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HEALTH CARE REFORMS IN SOUTH CAUCASUS COUNTRIES: PAST, PRESENT, FUTURE

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During the USSR collapse and the formation of the new, independent South Caucasus countries, an economic crisis was followed by the destruction of the financial and monetary-credit system. The industry was paralyzed and the traditional economic connections were broken off. The economic problems were aggravated by internal political disagreements, inspired by social-political movements and civil war, and by application of criminal forces that naturally negatively influenced the health condition of the population.

The social-economic-political situation in South Caucasus countries makes it difficult to provide all groups of the population with accessible medical aid. Additional problem – in most cases was increased rate of complicated pathology.

In most cases, these diseases receive practically no conservative treatment and need urgent medical interference yet patients with low income do not admit themselves to hospitals in sufficient time for treatment because of possible expenses. It is without question that charges for belated treatment of diseases are too high, not only for a patient's family, but for the budget of public health sector. This situation causes serious problems in the social and medical financing of the growing population. It should be noted that the cause for delay of medical interference is not just a financial problem, but an issue of a low literacy level, peculiarities in the flow of disease, transportation problems, etc.

It should be noted that reforms of the public health service system of the South Caucasus countries began after establishment of the Soviet regime. In the beginning, it had discriminative colonial characteristics but afterward it became accessible for all social layers of the population. Along with site improvements of existed buildings, the government started developing and constructing new medical establishments in the seaside zone.

In general, development of the process of Health care reforms, realized in South Caucasus countries, is similar. With the great supporting of international governmental and non-governmental organizations and funds in framework of the reforms, was realized design of the
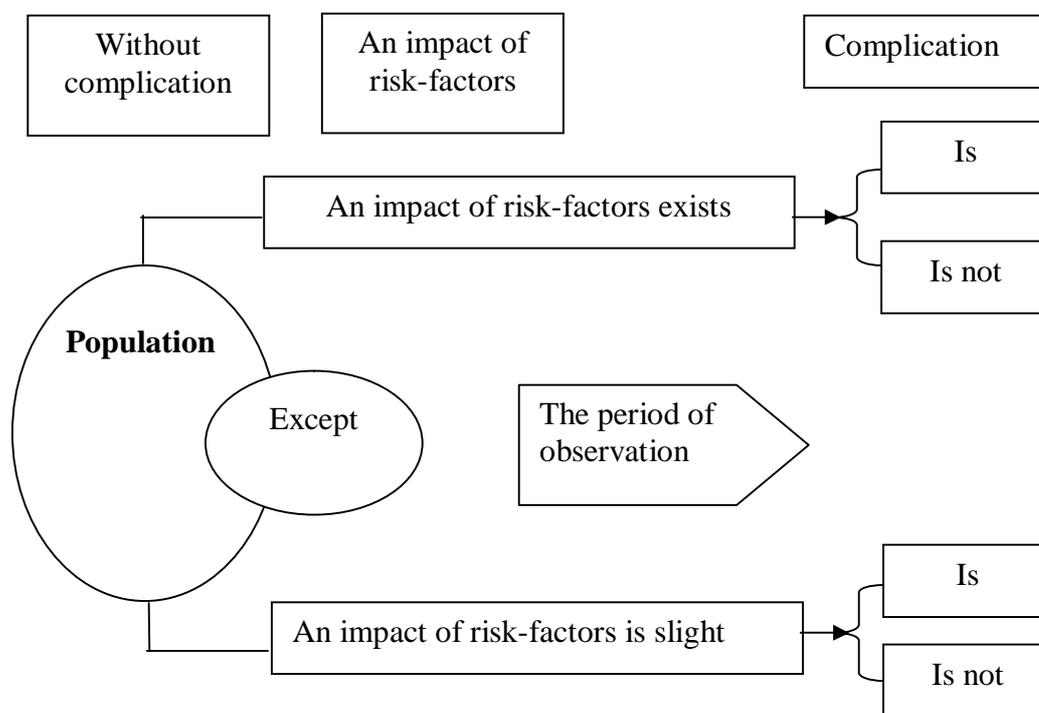
further reforms, founded new approaches for increasing preventative, curative and aftercare effectiveness of the health care systems. Peculiarities of expatiation in the population takes into account age, sex, income, medical activity at work and other social-hygienic factors. This scheme allows for scientifically proven regional fulfillment of public health programs.

A particularly difficult situation is in the sphere of emergency care. Even though the state programs covers urgent medical aid, either from the central or local budget, the majority of patients still see specialists with delay.

The research process used methods that include medical statistics, demographic, sociological and social-psychological approaches. The representative groups of decision makers of the process of health care reforms, physicians, patients were studied by specially designed questionnaire. A total of 700 cases were documented.

A special map consisting of four parts and 45 questions had been designed for research purposes. The map addressed the study of the demographic characteristics of the inquired population which included their health condition, social status, evolution of social-psychological peculiarities, frequency of use of medical organizations etc. During the research process, special attention was given to the reasons for the content of the medical interference and its outcome.

The information enables researchers to evaluate the health condition of the contingent, and to pinpoint the priority problems that detain successful prevention.

Without complication	An impact of risk-factors		Complication

An impact of risk-factors exists → Is / Is not

Population / Except

The period of observation

An impact of risk-factors is slight → Is / Is not

The results of the study were tabulated with the help of modern, highly technological methods. Relative quantities (p), average error (m) for the evolution of plausibility of the results, and limits of credibility $p \pm tm$ 95% of relative precision $p \pm 2m$ were each collected. The research was carried out in its entirety by using a highly technological, mathematical methodology. The research was conducted using software that used a standard format database.

In order to determine the links between signs, we have used the method of correlation analysis (k_{xy}). The analysis of materials was also carried out with the help of a single factor dispersion complex. While comparing the health index of patients with different sexual and age structures, we have also used the method of standardization which gives us the possibility to eliminate the impact of unequal structure in the case of index generalization.

The research results provide us with important information about peculiarities of different pathology expansion in the population of South Caucasus countries.

SOME ASPECTS OF MANAGEMENT OF BASIC DETERMINANTS AND WAYS OF IMPROVING PUBLIC HEALTH DYNAMICS IN TAJIKISTAN

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For the most of developing countries, including Tajikistan, further realization of public health strategy is a main task. During the period of transformation processes a necessity was born that reconsideration of existing healthcare with transition to the new understanding of health care organization. This was the essence of primary medical care (PMC), and health promotion and formation of healthy lifestyle through institute of family medicine.

Public health in Tajikistan today is now organized in efforts of whole society directed to health promotion, diseases prevention, support of social justice, in general context of stable development.

In recent years more attention is paid to study of moral determinants of public health as risk factors. Particularly, the role of psychosocial stress more often finds recognition as one of factors, encouraging development of entire range of pathological states, such as cardio-vascular, gastrointestinal, neurological, mental diseases, diabetes and accidents, including those with fatal outcomes [4,6].

The main determinants of health economic conditions of life play important role [10, 11, 20]. After declaring of independence, transition to market economy, breaking of trade-economical relations with other republics of NIS, cancellation of assignments from Soviet Union's budget (more than 40%), consequences of civil war, weakening of regulating role of government – leaded the national economy to deep economical crisis [1,20].

Owing to poverty and unemployment, which are serious problems for Tajikistan, the impact of these conditions on youth has particular meaning with respect to health status, social problems such as violence, murder, suicide and abuse of psychoactive substances [6].

Currently, the Republic of Tajikistan is referred as one of the poorest countries in the world, in which more than 60% of her inhabitants are poor (workers, workers of budget sphere, small farmers and others), extremely poor - 12% (urban and rural unemployed, refugees, migrants, large families, etc.); disadvantaged people - 5% (disable, single, aged pensioners, invalids, orphans, street children). Impact of these was reflected on nutrition structure of population, which combines caloric insufficiency with hidden malnutrition. Food ration of most people, with daily calorific capacity of nutrition 1400-1550 cal., is characterized by deficiency of protein substances, especially animal origin, thus leads to breakdown of their health and reduction of resistance to diseases. The real level of meat consumption in Tajikistan falls behind normative indices of food basket to 3,9; milk and milk products - to 2,7, eggs and sugar – to 2,5 times.

At the same time, there is increase in tobacco smoking, alcohol and drugs abuse, which is suggested to be considered as important reasons for growth of number of chronic diseases among people of working age [18].

One of the significant public health determinants is healthcare system's activity, in which per capita costs for medical needs reduced for 10-15 years from 192 to 1,5 dollars USA, i.e. 128 times less. Reasons for these can be listed as: low or late health care demand of population from medical facilities, under staffing of medical personnel, insufficient diagnostic activity of physicians on timely detection of diseases, lack or low-power of laboratory-diagnostic and material-technical base, deficient coverage of population by preventive actions, unsatisfied level of sanitary culture – which encourages growth of chronic pathology, and mortality among population. [1,15].

In opinion of physicians, reasons of mortality increase in Tajikistan are lack of required, and use of often poor drugs in out-patient and in-patient clinics, insufficiency of diagnostic equipment in PMC facilities, insufficient qualification of main mass of specialists [1].

Country require immediate repair of water-supply and sewerage networks, disposal facilities, provision of water supply system by coagulants and disinfectants, reduction of volumes of sewage disposal, development and realization of measures on prevention of anthropogenic and technogenic contamination of water-supply and water use sources [3].

These dire and unfortunate conditions pose a relatively epidemic situation in Tajikistan, as evaluated and explained during past years [18].

However, acquaintance with source materials of demographic statistics shows paradoxical variance between basic factual material and its evaluation in research literature [13,14,15,17]. Thus, mortality in Tajikistan for the last longtime period decreased to1,4 times less, from 6,2 cases per 1000 in 1990 to 4,4 cases in 2004, particularly because of infectious diseases - 4,3 times, from 85 cases per 100000 in 1991 to 20 cases in 2004. Maternal mortality reduced to 2,2 times less, from 97,7 cases per 100000 in 1990 to 45,0 cases in 2002. Such differences between real indices and opinions of researchers on it require scientific explanation. Moreover, if this is the result of statistical accuracy, then it is necessary to find its sources to improve and not to accept that in future. But if mortality really decreased contrary to deterioration of traditional health determinants, it means, there are another unknown regularities, positive power of which multiply prevails negative power of known risk factors [4,5]. Consequently, timely definition and evaluation of risk factors for population health by leadership, also organization of intersectoral intervention for healthcare service is needed.

Therefore, defining the regularities, conditioning changes in rates of medical-demographic processes, partnership, unification of the efforts to solve concrete problems at all levels of state policy for healthcare are necessary for successful realization of strategy on achieving «health for all».

Conclusions:

1. Transition to market economy for the society and its institutes provided moderate impact on healthcare development and population health rates of the Republic of Tajikistan.

2. In analysis of situation in sphere of healthcare, it is necessary to take into account not only level of life, but psycho-emotional state of population, reflected by indices of violence, murders, suicides and drugs abuse.

3. Resources for population health care present in all other sectors, and among population, which insufficiently are attracted for its rational use.

4. Evidenced justification cause-and-effect relations, definition of its correlation dependences, at consistent accomplishing of complex intersectoral actions, coordination of donor aid, will encourage successful management of all health determinants.

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PALLIATIVE CARE: ORGANIZATION AND PATIENTS' LIFE QUALITY

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One and practically only most accomplishable task of palliative care rendering to patients of severe category is maintenance of their life quality in the context adequate for disease. This aspect deeply intertwined with life quality of the family members, relatives, friends, and others around the patient.

In current practice of palliative care organization a conception of life quality becomes immanent, reflecting whole variety of vital activity and patient's diseases, and integral, including impact results of multi-choice treatment methods.

At contemporary stage of healthcare development there are various models of palliative care rendering to incurable, and first – to oncologic patients.

Programs of palliative care organization are formed most often of stages: from simple and acceptable to more difficult and extensional. At that choice of organizational form of palliative care depends on both regional features of territorial construction and structure specificity of

network of urban and rural medical facilities, human resources, and financing level and material-technical base of healthcare.

Developing the ideas of hospice and palliative care for incurable people in the Russia is more efficiently grown in Saint-Petersburg, Moscow, in oblast and republican centers, where are real organizational, human and financial resources. At that quite actual is problem of palliative care rendering to inhabitants of small territories and communities, where is the most part of population, and there social strain for death-marked patients and their relatives is much sharply clear-cut.

Organization of palliative care in small territories, and also evaluation of patients' life quality, as main criterion of its effectiveness, at current stage of Russian healthcare development remain practically unknown, that is one of the tasks of research on optimization of palliative care conducted by Sechenov Medical Academy.

At the end of 20 century in the Russia appeared alternative approaches to organization of palliative care. The main variants of organizational forms of palliative medicine in our country are:

- hospice as independent medical facility (mainly in large cities and administrative centers);
- Palliative treatment as main form of activity of oblast oncologic clinics with wide use of special methods of antitumor therapy and palliative care;
- Units of palliative care in the structure of interregional oncologic dispensaries;
- Independent hospitals of nursing care and nursing unites in large multi-field hospitals;
- Units of long-term stay of patients in the regional hospitals for veterans;
- Units of palliative care in geriatric hospitals and centers;
-units of mercy in care houses for labor veterans in system of social provision and others.[5]

General tasks and directions of activity of in-patient and out-patient units of palliative care in medical and socio-medical facilities are:
- Adequate in-patient treatment, palliative care and care of incurable patients;
- Observation and rendering of medical-consultative and palliative care at home;
- providing of psychological support and moral aid to patients and their relatives;
- providing of complex of measures on socio-medical rehabilitation of patients;
- attracting of volunteers on patients care;
- religious support of the patients;
- charity activity;
- methodological work on training the skills of palliative care for physicians and medical nurses of out-patient clinics, providing socio-medical care to death-marked patients at home and others.

The term «Palliative Care» in the world medical practice appeared rather recently.

In reality, problems of palliative care organizations grow with development of society civilization level. It is not allowed that severe patient, and his relatives turned out to be left to the mercy of fate, they are needed in qualitative palliative care. The palliative care is actual not only for oncologists, but for physicians of any specialty. Each doctor must know the principles of palliative care providing and be able to provide it to incurable patient.

The patients needed in palliative care are:
- Incurable oncology patients;
- Patients with terminal stage of chronic renal insufficiency of various genesis;
- Patients at terminal stage of chronic insufficiency of blood circulation and respiratory systems, untreatable or poorly responding to treatment;
- Patients at terminal stage of cirrhosis with apparent decompensated portal hypertension and hepatocellular insufficiency;
- Patients, lost capability to move and self-service owing to diseases and traumas;
- Vascular diseases of brain and spinal cord;
- disseminated encephalomyelitis;
- Degenerative diseases of bones and joints system;
- Traumas of spine;
- Cervical hip fracture and others;
- Patients at terminal stage of HIV infection;
- Other pathological states, uncorrectable and bringing to acute disturbances in functioning of vitally important organs and systems, which are considerably limiting professional and social activity.

One of main and key reasons (on social significance) of palliative care necessity is providing the care to relatives. Around of one dying patient there are 7-10 conditionally healthy, valuable members of society (relatives, friends, neighbors, colleagues), which are in psychological trauma of various degree of severity: feeling of blame to patients, feeling of aggression to medicine, depression, cancer phobia, thinking of suicide, threat of loss of jobs. Among people around the patient it is formed so-called chronic distress (on some data mortality among close relatives of oncology patient grows to 40%).

The aim of palliative care is creation of better life quality for patient and his family as possible.

Life quality means subjective satisfaction, feeling and expressing by person. It is under the influence of all parameters of personality: physical, psychological, social and religious.

The term «life quality» can be subsumed to professional category of terms, used by specialists (for example, medical and social workers). For the patient «life quality» means rather

understanding of that how much we are important and how much are acceptable those life conditions and that state, which human has in consequence of his disease.

There are a lot of different spheres, characterizing life quality, but, despite that, most of them may be grouped into four correlated, but distinct from each other spheres: physical, functional, emotional, and social aspects of life quality.

Presence or absence of painful symptoms of diseases exerts clear-cut effect on life quality. Some authors accept this factor as the most evident, but it is clear that it is not solitary, and to equate the life quality to absence of disease symptoms is too simple. For some groups of patients and their relatives the measure of provided treatment's toxicity might be that aspect of life quality, which worries them most of all, that's why reduction of side effects in chemotherapy, radiotherapy and providing of maximum conservative surgeries can have significant impact on style of patients' life.

The study of life quality of terminal cases conducted by us using «Record of life quality's evaluation» allowed receiving the quantitative values of indices on four aspects of life quality: physical, functional, psycho-emotional and social.

It was found, that palliative care in physical and functional aspects was provided to all patients, in psycho-emotional – to two thirds, and in social aspect – only to half of the patients (49,5 %).

All aspects of life quality interrelated into united system, that should obligatory be taken into account while providing the care of patient and his relatives.

So, scope of functions of the palliative care is rather broad and various. But all of them finally directed to resolving of main complex task – optimization of patients' life quality. Qualitative palliative care is unique and real medical, social, psychological and moral support of severe patients and their relatives at current stage of society's development.

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DEMOGRAPHIC RATES IN CHU OBLAST OF KYRGYZ REPUBLIC

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Keywords: population, mortality, morbidity, fertility, migration.

In a frame of realization of National reform program «Manas taalimi» priority tasks are directed to achievement of reduction in morbidity and mortality rates on common (monitored) diseases for maternity and children. The target areas were cardio-vascular system, tuberculosis and to limited extent to HIV/AIDS prevalence, sexually transmitted infections and drugs addiction (1).

Total number of population in CHU oblast at the beginning of 2007 was 813,5 thousand, that included rural population of 721,9 thousand or 57,2% of the population in the oblast. The Kyrgyz republic has insignificant net migration and this is also typical in this oblast. For the period 2000-2007, total number of population decreased by 2,2%. The rate of decrease in rural areas, however, is lower (-1,2%), than in urban - 3,4%. This is explained by emigration out of the country, especially urban people.

Records show that level of birth rate in entire oblast amounts 21,8 per 1000.(29,8%).

Insignificant increases of coefficient of mortality was stabilized on country level, and decrease in this rate observed for urban areas (7,5%) for the oblast.

Mortality in working age in entire oblast for 2001-2003 amounted 7,37±0,1 (per 1000 adults) and has been higher than mortality in 2004-2006, when its level was 6,46±0,09.

Table 1 displays the dynamic of mortality in working age and its main reasons, where steady growth of this rate on all categories of diseases is shown.

Reasons for premature mortality of able-bodied population includes: diseases of blood circulation system, respiratory diseases, traumas and poisoning, and neoformations. In particular, for period 2004-2006, blood circulation diseases amounted 44,9% amongst all reasons of death, while pathology of cerebral circulation - 35,4%, respiratory diseases for the same period - 17,6%, neoformations – 7,7%, poisoning – 6,7%, and traumas - 5,4%.

Table 1 Causes and Levels of Mortality among Adults of the Chu Oblast for 2001-2003 and 2004-2006 (per 1000 adults)

#	Reasons of mortality in working age	LEVEL		
		2001–2003	2001-2006	P
1.	Blood circulation diseases	1,48 ± 0,02	2,78 ± 0,05	<0,001
2.	Respiratory diseases	0,36 ± 0,01	0,59 ± 0,02	<0,001
3.	Pathologies of cerebral circulation	1,32 ± 0,01	2,46 ± 0,02	<0,001
4.	Traumas and poisoning	1,12±0,03	2,1±0,02	<0,001
3.	Neoformations	0,9 ± 0,03	1,1 ± 0,02	< 0,05
4.	TOTAL	6,46 ± 0,1	7,37 ± 0,1	<0,001

The average level of mortality in able-bodied age due to cardio-vascular diseases, respiratory diseases, cerebral circulation pathologies, traumas and poisoning, and also advanced cases of malignant neoplasms is reliably higher (P<0,05) in period 2004-2006 in comparison to the previous period (2001-2003). Alarming issue is significant growth of deaths owing to alcohol poisoning.

If we are to consider differences in mortality of male and female, male mortality is higher than female as follows: diseases of blood circulation system - 2,6 times as much, particularly, myocardial infarction – 4,6 times, and respiratory diseases - 3,0 times as much.

Index of infant mortality for above mentioned periods increased from 25,3 to 30,4 per 1000 newborns. As overall average, this index amounted 14,2%. Currently, it is conditioned by transition to new WHO program on live birth.

Data on dynamics of prevalence rates for many years are needed to define the trends in health status, efficiency assessment of medical and social actions, to plan required medical care, rational allocation and use of material and human resources of healthcare, and also form prognosis of population morbidity. Analysis of official data on morbidity has been carried on standardized rates for rural and urban population request for health care services in two observed periods using three year intervals (2001-2003 and 2004-2006) among adults and children.

Average level of overall morbidity in Chu oblast for 2004-2006 amounted 9,4 (468,8) per 1000 (urban – 535,4, rural – 402,2). Its intensity in comparison with period 2001-2003 increased to 11,3% (urban – 8,4%, rural – 14,3%).

Table 2 Morbidity of Adult Population Requesting Health Care Services in Chu Oblast for 2001-2003 and 2004-2006

#	General categories of diseases	Initial morbidity requesting health care (per 1000)		
		2001 –2003	2004–2006	P
		M 1 ± m	M2 ± m	
1	Respiratory diseases	2,2 ± 0,6	6,2 ± 0,8	<0,001
2	Blood circulation system diseases	2,0 ± 0,6	2,9 ± 0,7	>0,05
3	Diseases of urinary system	0,8 ± 0,2	3,9 ± 0,7	<0,001
4	Digestion system diseases	1,2 ± 0,2	8,3 ± 0,8	<0,001
5	Nervous system diseases	1,2 ± 0,3	3,4 ± 0,5	<0,001
6	Infectious and parasitic diseases	0,9 ± 0,2	2,2 ± 0,1	<0,05
7	Traumas and poisoning	0,5 ± 0,01	2,6 ± 0,2	<0,001

Note: P – reliability of differences between M1 and M2

Similar situation is in structure of morbidity for children and adolescents. If we examine the structure of morbidity for children in rural and urban areas, the first place is taken by diseases of respiratory system – 46,5 and 41,8%, respectively. The other leading categories of diseases among rural children, the second place is taken by diseases of skin and hypoderm (7,8%), in urban areas is eye diseases (9,0%). The next categories are – diseases of digestion system (7,3%), and traumas and poisoning (5,4%), followed by – infectious and parasitic diseases in both groups (4,9%), and finally – ear diseases and mamillary process (4,2%), and digestion organs (5,2%).

Table 3 Children's Morbidity for those Requesting Health Care Services in Chu oblast for 2001-2003 and 2004-2006

#	General categories of diseases	Initial morbidity requesting health care (per 1000)		
		2001 –2003	2004–2006	
		M 1 ± m	M2 ± m	P
1	Respiratory diseases	2,2 ± 0,6	6,2 ± 0,8	< 0,001
2	Infectious and parasitic diseases	0,8 ± 0,02	3,9 ± 0,7	< 0,001
3	Traumas and poisoning	0,9 ± 0,01	2,4 ± 0,3	<0,001

4	Digestion system diseases	1,2 ± 0,2	8,3 ± 0,8	<0,001
5	Nervous system diseases	1,2 ± 0,3	3,4 ± 0,5	<0,001
6	Blood circulation system diseases	1,5 ± 0,1	3,2 ± 0,7	< 0,05
7	Diseases of urinary system	0,9 ± 0,01	1,2 ± 0,2	>0,05

Note: P – reliability of differences between M1 and M2

Therefore, total morbidity rates on those requiring health services both in levels and on structure have definite differences among groups of population in rural and urban areas.

It should be noted that despite the realized quantitative and structural changes of population in the region, its age structure has progressive type of reproduction both in rural and urban areas of the oblast.

Thus, obtained results testify that the health status and demographic indices truly is the base for radical implementation of structure-organizational and medical methods and mechanisms of improving the quality and efficiency of healthcare system.

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ON COMPARATIVE APPROACH IN POLITICS OF HEALTH DEVELOPMENT IN REGIONS OF KAZAKHSTAN

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Introduction. Management of health development policy at regional level in many ways is building on comparative approach. It is related, in particular, with regional variations of social health within separate country and the world in whole. Comparative considerations amount also

a core of policy for development of competitiveness of the country entirely and in different spheres of activity, including healthcare [1]. As it is evidenced by studies, directed to improve healthcare management and population health, official medical data can play big role [2]. Kazakhstan may be considered as a system of 16 regions, which have its own «contribution» into general status of population health. This article is devoted to justification quantitative approach to regional variations in rates for pathologies in Kazakhstan.

Materials and methods. Statistical agency of Ministry of Health of the Republic of Kazakhstan data of 2000 was used on number of cases for the first time. Rating analysis was done on methodic based on total calculation of rate of normalized deviate from mean taking into account «positive» or «negative» properties of indices [3]. With this it is possible to evaluate a «contribution» of each index into rating of «health status». this allows evaluating the reason of low or high rating of each region.

General rating of population health in the regions for 2005		
NN	Regions	Rating
1	Akmola oblast	18,03
2	Aktobe oblast	19,26
3	Almaty oblast	14,97
4	Atyrau oblast	63,98
5	East-Kazakhstan oblast	6,71
6	Zhambyl oblast	31,89
7	West-Kazakhstan oblast	31,14
8	Karagandy oblast	24,18
9	Kzylorda oblast	16,78
10	Kostanay oblast	35,72
11	Mangystau oblast	2,45
12	Pavlodar oblast	23,32
13	North-Kazakhstan oblast	39,29
14	South-Kazakhstan oblast	35,76
15	Almaty city	1,00
16	Astana, capital	35,86

Results and discussion. Rating analysis of population health in the regions of Kazakhstan showed (see the Table), that Zhambyl oblast takes 6th place in this type of rating (after Atyrau, North-Kazakhstan, Astana, Kostanay and South-Kazakhstan regions).

The analysis of contributions into calculation of each rate, it is found, that positive contribution into formation of this rating had following 1) rate of general mortality and mortality in age under 65 years old per 100000 on all reasons, 2) rate of all diseases, 3) infectious and parasitic diseases, 4) neoformations and 5) frequency of mental disorders and behavioral disorders, related with abuse of psychoactive substances. Along with it, negative contribution into rating was made by: frequency of diseases of 1) blood circulation system, 2) respiratory system, 3) digestion, 4) urogenital system, 5) skin and hypoderm, 6) congenital abnormalities and 7) traumas.

Taking into account that each of these forms of pathology has its own reasons risk factors. We may to define priorities of preventive healthcare related with the pathology for oblast in the near future. It is evident that keeping positions on first (positive on its contribution into rating of population health) five indices, it is necessary to strengthen attention of preventive healthcare of oblast to second seven directions. That is, for healthy lifestyle formation service the most evident is prevention of different kinds of trauma by way of corresponding propaganda and other actions. Traumas can be reduced rather fast; if there will be приложены corresponding efforts of preventive services of oblast. But long-term goals, connected to necessity of decreasing other forms of pathology – digestion, respiratory system, organs of reproductive, and urinary systems, skin and hypoderm, and also – congenital abnormalities are also real problems. We should start getting first signs of improvement of the situation in oblast in comparison with other regions of country in few years.

It is obvious, that general Kazakhstan rating of population health will strengthen if we are to develop health ratings in the regions. So, rating analysis of health, we consider as a tool for adequate orientation of regional healthcare services in priorities of healthcare, which also corresponds to policy of developing the competitiveness of the regions in social sphere.

Conclusions. Rating analysis of health indices allows detection of comparative (with Kazakhstan level) features of «contributions» into formation of regional social health of various nosologies and its groups. Particularly, in Zhambyl oblast it defines «positive contribution» into rating of social health, general mortality and mortality in age under 65 years old per 100000 on all reasons, rate of all diseases, and also infectious and parasitic diseases, neoformations, mental disorders and behavioral disorders, related with abuse of psychoactive substances. «Negative contribution» into rating of social health in Zhambyl oblast was made by diseases' frequency of organs of blood circulation system, respiratory system, digestion, urinary system, skin and hypoderm, congenital abnormalities and traumas. Results showed comparative features of Zhambyl oblast in priorities on care of population health. Rating analysis might be used as tool

of adequate orientation in health priorities at level of regions and respond to policy of developing the competitiveness of regions in social sphere.

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RESULTS-ORIENTED PLANNING – A METHOD FOR IMPLEMENTING THE DIFFERENTIATED LABOR REMUNERATION IN THE NORTH-KAZAKHSTAN OBLAST

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One of the directions in the National Program of healthcare and development reforms for 2005-2010 is improvement of healthcare management system. The enhancement of system for medical services and their quality management are based on international standards as well as contemporary information technologies. Furthermore, improvement of financing system through implementation of varying labor remuneration methods would in turn enhance the quality of medical services. For an effective management at oblast or rayon level, it is necessary to develop integrated evaluation indices besides analysis of official medical data.

Comparison of general indices for services provided by medical facilities taking into account their characteristics provides an opportunity to analyze management efficiency, and also provide specific measures on quality improvement for these medical facilities.

In order to accomplish these tasks in North-Kazakhstan oblast, results-oriented planning (ROP) on monitoring health status of population and service activities of medical organizations were used since 1998. ROP is planned in forthcoming year to evaluate a group of general rates,

characterizing the activity of certain facilities on final outcomes. It is prudent to mention that in evaluation of ROP, ranking of coefficients were defined by ratio of actual scores to the planned value, thus the indices are different for each of the medical organizations. Medical organizations are grouped where they formed blocks of rates. Thus, the calculated indices in each block have the same number of planned score that provides equal conditions for all medical facilities within the group. Since its implementation in 2006, the system provides material incentives for workers of medical facilities, who take active participation in improvement of ROP rates, hence this also leads for improvement of medical care quality. Introduction of weekly reports in 2006 for organizational activities allows not only to monitor ROP, but also requires carrying out simultaneous calculation of indices for the organization seeking the ways to improve their indices. These all lead to improvement of final outcomes.

Assessment of rural healthcare activity in North Kazakhstan for 2006 was conducted on 10 priority services.

Following services were given priority to compute their indices with their defined coefficients: pediatric and obstetrics-gynecologic services – 1,5, administrative-organizational service - 1,3, antituberculous service - 1,4, therapeutic, oncologic, dermatovenerologic, adolescents, surgical and infectious services - in 1,0).

Based on these services priorities, final results of ROP rates on 10 blocks and their rankings were determined.

Analysis of oblast and urban medical facilities during 12 months in 2006 was conducted in three groups:

I. Oblast and urban inpatient organizations, with surgical units.
II. Specialized oblast inpatient facilities.
III. Outpatient and other organizations.

Distribution of rating coefficients of ROP realization in rural healthcare, North Kazakhstan oblast, for 12 months of 2006
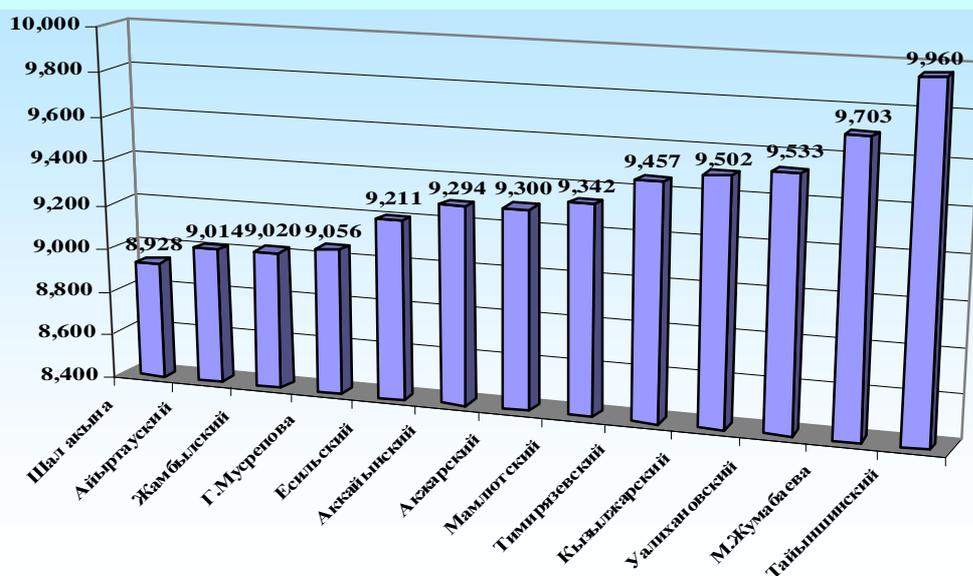
Total indices of ROP were carried out on two blocks: on administrative-organizational activity and activity of organizations, ROP indices have been compared with ones of resource-financing provision.

Distribution of rating coefficients of ROP realization in oblast and urban inpatient facilities, North Kazakhstan oblast, for 12 months of 2006

Distribution of rating coefficients of ROP realization in specialized oblast inpatient facilities, North Kazakhstan oblast, for 12 months of 2006

Facility	Value
Обл.кожвендиспансер	1,956
Обл.наркоцентр	1,942
Обл.психбольница	1,912
Спец. ЛПУ с.Летовочное Тайыншинского района	1,449

0   0,2   0,4   0,6   0,8   1   1,2   1,4   1,6   1,8   2

Distribution of rating coefficients of ROP realization in outpatient and other facilities, Petropavlovsk city, North Kazakhstan oblast, for 12 months of 2006

Facility	Value
1-я городская детская поликлиника	1,956
Областной центр по профилактике и борьбе со СПИДом	1,919
Областная детская стоматологическая поликлиника	1,914
1-я городская поликлиника	1,903
Областной центр крови	1,885
Городская женская консультация	1,884
ЧНУ "Денсаулык"	1,881
3-я городская поликлиника	1,881
2-я городская поликлиника	1,877
Дом ребенка	1,842
Территориальный центр медицины катастроф	1,738

1,6   1,65   1,7   1,75   1,8   1,85   1,9   1,95   2

Indices of results-oriented planning for rural hospitals for year 2006 are evaluated on 2 blocks: administrative-production activity, activity of the organization. The coefficient of effectiveness is calculated on resource provision.
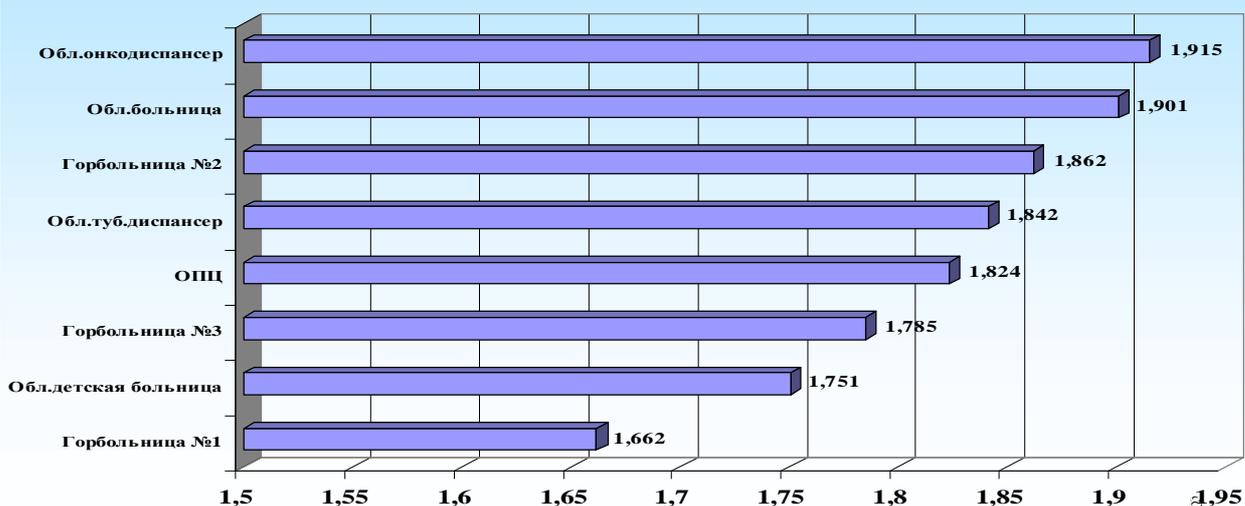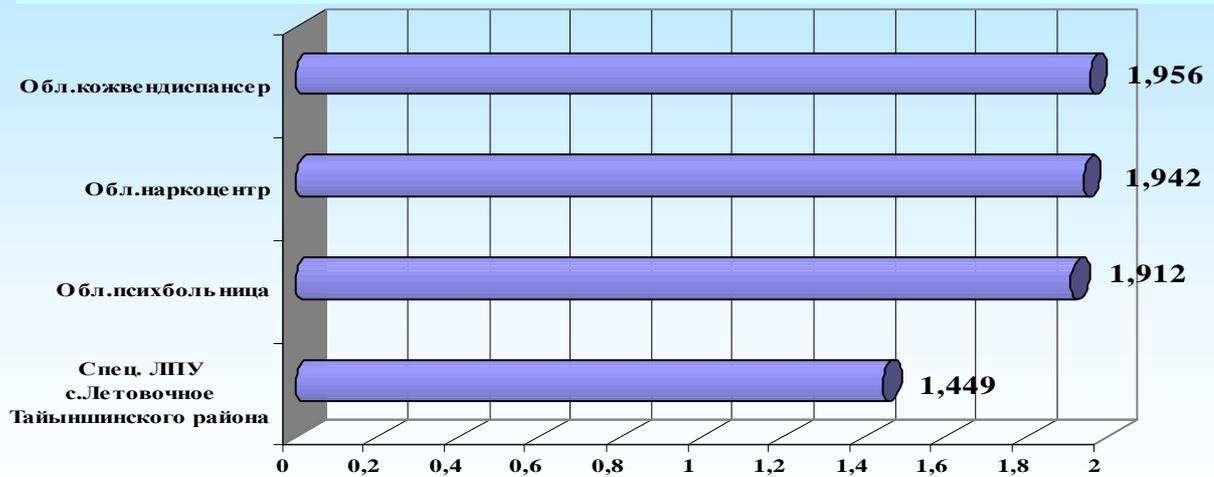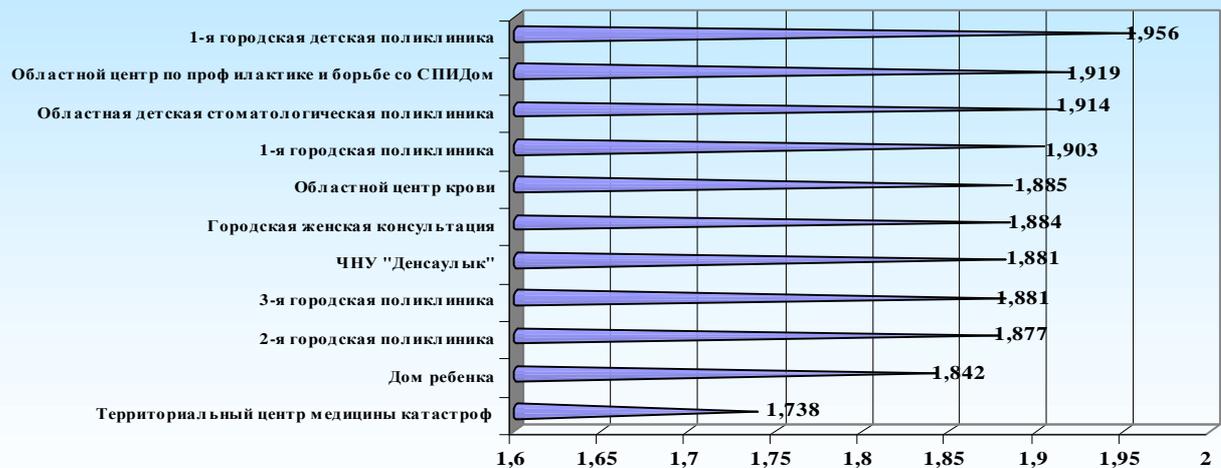
Распределение рейтинговых коэффициентов выполнения ПЦП по

Distribution of rating coefficients of ROP realization in rural hospitals, North Kazakhstan oblast, for 12 months of 2006
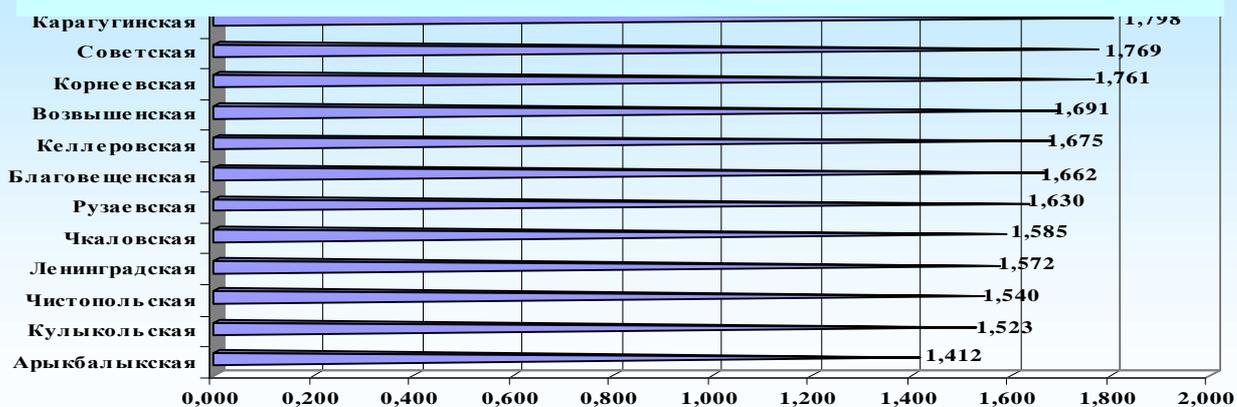
Hospital	Value
Карагугинская	1,798
Советская	1,769
Корнеевская	1,761
Возвышенская	1,691
Келлеровская	1,675
Благовещенская	1,662
Рузаевская	1,630
Чкаловская	1,585
Ленинградская	1,572
Чистопольская	1,540
Кулыкольская	1,523
Арыкбалыкская	1,412

Practical experience had shown the efficiency of using the indicators of ROP as one of the contemporary methods of medical care quality management, where both indicators of input: structure and process, and indicators of outcome are considered.

In 2007, we calculated new result-oriented indices for all medical facilities of the oblast taking into account the technological equipment and growth of financial provision of each medical facility for this period of the reform program.

ASSESSMENT OF ADVERSE METEOROLOGICAL CONDITIONS' IMPACT ON POPULATION HEALTH IN INDUSTRIAL CITY

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Key words: adverse meteorological conditions (AMC), air pollution, morbidity, symptoms, correlation, prevention.

The goal of current study was assessment of health status's dependence on presence of AMCs, development of recommendations on reducing the AMCs' negative impact.

Materials and methods. The study was provided in Ust-Kamenogorsk city in 2005 in a frame of the project «Development of evidenced ecological passport of Ust-Kamenogorsk», accomplished due to order of oblast administration on realization of nature-conservative programs. Health

status evaluation was based on accounting of daily data of morbidity on population appealability to medical facilities, which serve different parts of city (total sum of registered diseases, separate nosological forms of category of respiratory diseases and diseases of blood circulation system), materials of daily health control of 225 preschool age children using specially developed observation journal. In characteristic of air pollution level we used daily data of stationery observational stations. Daily information on population health and environmental quality covered period from July till October of 2005. Correlation-regressional analysis was applied for defining of interrelation of population health status and AMCs presence.

Results and discussion. Maximum levels of correlation dependence between appealability to medical facilities and presence of AMCs were registered in FMC (family medicine clinic) 2 (r = 0,673, in respiratory diseases displacement is to 4 days) and FMC 7 (r=0,642, ARD, ARVD – displacement is to 1 day). Therefore, presence of AMCs can condition the change of medical aid appealability's level in children up to 45,3% (in accordance to value of determination coefficient).

It is defined that reaction of children's organism to presence of AMCs might be evident as paroxysmal cough, temperature rise, total deterioration of child. It should to notice, that intensity of organism's reaction can increase in a few days after AMCs impact (3-6 days). The most sensitive contingents were children, visiting preschool institutions #46, #5, and living in region of serving of FMC 3.

The character of AMCs's impact on health status is explained by contaminants level's rise in surface air. Table 3 shows average daily concentration of contaminants during days with AMCs and without (on data of stationery observational stations).

Table 3

Station	Contaminants	Daily concentration (mg/m^3)			
		Days with AMCs		Days without	
		M	m	M	m
ПН3-1	Sulfur dioxides	0,1497	0,0106	0,0902	0,0037
ПН3-1	Nitrogen dioxides	0,0916	0,0036	0,0710	0,0020
ПН3-1	Phenol	0,0057	0,0003	0,0040	0,0002
ПН3-1	Suspended substances	0,3491	0,0310	0,1515	0,0103
ПН3-1	Anhydrous hydrogen fluoride	0,0016	0,0004	0,0000	0,0000
ПН3-5	Sulfur dioxides	0,1332	0,0088	0,0781	0,0030
ПН3-5	Nitrogen dioxides	0,0809	0,0040	0,0551	0,0017
ПН3-5	Phenol	0,0034	0,0002	0,0023	0,0001

ПНЗ-5	Carbon monoxide	1,3647	0,0696	0,9830	0,0370
ПНЗ-5	Suspended substances	0,2656	0,0275	0,0933	0,0071
ПНЗ-5	Arsenic and its compounds	0,0032	0,0001	0,0025	0,0001
ПНЗ-7	Sulfur dioxides	0,1075	0,0065	0,0829	0,0037
ПНЗ-7	Nitrogen dioxides	0,0861	0,0033	0,0646	0,0020
ПНЗ-7	Phenol	0,0054	0,0003	0,0039	0,0002
ПНЗ-7	Carbon monoxide	1,7329	0,0996	1,4031	0,0593
ПНЗ-7	Suspended substances	0,6031	0,0494	0,2606	0,0166
ПНЗ-8	Sulfur dioxides	0,1176	0,0111	0,0632	0,0027
ПНЗ-8	Nitrogen dioxides	0,0856	0,0054	0,0654	0,0032
ПНЗ-8	Suspended substances	0,3766	0,0391	0,1728	0,0170
ПНЗ-12	Sulfur dioxides	0,0792	0,0059	0,0553	0,0022
ПНЗ-12	Nitrogen dioxides	0,0537	0,0040	0,0336	0,0016
ПНЗ-12	Phenol	0,0039	0,0003	0,0031	0,0002
ПНЗ-12	Suspended substances	0,2088	0,0259	0,0576	0,0058

According to presented data, during days with AMCs conent of suspended substances is increased maximum (3,6 times as much).

Correlation analysis between manifestation of various symptoms among preschool age children and level of air pollution allows marking the most often occurred symptoms – temperature rise, cough, expectoration, hoarseness, eye irritation/burning, itching, redness, rhinitis and stuffiness in nose, gastrointestinal disorders, nosebleed, vomiting, headache, hoarse wheezing, total bad state of health in children.

Found reliable interlinks testify that air pollution causes the changes in health of preschool age children. Following is list of actions, which were developed jointly with chief pediatrician of Ust-Kamenogorsk Dr Sokolova N.M. and which are directed to prevention of negative effect of AMCs on health state.

1. The most effective preventive action is ecologisation of industry, reduction of emission volumes, and withdrawal of housing estates out industrial zone.

2. By means of resources of main industrial enterprises – pollutants of environment to provide a range of training courses for medical workers of city on medical ecology, ecologically dependable states, the features of chemical substances impact on health.

3. It is necessary to provide all preschool institutions and schools by air-conditioners (perhaps, by means of enterprises-pollutants), as high overcrowding of children in a room in case of prohibition of walking during AMCs might lead to deterioration of air quality rates.

4. To inform population about necessity of following the definite rules of behaviour during AMCs.

5. It is necessary to temper the organism, to increase immune system by using vitaminous plants such as - brier, hawthorn, carrot, blackberry, nettle, raspberry.

Conclusions. All cases of population appealability on ecologically conditioned changes in health must be registered in time and analyzed, and should be collected in special database. It will allow to medical specialists to work out needed methodic and algorithm of actions in detection of diseases, conditioned by air pollutants effect. Accomplishing of actions complex of organizational, technical, administrative and training character will encourage reduction of risk of AMCs' appearing and its negative impact on health of population

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EPIDEMIOLOGICAL INTERACTION OF DRUG ABUSE WITH HIV/AIDS IN KOSTANAY OBLAST.

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According to expertise of UNAIDS and WHO there are about 40 million people are living on earth with AIDS, 90% are in developing countries, and approximately 25 million are dead because of this disease.

During the past years, complications appearing after using injection drugs became significantly serious.

Injection drug abuse is the reason in 5-10 % cases of HIV-infection all over the world. In our sphere it amounts 10%. The cases of hepatitis C transmission in population of users of injection drugs (IDU) occurs in 67,7% of cases.

Most of the world have been noted amazingly similar levels of hepatitis C prevalence and morbidity among IDUs, i.e. approximately three-quarters of users, taking injection drugs

minimum five years, turned out to be positive at test for antibodies to hepatitis C. Though serious complications are developed in less number of positive, but disease burden surpass disease burden related with HIV-infection.

In the Republic of Kazakhstan officially there are 7402 HIV- infected persons registered as of beginning of 2007. Breakdown for this statistic shows 85 children under 14 years old. Also, there are 433 AIDS patients, 3 of them are children. HIV/AIDS prevalence among population of Kazakhstan amounted 49,0 per 100.000, prevalence rate amongst children under 14 years old amounted 3,1.

In 2006, 1745 cases of HIV-infection cases were detected, morbidity rate per 100.000 of population amounted 11,4, that is 1,8 times as much more than rate in 2005. In the whole country there is an intensive prevalence of HIV infection, especially among users of injection drugs, persons being in prison, sex-workers.

In Kostanay Oblast, since 1987 with progressive total of 460 HIV-infected persons were registered as of 2007, 311 (67,6%) of them were IDUs. Of those, 174 use raw opium, 84 of them heroin and 53 use poly-drugs. Drug users registered in oblast narcodispensary are 101 (41,7%).

Kostanay oblast on HIV infection prevalence takes 4th place with rate 47,2 per 100.000 among population of Kazakhstan. Distribution of HIV infection on sexual character: in Kazakhstan male - 75%, in Kostanay oblast - 71,5%, women - 25%, in Kostanay oblast - 28,5%, and this percent remain last 5 years.

Distribution of HIV Infection cases by Age

Table 1

	0-2 years	3-14 years	15-19 years	20-29 years	30-39 years	40-49 years	50-59 years
Kostanay	0,4%	0,2%	7,8 %	57,9%	21,8%	8,4 %	1,3 %
Kazakhstan	1,2%	0,6%	7,5 %	50,3 %	28%	10,1 %	1,5 %,

People at age group of 20-29 years are insufficiently informed about prevention of HIV infection and the largest number of IDUs is among this age category (see Table 1).

On socio-professional status, unemployed in the oblast amounted 68,9% (71% - in Kazakhstan), employed - 17,3%, (11% - RK), non organized children of preschool age - 0,6%, (1,5% - RK), students of middle specialized schools and high schools - 1,5%, (RK-1,3 %).

HIV/AIDS has a great number of social, psychological and emotional, and legal consequences. Theses consequences are of importance not only for HIV-infected and for AIDS patients, but for their relatives too.

According to Narcodispensary data, there are 2800 to 3500 IDUs in the oblast.

In 1994 World Health Organization (WHO) called for implementation of needle exchange program in correctional facilities for reduction of HIV prevalence. These recommendations were not successfully implemented. The more acceptable course might be other programs such as replacement methadone therapy and rehabilitation from drug addiction.

The HIV infected citizenship in Kostanay oblast includes: Kazakhstan citizens – 412, Ukrainian – 3, Russian – 26, Uzbeks – 1, Armenian – 1.

From 2004 to 2006 in Kostanay city Oblast, center on AIDS provided sentinel surveillance among IDUs for HIV infection, VHC and syphilis in 280 people each year, on 199 male and 81 females.

Sentinel surveillance among IDUs for HIV infection

Table 2

	2004	2005	2006
HIV	3,2%	5,7%	4,6%
VHC	67,9%	77,1%	93,2%
Syphilis	15%	16,8%	18,9%

Conclusions

1. Among IDUs with HIV infection VHC prevalence amounts three quarters of patients;
2. HIV infection prevalence on sexual character in oblast amounts 3:1 among male and female;
3. In age group from 20 to 29 years old more than half of HIV infected.

Therefore, it is should be noted, that important moment was creation of united system of socio-epidemiological monitoring of HIV infected and risk groups on its transmission by means of intersectoral collaboration.

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ANALYSIS AND DYNAMICS OF PREVALENCE IN GENERAL CARDIO-VASCULAR DISEASES AND MORTALITY FOR PAST 25 YEARS IN KAZAKHSTAN (1981-2005)

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Studying the levels of primary cardio-vascular sickness as index of population health status, main attention was emphasized on medical-biologic aspects of cardio-vascular pathology problem. Using the available data about prevalence is attraction of population to medical facilities, we used long-term (for 25 years) statistical analysis of annual reports of 16 oblast (city) healthcare departments and of cities Astana and Almaty. Necessary documents were obtained from forms #1, 12, 14, 30, 90 - oblast regional healthcare organizations presented in the Ministry of Health for 1981-2005, from materials of central state archive of the Republic of Kazakhstan. In addition, we examined and analyzed the statistical directories and reviewed materials of the Ministry of Health, including the newly recounted per 10 thousands of population statistics. Results of our analysis of abovementioned data in entirety of the country and by regions for 1981-2005 are reported in this research. Our current approach increases comparability of these indices with similar ones in other countries (regions).

Studying the blood circulation diseases (BCD) mortality in dynamics for 1975-2005 in Kazakhstan there is marked significant increase of BCD mortality's index. The rate increase for BCD mortality from 1975 to 2005 is more than 2 times, i.e. from 255,4 to 535,5 (per 100 thousands of population) correspondingly. BCD mortality increase for Soviet period from 1975-1991 has amounted more than 1,4 times. Since 1975 there were high mortality rates in northern regions of Kazakhstan. In some oblasts BCD mortality raised since 1975 until 2005 to 283,5% and more or almost 3 times in places such as Pavlodar, Akmola, Karaganda, North-Kazakhstan, Kostanay, East-Kazakhstan oblasts. Almaty city was the first rank place on mortality until 1998, since then from 1999 to 2005, the leader is East Kazakhstan, followed by Akmola, Karaganda, and Kostanay oblasts. Almaty oblast on this index constantly had rose from 11th rank place in

1975 to 7th in 2005, at the same time sickness and morbidity rates of cardio-vascular system were increased.

The concepts of «incidence», «prevalence», and «morbidity» are part of this investigation. Incidence in sanitary statistics means a complex disease found among population during defined period of time, usually per year. Term «morbidity» characterizes «prevalence» or «frequency» of the diseases, which include first detected and existing cumulative diseases for previous years.

Analysis at whole republic level found that general blood circulation sickness remains high and has an epidemic character, and does not have tendency for reduction. The main diseases, which amount more than half of specific weight of BCD during last 25 years, are arterial hypertension (AH) and coronary heart disease (CHD).

Analyzing status of prevalence and morbidity by CHD among population for last 25 years, countrywide it showed constant significant increases of morbidity level. Almost all 20 years the northern regions take a leading position, just in the beginning of XXI century in 2000-2001 western regions start to join the leading group, and then southern oblast of the republic. Studying Almaty oblast from 1981 to 2005, we also found increasing trend on CHD morbidity level among the population, rates were higher national average. Growth of that index happens mainly in rural areas.

Cardio-vascular sickness in entire nation for the last 25 years is characterized by growth from 31,57 (1981) to 225,6 (2005) per 10.000 of population, an increase of more than 7 times. On the other hand, BCD prevalence in rural area for that period rose more than 8 times. Counting from 1981 to 2000, increases of BCD prevalence level was 6,6 fold, the largest raising of BCD prevalence occurring in rural areas of the nation.

It should be noted that BCD prevalence level in rural area, for last years, starting from 2001 exceeds rates of population morbidity nationwide.

Analysis of dynamics of BCD prevalence of the entire country shows that, for the last 25 years, there is a steady and intensive growth of that index which is typical in epidemic proportions. In the beginning high levels of BCD prevalence among population were in northern regions, and then the level of prevalence in western regions of the country started to prevail, henceforth in southern oblasts. The same situation in rural area existed for a long time especially at northern regions: Kostanay, Karaganda, North-Kazakhstan, Turgay; and other oblasts. Growth of BCD prevalence level in southern and western oblasts in comparison with north regions changed rank order on oblasts in 2000: growth of indices in Kzyl-Orda, Zhambyl, Almaty and South-Kazakhstan caught attention of leadership of southern region of the republic in 2005.

Analysis of BCD morbidity dynamic countrywide from 1981 till 2005 had shown increases from 266,81 to 1173,5 per 10.000 of population or more than 4 times; and from 1981

to 1991, the growth amounted more than 3 times. Analyzing BCD morbidity of rural area it showed more intensive growth rates (from 1981 to 2005 – more than 6 times).

Thus, studying dynamics of BCD prevalence and morbidity in the nation for the last 25 years, we can ascertain the epidemic growth of cardio-vascular diseases of population, especially in rural area.

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EPIDEMIOLOGICAL PECULIARITIES OF CRANIOCEREBRAL TRAUMA CONSEQUENCES

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Introduction. Craniocerebral trauma and its consequences take leading position in neurological diseases structure and amount 20% of all types of traumas. Tendency of craniocerebral traumas is increasing from 25% to 80% and year-to-year increasing is to 2% from specific weight of all neurological diseases. This associates with urbanization processes, modern technology implementation, traffic accidence and other reasons. People from 15 to 50 years old (71.7%) are most liable to injury. 50% of people after craniocerebral trauma are forced to change their vocation or become invalids.

Materials and methods. 115 patients of neurological department in City clinical hospital # 1 were surveyed by special developed questionnaire. Besides of vignette dates there were information about patient compliance, bad habits and family history. There are 44.1% of Kazakh, 43.5% of Russian, 7.9% Uigur, 2.7% Tatar, and 1.8% of other nationality including Ukraine, China, Uzbek from surveyed patients. 31.3% of surveyed people had university ("high level") education, 11.3% - college ("middle level") education, 23.5% - secondary school education, and

33% from surveyed were students. 75% of surveyed people drink alcohol, 12.7% from them drink everyday, 11.1% are chronic alcoholics due to World Health Organization's criteria. 77.7% drink alcohol 5 years, 22.3% - more than 5 years. Alcohol drinkers are mostly under the 30. Light craniocerebral traumas were in 13.9%, middle stage trauma – 29.2%, hard stage with complications – 6.8% of cases. 27.8% of suffered persons had treatment in the inpatient clinics, 30.6% had treatment at home, 15.3% - in the outpatient clinics, 2.8% did not get treatment, and 18.1% did not need treatment. Traffic accents were 9.7% from the reasons of craniocerebral traumas. 31.9% were beaten. 43.1% from them were domestic beatings, 93.1% were beaten by ruffians, 9.7% were accidents, and 2.7% sport traumas. 5.6% were combined traumas, 2.8% - multiple traumas. Most of the suffered persons were in alcoholic inebriation.

Conclusions. Different factors and occasions are reasons of the craniocerebral traumas. Leading reasons are alcohol inebriation, driving in alcohol inebriation condition, ruffian activity of brigands and .stealers, and after them domestic traumas and domestic violence. Increasing of injury, disability from injury relates to alcohol abuse especially among youth. In this regards it is necessary to develop alcohol preventive policy and healthy lifestyle promotion among this category of people.

DEMOGRAPHICAL FORECAST RELATING TO POPULATION AGEING

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Population ageing problem is one of the main among a lot of today's problems. Demographical processes relating to population ageing are noted in the most of NIS. There are 18-23.3% of elder people in Ukraine, Moldova, Belarus Republic and most of them are rural population. In general, researches predict, that there is very high level of ageing and percent of elder people to middle of current century will be 33% in the developed countries. Many of the developed European countries have come to this point or cross it already in XX century. Due to UNDP forecasting world population will grow old in the next 50 years very quick and to 2025 reach more than 1.1 billion people.

Analysis of population age structure in the Republic of Kazakhstan is evidenced of that Kazakhstan is already on the threshold of population ageing. Base on the theoretical forecasts, portion of elder people in Kazakhstan will increase to 11% among men and to 21% among women to 2030. Accounting these processes a whole series of factors relating to health, medical care organization, and social protection of elder people take special importance in Kazakhstan.

Main factors of high population ageing level in the world are dramatic decreasing of birth rate and very high level of able-bodied citizens' mortality during last years. There is direct relationship between birth rate and population age structure: population is younger if birth rate is higher. One more reason of the rapid population ageing process is able-bodied citizens' emigration at that time as elder people stay in the country.

Expansion the number of retirement age people and their portion in population lead to demographic load increasing for able-bodied citizens. Some scientists assume to call this process as "demographic maintenance rate". In Russia this rate was 211 per 1000 population in 1970, 336 - in 1991, and 360 - in 1998. By forecasts of Western demographers in developed countries in 2030 per one retirement age person will be 2 working persons. For comparison, correlation of engaged people number to retired people number in Great Britain is 3.4, in USA – 4.0, in Canada – 4.6. There is another title of this rate – "dependants load level" (summarized amount of people in age before 14 and up 65 per 1000 people in age from 14 through 64). In spite of this rate decreased in 2001 as compared with 1996 from 590.4 to 515.4, there is cause to consider that able-bodied citizens would be burdened by a lot of number of dependants in the sequel and this will lead to additional economical troubles in Kazakhstan. Moreover, due to experts opinions high gender disproportion is marked in population ageing, in other words prevalence number of women above men number, which is increasing by age. Prevalence of women number is important demonstration of population ageing.

Thereby, accounting demographic forecast of population ageing, mankind will meet many social, economical and medical problems close relating to high raising of elder people in general population structure. Kazakhstan entrance to the category of countries with elder people prevalence assumes necessity of current policy reviewing in many areas and requires to development integrated concept of national policy relating to elder people.

MEDICO-SOCIAL PROBLEMS OF AGED AND SENILE RURAL POPULATION

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Current quantitative and qualitative changes in population age structure are interested by demographers, sociologists and economists. In 90s of XX century and first years of XXI century increasing of aged and senile population portion against the background of total population number decreasing oversees in demographical structure of rural population.

Aged and senile people living in rural area need special approaches in medical care and have special needs in health protection.

Problems of quality medical care provision for elder people are very important for rural healthcare. Rural medical services' activity analysis has showed poor capacity of rural hospitals, low level of personnel knowledge, low level of visits against to real morbidity, insufficiency of medical workforces, not decided prevention, medical examination, rehabilitation and other issues. Rural inhabitants always worry about expensive medications and low accessibility of specialized care.

Above mentioned problems are reflected to the treatment process. More than 50% of rural inhabitants try to treat themselves; there is no planned treatment; medications are used very often occasionally and with expired dates. 2.3-13.7% of elder people are under the medical observation, portion of patients who are under the medical observation is decreasing by the age adding, and in the age of 80 and more nobody from elderly is under the medical observation. Only 52.9% of patients under the medical observation visit their doctors regularly. Average number of rural elderly visits to the doctor per year is 2.5 that are in 4 times less than standard rates.

Due to conducted survey rural elderly have poor social conditions and financial incomes; the most of them live in poverty and have not possibility for appropriate nutrition. Studies of V.M.Keush in 2002 demonstrated that only 32% of men and 35% of women have full-value nutrition. Persons living alone and without relatives are in more difficult positions. Nutrition of rural population traditionally associates with making of own food products (meat, milk, eggs, vegetables and others) and elder people living alone can not produce most of these products. Poor nutrition among alone elderly links to not only health condition but also to low incomes (84.6% of them are indigents).

Results of conducted study have showed that symptoms of unsatisfactory psychological status such as raised irritability, inclination to conflicts, difficult relations with environment, reducing of interest to life have been marked among rural elderly. That's why mental support should be one of the most important parts in the geriatric care organization for rural population.

Complex medical examinations of adult rural population have been held in Kazakhstan since 2002 in frame of Health year project. People in age 60 and more were 14% from the number of all examined population. Aged and senile people were 25% from all examined ageing population. It is necessary to note that high morbidity rate among ageing rural population against urban is stipulated probably by low level of high qualified medical care accessibility. Morbidity by malignant tumors among urban population is in 2.7 times more than among rural inhabitants. This rate in 3.2 times more among people after 60. This is happened because oncological

diagnostic centres are based in urban areas where accessibility level of qualified diagnostic methods is higher.

Morbidity level is in 2 times and among aged people – in 6 times more than among young population. 80% of retired people need medical-social care. Specified medical examination showed that nobody from elder people is healthy. On average each rural elder person has 4.3 diseases and with age adding this rate is increasing. Rates of some diseases groups were in 1.4-2.3 times more than among urban able-bodied citizens. All studies of elder people's health accentuate presence of multiple pathology and dominance of chronic subacute diseases. If during complex examination 3-4 diseases are found among people in 60-64 so 6-7 diseases are found among people after 75. The most diseases among elderly were started in 30-35. This says about "disease accumulation" in ageing. Comparative analysis of rural and urban population morbidity rate in 60 and above has showed that urban elderly in 3.9 times ill more than rural. Low morbidity level in rural inhabitants designates not to better health but to less medical activity among them. Blood circulation system's (BCS) diseases are one of the important in other social-significant diseases. BCS morbidity increased in 2 times from 1989 through 2002-2003. In this rates arterial hypertension is in 5.5 times in 2002 and 4.7 times in 2003, ischemic heart diseases – in 3.6 and 1.7 times accordingly, heart attack – in 1.7 and 1.5 times accordingly, cerebral vascular diseases – in 1.5 times.

Disablement is an important problem of current society. Disabled elder persons are main part of all disabled people and the most social-vulnerable groups of population in Kazakhstan as by social so by human development rates. Due to Human Development National Report data first explored disabled persons are more in urban area in collation with rural area. 73% of disabled elder people are among urban population and only 27% - among rural inhabitants.

Mortality is one another important description of population health status and its changes. Mortality from BCS diseases (497.2-537.7 cases per 100 000 population) takes leading place in mortality structure in the country, tumors take second place – 216.3%o, and trauma, accidents and poisonings – third place – 124.6%o. Due to statistical data mortality level of urban population in all age groups is essentially higher than rural population.

Thus, above mentioned problems argue about deficient level of medical care for aged and senile rural population and low level of accessibility in this population group in getting qualified treatment.