

Ukraine: Trends and Regional Dynamics in Population, Health, and Migration

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Today's conflict in Ukraine hinges on perceptions of a stark East-West political divide. This memo assesses the extent to which geographic variation characterizes other elements of today's Ukraine, mainly those related to human capital: demography, health, and migration. It also examines human capital factors as determinants or limits impacting the near- to medium-term trajectory of the country as a whole. In sum, demographic decline is even more severe in Ukraine than in Russia. As a result, an aging and unhealthy Ukrainian population will constrain pathways forward for the development of its conscription pool and labor force, and elder-care obligations will increasingly burden public sector budgets. These negative trends are significantly more pronounced in the eastern, central, and southern parts of Ukraine than in the west.

Ukraine's population has been declining steadily since 1990, with a drop of 6.3 million people, or 12 percent, between 1990 and 2012 (see **Chart 1**). The United Nations Population Division predicts a continued decline to below 34 million by 2050.¹

Ukraine performs poorly on all dimensions of population movement. The total fertility rate—the average number of children borne by a woman in her lifetime—is well below the 2.1 necessary for stable population replacement. Ukraine's women had two or more children, on average, for much of the 1980s, but childbearing began to plummet at the end of that decade. Although the total fertility rate has been on the rise since 2001, growth remains anemic (see **Chart 2**). Some analyses attribute the uptick, in part, to a 2005 increase in government payments for the birth of a child and continued financial support to the mother over the first year of a child's life, as well as expanded maternity leave, but clearly these incentives have not been sufficient to stem the direction or magnitude of population decline.

¹ Data presented throughout, unless otherwise specified, are from official Ukrainian statistical handbooks/websites and/or data from the U.S. Census Bureau, the United Nations Population Division, or the World Bank.

Like Russia, the Ukrainian birth rate has been far outpaced by the death rate for virtually all of the post-Soviet period. But unlike Russia, Ukraine's "scissors" (the gap between deaths and births) have not closed in recent years (see **Chart 3**). The high death rates correlate with risk factors identical to those in Russia: a still-high prevalence of smoking (though reported rates have declined significantly, from 37 percent in 2005 to 26 percent in 2010, largely due to excise tax hikes), excessive alcohol consumption (especially binge drinking—consuming more than five drinks in a single day in the past month—practiced by 20 percent of the population), poor access to quality healthcare, and stress borne of low perceived control over one's life circumstances. One-third of the adult male population are regular binge drinkers. Nearly half of the adult Ukrainian population suffers from one or more chronic diseases, with these diseases afflicting more and more young adults (for example, one in five 18- to 29-year-olds are hypertensive). As in Russia, a mortality crisis has particularly impacted men of working age. In Ukraine, more than one-fifth of men die between the ages of 40 and 60, and in the 40-49 age group, men die at a rate three times that of women. Overall, there are only 0.85 males in Ukraine for every female. Ukraine also has the highest mortality rate from infectious disease (primarily HIV and tuberculosis) in all of Europe (as defined by the World Health Organization), surpassing even Russia, though infectious disease remains a relatively low contributor to mortality when compared to non-communicable disease and injury.

As fewer women were born in the population cohorts now coming into child-bearing age, and the total number of children per woman remains low, it is difficult to see how this population decline can be reversed in the foreseeable future (see **Chart 4**). Furthermore, life expectancy remains lower than in richer countries with comparably low fertility, with Ukraine's life expectancy numbers in 2013 (63.8 for men, 74.9 for women) even lower than Russia's (65.4 for men, 76.5 for women).

These demographic trends bode poorly for Ukraine's current and future pool of young men eligible for military conscription, and for its future labor force. The absolute number of 15- to 19-year-old males has been declining since 2002 and is projected to reach an absolute low point—at a level about *half* the 2002 number—in 2018, but the projected upswing thereafter is remarkably small (see **Chart 5**). The downturn in numbers of adult men in the labor force naturally trails that in the conscription pool by ten to thirty years.

These national figures mask considerable regional variation. **Charts 6-12** graph population and health statistics, primarily for the year 2012 (the most recent year for which complete data are available), by regional grouping: reading left to right, Ukraine as a whole; the western regions; the city of Kyiv; the central regions; Crimea; the southern regions; the city of Sevastopol; and the eastern regions. Reading the chart from left to right therefore produces, after the data for all of Ukraine as a reference point, a sweep of the country roughly from west to east.

Although all of Ukraine's regions (with the exception of Kyiv city) have experienced stark population decline (see **Chart 6**) over the last two decades, the magnitude of the decline in the west is considerably outpaced by that in the center, south, and east.

A comparative regional look at birth (see **Chart 7**) and death rates (see **Chart 8**) in 2012 helps explain this variation. Birth rates in 2012 were significantly higher in the west, and lower in the east, than the national average. This has been the case for many years, producing a Ukraine whose "youngest" area is its western regions, and that progressively ages as it moves to the south, then center/north, and then finally east to its "oldest" territory. This dynamic is mirrored in abortion rates, which are considerably lower in the western part of the country and highest in the center and east.

Conversely, death rates in 2012 were higher in the east, center, and south, and lower in the west. Although life expectancy data by region for 2012 are not available, 2008 data show lower life expectancy for men in southern (61.8 years) and eastern (61.2 years) regions than for men in western Ukraine (64.0 years). Female life expectancy follows a similar regional pattern.

Combining birth and death rates over a single year produces natural population growth rates, the number of births/1,000 population minus the number of deaths/1,000 population (see **Chart 9**). In 2012, some regions in the west actually experienced positive natural population growth—an excess of births over deaths—while this held true for no regions in the southern, central, or eastern parts of the country.

The relatively low birth rates in the eastern, southern, and central parts of the country result in an older population structure there than in the west. This translates into inescapably higher burdens for pension payments and elder care in these regions than in the west, most likely for several decades into the future in the absence of an unexpectedly sharp and immediate increase in the birth rate (see **Chart 10**).

Regional variation in health and disease trends also largely favors the western parts of Ukraine. For example, the number of existing cases of HIV and tuberculosis are significantly higher in the eastern and southern regions than in the center and west (see **Charts 11 and 12**).

Can immigration stem Ukraine's population loss? Russia, for example, has relied on a sizeable influx of labor migrants to counter, in part, the impact of its excess of deaths over births and resultant shortage of working-age males. By contrast, according to the International Labor Organization (ILO), between January 2010 and June 2012, 1.2 million Ukrainians (3.4 percent of the adult population) were working or looking for work abroad. About two-thirds of these were men, and one-third women. Most were relatively young (20-49 years old), and the ratio of rural to urban Ukrainian labor migrants is about 2:1. Most are legal, with only about one in five Ukrainian migrant

workers irregular. Several non-ILO studies offer far larger estimates of total Ukrainian labor migration, some as large as five to seven million seasonal migrants over summer periods. If these larger estimates are accurate, then Ukraine has replaced now-legalized EU-8 nationals as the major supplier of irregular workers at the bottom of European Union labor markets, and the Ukraine-to-Russia corridor is now the second-largest migration route in the world (surpassed only by Mexico-to-U.S.). According to the ILO, the main destination countries for Ukrainian labor migration (2010-2012) were Russia (43%), Poland (14%), Italy (13%), and the Czech Republic (13%) (see **Chart 13**).

Over time, Ukrainian labor migration to Russia is decreasing and to the EU is increasing. Ukrainian labor migrants tend to fall into two categories: young people leaving permanently due to a lack of job opportunities at home, and circulating migrants engaging in temporary labor. One Ukrainian Ministry of Social Policy study has shown that most Ukrainians seeking work abroad do so because of low wages at home (about 80 percent), as opposed to unemployment (about 10 percent). Most Ukrainian labor migrants are working in relatively low-skilled jobs, leading to a mismatch between some migrants' skills and their current work positions. According to the European Bank for Reconstruction and Development, 65 percent of Ukrainian labor migrants have completed secondary education, 15 percent have some higher education, and 15 percent have completed higher education. This produces a situation where almost half of Ukrainian migrants are employed in work for which they are clearly overqualified, a phenomenon referred to as "downshifting" or "brain waste."

In 2012, an estimated \$7.5 billion equivalent in private remittances was transferred to Ukraine, equal to about 4 percent of Ukraine's GDP that year (and exceeding 2012 net foreign direct investment, which was around \$6 billion). This figure rose to \$9.3 billion in 2013. This makes Ukraine the third largest recipient of remittance payments in the world, after India and Mexico. According to the ILO, the Ukrainian economy would have lost about 7 percent of its activity in 2012 without the stimulus effect from these migrant transfers. Remittance flows were first registered in a significant way in 2006 (about \$1 billion) and have increased annually since then. The primary source country for remittance payments is Russia, followed by the United States, Germany, Greece, Italy, and the United Kingdom; these payments are therefore coming from members of the permanent diaspora as well as from labor migrants.

ILO data suggest that Ukraine's main source regions for labor migration are those in the far west: Zakarpattia and Chernivtsi are classified as "very high" source regions, with Volyn, Lviv, Ternopil, Ivano-Frankivsk, Khmelnytskyi, and Cherkasy ranking as "high" source regions. The central regions are classified as "very low" sources, with all of the southern and eastern regions except Luhansk classified as "low" (Luhansk, along with Rivne, Vinnytsia, and Mykolaiv, are classified as "average"). This means that, setting aside refugees from the recent conflict in the east, most out-migration from Ukraine is draining the most demographically stable and healthy parts of the country.

Overall, it is hard to escape the conclusion that Ukraine’s human capital dynamics severely constrain its potential to move forward from its current crises. Migration outflows seem unlikely to decrease, absent a significant downturn in Russian and/or European labor markets. An aging Ukrainian population will, in the coming decades, put increasing strain on public resources funded by a shrinking and unhealthy labor force. The development of the armed forces will be limited by a perpetual slump in the size of the conscription pool. Finally, the many threats to the country’s geographic integrity are likely to be exacerbated by differential demographics that strongly favor relatively young and healthy westerners over older and more sickly easterners. In any assessment of Ukraine’s prospects, across a range of sectors, human capital factors merit serious consideration.

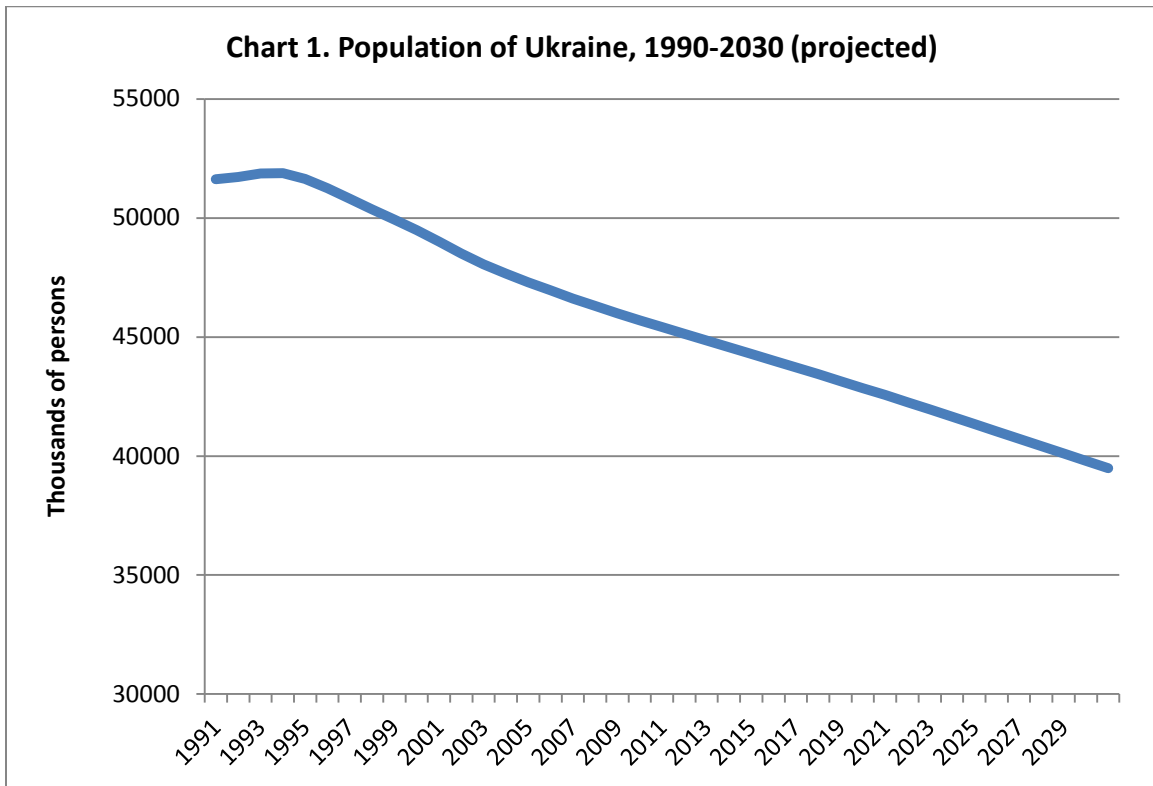


Chart 2. Total Fertility Rate, 1990-2014

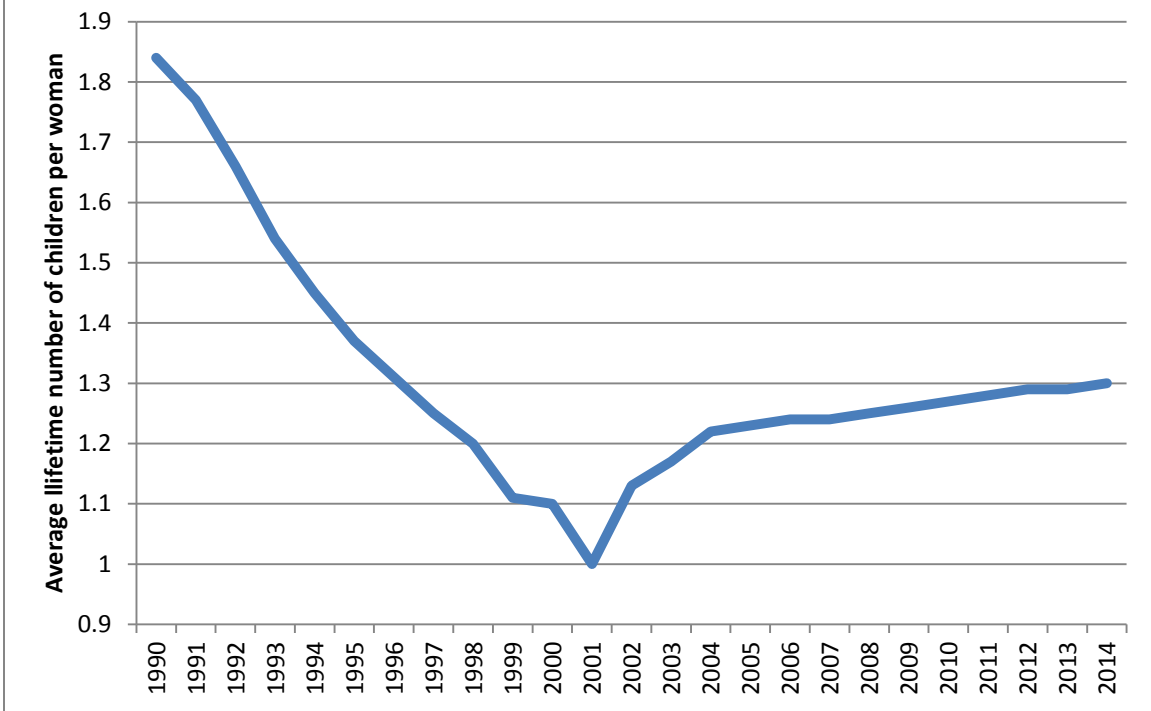


Chart 3. Birth and death rates, 1990-2014

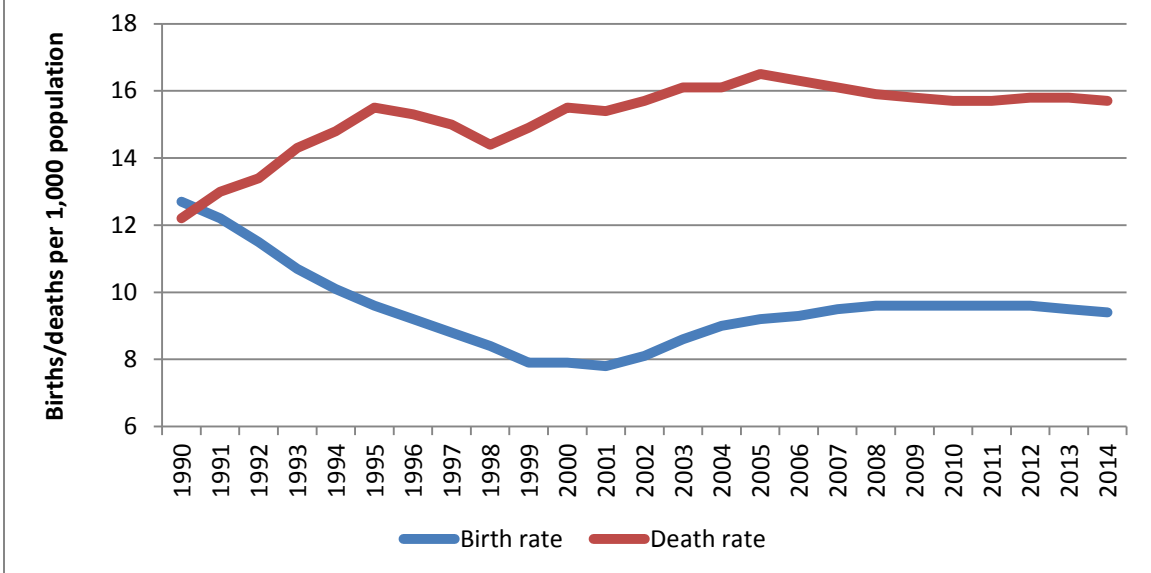


Chart 4. Life Expectancy, 1990-2014

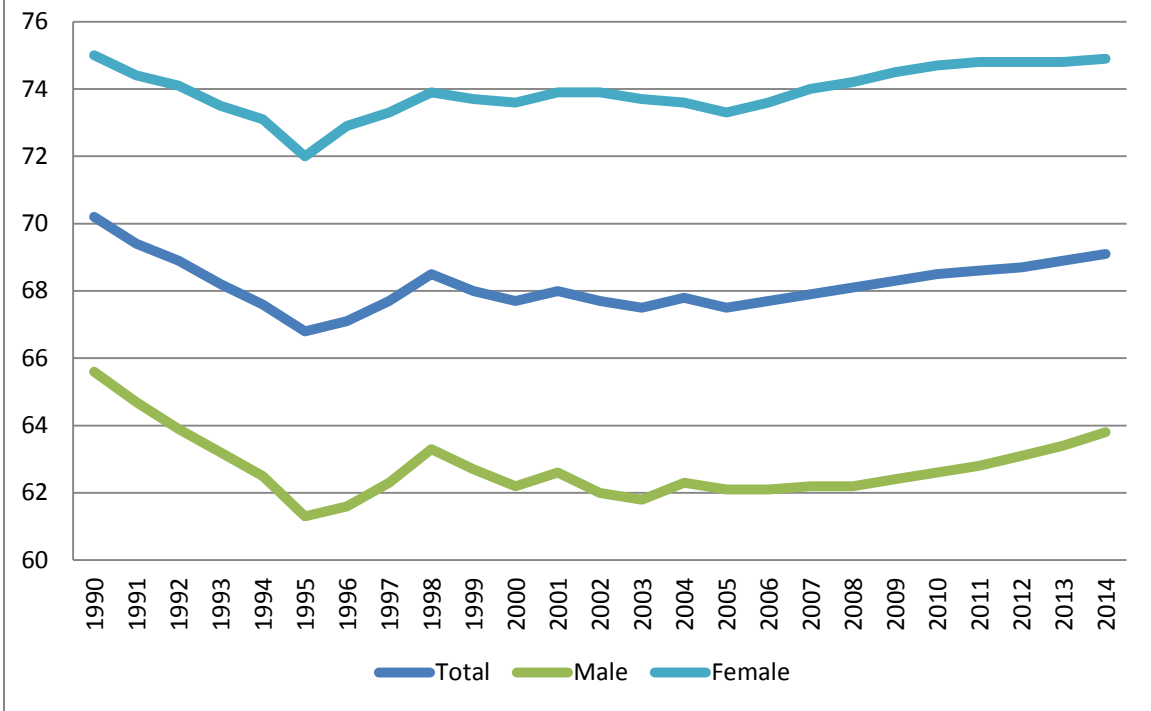


Chart 5. Males of conscription and working age, 1990 - 2030 (projected)

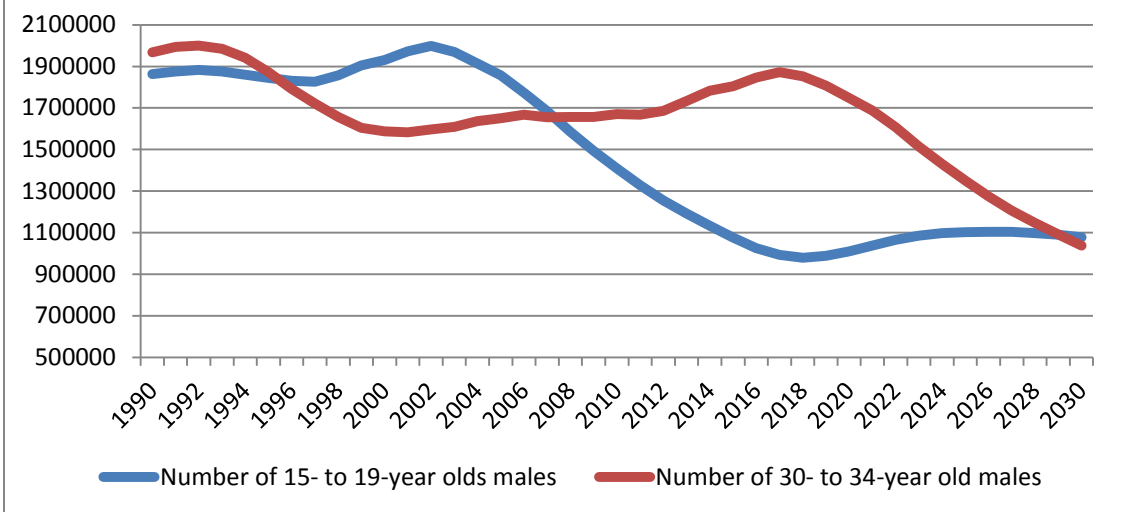


Chart 6. Percent change in population, 1996-2013

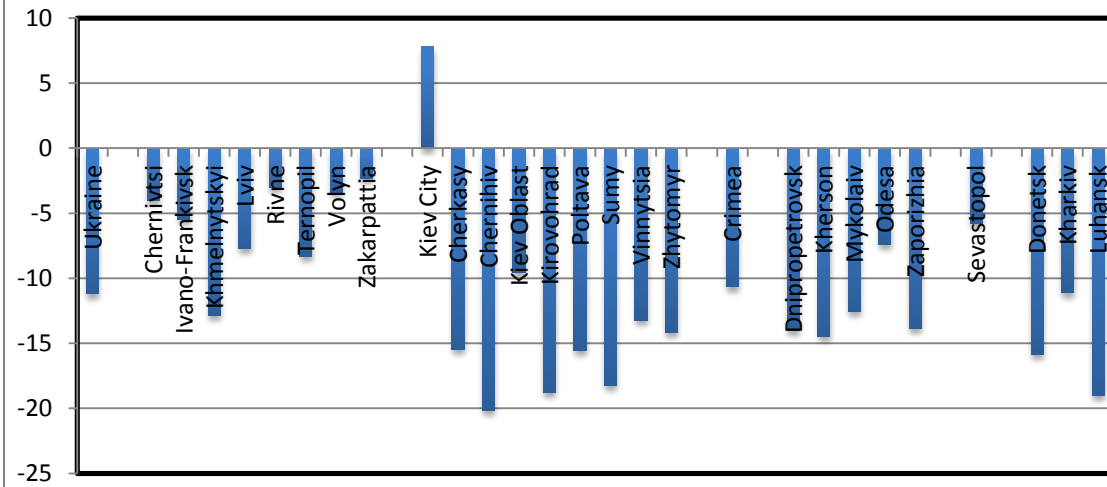


Chart 7. Birth rates by region, 2012

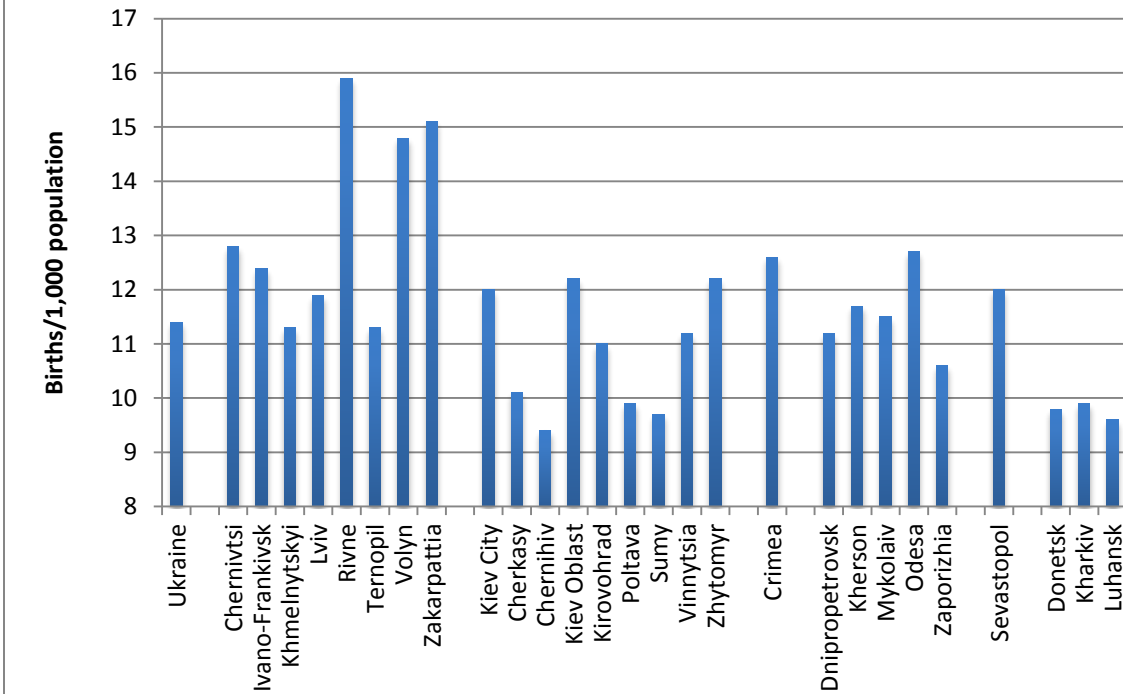


Chart 8. Death rates by region, 2012

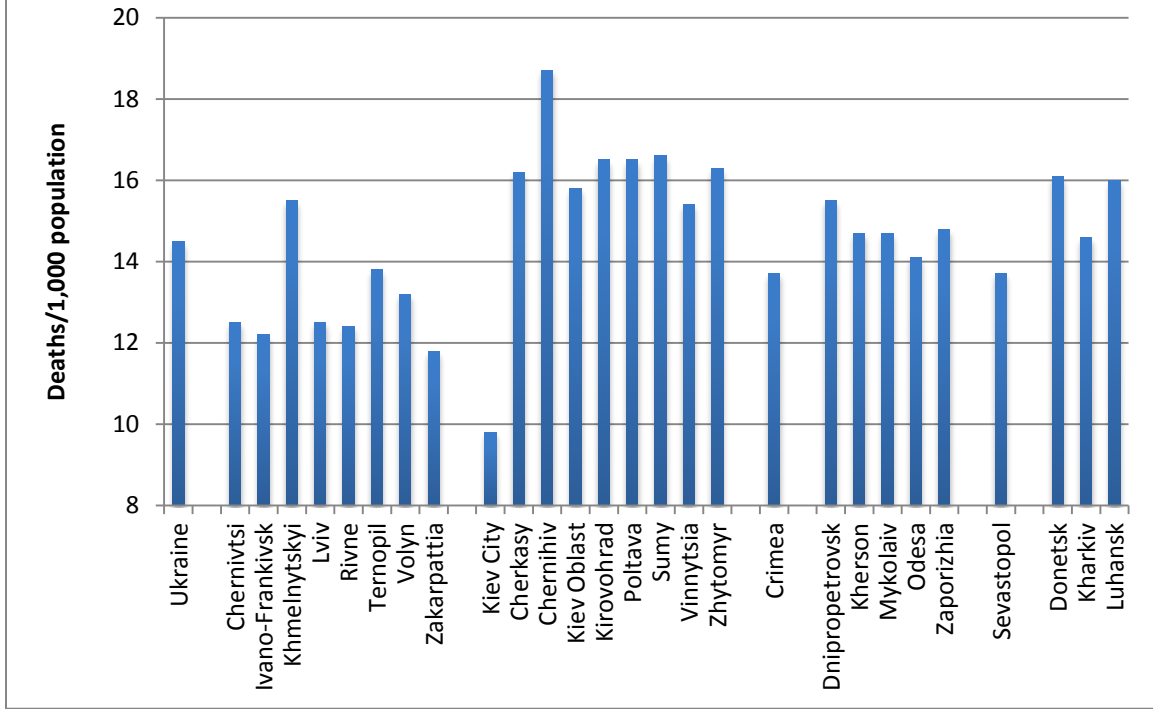


Chart 9. Natural population increase/decrease, 2012

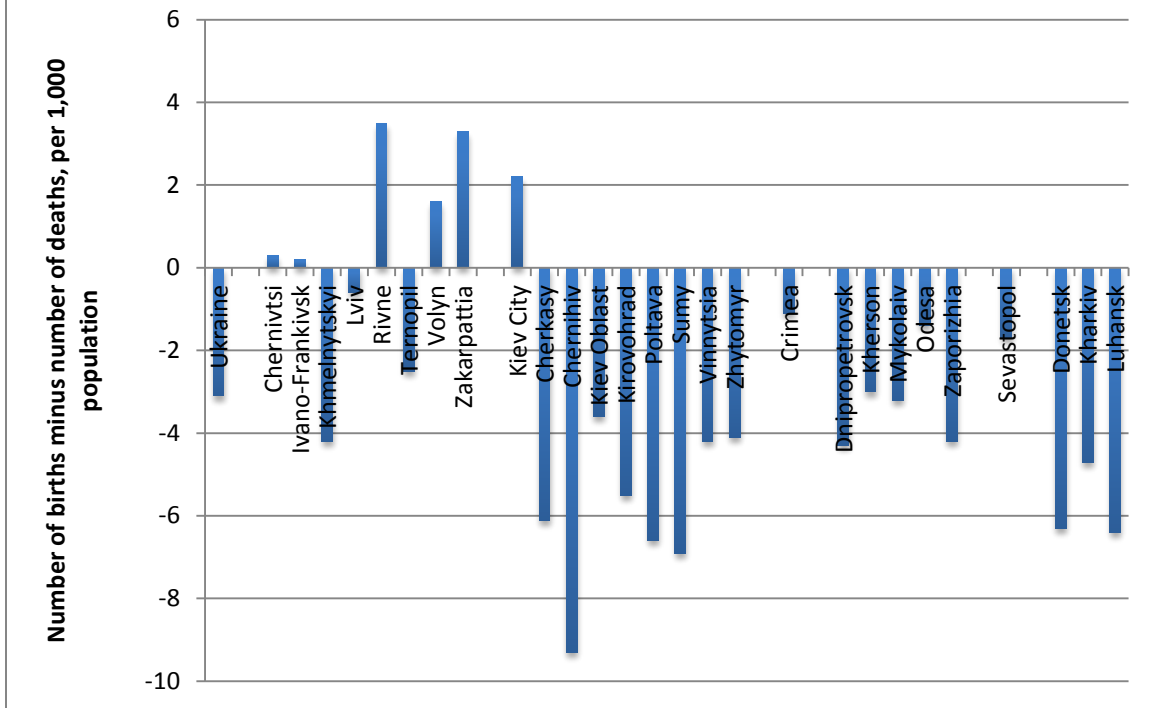


Chart 10. Pensioners by region, 2013

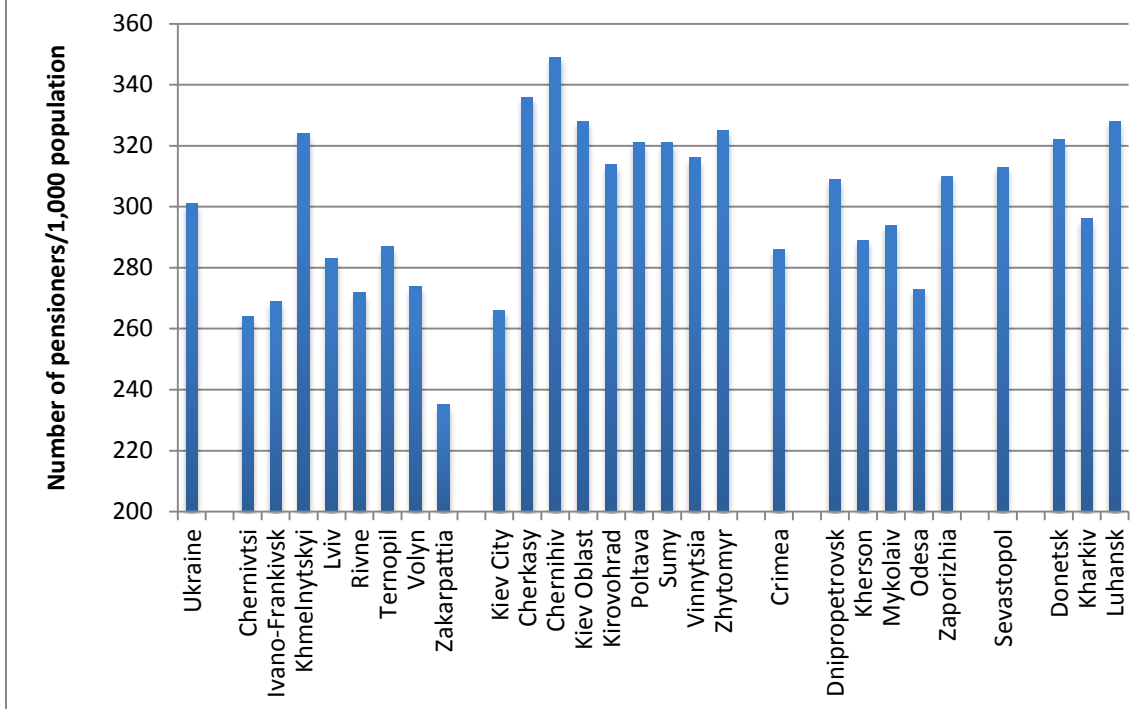


Chart 11. HIV prevalence by region, 2012

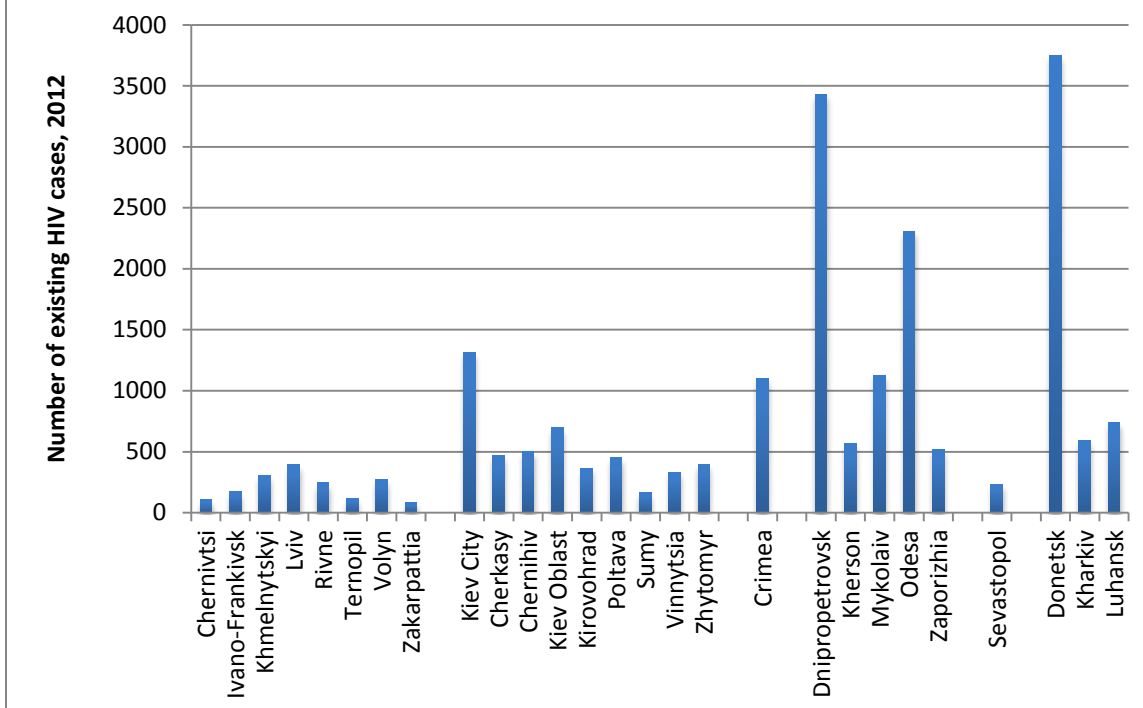


Chart 12. Tuberculosis prevalence by region, 2012

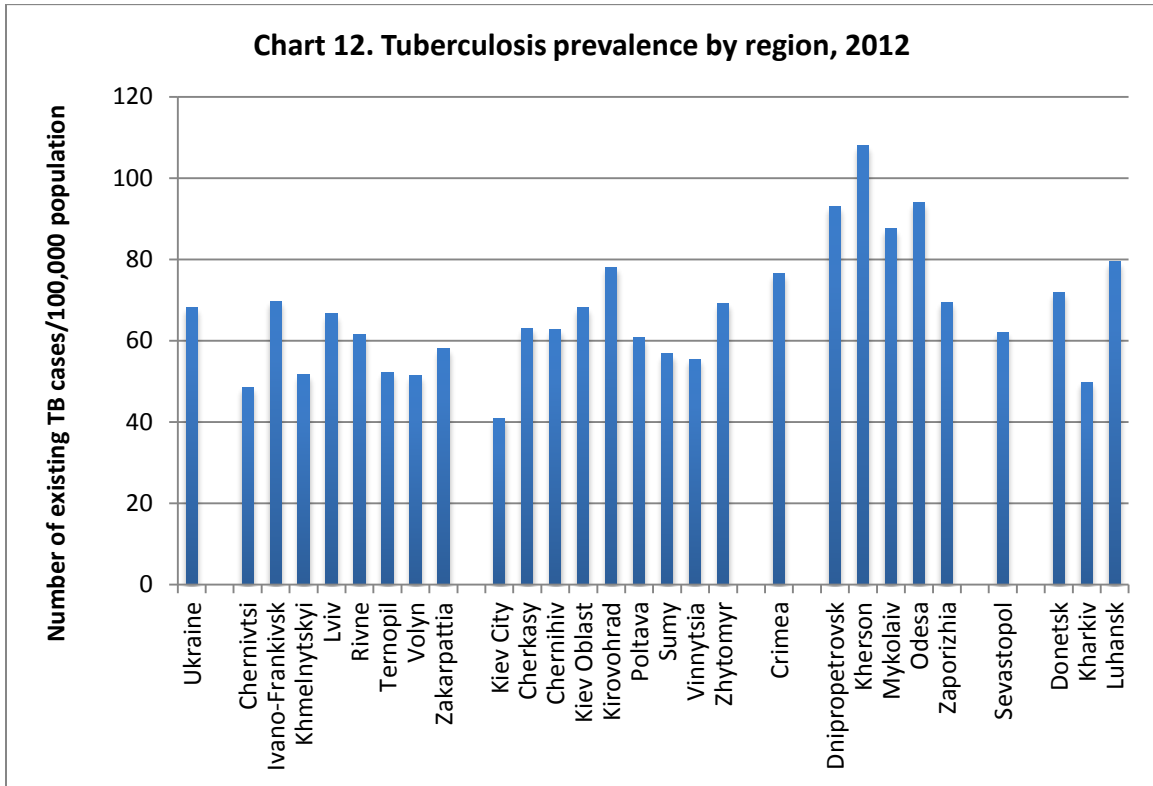


Chart 13.

