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EXPERIENCE IN HEALTH SERVICES RESEARCH IN COLOMBIA

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The topic of Health Services Research (HSR) always awakes controversies, not only by its conceptual framework, purposes, objectives, implementation, scopes, classes and applications, but from its very definition. Thus, and in order to adopt a clear criterion in the present presentation, we will accept the definition given by WHO when it says that "HSR is the systematic study of the means by which basic medical knowledge and other relevant knowledges are applied to health of the individuals and of the communities under a given group of existing conditions". (Reports ACMR/HSR.2/79 p.5).

Colombia, from the point of view of health research, can be divided into two large periods, whose limits are defined very clearly by the "Study of Human Resources for Health and Medical Education", carried out from 1964, and which was the result of the collaborative effort within the education sector. We can say that this study established the first point of reference in relation to different parameters, within which are pointed out: the identification of the most relevant problems of our country at that time and of the measures for utilization of the services, related with the existing resources as well as humans, physical and financial. This study was initiated in 1964 and was finalized in 1968, and before its completion the Colombian government understood the importance of the research in order to rationalize decision-making and considered desirable the promotion of a specialized group within the Ministry of Health. At the beginning of 1969 within the National Institute for Special Health Programs (INPES) was created the Division of Special Research, which brought together the group of researchers that had been formed around this great study. With the good experience that was gathered together the additional need was created for a center that would oriente, promote, coordinate, advise and control health research in Colombia.

For this reason the national government created in 1974 the Directorate of Research, dependent entity of the Ministry of Health, so that it would fully accomplish said functions.

The fact of having created an entity for orienting and controlling health research at the national level, made it possible to determine policies, objectives and strategies in health research and to promote the mechanisms of coordination, advisory service and dissemination of results in the matter of research.

This experience, which was the first in Latin America, prompted other countries to be motivated in the same aspect and, as a consequence, both Mexico and Cuba created similar agencies within the structure of the health sector.

Another fact worth of comment, was the stimulus that the Colombian Fund for Scientific Research, COLCIENCIAS, gave in 1977 for creating the function of sciences and technology within the national budget as an independent category but similar to that of health and education.

When health reserach done in Colombia before 1950 is reviewed, essentially it relates to the area of basic research, the clinical sciences, the public health areas, but they were preferentially of the descriptive type. By this it is not intended to insinuate in any way that it did not have value, but rather that it responded to isolated concerns, to the persistent work of those who wanted, intellectually motivated, to get to know better the position of the country in some of the aspects mentioned. The excellent work of Santiago Rengifo or Carlos San Martín, only to mention my teachers, or that of the group of "quijotes" of the National Institute of Hygiene Samper Martínez, are an extraordinary sample of what was done.

Between 1950 and 1965 some facts should be pointed out as much in the training as in the services sectors which would produce a great impact on research.

The most fundamental is the beginning of a permanent concern for the adjustment and progressive changes of medical education in accordance with the needs of the country, in particular to those proper of each community, a situation that creates, around 1960 the formation of the Departments of Preventive Medicine and the projection of the teaching-service activities toward the health agencies of the state, basically the health centers.

To 1950 only four schools of Medicine existed in Colombia. In 1951 the School of Medicine of Valle University in Cali starts its activities, in 1952 the one in Cauca, Popayán, and the University of Caldas in Manizales. The first national seminar on medical education meets in Cali, in 1955. Afterwards a series of seminars, assemblies and various meetings seeking a new mentality toward health problems of the country are held. The provision of medical services of the Colombian Institute of Social Securities had been initiated which also divided in two the history of medical care in Colombia.

The Ministry of Public Health by reorganizing itself begins to take the responsibility for its sector in the development and in 1965 the health sectional services are created.

All these facts facilitate the Study of Human Resources for Health and Medical Education in Colombia, which was born of the belief that, although there had been notable advances in the utilization of a broad approach toward the proposal of the health problems, it was necessary to have more appropriate bases in the diagnosis of health situations and education that would make it possible to take more firm steps in the field of solutions.

This study is not going to be described here. It suffices to point out that for the first time in a Latin American country the integrated vision of a diagnosis of the population and its dynamics (birth rate, mortality, growth), morbidity and the utilization of services for its care, of the medical resource, of nursing, of dentistry

and its formative process of the institutional resource and its financial problems, of public expenditure in health, etc. was seen.

And there is a change in the panorama of health research of the country, because a point of fundamental reference was created which obviously produced definitive impact on each of the two large partners in this research.

The Health Sector, where the Ministry had already been strengthened with the integration of the sectional services from 1966, makes well-aimed decisions on the conceptualization of comprehensive medical care. The operationalization of the sectional services goes articulating institutions which had been functioning in isolation with duplication of resources and efforts. This integration within the health sector, marks a goal that was already coming, toward a health system.

In 1968, with the administrative reform the Ministry is reorganized and in 1969 the law for the Hospital National Plan is approved, where is shaped, from a general point of view, the design of a system of regionalization of services with four levels of medical care which establishes the march toward the structure of a National Health System. This is created as product of a Group on Redesign of the System in 1975.

It is worth pointing out that one of the sub-systems considered was that of research.

And so much stimulus had to be fruitful. While the sites of research were few, and well defined in their geographic location, now they multiplied as almost it can be affirmed today, and the national inventory on resources and research in Health (INRIS) between the Pan American Health Organization and the Ministry, demonstrates it. (See Annex 1).

A general policy was established for the first time, emphasizing not only the importance of research within the National Health System, but also the criteria for priority, but without restricting the autonomy of local groups (See Annex 2).

The first national meeting on programs of research in health held in Cartagena in April 1977, although it centered on seven projects with the common denominator of being studies permitting alternatives of models for the provision of services, were really research programs which not only prepared the analysis of information in the sense of detecting the characteristics of the situations under study but they also projected themselves afterwards in the sense of explaining the phenomenon and by being in accordance with the resources available.

It is difficult to determine the specific genesis of each one of these research projects. Nevertheless, their methodologic framework could be summarized by saying that the bases were the previous experiences of each one of the groups in the provision of services, be it in rural or urban health centers, which demonstrated the feasibility of incorporating personnel from the community (promoters, midwives, other health agents) in order to execute simple but important actions in the detection, control, and follow-up of priority groups. The redefinition of the role of auxiliary personnel, combining home care of the users with institutional control, showed the increase of coverage and the reduction in the cost of provision of the service. Likewise the health services were developing a structure of regionalization with different levels of care of growing complexity. This was accompanied by studies and seminars at the national and international levels where emphasis was placed on development of suitable instruments for differentiation of the groups of users in accordance with patterns of risk.

Perhaps the first specific study that should be mentioned is the "Experimental Study on Health Services in Colombia" which sought to define the meaning of the training and the reorientation of the programs for auxiliary and better prepared professional personnel in order to implement the policy and the health plans. This study, consequently, involved defining how to translate that health policy into a curriculum for training and into technical manuals, and also how to evaluate such curricula and manuals in terms of the policy.

For this purpose, the immediate objective consisted in determining the changes in the coverage of the health services that might result from the combination of:

a) Delegation of specific functions of professional personnel to auxiliary personnel.

b) Concomitant definition and development of the functions of reference, supervision and evaluation of the professional personnel. The study was carried out in three very different areas of Colombia: Cáqueza, localized to the southwest of Bogotá, with a very scattered rural population; Carmen de Bolívar, on the Atlantic Coast, with a semirural population and Restripo, located to the north of Cali, in a very agricultural but very traditional area.

Basically the following models of activities were prepared:

1. Medical Care: experimentes were done by delegating functions of minimum medical care in two kinds of auxiliary personnel, the aides and the nursing auxiliaries, for functions in addition to taking basic data such as weight, height, temperature and arterial tension of prenatal care and of delivery, control of the nursing infant and preschool child, care of the schoolchild, family planning, nutrition, control of communicable diseases and eradication of malaria.

In addition, there was training in some actions for patient care in conditions such as diarrhea and enteritis, venereal, measles, respiratory diseases, malnutrition, intestinal parasitism and first aid in burns, wounds, fractures, luxations, sprains, animal bites, foreign bodies, poisonings.

2. Promotion of Services: for this activity and in order to promote the demand, the health promoters and the leaders of the community were utilized.

For purposes of provision of services and reference to specific problems three levels of medical care were considered: peripheral or rural, consisting of the health posts; infrastructure, consisting of the hospital agency in the headquarters of the area, and regional, localized outside the area for purposes of reference or interconsultation of patients, consisting of the hospitals which for the most part corresponded to the universities.

The system began functioning in the existing health institutions in each area. The establishment of additional peripheral health posts and their location were determined in accordance with the progress of the programs. The number of personnel, both professional and auxiliary, was also determined in accordance with the formulation of the programs for each area and with the development of the same. The study was developed between 1968 and 1971, as a joint effort of the Ministry of Health and the Colombian Association of Schools of Medicine with the patronage and cooperation of AID and PAHO/WHO. It could be said that it was the first formal research on health services product of a good teaching-service integration, which demonstrated the merits of the delegation of functions in order to expand the coverage having as a basis a good structure for patient referral. Meanwhile, the Universidad del Valle, which had been the pioneer in Colombia for development of community educational programs, and which took the student of health sciences outside the university hospital to other institutions of less complex medical care and to the rural area, was based on these experiences in order to launch in 1972 a model for provision of services in the maternal and child area, known by PRIMOPS. The great merit of this model is that it incorporated from its beginning the epidemiological approach of the concept of risk based on the disease, on the scheme of the regionalization of services with a good system of patient referral and it created a methodology for research in the health services.

This methodology (Figure 1) has the following stages:

Stage 1. Analysis of the health problem

The first step within this approach is to make an analysis of the health situation of the country, of the region and of the areas, where the programs are carried out, based on the existing studies at the national and regional level, on the health conditions of the community, and the human and institutional resources available. For some areas and specific communities on which there are not precise data, the analysis is made with the participation of the different clinical sectors, which investigate the problems of their respective areas, for example: Psychiatry investigates the mental health aspects, Surgery the surgical aspects, Pediatrics, the aspects of the child, Obstetrics, those of the mother, and Internal Medicine those corresponding to the adult. Other aspects related to health such as public services, employment, housing, education, etc., are studied with participation of the different professional groups.

Stage 2. Health System:

It consists of designing new alternatives for the system of provision of health services which make it possible to face successfully the health problems at the level of the communities. In the design, planning and programming of the system, work should be carried out with a multidisciplinary approach, for the purpose of presenting an overall view for the solution of the problem.

The approach of the system is directed toward a comprehensive care of the individual, his family and the community: high coverages of the population, delegation of functions, regionalization of the health services, community participation and the agencies of the government. In this stage, the epidemiological research, planning and administration, operations research, systems analysis, studies of cost-efficiency and of problems of communication, etc. play an important role

Stage 3. Health team:

It consists of studying health groups that are going to work within the health system in order to solve the problem found. This team

is made up of professionals, technicians, auxiliaries, promoters and people from the community in different proportions. The more important aspect is to define what is expected and what are the abilities, skills, knowledge and attitudes that should be developed.

Stage 4. Curriculum:

It refers to the preparation of a suitable curriculum in order to attain the educational objectives and to achieve the goals proposed within the health system.

The efficiency and effectiveness of the health team should be evaluated in specific situations within the health system, and the quantitative information that these studies provide make it possible to introduce changes in the educational programs, establishing a continuous system of feedback. In this stage it is important to train the educational personnel in educational aspects, teaching techniques, formulation of objectives and evaluation of the learning.

Stage 5. Organization and structure. Training entity:

The last stage is the restructuring of the Health Division or in the training entity of the human resource in the light of the needs of the community, the requirements of the health system and the educational research methodologies necessary in order to form health teams which fulfill the fundamental purpose of improving the community health level.

PRIMOPS (See Annex 3) brings together therefore operational methodologies developed in relation to the care for the mother and the child under five years, with emphasis on primary care and the formation of the human resource and therefore, is directed toward the provision of health services, with the goal of improving the health level as part of the well-being of the community. In order to achieve this PRIMOPS defined the principles and strategies that serve as a conceptual and operational framework for the provision of health services, which began with the study of the problem of health of the mother and of the child;

in the experience obtained in a similar program in the population of Candlemas (Colombia); in the analysis of the criteria adopted by the national health system of Colombia and in the review of the literature concerning the topic.

The impact of PRIMOPS was great. Not only by the success itself of the model that demonstrated its effectiveness through a serious evaluation but by the induction that it produced in other regions of the country and outside Colombia, for the adoption of principles, criteria and similar methodologies. There could be listed a few projects that had their genesis in PRIMOPS. It suffices to cite that the adoption of the system of patient referrals in Cali was based on the careful analysis of that which could be carried out at each one of the levels of medical care. Definition made with care and professionalism by the group of clinicians from each one of the specialties.

The Program of Research System of Simplified Surgery (SICSIM) should be mentioned also as being fundamental in that determination. The purpose of this program is translated in the increase in productivity of surgical care, and in the reduction of its costs, through a greater utilization of the resources whose availability conditions the coverage; attention to the demand in a timely manner, maintaining and improving the quality of surgical care; reduction in the time of hospitalization, carrying out post-operative care in the home; increasing the productivity of the operating room, performing two or more surgical interventions simultaneously (See Annex 4.).

The Center for Multidisciplinary Research in Rural Development (CIMDER) is the best example of how the health sector went on to total community development. Obviously, from a single governmental agency, it went on to the intersectoral coordination of many agencies. From the health point of view it is the experience of finding methodologies for the rural area, where it is accompanied by appropriate instruments for that problem, such as the master box for example, which permits the implementation of a systematic recording of the health care that the rural health promoter carries out. It is a group whose final objective

is the well-being and from there the methodologic difficulties begin in order to define operationally this better community being (see Annex 5).

The program of Health Systems Research and Development (PRIDES) has as purpose to improve the health conditions of the population and in order to achieve it it directs its action starting from the postulates: the sectional health influence on the health conditions of the population; the most efficient manner of increasing its influence is through administrative innovations based on the analytic evaluation of the sectional services.

Its principal products of research are the methods derived from its studies with the health agencies; these products are basically two instruments: MEDA or the method of administrative diagnosis and MESS, or the method for evaluation sectional health services.

In addition, it has the study on "Evaluation of the Financial Management and Social Orientation of the Hospitals of Reference" defining the role that the institution performs as level of maximum complexity in the region, designing a methodology for the financial analysis of this type of hospitales.

It should be emphasized widely the "Study on the Use of Ambulatory Services of Cali" (USAC), because upon defining for the first time in Colombia the morbidity that should be cared for at each of the levels of care, it served as a basis for sustaining the changes for the use of services at the level of the Universidad del Valle's Hospital and the Health Centers in Cali, in the development of the national policy of regionalization and levels of care (See Annex 6).

One could continue enumerating a long list of other projects that have been carried out or are being executed in Colombia. Again the inventory of research done by the Ministry (Annex 1) answers for us the question of what else is being done.

To speak of the health of man is to touch the more sensitive fiber of the human being. Thus, perhaps, it is that one of the groups that has the greatest influence on the members of the community, is the one made up of workers of this field, above all if it is borne in mind that health ceased to be a concept of individual nature in order to change into an eminently social notion.

The Colombian experience in the health research field is positive. It is said by the numerous groups already in the the universities, in the health services, in the governmental agencies which independently each time less and integratedly more and more face how to resolve the problem of giving more and better health.

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