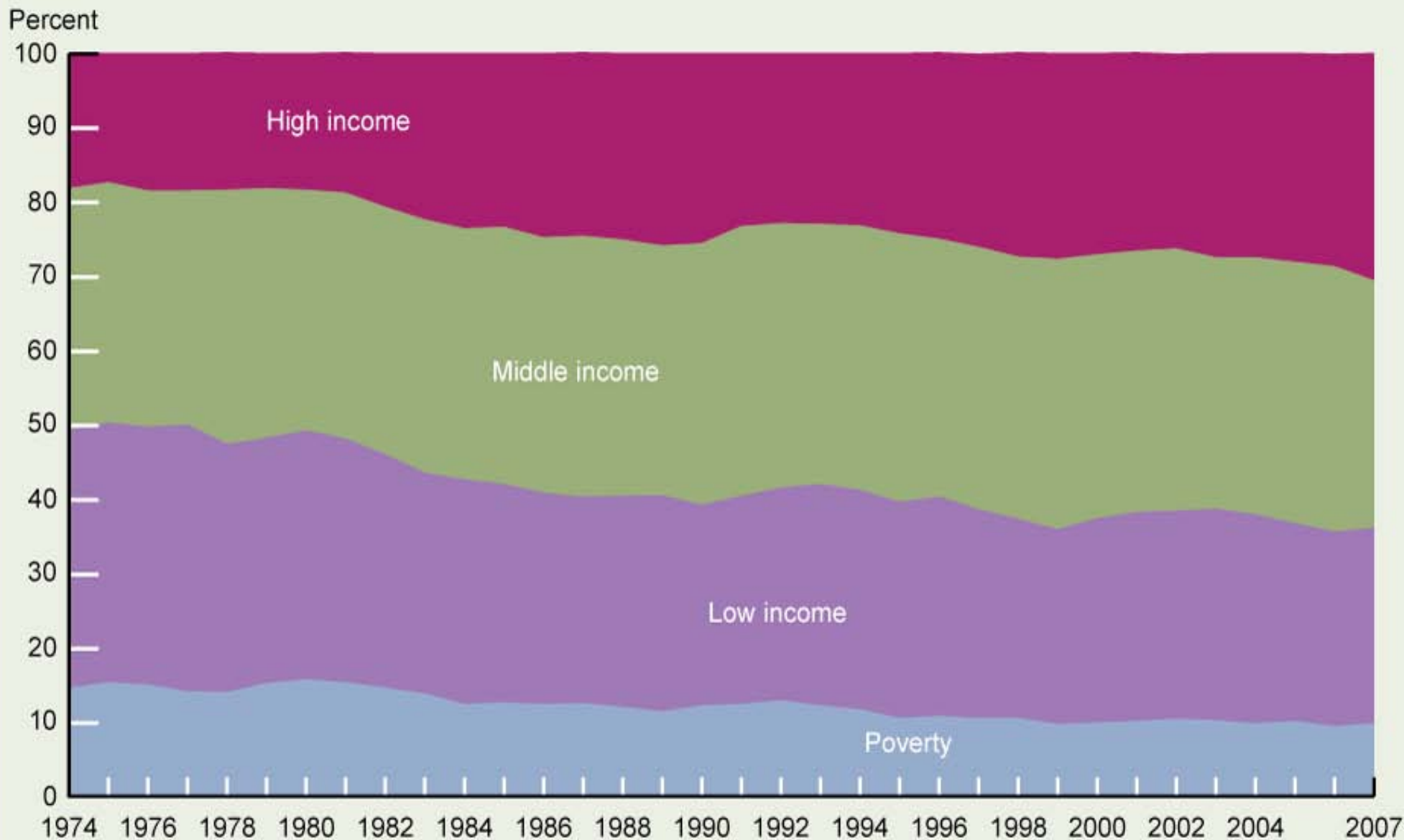
Weight status of 45-yr old in 1973	% survived to age 65	LE at age 65	Avg. lifetime Medicare spending for survivors to age 65+ (in 2000 \$)
<i>All persons</i>			
Normal	86.2	19.8	\$117,087
Overweight	85.6	17.9	\$128,898
Obese	78.3	17.4	\$162,721
<i>Male</i>			
Normal	79.8	15.9	\$97,034
Overweight	82.6	15.8	\$112,356
Obese	76.0	17.0	\$142,963
<i>Female</i>			
Normal	89.2	21.4	\$125,376
Overweight	88.8	19.9	\$145,181
Obese	79.5	17.6	\$172,069

Source: Cai et al. (2010, Table 4).

# Trends in Socioeconomic Status and Spending



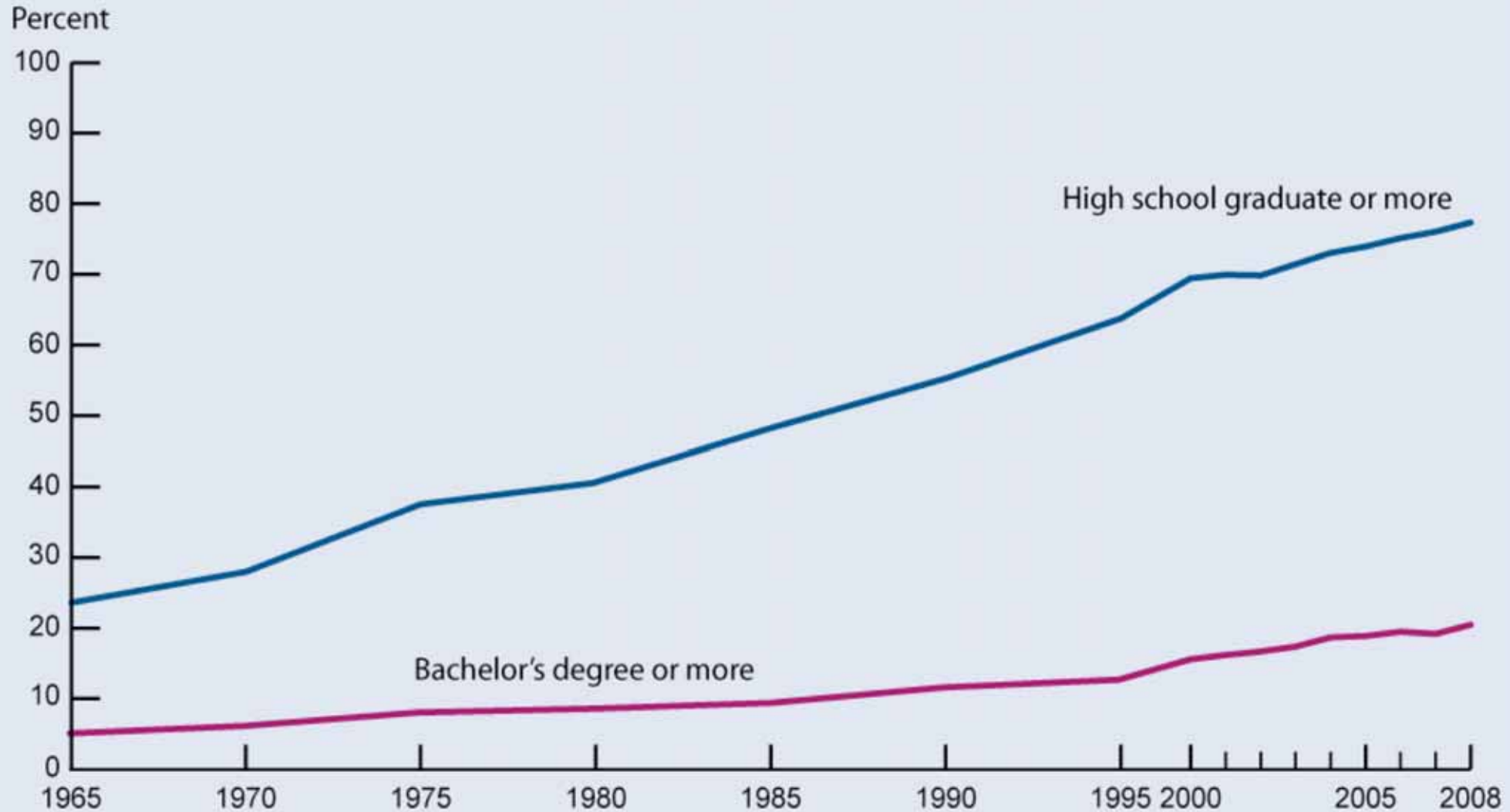
# Income distribution of the population age 65 and over, 1974–2007



NOTE: The income categories are derived from the ratio of the family's income (or an unrelated individual's income) to the corresponding poverty threshold. Being in poverty is measured as income less than 100 percent of the poverty threshold. Low income is between 100 percent and 199 percent of the poverty threshold. Middle income is between 200 percent and 399 percent of the poverty threshold. High income is 400 percent or more of the poverty threshold. Reference population: These data refer to the civilian noninstitutionalized population.

SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 1975–2008.

# Educational attainment of the population age 65 and over, selected years 1965–2008



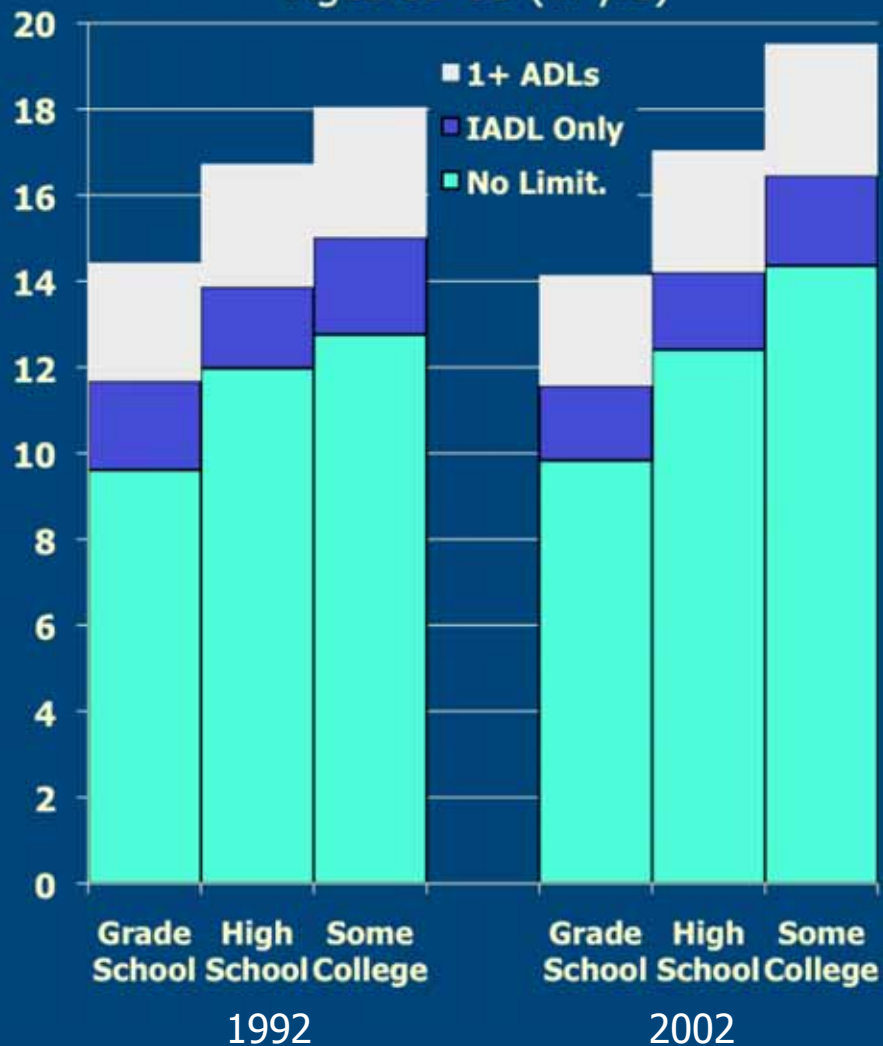
NOTE: A single question which asks for the highest grade or degree completed is now used to determine educational attainment. Prior to 1995, educational attainment was measured using data on years of school completed.

Reference population: These data refer to the civilian noninstitutionalized population.

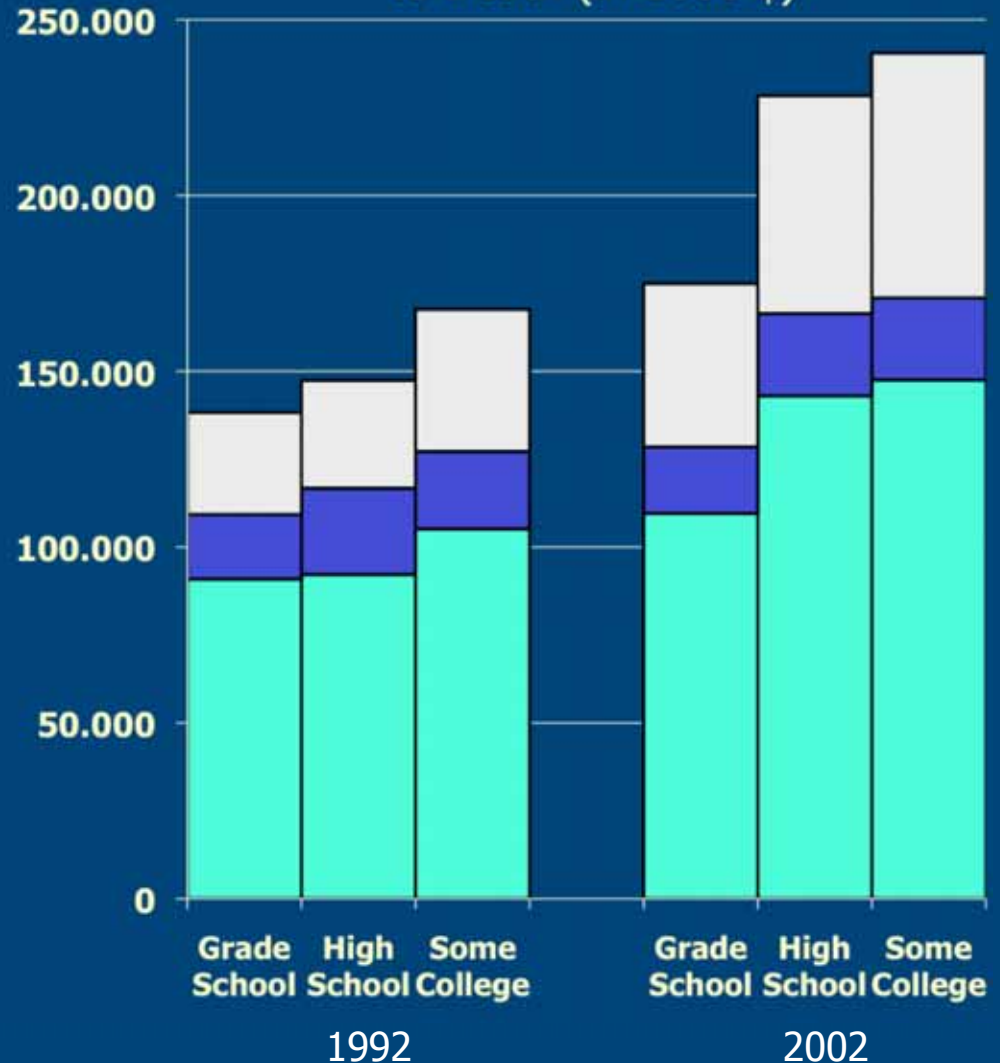
SOURCE: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 1966–2008.

# DFLE and Cumulative Spending by Educational Achievement

Average Health Expectancy at Ages 65-85 (in yrs)



Cumulative Spending From Ages 65-85 to Death (in 2006 \$)



Source: Author's calculation based on 1992-2006 MCBS

# Conclusions

- Population aging not only represents a major, complex demographic transition, but also poses significant fiscal challenge
- It is essential to develop insights of various population trends to inform our expectation of its impact on health care spending
- Need additional research on
  - Summary measure of population health
  - Interaction of multiple factors

Thank You!