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## QUALITY OF LIFE OF WORKING-AGE POPULATION OF EAST ECONOMIC ZONE OF YAKUTIA

### ABSTRACT

The quality of life (QL) of an able-bodied population of East economic zone (EEZ) of the Sakha (Yakutia) Republic by means of the standardized questionnaire of SF-36 was studied. Researches showed that mean values of scales of the population QL in the zone were at the level lower than 50%. The male population in EEZ had the best indicators of QL on all scales of the questionnaire of SF-36 in comparison with women's. Dynamics of QL indexes of the population of EEZ of the RS (Ya) is comparable to the common regularities of change of QL with age received in other researches. However, it should be noted that decrease in parameters of quality of life generally happens due to deterioration in physical health. The QL psychological component practically does not depend on an age and remains invariable for a long time. These parameters were higher than the population indices in the republic.

**Keywords:** quality of life, physical and psychological component, East economic zone of Yakutia, population research.

### INTRODUCTION

In the modern scientific literature the term «quality of life, the bound to health» was widely adopted and has the following definition: it is the integral characteristic of physical, psychological, emotional and social functioning of the person based on his subjective perception. Value judgment of physical health an individual can be a predictor of the hidden functional violations of systems and bodies, to testify about the disadaptation processes in a human body, which cannot be identified by other method. Therefore, the research of the quality of life (QL) is an early, reliable and efficient method of assessment of the common wellbeing of the person. The method allows giving the quantitative assessment of components of activity of the person – his physical, psychological and social functioning that are defining factors for people of working-age.

It in the way, only the healthy person can be competitive and successful in conditions of the modern market relations and one of methods of early identification of the functional violations in an organism, estimates of psychological wellbeing the technique of evaluation test of human life can serve.

**Work purpose** - to study the modern level of quality of life of able-bodied population of East economic zone of Yakutia.

### Material and research techniques

Work is performed within research: «State assessment, the analysis of the main tendencies of change of a natural and social and economic state, human potential of East economic zone of

the Sakha (Yakutia) Republic» within the complex scientific research in the Sakha (Yakutia) Republic aimed at the development of productive forces and the social sphere for 2016-2020 under the government contract No. 5329 of 02.08.2017.

The protocol of population research QL was drafted according to the recommendations of the International project of studying of quality of life [1, 2, 9]. The research included representatives of various social groups of both sexes 15 years living in East economic zone of the Sakha (Yakutia) Republic are more senior. Acquisition was carried out in Tomponsky, Oymyakonsky and Ust-Maysky areas by questioning of respondents by method of direct poll. In Oymyakonsky district 87 respondents, by Tomponsky – 94, Ust-Maysky – 69 were interviewed. In total in the region of a research 250 inhabitants of whom 53% made women, 47% - men are interviewed. Dr. Podoynitsyna I.I. made samples.

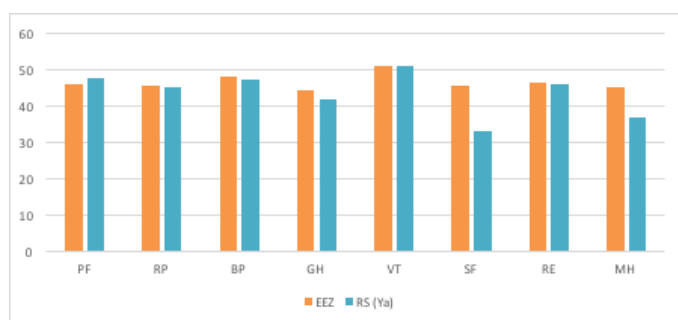
As the tool for acquisition we used the questionnaire of assessment of QL SF-36 and the social-demographic card. The questionnaire of SF-36 contains eight scales (concepts) of health most of which often measure in population researches [2, 4, 9, 10]. Numerical values of scales of the questionnaire are expressed in shares from reference sizes, i.e. as a percentage. Indicators of QL were standardized on a universe of the USA according to the recommendations of developers [8, 9, 10]. This questionnaire is suitable for self-contained filling with the respondent, holding computer poll or filling with his trained interviewer at personal contact

or by phone. It is applicable aged from 14 years and is more senior [9, 10]. The social-demographic card consists of 14 questions and includes demographic characteristics (a sex, age, employment, education, marital status and the questions of substantial character giving information on the level of income, living conditions, the state of health.

### Results of a research and discussion

Results of questionnaire showed that mean values of scales of quality of life of the population are in the region of a research at the level of lower than 50%. The single indicator exceeding 50% level is the scale «vital activity». It demonstrates that the considerable proportion of the population of the East Economic Zone (EEZ) feels in itself forces and energy. On the other hand, on the basis of the analysis of the obtained data by us it is revealed that respondents very often give a low mark to a condition of the health at the moment and skeptically fall into to the prospects of treatment what there correspond the lowest mean values of a scale «the common state of health» (fig. 1) to.

The comparative analysis of indexes of QL of the population of EEZ with population indexes across the Sakha (Yakutia) Republic (fig. 1) is carried out [3]. Results of the analysis established proximity of the compared indexes. Pays an attention that the social activity of the population of EEZ (communication, carrying out time with friends, neighbors, in collective) was much higher than a national average index. Mean values of a scale of psychological wellbeing of



**Fig. 1.** The standardized population indicators of scales of the SF-36 questionnaire on the populations of East economic zone and the Sakha (Yakutia) Republic in whole.

respondents of EEZ also exceeded those on the republic in general.

At women tendencies to decrease in physical activity, volume of a daily exercise stress and an emotional state were noted. The received indicators demonstrate that daily activity of women is limited to their physical and emotional condition that negatively is reflected in their common assessment of the health. Indexes of quality of life of men were statistically significantly above, than at women on all scales of the questionnaire is (fig. 2).

All respondents depending on an age were divided into 6 groups: 18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65 are also more senior (fig. 3). Results of a research showed that with age there is a decrease in volume of a daily exercise stress since 45-54 years. Restriction of an exercise stress is caused by a health aggravation of symptoms in more senior age groups that is comparable to literary data [5, 10].

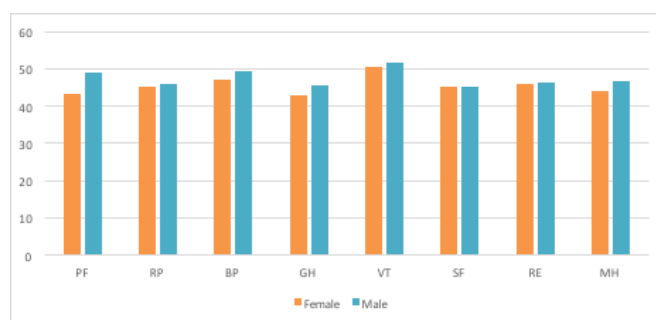
The tendency of age dependence was traced also on a scale of role physical functioning. At respondents up to 25 years the pain syndrome had no significant effect on QL ( $p=0,03$ ). Level of a pain syndrome increases in age groups 25 years are more senior and significantly influences a self-rating of health and

activity of respondents. Peak values of pain are noted in groups of respondents 55 years ( $p=0,04$ ) and more senior.

Respondents aged up to 25 years estimated the common condition of the health above the average level ( $p=0,004$ ), and from 25 to 44 years gave an average assessment. The population is more senior than 45 years has smaller resistance to diseases and estimates the common state of health below average.

The vital activity of respondents aged up to 55 years remained on more high level, despite decrease in physical health. Low points of a scale of activity in the senior age groups corresponded to increase of exhaustion investigated, to decrease in their biotic activity.

Indexes of scales of social activity, role emotional functioning and psychological health of respondents remained on rather high level irrespective of an age. On reaching the 65 years there is the considerable reduction of volumes and quality of communication with friends and relatives in connection with an aggravation of symptoms of health ( $p=0,01$ ). Men in all age groups possessed broader social communications in comparison with women. The condition of psychological health of men was much better in comparison with women in all age groups ( $p=0,02$ ). Age changes of an



**Fig. 2.** The standardized population indicators of the scales SF-36 questionnaire on population of East economic zone depending on a sex.

emotional condition of respondents are not established.

### Conclusion

The analysis of the standardized indicators of QL of the population of three regions of EEZ RS (Ya) showed poor quality of life of the population which is in percentage terms lower than 50% of level of 100% of «ideal» health.

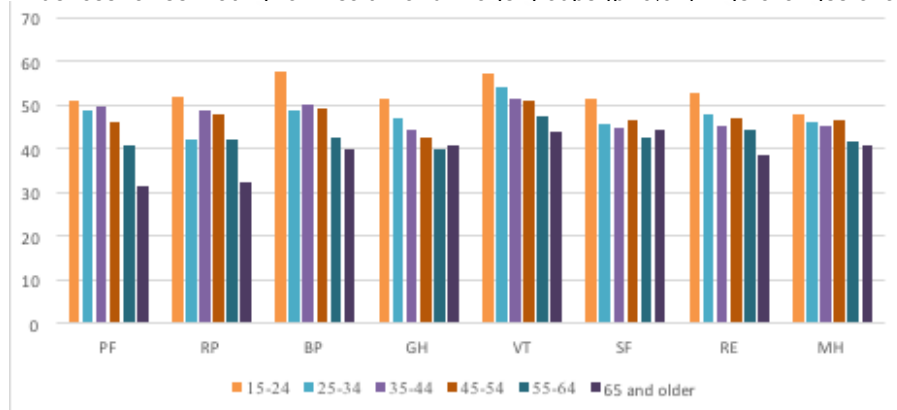
By comparison to the regional indexes of QL of adult population of RS (Ya) developed in 2010, the QL some parameters according to the questionnaire of SF-36 appeared above population indexes, in particular, on rating scales of the common state of health, social functioning and psychological health. The male population in EEZ had the best indicators of QL on all scales of the questionnaire of SF-36 in comparison with women's.

Age dynamics of indexes of QL of the population of EEZ of the Sakha (Yakutia) Republic is comparable to the common regularities of change of QL with age received in other researches [4, 5]. However it should be noted that decrease in parameters of quality of life generally happens due to deterioration in physical health. The QL psychological component practically does not depend on an age.

Thus, the analysis of the standardized indicators of QL of adult population in East economic zone of the Sakha (Yakutia) Republic showed that physical and psychological components of quality of life according to the questionnaire of SF-36 are not interdependent, i.e. at the poor physical health of respondents the psychological component remains high that is not coordinated with results of researches of quality of life of the population in the European countries and the USA [6, 7, 8] that demands further cross-disciplinary researches.

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**Fig. 3.** The standardized population indicators of scales of the SF-36 questionnaire on a population of East economic zone depending on an age.

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