Global Forum 2008
Healthcare Challenges, E-Health & New Service Models

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Alisoun K. Moore

Director, State & Local Health and Human Services

Alisoun Moore, MBA, MPA

- Director of Health and Human Services, Northrop Grumman

- Master of Public Administration
  - University of Maryland, Baltimore campus
  - Information Systems

- Master of Business Administration
  - Johns Hopkins University School of Medicine and Carey Business School
  - Business of Health, Medical Services Management

- 20 Years of experience in public and private sectors
  - CIO level

- Northrop Grumman Health IT Solutions
  - Dept of Defense EHR provider
  - Center Medicaid and Medicare claims processing
  - Veteran's Administration VISTA
  - Numerous Public health applications in states
  - Largest single contractor to U.S. Center for Disease Control (CDC)
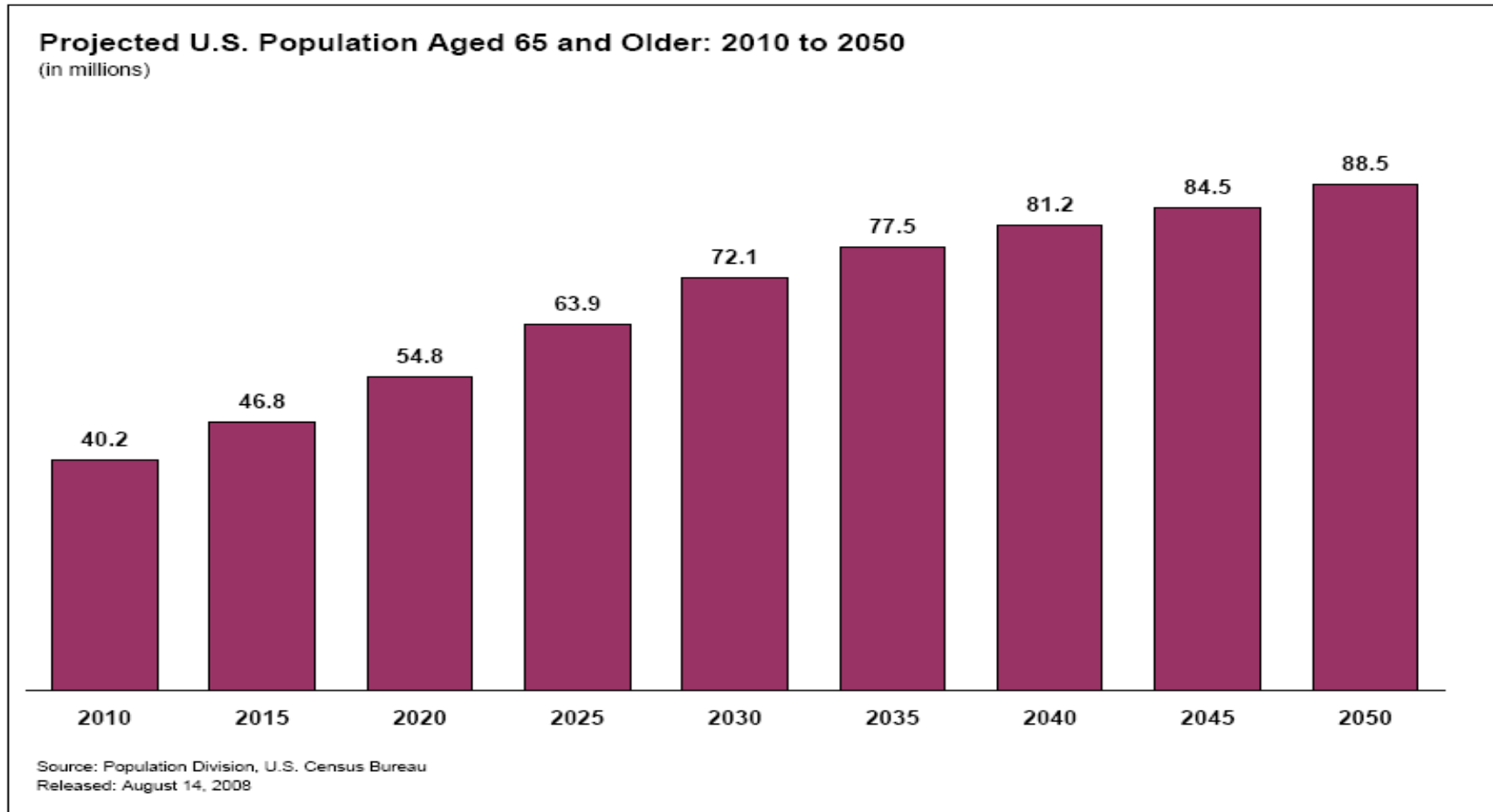
Overview

- Current issues healthcare

- IT-enabled solutions

- Barriers and Enablers

Demographic Drivers

- Aging population

- Chronic disease

- Changing employment patterns

- Mobile, global workforce

- Patient empowerment

Aging

Projected U.S. Population Aged 65 and Older: 2010 to 2050
(in millions)

2010	2015	2020	2025	2030	2035	2040	2045	2050
40.2	46.8	54.8	63.9	72.1	77.5	81.2	84.5	88.5

Source: Population Division, U.S. Census Bureau
Released: August 14, 2008

Healthcare Cost By Age

Chart 2. Percent of health care expenses incurred by the top 5 percent of health care spenders within different age groups: United States, 2002
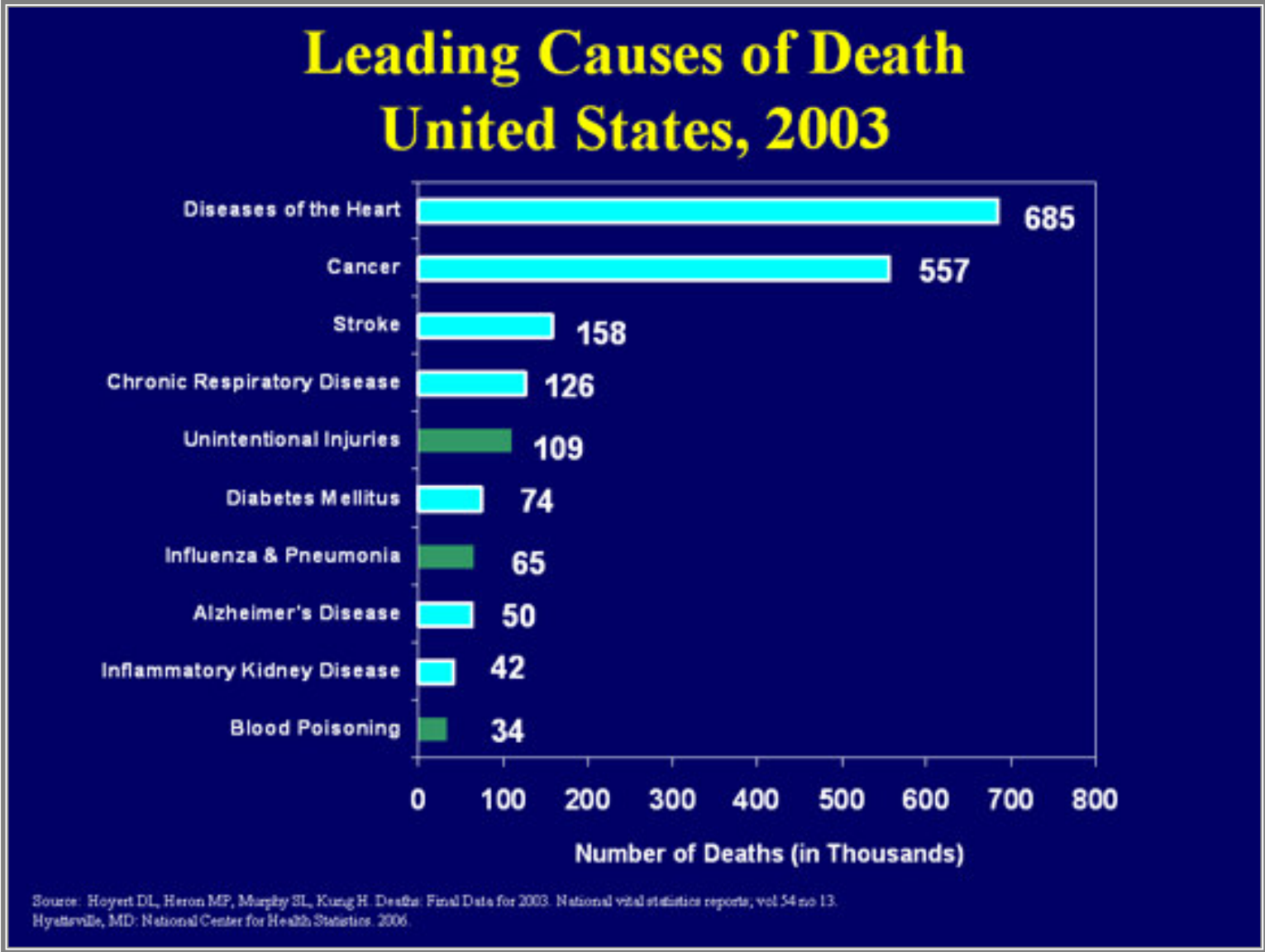
Age in years	Percent
18 and under	5%
19-34	9%
35-44	10%
45-54	15%
55-64	18%
65-79	29%
80 and over	14%
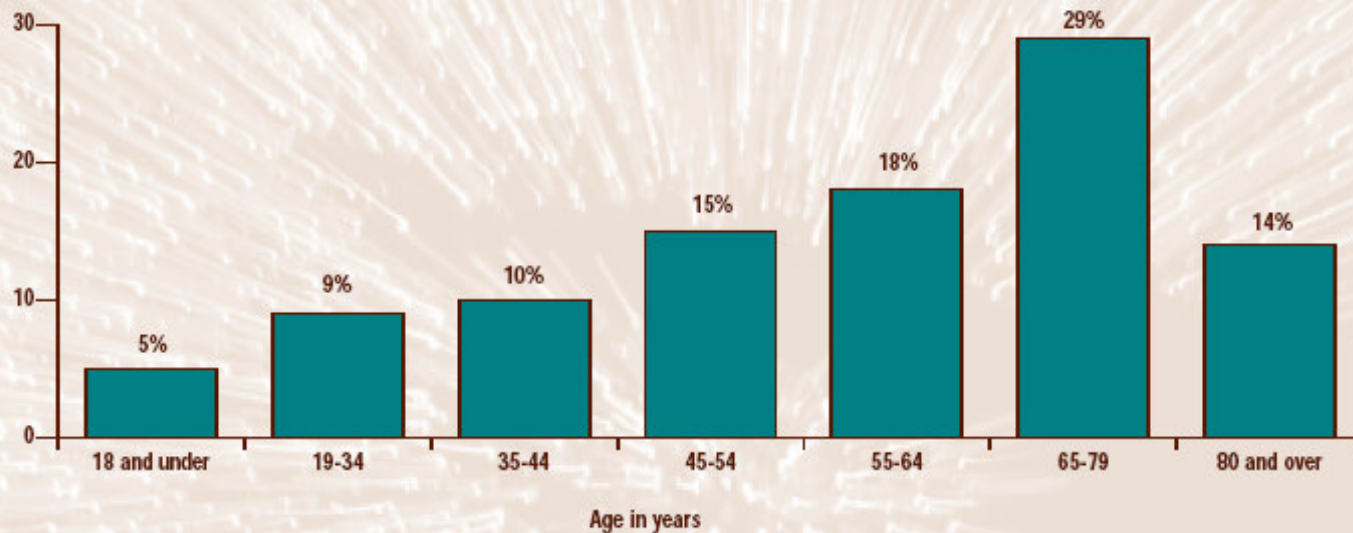
Source: Conwell LJ, Cohen JW. Characteristics of people with high medical expenses in the U.S. civilian noninstitutionalized population, 2002. Statistical Brief #73. March 2005. Agency for Healthcare Research and Quality, Rockville, MD. Web site: http://www.meps.ahrq.gov/PrintProducts/PrintProdLookup.asp?ProductType=StatisticalBrief. Accessed April 7, 2006.
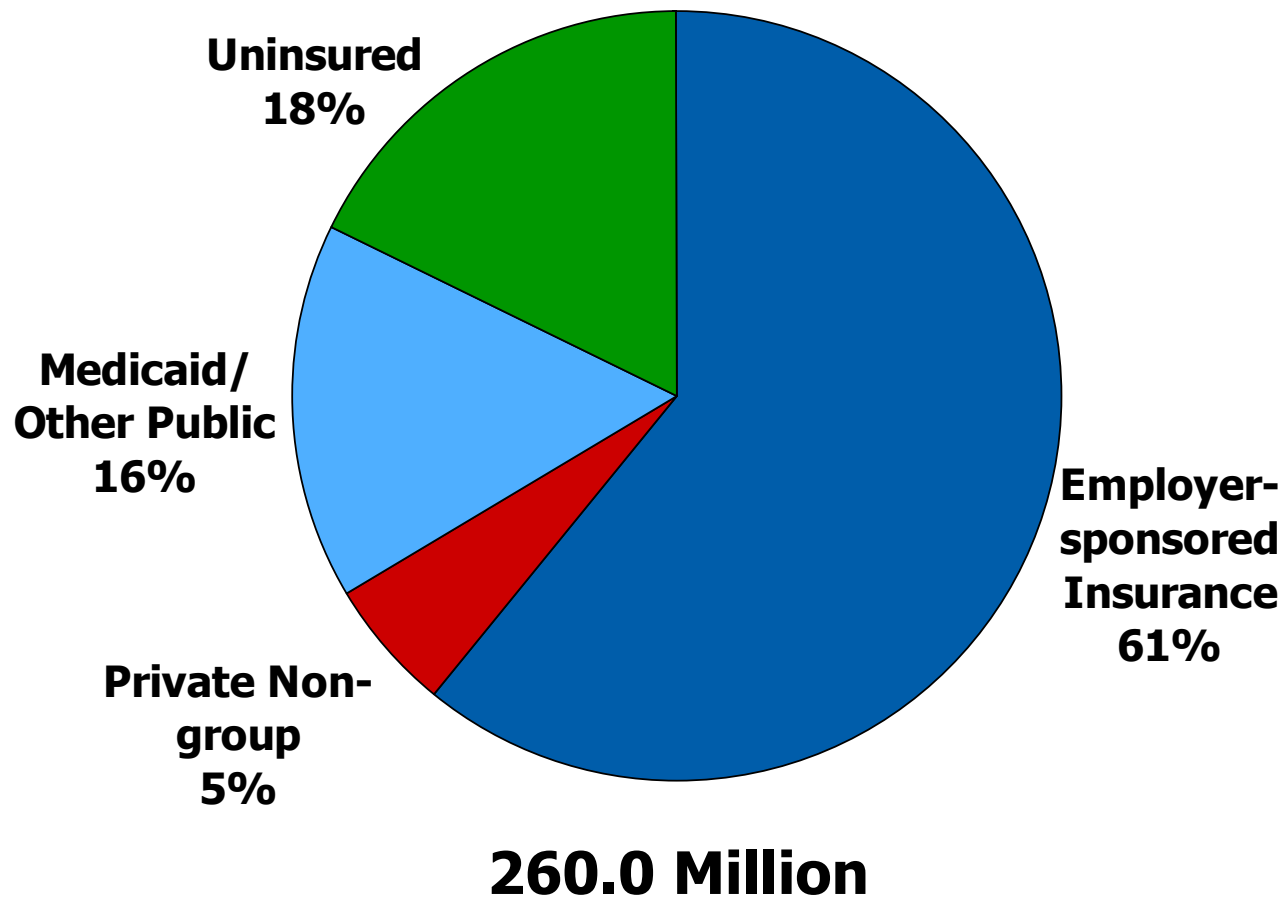
Chronic Disease

Leading Causes of Death
United States, 2003

Cause	Number of Deaths (in Thousands)
Diseases of the Heart	685
Cancer	557
Stroke	158
Chronic Respiratory Disease	126
Unintentional Injuries	109
Diabetes Mellitus	74
Influenza & Pneumonia	65
Alzheimer's Disease	50
Inflammatory Kidney Disease	42
Blood Poisoning	34

Number of Deaths (in Thousands)

Source: Hoyert DL, Heron MP, Murphy SL, Kung H. Deaths: Final Data for 2003. National vital statistics reports; vol 54 no 13. Hyattsville, MD: National Center for Health Statistics. 2006.

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Issues

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- Access

- Cost

Health Insurance Coverage of the Nonelderly Population, 2006

Uninsured
18%

Medicaid/
Other Public
16%

Private Non-
group
5%

Employer-
sponsored
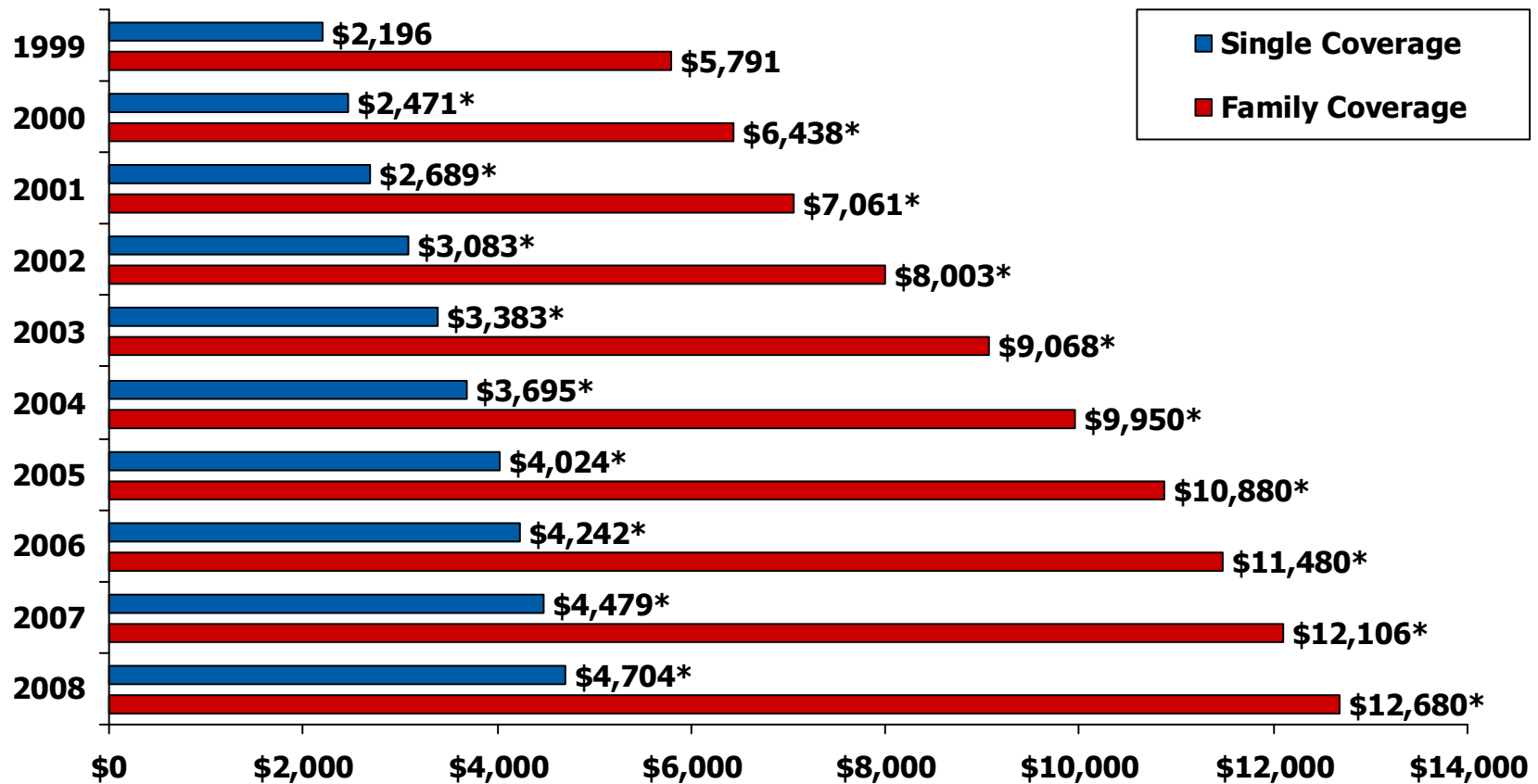Insurance
61%

260.0 Million

National Health Expenditures and Their Share of Gross Domestic Product (GDP), 1980-2015

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National health spending is projected to continue to increase as a share of GDP over the next decade.
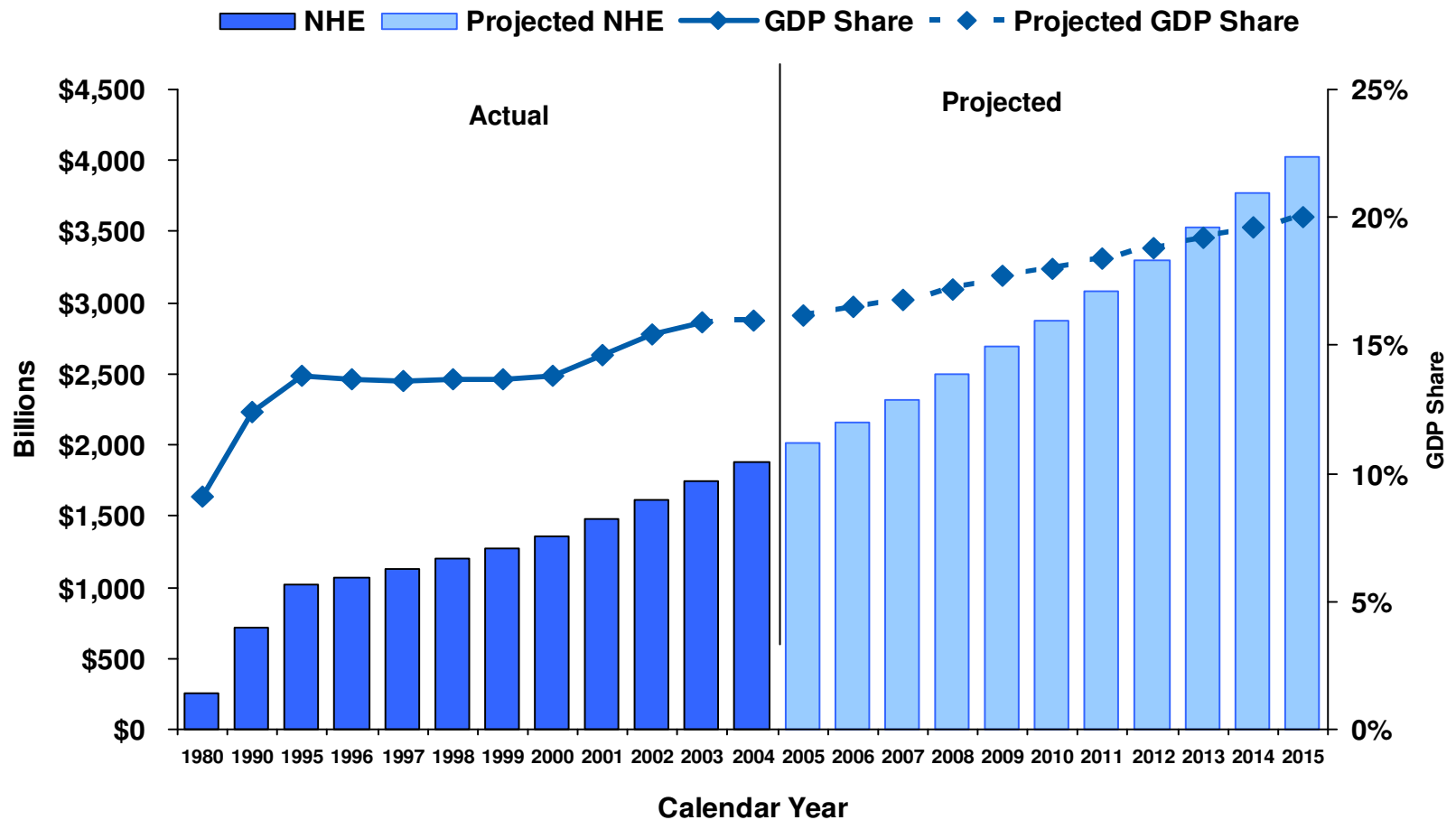
Source: CMS, Office of the Actuary, National Health Statistics Group.

Average Annual Premiums for Single and Family Coverage, 1999-2008

Legend: ■ Single Coverage ■ Family Coverage

Year	Single Coverage	Family Coverage
1999	$2,196	$5,791
2000	$2,471*	$6,438*
2001	$2,689*	$7,061*
2002	$3,083*	$8,003*
2003	$3,383*	$9,068*
2004	$3,695*	$9,950*
2005	$4,024*	$10,880*
2006	$4,242*	$11,480*
2007	$4,479*	$12,106*
2008	$4,704*	$12,680*

* Estimate is statistically different from estimate for the previous year shown ($p < .05$).

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2008.

Health IT Applications/Markets

- **Health Information Exchange**
  - Sponsored by States with funding from Federal Gov't
  - Represents greatest savings (Rand)

- **Electronic Health Records (EHRs)**
  - 17% physicians
  - 31% Emergency Rooms
  - 29% Hospitals

  Compared to UK and European nations US adoption is quite slow

- **Telehealth/telemedicine**
  - CAGR of 56% vs. 9.9%
  - Home care
    - Telehealth monitoring
    - Devices

Health Information Exchange

- Nationwide Health Information Network (NHIN)
  - Sponsored by U.S. Gov't
  - Goal to exchange electronic health records by 2014

- RHIOs/HIEs

- DoD – VA
  - World's largest EPR
  - Must track service personnel
    - Active duty
    - Veterans

- Commercial subscription services (i.e. Surescripts, Covisint/NGIT HIE service)

EHR Adoption in U.S.

- Slow in US
  - Presidential directive "…most by 2014"
  - Currently hovers below 20%

- Mandates
  - E-prescribing
  - Claims submission

- Incentives
  - HHS just announced Medicare EPR reimbursement for physicians
  - With recent Medicare change, more growth expected, but too early to quantify

- ROI is not achieved until 3-5 years
  - Only achieved if implementation is successful and usage high

- EHRs access not yet available to patients in most cases
  - Example: http://www.thehealthplan.com/

Telehealth and Home Care

- The use of digital networks to remotely monitor and treat patients.

- An emerging market with great potential to improve the quality of and delivery of care while decreasing costs

- Work processes and technology need to improve before telehealth adoptions becomes more widespread

- Traditional live-interactive video telehealth (**i.e. http://www.teleatrics.com/**)
  - Remote consults
  - Patient to physician
  - Physician to physician

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- Store and forward (S&F) telehealth
  - Sending data, messages, images that can be stored and read/evaluated at later time
  - Includes radiology images, reports, lab results, clinician reports, etc.
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Telehealth and Home Care

- Home monitoring telehealth
  - Increasing use of wireless technologies
  - Applications
    - Diabetes monitoring
    - Heart monitoring
  - Real time or store and forward
  - Device's communication with in-home network connected to external network for transmission
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- Saves costs of visits and need for skilled nursing care

- Current growth projections: Home health care will grow at five year compound annual growth rate of 56%
  - Only 9.9% in clinical market (Datamonitor, December, 2007)

Challenges

- Interoperability

- Privacy/Security

- Legacy systems

- Broadband

- Cross-border

- Cost

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DEFINING THE FUTURE