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RESEARCH RESULTS OF PROJECTS ON LABOUR FORCE IN HEALTH

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I. INTRODUCTION

In the context of the directives established by the Office of the Director of PAHO, which has given priority to the "management of knowledge," the concern for promoting research in support of a better orientation of health manpower in its central position relating to national and international efforts to attain the goal of Health for All by the Year 2000 began to take shape in the Human Resources program area.

The development of this initiative was facilitated by the formulation of a research policy defining priority subject areas and reorganizing the process of project financing in these areas.

Prior to this, the Human Resources Program had been charged with convening a working group, which met in 1984 to outline the corresponding concepts, define the criteria for the setting of priorities, and propose subject areas on which research efforts should be concentrated within its specific field of action.

The following areas were suggested:

- The health manpower market
- Analysis of health manpower within the structure of input and technology
- Sociology of the professions
- Educational processes
- Supporting studies and research

Based on this proposal, as part of its effort to implement the research promotion plan, PAHO has adopted the general subject of Health Manpower Market as a priority within the area of Human Resources, incorporating into it studies on the dynamics and composition of the work force, an analysis of manpower within the structure of input and technology, and sociology of the professions.

Furthermore, taking into account the limited dedication to this area that has been given at the country level, it had to be the responsibility of the technical unit, acting at the regional level, to determine the strategy required in order to pursue this initiative. This was to be done through the integrated project on health manpower research, which provided a more detailed definition of the conceptual bases for both the research itself and the strategies for its implementation, including the identification of interested national groups and methodological support for development of the respective protocols.

The results obtained during the first stage of this research effort are presented here by way of evaluating the projects that have been developed from a political, scientific, and operational point of view, as well as from the perspective of their use and the initial impact of the findings.

II. THE PROJECTS AND ELEMENTS OF EVALUATION

During 1985 the PAHO Research Grants Program approved nine research proposals in the area of the health manpower market. Five of these proposals focused on the major professional categories as the subject of investigation, three of them were limited to the study of physicians, and two to the subject of nurses.

There follows a list of projects, including the topic, principal investigator, and area covered by the research:

PROJECT TITLE	INSTITUTION/INVESTIGATOR	COUNTRY/GEOGRAPHICAL AND PROFESSIONAL AREA
- Health Manpower Market in Brazil - Structural Aspects of Different situations	- Oswaldo Cruz Foundation and Federal University M. Gerais André Medici and Roberto Nogueira	- Brazil - National - Multiprofessional
- Health Manpower, the Case of Venezuela	- Venezuelan Association for the Development of Health Research (Avedis) Martha Rodríguez de González and Tirsis Quezada Aliff	- Venezuela - National - Multiprofessional
- The Physician Manpower Market and New Professions	- Center for Health and Social Studies (CESS) Carlos Block and Susana Belmartino	- Argentina - Province or State - Physicians
- Physician Employment Patterns in Urban Areas of Mexico	- Center for Public Research (CISP) Julio Frenk and Cecilia Robledo	- Mexico - National - Physicians
- Analysis of Trends of Supply and Demand. Attitudes and Expectations of Institutions and Workers about the Health Manpower Market	- Juan César García Institute César Hermida	- Ecuador - National - Multiprofessional
- Comparative Study of the Health Manpower Market in the Public Sector, Central America and Panama	- National University of Honduras and Health Training Program Francisca Canales	- Central America and Panama - Multinational (Guatemala, Honduras, Nicaragua, Costa Rica, Panama) - Multiprofessional
- Occupational Analysis of the General Nurse within the Health System	- Ministry of Health of Nicaragua Guillermo González	- Nicaragua - National - Nursing
- Study of the Physician Manpower Market in Uruguay	- Planning and Budget Office, Office of the President of the Republic of Uruguay - Ricardo Meerhoff	- Uruguay - National - Medicine
- Nursing Education and Practice, Republic of Cuba	- Ministry of Public Health of Cuba Gladys Pérez	- Cuba - National - Nursing

For the evaluation of these projects, the points of departure used in the political sphere were the institutional and program-related decisions of PAHO regarding Human Resources development and Research. There was coherence in research project policies, resulting from their specific direction and intention. In other words, the general and specific objectives of the projects were oriented toward a better understanding of health manpower and its characteristics in participating countries and toward documenting the imbalances between the supply and demand of health manpower.

During the first stage, there has been a predominance of descriptive studies on health manpower rather than an in-depth analysis of the conditioning and determining factors in the imbalances that were discovered. Nor was it possible during this stage to conduct health manpower research relating to the structure of input and technology, or in the area of the sociology of the professions.

Attention is called to the fact that most projects have been developed by public service institutions that come under the Ministry of Health or on a State university. This turns out to be positive to the extent that it maximizes public research capacity and ensures the potential application of results and adoption or readjustment of the respective policies.

In addition, the present evaluation needs to take into account the difficulties faced from the operational perspective, which would include logistical aspects and the limitations inherent in the state of development, which affects health research in general and research in non-traditional areas in particular, where specific initiatives have so far been rare. In fact, the main difficulty regarding the implementation of these projects has been the identification of groups already trained for this kind of research. In many instances, additional support became necessary in order to provide methodological orientation for an approach that would incorporate instruments from the social sciences, so as to manage the simple quantitative registration of available manpower and manpower in training.

In this context, the projects in question may be regarded as virtually a pioneering effort, reflecting in many countries the opening of a new area of activity in support of human resource development. The fact of having contributed to the completion of a significant number of projects is, no doubt, a tangible achievement.

III. SIGNIFICANT FINDINGS

The results from the research have helped to answer some of the questions regarding the health manpower market and to identify some of the prevailing trends in the countries of the Hemisphere. Among the most significant of these are the following:

1. Contrary to the general assumption that there is a disproportionate and steady increase in the number of medical students throughout the Region, the rising trend was only in the 1970s and early 80s and has

been followed by a gradual decline beginning in the mid-80s in most of the countries. The studies showed that this has been the case in Ecuador, Venezuela, Mexico, and Brazil. In Uruguay, on the other hand, there has been a steady rise since 1940, with a slight increase after 1984 as a result of the elimination of restrictions in admissions policies.

2. A trend toward feminization of the work force has been observed, with an increase in the percentage of women, who became a majority in the the medical professions in the 1980s in countries such as Uruguay and Venezuela.
3. The concentration of manpower in urban areas was confirmed by the various research areas, in some cases for all categories of personnel.
4. The rates of institutional unemployment and underemployment will be considerably lower than commonly admitted for some of the countries, ranging between 7.5% for Mexico and 11.5% for Venezuela. These findings will also apply to physicians graduating in the last 5 years, given the tendency toward delayed absorption into the labor market.
5. Different studies recorded varying degrees of multiemployment among the groups observed, ranging between 26% and 80% with two or more jobs, with some cases of up to 20% of the physicians holding four and six jobs. It is interesting to note that most of the physicians holding only one job were women (60% in Argentina), and they usually worked at a single location. The holding of several jobs at once is associated with a low level of commitment to the different employers.
6. The tendency to specialize was identified as a way for medical graduates to gain more prestige and have better incomes, these benefits being noted in all the countries.
7. Some studies show an uneven distribution of physicians among the various specialties, with a tendency to concentrate in the basic areas of expertise (internal medicine, surgery, pediatrics, and gynecology). The imbalance refers not only to the relative participation of each area of specialty in terms of percentages but also within the areas as such, with a differential trend among the sexes. Women prefer clinical work and pediatrics, while men focus on surgery. In one particular case, it was found that 15% of the medical specialists were training for a second specialty, which shows how important specialization is considered to be in the health manpower market.
8. The study carried out in Brazil revealed changes in human resource policies in terms of transformations of the assistance model, with more intermediate-level professionals working on health teams, an

increase in employment at the out-patient level, and an increase in the number of jobs in the public sector compared with the private sector. It is important to note that despite the recognition of an imbalance in the ratio of physicians to nurses, it was observed that for every 3 graduating nurses that graduated, there was no more than one new job during the period in question.

Although some of the studies will cover all the health sector professions, attention will be focused on findings in the area of medicine, in terms of the concern about the "plethora" of physicians, which was widely discussed during the recent Acapulco conference on the imbalance in human resources.

As it can be seen from these findings, the studies contributed not only to a greater understanding of general trends in the area of human resources in health but also to the correction of certain assumptions that might be distorting the political stance to be taken in this field. The latter is supported by observation of a falling enrollment in Medical Schools in recent years and by the quantification of physician unemployment at levels considered to be less dramatic and more practically acceptable as slow absorption of recently graduated professionals.

Another equally significant contribution has been the improved knowledge of trends in the demand for human resources in the public, private, and social security sectors. Also important for the formulation of policies relating to the health manpower market has been the analysis of the different professional categories by sex, age, education, and degree of specialization.

IV. APPLICATION AND IMPACT OF THE RESEARCH

The analysis of the potential application of the results obtained through these research efforts and their impact on the countries is, of course, time-limited, since the findings were made public only recently. In some cases, the descriptive studies that were carried out are nothing but the preliminary stage of an explicative analysis that will be looking much more deeply into the social forces behind the health manpower market. On the other hand, the ultimate impact of official, political, or proposed lines of action resulting from this research will depend on the power exercised by the authorities and the nature of the health practices in the different countries at the particular time.

It is already possible, however, to point to certain facts that bear out not only of the importance of these efforts but also of the impact of the first results. Of special importance is the integration of new groups contributing to the formation of a critical mass of health manpower investigators in the Region. With regard to scientific knowledge, the initial search for the form and interaction of the health manpower market has led to the identification of new problems, which will be subject to research along these lines. In the long run, all this will contribute to the formulation of a theory that will attempt to account for the phenomenon, and, as a result,

will be able to propose feasible, political, and technical interventions at the various decision-making levels.

In the political sphere, the same research process has mobilized considerable human resources, which, until this research was conducted, did not assign priority to a scientific study of the health manpower market. This mobilization of the social actors has had an impact at the highest political levels in the country (Executive Branch, Legislative Branch) as well as on the principal public and private institutions that employ human resources; the results have mobilized opinions at universities and schools in the area of health, among professional circles, and in social groups in general. This critical debate during the research process has generated a growing interest on the part of the various social actors in the findings from the research.

The results obtained have been made public through the media. In some cases, like that of Uruguay, they have generated extensive debate, which is all the more important when taking into account that the studies were conducted by an agency directly under the Office of the President of the Republic.

In Mexico, the responsible institution, which comes directly under the Ministry of Health, recommended in its conclusions that the mechanisms of coordination be strengthened between the institutions involved in manpower development. This suggestion may well have contributed to the creation of the Interinstitutional Commission for the Training of Human Resources in Health by the Government, which coordinated the participation of the Ministries of Health and Education, Universities, and Union Associations.

In Brazil, following an extensive debate at the National Conference on Human Resources, held after the VIII National Health Conference, the results of the respective research will be incorporated as part of the conceptual basis for the national health reform, which to date has generated constitutional changes and legislative proposals for a unified health system. Among the current processes most related to the research findings are the salary trends and the importance that Social Security has attached to the human resource problem for the first time, which, through a national effort, has permitted the development of collective health nuclei and a Course in Human Resource Administration (CADRU).

The need for more thorough studies on the impact of social determinants on manpower market behavior, mentioned previously, has already been felt in some areas as a consequence of this first stage of descriptive studies. In Argentina and Brazil, new research projects have been carried out on the sociology of the professions, analyzing the interaction between occupational groups, the subsystem in which they operate, and their corporate organizational structure.

There may still be speculation about whether or not to widely disseminate the research results in view of the difficult conditions in some areas of the physician manpower market, which might be bringing about the

decrease in the numbers of prospective medical students, as is already being seen in some of the countries. Making the market behavior known would help regulate the supply of health professionals. This has been observed in at least one of the countries as a source of information among entrance examination applicants and appears to reflect discussions not only among students but also among their families and in their social environment.

Conducting this research has helped make the health manpower market a genuine object of scientific study and has made it clear to investigators that it is necessary to study the phenomenon from an interdisciplinary perspective, using not only more rigorous quantitative analysis but also qualitative methods and techniques that will permit a better understanding of the object of study.

In this context, and based on the encouraging experience to date, an unquestionable impact can be observed on the reorientation of international technical cooperation in the area of Human Resource development. First of all, this is due to the expansion of the area to be investigated in terms of both content and depth, with focus on analysis of the social forces involved. Secondly, the clear evidence of limited capacity on the part of national groups has led to the initiation of three advanced international human resources training programs, all of which include a significant research component, based on the theoretical and methodological knowledge from the social sciences. These courses are being offered in Rosario-Argentina, Rio de Janeiro-Brazil, and Costa Rica-Central America (PASCAP), in nuclei that have been directly involved in the research conducted to date.

V. CONCLUSIONS AND RECOMMENDATIONS

Most of the studies approved in 1985 have given priority to the descriptive aspects of health manpower (supply). The absorption of the various workers (demand), the dynamic characteristics of the interaction of supply and demand, and the determining or conditioning factors of the various elements in play have only been studied as an exception or tangentially.

Investigators (for example, in the Argentine group) have clearly noticed the difficulties in understanding and studying the health manpower market exclusively on the basis of quantitative economic variables. Political and social factors relating to changes within the society under study, including those that affected microsocial or intermediate health variables, must be incorporated into this line of investigation. It is also anticipated that the latter will require the testing of interdisciplinary approaches against reality and the traditional application of different analyses.

In conclusion, the analysis of the research carried out on varying degrees over the last five years, especially the questions that arise on a daily basis while technical cooperation is being provided, show that it is desirable to expand or increase the search for knowledge pertinent to human resources development in the health sector. Explicative rather than descriptive studies must be designed and implemented, based on a theoretical

framework that takes into account the relationship among the various social actors (sociology of the professions). Furthermore, it is important to investigate the best options for in-service training in public health and the possibilities both for a more thorough analysis of external factors affecting the health sector and, by inference, future alternatives for planning, which appear to be the areas in which efforts should be concentrated in the near future.

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