

# Health care as an economic commodity. Hurley, Chapter 7 (see also review in chapter 3)

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# Why is health care different?

- ▶ Is health care different from other commodities?
- ▶ Yes, but not because 'it's really important' (so is food, housing, etc).
- ▶ Issue is multiple, severe, but not unique to health care characteristics:
  - ▶ Externalities.
  - ▶ Equity considerations.
  - ▶ Uncertainty.
  - ▶ Asymmetric information (providers/patients/insurers).

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Social provision of care or insurance.

Asymmetric information.

# Health care as a derived demand.

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- ▶ Recall (from Grossman's model) that people don't really want health care per se, they want health.
- ▶ We could write:

$$U = U[H(Z, HC), HC, X] \quad (1)$$

where  $H(\cdot)$  is health,  $Z$  is stuff that affects health other than  $HC$ ,  $HC$  is health care, and  $X$  is other stuff that people care about.

- ▶ Here, people care about health care because it affects health and because consuming health care may directly (negatively) affect well-being.

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## Derived demand cont.

- ▶ Because people ultimately care about health, we can often assess whether a treatment is “good” without knowing anything about patient preferences.
- ▶ e.g., a lot of research on “small-area variations.”
- ▶ Small area variations: use of medical care is much more variable across regions than can be explained by patient characteristics across regions.
- ▶ High small area variations suggests allocative inefficiency.

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# Is health care different because we “need” it?

- ▶ “Need” is a vague concept.
- ▶ One definition: a need for X exists when X is effective in achieving a stated objective, and the objective provides a legitimate basis for drawing on others’ resources to attain it.
- ▶ So someone may ‘need’ an appendectomy, but not botox injections.

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# “Need” for care: criticism

- ▶ How much care is “needed” when marginal product always positive? (graph)
- ▶ We should not be determining levels or types of care independent of cost.
- ▶ Concept doesn’t help us when many types of care (or substitutes for care) could address the same condition.
- ▶ We “need” lots of things—e.g., housing, food—under this definition.

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# Economic efficiency, markets, and market failure.

- ▶ So neither “need” nor health care as a derived demand does not explain nor rationalize massive government intervention in health care markets.
- ▶ Why do governments intervene in health care markets? Should governments intervene in health care markets?
- ▶ When do markets do well and when do they do poorly?

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# The notion of economic efficiency.

- ▶ Recall *positive* analysis attempts to discover the way the world works. *Normative* analysis tells us what we ought to do.
- ▶ e.g. “Rent controls will reduce the supply of housing” is a positive statement. ”...therefore, we ought not impose price controls” is a normative statement.
- ▶ Most economic analysis is positive. Here, we will more formally explore some of the normative reasons for government intervention.

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# Efficiency

- ▶ Recall we refer to a situation as *Pareto efficient* if there is no way to make anyone better off without making at least one person worse off.
- ▶ This is a “no money left on the ground” type argument: we do not have to make interpersonal comparisons to define such states.
- ▶ the **First fundamental theorem of welfare economics** states that if markets are competitive, then the market equilibrium is Pareto efficient.
- ▶ (graph: supply and demand)

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# Redistribution.

- ▶ The **Second fundamental theorem of welfare economics** says that *any* Pareto efficient outcome can be achieved as a competitive equilibrium given an appropriate endowment.
- ▶ Loosely: the First Theorem says markets will not leave money lying on the sidewalk—all gains from trade will be exhausted. But we could reach one of infinite different equilibria depending on where we start.
- ▶ Loosely: The Second Theorem says that in principle we can deal with matters of social justice through redistribution programs and otherwise leave the market alone.
- ▶ (graph: utility possibility frontier)

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# Welfare theorems cont.

- ▶ This is a powerful result since it suggests we can pursue policies which increase efficiency ignoring the distributive aspects.
- ▶ Example 1: a new technology increases production but puts some workers out of jobs. So long as, in principle, the winners could compensate the losers and still be ahead, government should not attempt to quash the technology.

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## Welfare theorems cont.

- ▶ Example 2: one way to try to help the poor would be to subsidize the goods the poor tend to consume. The welfare theorems imply that that is a poor way to try to redistribute: if different people face different prices the outcome will not be efficient, so we are leaving money on the sidewalk. Better to just transfer income to the poor and let the market find prices.
- ▶ Example 3: Carbon taxes regressive, but widely considered good policy.

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## welfare theorems cont.

- ▶ A problem with this argument is that we cannot costlessly shuffle endowments around (“no lump sum taxes.”) It costs the government more than a dollar to raise one dollar in tax revenue.
- ▶ There is, then, usually a tradeoff between equity and efficiency: if we try to redistribute the pie more equitably, we will make the pie smaller.

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# The welfare theorems in a health context.

- ▶ We have strong reasons to believe that the conditions under which the welfare theorems hold are wildly violated in health settings. The two most important failures are:
  1. Information problems (uncertainty and asymmetric information) are prevalent in health care, as we have seen.
  2. Externalities are common, e.g., communicable disease.

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# The second best.

- ▶ Difficult result: suppose we consider an idealized world in which the two welfare theorems hold. We then go into one of the many markets in the economy and introduce some distortion, for example, firms in this market generate pollution, a negative externality.
- ▶ Now consider any other market in this economy. Suppose we correct a problem in this market. Given that the other market is distorted, it is generally not true that this “correction” will improve welfare.

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## Second best cont.

- ▶ Example: we break up an auto workers union which had been holding wages artificially high. This lowers the marginal costs of the firm, which produces more pollution while making more cars.
- ▶ Upshot: we cannot assume that a policy which makes a given situation look more like a competitive market will improve welfare overall. We need to try to take the whole system into account.

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# Rationales for social health insurance

- ▶ We will see in Chapter 10 that insurance markets will sometimes work very badly due to information problems.
- ▶ Those problems may be enough to justify large scale intervention in health care.
- ▶ It may also be the case that there are external effects of health care consumption.

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# Externalities in a health context.

- ▶ An **externality** is an involuntary cost or benefit imposed on a third party.
- ▶ Example: a flu vaccination creates a positive externality (graph).
- ▶ Example: suppose relatively wealthy people simply get a “warm glow” when the poor consume health care, there is a “caring externality.”
- ▶ Since the poor do not take the “warm glow” into account when choosing health care, there will be too little health care provided.

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# Information

- ▶ **Asymmetric information** refers to circumstances in which (1) there is uncertainty and (2) one person has more information than another person.
- ▶ Not the same as uncertainty!

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# Examples of asymmetric information.

1. You take your car to the mechanic and she tells you that you need a new engine. You face uncertainty over the true mechanical state of your car and the appropriate remedy. The mechanic faces no (or less) such uncertainty.
2. Your Economics 318 instructor tells you to go home and study. Your instructor faces uncertainty over your true effort level in the course, but you face no such uncertainty.
3. You want to take out a loan. You have less uncertainty over your ability to pay back the loan than the bank does.

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# Information problems in the health sector.

- ▶ Uncertainty and asymmetric information issues are very severe in the context of health and health care.
- ▶ People do not know their health status and do not know the effects of various treatments nor the effects of health-affecting behaviors.
- ▶ Physicians also face uncertainty over which treatment is most effective, but physicians often have more information than patients.
- ▶ Insurers (private or government) do not know people's health status nor expected expenditures.

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- ▶ In Chapter 10 we will study a formal model of asymmetric information between insurers and consumers.
- ▶ We next consider information problems and the relationship between physicians and patients.