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Letter to the Editor

Life Expectancy as a Quality of Life Indicator

Gulshara Aimbetova [1], Gulzhan Dossybayeva [2], Roza Suleimenova [3], Aliya Turgambayeva [4], *Assiya Turgambayeva [5]

1. *Department of Public Health, Kazakh National Medical University named after S. D. Asfendiyarov, Almaty, Kazakhstan*
2. *Department of General Practitioner N2, South Kazakhstan Medical Academy, Shymkent, Kazakhstan*
3. *Department of Public Health and Hygiene, NJSC "Astana Medical University», Nur-Sultan, Kazakhstan*
4. *Department Accounting, RSU "National Bank of the Republic of Kazakhstan", Nur-Sultan, Kazakhstan*
5. *Department of Public Health and Management, NJSC "Astana Medical University», Nur-Sultan Kazakhstan*

***Corresponding Author:** Email: tak1973@mail.ru

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Dear Editor-in-Chief

In all countries of the world, one of the key criteria to measure public health is life expectancy (LE), which contributes to a more objective measure than total mortality and natural population growth. This indicator is a reflection of the viability of the population as a total, as it does not depend on the age structure and it is necessary for analysis and comparison in the dynamics of various countries of the world (1,2).

The indicator of LE is calculated based on age-specific mortality rates by constructing tables of mortality (or survival), the method of construction of which has been known since the 18th century. In 1662, Graunt calculated mortality rates based on actual deaths in London (3). However, the first mortality rates table which has practical significance belongs to Halley (4). Mortality tables (survivals) showed the order of the gradual extinction of a hypothetical set of persons born at the same time.

Thus, the average LE in some regions of the world increased from 2000 to 2015. In general, LE in the world has reached from 66.4 to 71.4 yr that is, increased by 5 yr during the period. The largest increase was observed in Africa – by 9.4 yr, the lowest – in the Mediterranean (by 3.4 yr) and in Europe (by 4.5 yr) (5).

The population of middle and low income countries is aging most rapidly. By 2050, 80% of the two billion elderly people in the world will live in these countries. Over the next five years, the number of residents over 60 will exceed the number of children under five yr of age. The WHO urges that more attention be paid to the health of older people and to get rid of bias towards them (2, 6). There were more men on Earth than women (50.4% and 49.6% in 2010) (7). Consequently, opinions about the significant quantitative superiority of females are untenable. Another thing - this ratio is different in various countries of the world.

For instance, Fig. 1 shows this indicator of LE, which is higher for women than for men on all continents of the world (8).

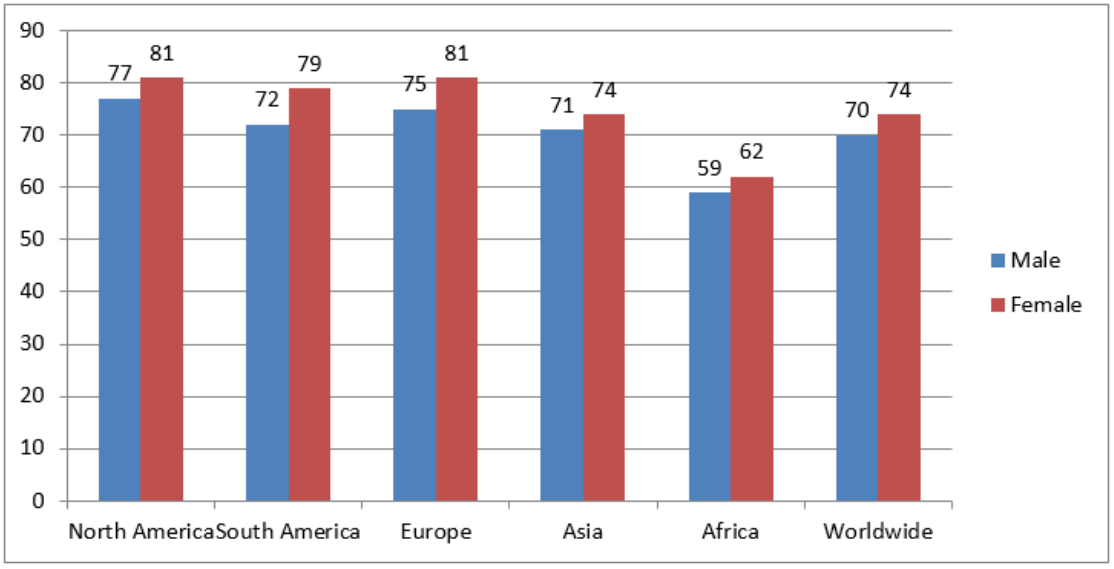

Fig. 1: Life expectancy among male and female from various continents (8)

An interesting trend in the dynamics of LE by sex in the Republic of Kazakhstan in 1965-2010 by the number of yr (Fig. 2) (9). Since 1970, the difference in mortality between men and women has been approximately 10 yr, which is much larger than in most countries of the world. In terms of this difference, Kazakhstan and the Russian Federation are in the leading group among all countries of the world (6, 10).

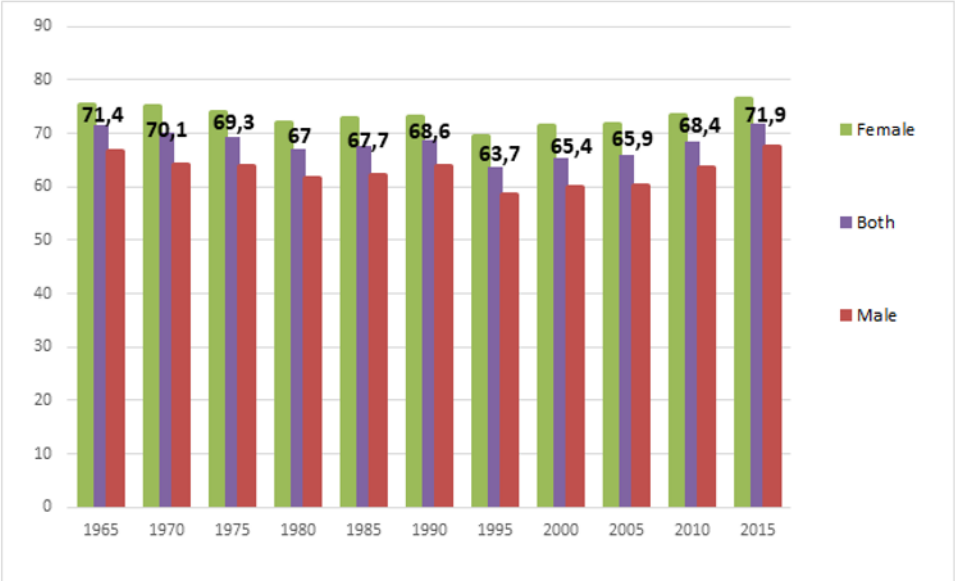

Fig. 2: Dynamics of life expectancy in Kazakhstan by sex in 1965-2015 (number of years) (9)

However, there are differences in LE in individuals belonging to different social groups. Most likely, the reasons are a fairly high level of health literacy of the population, the quality of medical care, and the relative well-being of the social standard of living. At the same time, the influ-

ence of climate, dietary habits, way of life, and traditions are not excluded.
Thus, life expectancy along with some other indicators is the most important criterion for assessing public health, which requires regular monitoring in the future.

Conflict of interest

The authors declare that there is no conflict of interest.

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