Pan American Health Organization
World Health Organization

XXX MEETING - ADVISORY COMMITTEE ON HEALTH RESEARCH

Salvador, Bahia, 20-22 April 1995

ACHR 30/95.6
Original: Spanish

HEALTH SYSTEMS AND SERVICES RESEARCH

WITHIN THE FRAMEWORK OF THE STRATEGIC AND PROGRAMMATIC ORIENTATIONS, 1995-1998

Division of Health Services
Washington, DC, March 1995

Table of Contents

		Page
1.	The Sociopolitical, Demographic, and Epidemiological Context of the Next Quadrennium	3
2.	Health Care Systems and Services	2
3.	Sector Reform and Challenges Faced by Health Systems	3
4.	PAHO Work Areas and Lines of Action	5
7.	Health Sector Reform and Research Priorities of Health Care Systems and Services	11
8.	Development of HSR	14

HEALTH SYSTEMS AND SERVICES RESEARCH WITHIN THE FRAMEWORK OF STRATEGIC AND PROGRAMMATIC ORIENTATIONS, 1995-1998 *

1. The Sociopolitical, Demographic, and Epidemiological Context of the Next Quadrennium

The strategic and programmatic orientations of the Pan American Health Organization for the period 1995-1998, approved at the XXIV Pan American Sanitary Conference in September 1994, constitute the basic frame of reference for planning activities relating to research and health systems development.

The orientations deal with the political situation of most of the countries and with the future outlook for the Region, indicating trends already initiated during the previous quadrennium with respect to pluralistic democratic culture, the protection of civil rights, regional autonomy through decentralization, structural and operational simplification of the governmental apparatus, and the introduction of measures to manage public administration.

In field of economics, the trend is one of growing interdependence of countries and economic integration, at the global level as well as in subregional markets.

Although the crisis of the 1980s has been overcome, as measured by macroeconomic indicators, the responsibilities of the State and society in achieving better distribution of income and providing equal opportunities to all citizens cannot be ignored. The challenge, consequently, is one of achieving economic growth with full respect for the values of solidarity and social justice in covering the basic needs of citizens, an area in which health care plays a fundamental role.

The demographic situation in the Region is another important determining factor in health systems development. Not only is it true that the Region's population will double over the next 37 years and that the relative increase in the working-age population and of those over 55 will continue to increase, but new challenges will be added to the already existing challenges to achieving equity and universal access to health care founded on health services and technologies appropriate to emerging needs and demands.

The trend toward urbanization of the population, combined with the decision to decentralize responsibilities from the State to local levels, is imposing new challenges on

---

* José M. Paganini, Director, Division of Health Systems and Services, PAHO/WHO, XXX Meeting of the PAHO/WHO Advisory Committee on Health Research (ACHR), Salvador, Bahía, Brazil, 20-22 April 1995.

local authorities, be they municipalities, cities, or provinces, forcing them to organize and deliver health services with resources that are not always sufficient in quality and quantity.

The increase in unemployment and in informal employment, together with the decline in personal income, has placed new demands on financing structures through health insurance based on wage deductions. The difference between social security mechanisms and other financing sources and modalities is another determining factor in the organization and management of health services.

Despite the economic recovery of most of the countries, inequities have nevertheless become more acute, resulting in at least 100 million people (22.9%) lacking access to basic health services.

Against this backdrop, the challenge of the future will consist of ensuring the development of societies that, while growing economically, do so within a framework of values that respects social justice together with the right to health care and to develop health systems aimed at achieving equity, efficiency, and quality.

2. Health Care Systems and Services

In the face of this demographic, epidemiological, and sociopolitical panorama, the situation of the health care systems may be considered paradoxical. On the one hand, health services have been involved in the progress achieved over the past decades, such as the decline in infant mortality from 91% in the period 1965-1970 to 47% in the period 1990-1995, the increases achieved in the immunization of children under 5 years of age, and the eradication of transmission of the wild polio virus.

On the other hand, however, the health systems must address inequitable and inefficient situations by improving geographical, cultural, technological, and economic accessibility of the neediest populations (estimated at approximately 100 million in Latin America and the Caribbean). What is needed is a type of organization that respects the political trends of pluralistic systems characterized by decentralized management and execution but where the central government ensures equity and at the same time promotes regional and local development and adaptability to special needs in every case.

This complex demographic and epidemiological situation further demands that the health systems be organized not only to respond to current needs, but also to new, emerging needs, such as the care of AIDS-related diseases, violence, differential gender

needs, the care of chronic diseases, accidents, occupational diseases, mental health, alcoholism, and drug addiction.

The care of communicable diseases, chronic degenerative diseases, and the health problems derived from social situations all impose new demands on the health systems to develop comprehensive care models, emphasizing promotion, prevention, and early diagnosis, timely treatment, and rehabilitation through the use of technologies with improved cost-benefit ratios.

Decentralization furthermore requires an intersectoral concept of health development in coordination with other social and economic sectors, such as education, housing, labor, and sanitation, and requires the integration of all these efforts into local health systems in municipalities and provincial areas.

With regard to the installed capacity of health services, there is a relative decline in the number of beds available of all types in the public sector, and a relative increase in private-sector beds. The population/bed ratio in the Region has declined in the last 30 years from three to two per 1,000 population, which demonstrates the need for developing new approaches to health care, emphasizing outpatient care, developing care networks, and achieving maximum efficiency in the sector.

The fundamental components of decentralization and local development in modernizing the State are the strategies adopted by countries that have had repercussions not only in management and financing at the local level, but also at the level of health establishments, typified by progress being made in planning decentralized public hospitals (self-managed, community, etc.) and the organization of networks of services with public and private resources.

3. Sector Reform and Challenges Faced by Health Systems

The ultimate goal of any national health development process should be to enable entire populations to achieve the highest possible level of health so that they may participate actively in the social and economic life of the community to which they belong.

Based on the regional situation described above, the principal challenge that confronts the health care systems in the Region is to attain equity through universal access while at the same time maintaining quality and efficiency and integrating them into intersectoral systems at the local level to constitute local health systems.

In order to achieve this goal, the current health systems are undergoing reform processes to achieve equity in the allocation of resources in order to attain universal accessibility to basic health services and effective mechanisms for referral to the secondary and tertiary levels.

In addition, effective community participation is necessary in order to ensure its sharing in decision-making as well as in promoting and maintaining health.

Reform and reorientation of health systems in this manner will require central and local government changes in policy planning and formulation, the organization, administration, financing, and management of health services, and in technology selection and use.

In meeting this challenge, the following responsibilities in organizing and financing services have been identified:

- Reorganization of the sector with emphasis on the decentralization and development of local health systems, creating service networks, with the participation of hospitals, health centers, and other suppliers of health care in both public and private sectors, in addition to the reorganization of the central level to enable it to conduct the process with equity.

- Strengthening and complementary integration of relationships between the various subsectors that make up health services.

- Formulation of a basic set of quality health services geared to local needs on a democratic basis that will ensure access to all citizens regardless of income level.

- Organization of practical in-service training activities to create an environment propitious for the development of leadership and teamwork.

- Further strengthening of the health sector's capacity to cope with disaster situations, expanding their management to situations that require immediate humanitarian assistance.

- New investment in the health sector to provide broad-based support for its infrastructure and managerial capacity.

- Development of health services research in order to obtain knowledge of current experience in decentralization, central management, equity, quality, costs, productivity and technological development of services, community participation, the intersectoral approach, and health promotion.

In addition to the responsibilities referred to in the strategic orientations concerning health systems development, responsibilities should be envisaged that are derived from others in which the health systems and services are influenced both by policy formulations and the execution of activities concerned with health in development, health promotion, and disease control, in addition to the coordination required for environmental preservation activities.

4. PAHO Work Areas and Lines of Action

Based on the present goals and challenges, the principal areas of work of the Organization in developing and managing health systems have been delineated with regard to:

- The central administrative levels so that, within the framework of decentralization and development of local processes, they may assume a new leadership role in policy formulation and development, community participation, regulation and control of activities, identification and selection of financing mechanisms, and identification and allocation of resources toward the most needy populations in order to achieve equity, quality, and efficiency.

- The development of local health systems with an intersectoral approach at the municipal and provincial levels and their adequate interrelationship with local public and private health care institutions as a means of implementing care models that emphasize health promotion, disease prevention, treatment, and rehabilitation.

- Sectoral studies to mobilize resources and direct investment toward critical areas in the sector.

- The development of pharmaceutical policies and programs to improve access to essential drugs, in addition to the modernization and financing of clinical laboratory networks and laboratories capable of providing diagnostic imaging and radiation therapy.

- The strengthening of institutions for disaster prevention and mitigation.

- Institutions for the training of human resources and systems and programs for in-service training.

The lines of action defined are:

- Promotion of leadership and managerial capacity development within the ministries of health and other sectoral institutions and promotion of sectoral analysis at the national and local levels in the context of decentralization, community participation, and intersectoral coordination to develop local health systems.

- Analysis and development of options to organize and finance health systems, services, and institutions, including the use of local strategic administration, the development of information systems, and the improvement in maintaining physical facilities.

- Stimulation of the implementation of the Regional Plan for Investment in the Environment and Health.

- Promotion of the development of human resources in all fields critical for the efficient functioning of health services.

- Promotion of the use of approaches that target health care toward priority population groups, especially the poor and marginalized, indigenous groups, women, and mothers and children.

- Support for the formulation of policies on essential drugs that deal with legislation, regulation, production, marketing, use, and financing; and promotion of the strengthening of pharmaceutical services, knowledge of drugs among health care personnel, and health education for the public in order to encourage the rational use of drugs.

- Strengthening the development of clinical laboratory services, blood banks and transfusion services, and diagnostic imaging and radiation therapy services, especially in relation to policy formulation, quality assurance, and biosafety.

- Strengthening the capacity of the health and other relevant sectors in the areas of disaster preparedness, prevention, and mitigation.

5. Research on Health Care Systems and Services - A Conceptual Framework

A health system may be described as a set of behaviors and knowledge of health promotion and the prevention and care of disease and a set of institutions and organizations in which this cultural behavior is manifested in a socioeconomic, political, and institutional context.

In short, a health system is what the society as a whole knows and believes about its health and the means for promoting it and caring for disease.

According to this definition the institutions that produce health include not only hospitals, clinics, and the like, but also all the people, groups, and institutions related directly or indirectly to the production of health. This may differ from one society to another, but essentially include:

- Individuals, families, and local communities that assume a vital responsibility for both health promotion and curative services. In any society approximately 70% to 90% of all curative activities take place within the local health care network. This is known as local social production of health.

- Public and private health care services, including nongovernmental organizations.

- Other sectors related to health, such as agriculture and food distribution, education, water and sanitation, transportation and communication, labor, and housing.

Within the framework of this health system, the "health care services system" operates as a subsystem and includes institutions society has organized to respond directly to its needs in health promotion, prevention, care, and rehabilitation.

From an operational standpoint, a system of health care services may be broken down into its structure, process, and result (Donabedian).

By structure is meant the resources available for health care and its organization, which include human resources (number, quantity, and type), institutional resources

(establishments, equipment, and technology), forms of organization, information systems, and financing systems.

The process of health care consists of the relationship between the resources and the population–that is, the care provided, hospital discharges, diagnostic examinations, treatment provided, etc.

The result of the care provided is defined by the changes that take place in the health situation of populations and individuals that may be attributed to health care, as measured by greater longevity, improvement of activity, greater comfort or quality of life, satisfaction, and recovery from or greater resistance to disease (Starfield).

Health systems research (HSR) is defined as the application of the scientific method to the study of relationships between the population and the health care system. This research, together with biomedical, clinical, and epidemiological research, provides knowledge to assist in making rational decisions in the sectoral reform processes currently under way.

HSR is a systematic search for information and new knowledge of the needs of the population and the best manner for society to respond to such needs with equity, quality, efficiency, and community participation.

According to Donabedian, HSR attempts to determine the kind of structure (number, type of resources, and form of organization) and process (activities, consultations, etc.) that will lead to the best outcomes.

This definition encompasses a broad range of approaches, including, inter alia, evaluative research, research on quality and efficiency, clinical epidemiology, evaluation of technologies, analysis of clinical decisions, operations research, studies on health economics, and sociological and medical anthropological studies.

In all, the evaluation of results is being recognized as one of the areas of highest priority in HSR to support sectoral reform.

Nevertheless, although analysis of the results obtained is a necessary consideration in any investigation of health systems and services, research must also be performed on the characteristics of the structures and processes and their relationships to these results. As far back as 1973, B. Starfield stated that in order for the criteria for structure and processes to

continue to serve as useful indicators of quality, there was a need to undertake systemic efforts to establish their relationships to the results. This same position was reiterated by the Institute of Medicine of the United States, which, in identifying shortcomings in current lines of research, recognized that little was known of the relationships between health care services and their results (Lohr, 1990). Consequently, it is of prime importance to determine not only the result but the effort or cost involved in achieving it–that is, to evaluate the efficiency of interventions by scientifically validating the structural and process standards and relating them to results through research that assesses the characteristics of the patients and other intervening variables.

If the objective of HSR is to provide health managers at all levels (central, local, institutional, and community) with the information required for solving problems concerning the organization and administration of resources in such a manner to ensure that the resources result in equitable, efficient, and quality systems, the areas for HSR may be identified in a matrix in which the basic attributes of each health care system–equity, quality, efficiency, and community participation–intercept with the levels of management–that is, the central level, the local level (municipality) and the institutional or operational level (hospital, health centers, clinics).

	Level		
Attribute	Central	Local/Municipal/Provincial	Institutional/operational Hospital/Health Center/Clinic
Equity	Policies, equity, financial distribution	Evaluation, political equity, accessibility, identification of population, need	Organization, institutional resources for selection of priority problems
Quality	Definition of national standards, structure, and process with results	Adaptation of established standards. Definition of network of services and result	Application of standards and coverage of E and P and evaluation of impact
Efficiency	Identification of care models and cost-effective technologies	Application of technologies and models to each reality. Adaptation	Cost-effectiveness and cost-benefit studies
Participation	Central and local participation policy	Exercise of Participation. Identification of needs and demands	Participation of users, satisfaction

6. Characteristics of HSR

Inasmuch as HSR refers to health problems and health care in a political-social and economic context with particular characteristics according to the level of the system under study, contributions to HSR should also derive both from different disciplines and from different levels of management of the system. This includes, on the one hand, disciplines such as demography, epidemiology, economics, policy and management sciences, social and behavioral sciences, statistics, biomedicine, and clinical medicine. On the other hand, the inclusion of all concerned parties (the community, health administrators, policy- and decision-makers, and investigators) in identifying the problems and specifying the subjects for investigation is an essential condition to focus on research and promoting application of the knowledge obtained. Within this context the principal characteristics of HSR are:

- A focus on priority health and health care problems.
- The active participation of all those responsible.
- An orientation toward action.
- The integration of multidisciplinary and intersectoral efforts.
- Use of a systemic approach, relating structural characteristics to processes and the results obtained.
- An emphasis of cost-effectiveness and cost-benefit analyses.
- A focus on practical short- or medium-term solutions.
- Feasibility of the research on the basis of local knowledge.
- Its replicative nature, which should facilitate evaluation of the impact of the changes undertaken and the consequent revisions of corrective measures and policies adopted.
- The use of social science research designs, and although this involves "controlled experiments," its rests essentially on the "natural experiments" of the various health systems and services and care models by using "quasi-experimental" designs.

- Its essentially local nature. Although the methodologies employed may be applied to similar problems in other contexts, the same is not true with respect to acquired knowledge and the solutions recommended, since they may be influenced by cultural, social, economic, political, and contextual differences, in addition to characteristics and combinations of the resources in question.

7. Health Sector Reform and Research Priorities of Health Care Systems and Services

In understanding the processes involved in reforming the sector as changes occur in countries with the objective to improve the existing situation, it is necessary to identify the ultimate goals of these changes--that is, the course they are expected to follow.

In this context, it should be accepted that the most important direction any reform can take is that of improving the health of the population through health systems that are developed on a basis of equity and principles of justice, insofar as their financing and the health care they provide are concerned.

Reform aimed at achieving financial equity is reform that organizes its financing system so that it is compatible with the population's ability to pay.

Reform aimed at achieving distributive equity is reform that distributes health and disease care in accordance with the needs of the population. Both goals of equity should ensure universal accessibility to health and health care.

Three additional goals should guide the direction of change: Quality, efficiency, and participation.

In conclusion, it is not possible to conceive of any reform process that does not include in the organization of health systems and services the ultimate goal of progressing toward the achievement of increased equity, quality, efficiency, and participation.

It should also be accepted that the goals that orient the reform and organization of health systems and services are formulated in a particular socioeconomic and political context.

Identification of the most significant macrotrends in this connection is useful, since they are presently influencing and will surely influence organizational and managerial changes in the health systems and services in the future.

These trends include the following:

- The process of democratization. This process, under way in most of the countries, is characterized by new demands from the population for governments and societies to respond to the basic needs of the poorest sectors and is, in turn, requiring additional and new forms of participation.

- The development of neoliberal economic models characterized by liberalization of the economy, adjustments, country interdependence, and the creation of common markets.

- The development of pluralistic societies in which importance is given to private activity, not only in the economic field, but also in the social area, which requires greater efforts to achieve coordination and regulation.

- The change in the role of the State in pluralistic societies in which it ceases being the executive or policy maker for actions and is transformed into the leader and regulator managing society.

- Decentralization of the State and civil society, which requires a review of the roles of central and intermediate government levels and reinforcement of local levels, (municipalities, cities) in their new managerial responsibility.

- The concept of a new health care model that emphasizes comprehensiveness, an intersectoral approach, promotion of health and technology, and the prevention of disease, moving away from the emphasis on complex technology toward an insistence on low-cost, simple technology.

- Respect for local cultural and indigenous practices.

- Progress in communications media and computer technologies.

As a result, health sector reform as an expression of the need for health systems to be adapted to current socioeconomic changes may be categorized into two general areas–(1) organization and (2) health financing.

These political and operational guidelines for sectoral reform should, however, be accompanied by research that evaluates present experiences and promotes new approaches

and methodologies, supported by ongoing training of all health and community personnel to provide them with technical elements and activities to assume their responsibilities in achieving Health for All by the year 2000.

The efforts expended in the direction of the decentralization and development of local health systems as a strategy for reorganizing and reorienting the sector should be accompanied by a scientific and participatory movement for the creation, renewal, and validation of policies, concepts, and methods.

Accordingly, the following research priorities may be mentioned to support health sector reform:

- Studies on equity, coverage, and accessibility of health systems at the macroinstitutional level and based on structural characteristics with regard to quantity, quality of resources, and organization. This includes analysis of the availability of services, their organization, the public-private relationship, and financing of the sector as it relates to accessibility, acceptability, utilization, efficiency, and impact.

- Alternative forms of central management and information systems to manage, evaluate, and mobilize resources.

- Decentralization, community participation, and the development of local health systems. This includes the development of health at the municipality and provincial levels, analysis of the political and technical-administrative processes involved in decentralization and the transfer of authority to local levels, and local financing.

- Cost-effectiveness and cost-benefit studies, analysis of economies of scale with regard to outcome and the cost of providing health care.

- Health care models and the intersectoral relationship of the health services, promotion, and prevention.

- Analysis of the results of providing health care and its relationship to structural and procedural characteristics, especially at the local and health care institution levels, including identification of specific health problems and priority groups, such as indigenous populations and poor, marginalized populations. This includes the study of new forms of organizing and financing health care (managed care, team practice,

service networks, basic care packages), needs of the population, and traditional care practices.

- The management of human resources within the framework of health systems and services. This includes research to analyze and explain the relationships among personnel management models, the organization of work, and continuing education, among others, as they concern the productivity and quality of health services.

8. Development of HSR

In developing HSR, consideration must be given to the means for increasing the demand for research together with national and local capacities to respond to the demand. A study must also be conducted of the manner in which the knowledge gained may be applied.

The demand for research on health care systems and services should come from politicians at the national and local levels who are in need of greater knowledge for decision-making for reform.

If research on health systems and services is understood to mean the scientific process that provides knowledge for decision-making on important health issues, it is impossible to conceive of a situation with regard to sectoral reform that is not accompanied by a thorough search for existing knowledge of the issue in question and by ongoing research that provides knowledge of the results in terms of equity, quality, and efficiency.

There is no precondition of development in order to carry out research on health systems; in other words, there are no excuses for not carrying out research in this area.

Although equity, quality, and efficiency should be the responsibility of all countries and societies, regardless of their degree of development, the less developed countries with relatively fewer resources are nevertheless obliged to assume responsibility to organize their resources and applying their knowledge in the most equitable manner through the most efficient use of their resources. Research on health systems and services provides knowledge to realize these objectives simply and inexpensively. In this connection, it is recommended that any project to mobilize resources to assist in reforming the sector include fund allocation to train personnel and foment institutional development.

The essential conditions for developing the capacity of a country to carry out HSR are:

- The existence of skilled personnel capable of carrying out essential research tasks.

- The implementation of high-level training programs and in-service training. The modules for the teaching of research on health systems produced in collaboration between WHO, the International Development Research Center (IDRC), and PAHO are documents of great value that should be promoted in the future.

- Course offerings to health authorities that include the subject of research and how it can improve decision-making and policy formulation.

- Improvement of methods to disseminate results. Endeavors such as publications of PAHO, *The Challenge of Epidemiology. Issues and Selected Readings* (Scientific Publication N° 505), *Health Services Research: An Anthology* (Scientific Publication N° 534), and the *Boletín de Investigación sobre Servicios de Salud* (BISS) [Health Services Research Bulletin (BRIDGE)] should be expanded in specific priority fields.

- The involvement of local health and community authorities in the identification of research subjects and analysis of the results as a means to improve local health systems.

- The establishment of units with technical and financial capacity in state or private institutions (universities) able to provide support to biomedical, social, epidemiological, and statistical sciences as points of reference and support for research on a broad interdisciplinary basis.

- Establishment of an order of priorities for important research topics in accordance with the needs of the population and the problems of organizing and financing health systems.

- Promotion of cooperation among countries through collaborative networks to increase opportunities for communication and collaborative efforts between social and health scientists and professional and regional organizations.

Fulfillment of the conditions listed above could assist in formulating important research topics among countries, such as accessibility, coverage, quality, and efficiency, in

which collaboration between countries would maximize the knowledge and resources of all.

There is an urgent priority to carry out research at the local level. The local capacity of health services research is vital in order to improve the health care of communities. This includes the execution of field studies and more in-depth analyses of the health situation in order to plan educational programs, orient central health care polices, and determine research priorities.

Lastly, one of the most constant general concerns in the field of research, which is of particular concern to health systems and services research, is how to ensure that the knowledge obtained is applied to help improve the health of the population.

In this connection, attention should be focused on good communication between investigators and users, the importance of the subject being investigated, the orientation of research toward application of its results, and its relationship to the needs of the population.

Bibliography Consulted

. Aday Lu An, Andersen R. 1981, Equity of Access to Medical Care: A Conceptual and Empirical Overview. Medical Care. December 1981. Vol. XIX, No. 12. Supplement pp. 4-27.

. Brownlee A. Promoting Health Systems Research as a Management Tool. Health Systems Research Training Services. WHO. Volume I, IDRC 1991.

. Comisión de Investigación en Salud para el Desarrollo. Recomendaciones. Cambridge, MA 02138. United States.

. Declaración de Puebla. January 1990. Puebla, Mexico.

. Eastaugh S. 1992, Health Economics, Efficiency, Quality and Equity. Auburn House, USA.

. Evans J. Investigación en Salud: Un vínculo esencial con la equidad en el desarrollo. BISS. N° 4. Spring 1990.

. Frenk J. BISS. N° 3. Winter 1989.

. Ginzberg E (ed). Health Services Research. A Key to Health Policy. 1994.

. Neufeld VR. Labor Conjunta de Universidades en la Investigación de Sistemas de Salud. Boletín de Investigación de Servicios de Salud N° 2. Spring-Summer 1989. WHO-INCLAN. Rockefeller Foundation.

. PAHO - Strategic and Programmatic Orientations, 1995-1998.

. Paganini JM. Calidad y Eficiencia de la Atención Hospitalaria. Serie SILOS No. 30. 1993.

. Rawls JA. 1971, A Theory of Justice. Cambridge, MA, Harvard University Press.

. Sambo Eyitayo. Cómo mejorar la utilización de los resultados de las investigaciones. BISS. N° 14. Winter/Spring 1995.

. Starfield B. Investigación de servicios de salud, un modelo de trabajo. The New England Journal of Medicine, 289 (3): 132-136, July 1973.

. Starfield B. 1992, Primary Care, Concept, Evaluation and Policy, Oxford University Press, USA.

. Van Doorslaer E, et al., (ed). 1993. Equity in the Finance and Delivery of Health Care. An International Perspective. Commission of the European Communities.

. White Kerr L. Perspectiva. Cuando se confunde el nombre con el objeto. BISS. N° 3. Winter 1989.

. Whitehead M. 1991, Conceptos y Principios de Igualdad en Salud. Ministerio de Sanidad y Consumo. Madrid. Translation of the publication in English of the European Office. WHO.

. WHO Consultative Committee on Organization of Health Systems Based on Primary Health Care. Draft Report, 1995.

. WHO-International Collaborative Study of Medical Care Utilization. White K, ed. 1973.