

Tirana was unprepared to meet the challenges of the new "era." Demands of the new economic system revealed that both the physical and organizational structure of the Faculty of Medicine were completely inappropriate for the new task profile (3). Therefore, profound changes with regard to its infrastructure and content were imperative. Notwithstanding the continuous attempts to improve the infrastructure and the teaching curricula, the reformation of the Faculty of Medicine is nonetheless difficult, mainly due to strong resistance of several renowned figures, who have an important saying in the decision making process. The old teaching style, irreconcilable with peer-review mechanisms (4), is still in place in several teaching programs. From this point of view, innovations are not well taken because the paternalistic approach of most influential academicians proposes that the knowledge accumulates only with age. Furthermore, there is an extremely hierarchical academic structure, which clashes with initiatives and motivation of the teaching staff. This makes most of the teaching curricula rather obsolete and incompatible with students' expectations (3).

Organizational Structure of the Faculty of Medicine, Tirana

Currently, the Faculty of Medicine in Tirana includes 17 Departments, which are conventionally divided into two main groups: Preclinical and Clinical Departments (Table 1). Two branches of the Faculty of Medicine, Pharmacy and Dentistry, have developed as separate Depart-

ments within the organizational structure of the Faculty of Medicine.

Following the reformation process, which started in the early 1990s, the organizational configuration of the Faculty of Medicine has been restructured and currently includes three hierarchical levels (1).

The first hierarchical level comprises sections and clinics.

Section is the smallest organizational level of the Faculty of Medicine representing a specific preclinical discipline (e.g., Section of Environmental Health, or Section of Health Management). Overall, there are 9 sections which cover all preclinical disciplines. The sections are exclusively devoted to teaching and research activities.

Clinic is the smallest organizational level for clinical disciplines. In terms of hierarchical level, clinics are analogous with sections (designed for preclinical disciplines). Thus, each clinic represents a clinical discipline (e.g. the Clinic of General Surgery, or the Clinic of Cardiac Surgery). Beside teaching and research activities, clinics are also involved in medical practice.

The second hierarchical level comprises *units*, and is the organizational level designed for clinical disciplines. A unit encompasses several clinics (e.g., the Unit of Gastro-Hepatology, which includes the Clinic of Gastroenterology and the Clinic of Hepatology).

The third hierarchical level are *departments* – the second organizational level for preclinical disciplines and the third hierarchical level

Table 1. Fulltime staff by department and academic degree, Faculty of Medicine, Tirana, 2004

| Department | Position/degree | | | | Total |
|---|-----------------|---------------------|-----------|--------------------|------------|
| | professor | associate professor | PhD | teaching assistant | |
| Preclinical departments: | | | | | |
| Morphology | 3 | 2 | 7 | 2 | 14 |
| Biochemistry and Physiology | 1 | 4 | 1 | 5 | 11 |
| Public Health | 1 | 0 | 4 | 4 | 9 |
| Anatomy-Pathology and Forensic Medicine | 2 | 0 | 1 | 3 | 6 |
| Clinical Departments: | | | | | |
| Internal Medicine | 4 | 8 | 9 | 3 | 24 |
| Laboratories | 2 | 3 | 1 | 5 | 11 |
| Imagery | 1 | 4 | 1 | 5 | 11 |
| Cardiology | 6 | 2 | 2 | 2 | 12 |
| Infectious Diseases | 4 | 1 | 3 | 0 | 8 |
| Surgery | 6 | 4 | 10 | 4 | 24 |
| ENT and Ophthalmology | 2 | 1 | 2 | 4 | 9 |
| Pediatrics | 4 | 9 | 6 | 0 | 19 |
| Neurology and Psychiatry | 2 | 2 | 4 | 0 | 8 |
| Obstetrics and Gynecology | 0 | 2 | 8 | 1 | 11 |
| Family Medicine | 0 | 1 | 2 | 1 | 4 |
| Dentistry | 1 | 3 | 5 | 5 | 14 |
| Pharmacy | 2 | 0 | 4 | 1 | 7 |
| Total | 41 | 46 | 70 | 45 | 202 |

for clinical disciplines. Thus, a department includes either several sections (preclinical disciplines), or several units (clinical disciplines).

Academic Staff

Currently, the Faculty of Medicine enrolls 202 fulltime academic staff (Table 1) in 17 Departments (1). Of these, 41 are full professors, 46 are associated professors, other 70 hold a PhD degree, and the other 45 are teaching assistants (Table 1).

Before 1990, a few faculty members were trained abroad (in Russia up to early 1960s, and in France and Italy afterwards).

Since the early 1990s, many faculty members have been trained abroad in different areas of medical sciences. Yet, the Faculty of Medicine needs to continue and expand training of young faculty in Western schools. These young and well-trained faculty members will provide the critical mass of future academicians required to develop a modern Faculty of Medicine in Tirana.

Teaching Programs

The Faculty of Medicine has developed three separate branches of study, General Medicine, Dentistry, and Pharmacy (1). The overall number of students and academic staff for each branch of study are shown in Table 2.

Table 2. Number of students and academic staff for each branch of studies, Faculty of Medicine, Tirana, 2004

| Branch | Study duration (year) | No. of students | Number of academic staff |
|------------------|-----------------------|-----------------|--------------------------|
| General medicine | 6 | 1,144 | 185 |
| Dentistry | 5 | 403 | 8 |
| Pharmacy | 5 | 256 | 9 |
| Total | - | 1,803 | 202 |

In the framework of the reformation process started in the early 1990s, the teaching programs of the three branches of study have been revised to some extent in line with current developments and best practices in Europe. The new teaching programs of the Faculty of Medicine have been recently approved by the Rectorate, the supreme hierarchical level of the University of Tirana, which includes six more schools.

The educational objectives of contemporary programs in General Medicine are threefold: *knowing medicine* – understanding and internalizing the basic facts and knowledge about

medical science; *using medicine* – reading, interpreting, and appraising medical findings; and *practicing medicine* – “doing” medicine. This is the ultimate goal of all academic programs in medicine.

More specifically, the current teaching program in General Medicine lasts for 6 years (Table 2) with 60 courses and 4,400 hours (60% theoretical/lecturing hours, and 40% seminars, clinical, and laboratory work).

Evaluation of Teaching Programs

Notwithstanding the laudable attempts to improve the teaching programs, evaluation of the curricula is an essential part of a medical school which strives for international standards and comparability (5). Therefore, the elements of internal peer review as well as external review should be an integral part of the evaluation process at the Faculty of Medicine in Tirana.

The evaluation process should comprise structure (building and equipment), staff (number and background with particular attention to performance, and content (courses delivered per year, European Credit Transfer System for each course, and detailed curricula).

Furthermore, another important component of the evaluation process should be the assessment of “user’s satisfaction,” ie students’ feedback and opinion should be a core element based on which changes and improvements of the content of training programs at the Faculty of Medicine in Tirana should be accomplished accordingly.

Need to Strengthen Public Health Training in Albania

For the time being, the Faculty of Medicine in Tirana is the only academic institution providing public health training in Albania. The institutional profile of schools of public health in most of the European countries is affiliation with university or ministry of health (6).

University affiliation is the most common and effective approach for a school of public health. However, within a university “domain,” it has been experimented with different models of academic institutionalization. Many schools of public health are placed within faculties of medicine. Nevertheless, a more appropriate approach is the establishment of a faculty in its own right (as

in the case of Bielefeld, Germany). In any case, the university setting guarantees the autonomy of a school of public health which is crucial in order to keep science and practice away from the political "demands" and to assure the required multi-professional and inter-disciplinary functions (6).

The affiliation with a ministry of health has been experienced (albeit many times unsuccessfully) in several countries. Although the affiliation with ministries of health provides more flexibility in terms of research funds and other financial advantages, the political component can divert the main focus of a school of public health. Therefore, institutionalization within university structures is recommended as a basic prerequisite for a successful mission of a school of public health (6).

For Albania, the school of public health could be established as a separate "branch" within the Faculty of Medicine (at least temporarily), as it is the case with Dentistry and Pharmacy. The advantage of this approach is that it is fully compatible with the current legislation on "higher education in Albania."

Nevertheless, an inherent problem of the Faculty of Medicine in Tirana, which became more serious with "communism," relates to the failure to train public health specialists capable to manage the health problems of the 21st century (7). Exclusively focused on sanitary engineering, most of public health specialists in Albania lack the competence to address the evolving multi-factorial and multi-dimensional public health crisis (8).

In order to cope with this situation, there is an urgent need to develop professional public health education with international standards. The new approach to public health in Albania requires changes both in training health analysts, managers, administrators and leaders working in ministries of health and in the field and the preparation of a new generation of public health specialists trained in health policy, management, health promotion and disease prevention (9). In this framework, the Public Health Cooperation in South Eastern Europe (PH-SEE) program for training and research may offer a solution to ameliorate the training shortfall in SEE countries (10).

Research Activities

The Faculty of Medicine in Tirana has been involved in research work ever since its es-

tablishment in 1957 (1). However, publication of research findings in international peer-reviewed journals was discouraged for ideological reasons. Therefore, prior to 1990, the number of articles from Albania appearing in international medical databases was rather limited.

With the fall of the socialist system in 1990, there has been more pressure on the faculty members to publish their research findings in international journals.

Figure 1 presents the number of articles in MEDLINE-indexed journals where the academic staff of the Faculty of Medicine in Tirana has published from 1992 to 2004 (1). Yet, it must be pointed out that, even at present, research work conducted at the Faculty of Medicine is quite obsolete and limited. This is mainly due to the lack of research funds but also as a consequence of training deficits of the faculty members to conduct sound research.

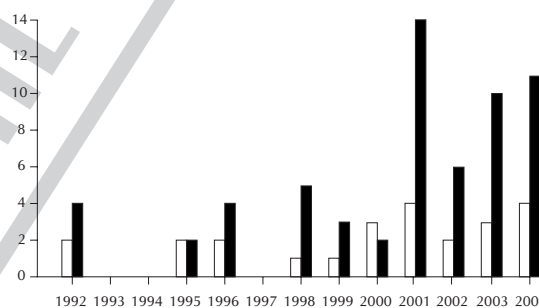


Figure 1. Number of MEDLINE-indexed articles published by the academic staff, Faculty of Medicine, Tirana, 1992-2004. Open bars – authors of the articles only from the Faculty of Medicine, closed bars – publications from collaborative research work of the Tirana Faculty of Medicine, with international academic institutions such as the London School of Hygiene and Tropical Medicine, UK, and Braun School of Public Health, Israel.

Research at the Faculty of Medicine in Tirana can improve only by coordinated activities at several important features of current research work at the Faculty of Medicine in Tirana.

Institutional Network

Beside the Ministry of Education, the Faculty of Medicine in Tirana has developed strong links with the Ministry of Health and other key governmental institutions. These links have enabled most Departments of the Faculty of Medicine to undertake different research activities.

Nonetheless, after the breakdown of the communist regime in 1990, the research funding allocated to the Faculty of Medicine has been rather limited. Therefore, in addition to traditional links with governmental agencies, other links with international institutions and donors should be fostered to increase the performance and the quality of research activities. From this point of view, good relations with national and international institutions can provide means for research grants which are indispensable for qualitative research projects at international standards. Consequently, the Faculty of Medicine in Tirana should strive for links that are vital for both fund generation and qualitative standards.

Student Research Work

Postgraduate students at the Faculty of Medicine in Tirana should be involved in research work. This is a crucial element, so that research develops as an integrative part of their training programs in medical sciences. Though funds are rather limited and it is very difficult to approach international bodies and agencies, as well as apply for funds, attempts should be made to design simple but methodologically correct research projects. Students can be encouraged to analyze routinely collected data (in either hospitals or other health facilities), which does not necessarily require large funds.

Research Priorities

Despite the tremendous difficulties for conducting research (such as limited funds, lack of expertise, lack of "good" data), attempts should be made to include research as part of daily activities on topics relevant to health of the population. This is important for faculty development, postgraduate students' aspirations and requirements, as well as to provide Albania with research capacity in medicine. The benefit of research activities, however, should always be directed towards the population, with realistic targets and conducted within accepted international ethical standards. They should be, as much as possible, feasible with the existing financial and human resources, including faculty and student work. At the same time, local or international financial support should be sought as the international collaboration in medicine can help raise standards of research. Conclusions from research should be drawn within a reasonable time period in order to influence and guide policy and

planning of medical services. Also, research in medicine should be considered as a function of policy making rather than "pure science" disconnected from health realities and problems of the population. International standards of clinical epidemiology and research methods should be assured whenever research activities are planned. Methodologically sound design helps to ensure valid results within current international standards of ethics and research methodology. Publication in peer-reviewed journals should be considered as an integral objective of any research activity conducted at the Faculty of Medicine in Tirana. Publishing in good journals promotes adequate methodology and bring the findings to the attention of peers after critical review. From this perspective, the *Croatian Medical Journal* – "a small country's window to the world" (11) – provides a unique opportunity for "ambitious" researchers in Albania to publish their work. A new generation of medical doctors should be trained in Albania, capable not only to conduct medical research but also to share their work with the professional community by publishing it. This requires time and effort but it is the core element in the long road towards the "accreditation" of the Faculty of Medicine in Tirana.

Networking of Research

"Lobbing" and networking are other crucial elements for successful medical research and standards of care in Albania. From this point of view, attempts should be made to establish a network of all physicians operating in the country. There are several medical associations in Albania undertaking small research activities in different fields; nevertheless, most of these organizations perform fragmented and uncoordinated research activities with rather questionable final products. There is an emerging need for a sound integration of medical associations under one "umbrella."

Coordination in South East Europe

Coordination of the Faculty of Medicine in Tirana with medical institutions in South East Europe is another vital component in order to facilitate the long process of qualitative research and teaching programs (5,10). Therefore, attempts to establish permanent connections with the most renowned academic and research institutions in the advanced neighboring countries, such as Croatia or Slovenia should be fostered and integrated into

the permanent strategic task for the near future of the Faculty of Medicine in Tirana.

Opportunities in Europe

The Faculty of Medicine in Tirana should strive for international comparability and compatibility in order to be attractive for students at all levels. This means that students should be able to deal with the international dimensions of medical sciences and, consequently, have the opportunity to work abroad. The latter becomes very important in view of the future accession of Albania to the European Union.

Instead of Conclusion

Traditionally, little emphasis has been placed on evidence-based medicine at the Faculty of Medicine of Tirana. Medical students have not been exposed to sources of evidence, which would require them to get acquainted with the basic searching techniques, medical bibliographic databases, as well as the structure and function of virtual medical libraries. Regrettably, most of medical students in Albania are not familiar with some essential databases, such as MEDLINE and Cochrane Library. Therefore, exposing medical students to sources of information, probabilistic thinking, the importance of communication, and levels of evidence in medical practice is what the academic medicine in Albania should strive for.

References

- 1 Faculty of Medicine, Tirana. Fifty years of history for the Faculty of Medicine in Tirana: 1952-2002 [in Albanian]. Tirana, 2004.
- 2 Barbullushi M. The Bulletin of Medical Sciences – structure and content in progress [in Albanian]. Albanian Bulletin of Medical Sciences. 2003;35:2.
- 3 Rrumbullaku L, Theodorakis PN, Caca P, Lionis C, Trel E. Medical education in Albania: current situation and perspective, with reference to primary care. *Croat Med J.* 2002;43:50-3.
- 4 Proceedings of the International Conference on Developing New Schools of Public Health. Jerusalem. Israel. March 17-21, 2002. *Public Health Rev.* 2002;30:1-392.
- 5 Kovačić L, Laaser U. Public health training and research collaboration in South Eastern Europe. *Med Arh.* 2001; 55:13-5.
- 6 Laaser U. The institutionalization of public health training and the health sciences. *Public Health Rev.* 2002; 30:71-95.
- 7 Tulchinsky TH, Varavikova EA. Addressing the epidemiologic transition in the former Soviet Union: strategies for health system and public health reform in Russia. *Am J Public Health.* 1996;86:313-20.
- 8 Roshi E, Burazeri G. Public health training in Albania: long way toward a school of public health. *Croat Med J.* 2002;43:503-7.
- 9 Tulchinsky TH, Varavikova EA. The new public health: an introduction for the 21st century. San Diego (CA): Academic Press; 2000.
- 10 Public Health Collaboration in South Eastern Europe (PH-SEE): A project of the Stability Pact. Available from: www.snz.hr/ph-see. Accessed: January 5, 2005.
- 11 Marušić A, Mišak A, Kljaković-Gašpić M, Marušić M. Educatione ad excelentiam – ten years of the *Croatian Medical Journal*. *Croat Med J.* 2002;43:1-7.

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