Demand for Health Care

PH 126: Introduction to Health Economics and Policy
UC Berkeley

February 5, 2008

Outline

A paradox

Which do you *need*?

A paradox

Which do you *want*?

A paradox

Why do you want diamonds but need water?

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This is the diamond-water paradox and it puzzled Adam Smith, Nicolaus Copernicus, John Locke, and others until neoclassical economics came to the rescue.

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We all get plenty of water, so another glass is not very important to us.
But, because we don’t have very many diamonds, another diamond is quite valuable.

The solution

Marginalism

Prices are determined by the value of an additional unit of consumption and the cost of an additional unit of production. These are the marginal benefits and costs.

The solution

Think of marginalism this way. You are sick and have five doses of medicine.

- With the first dose, you will survive.
- With the second dose, you can go to class.
- With the third dose, you can get a good night's sleep.
- With the fourth dose, you can play on your intermural floor hockey team.
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If you lose one dose, you don't reduce all those activities. Instead, you don't go to the party. Hence the value of the fifth dose is equal to your value of going to the party, which is much lower than the value of the first dose, which is your value of surviving.

The solution

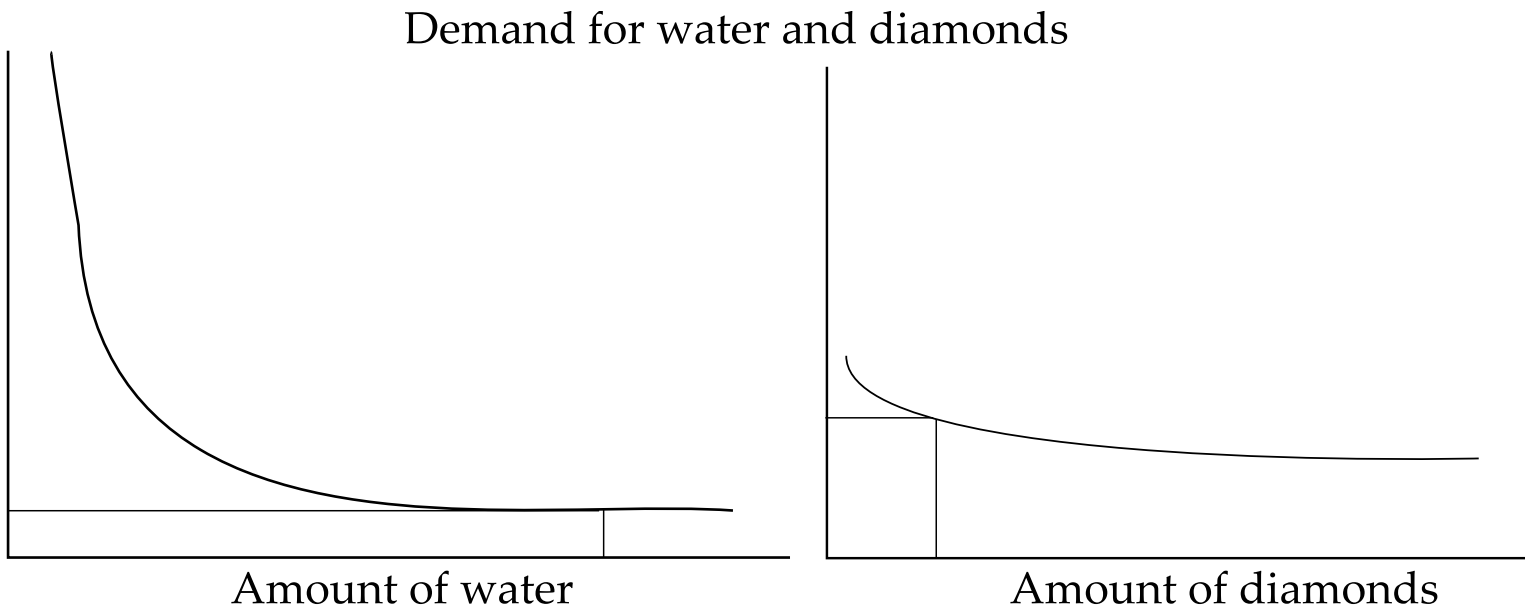

Figure: The quantity of diamonds and water graphed against their prices/values

While the value of water is greater than that of diamonds when we have very little water, it is lower when we have a lot.

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- Does your water need to be perfectly clean? Oxford, for example, dumps its treated wastewater into the River Thames, passing a (small) concentration of inorganic ions to Londoners’ drinking water.

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- The price of substitute goods
- The price of complement goods
- Income
- Demographic factors (age structure, education level, etc.)
- Preferences, tastes, and attitudes

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Why?

- Decreasing marginal benefits to each consumer
- As price falls, people who did not consume before enter the market

Demand for health

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What does this model predict?

- When people get old, their stock of health depreciates at a faster rate, so investment must occur at a faster rate; i.e., the old spend more on health care than the young.
- Higher wages imply that time spent in the unhealthy state is more costly. Additionally, higher incomes increase the consumption value of health. Health spending rises with wage and income.
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What factors affect a consumer's demand for medical care?

- Incidence of the illness
- Cultural-demographic characteristics
  (age, sex, race, education, preferences, etc.)
- Economic factors
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Shifts of a curve

When something besides the price of the good changes, there is a shift of the demand curve. For all prices, consumers either want to consume more of the good (an upward or rightward shift) or they want to consume less (a downward or leftward shift). There is a change in *demand*.

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- A new heart drug is introduced to the market
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Demand and insurance

The system of insurance copayments has an analogous effect as a subsidy by the government.

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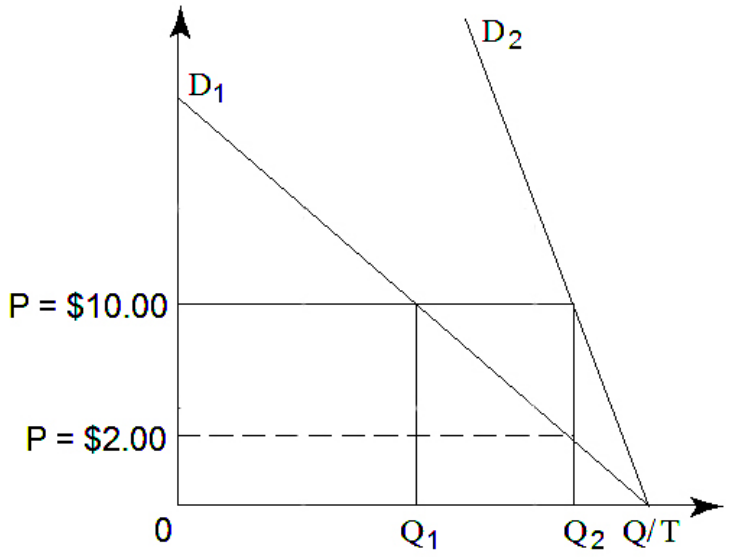

Without insurance, a price of \$10 would lead to a demand of Q_1. With insurance, the patient only pays \$2, leading him to demand Q_2 at this price. As the copayment percentage goes down, the demand curve rotates to become more vertical.