Adverse selection in Health Insurance

1. Suppose a medical condition affects 1 in 100.
   - Surgery costs $50,000.
   - Insurance: everybody pays $500, surgery covered.

2. Suppose 50 are high risk (2/100 chance) and 50 are zero-risk (0/100 chance).
   - The zero-risk people drop out.
   - Insurance only collects $25,000 (1/2 cost of operation).
   - Must charge $1000 premium to break even.
   - Only high-risk people buy the policy.

More adverse selection

3. Suppose among the 50 high-risk people...
   - 25 have medium risk (1/100)
   - 25 have very high risk (3/100)
   - $1000 is too high for the 1/100 people. They drop out.
   - $1000 is good deal for the 3/100 people.
   - 25 very high risk people buy the policy. The insurance company collects $25,000, and in an average year pays out $37,500 (25 x 3/100 x $50,000).
   - Insurance company must charge $1500 premium.

4. Suppose among the 25 very high risk, 10 are super-high and 15 are medium ....
The economic problem ....

Tradeoff between
(a) risk sharing (standard insurance problem)
(b) information asymmetries
- adverse selection
- moral hazard
  - by patients
  - by doctors (supply-induced demand)

Optimal coinsurance:
patients pay up to point where ...
marginal loss from less risk sharing
= marginal benefits from less wasteful care.

Two parts to HI ....
(A) real insurance against unforeseen events
(B) prepayment for expected services

So why not unsure against catastrophic health events, but not expected outlays?

Answer ... because expected outlays = preventive care. Once I have insured you, I want you to incur preventive care expenses.
- reduce moral hazard

Solution: subsidize preventive care, but not completely.
- premium plus copayment ("Coinsurance")

Health Savings Accounts (HSAs)
- Signed into law by President Bush in December, 2003
- Designed to help individuals save for health expenses on a tax-advantaged basis.
- Any adult who is covered by a high-deductible health plan may establish an HSA.
- Tax-advantaged contributions can be made in three ways:
  - make tax deductible contributions to the HSA
  - employer can make contributions that are not taxed
  - salary reduction.
- Funds in the account can grow tax-free through investment earnings, just like an IRA.
- Funds distributed from the HSA are not taxed if they are used to pay qualified medical expenses.
Health Savings Accounts

Effect of premium subsidy on zero-profit line

- Reduces κ
- Reduces welfare

Premium subsidy

Health Savings Accounts

Coinsurance subsidy
- Increases net κ
- Increases welfare

Health Savings Accounts

Coinsurance subsidy
- Decreases net κ
- Decreases welfare