Opponent's assessment of the diploma thesis of Askhat Ashimov
Trends and patterns of cancer mortality in Kazakhstan in comparison with some selected
European countries from 1986 to 2008

The diploma thesis of student Askhat Ashimov *Trends and patterns of cancer mortality in Kazakhstan in comparison with some selected European countries from 1986 to 2008* consists of 142 numbered pages. Twenty four pages out of these 142 pages are appendixes. The text of the thesis itself has 100 pages. It is organized in ten numbered chapters including the introduction and conclusion. In addition, the lists of abbreviation, tables, figures plus the list of references and the above mentioned appendixes comprise an integral part of the thesis.

As the author has pointed it out, cancer or better malignant neoplasms represent together with external causes the second/third most frequent group of death causes in Kazakhstan. This fact together with still rather low level of mortality process cognition in the given geographical framework is a sign of the selected theme high research relevance. The basic cognitive goal of the submitted thesis is characterized by the title of the thesis. It is (shoud be) a fundamental analysis and assessment of mortality caused by cancer with a special focus on main structural and developmental regularities of this part of mortality process.

The submitted thesis has a standard structure. There is not missing any relevant part. The author is presenting his research in logical order. Only combination of data and methods into one chapter can raise some questions. With respect to wider determination of approaches and methods applicable in research than only by available data and their quality, I would prefer to separate these two technical subthemes.

In explicitly structured Introduction the author tries to define the core problem, related overall goal and partial objectives of his research. After a brief discussion of the theme relevance he presents thesis structure. Already in this introductory part one of the weak points of the entire work is presented. It is relatively low ability of author to formulate his ideas and obtained results. Askhat Ashimov's expressing is often inaccurate or heavy-handed, and therefore not always fully understandable. Author´s formulations are also logically inconsistent in some cases. As an example the difference between the label (title), goal (see page 12) and content of the thesis can be used. For instance, the author speaks exclusively about the cancer caused mortality in the thesis title but in the text he presents results of the overall mortality analysis in a fully comparable extent with his presentation of the core topic research results (see page 10, 12th row or page 107, 3rd paragraph, compare the extent of Chapter 6 and 7 with the extent of chapter 9 devoted to the main theme of the thesis). The purpose is obvious...

The overview of literature covers the basic relevant publications. A positive moment is that the author devoted special attention to the publications dealing with cause specific mortality in the region and post communist countries. However, discussion of literature is exclusively descriptive and not critical as it should be. Author´s problems with expressing thoughts and facts culminate in the last paragraph on page 16.

In the following, theoretical part A. Ashimov deals exclusively with epidemiological transition concept, mostly at a general level. Unfortunately, there is a little attention paid namely to epidemiology of cancer and its changing role among other diseases during particular stages of epidemiological transition in the text. The author also practically does not discuss the relevance of this concept for Kazakhstan. He is writing only about "the patterns of diseases *(he likely means*

patterns of morbidity) that prevails in Centra Asia" in this context he has forgotten that Central Asian countries are very significantly differentiated from this respect and there are no prevailing, i.e. common patterns of the region. Readability of text in this part is decreased by frequent "jumping" among topics and often missing logical links between neighboring paragraphs (see the text on page 20). This is another repeating issue since similar situation appears also in other parts of the thesis.

A short chapter 4 is devoted to specification of research questions and formulation of research hypotheses. Reading its text, it is difficult to understand why the author is re-formulating the research goal (p. 22) which was already once specified in the introduction (p. 16). Even less understandable, however, is why having formulated seven research objectives, A. Ashimov presents only four hypotheses. Above it the hypotheses ad 1 and ad 4 cannot be examined since the expectations expressed there are not in the diploma research focus.

The technical part is concluded by the chapter dealing with data sources and their quality assessment as well as with applied methods description. This part is elaborated without principal deficiencies. Only two or three pieces of text require a proper quotation of their sources (p. 31, 4th paragraph, p. 32, the last full paragraph, p. 33, the last paragraph) otherwise this part of the text would be a plagiarism.

A special remark should be addressed to the cub-chapter 5.3 which is labeled as *Adopted approaches and methods used*. First, there is no word about the approach to the diploma research adopted by the author. If he would do it and do it properly, he could not forget to discuss selection of the countries for comparative analysis. So a reader can only speculate why namely Czechia, France and Sweden has been selected as the counterparts of Kazakhstan for the purpose of cancer caused mortality study.

The content part of the thesis starts by an overview of general mortality trends. Changes between three points of time, rather than proclaimed trends, are the subject of A. Ashimov´s study. Presented results represent standard and very basic analysis of mortality, moreover, on the level of aggregate indicators only. Sufficiently detailed age patterns of general mortality are described and analyzed only in the end of this chapter, however, with a help of unsuitable tools. The author is using plotted 5-year ASDR values which allow only distinguishing mutually higher or lower values with respect to logarithmic scale of the graph y-axis. At this point it would be suitable to use comparable indexes for comparing intensity of mortality by age.

Mostly the same notes to the text as above could be addressed to the chapter 7 and its content. Title of the chapter is *Mortality trends by main causes of death* but it is *de facto* about the cause specific mortality patterns in three different time horizons and therefore no trends are studied here. On the other side, the results of performed analysis, especially results of decompositions provide an interesting insight into the structure of male as well as female mortality in Kazakhstan and it basic changes. A reader is however disturbed by unjustifiable repetition of some facts and baseless statements in this part of the text, e.g. on developments of observed phenomena during the entire period of 22 years when recorded are only facts concerning exclusively three different years (e.g. p. 46). Some parts of the description are also too abbreviated or neglectfully written (pp. 47-51). The interesting graphs presented in the diploma thesis appendix are only marginally commented in the text (p. 51). In brief, the objects (graphs and tables) which are largely designed professionally seem to be much more valuable than author´s comments.

The eighth chapter is finally on the topic of the diploma thesis. The chapter starts on the page 73, at the beginning of the last third of its text. I am not going to repeat my critical remarks made in the context of previous chapters and therefore I would only like to state, that also this part contains valuable objects in combination with almost invaluable text.

The chapter nine aspires to map causality of cancer related mortality. This attempt is practically sterile since there are only implicit links between findings in chapters 8 and 9. Therefore this text looks more like a postscript to the chapter 8 rather than a full bodied chapter of a diploma thesis.

The conclusion of the submitted thesis has a sufficient extent. It content is, however, specific at least in the following respects. The author provides there some information which is not based on the results of the given diploma research (e.g. the entire 1st paragraph on page 107, p. 109, 2nd paragraph). Moreover the author has forgotten to summarize results of examining the hypotheses which he formulated at the beginning of his research.

In sum, please allow me to repeat that the work has a logical structure and all the calculations seem to be done correctly. Presentation of results in tables and graphical objects is professional and provides detailed basic insight into the studied problem. On the other side, interpretation of obtained results is rather poor. Partially it is determined by language handicap of the author who was not able to learn English on the level allowing him free formulation of academic text. However, it is also a consequence of poorer knowledge of professional writing, Demography itself and last but not least by time restrains faced by the author. Nevertheless, according to my opinion, Askhat Ashimov presented a substantial progress from the time he submitted the first versions of his diploma thesis and proved the very basic professional abilities on the given level of university studies of Demography. Therefore I recommend his diploma thesis *Trends and patterns of cancer mortality in Kazakhstan in comparison with some selected European countries from 1986 to 2008* for defense before the commission for state examination.

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opponent

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