# MINISTRY OF HEALTH AND SOCIAL PROTECTION OF POPULATION OF THE REPUBLIC OF TAJIKISTAN

#### AVICCENA TAJIK STATE MEDICAL UNIVERSITY

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DEVELOPMENT STRATEGY OF AVICENNA TAJIK STATE MEDICAL UNIVERSITY TILL 2025

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#### **PREFACE**

Avicenna Tajik state medical university is one of the most prestigious higher educational institutions of the Republic of Tajikistan on the basis of population requirements of the republic plays a key role in training of highly qualified specialists and improvement of health care conditions of the society.

National strategy of the Republic of Tajikistan for the period to 2030 defined health care as one of the priority directions and to highlight the accessibility of medical care, its quality and fruitfulness, in preparation of highly qualified personnel of the branch. Concerning target preparation of the qualified medical personnel meeting modern requirements according to the Decision of the Government of RT "The program of preparation of medical personnel for 2010-2020" has been approved. According to this program security of the country with doctors is unsatisfactory; the country needs the qualified medical competent experts.

And therefore the main goal of Avicenna Tajik state medical university is training of the qualified medical specialists in inquiry of the population and improvement of society health states.

The increasing development of science and technology and progress of modern world demands from medical specialists not only perfect theoretical knowledge and good professional abilities today, but also high degree of innovative skills, constant awareness of modern achievements of medicine and high morality. Medical education which begins since entrance of applicant into medical university its lasts and improves during his professional activity, today from the graduate of high medical institution is required of high mental capacities in the atmosphere of modern innovative technologies.

It is considered that the entering of national education into global education sphere, process of science development and today's requirement to educational process, the university management seeks for improvement of curriculums to appropriate to the modern state and international standards, introduction of new technology of training and the knowledge assessment of personal and professional development of each employee, development of scientific and innovative works, improvement of material - technical base of university, introduction of new methods of strategic planning and system management, defines the priority directions in activity of university.

Taking into account all this in TSMU was created "Development strategy of Tajik state medical university till 2025". Achievements of the strategy purpose of university will enable to expand the direction and the sphere of activity, will enable to reform university from a higher educational institution to responsible scientifically - innovative center and the coordinator on development of medical science and health care of the country. In this plan primary tasks are strengthening financially - technical and technological base, integration educational scientifically - innovative activity, medical business, increase of the international value of university and its employees.

This strategy reflects national policy of development of the higher medical education, contributes to increasing of scientific base, improvement of innovative system of medical education, preparation of the business competent staff conforming to requirements of society.

Avicenna TSMU has a wide experience of creation, rationalization proposals and discoveries, creativity and seeks for development. In this shrine of science mighty scientific force in the field of country medicine are functioned. With confidence it is possible to tell that this palace of experts has huge creative potential, the national traditions are improved by medical skill, on the way to strategic purposes of university will make great progress.

This strategy to strengthen a role of university in training of staff, in development of medical science and technology, health protection of society, will promote strengthening of its world situation and Avicenna TSMU till 2025 will turn from a higher educational institution into scientifically - an innovative educational complex, and take the leading place in fruitful innovative medical care.

The rector of Avicenna TSMU, MD, professor Gulzoda M. K.

# TODAY'S (PRESENT) CONDITION OF TAJIK STATE MEDICAL UNIVRSITET

Establishment of a higher educational institution in the field of medicine is one of the strongest achievements of Tajik people which takes the leading place in training of staff branches, organization and development of medical science, health protection of population of Tajikistan.

Though Avicenna Tajik state medical university has no long-term history, had experienced various periods of activities. This high institution began its activity in 1939. Till 1950 was considered heavy period for the country that could not effect in development of this institution. In 1952 by the decision of the Soviet government the university had been named the great son of Tajik people Abuali ibni Sino (Avicenna), and in 1992 it received the status of university. In 1990 for big achievements in preparation of qualified personnel the university was awarded the International prize of APN of Abuali ibni Sino (Avicenna).

In an initial stage of the state independence political and social events, the state difficulties influenced its negative effect and on activity of university. Fortunately in recent years with assistance of the Government of the Republic of Tajikistan for TSMU began period of creation and restoration. Within realization of "Programs of development of Avicenna TSMU for 2006-2015", approved by the decision of the Government of RT, strengthened material and technical basis of the university, educational buildings and hostels are repaired. As a result educational process was regulated, favorable conditions were created in order that today the medical university to take a specific place among medical educational institutions of the region. During not so long activity the university trained more than 37 thousand specialists in the field of health care who nowadays live and work not only in the republic, but also beyond.

Avicenna TSMU has the number of educational-household and office buildings which total area makes 19,2 ha. From this 105 733 sq.m are made by the useful educational area. Educational process, scientific clinical work is carried out in educational buildings of the university, in the centers, in city and republican clinical hospitals.

There are 10 372 learners at the university now, including 8 930 students, 609 residents and interns, 180 people are trained according to the program of postgraduate study and doctoral studies of PhD. There are 789 foreign students are trained from 13 countries - India, Russia, Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, Latvia, Azerbaijan, Afghanistan, Iran, Yemen, Denmark and the USA.

Professional and teaching staff of Avicenna TSMU consists of 680 people, including 84 doctors of sciences and 230 candidates of sciences. From them 40 professors and 51 associate professors. There are 152 external teachers and part-time workers. The average age of PTS makes 48,5 years, from the total number of PTS 142 - youth till 35 years.

Educational process in Avicenna TSMU is regulated by educational department. Educational process is carried out by 12 structural units - educational department, faculties, coordination Council, scientific - methodical Council, Center of training in practical skills, Center of post diploma degree training, STC (single test centre), Center of information technologies, Office of registration of credit system of training, group control of training quality, Department of work practice, scientific library and Center of pre-university preparation.

At the university educational process is carried out by three types of state standard of the higher education and three types of curricula by which the university trains specialists in five specialties - "1 - 790101 - Medical business", "1 - 790102 - pediatrics", "1 - 790103 - hygiene, sanitation and protection of public health", "1 - 790107 - stomatology", "1 - 790108 - pharmacy". And also the university trains bachelors in "Medical business" from among foreign citizens.

Educational process at the university is carried out in three languages - state language (Tajik), Russian and English languages.

In Avicenna TSMU with assistance of the Swiss office on development and cooperation the project reform of medical education had been developed since 2008. For the equation of national educational process to the international standards of the higher education in the university are introduced modern education systems. In 2008 medical university was the first introduced test system of an assessment of students' knowledge among higher education institutions of the country. And also credit modular system of training step by step was found at faculty of public health. Now training at this faculty is completely conducted on credit-modular system. In 2016 - 2017 academic years the first year students of medical faculty were also transferred on credit-modular system, rating system of training.

Students' practical training is one of the most important parts of educational process. Students for the purpose of acquisition of practical clinical skills are carried out practical training on the basis of medical institutions of the cities and regions of the republic. 45 000 students annually pass practical training.

The center of post diploma degree preparation of the university carries out retraining professional and teaching staff of the university, doctors of various specialties medioprophilactic institutions of various cities and regions of the country where improvement of qualification of 176 programs are carried out, and primary specialization is carried out according to 19 programs. Educational process is completely equipped with the educational equipment; scientific library provides students with educational literature. More than 465436 copies of books from which 53,5% educational literature and 38% scientific medical literature are collected in scientific library of the university. Systems of informative providing, office of management of bibliographic data and the computer database are created at the library. The electronic library is supplied with 800 computers connected to the international Internet channels. The base of electronic library consists of more than 7

000 copies. The library of the university is one of the best libraries of higher education institutions of the country.

Scientific innovative activity is one of indicators by which a level of development of higher educational institutions is determined. For this reason scientific innovative activity, innovation and discovery, preparation of scientific staff and involvement of students to scientific work is defined as one of the priority directions in Avicenna TSMU. Scientifically - innovative activity of the university is coordinated by the vice rector for science and publishing house. The department of science consists of the following divisions:

#### Departments:

- Department of science and innovations
- Department of preparation of scientific staff
- Department information publishing

#### **Centers:**

- Strategic development and management center
- Information center on medicines
- Center of translation of literature and branch terminology

#### <u>Central scientifically - research laboratory:</u> Commissions:

- expert commission on primary materials of scientific theses.
- Interdepartment expert commissions.
- Competitive committee

# **Councils:**

- Scientific coordination Council.
- Dissertation councils.
- Youth scientific council.
- Editorial Council of Payomi Sino journal ("Avicenna's Bulletin").
- Editorial Council of Avji Zuhal journal.(Zenith of fame`)

Avicenna TSMU a plays a noticeable role in realization "Programs of innovative development of the Republic of Tajikistan for 2011-2020", "Strategy of the Republic of Tajikistan in the field of science and technology for 2015-2020", "Programs of preparation of scientific staff of the Republic of Tajikistan for 2009 - 2015".

Scientists of the university carry out research work on the medical directions, priority for the republic; their activity covered for this period of 12 projects invested from the state budget and 27 initiative themes of departments. And also it was made 12 department scientific subjects which will be realized in 2017.

It is necessary to remind that 12 scientific projects begun in 2016 have creative - innovative features which were adjusted by means of modern research ways. It demonstrates to the effect that material and technical basis of the university is developed for carrying out scientific researches, got ample opportunities for carrying out modern researches.

The contribution of scientists of the university evident in creation of new ideas, results of intellectual power in connection with improvement of methods of examination and treatment, innovations, discoveries and their introduction in production.

Within three last years 50 discoveries and 159 rationalization proposals were made by scientists of the university.

From 2009 to 2015 under the leadership of scientists of the university and foreign scientists, 194 candidate and 25 doctoral dissertations were defended by the university staff.

At present time 80 days graduate students are trained in postgraduate study according to 19 programs. The number of applicants of a candidate's degree is 70 and doctor's degrees - 5.

Central research laboratory of Avicenna TSMU consists of 9 branch, equipped with the modern equipment laboratories:

- 1. Biochemical laboratory.
- 2. Clinical laboratory
- 3. Morphological laboratory
- 4. Psychophysiological laboratory
- 5. Molecular genetic laboratory.
- 6. Water laboratory.
- 7. Laboratory of stem cells inoculation.
- 8. Laboratory of experimental pharmacology.
- 9. Laboratory of experimental surgery.

And also 19 educational and scientific laboratories function at the universities departments. The university possesses periodicals, one of which is the scientific journal registered in the register of HAC Russian Federation, "Payomi Sino" ("Avicenna's Bulletin"). And also the university is the only publisher in the country of scientifically - practical journal in the field of medicine in state language of "Avji Zuhal" which has been published since 2010.

The total articles and theses printed by scientists of the university made 557. Over the last 5 years 29 articles in journals which entering the register of Web of Science and Scopus were printed.

For development of research works among students, and for the purpose of attraction them to scientific and creative work, selection of capable, talented and active students at the Department of science since 2012 Council of young scientists and students' scientific society was created.

To improve even more activity of scientific societies of the university in 2015 they were united into "Students' scientific society" which operating structure is the Scientific council of youth. This council plays an important role in involvement of students to scientific and creative work, introduction of state policy of the republic in this direction, including in the international cooperation of students, in their active participation in the international scientific actions, and also in participation of young foreign scientists in scientific and practical conferences of the university. It should be noted that over the last 5 years 95 participants of scientific youth organization took part in the international scientific actions and became owners of the Diploma "Best report".

Young scientists of the university regularly participate in competitions and actions, including in a competition for state prize of Ismoil Somoni among young scientists presented scientific works, 17 of them became winners of this prize till today.

Young researchers and Summer sciences schools which play a noticeable role in stimulation and improvement of scientific work among youth function at the university for the purpose of involving to scientific work and strengthening of scientific and creative work of youth. The training seminars of these schools attracted a large number of these students, including foreigners. Students from the Russian Federation, Kazakhstan and People's Republic of China annually take part in their work.

Scientific and practical conferences and seminars with participation of foreign scientists and students are regularly held at the university where achievements of modern medicine are presented. Materials of the conference are published as in the separate collection. In the current year in the 12th scientific and practical conference of young scientists and students of Avicenna TSMU "Youth role in development of the medical science" with participation of foreign representatives devoted to "The year of youth" 326 scientific articles were presented, 962 theses of domestic young scientists and students, 371 theses from the known scientific and educational institutions of Russian Federation, Republic of Kazakhstan, Kyrgyzstan, Ukraine, Belarus, Uzbekistan and Afghanistan were published in the collection of conference.

Educational process, mass cultural work and students way of life is regulated by Department of education and culture. Annually for the purpose of implementation of the plan of measures of the university, the ministries, managements and Government of RT in the field of moral education of youth, consciousness feelings and national self-determination inculcations, patriotism are held more than 100 political, cultural, sporting events and various competitions.

One of the priority directions of employees of Avicenna TSMU is treatment-and-consultation activity. Medical services are rendered by employees of 39 departments

of university on the basis of city and republican medical institutions. Besides the university has Educational clinical center "Stomatology" and Medical and diagnostic center where provide treatment-and-consultation help to the population on high level.

Thus, the contribution of staff of the university to public health care of the republic is marked only in 2016 diagnostic treatment-and-consultation help had been provided for 62 703 patients.

Department of international relations of the university makes big efforts for implementation of international treaties of university on cooperation with the foreign organizations. Till 2016 the university had made 89 contracts with educational and scientific foreign institutions. Besides during 2016 11 interuniversity contracts were signed. Totally 100 contracts on cooperation are realized.

At present there are functioning 17 projects sponsored by foreign organizations at the university. "Medical education reform" project, supported by the Swiss office for development and cooperation, projects by the program of Erasmus + in the field of higher education, training of foreign languages, academic exchange, scientific projects in partnership with Robert Koch's research institute (Germany), Ludwig's university (Germany) and WHO play an important role in the development of educational and scientific activity of the university. Capital investment in these projects makes more than 2.7 million somoni.

One of the international activity directions of the university is strengthening of academic exchange. In frame of joint agreements teachers and students of the university are sent to authoritative foreign institutions for training and exchange of experience. Teachers and students of the university are also sent to Goethe university clinic of Frankfurt am Main (Germany), Karaganda state medical university (Kazakhstan), Izhevsk state medical academy (Russia), Kharkiv pharmaceutical university (Ukraine) for knowledge improvement, and also on academic exchange program, teachers of Karaganda medical university delivered a number of lectures and practical trainings for students of Avicenna TSMU.

# THE ANALYSIS OF EXTERNAL AND INTERNAL CONDITION OF AVICENNA TSMU

Steady development of the world community, science and technology progress sets new tasks for higher educational institutions, increases their responsibility. Within the last 10 years the tendency to increase of competition in the process of education and science is noted that depends on scientific and technical progress and globalization of society. This tendency laid the foundation for increase of requirements of quality of education and research works in higher educational institutions. Representation of these requirements on the Bologna declaration which basis is composed an assessment of knowledge, a quality assurance of training and the mutually beneficial relation between students and teaching staff is observed. One of properties of use of the Bologna system bases in relation to realization of high-quality medical education

in the XXI century are the new training programs corresponding to domestic and foreign labor market.

The founder of national unity and Peace, the Leader of the nation, the President of the country, dear Emomalii Rahmon in the next Message to Majlisi Oli RT (on December 22, 2016) declared that "in the forthcoming 5 years activity of the Government of RT will be directed to improvement of quality of human potential, the great attention to problems of science, education, health care, culture, environment and employment of the population will be paid".

Along with it the Government of RT developed "National strategy of education development in the Republic of Tajikistan to 2020 years" on which the tasks assigned by the President of the Republic of Tajikistan to branch of education are considered as also priority purposes of development of the 1000 anniversary and other important strategic acts of the Republic of Tajikistan.

"National strategy of education development of the Republic of Tajikistan to 2020 years" is developed for the purpose of a fruitful development of education on the basis of world practice taking into account conditions and prospects of development of the country and is the main guide for higher educational institutions; its main objectives are defined.

The plans realized so far at university, the achieved success cannot satisfy today's requirements as still in university activity there are a lot of difficulties and unresolved problems. In this regard administration of the university taking into account tendencies of the modern world guarantees modern system of the perfect innovative education at the university directed not only on knowledge, but also competence of the prepared staff. Drawing up and application of the training programs adapted for the national and international standard of the higher education allow to increase quality of training at the university and promote that the prepared staff met requirements of labor market and satisfy requirements of the state and society.

In performance of university mission, its purposes the leading role is played the professional and teaching staff. Development and prosperity of the university depends on formation of professional mission of each employee. Therefore in modern higher educational institutions the requirement to knowledge, professional abilities and enterprise of employees raised.

Professional and teaching staff of Avicenna TSMU consists of the prominent and knowing the business scientists that is considered one the main advantages of the university. In the future to this structure will be joined also young scientists, where is paid special attention for their professional knowledge and abilities.

Along with it the creation of conditions for formation of pedagogical abilities, developments of their scientific and creative potential, improvement is required. Though teachers of the university take extension courses by "Pedagogy" program, the level of their teaching does not meet modern requirements. And therefore it is necessary to expand level of professional development of university staff on the basis

of prestigious foreign institutions, to invite to the University prominent foreign scientists.

The following problem is the system of an assessment of pedagogical activity of the professional and teaching staff which is based on mediocre indicators - progress of students and PTS degrees. Taking into account it is desirable to introduce system of an assessment of PTS activities for experience and professional skill. The world scientific community estimates activities of scientists and inventors for importance and a role of scientific results in practice and on their economic advantage. Scientific publications are a reflector of scientific results; by their means ideas and thoughts of researcher are brought to scientific society. And therefore activity of scientists is estimated by quality of articles published by them that in this direction the system of estimates of scientific base is introduced, i.e the place of articles is determined by the number of theses on the basis of which HIRSCH of the scientist is defined. The analysis of scientific activity of researchers of the university according to HIRSCH indexes with the use of Russian scientific and information base (e - library), showed that scientists who have three and more HIRSCHes totally are 15 people. Therefore, taking into account the requirements of the modern world the increase of indexes researchers' scientific activity of the university demands more effective measures. Application of material stimulation of scientific and talented specialist with the use of grants with target capital investment into research works improvement of the budget of the university at the expense of additional funds in order to find and involve experienced specialists to the university.

In the modern world the higher educational institution turned into the most important source of economic, social development of the countries and into a major factor of improvement of welfare and personal development of citizens. The university plays a key role not only in training of specialists, but also in development of science, production and improvement of society. And therefore scientific and innovative, inventive, rationalization activity are defined as one of priority activities of Avicenna TSMU.

The government of RT on March 3, 2011 made the decision No. 114 on the adoption of Strategy of the Republic of Tajikistan in the field of science and technology for 2011 - 2015. This strategy defined the priority directions of scientific researches in which Tajik scientists create and realize scientific projects. Including scientists of the university carried out several projects which are of great importance for country's public health.

Taking into consideration intensive development of science and technology in the modern world, the President of the country expressed fear in his performance that "... in Tajik science innovations and scientific initiatives are a little noticeable, few talented, inventive, innovators are attracted to the exact sciences and custom-made subjects are not met state interests".

In this regard scientists of the university need to develop scientific projects on those directions which were defined by the Government of the Republic of Tajikistan and to realize them. At the same time the administration of the university has to take the measures promoting capital investment of those research works which have fundamental properties.

Innovative activity in the country is in a formation stage, for the purpose of fruitful regulation the Government of the Republic of Tajikistan adopted "The program of innovative development of RT for 2011-2020". And also in 2010 the law "Of Technological Park" which became a basis of formation of technological innovative infrastructure was approved. It is determined that higher educational institutions have to make contribution to the development of science and technology, innovative technology, associations of intellectual powers, in introduction of scientific technological and innovative achievements. Therefrom follows that creation of technological parks (scientific park, technopolis and technological incubator), planning of scientific and innovative projects, training of specialists in the field of innovation, the organization of branch production and service is one of the most important aspects of higher educational institutions activity.

Avicenna TSMU accomplished a large number of works on implementation of policy of the Government of RT on innovative activity too. The projects having innovative property were offered as a result of which modern methods of treatment as stem cells treatment, organ transplantation, decreasing ways of death hazard of newborns, introduction of modern methods of heart treatment and blood vessels have began apply in the republic.

Despite visible achievements innovative inventive and rationalization activity at the university demands improvement.

One of fundamental factors of strengthening of scientific innovative activity is capital investment in scientific projects. Considering an economic and social condition of the country for radical development of scientific activity of the university, it is expedient to develop mutually beneficial bilateral cooperation with the advanced foreign educational institutions. This cooperation will give the chance to involve foreign scientists in scientific activity of the university, to create and realize joint projects. It is also necessary to create innovative infrastructure, to develop joint scientific projects, to put intellectual property and innovative medical care on commercial rails.

In development and prosperity of science and introduction of scientific achievements in applied medicine an important role is played by branch scientific communities. Analyses showed that in today's world community an important role is played by scientific associations and special scientific organizations which carry out various scientific conventions and the congresses, thereby play a major role in creation of modern methods of diagnostics and treatment; increase of knowledge and abilities level of specialists, discussion of scientific achievements and their implementation. Therefore, Avicenna TSMU needs to take cardinal measures for creation of scientific organizations in various branches of medicine, to become the initiator of their strengthening and improvement of their activity.

The analysis of scientific, educational and clinical laboratories activities of the university showed that their activity is not completely fruitful and expedient though laboratories are equipped with the modern devices; level of service of population leaves much to be desired. Also working opportunities of the branch specialists occupied only with educational process it is not used in laboratories up to standard. This problem also requires solutions.

The problem of attraction of youth to scientific and creative work, stimulation of inventors and innovators, social support of graduate students and applicants that creates favorable conditions for implementation of youth research work take the important place in Avicenna TSMU.

For the purpose of support of scientific and creative activity of youth the Government of RT on 1.08. 2015 made the Decision No. 496 "On allocation of minimum grants for the purpose of involvement of students to drawing up innovative projects, participation in discoveries and inventions in RT". The analysis of current condition of students' scientific activity of the university showed that only two students' scientific projects are realized and this problem also requires its solution.

The main objective of "Development programs of Avicenna TSMU for 2006-2015" is strengthening of material and technical basis of the university. In this direction was made much. Including restoration of hostels buildings of the university and construction of the new educational building is considered one of the visible achievements of the university. Despite of increase the number of students for full ensuring educational process there are not enough lecture halls, audiences, modern educational and scientific laboratories.

On a creative initiative of the President of the country these problems will be solved too. It is necessary to emphasize that the Head of state assigned the first brick for construction of the main and educational case of the university on April 28, 2017. The total cost of the main building which will consist of three nine-floor and four-storied buildings by preliminary estimation will make 85 million 460 thousand somoni. The total area of the construction will make 15 900 sq.m, the basement area will make 3 643 sq.m.

The administration of the university applies every efforts in order to using all possible means to build new educational buildings, laboratories, the cultural and community centers for students.

The following important direction promoting to educational process improvement in the university and improvement of domestic health care is the improvement of health care by means of creation system of university clinics.

The analysis of the advanced world medical higher educational institutions activities showed that introduction of this system yields good educational results due to association of science with practice. For skilled specialists the opportunity of teaching skills is afforded. And for students conditions more approach to medical practice will be created.

Now the equipment of medical institutions and introduction of innovative technologies in applied medicine demands from the educational institutions training of specialists possessing innovative skills and high mental abilities. Taking into account all this, the improvement of material and technical resources of the university, facilities of theoretical and clinical departments, laboratories by the modern medical equipment, is the requirement of time. Concrete measures for introduction modern educational and clinical and scientific equipment, on development of modern medical care, on transformation of Avicenna TSMU into the advanced medical educational institution will be taken further.

Quality of educational process depends not only on contents of training programs, qualification of teachers, but also extent of management of this process.

Perspective means of the organization improvement of educational process, control and management demands system management and monitoring introduction which constantly develop. The new control system is created on the basis of the quality management system principles, ISO international standard, will be presented on the basis of monitoring of the real condition analysis and the forecast of education development of. Introduction of the control system of quality in higher educational institutions is included in "National education development strategy of RT to 20 ....".

The analysis of higher educational institutions activities of the region and Europe showed that existence of the strategic plan of institution is an important condition of its activity. Presence of the university strategic plan is the important document and a decisive factor at passing of the international and state accreditation, the conclusion of contracts on cooperation, on receiving the international grants.

For many years in Avicenna TSMU the traditional system of administration is installed. The analysis of the agenda of meetings of the Academic Council and problems discussed there showed that they generally consist of departments' reports, total results of sessions and other issues. Along with it, problems connected with development of the university structures were discussed less, the external and internal analysis of departments, the world educational process, technologies of research works was carried out. In the subsequent the administration of the university will show more consciousness and responsibility on prospects of university activity development, will make every effort, using all opportunities to achieve an ultimate goal. And also will study and apply advanced ways of management, experience of the advanced foreign universities, to introduce modern systems of strategic management and target programs.

#### **Duties of Avicenna TSMU.**

Offers and recommendations on medical-pharmaceutical education with national and world value on preparation of competent staff that contributes to scientific potential development in public health sector.

#### **Prospects of AVICENNA TSMU**

Avicenna TSMU makes every effort, in order to become a competent medical higher educational institution and to recover the international level in the sphere of medical care and to function as scientific and innovative institution in republic health sector.

#### Purposes and strategic tasks of Avicenna TSMU till 2025.

#### Purpose 1.

Maintenance of innovative process of training on preparation of specialists meeting requirements of the modern world.

#### Task 1.

To conform to state standards of higher education on the specialties meeting requirements of the modern world.

- **Task 2.** Complete reconstruction of structure and the maintenance of complex of scientific and methodical programs, according to requirements of the State and international standards of higher education in all training languages.
- **Task 3.** Transition to modular and rating system of training, realization of methods and innovative technologies of training, system of an assessment of study results.
- **Task 4.** Development of strategic cooperation with foreign educational high schools on strengthening of realization of the Bologna system.
- **Task 5.** Improvement of integration study mechanisms taking into account science and development of creative and innovative activity of students.

# Purpose 2.

To promote the development of personnel potential of the university on improvement of its activity.

- **Task 1.** Providing with favorable conditions for systematic development of individual and professional skills of the professional and teaching staff and administrative employees.
- **Task 2.** Introduction of new methods on development of innovative technologies of education, self-improvement, development of creative and innovative abilities of the professional and teaching staff.
- **Task 3.** Improvement of methods of attestation of the professional and teaching staff and the administrative employees also realization of methods of personnel potential and their use in the process of disposition of specialists.
- **Task 4.** Providing system of self-government on monitoring of scientific and pedagogical activity of teachers.
- **Purpose 3.** The organization of scientific and educational and clinical complexes of training for strengthening of scientific potential.

- **Task 1.** Strengthening of scientific and technological cooperation in introduction of joint projects and preparation of the research and educational personnel.
- **Task 2.** The organization of Research institute of fundamental sciences on the basis of central research laboratories with involvement of fundamental departments of the university.
- **Task 3.** Improvement of innovative infrastructure, development of medico-innovative activity and commercialization of scientific researches results.
- **Task 4.** Improvement of scientific and educational activity by means of improvement of quality of research works, optimization of activity of the professional and teaching staff and students.
- **Task 5.** To promote development of scientific medical institutions, organizations and carrying out scientific actions with involvement of foreign experts.
- **Purpose 4.** Development of infrastructure and material and technical resources of the university.
- **Task 1.** Modernization of infrastructure of the university by creation of scientific and educational and clinical complexes, and also strengthening of efficiency and its economic benefit.
- Task 2. Equipment of research base and educational buildings with modern technologies.
- **Task 3.** Improvement of sociocultural conditions of students and employees by creation of sports complexes, hostels and cultural entertainment centers.
- **Task 4.** Compliance of educational, cultural and social structures of the university to requirements of the modern world, and also improvement of their activity.
- **Task 5.** Improvement of access to scientific and medical sources by improvement of a control system of education, and also electronic automation.
- **Purpose 5.** Strengthening of monitoring system and effective management of the university.
- **Task 1.** Improvement of effective planning system of strategy and high-quality management at the university.
- **Task 2.** Introduction of requirements of quality management system in the course of activity of the university.
- **Task 3.** Organization of monitoring system improvement, assessment of activity of structure of the university and strengthening of their activity.
  - Task 4. Preparation of the university for the state and international accreditation.

# The expected results of realization of strategy. In the course of training:

- Training programs and complex of scientific and methodical developments are coordinated with requirements of State standard of higher education.
- Modern methods and technologies of training of knowledge assessment and skills of students are realized.
- Transition to the new module of training according to the Agreement with Bologna comes to the end.
- Process of education at the university is provided according to requirements of the world system of training, and also 70% an indicator of satisfaction of skills of graduates are reached.

### In improvement of the professional teaching staff:

- the educational platform for the purpose of improvement of professional qualities of the teacher is created
- The academic discussions become stronger also 30% of teachers will be mobilized for an exchange of experience and professional retraining abroad.
- The degree of PTS reaches 60%.
- The improvement system of an assessment of teachers, attestation with indicators of modern assessment of scientific and methodical activity, also introduction of professional skills of employees is realized.

#### Scientific and innovative activity.

• Creative and scientific potential of health sector is centralized, Avicenna TSMU becomes the main driving force of research activity of the republic.

Scientific cooperation becomes stronger, 15 joint projects with scientific foreign institutions are carried out. Production of creative product and their commercialization is realized.

# Development of the university infrastructure.

Activity in laboratory, clinical and research spheres is extended and Avicenna TSMU becomes competitive in laboratory researches.

Avicenna TSMU will be transformed to a scientific and educational complex and powerful modern clinic, and also has superiority in the sphere of medical care.

The innovative infrastructure is developed in educational, cultural and educational spheres.

# Administration activity of the university.

The university system of administration is reconstructed by introduction of modern world technology of administration.

Improvement planning, use of methods and principles of strategic planning, management is introduced in all structures of the university.

Information basic management is created on the basis of the monitoring state, analysis and forecast of prospect of Avicenna TSMU.

The principles of quality system of administration are introduced by implementation of the International standards, the coordination of quality certificate are reached.

# The plan of activities on realization of development strategy of Avicenna TSMU till 2025

№	List of actions	Efficiency indicator	Measurement				pei	riod by ye	ars			
				2017	2018	2019	2020	2021	2022	2023	2024	2025
	Purpose 1. E	nsuring of innovative train	ning process in tra	1				ments of	l .			
		compliance of state standar	<u> </u>									
1.	Development of State Standards of higher professional education on the "Medical business", "Pediatrics", "Pharmacy", "Stomatology" specialties according to	Approval of State standards of higher professional education on specialties and introduction in educational process according to	standard		+							
	requirements of credit and modular system of training	requirements of modern educational systems										
2.	Updating of State standards of higher professional education on specialties		standard			+						
3.	Development of State standard of higher professional education on specialties at the level of post diploma degree education		standard				+					
Tas	k 2. Regeneration of struct	ure and content of scientif	ic method complex	xes accor	ding to t	he State	and inter	national s	standard	s of high	er profes	sional
			education in all la	nguages	of traini		,		1		T	T
4.	requirements of State	according to credit and	% volume	20%	40%	60%	80%	100%	100%	100%	100%	100%
5.	Updating of structure of contents and development of training	Ensuring educational process by new system of training	% volume	20%	40%	60%	80%	100%	100%	100%	100%	100%

	programs on the basis of requirements of modular and rating system of training											
6.	Development of plans and new training programs on "the manager of health sphere" specialty in public health faculty	Ensuring educational process according to the program of "the manager of health sphere"				+						
7.	Updating of structure of contents of training programs on the specialties at the level of post diploma degree education according to the requirement modern education.	Training programs according to State standard of higher professional education on specialties	% volume	20%	40%	60%	80%	100%	100%	100%	100%	100%
8.		Achievement quality certificate					+					
9.	composition (preparation) of educational workbooks, textbooks taking into account credit and modular education system in all languages of training.	Published workbooks and manuals	% volume	20%	40%	60%	80%	100%	100%	100%	100%	100%
10		Providing all learners with educational material	course		1	2	3	4	5	6		

Task	3. Transition to credit and	modular system of training	and introduction of	methods	and inno	vative ted	chnologie	s of trainir	ng and as	sessment	of study 1	results
11.	Introduction of modular- rating system of training in educational process of medical, pediatric, stomatological and pharmaceutical faculties	Ensuring of educational process with modular-rating system of training method	% volume	20%	40%	60%	80%	100%	100%	100%	100%	100%
12.	Development and realization of methods of modern technologies of an assessment of study results	Use of automated system development of test	the number of tests (in %)	20%	40%	60%	80%	100%	100%	100%	100%	100%
13.	Development and composition (preparation) workbooks on improvement of the students professional skills according to modern educational programs	Quantity of the made workbooks	exemplar		5	5	5	10				
14.	Introduction and improvement training of practical skills the use of opportunities of Center of practical skills	Integration of practical skills with theoretical knowledge.	The studied subjects		+2	+2	+2					
		tegic cooperation with educ		tutions fo		1	T -		duction o	of the Bol	ogna sys	tem
15.	Contribution of foreign professors and teachers in development of scientific and educational complexes	Number of reviews and assessment of training materials by foreign scientists.	amount		5	5	5	10				
16	Academic exchange of students	Study of students according to the academic exchange	Person		10	15	20	20	25	25	25	25
17	Academic exchange of professional and teaching staff	Exchange of experience and acquaintance of employees to educational	Person		3	5	5	5	5	5	5	5

		process abroad.	-		_	_	_	_	_			
18	Carrying out lectures and	Participation of	Person		2	2	3	5	5	10	10	10
	practical training by	professors of foreign										
	professors of foreign	establishments in the										
	educational institutions.	course of training							<u> </u>	<u> </u>		
		tegration mechanisms of ed	*	ith science	ce and de	velopmei	nt of crea	tive and in	novative	activity of	of student	
19.	Scientific actions on	Conducting of Olympics	The number of		2	3	4	5	5	5	5	5
	increasing of level of	on clinical subjects.	Olympics									
	knowledge and											
	professional skills of	Conducting of										
	youth	competitions, forums,	The number of		3	5	5	5	10	10	10	10
		conferences, circles on	activities									
		improvement of youth.										
	Pur	pose 2. To promote improve	ement of personnel	capacity (	of univers	sity on in	nproveme	nt of its ac	tivity			
	Task 1. Providing wo	orking conditions for system	natic improvement o	of individ	ual profes	ssional sk	tills of PT	'S and adm	ninistrativ	e employ	rees.	
20.	Development of the	Implementation of the				+	+	+	+	+	+	+
	program of development	program										
	of professional											
	competence of teachers											
21.	Training of lecturers-	The number of the	person		2	5	5	3				
	trainers in training of	trained competent										
	pedagogical skills	experts for training of										
		pedagogical skills										
22.	Creation of conditions	Organization of				+						
	for carrying out	structure on increasing										
	educational activities on	of pedagogical										
	improvement of	qualification, scientific										
	professional skills of	and creative skills of										
	teachers.	teachers.										
23.	Carrying out	Use of the latest	Department in %	20%	40%	60%	80%	100%	100%	100%	100%	100%
23.	educational courses for	technologies in	_	2070	1070	3070	3070	10070				
	the departments staff on	educational process										
	using of the latest	•										
	technologies in											
	educational process											

24.	Carrying out courses on professional development according to the program of pedagogic	Providing employees with certificates on advanced training course and on pedagogic	Person in%	20%	20%	20%	20%	20%	20%	20%	20%	20%
25.	Holding seminars on improvement of skills of writing of scientific articles for prestigious scientific publications	Increase the number of publications abroad	Seminar	1	4	4	4	2	2	2	2	2
26	Acquaintance and training of administrative employees in foreign institutions	Improvement of knowledge and skills of administrative employees	person		3	5	5	3	3	3	3	3
27.	Exchange of experience of teachers in foreign institutions	The number of certificates on obtaining certificates	person		3	5	5	10	10	10	10	10
28.	To promote and support scientists for participation on the international symposiums.	Number of participating	person		10	15	20	25	30	30	30	30
Tas	sk 2. Introduction of method	ls on development of the late		nologies f TS.	for self-in	nprovem	ent, impro	ovement of	f creative	and inno	vative ski	lls of
29.	Development and compiling of instructions of "models on activity of the teacher of higher education institution"	Preparation of "models on activity of the teacher of higher education institution"	exemplar	-2.		+						
30.	Development and implementation of programs for improvement of duties of the teacher according to requirements of the modern world.	The number of programs	exemplar			2	2	2				

31.	Improvement of scientific and creative activity of teachers  Holding the intrauniversity competitions "The Best Professor", "The best teacher"	Composition (preparation) of educational workbooks according to development of projects and scientific articles. Definition of PTS rating	Copy  Holding competitions	+	+	+	+	+	+	+	+	+
Task		on certifications of PPS and	administrative emp	lovees in	l itroductic	n of metl	hods of ne	ersonnel re	esources s	nd their	use in the	course
Lusk	5. Improvement of system (	on confidentions of 115 and	of arrangemen	•		,,, or men	nous or po	DISCHIECT IV	obources t	ara men	ase in the	Course
33.	Introduction of new methods of assessment of activity and professional skills of PTS	Providing improved system of an assessment of employees activity	The number of	+	+	+	+	+	+	+	+	+
34.	Improvement of system of personnel resources on identification of competent specialists.	Organization and replenishment of information base of employees and talented graduates	person	5	10	20	20	30	30	30	30	30
35	Introduction of system of encouragement of talented youth in Avicenna TSMU	Quantity of youth provided employment	person	5	5	5	5	5	5	5	5	5
		Providing system of self-g	government on moni	toring of	scientific	and ped	agogical a	activity of	teachers			
36.	Development of computer programs for monitoring of registration of achievements and activity of PTS.	The accounting of system of achievements and activity of teachers in the automated program.				+						
37.	Providing methods on representation of methods of report composition	Representation of methodical manuals and holding educational seminars			+							

	(preparation) on activity of the teacher											
		se 3. Organization of scient										
T		entific and technical coopera		nt of joint	projects	and prep	aration of	the resear	rch and e	ducationa	l personr	nel.
38.	Development of scientific projects in priority spheres of the republic	Implementation of projects	The number of projects		2	5	5	4	4	3	5	5
39.	Development of scientific joint projects with foreign institutions in the sphere of medicine and pharmacy	Participation of scientists of Avicenna TSMU in implementation of international scientific projects.	The number of projects		1	2	2	2	3	3	3	3
40.	Strengthening cooperation of departments of the university with foreign institutions	Organization of educational process meeting the requirements of modern world with the development of joint projects	project		2	2	3	5	5	5	5	5
41.	Implementation of projects at the expense of grants	Advantage of grants on implementation of scientific projects	The number of projects		2	2	3	5	5	5	5	5
42.	Preparation (training) of scientific staff	Increase the number of scientists of the different sphere: doctor of sciences, candidates, PhD	Quantity		110	2102	2155	2155	2155	2155	2155	2155
43.	Training of candidates and doctors of sciences at the expense of PTS	Increase of quantity of scientific degrees among PTS	Quantity									
Task	2. Organization of Research	n institute of fundamental sc		of the Co	entral reso	earch labo	oratory w	ith involv	ement of	fundamer	ntal depar	tments
44.	Improvement and professional retraining	Increase of efficiency activity of employees.	person		2	2	3	3	3	3	3	3

	of staff of fundamental											
	departments											
45.	Expedient preparation of scientific and educational staff for	Involvement of employees at the expense of graduates.	Person		2	2	2	2	2	2	2	2
	departments of fundamental medicine	Admission to university	Person		1	1	1	1	1	1	1	1
		postgraduate study and abroad										
46.	Expansion of laboratory services	Improvement of financial opportunities	%		+5	+10	+10	+20	+20	+10	+10	+10
47	Construction of the building for laboratory and a vivarium	Providing favorable conditions for scientific and laboratory works	Building				+					
48	Centralization of laboratories for scientific and clinical and research activity	Improvement of activity of laboratory					+					
Т	,	ovative infrastructure, devel	opment of activity	of innova	ative med	icine and	commerc	cialization	of scient	ific resear	ches resu	ılts
	Development of activity of scientific and educational laboratories	Comprehensive application of laboratories for scientific, clinical and educational purposes										
20	Improvement of activity of Scientific, educational and production center of "Pharmacy"	Establishing production of medicines										
51	Holding competitions of innovative projects among young scientists	Fund allocation on innovative projects	Project		2	5	5	5	5	5	5	5
	Strengthening of activity of "Innovation" circle	Holding educational seminars	Seminar		5	5	5	5	5	5	5	5
	Realization of scientific achievements in applied medicine	The document on realization of researches in practical			10	10	10	10	10	10	10	10

		medicine										
54	Introduction of scientific achievements in educational process	The document on realization of researches in educational process	Amount		10	10	10	10	10	10	10	10
55	Activities for increasing of a rating of Medical and diagnostic center among other medical institutions of the city	Increasing the list of medical services of the Center to the population	Person (in %)		+10 %	+10 %	+12 %	+12%	+15 %	+15 %	+15 %	+15 %
56	Cooperation and establishing mutually advantageous conditions with foreign medical institutions	Negotiation the contracts on cooperation.  Participation of foreign specialists in medical work of the Center	Contract Visit		2	5	10	10	20	20	20	20
Task	4. Improvement of scien	ntific and educational activ		mproven	nent of c	quality o	f researc	h works, i	mprove	ment of	activity	of PTS
57	Improvement of quality of research works	The number of scientific articles entering to the list of Scopus journals	Exemplar		5	10	10	10	10	10	10	10
		The number of scientific articles entering to the list of HAC journals of RF			40	100	70	70	60	60	70	80
58	Improvement of scientific activity of students	Development of projects by students.	Quantity	2	2	10	5	5	5	5	5	5
		Increase in number of	Quantity	20	20	80	50	80	80	90	90	100

		scientific publications of students										
59	Submission of scientific publications of the university in the international scientific community	Participation of scientists in scientific international activities	The number of reports	5	5	20	10	10	10	10	10	10
60		Participation of graduate students and students in the international scientific activities	The number of reports	5	10	10	10	10	10	10	10	10
61	The increase of level of knowledge and skills of research employees	Participation of employees in academic discourse and exchange of scientific experience	Persons	5	10	10	10	10	10	10	10	10
	sk 5. To promote in impro Organization and	vement of scientific and	medical schools at	nd carry		scientific	activities	s with inv	olvemen 	t of fore	ign speci	alists
62	strengthening of republican scientific branch societies	Ensuring systematic activity and accounting of scientific societies			+							
63	Strengthening of activity of scientific societies	Carrying out branch congresses	Congress session		3	2	2	2	2	5	5	5
64	The organization and carrying out scientific branch activities with participation of foreign scientists	Carrying out branch scientific activities with participation of foreign scientists	Activity		2	4	5	5	5	5	5	5
65	Creation of conditions on training and discussion of achievements and	Holding educational forums			1	2	1	1	1	1	1	1

	problems of education											
66	Organization and holding the Youth forum	Attraction of youth to scientific, creative and ideological works	% volume	5	10	20	20	20	20	20	20	20
	P	urpose 4. Development o	f infrastructure an	nd mater	ial and te	echnical	basis of t	he univers	sity			
Task	1. Infrastructure moderniza	ations of the university by	creation of scient and an ecor			nal and	clinical c	omplexes	and inc	rease of	their eff	iciency
67	Strengthening of the university bases	Creation of educational and administrative buildings			+		+				+	
68	To promote the organization of educational structure according to modern requirements	Effective activity of educational and ideological structure			+							
69	Expansion of field activity of Medical and diagnostic center	Organization of departments and introduction of the latest medical and diagnostic methods			+		+					
70.	Organization and activity improvement of advisory department at MDC	Strengthening of activity of advisory department at MDC	The number of consultations		+10 %	+15 %	+15 %	+15%	+20 %	+20 %	+20 %	+20 %
71.	Improvement of medical care to the population by use of innovative methods in medical work	Efficiency of activity of educational clinical center "Stomatology" and Medical-diagnostic center	The number of patients	+10 %	+10 %	+15 %	+15 %	+15%	+20 %	+20 %	+20 %	+20 %
72.	Acquisition of information technologies for	Task 2. Equipment of res Increase of information technologies amounts	earch base and ed Exemplar	lucationa	al buildin	gs with n	nodern te	echnologie	es			

	educational process											
73.	Providing educational buildings with furniture for educational process	Providing with additional seats	Exemplar									
74.	Acquisition of the necessary equipment for production of drugs	Improvement of production activity of "Pharmacy" Center										
75.	Purchase of reactants and other laboratory materials	Improvement of quality of laboratory services to the population cial, cultural, living condition				creation	n of spor	ts comple	xes, host	tels and o	other cul	tural
	I	T	entertain	ment cent	ers	1	1	ı	1	ı		Γ
76.	Creation of conditions for carrying out activities	Construction of sports grounds					+					
77.	Creation of cultural centers	Ensuring access to feeding stations					+					
78.	Improvement of hostels' conditions	Carrying out repair in students' hostels					+			+		
79.	Reconstruction of university sanatorium in Ramit gorge	Repair of the household cultural centers					+					
80.	Carrying out activities on creation of favorable atmosphere for collective work	Increases of level of culture of university staff	Activity		1	2	2	2	2	2	2	2
Task	4. Organization of educati	onal, cultural and social a	-	versity ac	cording	to requi	rements	of the mo	dern wo	rld and ii	nproven	nent of
81.	Organization of cultural circles at education and culture	Expansion of activity of education and culture department	circle		2		2		2		2	

	department											
82.	Improvement of	Efficiency of		+	+	+	+	+	+	+	+	+
	activity of students	educational,										
	Council	propaganda and										
		cultural activity of										
		youth										
83.	Composition of the	Realization of				+	+	+	+	+		
	program for increase	program activities										
	theculture and											
	ideology of youth											
	during 2018-2023.	1 10 1				L			L		L	
Task	x 5. Improvement of acce	ss to scientific and medic	=	_	ment of	control s	system o	f educatio	on and th	e automa	ated elec	tronic
0.4		G	sys	stem	<u> </u>	Τ	Π	I				Ι
84.	Creation of electronic	Systematic providing										
	base indicators of the	of informations										
0.5	university activity	T. C.										
85.	Acquisition of the	Improvement of										
	equipment for	system of										
	innovative technology	videoconferences										
0.5	of training	D 11 '	TT 1 C									
86.	Improvement the	Full ensuring	Updating of	+	+	+	+	+	+	+	+	+
	activity of the	information access by	information									
07	university website	the university website	0/ 0/	100	100	100	100	1000/	100	100	100	100
87.	Strengthening of	Availability of	% of training	100	100	100	100	100%	100	100	100	100
	electronic base of	training materials	materials	%	%	%	%		%	%	%	%
	scientific library		£		CC4:			1	-:4			
		eurpose 5. Improvement o										
		. Development of effecti		ning and				1				T
88.	Training of specialists	Professional	The number of		2	2	5	5	5	5	5	5
	in the strategic	development and	persons									
	management sphere,	retraining of										
	projects management	employees										
	of personal and quality											
89.	Realization of modern	Holding seminars on	The number of		50	50	50	50	50	50	50	50

	methods of planning the university structures	training methods of strategic planning  Development of methodical workbooks on planning, projects management and programs	attendees		+	+	+					
Task 2. Introduction of structure requirements of quality monitoring system in activity of the university												
90.	Acceptance of model of quality management system	Development of instructions on quality			+							
91.	Development of policy on quality	Existence of policy on quality				+						
92.	Introduction of quality management system	Automation of all structures of administration				+	+					
93.	Training all employees in monitoring of quality, training of internal observers	Holding of seminars, the number of employees which received certificates	The number of employees		2	1	5	2				
94.	Development of office-work structures according to quality management system	Introduction of quality management system in structures	%			20	+20	+20	+20	+20		
95.	k 3. Organization of mod Development of indicators determination of efficiency of the university activity	Providing an effective assessment of activity of structures	Development of Regulation	ity of the	univers +	ity struc	tures and	1 strength	ening of	the unive	ersity ac	tivity
96.	Development of mechanisms of	Efficiency of activity and elimination of	Analytic analyze			+	+	+	+	+	+	+

_	,											
	monitoring activity of	shortcomings in										
	administrative, public	activity										
	structures and											
	commission of the											
	university											
97.	Definition of main	Updating of				+	+	+	+	+	+	+
	objectives of	regulations of										
	structures of the	administrative										
	university according	structures taking into										
	to its strategic	account of modern										
	objectives	requirements										
		Task 4. Preparation of	of the university for	or the stat	te and in	ternation	nal accred	ditation				
98.	Development of legal	Methodical workbooks			+							
	documents for	according to the										
	assessment of quality	international standards										
	of education											
99.	Carrying out internal	Preparation of the			+	+	+	+	+	+	+	+
	audit on compliance	report										
	with the state and											
	international standards											
100	State and international	Receiving international				+	+					
	accreditation	certificate equivalence										
		to (ISO) 9001-2015										