

# INNOVATIVE SCIENTIFIC SCHOOL OF GERONTOLOGY OF ASFENDIYAROV KAZAKH NATIONAL MEDICAL UNIVERSITY

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## ABSTRACT

The aim of this article to show the first results of the Innovative Scientific School of Gerontology of Asfendiyarov Kazakh National Medical University (KazNMU) is the implementation of the principle of integration of «education-science-practices» in the field of gerontology.

### METHODS

Events in the framework of the Innovative Scientific School of Gerontology divided into 3 blocks: «Research Environment», «Gerontology science», «Gerontologist-Researcher», covering several positions, which will be carried out over several years.

### RESULTS

For 2 years work of the Innovative Scientific School of Gerontology has achieved some success in education, science and practice.

### CONCLUSION

The Innovative Scientific School of Gerontology of KazNMU showed active work which based on the principle of integration of science, education and practice.

**KEYWORDS:** Gerontology, Geriatrics, Education, Science, Practice

## INTRODUCTION

The Republic of Kazakhstan refers to one of the Emerging markets and one of the key Nation States in Eurasia. It helps to meet the challenges of the population ageing providing for the development of human resource and poverty decrease [1]. Demographic challenges of the third millennium are indicative for socio-economic developments of the Republic of Kazakhstan pursuing its entering the block of leading countries of the world.

Changes occurring in the modern demographic situation in the Republic of Kazakhstan are related first of all to the pronounced processes of population ageing [2]. At present the share of population aged 65 and older exceeded 7 %, thus including it into the list of "ageing" countries. The proportion of population at the age of 60 and over reached 11,2%

by the by the beginning of 2015 with a tendency of increasing up to 25% by the middle of the century. At the same time the share of population aged 80 and older will triple. Projected average life expectancy in the coming decade will grow from 70,3 to 72,0 years. Thus by 2020 expected increase of these indices for men and women will reach 65,76 and 75,02 years correspondingly, which is still below those in the countries of the Western Union by 8-12 year [3, 4].

At that, probability of survival till the age of 60 years is predicted for 65,8% of men and 84,8% of women, while till the age of 75 years - for 30,3% and 57,8%, correspondingly.

The Republic of Kazakhstan is armed with a powerful research potential. During 22 years of its independence the Republic of Kazakhstan turned to be one the most significant states in Eurasia, whose opinion is greatly valued. During this period the country reached significant success in the development of national culture, research and policy [4].

Thus, the Republic of Kazakhstan enjoys early stage of

demographic ageing and an increase in the share of the older population [5, 6]. The issues of ageing require a complex approach that is why they occupy important place being integrated into the governmental policies. The State Programme of Health Development in the Republic of Kazakhstan for 2011-2015 includes tasks specific for elaboration of gerontological area, i.e. development and improvement of evidence-based protocols for diagnosis, treatment and rehabilitation of old and senile patients; development and introduction of educational programme in geriatrics and palliative aid for doctors, paramedical personnel and social workers; development and implementation of the system of estimation (indices) of effectiveness of gerontological and geriatric care, framing of a new system of geriatric assistance run by the state [7, 8]. One of the major prerequisites for the development of gerontology as a scientific discipline and applied specialty is education and training of highly qualified human resource, since increased share of older population in the country requires increased volume and level of medical and social service. Therefore, KazNMU opened the module “Gerontology and Geriatrics” in 2013 to teach students of the 5th year of the faculty “General medicine” and postgraduates to improve qualification of physicians and nurses within the research and technical program of the Health Ministry of the Republic of Kazakhstan “Development of the model of anti-ageing and active longevity of seniors in Kazakhstan”. Start-up and development of the gerontology and geriatrics module is based on the transfer of advanced technologies in gerontology. As a result of this module activity and that of research team of the KazNMU there has been created a special web-site <http://www.100let.kz>, there has been issued a text book “Gerontology and Geriatrics” for geriatricians, social workers, students of high schools, there has been issued a special guide book for pensioners of the Republic of Kazakhstan and their families edited by the principal of the University, Honoured scientist of the Republic of Kazakhstan, Professor A. Akanov and Professor K. Tulebayev. In this guidebook, a pensioner can find all necessary information in regard to his/her social status: legislative and medical information, reference data about the pension security agencies, advices of healthy life, available training and educational programs, etc. Special web-site <http://www.100let.kz> provides detailed information useful for elderly people and their families, as well as practical resource for medical and social workers occupied in the system of geriatric service of the Republic of Kazakhstan. In 2015, Eurasian Research Institute of Gerontological Problems was established on the basis of the Medical Centre of President’s Affairs Administration of the Republic of Kazakhstan for coordination and

development of research in the field of gerontology. Demographic ageing by itself leads to the increase in the number of people who need permanent medical and social assistance. Therefore one of the country’s strategic targets consists in creation of steady research as well as applied and educational resources necessary to meet the challenge [9].

## OBJECTIVE

In this context, in 2014 there was formed the Innovative Scientific School of Gerontology (ISSG) of the KazNMU. A. Yeshmanova, PhD is a research supervisor of the section and Professor V. Chaikovska is a research consultant of the section. Strategic directions of the Innovative Research School in Gerontology comprise formation of solid scientific basis and consolidation of ties with other organizations in the field of gerontology which will ensure comprehensive interaction of professionals from various spheres. This will contribute to the development of new gerontotechnologies, elaboration of prognosticative investigations aimed at identification of most prospective studies in gerontology, formulation of methodology for the development of geriatric structures and geriatric service, interaction of governmental and non-governmental structures; building up and increase of research and manpower potential in the field of gerontology; distribution of knowledge about the Madrid International Plan of Action on Ageing and contemporary viewpoint on the analysis of situation and “road map”, compiling information basis for a wide system of medical and social aid to seniors and their families, promotion of volunteering among students and retirees, establishment of the Third age university for the elderly with the help of medical students [10, 11, 12].

## METHODS

Events in the framework of ISSG divided into 3 blocks: «Research Environment», «Gerontology science», «Gerontologist-Researcher», covering several positions, which will be carried out over several years and will focus on:

- The creation of a permanent, stable research environment and improvement through the development of effective links with other organizations in the field of gerontology with experts of different specialties, which will join efforts in the development of new technologies in gerontology (block №1 «Gerontology Research Environment»);
- Systemic, prognostic studies to identify promising research directions in gerontology, the formation of a methodological basis for the development of geriatric

institutions and geriatric services in general, with the interaction of state and non-state structures (block №2 «Gerontology sciences»);

- Training and improving the scientific potential of staff for the creation and development of innovative scientific school in the field of gerontology at KazNMU (block №3 «Gerontologist-Researcher»).

## RESULTS

For 2 years of ISSG work has achieved some success:

1. Won and implemented 3 university grants.
2. As a co-executor carries 1 grant of the Ministry of education and science of the Republic of Kazakhstan (MES RK) and 1 international grant (with the Institute of Gerontology of the National Academy of Medical Science of Ukraine «Palliative care of elderly people and old age in the family and society» (2012-2014.), And a joint research project «Caring for the sick and elderly invalids at home» (2015-2017).
3. On the basis of scientific school is educating 1 master's degree student.
4. Carrying an active transfer of new technologies into the educational process and the practice confirmed by the Acts of introduction.
5. ISSG accepted into the Society of Gerontology of Kazakhstan - a member of the International Association of Gerontology as a science section. Information about the scientific school of gerontology of KazNMU placed in the International Encyclopedia of the Gerontological Society.
6. ISSG participated in the development of the Regulation data on the geriatric service of Kazakhstan and job descriptions for geriatrics doctors, geriatric nursing service in the working group the Ministry of healthcare and social development of the Republic of Kazakhstan.
7. ISSG has developed a professional standard of «Geriatrics» which commissioned by the Ministry of healthcare and social development of the Republic of Kazakhstan.
8. ISSG offers courses of postgraduate training for doctors and nurses on the theme «Innovative technologies in geriatric practice»
9. Developed system «Student Health Navigator» and introduced to the work of the united university clinic to automate the process of medical examination of students.
10. Developed 4 manuals, 1 copyright certificate.
11. Published 6 articles in journals with impact factor, more than 20 publications in journals recommended by Control Committee in Education and Science, 5 articles of students, more than 20 abstracts.
12. 13 presentations at international conferences, 11 reports of students in the framework of international conferences on the Scientific Research Work of

Students

13. Submitted student's research works and presented at the competition, which were awarded by diplomas:

- 1) I degree diploma at the republican competition of MES RK research works of students (Isamatov B 5 year General Medicine 2014)
- 2) I degree diploma at the university contest of the Scientific Research Work of Students (Isamatov B 5 year General Medicine 2014)
- 3) a diploma of I degree at the university contest of Scientific Research Work of Students (Hayrusheva D, 5 year General Medicine, 2015)
- 4) II degree diploma on the competition of scientific works of students within the framework of an international conference (Hayrusheva D, 5 year General Medicine, 2015)

ISSG actively engages students of «Nazarbayev Intellectual Schools» in scientific work. The result is a 5 scientific works, which are presented in the contest of the Small Academy of Sciences. Conducted a joint study on the prevention of professional burnout of teachers with recommendations.

ISSG constantly improving scientific skills of young scientists. In 2015, organized training in gerontology center Saint Tom Vilenef France, Institute of Gerontology of Ukraine and won two scholarships for scientific training in the International Institute on Ageing, United Nations - Malta.

ISSG is actively working with the National Center for Healthy Life Style, designed «Diary of an elderly patient» and with the «Committee of public health» - tested veterans and staff of the Akimat of Medeu district with the issuance of conclusions and recommendations, conducted a survey of more than 3,000 older people of this district for medical and social assessment, for this work was accepted by the staff of the module «grateful letter» of Akim of Medeu district of Almaty. Each year, the staff of module carries out charitable actions for veterans and elderly patients at clinical sites of the module and the House Veterans.

## CONCLUSION

Thus, established in 2014 ISSG of KazNMU showed active work which based on the principle of integration of science, education and practice.

## REFERENCES

1. Akanov A.A., Yamashita S., Meyermanov S., et.al. Elderly people and their problems: experience in Japan and Kazakhstan. Nagasaki; Almaty, 2008.
2. Akanov AA, Tulebaev KA, Eshmanova AK, Chaikovskaia VV, Abikulova AK, Kalmakhanov SB, Mansharipova AT. Analysis of condition and prospects in geriatric care of population of Kazakhstan. Adv Geront. 2014; 27-3: 589-595.

3. Senior generation in Kazakhstan: looking into the future, Almaty, 2005, UNFPA. P. 144
4. Ageing in the XXI century: triumph and challenge. Press release Final.rus. 2011; 10-1.
5. Benberin VV. The problems of development of the gerontological service in Kazakhstan. J Research Inst Cardiol and Intern Dis of the Health Ministry the Rep Kazakh. 2013; 93
6. Benberin VV, Akhetov AA, Tanbaeva GZ. Medical social modeling technologies for active aging in Kazakhstan. Adv Gerontol. 2015; 28-1:173-176.
7. State program of health care development in the Republic of Kazakhstan “Salamatty Kazakhstan” for the period of 2011-2015 (adopted by the Law of the President of the Republic of Kazakhstan of November 29, 2010, № 1113)
8. Devi S. Reforming health care in Kazakhstan. Lancet. 2014; 383-9936: 2197-2198
9. Sidorenko AV, Mikhailova ON. Implementation of the Madrid International Plan of Action on Ageing in CIS countries: the first 10 years. Adv geront. 2013; 26-4: 585-593
10. Sidorenko AV. World Policies on Aging and the United Nations. Global Health and Global Aging. M.Robinson et al.Jossey-Bass, San Francisco. 2007: 3-14.
11. World population aging 1950-2050. New-York: United Nations. 2002.
12. Kulzhanov M, Rechel B. Kazakhstan: Health System Review. Health Systems in Transition. 2007; 9-7: 1-158