

MEDICAL EDUCATION IN RUSSIA¹

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Medical education in this country dates back to the eleventh century, however regular training courses in medicine were initiated only in the second founding of Moscow University in 1755 and with the medical Faculty created in 1764. Early medical training was similar to that adopted in Germany and the Netherlands. At the beginning of the XXth century there were 16 Medical Faculties and by 1935 55 medical institutes (schools).

In 1930, Medical Faculties were separated from universities, renamed Medical Institutes, and given independent status under the supervision of the Health Ministry. This step was taken to bring medical education closer to governmental bodies of the same profile and for better integration with health services. Systems of Medical Institutes for both undergraduate and postgraduate levels were established.

Medical education in this country is under the auspices of institutes of education responsible to the Ministry of Health.

UNDEGRADUATE MEDICAL EDUCATION

Basic medical education requires six years training that usually starts at age 17. Training of doctors and pharmacists in Russian is provided in 48 higher medical and pharmaceutical institutions.

Medical education mainly is subsidized by the state and planned to correspond to the country's needs for medical personnel. Funds for higher medical institutions are allocated from the state budget. The Ministry of Health coordinates educational, methodological, and organizational work conducted at the medical establishments, plans the medical institution networks and determines the number of applicants admitted.

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The conceptual model of medical education is introduced on Fig. 1

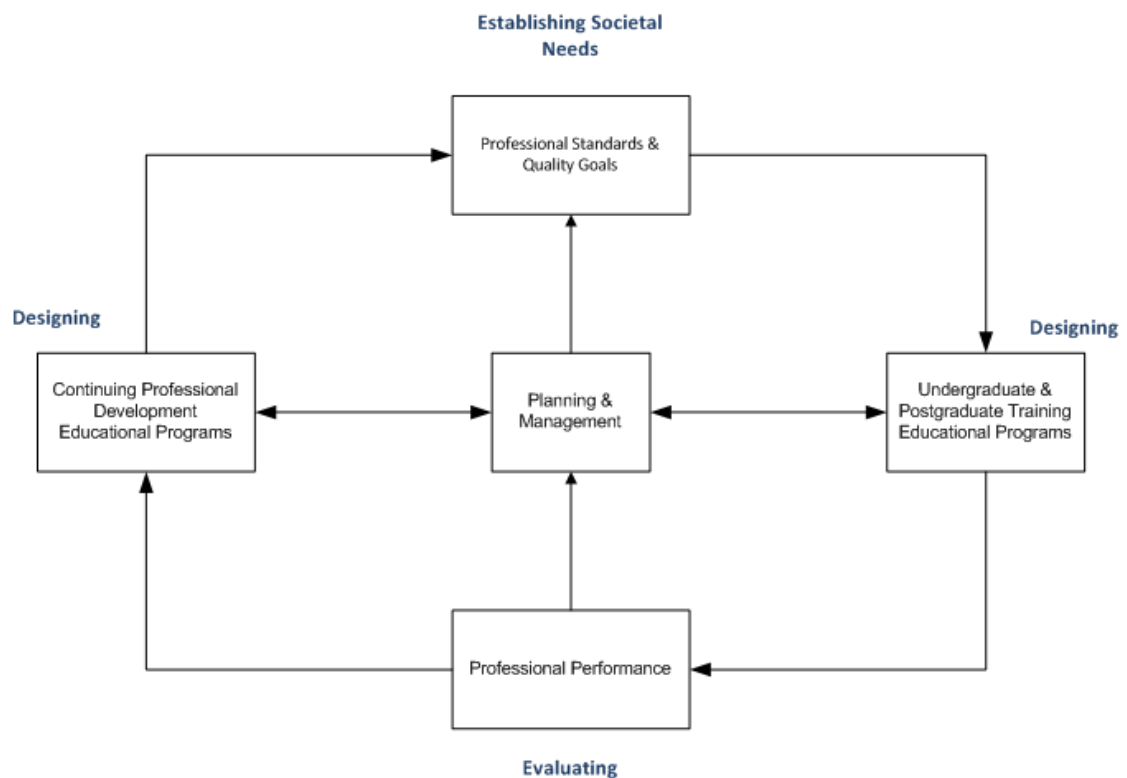


Fig 1 – System for planning and management of professional standards development and review in Russia

The planning and management function at all levels ensures the operation of the system and its relevance to health care services and the educational needs of the medical profession. It is a continuous process. In Russia the organization responsible for development and review of professional standards also undertakes the design of instructional programs for undergraduate medical schools responsible for national health care manpower production, the development of high-quality specialty and professional standards for educational institutions that provide medical specialization, and compulsory Continuing Medical Education (CME) with the necessary periodic certifications. The regular evaluation of skills, knowledge and attitudes, and problem definition is another complex, continuous function that is undertaken at different levels and at specified intervals by different institutions. This is done in the context of legal requirements to determine all the different dimensions of CME.

Medical and pharmaceutical institutions are open to applicants who have completed general secondary and/or nursing schools. The admission examinations cover biology, physics, chemistry and language and it should be mentioned that medical institute admission is highly competitive.

Higher medical institutions are organized in five separate Faculties: Faculty of Curative Medicine (a six-year course, specialty-general medicine); Faculty of Hygiene (a six-year course, specialty-sanitary hygiene); Faculty of Stomatology (a five-year course, specialty-stomatology); Institute or Faculty of Pharmacy (a four-five year course, specialty-pharmacist).

The curriculum for the first two years is the same at all Faculties. It includes preclinical and fundamental medical sciences that are the essential basis for any medical specialty. Medical specialization starts at the third year of studies; the curriculum includes propedeutics, biochemistry and pathology (pathological anatomy and pathological physiology) clinical and special subjects, depending on the orientation. The principal feature of the curricula for both the Faculties of curative medicine and pediatrics is the introduction of a new approach to the training of internists and pediatricians that implies a two-year continuing primary specialization, one year while at the institution and the other year after graduation.

The curriculum at these Faculties is designed to cover all the general medical education within five years. During the third, fourth, and fifth years, students perform clinical work as nurses, feldshers, and clinical assistants. In the sixth year, medical students take their primary specialization in one of the following clinical subjects: Faculty of Curative Medicine (surgery, obstetrics, and gynecology) of Faculty of Pediatrics (pediatrics, including child infectious diseases, and pediatric surgery, including orthopedics). Sub specialization in clinical areas is not an option during the undergraduate program, as profound knowledge of the main clinical subjects is believed to be fundamental for adequate training of doctors.

After primary specialization in their sixth year, students pass a state examination according to the curriculum, obtain a Doctor's Diploma, and complete a one year internship in medical units under the supervision of specialists. Instruction in ophthalmology, otolaryngology, dietology, climatotherapy, endocrinology, clinical biochemistry, physiotherapy, and such aspects of surgery as oncology and neurosurgery is provided by the appropriate departments. The instructional methodology in higher medical institutions includes lectures by the leading specialists and regular practical classes throughout the course of studies.

Training programs at medical institutes are adjusted to the needs of population in accordance with health priorities. Thus, when in the 1950s the non-communicable diseases became a real health problem; these subjects were strengthened and introduced more widely into curricula. When the role of primary health care became more evident in the 1970s, the training programs were adapted to this target-problem.

Following annual examinations at the end of the fourth and fifth years, senior students of all Faculties usually spend the breaks between semesters in professional training. Students are taught to use their knowledge, develop their professional skills, master up-to-date methods of diagnostics and treatment, and become familiar with all other work they will do in the future. It should be emphasized that at least 25 percent of the time within the training programme of all specialties is devoted to practice at the primary health care level.

Finally, students must pass state examinations in general and special medical subjects (depending on the orientation of a particular Faculty) to receive a diploma as physician of general medicine at the Faculty of Curative Medicine (VRAC), as pediatrician at the Faculty of Pediatrics, as sanitary officer at the Faculty of Hygiene, as stomatologist at the Faculty of Stomatology, or as pharmacist at the pharmaceutical institution or faculty.

Annually, about 60,000 students graduate from higher medical institutions.

GRADUATE MEDICAL EDUCATION

Postgraduate medical education and continuing professional development of physicians in the Russian Federation is comprehensive and systematic, perhaps uniquely so. The first successful effort to establish a prototype of the postgraduate training system was the institute for postgraduate training of physicians in St. Petersburg, founded some one hundred years ago.

Implementation of postgraduate and continuing professional development of physicians programs is managed by Ministry of Health through their departments of medical education, and by regional departments. Most of the work is undertaken by state educational institutions. These include 48 Faculties for continuing professional development attached to undergraduate institutions and separate specialized institutes for continuing professional development of physicians.

At the national level in the Russian Academy of Advanced Medical Studies, 35 thousand qualified specialists take formal courses every year. This is done according to the planned quantitative targets specified by the Ministry of Health and Social Development² and based on health care needs.

At the regional level, a still larger proportion of health care personnel is regularly involved in training at highly specialized regional hospitals and health care institutions. In addition, at any given time, thousands of medical personnel are engaged in different kinds of training in numerous central district hospitals and health care institutions and services at the district level and in their places of work. Formal education programs in medical specialties are designed, periodically reviewed, and required for all 8 Institutes of continuing professional development of physicians. The training programs offered at regional, district, and local levels are normally developed at the respective levels, to ensure relevance to local needs and problems.

Options in continuing medical education are numerous

² Since the integration of problems of social development and health development in 2002 this governmental body was called Ministry of Health and Social Development

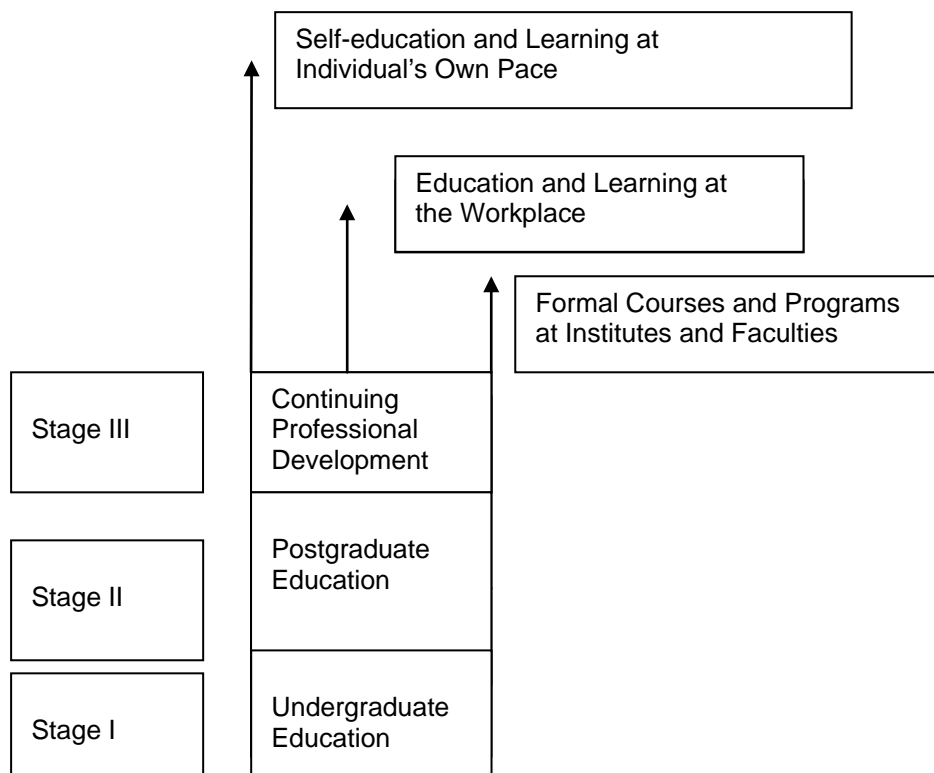


Figure 2 – Continuing medical education in overall medical education

There are three main patterns of training: self-education and learning at the individual's home, periodic education and learning experiences at the workplace, and formal courses and programs at institutes and Faculties for continuing professional development. At the national and local levels, thousands undergo regular formal courses and programs, others engage in training at their workplaces in the form of organized seminars, conferences, and teamwork exercises, in addition to self-education and learning on an individual basis.

There is one additional level of postgraduate education: the two-year residency (*ordinatura*) program designed to train clinicians and in some cases to supervise in the new departments or hospitals. These programs are presided over by advisers drawn from the academic and university levels.

Motivation is a key factor, and it should be emphasized that promotion is significantly dependant on the successful completion of advanced training, a prerequisite for achieving second, first, and top professional qualification categories which gives substantial increases in salary. Each physician is awarded a standard certificate on graduating from a course, and the dates and duration of advanced medical training are recorded in the physician's personal file.

Increasing emphasis is being placed on systematic course design models and all forms of "learning by doing", while formal lecturing is gradually, but not without resistance, being reduced in favor of problem-solving and logical decision-making learning experiences. This kind of learning has proven to be more motivational and effective

than didactic teaching. The importance of continuing professional development of physicians is recognized, but only a few people, if any, can admit to knowing how to measure success or the direct and tangible benefits of such kind of training of health care personnel.

Annually approximately 150,000 specialists complete different courses at the continuing professional development Institutions and Faculties. The courses cover practically the entire spectrum of present day medicine.

INTERNATIONAL COLLABORATION IN MEDICAL EDUCATION

The history of cross-national collaboration in medical education on global and regional levels is rich and interesting. International cooperation has stimulated positive development of medical education for many years. Intergovernmental and nongovernmental organizations have intensified collaboration in health manpower development and medical education since the early 1980s.

The World Health Organization (WHO), World Federation for Medical Education (WFME), and other international organizations took some useful steps toward the creation of world contacts by organizing joint research and training programs, conferences, and meetings. The professional spectrum of those activities was very wide, ranging from different clinical disciplines to public health problems. This cooperative trend has lessened in recent years. During the last 7-10 years we observe minimization of activities of international organizations in the field of medical education and health manpower development.

The usefulness of international collaboration could be recognized in many countries. The results of the WHO's program activities in the past are incorporated into the medical curricula, and especially into training programs of continuing professional development. The main themes of the Edinburgh Declaration were extremely valuable in the course of the development of new curricula and its composition. Several institutions maintain bilateral and multilateral cooperation with medical schools abroad and esteem this activity very highly. For many years we cooperated actively with the Institute of Health Studies in Barcelona while the director of the Institute was Professor Alberto Oriol y Bosh. We collaborated in different project of health development and medical education. The collaborative activities with the WHO were very interesting and useful from professional point of view. At present, we collaborate with the Project Globe Consortium for Continuing Professional Development which is an international non-governmental agency devoted to the promotion of Primary health care through the training of health personal in this important segment of health system. Taking into account the present world situation and trends in population migration, including medical specialists, there is a need to promote internationally the process of cross-licensing of physicians between the countries. Exchange of information on training programs and requirements for certification and licensing facilitate a certain predisposition for such activity. This work itself is very useful for promotion of medical education on the country level as well. It should be mentioned here that joint efforts in this respect must be linked with the idea of quality of care in medicine, which is a priority area in health care currently

The problems of public health are becoming vital again around the world. Cooperation in this direction brings new promises and ideas for health development. The health situation in the Russian Federation and ideas concerning reforms in the social sphere, including the health sector, require new optimal models of health care systems and innovative public health philosophy. Finally, it should be said that international collaboration in general, and in health taskforce development in particular, is focusing on the tendencies in the health development in the twenty-first century, when we can dream about a united world, at least in medicine.

CONCLUSION

Medical education and its development are a reflection of the health system and population requirements in health care. This is why directions within medical education will depend on the situation in the health field as a whole. If we can analyze and predict peculiarities of health system development, we can visualize the perspectives of medical education.

It is essential to underline the role of central authorities in monitoring and influencing changes in the undergraduate, postgraduate and continuing professional development of physicians that will ensure that they are in a position to provide a high quality service.

Analyzing the medical education and its history we are coming to the conclusion that it is a very stable phenomenon of human activities.

Thus during the last 20 years known political and economic changes took place within the Soviet Union. But when you compare the current situation on medical education in Russia with the Soviet system of medical education very little differences could be recognized and mainly in respect of what is called “paid education” for a certain portion of students and specialists which was excluded in the time of Soviet power.

The future of the health system, biomedical research and medical education are inextricably linked with the economical situation in the country. If, for example, substantial additional funding were not forthcoming for the state health care system managed by the Ministry of Health and social development, innovative financing and reorganization of resources alone would not substantially improve the quality of the health system including medical education.

This leads to the conclusion that what have today in the Russian Federation may not be acceptable in the future.

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