Developing the Russian Index of Elderly Population Well-Being: Principles and Conceptual Framework

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Abstract

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As a multi-faceted process population aging generates various socio-economic and psycho-physiological challenges and significantly influences the government socio-economic policy. It requires the development and practical application of new assessment tools based on the economic and sociological data statistics to describe the current state of the society specifying variables and indicators relevant to the measurement and management of the main aspects of older people well-being. The article presents a comparative analysis of methods to assess such complex socio-economic and psycho-physiological phenomena as the elderly population's well-being. The study focuses on the research trends in the development of the elderly population well-being evaluation tools and composite indices as well-being of older people assessment techniques. The paper addresses the evolution of the concept "well-being of the elderly population" together with the evolution of the term "well-being" itself with the latter one closely connected to the concept of human development. The authors draw on the causes of interest for comparative assessment methodologies of the well-being of elderly generation against the backdrop of the global trends of demographic aging of the world population. As assessment tools joining a set of objective and subjective indicators in one evaluation scale, composite indices are researched as comparative methods for the purpose of well-being analysis. They are described in terms of their decomposition into domains and indicators. Finally, the paper formulates the principles of development of the Russian Elderly Well-being Index and analyses the possible domains for the elderly population well-being assessment.

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1. Introduction

The ageing of population is a natural process which creates a lot of socioeconomic and psycho-physiological problems. This is complex process with the consequences of a comprehensive nature for the government socioeconomic policy. Tracking and considering the tendencies of this process is

essential for all the nations in the world, as the ageing of the population affects both developed and developing countries. In order to solve the problems, first of all, it is necessary to develop and introduce new practical tools, allowing an integrated understanding and assessment of the current state of society, based on economic and sociological data statistics. Such a description should include the indicators and variables which are relevant for measuring, controlling and managing of the main aspects of the well-being of older people.

2. Literature Review and Methodology

The task of forming composite indices, which characterize the well-being of the elderly population, does not have a simple and obvious solution. The measurement and evaluation of parameters in different systems are carried out with the help of specially designed indicators and determinants. From the perspective of the development of the elderly people well-being assessment indices, these indicators and determinants should characterize conditions and dynamics of socio-economic and psycho-physiological aspects. Their further aggregation should not distort the essence of the phenomena and should allow to draw definite and transparent conclusions on the dynamics of the processes (Korchagina, 2012).

The formation and development of calculation methods of composite elderly well-being indices were carried out under the influence of the following trends (Figure 1):

● The shift of the problems of demographic aging from developed countries into the worldwide issue. This fact was recognized at the United Nations level in the outcome of the World Assembly on Ageing in 1982 and 2002. Therefore, it was evident that designing and creation of new tools were necessary in order to reconsider the current trends and assessment techniques;

● Changes in the methodological approaches to the assessment of social and economic progress in general. The result of this was the rise of the human development concept (1990) which became classical and served as a basis for developing the Human Development Index (HDI) of the United Nations, where, in addition to traditional economic data, life expectancy and level of education were taken into account.

Over the past 25 years the importance of human in social and economic development process has been radically reconsidered. In 1990, the first report of the United Nations Development Programme, dedicated to the assessment of the economic and social progress of the world, has been published. The report has formulated the concept of human development, associated with (1) an extension of the indices selection range (long and healthy life, access to education, a decent standard of living) and (2) the existence of political freedom, guaranteed human rights and self-esteem (Human Development Report, 1990). The years 1990, 1999 and 2010 have become iconic in redefining the explanation of human development and marked an important step in understanding the history of socioeconomic development of the world's population. This led to the fact that in the aggregate index of well-being of older people Global AgeWatch Index (Global AgeWatch Index 2014: Insight report «Ageing in the 21st century: a celebration and a challenge», 2014) in 2013 were included, among others, the subjective assessments of older people, obtained from sociological surveys, describing their psychological well-being and satisfaction with freedom of choice in their lives.
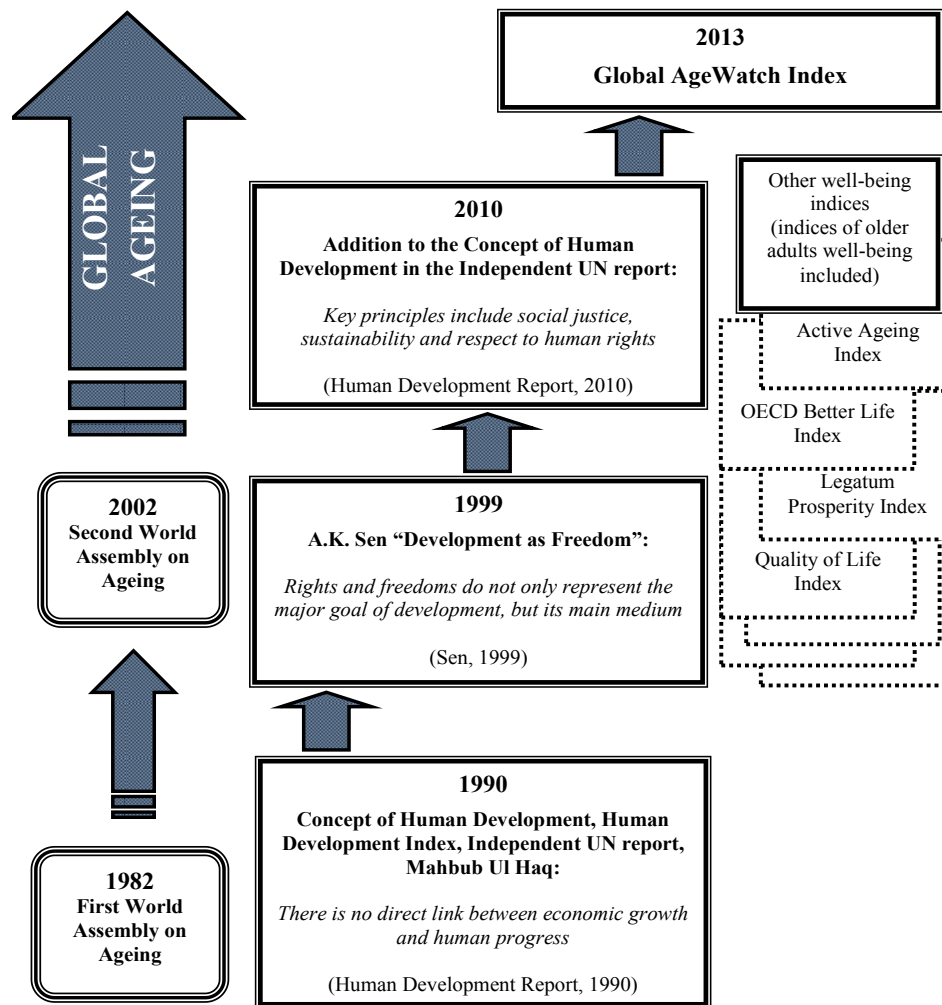
Fig. 1. Current global trends in understanding and measuring the well-being of the elderly population.

Thus, at the present stage of the methodological development of the well-being composite indices, conceptually, at least, three fairly broad categories for evaluating phenomena are usually taken into account: (1) "economic"; (2) "social" (medicine, education, environment, etc.); (3) "freedoms". The category "freedoms" in a certain sense is a very vague and complicated area to be measured and assesses, describing a subjective perception of human's life and opportunities for the right of freedom of choice. However, the complexity of the calculation of the category "freedoms" and finding its weight in the composite index does not negate the complexity of the choice of indicators in other areas and their subsequent aggregation.

The development of science in the assessment of well-being of the elderly population has paralleled the development and refinement of the general concept of "well-being" of a human being, which may include a number of components and may be assessed on the basis of both objective quantitative indicators and qualitative subjective criteria (Costanza et al., 2007; Beja, 2016).

When determining the well-being as a philosophical concept, at least three global approaches are traditionally distinguished (Crisp, 2013; MacLeod, 2015): hedonic, objective theories and the theories of needs satisfaction. The hedonic approach is associated with the pleasures of life and the absence of

suffering. Basic concepts used are subjective well-being (Diener, 1994), positive and negative affect, life satisfaction (Deci, & Ryan, 2008). Objective theories explain well-being as possessing of all the benefits (tangible and intangible) (Huta, & Waterman, 2014). Theories of needs claim that well-being increases through the increased needs satisfaction (Bruckner, 2010).

Thus, subjective well-being, active aging, life satisfaction, quality of life etc. are the components of the complex concept of "well-being" that characterizes the well-being of the population as a multidisciplinary phenomenon. In addition, in order to develop a specialized elderly population well-being index, the multidisciplinary aspect of the well-being phenomenon should be distinguished at different levels. For example, R.Veenhoven (2015) considers the social conditions for happiness on three levels: the macro level (nation), meso level (organization) and micro level of individuals.

3. Research Findings and Discussion

Over the past quarter-century there was a set of integral indices developed by both public and private organizations (Figure 2). All of them, tend to be based on the statistics of the international database of such organizations as United Nations, World Bank, International Monetary Fund, World Health Organization, Organization for Economic Cooperation and Development, European Union, on the results of the Gallup Organization studies, as well as World Values Survey Association et al. Index developers use a comprehensive approach in solving construction problems of integral estimates of population well-being. It is not a trivial task to combine organically objective indicators and subjective assessments in one index. Despite the fact that the indices developed by different organizations and institutions, the process of conducting cross-country comparisons for the index is characterized by the task of drawing attention to corresponding issues in order to further improve the situation in policy, economy and society.

International composite indices, related to the older people well-being assessment, are designed to solve the problems of society, bringing to the forefront issues of non-compliance in terms of different countries at the macro level. Such indices often combine both objective indicators and subjective assessments, e.g. Active Ageing Index (European Commission, 2015) and Global AgeWatch Index (HelpAge International, 2014). Each of them has its own target audience and focuses on dealing with specific challenges. Despite the active expansion of international statistics approaches, vast nations coverage, existence of numerous international databases, one cannot deny the importance of elderly population well-being assessment at the national level. If the basis for calculating Active Ageing Index is data from international databases, Global AgeWatch Index is characterized by a certain fragmentation represented in its indicators. In the case of the absence of international statistics, the information gaps were filled by national statistical data.
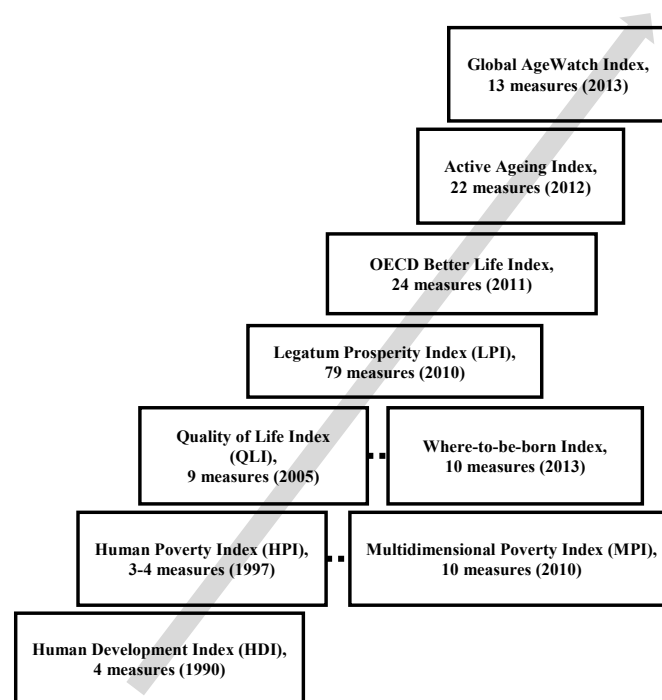
Note: For the poverty index 3 indicators are used for the developed countries and 4 indicators - for developing countries.
Fig. 2. Evolution of composite indices in assessing the well-being the elderly population.

At the national level, approaches to elderly population well-being assessments are thriving. This is reflected in the emergence of integrated assessment scales and national indices as a whole, as well as the development of comprehensive statistics on older people well-being in particular. These trends are widely manifested, as a rule, in developed countries. Giving some examples, we can name:

●   The USA – Older Americans: Key Indicators of Well-being - assessment is based on 37 objective measures of national statistics with the aim of monitoring of the elderly population well-being (Older Americans 2012: Key Indicators of Well-Being, 2012);

●   Australia – Senior Sentiment Index with 11 subjective measures (2nd Seniors Sentiment Index, 2014); The Herald/Age - Lateral Economics Index of Australia's Wellbeing (13 objective and 3 subjective measures) (Lancy, & Gruen, 2013);

●   Canada – Canadian Index of Wellbeing (57 objective and 7 subjective measures) (Canadian Index of Wellbeing, 2012);

●   The United Kingdom – National Well-being Measures (22 objective and 19 subjective measures) (Self et al., 2012).

Due to the lack uniform methodologies of well-being measurement, different research groups offer various methods of assessment. In our country, numerous attempts of borrowing existing foreign techniques and approaches have been made (Zasimova, & Sheluntcova, 2014). In this case, differing methodologies of the Federal State Statistics Service (FSSS) and foreign institutions, problems of

indicators compliance may arise. Some institutions conduct their own surveys and complement them with the FSSS statistics to ensure comparability of data (Morozova et al., 2013).

In general, there are several trends in evaluating the well-being of the elderly population at the macro level:

1. Development of composite indices as a universal tool for cross-country comparisons in order to solve a whole range of socio-economic and political problems;

2. Combination of objective statistical indicators and subjective assessments in a single measurement scale that characterizes the well-being of the elderly population as a phenomenon that requires a multidisciplinary assessment approaches;

3. Development of national statistics, national indices and scales of subjective well-being of the elderly population monitoring which allows to assess, analyze, compare the results in different timelines and in different regions in order to develop relevant national social and economic policies aimed at improving the well-being of the elderly population.

Based on the foregoing, it should be noted that the conceptual framework in creating the Russian index of the elderly population well-being should be the approach based on the needs of older generation (needs-driven approach). Three basic principles for developing a composite index were formulated by Korchagina (2012) which are universal and applicable to any composite index:

1. data should be available and measurable, including on the regional level, presented in official documents and regularly updated;

2. the indicators/variables should be simple enough for interpretation and reflect the actual processes and their dynamics;

3. the indicators/variables must be scientifically grounded and justified, be based on international standards, can be used in econometric models to measure, assess and predict development of the present situation;

In order to develop a composite index for assessing the elderly population well-being for the Russian Federation, we have formulated additional principles:

1. possibility and necessity of heterogeneous indicators/variables aggregation in a comprehensive evaluation scale under the single methodology;

2. indicators/variables relevance implies the validity and justification of the integration into the composite index any specific variable, indicator or a domain;

3. adequate, fair and reasonable allocation of weights between variables, indicators and domains;

4. needs of the elderly population non-excludability - all the needs of the elderly should be taken into account;

5. non-excludability of territories and regions - the research and evaluation should cover and be accomplished for all the regions or territories;

6. differentiation of regions and territories with the possibility of multi-level differentiation in Russia (federal districts, regions, territories) due to significant distinctions in socio-economic development levels;

7. combination and usage both the objective and subjective measures;

8. valid and fair international and inter-regional comparisons.

The analysis of numerous international composite indices, which are relevant to well-being assessment, demonstrates mergence and cohesion of the both subjective assessments and objective variables in a single index (Table 1). The table 1 shows a number of selected composite indices with the decomposition into subjective and objective variables.

Table 1. Number of objective and subjective variables (indicators) in international well-being indices

№	Composite Index	Number of objective variables (indicators)	Number of subjective variables (indicators)
1	Human Development Index (HDI)	4	0
2	Multidimensional Poverty Index (MPI)	10	0
3	WHO Five Well-being Index (WHO-5)	0	5
4	Quality-of-life index (QLI)	6	3
5	Happy Planet Index (HPI)	2	1
6	Gallup-Healthways Well-Being Index (GWBI)	0	10
7	OECD Better Life Index (OECD BLI)	17	7
8	SCL/PRB Index of Well-Being in Older Populations (SCLI)	10	2
9	Active Ageing Index (AAI)	20	2
10	Global AgeWatch Index (AW)	8	5

In addition, the research of composite indices methodologies leads to understanding the basic variables/indicators assessment groups, which are tightly connected to elderly population needs. These groups, as a rule, include the following domains: (1) health; (2) income; (3) work/employment; (4) education; (5) living conditions/dwelling; (6) family; (7) social life; (8) political life; (9) emotional state of being/subjective perception; (10) community; (11) safety and security.

Also, we can find the following areas of assessment which are more rarely used such as (1) opportunity; (2) climate/geographical conditions of living (3) gender equality and gender issues; (4) ecological conditions.

The research results allow us to select necessary domains with the relevant variables (indicators) to develop the methodology for computing and developing the Russia Elderly Well-being Index (REWI). Future research will focus on the designing and calculating the REWI of the Russian regions.

4. Conclusion

The present state of socio-economic development brings up the need for the practical application of new assessment tools based on the economic and sociological data statistics relevant to the measurement and management of the main aspects of older people well-being. The necessity of the REWI development is justified by the current economic and political needs for the comparison of elderly population will-being for different Russian regions and territories due to the scarce elderly population well-being metrics presented in Russian statistics as well as due to significant

differentiation of Russian regions in terms of demographics, income, employment, climate, dwelling specifics, etc.

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