LECTURE 7

I. WHAT'S SPECIAL ABOUT HEALTH CARE?

II. WHAT MARKET FAILURES EXIST IN THE HEALTH CARE SYSTEM?

1. Poor information
2. Adverse Selection and moral hazard
3. Paternalism

III. THE U.S. HEALTH CARE MARKET

A. Health expenses

B. Employer provided insurance

*Effect on Labor Supply:

1. Job lock
2. Welfare lock
3. Early Retirement

Example 1

C. Cost based reimbursement

Capitation based reimbursement

IV. THE ROLE OF GOVERNMENT

A. Medicare

1. Structure of Medicare
2. Bankruptcy
3. Cost Containment Measures

B. Employer Health Insurance-- not taxed

V. ACCESS AND COST

*Why are costs rising?

1. The population is Aging
2. Income Growth
3. Third-party payments
4. Improvements in quality

VI. RECENT CHANGES IN THE HEALTH CARE SYSTEM

A. HIPPA

1. Portability of Health Insurance

2. Deductions for the self-employed
3. Medical Savings Accounts (MSA)

B. Future Changes

You may want to review the following problems:
Midterms
Fall 1997, Question 3

Finals
Fall 1995, Question 5
Spring 1995, Question 5
Fall 1996, Question 5

I. WHAT'S SPECIAL ABOUT HEALTH CARE?

Health care is an important commodity, but so are food and housing. Much more attention is given to health care, however. Perhaps this is because government spending on health care is more than $300 billion (between Medicare and Medicaid).

Health care expenditures were 7.4% of GDP in 1970, and are greater than 14% now. Should we be concerned that people are spending more on this commodity? People spend more on personal computers, CD players, etc., than in the past yet there is no discussion about government intervention in those markets. Medical inflation has slowed down since 1994, but it still outpaces the general consumer price index (CPI).

Year	General CPI	Medical CPI
1970	100	100
1975	138	144
1980	212	231
1985	277	350
1990	336	503
1991	351	548
1992	361	589
1993	372	628
1994	381	660
1995	392	694
1996	404	719

Source: Economic Report of the President, 1997

This table illustrates that price levels increased by approximately a factor of four, for general goods and services between 1970 and 1996; for medical services, it increased much faster, by approximately a factor of seven. From 1990 to 1996,

general price levels increased by 20.2% (which is equal to $\frac{404}{336} - 1$). Medical inflation was approximately double that number, 42.9%.

What market failures exist in the health care system?

A. Poor information

- Patients may not have a good sense of what medical procedures are appropriate. Patients tend to rely on advice from physician who is selling the commodity. Could lead to "physician induced" demand. Of course, a patient could consult another doctor before making a decision on getting medical treatment.

B. Adverse selection and moral hazard

- Health care costs can be uncertain and large, which implies that insurance is appropriate and can improve social welfare. But several complications arise.

- *Adverse selection:* When company sets an insurance rate for groups of people, those individuals within the group who have the highest risk for sickness will tend to buy it. The average buyer of insurance has a higher risk than the average person in his/her group. If the company sets the premium for the population, it will lose money if coverage is less than 100%. People who value health insurance if it could be provided at lower price (i.e. low-risk individuals) forego the insurance.

How can government intervention eliminate the adverse selection problem? By forcing people to join the insurance pool.

- *Moral hazard:* The presence of insurance distorts other behavior. A person may take less care to avoid risks (this seems less likely with health insurance, however). More importantly, people have incentive to "over-consume" health care because insurance pays all or part of the cost.

C. Paternalism

- People may lack foresight to buy insurance and hospitals can't turn away people in need

II. THE U.S. HEALTH CARE MARKET

Health care comprises 14% of GDP, and spending is more than $1 trillion annually. Hospital spending is 39%, physician spending is 18%. Other categories include nursing homes, and prescription drugs.

A. Private Insurance

- 22% of health expenses paid out-of-pocket,
- private health insurance pays for 32%, government 43%, rest from other sources like charity.

B. Employer provided insurance and the labor market

Employment is the leading source of health insurance coverage.

Most people (70.2 %) were covered by a private insurance plan for some or all of 1996. A private plan is one that was offered through employment (either one's own or a relative's) or privately purchased. Almost all private insurance was obtained through a current or former employer or union (that is, was employment-based).

This link between health insurance and employment has at least three consequences on an individual's labor supply decision:

1. Job lock
2. Welfare lock
3. Early retirement

1. Job lock: 90% of private health insurance provided through employers to employees. The reason why is that non-wage benefits such as health care not subject to income taxes. But this link to employment means that one leaves a job, he or she loses health insurance.

Policy Question: Does this deter job mobility, that is, do people stay at

a job that they would otherwise leave because of losing health insurance (and are unable to purchase a new policy because of "pre-existing conditions" clauses?

Evidence is mixed, but much anecdotal evidence.
A study by Brigitte Madrian (Quarterly Journal of Economics, February 1994) compares job mobility rates for those with high and low expected medical costs.

- Husbands with and without pregnant wives. The intuition behind this comparison is that families who are expecting a baby have a large, anticipated cost ahead of them, and a new insurance policy would not cover this "pre-existing" condition.
- Big versus small families. The intuition here is that big families have higher expected medical costs, and family coverage usually does not adjust the price for dependents. Bigger families therefore get a larger implicit subsidy from insurance.
- Following individuals with and without health insurance over time.

- Madrian (1994) finds that losing health insurance reduces job mobility rates by 25 % (4 %age points). That is, without losing health insurance, job mobility is 16% per year, with health insurance, job mobility is only 12%.

2. Welfare lock: Medicaid and AFDC.

Medicaid was the most widespread type of coverage among the poor. About 45.5 % of all poor people were covered by medicaid at some time during the year. In the lectures on welfare, we went through the incentives of the Medicaid program on AFDC participation; you may want to refer to those lectures (and associated readings) for a discussion.

3. Early retirement: While there is declining labor force participation for men both before and after age 65, and although an earner can

collect Social Security as early as age 62, he or she cannot collect Medicare until age 65. For the group aged 55-64 who are contemplating retirement, losing employer provided health insurance might preclude retirement.

C. Diversity in Provision

- "Cost based reimbursement" -- most policies (until early 1980s) provided reimbursement to provides based on actual costs of treating patient.

- "Capitation based reimbursement" -- providers receive annual payments for each patient, regardless of services actually used. This is the usual sort of reimbursement for health maintenance organizations, called HMOs. are becoming much more popular -- 1982, 11 million people, 1992, 41 million.

Creates incentives for HMO to skimp on the quality of care, since same payment is received regardless of services provided. Also, people who select HMO instead of fee-for-service plan likely to be healthier. *It is hard to tell whether HMOs result in lower costs per patient because of selection issues or true economic incentives.*

III. THE ROLE OF GOVERNMENT

A. Medicare

- Provides health insurance to people aged 65 and older. $143 billion in 1993, 2.3% of GDP. Second largest domestic spending program after Social Security.

- Why such massive government involvement for elderly? Both earnings and health decline are anticipated foreseeable events. Adverse selection problems more acute. By forcing everyone to purchase HI, problem avoided. Government also economizes on administrative costs.

- Pays 44% of health expenditure for elderly. Medicaid around 12%, other

sources such as "Medigap" or employer provided retiree health insurance, 44%.

1. The Structure of Medicare

Eligibility requirement is being over 65. In 1993, 32 million enrollees. Program administered by government and is nationally uniform. It is not means-tested, unlike Medicaid.

- Benefits
Two parts of coverage, called "Part A" and "Part B." Part A is hospital insurance, participation is compulsory. $90 billion in 1993. 90 days of inpatient care, and 100 days in skilled nursing facility. Does not cover long-term institutional services such as nursing homes. Nursing homes can cost well over $30,000 per year.

Part B: Supplemental medical insurance (SMI), pays for physicians. Enrollment voluntary, premium varies over time, $40/month. 99% of eligible population enrolls.

- Financing
Financed through a payroll tax of 1.45% on employee and employer each, no ceiling unlike social security. health insurance Trust fund, pay as you go basis. Medical bills of today's retirees are paid by today's workers. Pays for part A. Part B (SMI) relies on general revenues, not payroll tax. Also monthly premium, which pays for 25% of costs.

2. Foreboding of bankruptcy

- Growth in Medicare enormous. The health insurance trust fund not growing fast enough to keep pace with expenses. The government would need to substantially increase the health insurance payroll tax rate (more than doubling). Also, SMI contributes to deficit.

3. Cost containment measures
- In early 1980s, part A moved from cost-based reimbursement to

prospective reimbursement, where health insurance pays hospital an amount for illness before treatment applied. Part B has frozen physicians fees, put in quantity controls as well.
- Growth has continued however.
- Medicare HMOs are becoming more prevalent.

B. The implicit subsidy for health insurance

- Government taxes an individual's wage, but employer contributions to health insurance not subject to tax.
- If J=30%, and employer increases wages by $2000, get $1400 in take home pay. If provides health insurance with value of $2000, not taxed.
- Government loses $56 billion per year because of this.
- Subsidy to health insurance leads to larger share of compensation in form of health insurance. More generous plans and more plans altogether. Subsidy induces people to consume insurance in more than efficient amounts, and hence consume too many medical services.

IV. ACCESS AND COST

A. Access

- In 1980, 12.5% of U.S. population was without health insurance for an entire year. By 1993, it rose to 16%. It has remained steady since then: an estimated 41.7 million people in the United States (15.6 %) were without health insurance coverage during the entire 1996 calendar year. This number was up 1.1 million from 1995.

- The poor are least likely to have coverage. Despite the existence of programs such as Medicaid and Medicare, 30.8 % of the poor (11.3 million) had no health insurance of any kind during 1996. This %age--which was double the rate for all people--was statistically unchanged from 1995. Poor people comprised 27.0 % of all uninsured people, although they make up only 13.7 % of the total population in 1996.

- The absence of health insurance and absence health care are not same thing. Charity care makes up some of the gap.

B. Cost

- Costs are increasing rapidly. The U.S. has higher levels of health care expenditure than other countries, but the growth of expenditures not extraordinarily different from other countries.

- Why are costs rising?

1. The population is aging

- People are living longer and average age in population getting higher.
- But changing demographic structure doesn't apparently explain much of the growth -- demographics change slowly, while health care spending has increased rapidly.

2. Income growth

- Health care is a normal good, $\varepsilon_I = 0.4$. 10% increase in income leads to 4% increase in expenditure.
- Explains less than 10 % of growth in expenditure.

3. Third-party payments

- Insurance presents moral hazard, increases demand. This would not explain continual growth, however.

4. Improvements in quality

- More than half of growth is attributed to changing technology. Techniques have improved over time. The treatment of kidney stones today is not the same "commodity" as treatment of kidney stones in 1960. But improvements are costly.

This would also explain international growth. All countries had technological innovation. It raised the question: Are rising costs bad if getting higher quality better services?

V. RECENT CHANGES IN THE HEALTH CARE SYSTEM

Although universal health care is no longer on the political agenda, a number of smaller reforms have taken place over the past two years. In addition, some further reforms are probable.

A. The Health Insurance Portability and Accountability Act of 1996

(HIPAA)

- Took effect in July, 1997

1. Portability of health insurance

- Eliminated "preexisting conditions" clauses for health insurance coverage, and eliminated waiting periods (e.g., 90 days or so) associated with those conditions.

- Eliminating this clause increases access to health insurance for people with serious conditions, such as AIDS or Parkinson's disease, and with lesser ailments, such as attention deficit disorder or back pain -- all of which have been cited by insurers as reasons for denying health insurance coverage.

- The portability is not given to everyone, however:
Only if you have been in a group plan for at least 18 months continuously (or with a break of no more than 63 days). You must also exhaust any coverage you have through COBRA, the federal law that lets you extend employer-based coverage for at least 18 months--even if it's more expensive than a plan you find on your own.

- The benefits/services may not be identical:
The federal law says insurers offering individual coverage must allow a choice of at least two plans; states can set their own rules as long as they meet or exceed federal guidelines. Nineteen states are using high-risk pools they sponsor themselves for that purpose.

2. Deductions for the self-employed

- In 1997, self-employed people can get a tax deduction of 40% of the cost of health insurance for themselves and their families. This tax advantage gets more generous as the write-off gradually rises to 100% of premiums in 2007. Note that premiums paid by employers for the employees are already untaxed.

3. Medical savings accounts

- Medical savings accounts (MSAs) allow self-employed people and those working for companies with fewer than 50 employees to set up tax-deferred accounts for medical expenses.

- The trial program limits the number of participants to 750,000 people by the year 2001.

- To qualify for an MSA, you must first buy a health plan with a deductible of $1,500 to $2,250 ($3,000 to $4,500 for families). By paying a lower premium on a high-deductible plan, you free up pretax funds to deposit each month into the MSA--up to the legal annual limit of 65% of the deductible for individuals and 75% for families. During the year, you withdraw money tax-free from the account for qualifying medical expenses, including those not covered by your health policy--say, eyeglasses or orthodontia. What you haven't spent by the end of the year simply stays in your account. Before age 65, if you take money out of your MSA for nonmedical expenses, you'll pay taxes on the amount you withdraw plus a 15% penalty. But after age 65, you can withdraw funds for any reason without penalty.

B. Future Changes

Continuing expansions in the Medicaid program for children -- the expansions that were started in the 1980s now cover all children who live in poverty who were born after September 30, 1983. Thus, children 14 and under are covered. There is discussion about increasing both the age limit (to 18), and the income limit.