Background: We have analyzed the aged population disability processes to establish specifics and regularities of the causal structure of disability among the working and non-working aged population.

Methods: In total, 1208 examination reports of the Medical & Social Expert Commission have been subjected to excerpt in Almaty.

Results: Persons having the second disability status prevail in the working aged contingent – 4.4%, which is much higher than the ratios for the first and second disability statuses (0.4% and 0.6%, respectively). Among the non-working population, persons having the second disability status largely prevail too - 8.1% (3.1% and 1.1%, respectively). The casual structure of disability among the non-working disabled persons includes as follows: blood circulatory system diseases (40%), malignant neoplasms (27.2%), and diseases of the eye and its appendages (10.2%). They are followed by endocrine diseases, nutritional and metabolic disturbances (7.6%), bodily injuries (3%), and urogenital system diseases with musculoskeletal system ones - 2.3% each.

The data collection for the working aged population contingent has found out blood circulatory system diseases (47%) and malignant neoplasms (34.4%). Alongside with that, the distinctive feature among the said aged population cohort is a substantial predominance of bodily injuries (7.4%), endocrine diseases, nutritional and metabolic disturbances (2.3%), and only 1.4% is accounted for diseases of the eye and its appendages.

UDC CODE & KEYWORDS
- UDC: 615.1
- Pharmaceutical Industry
- Disability
- Aging

INTRODUCTION
According to the average-expectancy life index, Kazakhstan has been conceding to many countries of the world so far. Currently, the average-expectancy life index in Kazakhstan is 65 years [1].

The present-day state of the Kazakhstan age distribution testifies that the Republic has stepped over the population ageing threshold above 7.7% that proves the occurrence of conditionally undesirable trends in the age-related population balance [2].

Subject to the available forecasts of the RK Statistics Agency, a share of aged persons will be increased up to 11.1%-11.3% by 2030, and it may be increased up to 14.7%-15% by 2050 [3].

The pressing problem of the contemporary society is disability of aged people, which was in the highlight of the Second World UN Assembly as related to the problems of ageing, held in Madrid on April 2, 2002 [4].

According to WHO, for the time being, approximately 15% of the population in the world are accounted for disabled persons, disability indicators are rising due to the ageing of the population [5]. And as per the number of disabled persons in different countries, there are substantial differences. Thus, there are over 60 mn. of disabled persons in China that is 5% of its population size, about 6% of the population are accounted for disabled persons in the Russian Federation, who are officially registered, and in USA –19%, or almost the fifth part of all their inhabitants [6]. As of January 01, 2012, the number of disabled persons of all categories in Kazakhstan was 567 ths. of persons, or about 3% of the total population [7]. Annually in Kazakhstan (on the average over the last 13 years), disability (the so called primary disablement) is established for about 51.5 ths. of persons among the adult population for the first time in their lives in Kazakhstan. One of the key parameters of health status of the aged population, of their life quality and an active capacity is a primary disability level [8].

Methodology
The excerption methods have been used herein to analyze materials of the Almaty Control & Social Protection Department in the dynamics from 2008 till 2012.

The subject of the research involved disabled persons of pension age recognized as such for the first time, and they are men of above 63 years old and women of above 58 years old residing in Almaty.

All in all, 1208 examination reports of the Medical & Social Expert Commission were analyzed. Patients were divided into disability groups – 1st, 2nd and 3rd ones, into the working and non-working persons, and the casual structure of disability was analyzed by classes of diseases in compliance with ICD X of the revision (Table 1).
Results
The data on the second disability group (4.4%) largely prevails among the primarily examined working invalids, whereas the relevant ratios for the first and third disability groups are much lower, 0.4% and 0.6%, respectively.

As regards the non-working population cohort, the following regularities are found out by us. The aged population having the 2nd disability status also prevails - 8.1%. The distinctive feature is a substantial predominance of the rates among the disabled persons of the first group being 3.1%. The ratio for the third disability group is 1.1% (Picture 1).

The important section of the research was to evaluate the casual structure of disability. Among the primarily examined invalids of Almaty, over 2008, 28.6% was accounted for diseases of the eye and its appendages, 27.1% - for blood circulatory system diseases, 24.5% - malignant neoplasms, and 19.6% - endocrine diseases, nutritional and metabolic disturbances.

The similar analysis was made over 2009. Endocrine diseases, nutritional and metabolic disturbances rank as the first ones among the working and non-working disabled persons – 38.3%, malignant neoplasms rank as the second ones – 25.1%, followed by blood circulatory system diseases – 20.6%.

In 2010, the following distribution under the casual structure of disability was done: blood circulatory system diseases – 22.7%, Endocrine diseases, nutritional and metabolic disturbances – 25.7%, malignant neoplasms – 20.9%, diseases of the eye and its appendages – 6.8%.

In 2011, the prevailing importance among the causes of disability was established for endocrine diseases, nutritional and metabolic disturbances (27.6%), followed by blood circulatory system diseases (24.8%), malignant neoplasms (23.6%) and diseases of the eye and its appendages (16.3%).

The similar analysis for 2012 have showed the following regularities: among the working and working population endocrine diseases, nutritional and metabolic disturbances are prevalent (31.2%) followed by malignant neoplasms (28.6%), then by blood circulatory system diseases (24.4%) and diseases of the eye and its appendages (21%).

Thus, summing up the outcomes of excerption and expert research for 2008-2012, we have established the following trends and regularities among the non-working aged population contingent. Among the disabled person, the priority importance is attached to blood circulatory system diseases (40%), malignant neoplasms (27.2%), and diseases of the eye and its appendages (10.2%) followed by endocrine diseases, nutritional and metabolic disturbances (7.6%), bodily injuries (3%), and urogenital system diseases with musculoskeletal system ones - 2.3% each.

The data collection for the working aged population contingent has also established the prevailing importance of blood circulatory system diseases (47%) and malignant neoplasms (34.4%). Alongside with that, the distinctive feature among the said aged population cohort is a substantial predominance of bodily injuries (7.4%), endocrine diseases, nutritional and metabolic disturbances (2.3%), and only 1.4% is accounted for diseases of the eye and its appendages (Picture 2).

Table 1: Background characteristics of the sample

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>541</td>
<td>44.8%</td>
</tr>
<tr>
<td>Female</td>
<td>667</td>
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</tr>
<tr>
<td>working</td>
<td>215</td>
<td>17.8%</td>
</tr>
<tr>
<td>non-working</td>
<td>993</td>
<td>82.2%</td>
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<tr>
<td>group of disability</td>
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<td></td>
</tr>
<tr>
<td>1 group</td>
<td>270</td>
<td>22.3%</td>
</tr>
<tr>
<td>2 group</td>
<td>825</td>
<td>68.3%</td>
</tr>
<tr>
<td>3 group</td>
<td>113</td>
<td>9.4%</td>
</tr>
<tr>
<td>Total</td>
<td>1208</td>
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</tr>
</tbody>
</table>

Source: Author

Conclusion
The international social opinion asserts itself in thought more and more that the full social functioning is the most important social value of the present-day world [9]. That finds its expression in the appearance of new indicators of the social development to be applied for the analysis of a social maturity level of one or another social medium, such as, in compliance with the human development concept of the Nobel laureate Amartya Sen, a human development index taking into account three basic indicators of the human development – longevity, education and a living standard [10]. And though the disability problem has not been studied in the context of the human development concept, invalids are the most disadvantaged and deprived contingent by the said three indicators that, from the author’s point of view, predetermines the actuality of the research in this direction, and, maybe, will determine the expediency of inclusion of the disability indicators in the list of the human development indicators as one of those, which have the most adverse influence on the resulting constituent – the human development index. The social disadvantage of invalids as a specific group of the population is distinctly traced by all social indicators [11]. Disability is one of the mediating mechanisms of the social social differentiation of mortality. Numerous research of social inequality in mortality shows that the survival level for socially disadvantaged groups.
of the population is substantially lower, especially at the ages prior to pension [12,13]. Thus, according to J. M. Komarov and his co-authors, there is a difference in life duration between the healthy population and the disabled persons more than twice: 72.3 years and 31.6 years, respectively [14].

Invalids of elderly age are the most socially disadvantaged group of the population in Kazakhstan by all social indicators, including the main indicators of the human development.

It is necessary to concentrate efforts of the entire state on the solution of problems of elderly people, in particular, of the most socially disadvantaged part – invalids of elderly age.

Figure 1: Overall estimate of ratios of primary disability among the aged population in Almaty

![Figure 1: Overall estimate of ratios of primary disability among the aged population in Almaty](source)

Figure 2: Causal structure of disability among the primarily examined working and non-working disabled aged population in Almaty from 2008 till 2012

![Figure 2: Causal structure of disability among the primarily examined working and non-working disabled aged population in Almaty from 2008 till 2012](source)
REFERENCES