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HEALTH SYSTEMS COMPARED**
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I like to believe that as human beings became socialized into groups of one kind or another there arose an understandable tendency to care for one another, and care in times of sickness must have been seen as a normal expression of concern for those who were in some way diminished. The recognition of the importance of these acts of caring that extended to healing are very much a part of religious faiths all over the world and in many faiths there must be numerous acts of succor and care for the ill and wounded similar to that of the Good Samaritan. It is very much a part of our faith to care for the health of those who need it, although many of those injunctions are given to specific individuals to care for others. Luke the physician refers to the seventy who went forth into every city and place with instructions to heal the sick, and St. Paul, in alluding to the various spiritual gifts, makes special mention of the gift of healing.

This attention to healing as a special gift or responsibility goes even further back in history. The Assyrians and Babylonians assigned the responsibility for medicine as a specialized craft to the priesthood, and we know that the code of Hammurabi of some 4,000 years ago defined very clearly the rewards and penalties that were to be attached to medical practice. If the patient died or lost an eye as a result of treatment, the doctor's hands were cut off. The emphasis was very much on individual care, although there is evidence that the Babylonian state considered environmental sanitation important enough to have drains and sewers in public places. The same focus of individual care appears in ancient Indian medicine, but I could also find reference there to the responsibility for the health of groups such as the armed forces. One king was said to have kept his doctor close by to look after him as well as the health of the troops.

It was inevitable that the attention to the sick separately and by individual practitioners would not be enough and would inevitably be accompanied by institutional systems that cared for patients. The most famous and durable of these systems is the hospital and in Europe we see the rapid development of these institutions under Christian direction after the conversion of Constantine. There is evidence of the establishment of hospitals in the East even earlier, but the point to be made is that the organization of a system of care based on institutions is to be found in the histories of all parts of the world. There would, of course, be differences in the types of treatment to be used and in many instances on the type of person to be treated, as it is clear that

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in most early societies, hospitals were essentially for the care of the sick poor while the rich were treated in their homes.

Hospitals are only one part of a health system, and as we look to compare health systems in a broader context, it is useful to have some concept of what is a health system, what are its functions, and what are the various typologies that can be compared. I understand the health system to be a social system, an integrated whole that depends on its functioning on the interaction among the various components. These components are essentially a set of financial, physical, organizational and informational resources, which, through their interaction provide better health for individuals and populations. As in any system, it is the interaction that is important and the value or output of the system is more than the sum of the contribution of the constituent components.

All health systems are firmly grounded or are perhaps derivative of the cultural milieu in which they operate, and the end results they produce in terms of health will also admit of variation to the extent to which health is culturally determined. Kleinman in a classic conceptualization of health systems as cultural systems, emphasizes the difficulty of making comparisons and it is clear that attempts to judge value of outputs runs the risk of being arrogant in terms of establishing some hierarchy of cultures. He explains a concept that is often forgotten or ignored. He writes

Most health care systems contain three social arenas within which sickness is experienced and reacted to. These are the popular, professional and folk arenas. The popular arena comprises principally the family context of sickness and care, but also includes social network and community activities. In both Western and non-Western societies, somewhere between 70 and 90% of sickness is managed solely within this domain.

This gives an idea of the small fraction of sickness treated in the professional arena. Yet, our classification of the various types of care systems and our estimates of costs focus almost exclusively on this area. The differentiation of health care systems into the Western allopathic medicine and traditional or complementary medicine that has achieved such prominence in Western societies recently is based primarily on this small fraction.

Before examining the construction of the Western type system which is the one I know best, it is salutary to reflect that all systems probably carry out certain basic care activities and comparisons between them turns mainly on the extent to which they discharge the basic functions of improving the health status, are equitable and respond efficiently to the legitimate expectations of the population in which they are grounded.

The systems first and foremost provide for the promotion of health, prevention of sickness as well as the cure and rehabilitation after sickness and there is a wide armamentarium of technologies for discharging this function. They contribute to the cultural construct of illness. Disease represents a malfunction of a biological or psychological process while illness is essentially experiential. I was brought up, however, to link the two and represent disease as the

lack of ease, the perceived departure from some equilibrium and in this context there may still be ease in the presence of physiological disequilibrium.

The systems are also responsible for what Kleinman describes as the "**cognitive and communicative processes involved in the management of sickness including labeling, classifying and providing personally and socially meaningful explanations.**" Health care systems must also be agencies of record. The informational resources of the system represent not only the channeling of data into the system, but must also provide for the recording and codification about subjects as well as their environment in such a way as to allow for continuous adaptation and functioning of the system itself.

Callahan, in his book *The Goals of Medicine*, in the context of priorities that should be established or at least kept in view in the process of reform that is sweeping the world, established four major goals which may be relevant or applicable to any health system. These are: the prevention of disease and injury and the promotion and maintenance of health; relief of pain and suffering caused by maladies; the care and cure of those with a malady and the care of those who cannot be cured; and the avoidance of premature death and the pursuit of a peaceful death. There may be nuances of emphasis, but I am convinced that the professional part of all health care systems would share these sets of goals and it would be difficult to compare them.

It is the Western or allopathic system that occupies most of our thinking, at least in the Pan American Health Organization and it is interesting to reflect on the development of the types of system that fit broadly within in this category. There is no doubt that these systems are now the essence of pluralism; they come in several shapes and forms.

I have been intrigued by the growth of pluralism in this and other similar social systems. With the signing of the treaty of Westphalia in 1648 that signified the end of Europe's Thirty Years War, we saw the growth of statism, and the pluralist institutions that had flourished before began to wither. It is interesting that it took about two centuries to see the appearance of state control or strong intervention into an area as important as health care and the development of an appropriate state supported apparatus when the state had become dominant in so many other spheres. But within the last half century there has been a remarkable resurgence of pluralism in many spheres. Now that we see the state losing influence or dominance as the prime or sole secular authority and the increasing power of a myriad of non-state actors in a wide range of fields that affect us, there is increased questioning of the role of the state in health.

It was Prince Otto Bismarck who in 1883 introduced the law in Germany that made insurance compulsory for medical care costs thus ensuring something approaching universal coverage. This was in the manner of a response to the social reform movement in which one of my medical heroes, Rudolf Virchow, had participated vigorously. In 1848 he had written:

The state must do more. It must help everyone live a healthy life. This simply follows from the conception of the state as the moral unity of all individuals composing it, and from the obligation of universal solidarity.

It is well to note that Bismarck's gift to Germany and much of the world did not result in a single monolithic structure, but a series of social funds which are nonprofit organizations regulated but not financed by government. These funds function as financial intermediaries between the organized contributors and the providers of care. This movement to social security spread slowly throughout the world and it was not until after the First World War that we saw the growth worldwide of the concept of the need for universal health care as an element of social justice.

The Soviet system of health care was an outgrowth of the urge for state control of social services, and the ideologically driven centralized planning of health care services had the goal of universal provision of free services. With the new form of social and political organization we have seen a breakdown in the institutional framework that supported the system and decentralization without adequate resources which have contributed to a deterioration of health status. The most marked result has been a major demographic crisis with a decrease in life expectancy mainly as a result of an increase in adult mortality.

After the Second World War there was a significant spurt in the growth of government responsibility for health care and the famous Beveridge Report of 1942, laid the foundation of the British National Health Service which in spite of various adjustments essentially maintains its pristine character and provides from the public purse the financial resources needed to ensure universal coverage. Beveridge saw the improvement of health as a major instrument for the alleviation of poverty and in some sense was an echo of the proposals for the sanitary reform of Edwin Chadwick in the last century. The crux of Beveridge's recommendations was to **"divorce the care of health from questions of personal means."**

This type of approach did not spread to the USA where a fee for service system has persisted. In an analysis of the genesis and persistence of this system Starr suggested that the traditional individualism of Americans, plus medical "professional sovereignty" that exercised influence in both economic and political arenas were to a large part responsible. Starr's analysis prepared fifty years ago was also prescient in that he posed the thesis that the profession's autonomy and dominance would be put in jeopardy by the very system it had created.

Thus there are essentially three main types of health care system operating globally. There is the Bismarckian model with emphasis on social security, and the social aspect extending to health; there is the Beveridge model as exemplified by the British National Health Service and then we have the market based approach that is the dominant feature of the system which obtains in the United States of America.

The systems that are most prevalent in Latin America and the ones with which I am most familiar are variants of the Bismarckian model. Londoño and Frenk have recognized the pluralist tendency that exists and have divided these systems further. They describe the unified public model exemplified by Cuba and Costa Rica, the public contract model as applies in Brazil, the atomized private model of Argentina and the segmented model of the majority of the countries in which there are three clearly defined actors. In this segmented model the Ministry of Health, the Social Security system and the private sector all participate in the various functions necessary to deliver health care. All the countries have recognized that there is need to

reform their systems in order to achieve the goals of providing better health for individuals and populations.

Our approach to the reform needed in the Americas has been to emphasize the separation of functions in the various systems, and we recognize that there are three essential functions to be performed. There is the organization of the delivery of the needed services, the financing and the regulation of the system. Our view is that the State through the Ministry of Health must assume the responsibility of the regulatory or steering role and that ideally there should be a single source of financing which in most countries will be an entity that incorporates the Social Security. The provision of the services may be in the hands of a variety of actors both private and public whose performance is monitored by the Ministry of Health in discharge of its regulatory role. The regulatory role of the Ministry of Health must encompass not only the personal care services, but also these functions are essential for public health.

It is traditional to try to compare these systems in terms of equity, quality and efficiency. There is no doubt that the majority of the current ones are not equitable. In the segmented system in countries where there are up to 50% of the population in the informal sector and therefore without participation in the social security there can be no equitable access to services. In a similar vein, the health care system that is essentially market driven cannot be equitable since large fractions of the population because of absolute or relative poverty will not have access to services.

Systems such as the British National Health Service would appear to represent equity in terms of access and retain the egalitarian characteristic that underlay their establishment. Unfortunately, after fifty years of the system it is becoming clear that equity of access does not guarantee equality of health outcome. As a recent report on health in Britain stated: **"Although average mortality has fallen over the past fifty years, unacceptable inequalities in health persist. For many measures of health, inequalities have either remained the same or have widened."** This shows that access to services does not represent the sole or perhaps major determinant of health status. The approach to reform that we propose would enhance equity in terms of access and if the basic functions are performed by the actor to which that function is assigned, should lead to quality and efficiency of care.

I have always found it difficult to accept the various approaches to comparison of the quality of the health care systems, especially when we refer most often to the personal care systems. The satisfaction of users of the system is a very limited tool, and the indicators that are used in population-based medicine are simply not applicable to personal care medicine. It is relatively easy to calculate the inputs, but the outputs especially in terms of the result of caring and curing are difficult if not impossible to establish. McDermott divides the activities of personal care medicine into four categories: technologic use, Samaritanism, physiologic supportive management, and the technology-based capability to report negatives authoritatively and hence help maintain peace of mind. Many of the outputs of these cannot be measured by the indicators that seek specific ictal changes. The cure of a patient with pneumonia or the relief of pain in patients with terminal illness defy the traditional measurements of health outcomes.

Throughout those parts of the Western world in which allopathic medicine is dominant, there is a constant concern for cost of the systems and whether any of them can respond to the legitimate expectations of the population they were designed to serve. In almost every country the costs of the health system as a percentage of GDP is rising, and while a legitimate but perhaps philosophical question is whether there is any optimal level of expenditure in the health care system the reality is that the opportunity cost of such expenditure is a cause for scrutiny. But the more alarming fact is that no country will ever be able to invest enough in the health care system to satisfy all the expectations of its people, and qualifying those expectations as legitimate or not does little to solve the problem. This is a question that transcends economics and reaches into the areas of the ethics and politics of resource allocation.

Callahan addresses the issue in relation to the health systems in the USA which are the most expensive in the world and doubtless the same problem will be seen eventually in most countries of the world. He asks the question "what kind of life?" and explores the limits of medical progress. He writes **"We have lost our way because we have defined our unlimited hopes to transcend our mortality as our needs, and we have created a medical enterprise that engineers the transformation."** The success of the technologies employed in the health care system has raised the expectations of the public. The notion that somehow the cost can be contained by finding some way of organizing the health care system, or finding new and less expensive treatments is a mirage. The very success of the system leads to its problems. The nature of the human condition is such that there will always be disease at one or other time and the tendency has always been to see the cure or alleviation of such disease from the individual perspective. While no individual wishes to compete with another in terms of living longer, we are acculturated into wishing to prolong this life as long as possible and by any means. The sanctity of life and the intrinsic value of health as exemplified in Hippocratic ethics have been perhaps over-interpreted to mean that every means at our disposal should be used to extend that life. Callahan's view is that the debate has to turn on the extent to which the individual demand on the health care system should be subjugated to the need to apply resources for the collective good.

In establishing the fulfillment of expectations as an indicator of the extent to which health systems function appropriately we must be aware of the above. It is clear that the problem is not restricted to the developed societies. The ubiquitousness of the information about the so called medical triumphs is leading even in societies that lack what would be described as basic care to hanker after these life changing or extending technologies. Callahan says **"It is ourselves who must change, those selves that have looked to medicine to deliver us from the burdens of a body that insists on its mortality. We will not be so delivered. Our task is to know what to do about that truth."**

The organization of resources within the professional personal care arena -to use Kleinman's typology- can also be considered a system of health care. I have already examined some of the different systems of personal care medicine that could be characterized as belonging to the western or allopathic genre and which have also been referred to as the biomedical model of health care. But we know that there are other systems and many of them are gaining increasing cognizance where western medicine was formerly dominant. It is interesting to note that in some ways we are going back to the essentials of Hippocratic medicine which emphasized

the interrelationship of the various internal and external influences on health. Health care had to be shaped according to these concepts. But the discoveries of Descartes and Newton led to the mechanistic paradigm that has dominated medicine and health care systems virtually since the sixteenth century. The universe and most of what was in it were viewed as a mechanical system with parts that functioned to great degree independently.

Capra describes it well:

For the past three hundred years our culture has been dominated by the view of the human body as a machine, to be analyzed in terms of its parts. The mind is separated from the body, disease is seen as a malfunction of biological mechanisms, and health is defined as the absence of disease. This view is now slowly being eclipsed by a holistic and ecological conception of the world which sees the universe not as a machine, but rather as a living system, a view that emphasizes the essential interrelatedness and interdependence of all phenomena and tries to understand nature not only in terms of fundamental structures, but in terms of underlying dynamic processes.

This biomechanical approach has led to the dominance of systems that give preference to diagnosis of “disease” and the emphasis on cure. This model has resulted in strenuous efforts to have more and more care come into the formal system of professional attention rather than remain in the domestic or folk domains. This type of health system is different to that which I understand to be the standard approach in other cultures. From the analysis of the Chinese traditional system given again by Capra it appears that the emphasis there has continued to be on balance and harmony and emphasizes prevention. He quotes from the famous *Nei Ching*:

To administer medicines to diseases which have already developed...is comparable to the behavior of those persons who begin to dig a well after they have become thirsty, and of those who begin to cast weapons after they have already engaged in battle. Would these actions not be too late?

However, we observe a steady growth of systems of medicine that are being referred to as alternative or complementary and are increasingly co existing with allopathic medicine. I do not refer to growth in the folk domain, but to the part of the care system administered by professionals. There are several attempts to classify alternative medicine and the Office of Alternative Medicine, National Institutes of Health, describes seven broad headings which include: alternative systems of medical practice, as well as bioelectromagnetic applications, mind/body control and manual healing. The alternative systems have been classified into four sub-categories: acupuncture and oriental medicine; traditional indigenous systems; unconventional western systems; and naturopathy. These different care systems are definitely not a province of the underdeveloped countries, and there is a growing appreciation that pluralism of systems does not apply only within the western model. Pluralism of systems has been the norm in large countries like India and China for generations, and the question is being asked whether a similar movement in the west represents some measure of dissatisfaction with

western biomedicine or a significant and growing shift in cultural values with more attention being paid to things natural and spiritual.

It is impossible to compare these systems of alternative medicine with one another or with the western allopathic system in terms of equity, quality or efficiency. If client satisfaction is a criterion of the extent to which expectations are being met, then these systems are improving because increasing numbers of persons are seeking them. The data on their use or the demand for them do not allow us to make a judgement as to whether there is equity in terms of access.

Mr. Chairman, the theme of this Conference is Economy and Health which I interpret to mean the relationship between health and economic growth of countries. Health systems are important in this regard for two reasons. The cost of health care systems is a concern for all countries -rich and poor alike- and has been a driving force for many of the efforts at health system reform. The USA spends approximately 15% of its GDP on health care and the figure for Latin America and the Caribbean is about 7.5%. The other and perhaps more important one is that investment in health is important for increasing the stock of human capital that is so essential for economic growth and the alleviation of poverty. Health is important in and of itself, but as Amartya Sen posits, health is instrumental in enhancing the human capability that is essential for relieving poverty which is represented as a deprivation of basic capabilities. It is doubtful that the traditional health care system is the most important contributor to health status, but its contribution will increase as more and more emphasis is placed on having it focus on the preservation of health through greater accent on promotion and prevention, and the more effective use of the power of information in all aspects of health care. We have the expectation that such an approach to health and health care systems will indeed produce for us the abundant life of which St. John wrote.

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