Madam Chairperson, Dr. Zaher, Ladies and Gentlemen, I must thank you for the invitation to speak at your International Congress. I feel very comfortable in this environment - my love for books and libraries is well known and I have said on many occasions that my nirvana would be to have someone pay me to indulge my four favourite pursuits. One of these is just to be able to spend unpressured time in the libraries of my choice.

Since assuming the Directorship of the Pan American Health Organization I have referred to the importance of information and its many faces on several occasions. I have said that information is one of the most powerful instruments of change known to man and is one that can relieve much of the pain and suffering derived from ignorance and I have stated unequivocally that we in the Pan American Health Organization will traffic in information. Let me repeat here the distinction I make between the raw unworked observations that are data and their refinement, arrangement and organization into information.

It is perhaps inappropriate in an audience like this to refer to historical aspects of the use of information, as you are only too well aware that from time immemorial man has sought to transmit information about feelings, places and events. There is a basic need for human beings to communicate and we do this through various forms of imagery. I have always believed that your profession was founded because it was important not only to store the information that was recorded, but also to make it accessible on a selective basis. You are special: even before Gutenberg caused the monks to use their calligraphic talents for other worthy purposes, those who were responsible for storing and transmitting information had a privileged place in the social order.

The basic principles that made you important have really not changed: what has changed dramatically are the technology for storing, retrieving and transmitting information and the appreciation of the value of that information as a resource.

I cannot speak authoritatively about the changing technology: I am sure that during the Congress you will be bombarded with examples and demonstrations of the latest technologies that will allow you to function more efficiently. I am, like Martin Luther King, still in awe that "man through his scientific genius has been able to dwarf distance and place time in chains."

* Pan American Health Organization, Pan American Sanitary Bureau, Regional Office for the Americas of the World Health Organization.

** Keynote address: "International Congress on Medical Librarianship"
However, I would like to draw your attention more to the value of information as a resource. Many of you, like me, grew up understanding the importance of physical resources as measures of national wealth and were informed of the various hierarchical arrangements that were established between persons and classes on the basis of these physical resources.

My own professional training and practice taught me to value the human resource, and believe that this was the element that guaranteed the proper use of land and capital: it was the resource that could inculcate the skills and practices that made society progress. We now see that the basic infrastructure of any successful enterprise is based on the management not only of the physical, financial and human resources, but also on the resource of information.

The use of this resource in health has always been and will always be critical. From the days of Hippocrates and almost certainly before, it was the information transmitted to the healer or that which he elicited by careful examination, that was the basis of the healing art. The oath that binds physicians enjoin them to keep sacred the information so gathered and it is the knowledge that this information is privileged that strengthens the necessary bond between the healer and those who seek care.

But my present concern goes beyond the care of the individual and extends to the health of people in groups, the health of populations and the health of nations as a whole. The health of the people is a matter of national interest and it is also now clear that those who are concerned with the health of populations must have wide interests. They must be aware that it is not enough to have and apply the technologies that cure disease, it is necessary but not sufficient to ensure that the health services are efficient, effective, equitable and capable of applying the technologies that have undoubtedly made a tremendous difference to the health of millions. There are still other considerations.

First, it is now standard dogma that the determinants of the health of a people go beyond those things that have traditionally been within the purview of the health sector. The evidence is incontrovertible that the social and physical ecology have a major role to play in determining health status. Social class or gradient is closely related to health and well-being, and although it is true in a general sense that the poor are less healthy than the rich, even among those who could by no stretch of imagination be considered poor, there are still social gradients associated with differential health status. You are all very aware that our micro and perhaps our macro environment contribute to the health of the population.

It is also accepted that the life styles or behaviours of people influence their health. It is not simply the individual selection of a life style, but there are also socially determined life styles related to population health.

But perhaps the most important consideration I wish to bring to your attention is the relationship between health and human development and outline the role you might play. The concept of development is not new, especially as applied to physical resources and to the physical growth of all beings. In the last 50 years, however, there has been an explosion of interest in what is called national development, and a whole discipline has grown with its theories and experts at propounding one or other. We have seen categorization of nations as developed or developing and
the underlying thesis that there is a continuum from one state to another. The major emphasis has been on the accumulation of wealth and goods as well as the most appropriate means of ensuring some equitable distribution of that wealth and those goods.

More recently there has been a growing movement towards placing human kind at the center and emphasizing that all our efforts must be directed toward human development. I regard human development as a process, not a static state; as a process of unfolding the human potential; as a process through which human beings are enabled to realize fully their various life chances and options.

Health has a central role in human development so conceived and we in the health sector must seek and show the centrality of that role. We accept that there are other components of that human development - other processes as it were that are complementary and relate with one another to ensure that the human potential does unfold. We accept that the most important of these other components are education, a safe environment, economic growth and what I describe always as peoples freedoms such as human rights and democracy.

Health can be shown to relate to all of these components and I will not discuss all of the relationships here. The health of the people as a whole is necessary for economic growth and it must be intuitively obvious that all forms of production will be hampered if a populace is unhealthy. The health of the people and the education they are given, together constitute the major inputs into the formation of the human capital that is important for economic growth. The health of the people as well as the health of the environment combine to influence the attractiveness of any country as a place for business or leisure. Conversely, as I have mentioned before, economic status has an influence on the health of population groups both directly in terms of access or lack of access to those measures that impact on health.

The inter-relationship of these factors is often not appreciated and there is the tendency to think of health exclusively in terms of care and cure. In addition, it is not unusual to have such rigid sectoralization that the health sector is held responsible for the health of the population and little attention given to the inputs of other sectors. Similarly, the preoccupation with immediate measures of national well-being have usually led to acceptance of fiscal and not social indicators as being of critical importance. The contribution to and participation of health in the quest for human development is not seen as clearly as we in the health sector would like.

The task now is to show you the critical role of information and its management in ensuring that health is seen in what we would accept as the proper light. There is a critical need for information about the state of health of people and I would cite only three of the most pressing needs.

First, information is needed within the health sector itself. All countries need to have information that allows clearer definition of the inequity that manifests itself in ill health. It is not enough to have information on such a macro level that one cannot discover where the inequity is greatest and therefore what should be the group that must attract greatest attention. There must be systems that so monitor the human condition that we can detect changes induced by external circumstances and the differences between and among groups.
There is one group in particular that suffers from the lack of discrimination in data collection - women. Data are not desegregated by sex on many occasions, thus making it impossible to determine the influences of gender on health outcomes.

The second most pressing need is for valid information on the health services themselves - the extent of coverage, the efficiency and perhaps most importantly, the capacity to resolve the problems encountered most frequently at the local level. This information on the health services is critical if the process of health sector reform now underway in our countries is to have real impact on the health of the people. The third need is to have information on the relationship of health to the other aspects of human development that I described above. It is important for the health sector to be able to demonstrate its relationship to the other sectors. For example, it is not enough to state that good health contributes to enhancing the learning potential of children. Luckily, recent years have seen significant progress in generating the information that shows the quantitative contribution of health to the other sectors.

The Pan American Health Organization is offering technical cooperation to its Member States in many of the areas mentioned above. The program of Health Situation and Analysis within the Division of Health and Human Development will cooperate with countries in establishing those core data bases necessary for a definition of the state of health and the inequities that exist in terms of that health status, and it has dedicated considerable thought and effort to designing indicators of health inequity. In addition, it assists the countries in monitoring the progress they make towards the goal they have all agreed upon - the goal of "Health for All." PAHO is also assisting countries in establishing the information systems that will enhance the organization of their health services and improve the decisions, especially at the local level, that must be taken to ensure efficient service delivery. We are paying particular attention to the quality of our own publications and how to make them more easily accessible to those who want and need them.

But apart from the specific responsibilities of individual programmes, we regard the dissemination of information as a critical part of our technical cooperation and every programme in PAHO must do this in its area of competence. The efforts you may know best are those of our Latin American and Caribbean Centre on Health Sciences Information (BIREME). Over the past 27 years the Centre has grown and expanded to reach almost all countries of the Region. It has promoted vigorously the development of a network of libraries and documentation centres with the prime objective of putting scientific literature in the hands of those who need it. A great part of its effort is concentrated on developing the human resources that can cope with the conceptual challenges of the scientific information age and manage the appropriate information technologies. Its data bases on the Latin American and Caribbean health sciences literature are the most complete in the world, and every day it seeks new ways of connecting end users with the products they need.

I do not wish you just to know what PAHO is doing in the field of information with regard to health. I wish you to be part of the process and to be in a sense even more aggressive advocates than we are for putting this resource to use at national, regional and global levels. There was a time not so long ago when the storehouses of information were loci of power as important as the storehouses of gold and both were guarded jealously. Librarians were guardians of the storehouses and they arranged carefully the chains that bound their treasures to fixed stands, but I am sure that
all of you now wish to see yourselves as diffusers rather than guardians of information. This entails reform.

Part of this reform has to be in relation to how you are perceived and how you perceive yourselves. Long gone are the days when the term of health worker was limited to those who carried stethoscopes or dispensed medicines. The concept of the health professions has widened and I confess that I see you as health professionals first and librarians second.

I wish to see librarians at the forefront of the reform process that seeks to knock down the walls of the storehouses of health knowledge and throw away the keys. I look for the day when you will be judged not by the information you have stored but by the numbers who share that treasure with you. This reform process must lead to a change in the appreciation of the value of this inexhaustible resource that is information. The reform process must center on the technology available - yes, but always with clarity that the new and beautiful technology that is available is nothing more than means to an end. Your marvellous new computers and discs are no more than descendants of the clay tablets of Nippur or the papyri of Alexandria. The reform must look for the interconnectedness of systems to allow the same ready and instantaneous transmission of health information that we see with financial information.

I wish you to think of this reform as contributing a grand purpose of so informing your users that they see health in a different light - see it as contributing to human development. They must see the health of the people as indivisible from the national aspirations for human development.

You must not consider your users only as a select group of medical scientists who seek information to sustain the hypotheses on which they base their work. You must consider them also as those powerful members of the community who can engineer change. This means a widening of what you consider as health sciences information. If you accept the determinants of health as I have described them, then information in all these areas are within your area of concern.

Of course this is not easy. No reform of thinking or technological approach is ever easy and I enjoin you to remember what Bertrand Russell says about reform:

*Advocates of a reform always overstate their case, so that their converts expect the reform to bring the millennium. When it fails to do so, there is disappointment, even if very solid advantages are secured. In France under Louis XVI many people thought that all evils proceeded from kings and priests, so they cut off the king's head and turned priests into fugitives. But they still failed to enjoy celestial bliss.*

I cannot promise anyone celestial bliss, but I can promise you great intellectual satisfaction and reward, if you continue to work for the appropriate use of information as an instrument with which opinion can be so transformed that health takes its proper place in the public thinking. You will also get great satisfaction if you can truly say that no person or persons were really hampered in their ability to take decisions about matters relating to health because they did not have access to information that you have at your disposal. I can also promise you the continued and abiding interest of the Pan American Health Organization in what you do and how you do it.