

# Healthcare market – supply side

HS 156 – Economics of Health & Education

# Who are the suppliers of healthcare?

The supply side of the health care market consists of those who are the suppliers of health care (such as physicians, hospitals, clinics etc.) and those who are the providers of health care (such as government, non-government, private players etc.).

# Physicians

Let us focus on **Physicians as suppliers of health care**. The term 'physician' is a generic term used to include all kinds of medical care professionals. In the health care market, the physician is an economic agent, who directs guides and shapes resource allocation for production of health. How do they do so?

- By caring for patients
- By planning for capital allocation in hospitals
- By providing direction to biomedical research
- By planning for manufacturing of drugs & vaccines, building of equipment, and supplies for the medical sector

So, the physician as an economic agent plays multiple roles. We need to distinguish between the various roles the physician plays in the productive process (of medical care and health). We can consider:

- Physicians as inputs in the productive process
- Physicians as entrepreneurs
- Physician services as the final product that involves patients

We will consider a few concepts used in the neoclassical theory of firms as a reference and a point of departure. Input combinations, output, and cost concepts will help us understand the differences involved in the supply side of the health care market.

- Firms hire and control the use of resources
- Decisions of the firms determine profitability and survival of the firm

However, in the health care market, a physician is also concerned about:

- a) Patient's health and satisfaction
- b) Adhering to professional ethics
- c) Health and leisure time of the physician herself

In other words, the physicians and the firms interact with each other. When the physician meets the conditions of (a), (b), and (c) it limits any incentive to maximise profitability considerations.

# The physician firm and its production function

- Product of a physician firm is an array of diagnoses, referrals, treatments of patients with a mix of diseases and illnesses
- Physician firms involve at least one licensed physician
- There may be other labour inputs including other physicians, nurses, receptionists, bookkeepers, accountants, lawyers, and laboratories
- There may be non-labour equipment including physical office, office equipment, medical equipment, computers, supplies, electricity, and insurance

- The difference between a physician firm and a regular firm is that the list of inputs will not reveal much about the economic behaviour of the organization. It is not necessary that the least cost combination of inputs will produce an output leading to maximum profits.
- In a regular firm, we assume that substitution of one resource for the other is possible. For e.g. labour units can be substituted for capital and vice versa.
- But in a physician firm, substitution may not be possible due to licensing, limitations of technology without doctor diagnoses, professional qualifications and others.
- As the physician firm assemble the final product, i.e. treatment including diagnostics, they generate a demand for inputs that varies inversely with the price per unit of those inputs.
- In the health care market, there are physician and non-physician care providers.



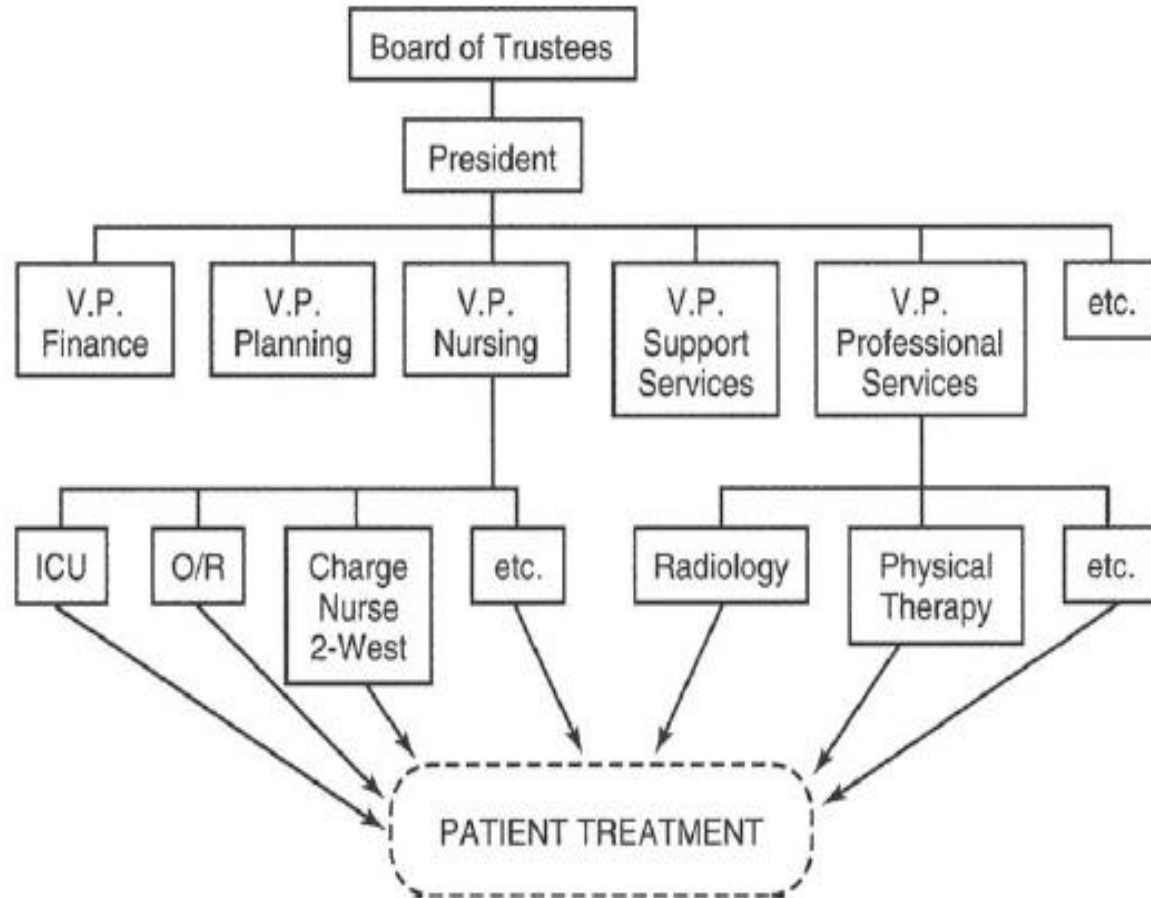
# Hospitals

Almost all people who fall seriously ill will find themselves in a hospital. Hospitals stand as the centre of modern medicine, for better or for worse. Remarkably, most of the decisions made about the delivery of medical care in hospitals – whom to admit, what procedures to use, which drugs to give the patient, how long the patient should stay in hospital, and where the patient should go upon discharge – are made by persons who are neither employees of the hospital nor under its direct control or supervision.

# Typically there are not-for-profit hospitals

- They may, can, and do earn profits. However, because of their form of organization, they may not, cannot and do not distribute such profits to shareholders. In a typical for-profit organization, the residual claimant of profits are shareholders, i.e. receiving any revenue of the firm after it has paid all its costs including labour, material, supplies, interest on bonds, taxes and so on – the “profits” of the organization. The not-for-profit organization has no shareholder and hence no legally designated residual claimant.
- In the absence of a residual claimant, their profits must be distributed to somebody else. How and to whom they do this affects the product mix, the costs, the input mix, and possibly the size of the hospital.

# A typical not-for-profit organizational structure



At the top of the organizational chart is the board of trustees, empowered by the hospital's legal charter to direct all that goes on within the hospital. The board is self-replicating (members elect their own successors) and typically serves without pay. Board members own no stock in the hospital because there is none. Instead, they are most likely to donate money to the hospital at some point of time as well as provide overall direction to the hospital. They choose who manages the hospital and provide overall strategic policy and advice to those managers.

Next there are primary administrative officers of the hospitals with assigned roles. At the top is a 'president' to whom several VPs report to from their respective departments.

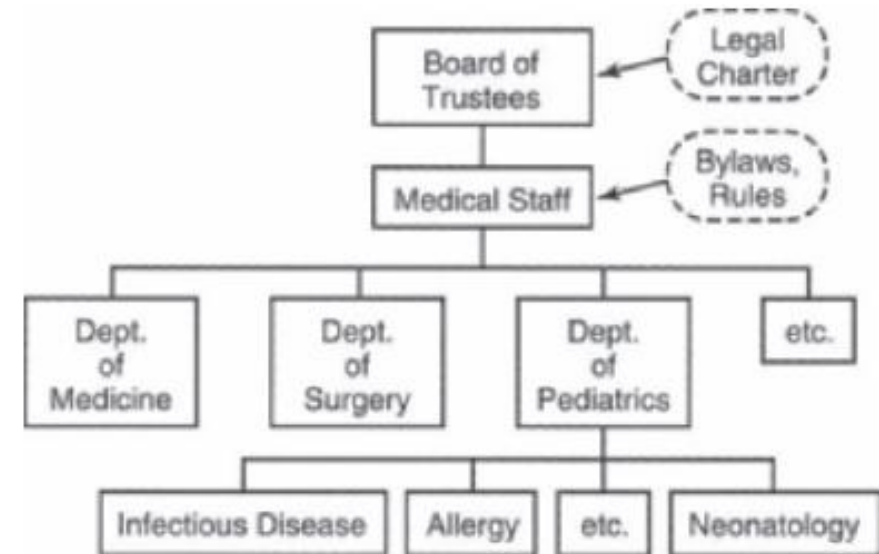
- A prototype of such division of responsibility might include vice presidents for finance, planning, and marketing, nursing, professional departments (emergency room, laboratories, social service, physical therapy, etc.) and support departments (such as food service, laundry, supplies, housekeeping), although every hospital's organizational chart is unique. To each of these in turn, report middle managers in various areas.
- Much of the hospital's activity focuses around subunits serving particular types of patients, commonly described by the physical location of the unit or its function. For e.g. OB, NICU, Emergency room, Delivery etc. These units commonly have 20-40 beds and operate under the immediate supervision of a head nurse, around whom all of the other activities revolve. These charge nurses direct all of the nursing care and coordinate almost all patient care given on their units.
- If the patient received medication, the pharmacy delivers them to the floor, where a medication nurse administers them.
- If the patient receives physical therapy, either the therapist comes to the patient's room or the patient is delivered to the PT unit.
- If an X-Ray is to be taken, a similar process is carried out
- If a lab test is to be taken, a phlebotomist comes to the patient's room to draw a blood sample.
- Meals are brought from the kitchen to the floor and delivered to the patient.
- All specialists performing these activities report organizationally to the supervisor in their respective departments.

**In this complex of different kinds of interactions, where is the DOCTOR? The doctor who admitted the patient to the hospital in the first place?**

# Doctor?

- The doctor is typically not an employee of the hospital. He/She has no “boss” up the line. The one person upon whom this entire activity depends has only a weak and ambiguous organizational tie to the hospital – the medical staff.
- The hospital medical staff has its own organizational chart and bylaws of operation. The staff is divided by medical specialty: medicine, pediatrics, O&G, and so on. If the hospital is sufficiently large, these departments may have subdivisions as well reflecting sub specialisations of doctors.

Organisational structure  
of the medical staff



- Doctors receive admission to the hospital by application to the hospital, normally to the board of trustees, who are responsible for the hospital's overall activity.
- An important difference emerges between the “line management” and employees of the hospital and the medical staff. The former have a contract with the hospital. The hospital reviews their performance, pays salary and wages and can fire them.
- Doctors admitted to the medical staff have no such relationship with the hospital. In general, they receive no income directly from the hospital. Their performance is subject to a very different and weaker review process, and with very few exceptions, they cannot be “fired”.

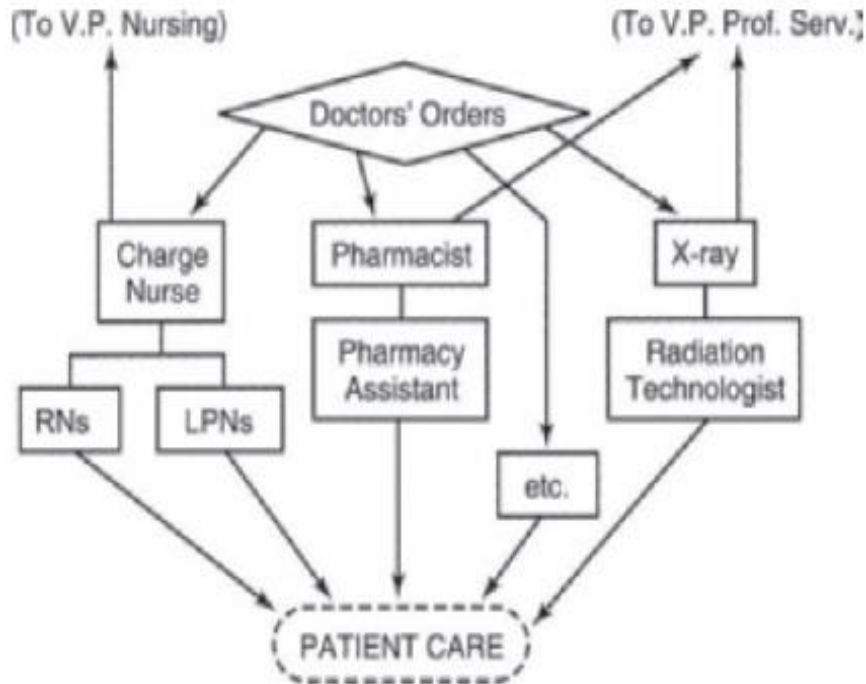
# Professional independence of doctors

- Two things ensure the professional independence of the doctor.
  1. The ownership of the practice does not mean that the hospital employs the doctor. The hospital owns the group, which in turn employs the doctor. While this may seem like a small distinction, it limits the hospital's control over the physician considerably.
  2. Many state laws regarding the practice of medicine limit the hospital's control over physician behaviour even when the hospital owns the medical practice.
- The general legal structure of most states prohibits "the corporate practice of medicine", which means that corporates may not practice medicine, and doctors may not work for corporations.
- In the ownership of medical practices, the practice is partnership of people.
- The hospital "owns" the practice. Thus, the doctor works for real people, not a corporation, in the eyes of the law.

**The doctor "writes orders" in the patients' charts that direct virtually the entire flow of activities for each patient. These orders create demands for activities within the hospital, which the hospital organization "supplies."**

**The doctor captains the ship, ordering when to start the engines, which direction to go, and how fast to move, and the hospital can do little but respond, no matter what order the doctor gives.**

# Doctors direct activities (Organisers?)



- Thus, the hospital is really two separate organisations – the line management and the medical staff – which serves the roles of supply and demand in the “market” of hospital care. The hospital is really a “job shop”, in which each product is unique, and the hospital is set up to provide inputs to the craftsmen who direct the output of this job shop.
- The patient agrees to two distinct contracts in a hospital: one with the hospital and the second with the doctor.
- In the contract with the hospital, the patient promises to pay for care, and the hospital promises to provide the necessary medical care under the direction of the patient’s physician. In the contract with the doctor, the patient promises to pay for care, and the doctor promises to provide care as needed and to supervise the activities of the hospital.

**Who then, is the residual claimant of the not-for-profit hospital?**