The natural change of population represents the difference between the number of live births and the number of deaths, the two decisive factors of population development. Although in our modern, post-industrial society migration is an important factor in population change, the major changes of population development can still be traced by comparing births and deaths and by revealing the underlying processes. The process of natural change is the difference between the number of births and the number of deaths. The growth of a population is defined by the absolute number of births minus the absolute number of deaths. In other cases (e.g. 1947), when comparing the total population (or more precisely, the live birth rate), the actual increase in population was born between the 1920s and the end of the 1960s the difference between the number of births and the number of deaths, with the two-child family model becoming dominant among mothers born in or after 1941. This was man- ifested in a drop in the birth rate to below 15% by 1960. Meanwhile, the decrease in the death rate from 35% to around 15% was the result of a dynamic increase in life expectancy at birth, rising from less than 40 years around the turn of the century. By 1960, average life expectancy reached almost 66 years for males and 70 years for females. The decrease in infant and early childhood mortality was particularly spectacular whereas at the end of the 19th century, one in four infants died before their first birthday, the figure fell below 50% by the 1960s and below 10% in the late 1990s. The demographic transition was thus marked by women going from fewer and fewer children, with

Gynaecological care (Gyna: gynecologikai szakirodalmi biztosítás) is also important. In Hungary, within the framework of the family support system in an individual, monthly entitlements were introduced in 1967 to address the problem of labour shortages and an aging society. Gynaecological care (Gyna: gynecologikus díj, abbreviation: ‘gyd’) in Hungary is an extremely in- nate development to the non-medical cost compensations for the loss of the partner. Intro- duced in 1967, it was discontinued in 1996 but re-introduced within the context of health insur- ance benefits.

Economic and institutional changes following the collapse of communism radically altered the exist- ing reproductive system. As in the other former communist countries, there were changes in the cre- dit availability in the first years and age at starting a family. The number of years spent studying increased, and the age at which people entered employment became less certain. In general, life became more unpredicta- ble, and the cost of having children increased. Many postponed their plans to have children, resulting in a total fertility rate of 1.3. For a decade or so, the num- ber of live births was constantly less than 100,000 a year.

The total fertility rate (TFR) is the average number of children who would be born per woman if her coitus were to experience, throughout their child- bearing years, the current age-specific fertility rates. The TFR is the sum of age-specific fertility rates of women in age categories from 15 to 49 years. It chang- es and fluctuates from year to year. The TFR is one of the most useful indicators of fertility because it shows how many children women are presently having.

The fact that a TFR of 1.3 was sustained for more than a decade was essentially the consequence of the postponement of childbearing, which affected young people until 2011. The age of having the first child for women increased on average to 28 years. After the pe- riod of postponement – although somewhat delayed by the economic crisis – the ‘explosion’ of post- poned children began. In the data also suggest child- bearing behaviour has also changed directionally not only has the highest fertility rate been reached this year (2016) but the fertility rate steadily increased and the number of children born increased. When comparing the number of children born per 1,000 women aged 15 to 49 years, the fertility rate increased from 1.0 children per woman in 2011 to 1.4 children per woman in 2016. As the birth rate increased, the number of children born per 1,000 women aged 15 to 49 years (

Fertility trends, a change in the fertility model

Fertility trends in changes in fertility behaviour, the decisive factor influencing the number of births, have been shown to be driven by the age of women at the end of the communist period, the family model of having children early had stabilised, and families with two children were common. Young people’s careers were character- ized by a clearly visible rhythm after finishing school, everyone started work, got married and had children. The first total fertility rate (TFR) was around 1.8 in the 1980s, but the expected fertility of women during this 30-year period did not change, and their fertility cycle exceeded this and approached 2.6. Then, for women born around 1960, it exceeded 2.0. Doubtless this was the result of a system where the expanding sphere of family support was diverse, and even essential. A wide range and extensive system of childcare allowances (including ‘Gyed’ and ‘Gyed’), housing support and price subsidies of childcare prod- ucts helped to normalise the dual-earner and two-child family model.

Indeed, even 70-80 years later, the population pyra- mid bore traces of that conflict, including some ‘in- complete’ generations. The Great Depression led to a sharp decline in the birth rate. Before World War II, the number of deaths was increased by epidemics af- fecting infant and early childhood mortality. As a result (especially the second ones) were marked by a greater loss of life (i.e. high mortality).

Population policy also had a significant impact on the number of births after World War II. The ban on abortion in the 1950s and the introduction of child- care allowances (e.g. Gyogyút and ‘Gyed’) in the 1970s and 1980s brought about a temporary but significant increase in the birth rate. However, such policies affect- ed only the timing of having children rather than the final number of children. Indeed, by the early 1960s, fertility rates were already lower than the rate then prevailing in the world.

Nevertheless, after the 1950s, the fluctuating but steady decline in fertility and in the number of births, as well as the increasing and then stagnant, slowly decreasing trend in mortality rates resulted in the natural population decrease. Moreover, this trend was not in- fluenced significantly by international migration until the early 1990s. As a result, when compared to other countries, this region has much higher life expec- tancy in areas inhabited by peripheral, disadvantaged, poor and rural families in comparison to the mod- est incomes. Some of these areas are defined by a specific historical demographic heritage (e.g. areas inhabited by the Ukrainians in Maramureș and Bucovina populated in the Northeastern Carpathians between the High Tat- ras and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Szà- rrom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Szà- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Sza- rrom and Maramureș or the Greek Catholic areas of Szà-
Based on the figures, it can be concluded that society is lowest in these. It is not possible to clearly recognise economic, religious or ethnic reasons for the regional differences in the marriage indicators for women. In some of the regions with the most religious populations (e.g. Rábaköz, Baranya and the eastern half of Tolna, the settlements of Kalocsa, Nógrád, northern Heves, southern Borsod) the marriage rate for women is relatively high, while in other areas with similarly strong ecclesiastical ties (e.g. regions in Transylvania and Slovakia – about 50-52 thousand) have been registered each year (TFMR). In Hungary (0.65) it is below average. In the economically most developed northwestern areas of Hungary, both high and low marriage rates can be found. However, that in Budapest and its agglomeration, the propensity for marriage dropped below the national average everywhere in the last five years (0.65). By comparing data from 2010 and 2017, we can discern regional fluctuations in the propensity to marry. Békés County, which had one of the lowest values in 2010, was at the forefront by 2017, but the number of marriages decreased sharply in Western Transylvania and Budapest, where in 2010 the propensity to marry was average or above average. In areas with high marriage rates in 2017, women were generally more likely to marry at a young age. In northeastern Hungary, the marriage rates of teenage women were notably high, while in the Alfold (Great Hungarian Plain) this was true of women aged 20–34. In contrast, where there are fewer marriages, the propensity to marry is generally low among women aged under 25 years and high among women aged 30–49 years. A high economic fluctuations and certain social policy measures have also played a major role in the pattern of marriages, the basic trend has been the spread of registered partnerships and the postponement of marriages to a later age. The latter account for the increase in the rate of births outside marriage as well as regional differences. The shifts in relationship behaviour and the spread of registered partnerships and sin...
The improvement was due to a reduction in infant mortality. The number of deaths per thousand inhabitants (i.e. the crude mortality rate) will naturally be higher. In contrast, the natural increase or decrease of population cannot be explained by altering behaviours and lifestyles. The social environment also contributed to the division of mortality caused by diseases of the circulatory system was the main explanation for the deterioration in the region. In addition to human-made diseases (e.g. smoking), ‘social pathologies’ (suicide, alcoholism) and environmental factors also contributed to the division of mortality in terms of morbidity. The relative deterioration in the Eastern Bloc countries was caused by an accumulation of disadvantages. Unhealthy behaviours became widely accepted and were a part of everyday life. The conditions for maintaining health were limited and a lack of economic resources hindered the introduction of modern (and costly) treatment methods. The centralised social system failed to encourage individuals to take responsibility for their own health by altering behaviours and lifestyles. The social environment and unhealthy working conditions also contributed to early deaths in the population. The mortality crisis in Hungary peaked in 1993. The further east we look, the more severe this crisis grew, and the longer it took to overcome it.

The number of deaths per thousand inhabitants (i.e. the crude mortality rate) expresses mortality’s effect on the natural increase or decrease of population. No caution should be exercised when interpreting this indicator, as it is calculated for the population as a whole. This means that in populations with a significant proportion of older age groups with high mortality, the crude mortality rate will naturally be higher. In contrast, life expectancy at birth was undermined by the appearance of a divorce not only questions the institution of marriage as a lifestyle in relationships. The proportion of births outside marriage started to increase in the country. The latter, only a fifth of newborns fall in this category. In Slovenia, the proportion of births outside marriage increased rapidly to nearly 60% by 2015. In Hungary, 48% of children were born outside marriage in 2015, since which time there has been stagnation and a slight decrease. The phenomenon is less common in Ukraine, Romania and Croatia whose populations are more religious. Indeed, in the latter only a fifth of newborns fall in this category.

Regarding the rate of births outside marriage (as a percentage of total live births), regional differences in the Carpathian Basin are even more pronounced than in the case of the marriage pattern. Evidently, those areas where the vast majority of newborns born married parents are the same as those with the highest marriage rates (e.g. the Northern and Northeastern Carpathians, the aforementioned urban areas in Transylvania and the Croatian-Slavonian areas). In the same time, the proportion of children born outside marriage is highest where the Roma population (with low and moderate marriage rates) constitutes a particularly high proportion of the total population (e.g. in the southeastern third of Slovakia, the northern and northeastern margins of Hungary, Southern Transylvania, the Central Transylvania Region, the Partium and the Transylvanian Basin, cf. and ).

In other countries in the region, this was the case for 7-8% of children in 1990, after which the share started to increase everywhere. In Slovenia, the proportion of births outside marriage increased rapidly to nearly 60% by 2015. In Hungary, 48% of children were born outside marriage in 2015, since which time there has been stagnation and a slight decrease. The phenomenon is less common in Ukraine, Romania and Croatia whose populations are more religious. Indeed, in the latter only a fifth of newborns fall in this category. Regarding the rate of births outside marriage (as a percentage of total live births), regional differences in the Carpathian Basin are even more pronounced than in the case of the marriage pattern. Evidently, those areas where the vast majority of newborns born married parents are the same as those with the highest marriage rates (e.g. the Northern and Northeastern Carpathians, the aforementioned urban areas in Transylvania and the Croatian-Slavonian areas). In the same time, the proportion of children born outside marriage is highest where the Roma population (with low and moderate marriage rates) constitutes a particularly high proportion of the total population (e.g. in the southeastern third of Slovakia, the northern and northeastern margins of Hungary, Southern Transylvania, the Central Transylvania Region, the Partium and the Transylvanian Basin, cf. and ).

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The number of deaths per thousand people is below average in the more developed areas with higher standards of living and in the northern and northeastern areas with more productive populations and a more favourable age composition. The same applies to Budapest and its agglomeration, the Hódvás and Sárváros regions, the dynamically developing Németvölgy region in Serbia, and the major cities in Transylvania. A high mortality rate is fundamentally typical for regions with aged populations that have also been affected by emigration and net negative internal migration (the
as the level of education rises, the neonatal mortality rate decreases. For this reason, too, the social composition of the population and the level of economic development are important for the pension system and the institutional system of health and social care for the elderly. Life prospects among the elderly population are similar in several respects to life expectancy at birth, which characterises general mortality. Yet, the differences between countries are smaller. In the post-communist countries, the trend generally started with stagnation and a minor halt in the early 1990s. Then – except for Romania – life expectancy in old age steadily improved everywhere. For the period as a whole, life expectancy at the age of 65 was highest in Austria (20.1 years in 2017), and the Slovakian and Austrian levels in Hungary closely resemble that of life expectancy at birth (cf. 16 and 17). At this age, people living in Budapest and along the northern shore of Lake Balaton have a life expectancy of at least 18 years, reflecting the significant proportion of high-status Hungarian and foreign elderly people. In some of the elite Budapest districts (I, II and XIII), life expectancy at 65 is 20 years (i.e. today’s Austrian level). The collapse of communism occurred three decades ago. The subsequent period is long enough to ascertain spatial changes in lifespans and to evaluate how evenly or unevenly the improvements in expectancy have been and which areas were able to benefit from the improvement in mortality that has characterised society as a whole. In the period between 1985 and 1998, the maximum life expectancy at birth was 71.5 years at district level. Over the past three decades, this indicator improved in all districts, but the rate of improvement was not uniform. Spatial mortality inequalities among districts decreased moderately. There has been a modest improvement in the regions of Borsod, Gömör, Abaúj and in the Central Tisza Region, where life prospects have improved by only 3–5 years. Similarly, this indicator has increased only modestly in the western Hungarian border areas with traditionally high life expectancy and in most districts...
in the Alfold. In contrast, there has been an improve- ment of more than 8 years along the northern shore of Lake Balaton and in some parts of the Budapest agglomeration. Overall, it can be concluded that the extent of the improvement in lifespan was influenced by the initial level of mortality, the success of the mar- ket economy transition, the prosperity of the green region, and the evolution of the standard of living af- ter the collapse of communism.

Causes of death

In recent decades, the cause-of-death structure in the European countries with their developed health sys- tems has remained largely unchanged. Half of deaths are caused by cardiovascular diseases, a quarter by cancer in the West, just like in the East. Even so, in the former communist countries, mortality levels are higher, and deaths occur at younger ages. This justi- fies a detailed spatial examination of the mortality caused by the two main disease groups.

Regional inequalities in mortality caused by the cir- culatory system have determinants that resemble those of general mortality (standard of living, health behav- iour, health care, psychosocial stress). Based on an ex- amination of the rate of deaths caused by the circula- tory system per 100,000 inhabitants, it can be con- cluded that this type of mortality is high in much of the Carpathian Basin (especially in peripheral rural areas such as the Dunaerd, the Serb-Romanian border zone of Banat, the Banat Mountains and the Apuseni Mountains). In contrast, cardiovascular diseases in areas with higher standards of living and good healthcare (mostly in the major cities) are less likely to lead to death.

Regional inequalities in deaths caused by diseases of the circulatory system in Hungary can be illustrated by the so-called standardised mortality ratio (SMR), which expresses differences in mortality in particular areas compared to the national average: if mortality in a region is higher than the national value, its stand- arised mortality ratio is greater than 100%. It can be observed that the SMR is the lowest (67%) in District II of Budapest with a population of high social status, it is the highest in the central areas of the region from the Tisza to the Maros rivers, the central areas of Transylvania (Jászság, Tapióság, the northwestern foreland region from Ipoly to Maros rivers, the central areas of Transylvanian counties like Hunedoara and Sălaj). The outliers in this regard were Slovakia and Zakarpattia, where, for historical reasons, this indicator remains low for historical reasons.

In the period between the two world wars, as live births decreased at a faster rate than deaths, the frequency of screening tests and a higher quality of care systems can be attributed to this cause of death in Hungary, as the extent of the improvement in lifespan was influenced by the initial level of mortality, the success of the market economy transition, the prosperity of the green region, and the evolution of the standard of living after the collapse of communism.
in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life (e.g. the Ceaușescu regime’s draconian abortion ban of 1966, which, in the 1960s and 1970s, various attempts were made to reverse demographic decline, sometimes affecting the intimate spheres of family life). The beneficial effect of these measures could only halt or reverse the decline in natural increase for a few years. The dramatic change, when the number of deaths exceeded the number of live births, occurred first in Hungary (in 1981) and then in Vojvodina (1989), Croatia (1991), and Transylvania (1992).