POPOPULATION AND DEMOGRAPHIC PROCESSES IN 2020

Demographic situation in Bulgaria in 2020:

- Number of population decreases and population ageing continue;
- Number of live births and crude birth rate decrease;
- Number of deaths and crude death rate increase;
- Infant mortality decreases;
- Number of marriages and number of divorces decrease;

Population number and structures

As of 31 December 2020 the population of Bulgaria is 6,916,548 persons. Compared to 2019, the country population decreases by 34,934 persons or by 0.5%.

Male population was 3,349,715 (48.4%) and female - 3,566,833 (51.6%) or to 1,000 males correspond 1,065 females. Males prevail among the population aged up to 54 years. The number and share of females into the total population have increased among the elderly.

![Figure 1. Age structure of population as of 31.12.2020](image)

The process of population ageing continues. By the end of 2020 the number of persons aged 65 and over is 1,504,048, or 21.8% of the country population. Compared to 2019, the share of population aged 65 and over increases by 0.2 percentage points.
The population aging is more intensive among female population than among male. The share of females aged 65 and over is 25.3%, compared to 17.9% - of males. The difference is due to the higher mortality among male population and consequently - lower life expectancy.

The share of persons aged 65 and more is highest in districts Vidin (30.0%), Gabrovo (29.1%) and Kyustendil (27.7%). In 20 districts share of people aged 65 and over is higher than the country average. Lowest is the share of elderly population in districts Sofia (stolitsa) - 17.7% and Varna - 19.4%.

Figure 2. Share of population aged 65 and over by district as of 31.12.2020

As of 31.12.2020, children up to 15 years of age in the country are 999 014 or 14.4% of the total population number. The share of children up to 15 years remains unchanged compared to 2019.
The share of population under 15 years of age is highest in districts Sliven - 18.5% and Burgas - 15.5% of the district population. As a total, in 17 districts the share of children up to 15 years is lower than the country average. Lowest is the share registered in districts Smolyan - 11.5% and Gabrovo - 11.6%.

As of 31.12.2020, the age dependency ratio\(^1\) in the country was 56.7\%, or to each person in “dependent” ages (under 15 and over 65 years) correspond less than two persons in “independent” ages. In 2019 the ratio is 56.4\% respectively.

The ratio is more favourable in urban areas - 53.5\% than in rural - 65.9\%. As a total, in all country districts except Sofia (stolitsa) - 48.5\%, the age dependency ratio is over 50.0\%. Most unfavourable is the ratio in districts Vidin (72.1\%), Gabrovo (68.8\%) and Lovech (68.2\%).

The population ageing leads to increase of the population mean age. It has increased from 40.4 years in 2001 to 44.0 years at the end of 2020.

Ageing of population is observed both in urban and rural areas. In urban areas, the mean age of population is 43.1 years, compared to 46.6years - in rural areas.

The tendency of population ageing influences the distribution of population under, at and over working age. The last are influenced not only by the population aging, but also by legislative changes\(^2\) concerning the retirement age. In 2020, at working age are women up to completion of 61 years and 6 months and men up to completion of 64 years and 3 month.

The number of population at working age as of 31.12.2020 is 4 139 thousand persons or 59.8\% of the total population, of which male are 2 168 thousand and female - 1 971 thousand persons. The population at working age decreased by almost 17 thousand or by 0.4\% compared to the previous year.

\(^1\) Number of persons in ‘dependent’ ages (persons under 15 years of age and 65 and more) per 100 persons in ‘independent’ ages (persons aged 15 to 64 years) calculated in percentage.

\(^2\) Age limits used for distribution of population under, at and over working age are defined according to Ordinance on pensions and length of insurance, adopted by the Decree of the Council of Ministers No. 30 (State Gazette 21/17.03.2000).
By the end of 2020, the number of population over working age is 1 713 thousand persons or 24.8% and under working age are 1 064 thousand persons or 15.4% of the country population.

**Figure 4. Population under, at and over working age as of 31.12.**

The reproduction of population at working age is characterized by **the coefficient of demographic replacement**, showing the ratio between the number of persons entering working age (15 - 19 years) and number of persons exiting it (60 - 64 years). As of 31.12.2020, the ratio was 67. For comparison, in 2001 every 100 persons exiting working age have been replaced by 124 young people.

Highest is the ratio in districts Sliven - 90, Sofia (stolitsa) - 79 persons and Varna - 78. Lowest is the ratio in districts Smolyan - 41, Kardzhali - 48 and Pernik, where 100 persons exiting working age are replaced by 50 persons entering it.

**Territorial distribution of population**

As of 31.12.2020, 5 043 186 or 72.9% of the total country population reside in urban areas and 1 873 362 or 27.1% - in rural ones.

There are 5 257 settlements in Bulgaria by the end of 2020, of which 257 - towns and 5 000 - villages.

At the end of 2020, there are 164 settlements without population. Highest is the number of settlements without population in districts Gabrovo, Veliko Tarnovo and Kardzhali - 62, 54 and 11 respectively.

The population number is between 1 and 49 persons incl. in 1 156 or 22.0% of the settlements.

There are six towns with a population above 100 thousand persons and 34.1% of the country population lives there.
According to the country administrative-territorial structure, there are 6 statistical regions, 28 districts and 265 municipalities in Bulgaria.

**Statistical regions**

Half of the country population (50.4%) lives in Yugozapaden and Yuzhen tsentralen regions. Smallest according to the population number is Severozapaden region - 720 thousand persons or 10.4% of the country population.

The population number decreased compared to 2019 in all statistical regions; highest is the decrease in Severozapaden and Severen tsentralen region - by 1.1% and lowest - in Yuzhen tsentralen region - 0.2%.

1. **Population by statistical region as of 31.12.2020**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
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<tr>
<td>Yuzhen tsentralen</td>
<td>1403991</td>
<td>20.3</td>
<td>-2639</td>
<td>-0.2</td>
</tr>
</tbody>
</table>
Districts

Lowest is the number of population in district Vidin - 81,212 persons or 1.2% of the country population and highest in district Sofia (stolitsa) - 1,308,412 persons (18.9%). Six districts have population above 300 thousand persons and in three of them, Sofia (stolitsa), Plovdiv and Varna, lives more than 1/3 of the total country population (35.3%).

2. Population by districts as of 31.12.2020

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
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<td>-0.5</td>
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<td>Blagoevgrad</td>
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<td>Burgas</td>
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<td>5.9</td>
<td>485</td>
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<tr>
<td>Varna</td>
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<td>239</td>
<td>0.1</td>
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<td>Veliko Tarnovo</td>
<td>229718</td>
<td>3.3</td>
<td>-2850</td>
<td>-1.2</td>
</tr>
<tr>
<td>Vidin</td>
<td>81212</td>
<td>1.2</td>
<td>-1623</td>
<td>-2.0</td>
</tr>
<tr>
<td>Vratsa</td>
<td>157637</td>
<td>2.3</td>
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<tr>
<td>Gabrovo</td>
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<td>Montana</td>
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<tr>
<td>Pernik</td>
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<td>Pleven</td>
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<td>Razgrad</td>
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<td>-1.3</td>
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<td>-1568</td>
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<td>Smolyan</td>
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<td>-1645</td>
<td>-1.6</td>
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<td>Sofia</td>
<td>238476</td>
<td>3.4</td>
<td>11805</td>
<td>5.2</td>
</tr>
<tr>
<td>Sofia (stolitsa)</td>
<td>1308412</td>
<td>18.9</td>
<td>-20378</td>
<td>-1.5</td>
</tr>
<tr>
<td>Stara Zagora</td>
<td>311400</td>
<td>4.5</td>
<td>-1996</td>
<td>-0.6</td>
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<td>Targovishte</td>
<td>110027</td>
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<td>-887</td>
<td>-0.8</td>
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<td>Haskovo</td>
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<td>Shumen</td>
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<tr>
<td>Yambol</td>
<td>116486</td>
<td>1.7</td>
<td>-849</td>
<td>-0.7</td>
</tr>
</tbody>
</table>

Compared to 2019, the population has increased in five district - Sofia, Kardzhali, Pernik, Burgas and Varna. Highest is the increase in Sofia - 5.2% and Kardzhali -1.6%. In all the rest twenty three districts, a decrease is observed, highest one in districts Vidin - 2.0% and Smolyan -1.6%.
Municipalities

The distribution of population by municipalities is not uniform. There are 74 municipalities with population below 6,000 and hardly 4.0% of the country population lives there. At the same time, there are nine municipalities with population over 100 thousand people and 41.4% of the country population lives there. Highest is the number of population of municipality Stolichna (1,308,412), followed by Plovdiv (342,048) and Varna (341,516). Lowest is the number of population of municipality Treklyano – 768 persons.

Table 3. Municipalities according to the population number as of 31.12.2020

<table>
<thead>
<tr>
<th>Size of municipality</th>
<th>Municipalities</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>100.0</td>
</tr>
<tr>
<td>Up to 5999</td>
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<td>27.9</td>
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<tr>
<td>6000 - 19999</td>
<td>120</td>
<td>45.3</td>
</tr>
<tr>
<td>20000 - 49999</td>
<td>47</td>
<td>17.7</td>
</tr>
<tr>
<td>50000 - 99999</td>
<td>15</td>
<td>5.7</td>
</tr>
<tr>
<td>100000 and more</td>
<td>9</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Basic factors influencing the changes of population number and structures are the demographic processes - fertility, mortality and migration.

Fertility

There are 59,440 children born in 2020, of which 59,086 (99.4%) - live born. The number of live births decreased by 2,452 children or 4.0%. compared to the previous year.

Figure 6. Live born children within the period 1920 - 2020
The crude birth rate\(^3\) in 2020 is 8.5‰, compared to 8.8‰ in 2019.

The number of live born males (30 372) is by 1 658 higher compared to the live born females (28 714), or 945 females correspond to 1 000 born males.

The number of live born children in urban areas is 43 829 and in rural - 15 257. Crude birth rate in urban areas is 8.6‰ and in rural - 8.2‰.

In Bulgaria, highest is the crude birth rate in districts Sliven – 11.7‰ and Sofia (stolitsa) - 9.9‰. The crude birth rate is lower than the country average in 19 districts and lowest in districts Vidin - 5.8‰ and Gabrovo - 5.9‰.

**Figure 7. Crude birth rate by district in 2020**

The number of women in fertile age (15 - 49 completed years) or the size and fertility of the fertile contingents in the country influences considerably the fertility levels and the character of population reproduction.

The number of women in fertile age as of 31.12.2020 is 1 452 thousand. It has decreased with 13 thousand compared to the previous year and with 199 thousand compared to 2011.

The number of children born by mothers aged below 18 years in 2020 is 2 897. Tendency of increase the number of children born by mothers aged 40 and over continue - 2 284 in 2019 compared to 2 320 in 2020.

Half of births (50.5%) in 2020 are first ones, 36.7% second and 12.6% - third or higher of rank.

\(^3\) Number of live born children per 1 000 persons of the average annual population during the year.
Total fertility rate (TFR)\textsuperscript{4} is one of the basic indicators characterising the fertility. The \textbf{average number of live born children per women in 2020 is 1.56} and it is increased by 0.02 compared to 2019.

The mean age of women at first birth has increased from 27.3 in 2019 to \textbf{27.5 years in 2020}. Mean age of women at first birth varies from 30.3 in district Sofia (stolitsa) to 22.5 in district Sliven.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure8}
\caption{Mean age at first birth and TFR by district in 2020}
\end{figure}

There are 1 043 multi-foetal births registered in 2020 or 121 more than in 2019. In 1 033 of the cases, two children are born, in 10 - three children.

\textbf{The number of children born outside marriage in 2020 is 35 486 or 59.7\%} of the total number of births. The share of extramarital births in rural areas (65.5\%) is higher than in urban (57.7\%). For 79.6\% of the extramarital births data on the fathers exists, i.e. most probably the children are grown up in families by parents cohabiting without marriage.

Highest share of extramarital births is registered in districts Lovech (77.2\%) and Vratsa (76.8\%). The share of extramarital births in all country regions is higher than 50.0\% except in districts Blagoevgrad (48.0\%), Razgrad (43.8\%), and Kardzhali - (39.3\%).

\footnote{\textsuperscript{4} Average number of live born children, whom a mother would give birth to during her entire fertile period according to the age specific fertility rates during the reporting year.}
Mortality

The number of deaths in 2020 is 124 735 and the crude mortality rate\(^5\) - 18.0‰. Compared to the previous year the number of deaths has increased by 16 652 or 15.4%.

**Figure 9. Deaths within the period 1920 - 2020**

Mortality among males (19.6‰) continues to be higher than among females (16.4‰). In 2020 there are 1 122 deaths of males per 1 000 deaths of females. The considerable differences in mortality in urban and rural areas also remain unchanged. Mortality rate in rural areas (24.2‰) is higher than in urban ones (15.7‰).

In 2020 the crude mortality rate by districts is between 13.4‰ and 27.7‰. Highest is the mortality in districts Vidin - 27.7‰, Montana - 25.5‰, Kyustendil and Gabrovo - 24.0‰. There are six districts where the mortality rate is lower than the country average. Lowest is the mortality rate in districts Sofia (stolitsa) - 13.4‰.

For comparison, in 2019 the crude mortality rate by districts is between 11.8‰ in Sofia (stolitsa) and 22.9‰ in Vidin.

Compared to 2019, the crude mortality rate increase in all the districts of the country. Biggest is the increase in the districts Vidin - 4.8 per mille points, Razgrad and Smolyan - 4.6 per mille points each. Lowest is the increase in districts Burgas - 1.2 per mille points and Sofia (stolitsa) and Lovech - 1.6 per mille points each.

\(^{5}\) Number of dead persons per 1 000 persons of the average annual population during the year.
The premature mortality\(^6\) in 2020 (20.5%) remain unchanged compared to 2019 (20.5%). There are considerable differences in the premature mortality indicator for male and female population. The dead females aged under 65 years represent 13.7% of all dead females, while among the males it is 26.6%.

There are 301 children who die up to 1 year of age in 2020 and the infant mortality rate\(^7\) is 5.1‰. The infant mortality rate was 14.4‰ in 2001 and 5.6‰ in 2019.

The infant mortality rate for 2020 is lower than the country average in 12 districts. Lowest values are registered in districts Ruse - 2.0‰ and Sofia (stolitsa) - 2.4‰. Highest infant mortality rate is registered in districts Sliven (11.7‰) and Montana (10.8‰).

\(^{6}\) Share of deaths of persons below 65 years of age of the total number of deaths.

\(^{7}\) Number of children who die up to 1 year of age per 1 000 live born.
Marriages and divorces

There are 22,172 juridical marriages registered in 2020, or 7,026 less than the previous year. The marriage rate is 3.2‰. Nearly three quarters of the total marriages number (16,124) are registered among urban population.

The mean age at first marriage in 2020 is 32.5 years for males and 29.4 - for females. Compared to the previous year, the mean age at first marriage has increased by 0.5 years for males and by 0.3 years for females.

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8 Number of marriages per 1 000 population.
85.5% of females and 85.1% of males have married for the first time in 2020. 

Highest is the marriage rate in districts Dobrich - 4.2‰. Lowest is the marriage rate in district Vratsa - 2.1‰.

The number of divorces in 2020 is 9 015 or 1 844 less than in 2019. Out of the total number of divorces 78.5% refers to the urban population.

Highest is the number of divorces by ‘mutual agreement’ (64.8%), followed by divorces due to ‘incompatibility of temperament’ (22.2%) and ‘virtual parting’ (11.3%).

The divorce is not the first one for 9.6% of female and 10.6% of male who divorced in 2020.

The average duration of a marriage before the divorce in 2020 is 15.7 years.

Internal migration

197 242 persons change their residence within the country in 2020. Among the migrants within the country, 49.2% are male and 50.8% - female.

Highest is the share of internal migrants aged 40 - 59 years (29.6%), followed by persons aged 20 - 39 years (28.1%).

The share of flow ‘town - village’ is highest one (48.4%), followed by the flow ‘town - town’ - 29.9% and ‘village - town’ (15.3%). Considerably lower is the number and share of the flow ‘village - village’ (6.4%).

Figure 14. Directions of the internal migration in 2020
Out of the internal migrants, highest is the number of people who migrated to Plovdiv - 21 320. Districts with highest shares of migrants to Plovdiv are Sofia (stolitsa) - 7.7%, Pazardzhik - 4.0% and Smolyan - 3.7%. Lowest are the shares of migrants to Plovdiv from districts Razgrad - 0.2%.

**International migration**

6 649 persons change their current address in Bulgaria with an address abroad in 2020 - 57.1% male. Among persons who emigrated from Bulgaria, 36.1% are aged 20 to 39 years. The youngest emigrants (under 20 years) are 12.1% of the total number and the emigrants over 60 years of age - 18.9%. Most preferred destination countries are Germany (22.2%), Russian Federation (14.6%) and Turkey (13.0%). Persons who change their address abroad with an address in Bulgaria, or the immigration flow, includes Bulgarian citizens who have returned to Bulgaria and citizens of other countries granted residence permit or status in Bulgaria. **There are 37 364 persons who changes their address abroad with an address in Bulgaria in 2020.** Male represent 52.0% of the total number of immigrants and female - 48.0%.

Among the immigrants to Bulgaria, 34.2% are aged 20 - 39 years and 32.3% - 40 to 59 years. The youngest immigrants (under 20 years) are 13.6% and the oldest, over 60 years of age - 19.9%.

Highest is the share of immigrants from Turkey (24.3%), Germany (9.6%) and the Russian Federation (9.3%).

**Population natural and migration growth**

The population number and structures are defined by the size and intensity of the natural and migration growth.

The difference between the number of live births and deaths represents the natural increase of population. The country’s demographic development after 1990 is characterised by a negative natural increase. **Due to the negative natural increase the country population decreases by 65 649 persons in 2020.**

The population decrease, measured through the natural increase rate is minus 9.5‰. The natural increase rate in urban areas is minus 7.1‰, compared to minus 16.0‰ in rural areas.

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9 Difference between the number of live births and number of deaths per 1 000 of the average annual population.
Figure 15. Natural growth by districts in 2020
(Per 1 000 population)

The natural increase in all country districts in 2020 is negative.

Lowest is the negative growth in districts Sofia (stolitsa) (-3.5‰) and Varna (-5.7‰). Highest is the population decrease due to the high negative growth in district Vidin (-21.9‰), followed by Montana - minus 18.2‰ and Gabrovo - minus 18.1‰. Higher than minus 10.0‰ is the natural growth in twenty one country districts.

Net migration (growth due to international migration) influences considerably the population number and structures. The net migration growth in 2020 is positive – 30 715 persons. The last is the difference between the number of immigrants and number of emigrants.

The change of population due to the international migration measured through the coefficient of net migration is +4.4‰\(^{10}\).

There are twenty four districts with a positive migration growth in 2020: Sofia (63.0‰), Pernik (26.6‰), Kardzhali (23.2‰).

Highest population decrease due to the negative migration growth is registered in districts Sofia (stolitsa) (-11.9‰), Sliven (-2.2‰), Smolyan (-1.7‰) and Veliko Tarnovo (-0.1‰).

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\(^{10}\) Ratio of the net migration to the average annual population.
Methodological notes

The population number and structures by the end of year are calculated based on the population data for the preceding year and data on the population natural and migration movement during the reference year.

Source of data on population number and structures is the Information System Demography of the NSI.

Data source on natural and migration movement of population (births, deaths, marriages, divorces, migration) is the Unified System for Civil Registration and Administrative Service of Population (Bulgarian acronym ESGRAON). Demographic events are registered through standard documents ESGRAON-CDS (Current Demographic Statistics): notification for birth, notification for marriage, notification for divorce, notification for death and address card for change of a present (current) address.

Data source on international migration are the Unified System for Civil Registration and Administrative Service of Population, document ESGRAON-CDS: notification for change of present address; National Revenue Agency; National Social Security Institute; Ministry of Interior; Estimates of emigration flows.

Data on population number and demographic events are distributed according to the administrative-territorial division of the country as of 31.12 of the reference year (settlements, municipalities, districts) and statistical regions according to the ‘present address’. The last is the address corresponding to the residence declared by the person and officially registered.

The age of population by the end of year is calculated as of 31.12. in completed years.

The persons’ age at occurrence of a demographic event is calculated in completed years based on the date of birth and the date of respective event, i.e. the age completed at the time of event.

The demographic indicators are calculated based on the average annual population. The last is an arithmetical average of the population number by the end of previous and the end of reference year.