HADM8600: Health Economics
Professor Angela Fertig

UGA College of Public Health
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Name _____

Midterm 1

1. (15 points) Explain using the flat of the curve diagram and non-economic language each of the following:

   (a) The high costs of health care spending in the US wastes our money because the marginal product of health is low at this level of spending.

   (b) The high costs of health care spending in the US wastes our money because our system is inefficient.

2. (15 points) Using the Grossman model (the equation and/or the graph) to inform your answer, would you expect people to invest more or less in their health during an economic recession? What does the empirical evidence say and does this agree with the model's prediction?

3. (15 points) Assume that due to changes in immigration laws, there is a large increase in the number of doctors in the US. Using a labor supply and demand graph, show how this affects the wage of doctors. Now assume that you do not observe this wage change. Give two possible explanations why the wage may not have changed as expected by supply and demand.

4. (10 points) Write the name of the concept we studied in class which is represented by the example in each statement below.

   _____ A physician charges a lower price to poorer patients and a higher price to richer patients.

   _____ Physicians in one town have very high expenditures on tonsil surgery where those in another town have no expenditures on this procedure.

   _____ A hospital cannot accept all of the Medicare patients that want to receive services.

   _____ A hospital charges its privately paying patients a higher rate because its uncompensated care expenditures rose.

   _____ Physicians raise their profits by ordering many services on behalf of their patients.

5. (10 points) Which of the following statements are true given the strategic form of the game below? Note that the values in the boxes represent (A's profits, B's profits). (circle all that apply)

		Hospital B	
		adopt	do not adopt
Hospital A	adopt	(100,100)	(300,50)
	do not adopt	(0,100)	(100,75)

   (a) The dominant strategy of Hospital A is to adopt.

   (b) The dominant strategy of Hospital B is to not adopt.

   (c) The Nash equilibrium is (adopt, not adopt).

   (d) This is an example of the medical arms race.

   (e) This is an example of why cost shifting regulations are needed.

6. (15 points) Compute the net present value of the benefit of an intervention which involves receiving \$100 in year 1 and \$200 in year 2 assuming a 5% discount rate. Should your discount rate be higher or lower if you find out that there is a possibility that you will get no benefit in the future? Explain your answer.

7. (20 points) Assume that a US drug manufacturer has decided to expand its sales outside of the US to also include Mexico. The company currently sells 1 million prescriptions in the US at a per unit price of $200. The marginal cost of producing this drug is $10. The demand curve and the marginal revenue curve in Mexico are given by the following equations:

$$P = 150 - \frac{1}{1000}Q$$
$$MR = 150 - \frac{1}{500}Q$$

Determine the profit maximizing price and quantity the company will choose for Mexico. What will their profit from Mexico be (compute a number and shade an area on the graph)? Can the company just add these profits to the profits they earn in the US or will this expansion abroad affect the profit in their US market?