

# Transformation and trends in preventive and social medicine education at the undergraduate level in a Brazilian medical school

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## Summary

In the present study we discuss some transformations in undergraduate training in Preventive and Social Medicine in the Department of Social Medicine of the Faculty of Medicine of Ribeirão Preto, University of São Paulo, from 1993 to 1999. Aspects of the relationship between medical training and the reorganization of local services of the Brazilian national health system, and between graduate teaching in Preventive and Social Medicine and medical education as a whole are discussed. The crisis in Preventive and Social Medicine and its influence of medical training are evaluated. Trends for the application of a body of knowledge of the specialty and for the relationship between the department and the medical school are discussed.

**Key words:** Health manpower. Preventive medicine. Undergraduate education. National Health System.

## Resumen

El presente estudio versa sobre algunas de las transformaciones de la formación universitaria en medicina social y preventiva llevadas a cabo en el Departamento de Medicina Social de la Facultad de Medicina de Ribeirão Preto de la Universidad de São Paulo entre 1993 y 1999. Se analizan varios aspectos concernientes a la relación entre la formación en medicina y la reorganización de los servicios locales del sistema sanitario nacional brasileño, así como entre la enseñanza universitaria de medicina social y preventiva y la formación médica en general. Se evalúa la crisis de la medicina social y preventiva y su influencia en la formación médica. Asimismo, se plantean las tendencias observadas en la aplicación de un cuerpo de conocimientos de esta especialidad y en las relaciones entre el departamento y la escuela de medicina.

**Palabras clave:** Recursos humanos sanitarios. Medicina Preventiva. Formación universitaria. Sistema sanitario nacional.

## The reorganization of the services provided by the Brazilian National Health System

The implementation of the Brazilian National Health System started with the Sanitary Reform Movement in the 1980's and Sanitary legislation followed (Organic Health Laws n.º 8080/90 and n.º 8142/90<sup>1</sup> and Basic Orientation Norm 01/96<sup>2</sup>), necessary for the regulation of the National Health System.

The reorganization of the public health sector has affected university hospitals, such as the University Hospital of the Faculty of Medicine of Ribeirão Preto, University of São Paulo, which is part of Brazilian National Health System. Upon superior administrative orientation, this hospital has taken the responsibility of providing tertiary care services, in view of its structure

which permits the execution of more complex procedures.

Although there has been frequent questioning of the adequacy of university hospitals as exclusive training places<sup>3</sup>, educational entities in the health areas have shown little agility in terms of extending the training field to services beyond the university hospital.

The Faculty of Medicine of Ribeirão Preto, through its University Hospital and its clinical-surgical departments, has been participating in the National Health System in order to recover sites for training in secondary care, which had been deactivated by the restructuring of the local health system. However, an ample and systematized project with medium- and long-term goals is still needed to contemplate education in all health care situations.

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### **The context of undergraduate education at Faculty of Medicine of Ribeirão Preto (FMRP)**

In 1991 the Graduation Committee took on the responsibility of structuring the graduate course in the institution on the basis of a «survey of the opinions of discipline coordinators and of student representatives as a strategy for the analysis and establishment of concrete proposals for the reformulation of the curricular structure of the Medical course of FMRP-USP». In 1993, as the product of a process of discussion about graduate education, the FMRP, University of São Paulo (USP), implemented «a new course, denoted Medical Sciences Course»<sup>4</sup>.

The new curriculum thus implemented was organized into three phases: basic, clinical and internship, each lasting two years<sup>4</sup>.

Some of the innovative characteristics of the project, which permitted the integration of the contents of the disciplines of the Department of Social Medicine to the general curriculum were: adaptation of the disciplines to current trends of multidisciplinary, spaces and opportunities for the development of optional disciplines, and creation of the teaching units «Humanistic Principles of Medical Knowledge» and «Introduction to Health»<sup>5</sup>. With respect to the internship, two characteristics were implemented: two years duration and availability of optional disciplines. Primary care practices were considered to be appropriate for the first year of internship, and training in the major specialties was considered to be appropriate for the second year.

This process of education enrichment at the graduate level, with multidisciplinary and extramural approaches counted on the important participation of the faculty members of the Department of Social Medicine of the Institution.

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### **The crisis of medical training in preventive and social medicine: the case of the Department of Social Medicine of the FMRP, USP**

Over the last two decades, the departments of Preventive and Social Medicine of Brazilian medical schools, especially in the state of São Paulo, have been affected by a decline in the total number of residents and of the programs of specialist training.

In 1990, sanitary legislation<sup>1,2</sup> regulated the rendering, administration and financing of specialized public health services according to a Brazilian National Health system. Work stations were created for the administration of specialized Public Health services, a measure which, however, was insufficient to absorb existing public he-

alth professionals. In general, as discussed by Parkinson and Scutchfield<sup>6</sup>, the programs of residency in preventive and social medicine provide the training needed for the integration of medical care and public health, so that these professionals can be considered to be qualified for work at any health institution of population reference.

However, the work market and the policy of graduate and postgraduate health education are importantly influenced by health financing. Lane<sup>7</sup> recommended among other measures the expansion of the basis of program financing to reverse the reduced number of residents being trained in Public Health and combined Public Health/Preventive Medicine in U.S.

Even though this is part of a wider crisis within the context of Public Health in the world<sup>6,7</sup>, with repercussions on graduate and postgraduate education, it is necessary to consider the influence of the concrete field of the specialty on graduate education. Gallo-Vallejo et al<sup>8</sup> discussed the dynamic relationship between the implantation and development of specialization in General Medicine and Family Medicine in the United States and in many European countries, and the gradual introduction of the graduate teaching of Primary Health Care and Family Medicine.

Historically, the Department of Social Medicine has been trying to contribute to the training of general clinicians so that they will have a critical attitude, technical and methodological knowledge in the public health area, and awareness of the organization of the health services and of the transformations in the public health system. The department also encouraged discussion of future expectations for health professionals. Furthermore, the orientation followed by the medical school with respect to the new curriculum was based on objectives, contents and teaching strategies<sup>4</sup> considered to be relevant and shared by the area of Preventive and Social Medicine.

In this respect, it is possible to identify some guidelines recommended by the area for education at the undergraduate level, i.e., the health-disease process, methods and techniques for the knowledge and interpretation of the health reality of the Brazilian population, health intervention policies, educational strategies for medical training in services to emphasis on actions of health promotion and disease prevention in the assistance process. The participation in the process of curricular reformulation started to point out the possibility of a wider participation of faculty members both in disciplines with specific contents in the area of preventive and social medicine (required and optional) and in those organized by the graduation committee as a space to contemplate multidisciplinary contents/approaches.

By analyzing the ensemble of disciplines and considering the objectives, discipline hours, semesters and years of the graduate course in which the Department

of Social Medicine is present, it is possible to conclude that there was an expansion of the space of action and of contact with students (tables 1 and 2).

When the current teaching load of the Department is compared with that before the curricular reform, there was a reduction of approximately 95 hours for required disciplines. Considering: *a)* the optional disciplines, the total teaching load increased by 615 hours, and *b)* the disciplines of the Graduation Committee with the collaboration of the Department of Social Medicine in terms of organization, coordination and actual teaching, the faculty body is responsible for 810 hours/class per year.

The extension of work to families in a population microarea within the proposal of the Family Health Program<sup>9</sup> has permitted the application of actions for health promotion and disease prevention to the family unit, as well as integral community health care.

The optional regimen for disciplines during the different phases of the Medical Sciences course (basic, clinical and internship) permits the teaching of specific

contents of preventive medicine and collective health while respecting student development. This has been a stimulating educational experience favoring a good teacher/student academic performance.

### Influence of family medicine activities on institutional organization

In the 5<sup>th</sup> year the students started to practice primary care and family medicine in a multiprofessional team environment in the disciplines «Integrated Training in Health Centers» and «Community Medicine I». The methodology used generally follows the tutorial regimen, with a professor and a supervisor at each training site<sup>10,11</sup>.

This experience, which has been successful so far in a traditional institution such as the FMRP, USP, with the support of two administrations of the Graduation Committee and of the administrations of the University

**Table 1. Required disciplines of the Department of Social Medicine, objectives, discipline hours and year of the graduate course in Medical Sciences of FMRP-USP, 1999.**

Required disciplines of the DMS objectives	Discipline hours	Year/semester
1.1. Social Medicine <ul style="list-style-type: none"> <li>• Identifying medical-social aspects of the most relevant health-disease problems in the population</li> <li>• Learning some quantitative methods to determine the health level of the community</li> </ul>	75	3 <sup>rd</sup> year
1.2. Preventive Medicine <ul style="list-style-type: none"> <li>• Discussing the epidemiological chain of the major transmissible diseases in Brazil</li> <li>• Analyzing the current situation –distribution and importance– of these diseases in the morbidity/mortality profile of Brazil</li> <li>• Discussing prophylactic measures applicable at the individual and collective level, with a critical analysis of existing programs</li> <li>• Discussing the structure, mechanism, functioning and reach of the systems of epidemiological and sanitary surveillance in Brazil</li> <li>• Discussing the epidemiological aspects of traffic accidents</li> </ul>	45	4 <sup>th</sup> year
1.3. Health Organization and Administration <ul style="list-style-type: none"> <li>• Learning parameters for the study of the needs, demands and utilization of health service</li> <li>• Discussing the structure and organization of health services</li> <li>• Learning about the financing and costs of health assistance</li> <li>• Knowing the characteristics of the assistance model of Brazil</li> <li>• Discussing the health systems and trends in other countries</li> <li>• Guidelines for the qualitative evaluation of health care</li> </ul>	75	4 <sup>th</sup>
1.4. Community Medicine I <ul style="list-style-type: none"> <li>• Being aware of Health surveillance practices in the area of the Teaching Health District and of the municipality of Ribeirão Preto</li> <li>• Surveying the social life and health situation of the families and pointing out measures for intervention</li> <li>• Providing the conditions needed for students to develop the Primary Health Care approach for patient and family assistance</li> <li>• Discussing the steps for the diagnosis of community health, the programming of health measures, and financial resources</li> <li>• Being aware of the principles and directives of the Unified Health System for the planning of public health in the country</li> </ul>	90	5 <sup>th</sup>
1.5. Community Medicine II <p>Exposing students to activities of medical care at primary medical care units so that, by being involved in these activities, they will be able to:</p> <ul style="list-style-type: none"> <li>• Describe the mode of organization of a primary care service in a small town</li> <li>• Compare at least two types of organization of this service</li> <li>• Describe the mode of articulation of these services with other levels of medical care</li> <li>• Analyze the demand recorded during their own patient care activities</li> <li>• Describe programmed activities of disease prevention and control and how they will be developed</li> <li>• Discuss the role of primary medical care on the work market</li> </ul>	240	6 <sup>th</sup>

**Table 2. Optional disciplines or disciplines with the participation of the Department of Social Medicine, discipline hours and year of the graduate course in Medical Sciences, FMRP-USP, 1999**

Optional disciplines	Discipline hours	Year
2.1. Critical reading of the medical literature	45	3 <sup>rd</sup>
2.2. Notions and practice of medical management	45	3 <sup>rd</sup>
2.3. Family medicine –some medical-social aspects	165	5 <sup>th</sup>
2.4. Optional period of training in community medicine	240	5 <sup>th</sup>
2.5. Optional period of training in primary health care	165	5 <sup>th</sup>
Disciplines of the Graduation Committee with the participation of faculty members of the Department		
3.1. Introduction to Health	105	1 <sup>st</sup>
3.2. Social Sciences applied to health	30	2 <sup>nd</sup>
3.3. Integrated period of training in Health Centers	240	5 <sup>th</sup>

Hospital, FMRP-USP, and of the Medical School, has been considered as an institutional priority in the planning of resources and has affected the institutional organization<sup>12</sup>.

The need to have a multidisciplinary structure in order to plan and coordinate interinstitutional relations in the area of Primary Health Care and Family Medicine has led the Faculty of Medicine of Ribeirão Preto, USP to create a Center of Primary Care and Family Health. The Center consists of a multidisciplinary group of FMRP-USP, who wishes to carry out integrated institutional work aimed at undergraduate and graduate education and at the development of investigation and extension of services to the community.

With the objective of giving continuity to the educational process and training of family doctors, a program of medical residency in General and Community Medicine with emphasis on Family Health<sup>13</sup> was started in 1999 at the University Hospital of FMRP-USP.

In order to follow the directives of the policy of training of human resources for the Family Health Program of the Health Ministry of Brazil, an agreement was signed between the Faculty and the Ministry for the creation of the Northwest Center of Academic Training and Qualification of Human Resources in Family Health, set up in Ribeirão Preto, SP, in 1999.

## Conclusions

With the activities of the new medical curriculum the Department of Social Medicine of FMRP-USP was able to improve its relations in the institution.

The initiatives for the creation of the Center of Primary Care and Family Health, for the formulation of the program of medical residency in General and Community Medicine and for the program of training and qualification of Family Health teams count with the participation and coordination of the staff of the Department of Social Medicine.

The specific characteristics of the area of Preventive Medicine have been showing the need to maintain the Department as a unit in the medical institution in the recent process of departmental restructuring in the University of São Paulo.

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