

THE DIFFERENCES IN THE AVERAGE LIFE EXPECTANCY ON THE DAY OF BIRTH BETWEEN FEMALE AND MALE POPULATION IN SOME COUNTRIES OF THE WORLD WITHIN THE LAST FIFTY YEARS OF THE SECOND MILLENNIUM AND FIRST TWENTY FIVE YEARS OF THE THIRD MILENIUM

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This paper analyzes the average duration of human life of the male and female population on the day of birth in some countries of the world in the second half of the last century and during the 25 years of this century, mostly in some developed, but also in some developing regions of the world. These are certainly not the striking examples, but rather the illustrative ones.

Keywords: *average life expectancy on the day of birth, male and female population, the second and the third millennium.*

INTRODUCTION

The average life expectancy at the day of birth (e^0_o), or the average life length chance of newborns, means the average number of years that can be expected by the current live-born child if the current conditions of mortality by the age and sex are maintained. (Wertheimer- Baletić, A. 1982; Breznik, D. 1988.)¹

Average life expectancy is, like many other demographic indicators, closely related to socio-economic development, as well as some other elements and factors of observed area. This is particularly evident when observing the average life expectancy by gender.

In the vast majority of the countries in the world the average life expectancy of women is generally longer than among men; only in the eight countries is the other way around. This is explained by the well-known biological phenomenon where the humanity is observed as a whole, for which the mortality of men is higher than women in cases when the overall mortality is analyzed, as well as the mortality rates for all age groups, especially the infant mortality up to 356 days and at older age (50 years and over).

This can be linked to the fact that, according to scientific findings, the female organism, from the biological point of view, is about two years more life-capable than the organism of males; also it is a common knowledge that women are less inclined to be exposed to the risk, care more about the health, are less exposed to the dangers related to the injuries at work and occupational diseases (e.g. workers in coal mines and lung disease caused by the inhalation of coal dust, etc.) , and also, women have shorter length of service

¹The calculation of the average life expectancy of the newborns is based on the mortality tables. These tables contain data on the number of deaths, number of living and some other illustrations of the observed population. (Wertheimer- Baletić, A. 1982; Breznik, D. 1988.).

In addition to the average life expectancy on the day of birth (or: the newborns or a person of age 0) (e^0_o), whose values are especially significant among the data on life expectancy, the average life expectancy at age x needs to be distinguished. (e.g. 1,2 ... 10 ... 60 ... years) (e^x_o)

in many countries (Cehajic, J. 1990).²

In countries where both genders have the same average life expectancy (as in socioeconomically developed countries), differences in favor of female's life expectancy are greater than in the countries with the shortest average life expectancy. (Such are the underdeveloped countries in the world).³

This results in the criteria that we'll apply in this paper when selecting individual countries. Differences in average life expectancy of female and male population on the day of birth will be analyzed on the example of countries in which both genders have the longest and shortest life expectancy in the world, as well as those countries in which the male population lives slightly longer than the female's one. The period of observation will be from the mid-20th century to the third decade of the 21st century, or the last 50 years of the second millennium and the first 25 years of the third millennium. (1950–2025).⁴

This demographic indicator will be shortly analyzed also in the former Commonwealth of the Independent Countries with the Russian Federation at the forefront, followed by the Finland and France, because in these two developed countries, the differences between the life expectancy between the males and females are the largest in the world, although these countries, according to the parameter that will be applied in this paper cannot be listed as the countries with the longest life-expectancy.

Also, for comparison, we will look at the difference in the life expectancy between the female and male population in Bosnia and Herzegovina. In addition, since the different life expectancy by genders is reflected, among other things, on the age structure of female and male population, we will briefly analyze this demographic indicator on the example of countries with the longest life expectancy.

COUNTRIES WITH THE LONGEST LIFE SPAN

We determined the longest life expectancy using the following parameter: the highest value of the average life expectancy on the day of birth for both genders at the beginning of a 75-years analyzed period (1950-2025); we found that it was 70 years and above. Such is

² For the whole mankind, the average difference for the entire 75-year reference period (1950-2025) in the average life expectancy at the day of a birth between the female and male population is 3,01 years in the favor of women; range of the differences varies from 2,2 years (for the period between 1960-1975.) to 4,2 years (2020-2025)., which was calculated on the basis of United Nations World Population Prospect 1988. This corroborates the previously presented observations about some segments of female's life and especially the statement about slightly bigger capability of female organism than the male one.

³ The average difference for the entire 75-year analyzed period (1950-2025) in the average life expectancy at the day of birth between female and male population in the more developed regions (Anglo-America, Japan, Europe, Australia, New Zealand and Russia with the former countries of the former CIS is 6,77 years in favor of women; the difference range goes from 5,7 years (1950-1960) to 7,8 years (1980 -1985). In the less developed regions (Africa, Latin America, Asia – without Japan, Melanesia, Micronesia and Polynesia) the average difference is 2,39 years, and the difference range goes from 1,3 years (1960-1965 and 1970-1975) to 3,9 years (2020-2025). Thus, mentioned difference for the world is 3,01 years, 6,77 years for more developed regions and for the less developed regions – 2,39 years. At first glance, the much higher difference (i.e. for 3,76 years) between the data for more developed regions and the data for the world could be more surprising than the difference (of 0,62 years) between the data for less developed countries and the data for the world. This can be explained by the fact that the population of the less developed regions in the observed 75-year period makes most of the humanity (e.g. in 1950. 66,9%, 1990 77,2%, 2000 79,8%, 2025 84,0%).

⁴ These figures are based on estimates and medium variant projection of Population Division of the UN (1989). As the data of the UN (1989) is being reported on a five-year periods, then the differences between the life expectancy of females and males are calculated and analyzed according to the same intervals.

the characteristic of only 5 countries in the world – Norway, the Netherlands, Iceland, Sweden and Denmark. These are socioeconomically developed countries of Western Europe, mainly in temperate geographical belt, where, normally, are the most suitable conditions for life on Earth. This, along with some specifics of living in this particular area, affects the average longer life expectancy of the population of these countries.⁵ Average life expectancy on the day of birth for both genders in the mid-20th century (1950-1955) ranged from 71,0 years in Denmark to 72,7 years in Norway. Japan, with the value of this demographic indicator of 63,9 years in the period of 1950-1955, did not meet the conditions set by the before mentioned parameter. (i.e. Japan didn't belong to the group of countries with the longest life span in the mid-20th century). However, during the mid of the third decade of the 21st century, or at the end of the observed period, the population of this country (both genders) had the largest life expectancy at the day of birth among all the countries of the world – as much as 81,3 years.⁵ At the same time, (i.e. 2020-2025) the average life expectancy of newborns of both genders with the value of 80 and more will be normal for all five countries from the group we already singled out for the period of 1950-1955. (Range of heights of this demographic indicator will go from 79,7 years – meaning close to 80 years – in Denmark to 80,8 years in Iceland).⁶

For all five selected countries with the longest average life span for both genders, as well for Japan, the average difference for the entire 75-years analyzed period (1950-2025) was in favor of the female population and equals to 5,43 years. The range of these differences among the observed countries is small, and it ranges from 5,14 years in Norway (see Table 1.). The average difference of 5,43 years of longer life of females in these countries can be linked to earlier presented explanation of why women in the vast majority of countries around the world live longer than men, and this advantage in more socioeconomically developed surroundings becomes even more pronounced.

When we analyze the spatial differences in the average life expectancy on the day of birth between female and male population, we conclude that it, in the mid-20th century (1950-1955) was not as uniform between the six observed countries (the smallest difference of 2,5 years in favor of women was in Norway and the biggest difference in Iceland – 4,1 years), while, during the later decades of 20th century and even more at the beginning of the 21st century it increases its balance (e.g. between 2020-2025 the range is very small and it goes from 5,4 years in Iceland to 5,9 years in Norway.)

As for the temporal variability of the same demographic indicators, we note that from the 50s to 70s (Iceland, Sweden and Denmark), 80s (Norway and the Netherlands) and up to 90s of 20th century (Japan) the differences in life expectancy in favor of women increases (the biggest difference in the observed period is 6,8 years in Norway, then 6,7 years in the Netherlands and 6,9 years in Iceland, Sweden, Denmark and Japan) and then it tends to stagnate and slightly decrease (see Table 1.).⁷

⁵ Then (2020-2025), according to this demographic indicator, Japanese women will be the first in the world with 84,2 years, followed by the Dutch women with 83,7 years, Icelander women with 83,6 years etc. (United Nations, World Population Prospect 1988, Population Studies No. 167 – 189.)

⁶ In the third decade of the 21st century, the average life expectancy of newborns of 80 and more years for both genders will have the residents of Switzerland, Canada, Australian Union, Italy, Spain and Cyprus (United Nations, World Population Prospect 1988, Population Studies No. 167-189)

⁷ Later, we will mention the examples of the countries where the largest differences in favor of women are even larger, i.e. the biggest of all countries in the observed period (France 8,2 years, Finland 8,6 years and CIS – 10

Tab. 1. Differences in the average life expectancy at the day of birth in favor of female population in the countries with the longest life span, 1950-2025.

Country	1950 1955	55- 60	60- 65	65- 70	70- 75	75- 80	80- 85	85- 90	90- 95	95- 2000	2000 -05	05-10	10- 15	15- 20	20- 25	Average 1950- 2025
Norway	3.6	4.2	4.8	5.6	6.2	6.4	6.8	6.7	6.4	6.1	6.4	6.1	6.1	6.3	5.9	5.84
The Netherlas	2.5	3.3	4.7	5.4	5.9	6.5	6.7	6.7	6.5	6.0	6.1	6.1	6.1	5.9	5.8	5.61
Iceland	4.1	4.6	5.3	5.6	6.0	5.9	5.9	5.6	5.7	5.6	5.5	5.7	5.6	5.5	5.4	5.47
Sweden	2.9	3.6	4.0	4.6	5.4	6.0	5.9	5.9	5.7	5.6	5.7	5.5	5.6	5.4	5.5	5.15
Denmark	2.8	3.4	4.1	4.7	5.5	6.0	5.9	5.7	5.8	5.7	5.5	5.5	5.5	5.5	5.5	5.14
Japan	3.8	4.5	5.1	5.4	5.6	5.4	5.5	5.7	6.0	6.0	5.8	5.7	5.6	5.2	5.6	5.39
For all 6 countries: 5.43																

According to the presented results, it is evident that stagnation and a slight decrease in the difference in favor of women may be linked to the stronger socio-economic development in these countries, which they reached in the late 20th and early 21st century, with the increasing use of new scientific and technological developments (we're especially emphasizing that this is happening in the professions that are usually normal for the male population), better and safer working conditions, among other things, are being created, which contributes to a certain reduction in the mortality rate of male working, as well as post-working contingent which is directly affecting the life span.⁸

Given that, as we noted in the introduction, different life expectancy by gender reflects, among other things, on the age structure of the female and male population, in this paper, we, for the six previously selected countries, taking into account the extent which this paper may have, analyzed only participation of older female and male age groups (60 years and older) in their total population. Mainly in relation to extending the average life expectancy, and, at the same time, with the reduction of the birth rates, the participation of the old population (> 60 years) in these six countries increases. From the before mentioned reasons, in all these countries, in the each observed year of the 75-years period, percentage of women with >60 years in total female population is larger than is the case with the male population.

years!), and those were reached in the second half of the 70s and early 80s, after which they have trend of decrease. (Table 3)

⁸ It is understandable that the introduction of scientific and technological innovation in all spheres of human activity actively affects the extension of life expectancy of the female population, as outlined before that male population generally performs tasks that are linked to higher risk of injuries at work and occupational diseases.

Even at the end of the analyzed period (2025) old female age group in Denmark will participate with more than one-third (33,6%) in the total female population of the country, and with over 30% in Japan, Sweden, the Netherlands and Norway, while this value in the Republic of Iceland will be at 25.8% (see Table 2.)

Table 2. Participation of female and male age structure with 60 years and more in their total population (in %).

Country		1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
Norway	f	15,1	14,3	17,5	18,6	20,0	21,1	22,6	23,6	23,8	23,2	22,5	22,7	24,5	26,3	28,3	30,1
	m	9,9	13,5	14,9	15,6	16,4	17,1	18,0	18,7	18,6	18,0	17,3	17,6	19,7	21,6	23,4	25,1
The Netherlands	f	11,9	12,9	13,9	14,9	16,0	17,0	17,9	19,2	19,8	20,2	20,6	21,6	24,1	26,3	28,7	31,2
	m	11,0	11,8	12,4	12,8	13,0	13,3	13,5	14,2	14,7	15,1	15,8	16,9	19,5	21,5	23,7	26,1
Iceland	f	11,1	11,5	11,5	12,6	13,9	13,0	14,2	15,0	15,9	16,0	16,2	17,7	18,6	20,1	24,3	25,8
	m	9,9	10,0	11,2	10,3	11,6	12,7	12,2	13,2	12,6	12,8	14,5	13,4	15,1	18,0	21,0	22,6
Sweden	f	15,9	16,8	18,4	19,6	21,2	22,8	24,0	25,9	25,6	24,9	24,7	26,1	28,2	29,4	30,4	31,5
	m	14,0	14,8	16,1	16,9	18,0	19,2	19,8	21,2	20,5	19,8	19,6	21,3	23,3	24,5	25,4	26,4
Denmark	f	14,0	14,9	16,4	17,7	19,2	20,6	21,7	22,5	22,7	22,7	23,2	24,9	27,4	29,4	31,3	33,6
	m	12,8	13,6	14,5	15,2	16,0	16,8	17,2	17,7	17,6	17,5	17,9	19,8	22,4	24,3	30,0	28,1
Japan	f	8,4	8,7	9,5	10,3	11,5	12,9	14,5	16,9	19,4	21,9	24,1	26,4	29,6	31,3	31,9	32,5
	m	6,9	7,4	8,2	8,9	9,8	10,4	11,2	12,6	14,9	17,4	19,5	21,7	24,7	26,2	26,7	27,2

Of all the countries in the analyzed 75-years period, the largest differences in the life expectancy in favor of women, but also more than the differences in the six previously selected countries with the longest average life span, are, and as already mentioned, the Russian Federation, France and Finland. Thus, again, it is about the socioeconomically developed countries. The average difference for the entire 75-years analyzed period in the average life expectancy at the day of the birth in favor of the female population in the Russian Federation is even 8,33 years, 7,28 years in France and in Finland, 7,62 years. Thus, the age range is as follows: in the Russian Federation from 7,0 years to a record high of 10,0 years in the period of one decade, from 1975 to 1985, then in France between 5,8 and 8,2 years, while in Finland from 6,4 years to 8,6 years (Table 3.).⁹

As an example for the analyses of the observed demographic indicator in this group of countries we will take Russian Federation and other countries of the former CIS – the most spacious unit of the independent countries in the world for which it is linked, as pointed out before, the biggest difference in average life expectancy on the day of birth between the males and females, to that extent of 10 years.

Reported difference in the former CIS can be linked with an increased rate of mortality at the time of political and economic turmoil and changes in the crumbling, and then transformed USSR, at the end

⁹ It is necessary to encourage the reader to think what has happened in their personal life or in the lives of their relatives and friends (hopefully nice) in the past twenty years, so they can understand better what does it mean when someone lives 10 years longer.

Jasmina Čehajić: The differences in the average life expectancy on the day of birth between female and male population in some countries of the world within the last fifty years of the second millennium and first twenty five years of the third milenium

of 80s of the last century. ¹⁰ As it's already pointed out, the general mortality, and for all age groups, is generally higher among males than among females, and, as a result of poor living conditions, the increased death rate for both genders in the mentioned period in this country – is more related to the male population, which is reflected on its average life expectancy.

Table 3. Countries in which the difference in the average life expectancy on the day of birth is the biggest for the period 1050-2025.

Country	1950	55-	60-	65-	70-	75-	80-	85-	90-	95-	2000	05-	10-	15-	20-	Average
CIS	8.5	7.0	7.5	8.2	9.5	10.0	10.0	9.2	8.7	8.3	8.1	7.8	7.6	7.4	7.2	8.33
Finland	6.4	6.6	7.1	7.6	8.4	8.6	7.9	7.8	7.5	7.3	6.9	6.8	6.6	6.6	6.8	7.26
France	5.8	6.4	6.9	7.5	7.7	8.1	8,2	8.1	7.9	7.6	7.3	7.0	7.0	6.9	6.8	7.28

COUNTRIES WITH THE SHORTEST LIFE SPAN

The shortest life span is determined by the use of parameters of which is the most important: the lowest value of the average life expectancy of the newborns for both genders in the period between 1950- 2025; in which the time span of 30 years was defined according to the period 1950-1955 (only 30 years!); the way the todays developed countries were in the Middle Ages. This characteristic is specific for only four countries in the world – Angola, Gambia, Sierra Leone and guinea.

Table 4. Differences in the average life expectancy on the day of birth between the female and male population (number of years in favor of women) in countries with the shortest life span (1950-2025).

Country	1950-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-2000	2000-05	05-10	10-15	15-20	20-25	Average 1950-2025
Angola	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.12
Gambia	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.4	3.5	3.6	3.6	3.22
Sierra Leone	2.9	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.4	3.5	3.6	3.17
Guinea	2.9	2.9	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.4	3.5	3.6	3.6	3.21
For all countries: 3.18																

Shown in the table, the countries in this period (1950-1955), as colonies of Portugal, Great Britain and France were the socioeconomically underdeveloped areas, and all four are located in the tropical climate belt, which is, mainly due to the specific physical conditions,

¹⁰ From the 1950. to the 1975. the death rate for both genders in this countries was around 8 %, and in the period between 1975-1980 it was 10 %, then from 1980, 1985 10,7 % and 1985-1990 around 10,6 %; trend from 1990 to 2025 is expected to be around 8 %.

inhabited only by the small percentage of population.^{11 12} This contributed to such short average life span. For these four countries, the average difference in the favor of female population in the average life expectancy of newborns from the entire 75-years analyzed period is 3,18 years. The range of these differences in favor of female population is negligible and it goes from 3,22 in Gambia to 3,12 years in Angola. (Table 4.)

When analyzing a spacious differentiation of the differences in the average life expectancy of newborn female and male population, it can be concluded that the number of years in favor of women in all four countries is almost the same. (Table 4). This can be linked to the trend of lack of socioeconomic development of Angola, Gambia, Sierra Leon and Guinea, in the 75-years analyzed period

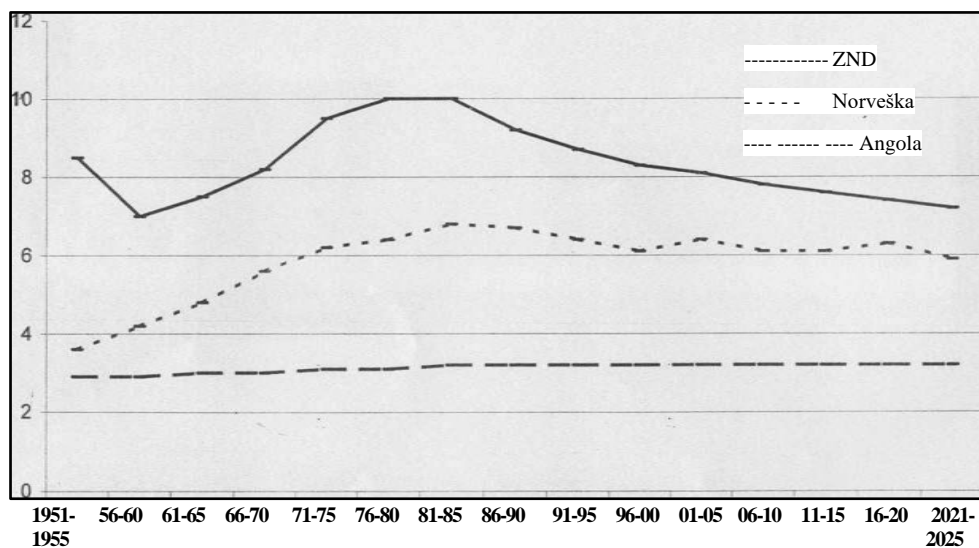


Figure 1. The differences by gender in the average life expectancy on the day of birth in the former CIS countries, Norway and Angola from 1950 to 2025.

Temporal variability of this demographic characteristic shows that in the analyzed 75-years period the height of the difference in the number of years in favor of woman's life has the trend of constant slight decrease (its lowest values were during the 50s and 60s years of 20th century, and the highest in the early 21st century. (See the stable 4 and figure 1.)

This can be explained by the biological advantage of female organism, which we talked about in the introductory part of this article, which, with a decrease in the mortality rate in conditions of improving the socioeconomic development, increases, and the slightly bigger development is present in the late 20th and, probably, the early 21st century in Angola, Gambia, Sierra Leone and Guinea.

Of all the countries in the world, within the 75-years analyzed period, only eight have male population, in the part of this period, which had slightly longer average life expectancy

¹¹ Tropical belt is inhabited only by the 20% of world's population.

¹² Angola was under the patronage of Portugal since the 1575, and from the 1951., it was considered the Portuguese overseas province.

on the day of birth than the female population. This demographic characteristic doesn't have the same temporal length in all countries selected by this criterion. Also, the difference in average life expectancy in favor of male population lasts the longest, for 65 years in two Himalayan countries; Bhutan and Nepal (from 1950 to 2015.), then 50 years in Bangladesh (1950-2000), 35 years in India (1950-1985), three decades in Pakistan and Papua New Guinea (1950-1980), 15 years in Iran (1960-1975) and one decade in Sri Lanka (1959-1960). After that, the average life expectancy of male and female population is equal for the several years in Pakistan (between 1980 and 1995), Bhutan (from 2015 to 2020) and in Bangladesh (between 2000 and 2005), after what follows the difference in favor of women. In the remaining countries, it's jokingly stated that "The reign change is direct", or, after the difference in life expectancy in favor of males, starts the interval in which that difference is in favor of women. (Table 5.)

From the observation of the countries in which men live slightly longer than woman, we see that seven of them are located in Southern Asia, and the remaining eighth (Papua New Guinea) is in Oceania.¹³ How to explain that the population of this particular part of the world is characterized by such demographic indicators? This results in connection with the fact that all eight countries are located in the tropical and sub-tropical climate zone, and all are socioeconomically underdeveloped.¹⁴ It was noted that in some socioeconomically less developed areas, the overall mortality of female population is slightly higher than the rate for males, which was contributed by the high mortality rate of women during the childbirth.

This is caused, mainly by the significant frequency of delivery in the poor health environment, poor sanitation, malnutrition etc.¹⁵ In eight countries the average life expectancy on the day of birth for both genders is short. (e.g. 1950-1955 in six countries: Papua new guinea, Bhutan, Nepal, Bangladesh, India and Pakistan it was below 40 years), so, although the female organism by the biological characteristic is somewhat more resistant than the male's, the described segment of women's ways of living results in that fact that her life span is slightly shorter than that of the opposite gender. (United nations, world population prospect 1988).

In South Asia, female population has a shorter life span than male population, and because from all major regions on Earth only this one has the mortality rate of children aged up to five years higher with girls than the boys, within which the especially large differences are on the expense of the female population when it comes to the rate of infantile mortality.¹⁶

¹³ Population division of the UN includes Afghanistan in the South Asia as well. Within the analyzed period of 75-years, this country had the same life expectancy for both genders from 1969 to 1989, and in the remaining years of this period, there's quite small "advantage" of women, i.e. for about a year

¹⁴ It was already stated that the geographical conditions of tropical belt are not so suitable for the human habitation, for example, in the zone from 0 to 20 degrees north and south, there is only around 20% of world's population. (Friganovic, M. 1990) As for the socioeconomic underdevelopment of these countries, we can use Papua New Guinea as an example, which in the late 60s of the 20th century was the most stagnant part of Oceania (Geografija, enciklopedijski leksikon, Mozaik znanje, 1969)

¹⁵ In south Asia, the number of live-born children per woman goes in the period between 1959 and 2000 from 6,11 to 4,04 children, and between 2000 and 2025 it goes from 3,95 to 2,16 children; in the same period, in Papua New Guinea these values were from 6,24 to 4,84 children and from 4,45 to 2,68 children.

¹⁶ Apart from the South Asia, the higher mortality of girls than boys (i.e. children under five years) has the Southeast Asia as well, as well the Asia when we look at the population as a whole, but with considerably smaller differences. Thus, in the period between 1985-1990, in the South Asia the mortality rate of girls was higher than the mortality rate of boys in 10 %/FIU, and in Southeast Asia 4%, and in the Asia as a whole 3%. (Oto, J. 1994.)

Table 5. Countries in which the male population has slighter longer average life expectancy on the day of birth compared to the female population, in part of the period of 1950-2025.

Country	1950-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-2000	2000-05	05-10	10-15	15-20	20-25
Bhutan	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,2	1,0	0,7	0,5	0,2	<u>0,0</u>	0,4
Nepal	1,0	1,0	1,0	1,0	1,5	1,5	1,5	1,2	1,0	0,7	0,5	0,4	0,1	0,3	1,0
Bangladesh	3,4	2,8	2,2	1,6	1,5	1,0	1,0	0,7	0,5	0,2	<u>0,0</u>	0,3	0,5	0,8	1,0
India	1,4	1,8	1,5	1,4	1,9	0,9	0,4	0,1	0,6	U	1,5	2,3	2,9	3,6	4,0
Pakistan	2,5	2,7	2,5	2,5	2,0	1,0	<u>0,0</u>	<u>0,0</u>	<u>0,0</u>	0,1	0,4	0,9	1,6	2,2	2,8
Papua New Guinea	1,1	0,9	0,6	0,5	0,1	0,5	1,5	1,6	1,7	1,8	1,9	2,0	2,1	2,2	2,8
Iran	<u>0,0</u>	<u>0,0</u>	0,3	0,6	0,7	0,8	3,6	0,5	1,2	1,8	2,2	2,5	2,6	2,8	3,0
Sri Lanka	2,1	1,6	0,4	1,5	2,0	3,5	4,0	4,2	4,3	4,3	4,4	4,4	4,5	4,4	4,5

Legend:

1,5 – the difference in favor of men

1,5 – the difference in favor of women

0,0 – the same life expectancy

With slightly higher socioeconomic development, in the broadest sense, in these countries, along with the family planning (it's already indicated that it's estimated that in the third decade of the 21st century, the number of the live-born children per woman in South Asia will be 2,16 children and in Papua New Guinea 2,68 children), etc. the life expectancy for both genders will increase, a little more for women, so, as shown in the data in table 5, at the end of the analyzed 75-years period (i.e., 2020-2025) in all these eight mentioned countries, the difference in average life expectancy on the day of birth will be in favor of female population.

For the sake of comparison, we will mention that there's a difference in life expectancy between the genders in favor of female population in Bosnia and Herzegovina as well. So, the average life expectancy on the day of birth in Bosnia was for example, during the 1952-1954 longer for 2,2 years for female compared to male population, and for the period of 1980-1981, it was longer for the 5 years, or, for example between the 1988-1989 that

The occurrence of mortality of female infants and children up to five years in South Asia can be linked to the fact that in those communities burdened by the tradition, and at the same time, by the rule, socioeconomically less developed, a lot more attention and care is paid toward the male children as heirs of material goods, as holders of family name and so on. In general, as noted before, there is the higher mortality of male than female children.

Jasmina Čehajić: The differences in the average life expectancy on the day of birth between female and male population in some countries of the world within the last fifty years of the second millennium and first twenty five years of the third milenium

difference was 5,4 years (Statistic Yearbooks of Bosnia and Herzegovina). Increase of this difference is linked to the different mortality rate of male and female population, and this is, again, related to the socioeconomic development of Bosnia and Herzegovina in the mentioned period.

CONCLUSION

The results of the demographic indicators, selected for the examination during the 75-years period clearly show its relation to the social and economic development of the observed area. In the selected socioeconomically developed countries, differences in favor of woman in average life expectancy between the genders are higher, then in less developed countries. So, the average difference for the entire 75-years analyzed period at the end of the second and the beginning of the third millennium in the average life expectancy on the day of birth in favor of female population in selected developed countries is 5,43 years, while in less developed countries, it is 3,18 years. With slight socioeconomic developed of other countries, the differences in favor of women in life expectancy between the genders are increasing.

It is quite understandable that the different lengths of life by gender reflect, among others, the age structure of female and male population. This is particularly evident with the selected countries in which the differences in favor of women in average life expectancy are higher, while in the old age group there are noticeably more women than the men.

References

- Alica Wertheimer-Baletić: Demografija. Stanovništvo i ekonomski razvitak. Informator, Zagreb 1982.
- Dušan Breznik: Demografija. Analiza, metodi i modeli. Naučna knjiga, Beograd 1988.
- Višejezički demografski rečnik, IDN, Centar za demografska istraživanja, Beograd 1971.
- Jasmina Čehajić: Srednje trajanje života novorodjenih u svijetu, razvijenim i zemljama u razvoju. Geografski list, GD BiH, Sarajevo, god.16, broj 67/1990, s. 8-11.
- United Nations (1989). World Population Prospects 1988. Population Studies No.106.
- Johannes Otto: Weltbevölkerung - bisherige Entwicklungen, gegenwärtige Strukturen und zukünftige Trends. Zeitschrift für Bevölkerungswissenschaft, Harald Boldt Verlag, Jg.19, Heft 3/1993-94-, S.323-363.
- United Nations (1991). The Sex and Age Distributions of Population: The 1990 Revision of the United Nations Global Population Estimates and Projections. No.122.
- Mladen Friganović: Demogeografija. Stanovništvo svijeta. Školska knjiga, Zagreb 1990.
- Neues grosses Lexikon. Sonderausgabe, München 1993.
- Geografija, enciklopedijski leksikon Mozaik znanja, Interpres, Beograd 1969.
- Statistički godišnjak BiH, RZS, Sarajevo 1983. Bilten Društva demografa Jugoslavije, broj 1/91» Beograd.

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