1. The empirical analysis of the impact of the use of health inputs (e.g. physician visits, prenatal care) on health outcomes is confounded by endogeneity—unobserved health status is correlated with input use resulting in a downward bias in the coefficient estimate on the impact of health inputs (see Rosenzweig and Schultz, 1983). Construct a simple mathematical model of individuals making health input choices to generate health in a utility-maximizing framework with heterogeneous health status. Feel free to make functional form assumptions on utility and health production functions. In your answer you should perform a comparative statics analysis that shows that changes in ex ante health status are correlated with health input use.

2. Current estimates indicate that approximately 21% of all adults in the United States smoke. Interestingly, the prevalence of adult smoking has remained virtually constant for the past five years according to the CDC. One policy instrument that states are using to try to reduce smoking prevalence is to impose excise taxes on the purchase of cigarettes. During the past five years, there have been substantial increases in these taxes. Since 2000, 42 states have raised taxes and the average state cigarette excise tax rate is now 95.3 cents per pack. Several empirical studies have estimated consumer price-elasticities of demand for cigarettes and found them to range from -.2 to -.6.

Please respond to the following:

(a) Compare and contrast the myopic and rational addiction theories that have been put forth to explain the decision by consumers to smoke. As part of your response, identify key assumptions embedded in each of these models.

(b) Under the rational addiction model, long-run responses to changes in the price of cigarettes may differ from short-run responses. Demonstrate how this may occur.

(c) The average state cigarette excise tax rate will increase further if an initiative in California passes in the next election. Although California has one of the lowest smoking prevalence rates in the country (15%), there is a proposition on the ballot to further increase the cigarette tax to $3.47/pack from its current level of 87 cents. This policy change would dramatically raise the price per pack to approximately $5.50 in the state. Identify and briefly discuss potential short-run and long-run health and economic impacts that would likely be associated with imposing such a tax.
3. Most economists believe that the incidence of fringe benefits such as health insurance falls on workers, who pay for the benefit by accepting lower wages (see Jonathan Gruber, “The Incidence of Mandated Maternity Benefits,” American Economic Review, 84:3 (June, 1994), pp. 622-641). But there are two views of incidence: (a) “group incidence” says that each worker pays the average cost of the benefit; while (b) “individual incidence” says that each worker pays his or her own specific cost of the benefit. Individual incidence implies that sicker workers with health insurance are paid less than equally-productive healthy workers with insurance. There is considerable debate among economists whether (a) or (b) best describes the incidence of fringe benefits.

In 1993 the State of New York enacted a “community rating” law that applied to individuals and small firms with fewer than 50 employees. This means that insurers had to charge one county-wide health insurance premium for all covered lives, whereas previously premiums depended on individual or group risk. Following the enactment of community rating, premiums for healthy individuals and small groups increased, while premiums for those who were less healthy decreased. It was observed that (1) wages for sicker workers increased relative to wages for healthy workers, and (2) there was no detectable effect on insurance coverage among small firms in New York.

Using economic reasoning, write an essay in which you explain whether facts (1) and (2) are consistent with (a) group incidence, (b) individual incidence, both, or neither. Note: a different explanation might apply to each fact.

4. Consumer-driven health care is typically represented by a health savings account plus a health insurance policy requiring a large deductible. Discuss the theory behind consumer-driven health care, being sure to present all theoretical perspectives. Discuss the empirical evidence that bears on whether consumer-driven health care will substantially reduce health care costs in the U.S. and whether such a reduction would be desirable if it occurred.