Supply of Health Care

PH 126: Introduction to Health Economics and Policy UC Berkeley

February 12, 2008

Outline

- 1 Outline
- 2 Market structure
- 3 Efficient production
- 4 Monopolies
- 5 Free entry
- 6 Supplier-induced demand
- 7 Summary: Qualities of health care markets

Historical "Harvard" school of industrial organization: structure-conduct-performance

Structure

- the number of suppliers
- degree of product differentiation
- cost structure (returns to scale)
- vertical integration

determines the ...

Conduct

- prices
- research and development
- \blacksquare advertising
- investment

which determines the ...

Performance: measures of market efficiency

Performance: measures of market efficiency

Eventually superseded by other theories because of advances in empirical and theoretical modeling techniques, but these categories are a good way of organizing different aspects of the supply-side of the market.

We will be talking about the structure of specific health care markets in upcoming lectures.

Three types of economic efficiency:

- Allocative efficiency
 Firms produce the products that consumers want and price equals marginal cost
- Distributive efficiency
 Goods are allocated to those that have the highest value for them
- Productive efficiency
 Production occurs at its lowest possible cost

Necessary condition for productive efficiency: The marginal productivity of each input is equal to its price (e.g., a physician's salary is equal to his marginal productivity)

Necessary condition for productive efficiency: The marginal productivity of each input is equal to its price (e.g., a physician's salary is equal to his marginal productivity)

But this holds only if the prices aren't distorted. For example, if the government subsidizes the wages of doctors, but not nurses, there will be too many doctors and too few nurses.

Necessary condition for productive efficiency: The marginal productivity of each input is equal to its price (e.g., a physician's salary is equal to his marginal productivity)

But this holds only if the prices aren't distorted. For example, if the government subsidizes the wages of doctors, but not nurses, there will be too many doctors and too few nurses.

This condition comes as a result of *profit maximization*, but it is unclear if non-profit firms maximize profits or other factors.

The competitive market model assumes that firms cannot affect the market price of a good by constraining output. If one physician raises his price, you can easily go to another.

The competitive market model assumes that firms cannot affect the market price of a good by constraining output. If one physician raises his price, you can easily go to another.

So while the market demand curve may be inelastic, the demand curve that any one supplier faces is perfectly elastic.

The competitive market model assumes that firms cannot affect the market price of a good by constraining output. If one physician raises his price, you can easily go to another.

So while the market demand curve may be inelastic, the demand curve that any one supplier faces is perfectly elastic.

A monopolist, however, does face an inelastic demand curve and can raise prices by reducing his output.

The competitive market model assumes that firms cannot affect the market price of a good by constraining output. If one physician raises his price, you can easily go to another.

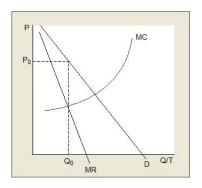
So while the market demand curve may be inelastic, the demand curve that any one supplier faces is perfectly elastic.

A monopolist, however, does face an inelastic demand curve and can raise prices by reducing his output.

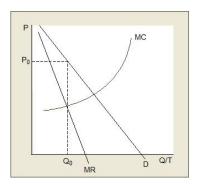
When a monopolist considers how much to produce, he weighs the benefit of making profit on another unit, but he would have to lower his prices on *every other unit* that he sells in order to sell one more. This is the idea of the *marginal revenue* curve.

Monopolists set marginal revenue equal to marginal cost to determine the quantity of output.

Monopolists set marginal revenue equal to marginal cost to determine the quantity of output.



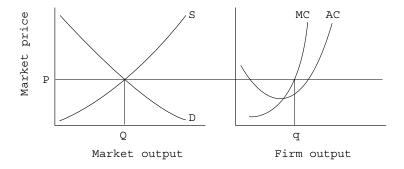
Monopolists set marginal revenue equal to marginal cost to determine the quantity of output.



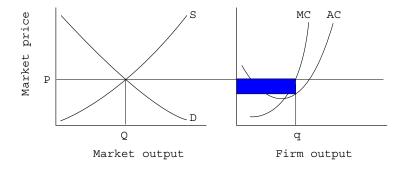
The federal government has become more willing to prosecute antitrust cases against health care providers.

If there are no barriers to entry, then monopolies won't arise in the market because other firms will compete away the monopoly profits.

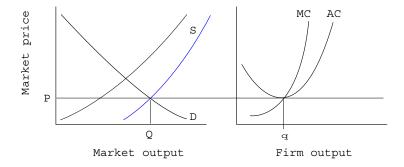
Assume that an industry is comprised of identical firms.



Market demand and supply set the market price and the firm produces until marginal cost equals price.



But, because firms are producing at a point where price is above average cost, they are making short-run profits equal to the area of the blue rectangle.



In the long-run, more firms enter, increasing supply from the black curve to the blue one. This increase corresponds to marginal cost equaling average cost for each firm and there are no short-run profits.

Since patients do not know a great deal about medicine, they rely heavily upon the opinion of doctors.

Since patients do not know a great deal about medicine, they rely heavily upon the opinion of doctors.

In economics, we say that a doctor is the *agent* of the patients (the *principals*).

Since patients do not know a great deal about medicine, they rely heavily upon the opinion of doctors.

In economics, we say that a doctor is the *agent* of the patients (the *principals*).

Since doctors are often paid on a fee-for-service basis, they have an incentive to provide unnecessary treatment.

Since patients do not know a great deal about medicine, they rely heavily upon the opinion of doctors.

In economics, we say that a doctor is the *agent* of the patients (the *principals*).

Since doctors are often paid on a fee-for-service basis, they have an incentive to provide unnecessary treatment.

Patients trust their doctors and receive excess treatment.

If doctors already have plenty of patients, earn sufficient income, and have scarce time, they may not prescribe much more than necessary. But, if doctors want to increase their income or do not have enough work, they can increase the amount that they prescribe to their patients. This is called *supplier-induced demand*.

If doctors already have plenty of patients, earn sufficient income, and have scarce time, they may not prescribe much more than necessary. But, if doctors want to increase their income or do not have enough work, they can increase the amount that they prescribe to their patients. This is called *supplier-induced demand*.

Insurance companies can use the same techniques to combat this supply-side version of moral hazard as they do the demand-side variety. Additionally, they can offer profit sharing opportunities to their doctors or only work with doctors that have shown restraint in prescription (preferred providers).

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all

- Patient's lack of information
- But the patient's asymmetric information relative to insurance companies (adverse selection)
- The agency role of physicians (supplier-induced demand; supply-side moral hazard)
- Comprehensiveness and structure of insurance (demand-side moral hazard)
- Ownership differences among firms (role of non-profits)
- Patenting to encourage research and development (monopoly rights)
- Licensing of professionals (barriers to entry)
- Ethical basis for treatment for all