BIOE 301

Lecture Six

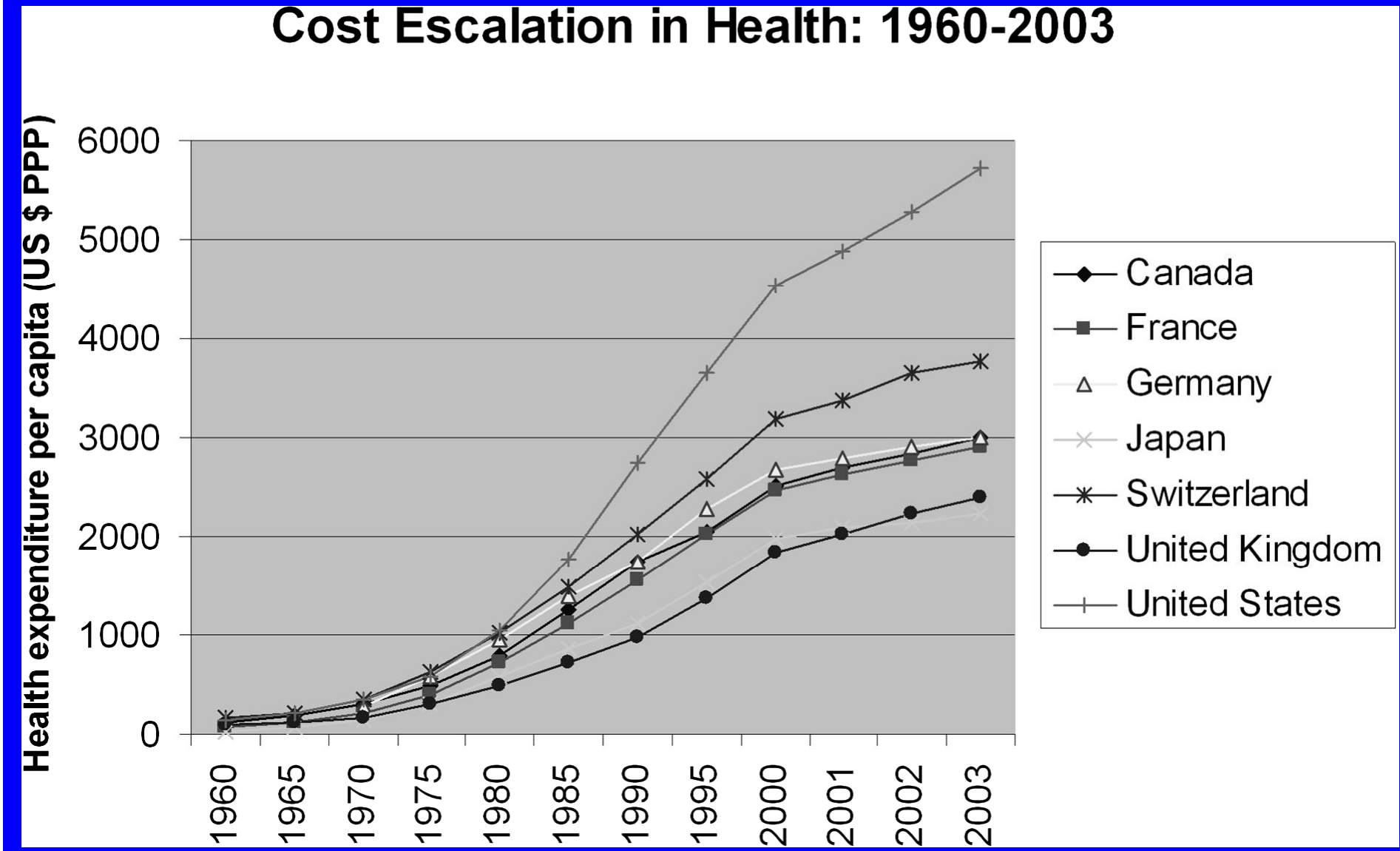
Review of Lecture 5

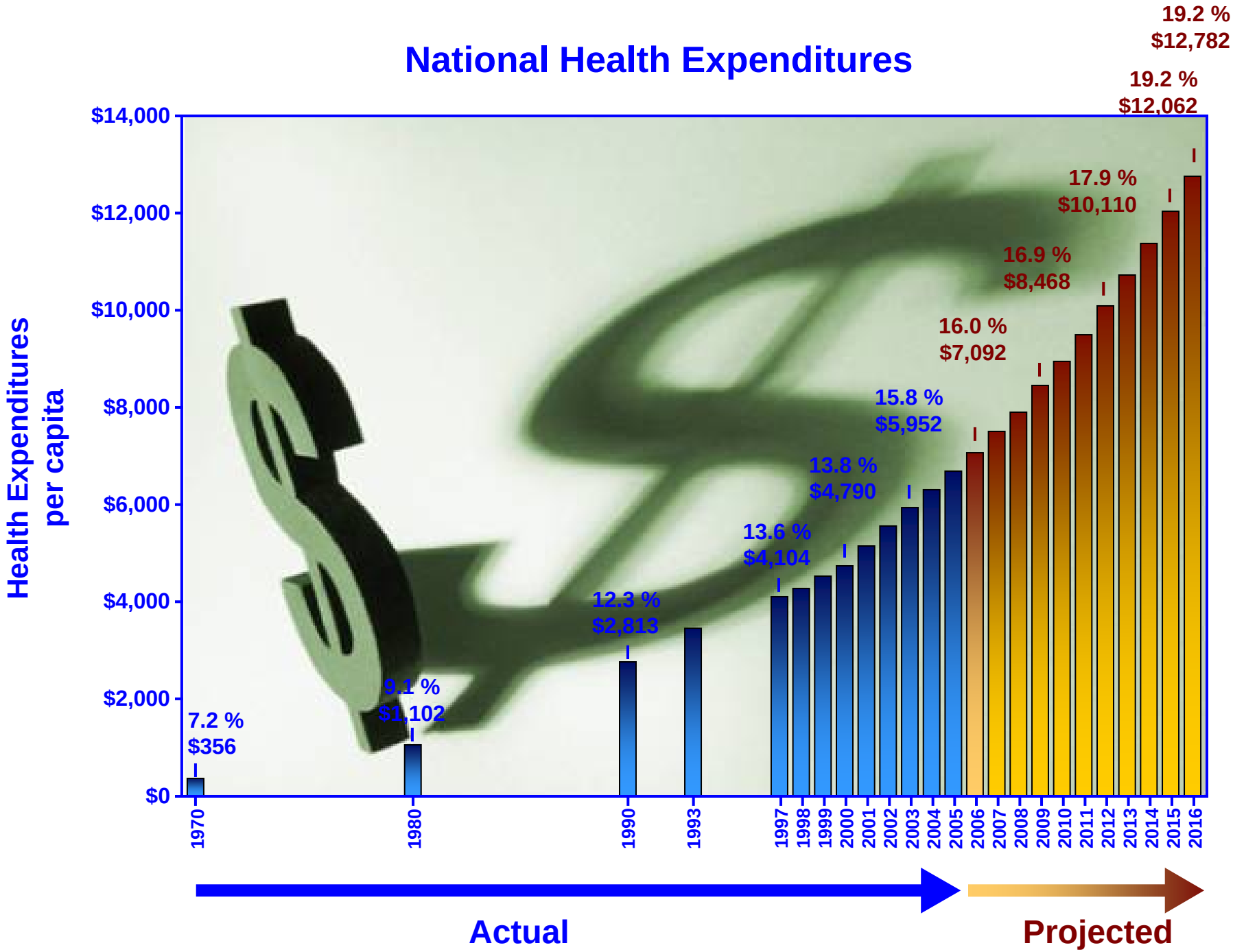
- Health Systems
  - What is a health system?
  - Goals of a health system
  - Functions of a health system
- Types of health systems
  - Entrepreneurial
  - Welfare-Oriented
  - Comprehensive
  - Socialist
- Oregon

Outline of Lecture 6

- How have health care costs changed over time?
- What drives increases in health care costs?
- Health care reform – back to Oregon
- Health care reform since Oregon
  - Clinton plan 1993
  - Obama plan

Rising Health Care Costs




National Health Expenditures
Health Expenditures per capita
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
7.2 %
$356
9.1 %
$1,102
12.3 %
$2,813
13.6 %
$4,104
13.8 %
$4,790
15.8 %
$5,952
16.0 %
$7,092
16.9 %
$8,468
17.9 %
$10,110
19.2 %
$12,062
19.2 %
$12,782
1970
1980
1990
1993
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Actual
Projected

Challenge of rising costs

- 23% of Americans report trouble paying medical bills; 61% of these people have health insurance
- 50% of all bankruptcy filings in the USA are partly a result of medical expenses
- 29% of Americans have delayed or failed to seek needed care because of cost concerns
- 70% of uninsured Americans cite cost as the main reason they do not have insurance
- Insurance premiums rose by 9.2%, five times the rate of inflation. The average annual premium for an employer sponsored health plan for a family of four is nearly $11,000

Challenge of rising costs

- Workers are now expected to pay more of the costs for health insurance and pay more out of pocket for their own care.
- http://people.rice.edu/emplibrary/ACF1004.pdf

- Annual healthcare spending in the USA is 4.3 times the amount spent on national defense

- At the current rate of growth, Medicaid is projected to run out of funds in 2019

What Drives Increases in Costs?

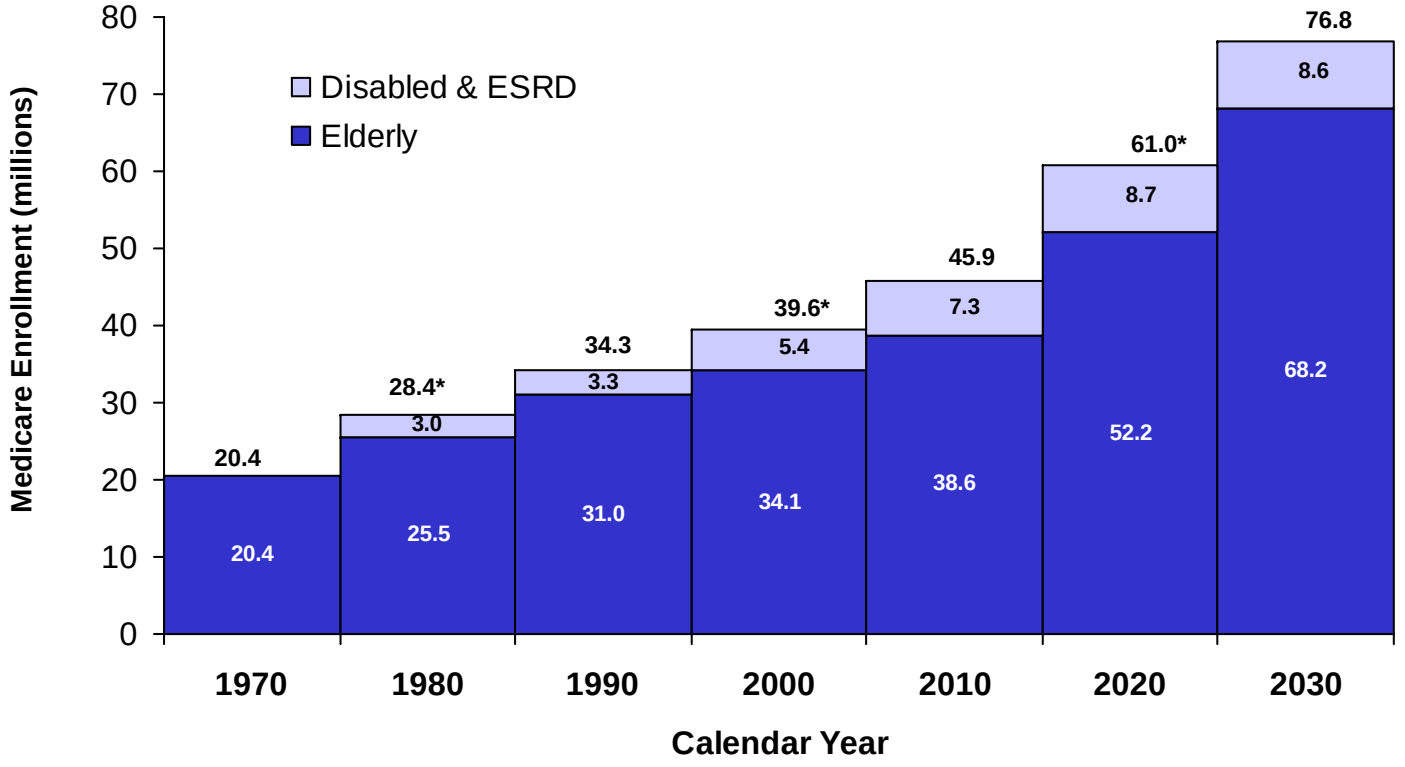
- Administrative Costs
  - US spends 25-30% of health care budget on administrative overhead
  - 27% of US health care workers do “mostly paperwork”
  - Canada spends only 10-15%

What Drives Increases in Costs?

- Aging Population
  - "Baby boomers" will strain health care system
  - Felt most in 2011-2030
  - Greatest single demand country has ever faced for long term care
  - Elderly account for much of health care spending
    - 40% of short term hospital stays
    - 25% of prescription drug use
    - 58% of all health expenditures

Table 3.6
Number of Medicare Beneficiaries, 1970-2030

The number of people Medicare serves will nearly double by 2030.



* Numbers may not sum due to rounding.

Source: CMS, Office of the Actuary.

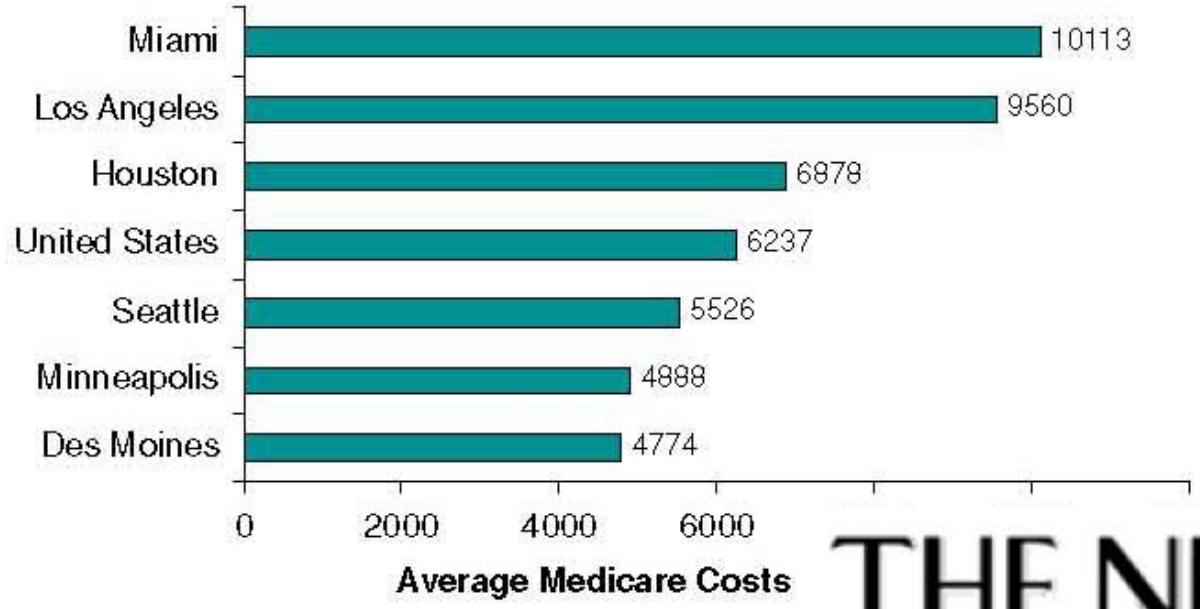
What Drives Increases in Costs?

- Technology
  - New technology can increase/reduce health care costs
  - From 2001-2002, new technology was responsible for 22% of increase
  - Growth in radiology
    - $175,000 x-ray machines replaced with CT machines (>$1M)
  - Increased utilization of technology increases costs
    - 4X more PTCAs in pts aged 65-74 from 1990-1998
    - Direct marketing of high-tech procedures http://www.jslinc.ca/info/info_sheets/Executive%20Wellness%20Info%20Sheet.pdf

Rates zation

Country	Coronary angioplasty procedures per 100,000 population
United States	426.4 (2003)
Germany	301.6 (2004)
Canada	167.4 (2001)
United Kingdom	113.4 (2004)
Netherlands	92.6 (2003)
Country	**Number of heart transplants performed in 2005 per 100,000 population***
United States	0.72
Canada	0.54
Germany	0.44
Netherlands	0.23
Country	**Number of kidney transplants performed in 2005 per 100,000 population***
United States	5.6
Canada	3.6
Germany	2.6
Netherlands	2.5

Practice Patterns Vary



US lacks a nationally coordinated policy on technology assessment!

THE NEW YORKER

ANNALS OF MEDICINE

THE COST CONUNDRUM

What a Texas town can teach us about health care.

by Atul Gawande

JUNE 1, 2009

What Drives Increases in Costs?

- Prescription Drugs
  - Fastest growing category of health spending
  - Some reasons:
    - Direct marketing of drugs to the general population (increased costs, increased usage)
    - Drug company profits

Back to Oregon

- How did Oregon state respond to the rise in health care costs?
  - Coby Howard's death: widespread media coverage
  - John Kitzhaber
    - Former ER physician
    - State senator
    - Governor of Oregon
    - Oregon cannot afford to pay for every medical service for every person
    - Oregon could expand insurance to cover all IF it was willing to ration care

http://www.morris-verdin.co.uk/Oregon-map.gif

Health Care Reform in Oregon

- 1989 – Goal of Universal Coverage
  - At that time only 42% of low-income Americans were covered by Medicaid
  - Bill passed:
    - Mandated private employers provide insurance for employees (never received federal waiver necessary for implementation)
    - Expanded Medicaid to provide coverage for all people in state below federal poverty line
    - Would expand Medicaid coverage by rationing care

Health Care Reform in Oregon

- How were services ranked?
  - Appointed Health Services Commission
  - List of 709 condition/treatment pairs
  - First try at ranking
    - 1600 health services
    - Ranked according to cost-effectiveness

$$priorityrating = \frac{CostofTreatment}{NetExpectedBenefit \times DurationofBenefit}$$

    - Resulted in counter-intuitive ranking
    - Negative public reaction

Results of First Ranking

Treatment	Benefit	Duration	Cost	Ranking
Tooth Capping	.08	4 years	$38	371
Ectopic Pregnancy	.71	48 years	$4,000	371
Splints for TMJ	.16	5 years	$98	376
Appendectomy	.97	48 years	$5700	377

Some life saving procedures ranked below minor interventions!!

Health Care Reform in Oregon

- Back to the drawing board
  - Divided 709 condition/treatment pairs into 17 categories
  - Ranked categories according to net benefit
    - 1 – Treatment of acute life-threatening conditions where treatment prevents imminent death with a full recovery and return to previous health state
    - 14 – Repeated treatment of nonfatal chronic conditions with improvement in quality of well-being with short term benefit
  - Assigned condition/treatments to categories and ranked within category

Health Care Reform in Oregon

- How were services rationed?
  - Each session legislature would decide how much $$ to allocate to OHP. Draw line –
    - Cover all services above the line
    - Cover no services below the line

Where do they draw the line?

Oregon Health Plan, 1999		
Rank	Diagnosis	Treatment
570	Contact dermatitis and atopic dermatitis	Medical therapy
571	Symptomatic urticaria	Medical therapy
572	Internal derangement of knee	Repair/Medical therapy
573	Dysfunction of nasolacrimal system	Medical/surgical treatment
574	Venereal warts, excluding cervical condylomata	Medical therapy
575	Chronic anal fissure	Medical therapy
576	Dental services (eg broken appliances)	Complex prosthetics
577	Impulse disorders	Medical/psychotherapy
578	Sexual dysfunction	Medical/surgical therapy
579	Sexual dysfunction	Psychotherapy

Did it Work?

- No widespread rationing
  - Number of services excluded is small and their medical value is marginal
  - Benefit package is now more generous than state's old Medicaid system
  - Coverage for transplants is now more generous

Did it Work?

- Line is rather fuzzy
  - Plan pays for all diagnostic visits even if Rx is not covered
  - Physicians use this as a loophole
- Has not produced significant savings
  - During first 5 years of operation, saved 2% compared to what would have been spent on old program

Did it Work?

- Coverage was significantly expanded
  - 600,000 previously uninsured were covered
  - State's uninsured rate dropped from:
    - 17% (1992)
    - 11% (1997)
  - Number of uninsured children dropped from 21% to 8%
  - Reduced # of ER visits
  - Reduced # of low birth-weight infants
- How did they pay for this?
  - Not from savings from rationing
  - Raising revenues through cigarette tax
  - Moving Medicaid recipients into managed care plans

Political Paradox of Rationing

The more public the decisions about priority setting and rationing,

The harder it is to ration services to control costs.

Oregon 2002

- Oregon economy is weak
- Oregon Senate Special Committee on OHP
  - People qualified for plan would be ranked
    - 1st: Poor pregnant women, children under 6 in families with incomes less than twice federal poverty level
    - 2nd: Adults at 50% of federal poverty line
    - 3rd: Adults at 50-75% of federal poverty line
    - 4th: Adults at 75-100% of federal poverty line
    - 5th: Medically needy (limited income, high medical expenses)
  - Those highest on list would be first to get services
  - Those at the bottom of the list would be first cut
  - http://www.npr.org/news/specials/medicaid/index.html

US Healthcare Reform

- Clinton Plan
  - President Clinton assembled task force to develop plan for national health reform in 1992
  - Proposed: American Health Security Act of 1993
  - Ultimately not adopted by Congress

American Health Security Act of '93

- Guaranteed comprehensive health coverage for all Americans regardless of health or employment status
- Control costs through increased competition in healthcare market and through reduced administrative costs
- States would establish regional health alliances which would offer variety of health plans providing comprehensive benefits plan

American Health Security Act of '93

- Employers could offer employees private plans or participate in the regional health alliance
- Medicare would continue
- Medicaid would be replaced by coverage through regional health alliances
- Government employees would by covered by regional health alliances.
- To be financed through payroll taxes

American Health Security Act of ‘93

- Intense debate
- More than half of TV ads sponsored by interest groups (on both sides) were misleading
- No plan was adopted

Health Care Reform Today

- Public mood today is similar to that in 1993
  - Health care is the 2nd most important issue for government action (economy is #1)
  - More than ¾ of Americans support major change in health care system
  - More than half favor enactment of national health insurance system

The NEW ENGLAND JOURNAL of MEDICINE

Understanding How Americans View Health Care Reform

Robert J. Blendon, Sc.D., and John M. Benson, M.A.

Health Care Reform Today

- What factors shape views of most Americans about health care reform?
  - People's perception of problems that affect the country
  - Their assessment of their own current life situation
  - Their worries about their own future

Understanding How Americans View Health Care Reform

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Health Care Reform Today

- What does health care reform mean to most Americans?
  - Lowering health care costs
  - Providing coverage for the uninsured

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Obama Principles for Health Reform

- Reduce long-term growth of health care costs for businesses and government.
- Protect families from bankruptcy or debt because of health care costs.
- Guarantee choice of doctors & health plans.
- Invest in prevention and wellness.

Obama Principles for Health Reform

- Improve patient safety & quality care.
- Assure affordable, quality health coverage for all Americans.
- Maintain coverage when you change or lose your job.
- End barriers to coverage for people with pre-existing medical conditions.

- http://www.npr.org/templates/story/story.php?storyId=112702582

Comparison of Reform Proposals

http://www.kff.org/healthreform/sidebyside.cfm

Why So Difficult?

- "The up-front costs of extending coverage are certain and immediate."
- "The savings from delivery-system reform are speculative and slow."

Why Paying for Health Care Reform Is Difficult and Essential — Numbers and Rules

Henry J. Aaron, Ph.D.

HR 3200: CBO Estimates of Cost

- $1.182 trillion over 10 years
- First 5 years:
  - Only spend 17% of total
  - Annual spending in 10th year and after: $202B
- Setting up health insurance exchanges is hard and time-consuming.

Why Paying for Health Care Reform Is Difficult and Essential — Numbers and Rules

Henry J. Aaron, Ph.D.

HR 3200: How to Pay for It?

The Cost of Extending Coverage and Various Ways of Paying for It.*

Cost or Revenue Source	2019	2010–2019
	billions of dollars	
HR 3200		
Spending increases to boost coverage	+230	+1,182
Net from taxes on and transfers to businesses to encourage private coverage	–28	–140
Outlay reductions (roughly half from cuts in annual updates in Medicare payments to providers)	–50	–219
Tax increases (mostly income surtax on high-income filers)	–86	–583
Total net increase in the deficit	65	239
Administration proposals ("reserve for health care reform")		
Medicare and Medicaid savings	–88	–619
Capping value of itemized deductions	–39	–269
Other tax-increase options		
Capping exclusion of employer-financed health insurance premiums		
From income and payroll tax at 50th percentile, unindexed	–232	–1,142
From income tax only at 75th percentile, indexed according to the consumer price index	–101	–456
From income tax only at 75th percentile, indexed according to medical prices	–9	–62
Increasing alcohol taxes to $16 per proof gallon	–6	–61
Taxing sweetened beverages 3 cents per 12-oz can	–5	–50
Collecting a 1% value-added tax†	–97	–1,001

Health Reform Issues in Developing World

- Urbanization – An Emerging Humanitarian Disaster
  - In 2008: Proportion of world's population in urban areas crossed 50%
  - Urbanization is a health hazard for certain vulnerable populations

The NEW ENGLAND JOURNAL of MEDICINE

GLOBAL HEALTH

Urbanization — An Emerging Humanitarian Disaster

Ronak B. Patel, M.D., M.P.H., and Thomas F. Burke, M.D.

Health Risks of Urbanization

- Most people relocate to cities to find work
- When they arrive, often can only afford urban slums
  - Kenya, Brazil, India: 43% or urban residents live in urban slums
  - Bangladesh, Haiti, Ethiopia: 78% of urban residents live in urban slums.

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Health Risks of Urbanization

- Increased population density without proper water and sanitation increases risk of transmitting infectious disease

Childhood Death Rates in Japan versus Rural and Urban Regions of Kenya.*

Location	Infant Mortality	Mortality among Children <5 Yr of Age
	no. of deaths/1000	
Japan	4	5
Kenya		
Nationwide	74	112
Rural	76	113
Urban (excluding Nairobi)	57	84
Nairobi (Kenyan capital)	39	62
High-income area	<10	<15
Informal settlements	91	151

Health Risks of Urbanization

- Urban slums can become breeding ground for emerging infectious diseases and potential pandemics
- Urgent Need:
  - Improved systems to collect health data in urban slums
  - Improved health care delivery in urban slums

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Summary of Lecture 6

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