

Homework 6

Due Wednesday, March 25, 2009

1. Suppose that the market demand for medical care is summarized by the demand function:

$$Q_d = 100 - 2p \quad (1)$$

and the market supply is summarized by the supply function:

$$Q_s = 20 + 2p \quad (2)$$

- (a) Calculate the equilibrium quantity and price, assuming no health insurance is available.
- (b) Suppose that health insurance is made available that provides for a 50 percent coinsurance rate. Calculate the new equilibrium price and quantity. (Hint: how does the demand curve shift?)
- (c) Show the deadweight loss due to this insurance graphically.
2. Assume that UGA offered one insurance plan for its employees last year that charged the same premium to any employee. This year, they have introduced a second plan that employees can choose: a high-deductible health insurance plan. With this plan, the premium is much lower than the other plan, but the deductible is 10 times as high. The introduction of this new plan involves both moral hazard and adverse selection. Explain the role that these two concepts play in this scenario.
3. Consider the market demand for labor L_D and the supply of labor L_S , where W is the market wage.

$$\text{Demand : } L_D = 1000 - 20W$$

$$\text{Supply : } L_S = -200 + 40W$$

- (a) What is the equilibrium market wage and employment level? Show graphically and algebraically.
- (b) Calculate the equilibrium market wage and employment level if the workers negotiate a benefit worth \$2 that costs the employers \$1. Show graphically and algebraically.
- (c) On a separate graph, calculate the equilibrium market wage and employment level if the workers have insurance which costs the employers \$1, but assume that the workers do not value the insurance at all because they could have free government-provided health insurance. Show graphically (on a separate graph) and algebraically.