1. (a) Main reason to see a doctor is sickness. Since budget constraint has not moved, need to say that indifference curves moves. This is unconventional. Rarely do economists use changes in the indifference map to explain behavior.

(b) Curves are as below though it is possible to draw so that $x \downarrow$ rather than $\uparrow$ as drawn.

2. (a) True 17%-18% of GDP.
(b) False Hospital care is considerably bigger.
(c) True Funding is roughly 50/50 public/private.
(d) True Prospective not retrospective
(e) True Yes
(f) False. Majority are not-for-profit (though many behave similar to for-profit)

3. (a)(i) We expect health care to decrease as move down from Free to 25% to 50% to 95%. This is generally the case, but unexpectedly it increases for the 50% plan for inpatient $ and hence for total expenses.
(ii) The numbers in parentheses are the standard errors (the precision) of the estimates.

(b) Elasticity = $\frac{(750 - 617)}{[(750 + 617)/2]} = 133/683.5 = 0.195 = 0.097.$

(c)(i) With survey data the price of health care is linked to insurance status and insurance is chosen for a range of reasons including high demand for health. So the “price” may be picking up more than just a pure price effect. We need to randomly assign insurance to individuals.
(ii) Experiments such as the Rand health insurance experiment are exceptionally expensive.
(b) PDV doctor = \(-30 + \frac{55}{1.1} + \frac{110}{1.1^2}\) = \(-30 + 50 + 91\) = 111 [Question says use year 1 $]
PDV college = \(20 + \frac{44}{1.1} + \frac{66}{1.1^2}\) = \(20 + 40 + 55\) = 115.
College as PDV of income is higher.

(c)(i) Yes the website showed that some specialists earn twice as much as other specialists.
(ii) On balance Sutter General did somewhat better on the measures analyzed in assignment 2.

5.(a)(i) Expected loss = \(0.8 \times 1000 + 0.2 \times 10000\) = \(800 + 2000\) = $2,800.
(ii) 95% conf. interval = estimate ± 2×standard error of estimate
    = \(6000 \pm 2 \times \frac{5000}{\sqrt{10000}}\) = \(6000 \pm 2 \times 50\) = \(6000 \pm 100\) = (5,900, 6,100).

(c)(i) Those individuals with loss greater than $10,000. This is half of the population.
(ii) Now the insured are uniformly distributed on $10,000 to $20,000 with mean the midpoint $15,000. So the fair premium is $15,000.

Multiple choice

Question 1 b (employer-provided not common until after World War II)
2 a
3 a
4 d (all of a-d happened. d is most important)
5 d (Tricky. The premium will be higher than the actuarially fair premium due to loading. Purchase will depend on how risk-averse)
6 c