# HEALTH SYSTEMS

PMO526

DEPARTMENT OF PREVENTIVE MEDICINE AND BIOMETRICS

Healthcare Economics

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## Introduction

The United States health care “system” has evolved a variety of methods to achieve a variety of goals. No single entity has provided stewardship or delineated goals. On key parameters of quality, outcome, efficiency and equity, no majority group has achieved a consensus. Despite the ambiguity of its product lines and product definition, the health care system evolved methods to provide service to most individuals (the employed, retirees and some poor) within the United States.

Piecemeal balances and solutions developed. Patients, providers and legislators determined key resources in response to shortage or poor outcome. Why resources were selected remains a part of history. Some may in fact be legitimate components of health (a visit to the doctor for vaccination). Others may be self-serving (state regulation of practitioners). Regardless of the origin, this is the system we function in today. Recognizing the resources, allocation systems and consequences of our system enables us as a society to intentionally modify economic forces to suite desired outcomes.

## Allocation Methods

Demand for health may be endless. A person will always desire more strength, more energy and absence from disease. Unfortunately, to achieve this goal demands the skill and equipment of others. A system is required to allocate the necessary components to satisfy these needs and wants.

Historically, free enterprise evolved out of a bartering economy. This ancient allocation system based on local economic decision lent itself nicely to a poorly understood health care system. The buyer and seller did not require knowledge of supra-regional effects or societal consequences. Instead, the transaction simply functioned on understanding the value of an individual’s time and the opportunity cost of short term illness.

In the United States health care is allocated via a modified free-market. Government regulations mandate minimum payments by workers to social insurance (Medicare, disability). Further regulations ensure payment for specific conditions by private and corporate insurers (minimum stay after childbirth). Regulation has mainly been in response to specific incidents or special interest groups.

Other western societies have collectively elevated the importance of health care to a basic human right. In these cases, socialist methods of political and economic control prevail (United Kingdom) the state determines level of need, level of funding and allocates scarce resources to areas of predetermined need. Equal (universal) access and relative economic burden (progressive taxation) are the basic tenets.

**Scarce Resources and Implications**

Without a socialist mandate, the United States haphazardly evolved allocation systems for its scarce health resources. Without a unified structure, each resource may be allocated by a variety of methods dependent upon local or national forces. In general, a dominant method of allocation can be found for each resource.

Human Services:

Most health care is a human-to-human event. Providers, be they physicians or allied health professionals, represent a limiting factor in the provision of health care. Our discussion recognized the free-market system, modified by third party insurance and government social programs, as the major allocation system. The majority agreed that access to providers in rural areas and the supply of primary care physicians was inadequate. For instance, psychiatrists are in abundance in urban areas and scarce in rural areas. Primary care providers are more plentiful in areas of greater health (suburbs) whereas they would have more patients per physician and increased marginal benefit in areas of poor health (poor urban areas).

The gross supply of physicians may, however, be too great. Government subsidy of medical education reduced the cost of that education leading to a higher demand by potential students. In addition, an imbalance of training and specialties exists. Public health principles indicate more societal health is achieved by primary care services compared to a lower group benefit from specialists. Specialists may increase the demand for services due to an imbalance or asymmetry of information. The consumer is not in a position to accurately assess the dollar benefit of care. The individual may acquiesce and purchase all health care services recommended to him. Conversely, the patient may demand inappropriate services based upon incomplete knowledge obtained by personal belief, direct advertising or anecdotal reports.

To address these imbalances, our discussion group recommends moving to salaried compensation systems. The number of specialists will decrease if society lowers the compensation for services or manages the certification process (decreasing residency positions or enacting ceilings on certifications). The disadvantage of this move is the reduction in profit and subsequent quality improvements resulting from the out-of-pocket and fee-for-service system. We believe the quantity of lost efficiency will be lower than the supply-demand curve would suggest due to the work ethic and ethical beliefs of health care workers.

Consumables:

Technological innovation has strengthened the efficacy and importance of medicine in maintaining and improving health. In contrast to many medical interventions, pharmaceutical effectively is proven by the high level of scientific scrutiny required before approval. Hence pharmaceutical are seen linked to health outcome.

The cost of medication has risen faster than other health care components. Free-market allocation systems have responded by increasing out-of-pocket insurance expenses, pooling purchasing power and limiting covered medications. Cost shifting to the individual reduces demand at the possible expense of outcome. Out-of-pocket payers are less able to purchase. Insurance policies become less desirable leading to an increase in the uninsured population. Those on fixed budgets (retired, disabled, elderly) without the ability to produce more income are disproportionately burdened and disenfranchised.

A large (41-43 million by recent estimates) group of Americans are not covered by health insurance. Their ability to pay for out-of-pocket expenses is limited. Our group proposes a national drug benefit or insurance plan to cover this population. The Medicaid system, which has expanded its payments for pharmaceuticals, could be expanded to cover the uninsured. Total societal cost will increase. This cost would be softened by the group purchasing power of the plan.

Durable Goods:

Durable goods comprise items with a life expectancy over 3 years. Included are: eyeglasses, orthopedic devices, hearing aids and walkers. Durable goods are generally considered quality of life items. For the elderly these items may fulfill a preventive (decreased falls and injury) function. For the handicapped, they may enable the individual to enter the workforce (motorized wheelchair, text to voice software, hearing aids).

The 1980’s saw a large increase in durable good expenditures due to the aging population, resulting increase in long term care and a low level of regulatory oversight. Presently expenditures total 18.5 billion U.S. dollars. Out-of-pocket contributions total 9.6 billion with private insurance adding 3.6 billion (National Health Account, HHS).

Despite the large free-market approach to allocation, the government contributes 5.3 Billion annually, a level of funding great enough to attract the eyes of politicians. Fortunately, current government intervention is aimed at purchasing efficiency. Competitive bidding is underway in pilot projects in Florida and Texas. These promise to provide cost savings and should shift the supply curve to the right; a given quantity is then offered at a lower price.

The free-market system appears to function well for this particular resource. Granted, some aging individuals may have difficulty with payments and a lack of oversight may lead to fraud. However, the trend toward more active government involvement should reduce these disadvantages.

Capital Improvements:

Hospitals expand, retool or reorganize in response to predicted revenue. Capacity or bed space has decreased after re-imbursement shifted from days of care to a per case (DRG) basis. Quality appears little affected, as new models of outpatient care have captured this business line.

Competition between regional hospitals has spurred investment in MRI and CT scanners. This mix of free-market and government payment schedules has only worked well for the insured and wealthy. Those unable to pay for advanced diagnostics, or too far from major medical centers capable of these large outlays, are left to do without.

Another challenge is the lack of systematic data collection. To understand the regional supply and demand process in patient catchment areas, data collection is needed across providers and beyond artificial information system barriers (Bernstein). Without this data, the effect of market regulation is unpredictable and future policy planning difficult.

A potential solution to these inequities is a national health insurance program, which proposes equal health care opportunity for all. Creation of a national plan would enable access to technologies as they become available. The funding structure, however, of a national plan will be critical to its success. Collection of supply and demand data by catchment area is essential. Areas with providers (hospitals or HMO's) holding monopolistic control disrupt the competitive force upon price and quality, which drives improvement.

Our society desires to continue the rapid pace of technological advancement. Careful thought should be given, however, to the assumption that such advancement is unqualifiably a social good. Technology may produce high cost interventions that aid the individual at significant cost to society. Price controls may shift or change the slope of the supply curve, leading to less research and re-investment incentive. Deaton contends technology trickles down over time. He indicates that the disparity of access remains for the newest technology but the overall availability of technology to everyone advances over time.

For some health problems (malnutrition) the difference in availability is unacceptable. A small cost to the wealthy would produce a high marginal improvement in health for the poorest of the poor. Our group supports a redistribution of wealth in response to poor access, be it geographic or financial.

## Improvement via social justice

The changes suggested deal with improvements in quality, outcome and efficiency. Underlying the direction of change desired by our group is the concept of social justice. We found it unacceptable for some to be denied health due to economic circumstance. Much was said regarding the moral obligation and duty of medical professionals to promulgate this philosophy. In essence, social justice entails equal access (Beauchamp, Public Health as Social Justice). A corollary would derive proportional burdens or a progressive tax system.

The immutable concept of limited resources tells us redistribution will impact something or someone beyond the recipient. Rationing attempts to reallocate these resources in a logical, efficient manner, and decrease the burden upon the donor. Social acceptability is also a concern in a democracy, necessitating an open rationing system.

Six guiding principles for health allocation systems have been proposed (YourDoctorinTheFamily.com). They emphasize shared goals, clear rules, determination of resources, ethical standards and distributed, open decision making. Applying these concepts, information is equally shared and distributed resulting in a minimum of information asymmetry, which often impedes a free-market system.

It should be noted, however, that rationing does not guarantee quality, outcomes or efficiency. In many rationed systems, human nature has long discriminated in favor of younger, higher-income patients (National Center for Policy Analysis). Open rationing improves our ability to detect unfair practices otherwise veiled by de-facto rationing.

## Conclusion

Free markets provide the majority of U.S. healthcare. Our discussion examined poignant examples of market failures deemed unacceptable to our ethical and moral values. We differed on the magnitude of shift necessary to comfort those values. Some proposed a great degree of government intervention and control. Most suggested a broadening of social insurance within the free-market framework versus a social medicine approach with government allocated resources.

Essential to any intervention is a good understanding of market forces. Presently our information is lacking in detail and scope. Bernstein suggests current information is so poor that we cannot even determine if a monopoly exists. This data void will need to be filled before successful change can be implemented. Interestingly, the recent Nobel Prize in economics was recently awarded for economic modeling. This powerful technique will be of immense utility if we can determine the coefficients of the health market equation.