statistiche report

Istat Istituto Nazionale di Statistica

DEMOGRAPHIC INDICATORS | YEAR 2022

Population drops, but not to the 2020-21 biennium level

Birth rate at an all-time low, mortality still high: less than 7 newborns and more than 12 deaths per 1,000 inhabitants.

Recovery of attractiveness from foreign countries: the net migration rises from +88thousand in 2020 and +160thousand in 2021 to +229thousand in 2022.

Internal migration on the rise: changes of residence between municipalities are 1 million 484thousand, +4% over 2021, +10% over 2020.

Slight increase in the number of foreigners: as of January 1, 2023 the foreign population is 5 million and 50thousand units, increasing by 20thousand individuals (+3.9‰) on the previous year.

1.24

The total fertility rate

Trentino-Alto Adige has the highest fertility with a rate of 1.51

82.6 years

The life expectancy at birth

22,000

Centenarians as of January 1, 2023

Over the past 20 years, the number of centenarians has tripled

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Resident population still declining

As of January 1st, 2023, according to the provisional results, the resident population in Italy is 58 million and 851thousands units, 179thousand units less than the previous year, for a 3‰ reduction. Thus, the trend in population decline continues, but with less intensity in comparison to both 2021 (-3.5‰), and especially to 2020 (-6.7‰), years during which the effects of the pandemic had accelerated a process began as early as 2014.

Ascertained that in 2022 the resident population shows a similar decrease as in 2019 (-2.9‰), on territorial level there is a significant population decline affecting the South (-6.3‰). The Center (-2.6‰) and especially the North (-0.9‰), although having a negative demographic balance, record better values than the national average. On the regional level, the population is reported to be increasing only in Trentino-Alto Adige (+1.6‰), Lombardia (+0.8‰), and Emilia-Romagna (+0.4‰). On the other side, regions which lost more population are Basilicata, Molise, Sardegna and Calabria, with growth rates lower than -7‰.

On a national basis, population decline is the result of an unfavorable demographic dynamic, characterized by an excess of deaths over births, not counterbalanced by migratory movements with foreign countries. Deaths were 713thousand, births 393thousand, reaching a new all-time low record, with a natural balance of -320thousand units.

There were 361thousand enrollments from abroad, while cancellations to abroad were 132thousand. This results in a positive net migration with foreign countries of 229 thousand, which can only partly counterbalance the negative natural change of the population.

On the side of internal migration, there is an increase in the total amount of movements by 4% in 2022, with 1 million 484thousand changes of residence recorded between municipalities compared to 1 million 423thousand in the previous year. Finally, the ordinary revision of the municipal population registers (balance for other reasons) results in a negative balance of an additional 88thousand units.

On January 1st, 2023, the foreign population is 5 million and 50thousand units, increasing by 20thousand individuals (+3.9‰) over the previous year. The proportion of foreign residents in the total population is 8.6%, slightly increasing from 8.5% in 2022. Almost 60% of foreigners, amounting 2 million 989thousand, live in the North, with an incidence of 11%, the highest in the country. The Center is also attractive to foreigners, with 1 million 238thousand individuals (25% of the total) living there, with an incidence of 10.6%, above the national average. In contrast, the South has less foreign presence, 824thousand (16%), with an incidence of 4.2%.

RESIDENT POPULATION AND VARIATIONS OVER THE PREVIOUS YEAR, JANUARY 1st 2018-2023. Absolute values (thousand) and relative variations per 1,000 inhabitants

Geographical areas	2018	2019	2020	2021	2022	2023
absolute values (thousand)						
North	27.611	27.627	27.616	27.486	27.373	27.350
Center	11.889	11.868	11.831	11.787	11.724	11.693
South	20.437	20.322	20.194	19.963	19.933	19.808
ITALY	59.938	59.817	59.641	59.236	59.030	58.851
variations over the previous year (per 1,000 inhabitants)						
North		0,5	-0,4	-4,7	-4,1	-0,9
Center		-1,8	-3,2	-3,7	-5,3	-2,6
South		-5,6	-6,3	-11,5	-1,5	-6,3
ITALY		-2,0	-2,9	-6,7	-3,5	-3,0

Source: Istat, Ricostruzione della popolazione (2018), Censimento della popolazione (2019-2022) and Bilancio demografico annuale (2023, provisional data).

Life expectancy increasing for men but steady for women

Life expectancy at birth in 2022 is estimated at 80.5 years for men and 84.8 years for women. In comparison with 2021, only men show a recovery which can be quantified in about 2 and a half extra months of life. Instead, among women, life expectancy at birth remains the same as the previous year. Survival levels in 2022 are still below those of the pre-pandemic period, recording 6 months lower values compared with 2019 for both men and women.

Although the slowdown in women's life expectancy is a process that has been detected before 2020, the pandemic may have intensified the trend. The impact of the crisis on the health care system, and the consequent difficulty in scheduling medical examinations and checkups, may have been particularly strong for women, who are more inclined than men to take preventive action. For example, data from the "Aspects of Daily Life" survey show that between 2019 and 2021, the percentage of women who reported having renounced to health care services increased by 5 percentage points (from 7.5% to 12.7%), while for men this increase was 4 percentage points (from 5% to 9.2%).

In the North, life expectancy at birth is equal to 80.9 years for men and 85.2 for women; men recover about one extra month on the previous year, as opposed to women who lose about one month. Trentino-Alto Adige is still the region with the highest life expectancy both for men and women, Friuli-Venezia Giulia is the region with the largest gain over the previous year, about six months for both sexes.

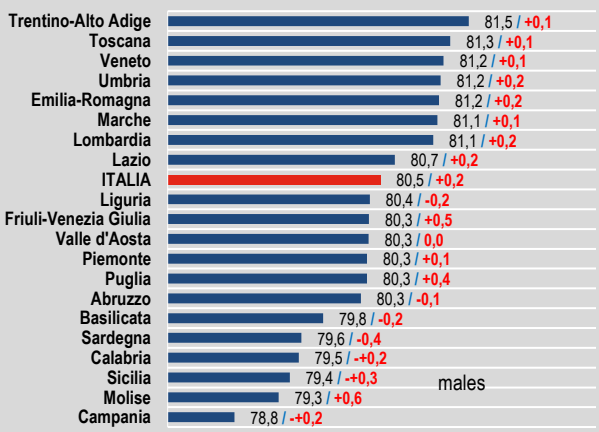
The Center is the only area where each single region records a survival increase, although slight, compared to 2021: respectively 0.2 for men and 0.1 for women. Toscana has the highest life expectancy for men (81.3), and Marche for women (85.4).

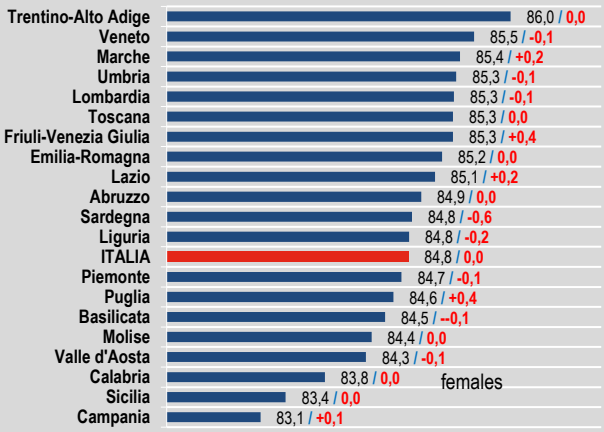
The South overall also shows the same increases as the Center, but has different situations within it. It ranges from regions such as Molise (men only) and Puglia, which gain 6 months of life compared to the previous year, to Sardegna, where high mortality caused about half a year of life to be lost for both sexes. The latter is the region where the share of people who have renounced to health care services is highest (in 2021 it was 18.3% against the national figure of 11%). Campania, with life expectancy values of 78.8 years for men and 83.1 for women, remains the region where people live less.

In conclusion, the underlying explanation is that changes in life expectancy detected in the last three years are still strongly correlated with the evolution of the pandemic from 2020 onward. The partial recoveries of what was lost in the most critical period (differed from region to region) depends both on the efficiency of the heavily pressured health care system and on the worry leading people (especially women and frail) to make less use of health care services than in the past.

FIGURE 1. LIFE EXPECTANCY AT BIRTH BY SEX AND REGION

Year 2022 and difference with 2021 (red figures), in years and tenths of year, estimate.





Source: Istat, Tavole di mortalità della popolazione residente (2021) and Sistema di *nowcasting* per indicatori demografici (2022).

Peak of deaths in warmer and colder months

In 2022 deaths in Italy are 713thousand, with a mortality rate equal to 12.1‰. The number of deaths is 12thousand units higher compared with the previous year, but 27thousand units lower compared with 2020, the year of the highest mortality due to the pandemic.

The highest number of deaths occurred during the coldest months, January and December, and in the warmest months, July and August. In these four months were observed 265,000 deaths, nearly 40% of total, mainly due to adverse weather conditions that mostly affected the older and vulnerable population, consists mainly by women.

More than 606thousand deaths, 85% of total, are aged 70 years or older, a percentage that increases to 89.2% for women while it stops at 80.3% for men. Analyzing the four months with the most adverse weather conditions, these percentages increase to 80.7% for men and almost 90% for women, underlining how such higher mortality involved mainly the older population.

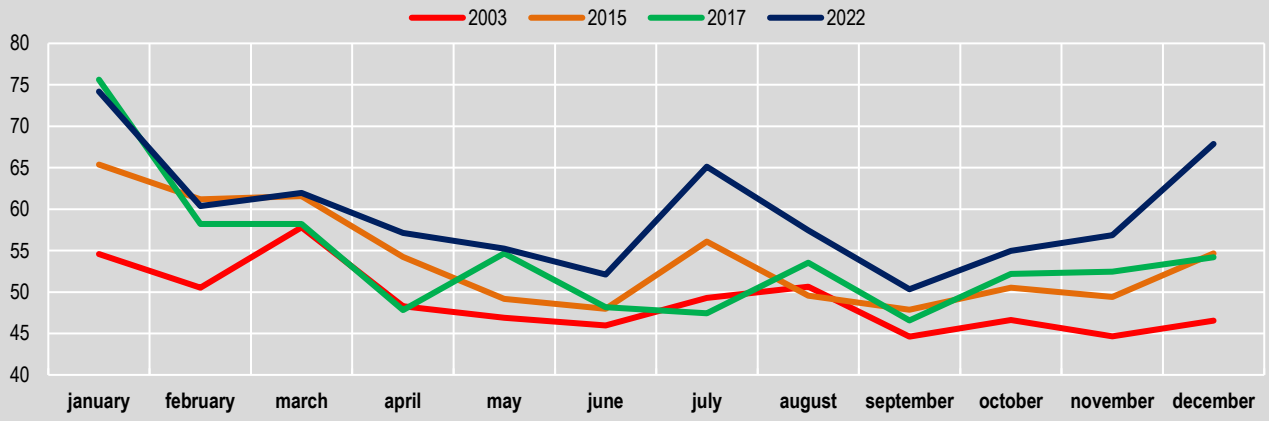
Similar situations had already occurred in the past, when excess mortality over the previous year was due to a high number of deaths in the summer and winter months. In 2003, 2015 and 2017, there had been increases in deaths over the previous year equal to, respectively, 5.2%, 8.2% and 5.5%. Also in these years, the share for the months of January, July, August, and December was significant, rising above 35%.

Excluding 2020, marked by the pandemic impact, it should be pointed out that of the four years so far recognized as characterized by higher-than-expected mortality levels, three (2015, 2017, 2022) are concentrated within the span of only eight years, while only one (2003) dates back twenty years. An apparently unequivocal sign of how climate change is also becoming increasingly relevant to survival, in a context of a rapidly ageing country.

The North recorded 47% of deaths, with a value of 333thousand. In the Center, deaths are 144thousand (20%) and in the South 237thousand (33%). However, the geographical area with the highest mortality rate is the Center (12.3‰), followed by the North (12.2‰). The South, on the other hand, with a rate of 11.9‰, shows a mortality rate below the national average, due to the fact that it has a relatively less aged population structure and is therefore less exposed to risk factors.

At the regional level, Liguria (15.9‰) and Molise (14.7‰) are the regions with the highest mortality rate, while Trentino-Alto Adige (9.9‰) and Campania (10.9‰) are those with the lowest rate. Indeed, the former are those with the oldest population structure, while the latter are those with the youngest population structure in the country.

FIGURE 2. DEATHS BY MONTH IN ITALY
Years 2003, 2015, 2017 e 2022, absolute values (thousand)



Source: Istat, Bilancio demografico mensile (2022 provisional data).

New all-time low births record in 2022

In 2022, births dropped below 400thousand for the first time since the unification of Italy, standing at 393thousand. Since 2008, the last year with an increase in births, the decline is about 184thousand births, about 27thousand of which concentrated from 2019 onward.

This decrease is only partly due to couples' spontaneous or induced choice to not have children. In reality, both the decline and the progressive ageing of the female population in the ages conventionally considered reproductive (15 to 49) play a major role among the causes.

If women had procreated during 2022 with the same intensity and calendar as in 2019, the births decline would have been equal to about 22thousand[i], therefore totally due to the reduction and ageing process of the female population of childbearing age. The remaining decrease, about 5thousand births, instead would be the result of the real contraction of reproductive levels.

After the slight increase in the average number of children per woman occurred during 2020 and 2021, the decline in the conjunctural fertility indicator resumes. Its value stands at 1.24 in 2022, returning to the level recorded in 2020. So it goes on the downward trend in reproductive projects, ongoing for several years in our country, with the mean age at childbearing at 32.4 years, stable compared to 2021.

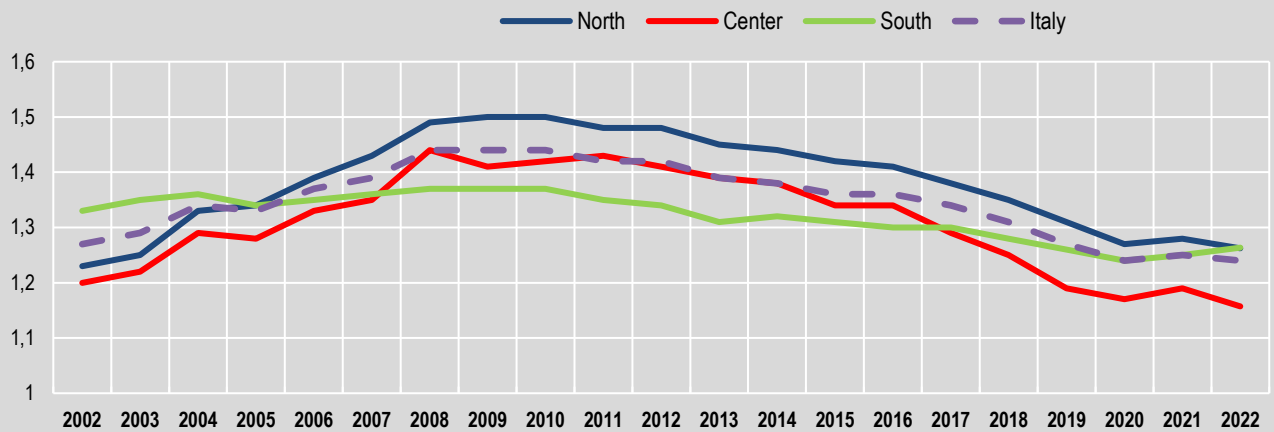
The decline in the average number of children per woman affects both North and Center Italy, showing values of 1.26 and 1.16 respectively, (in 2021 they were equal to 1.28 and 1.19). In the South, on the other hand, a slight increase is recorded, with the average number of children per woman standing at 1.26 (it was 1.25 in the previous year). The mean age at childbearing is slightly higher in the North and Center (32.6 and 32.9), compared to the South (32.1).

There is a reduction in the differences between the North and the South, while the Center continues to have significantly lower fertility than the other two geographical areas. The South is the only geographical area that continues the rise that began last year. Moreover, the decline recorded in the North and the increase in the South imply identical fertility levels for these two geographical areas in 2022.

Nuptiality slightly increased, with a rate rising from 3.1‰ of the previous year to 3.2‰, thus returning to pre-pandemic levels. The highest rate is found in the South (3.6‰, decreasing from 3.8‰ in 2021), while in the North and Center the levels are lower (3‰ for both the areas, a little more than 2.7‰ and 2.6‰ in 2021). After the drop in 2020, the South shows the major increase of nuptiality in the last two years; this trend is associated with the equally positive trend in fertility that has characterized this geographical area.

FIGURE 3. FERTILITY BY GEOGRAPHICAL AREA

Years 2002-2022, average number of children per woman.



Source: Istat, Tavole di fecondità regionali (2002-2021) and Sistema di *nowcasting* per indicatori demografici (2022).

Trentino-Alto Adige has the highest fertility

Trentino-Alto Adige is the region with the highest fertility with a value equal to 1.51 children per woman. The regions immediately below that level, Sicilia and Campania, record much lower values, 1.35 and 1.33 respectively. In this three regions, mothers are younger, with values of the mean age at childbearing ranging from 31.4 in Sicilia to 32.1 in Trentino-Alto Adige.

Regions with a markedly low fertility are Molise and Basilicata, with a value of 1.09 children per woman, but Sardegna stands out above the rest, and, with a value of 0.95, it is the only region with a fertility below unity for the third consecutive year.

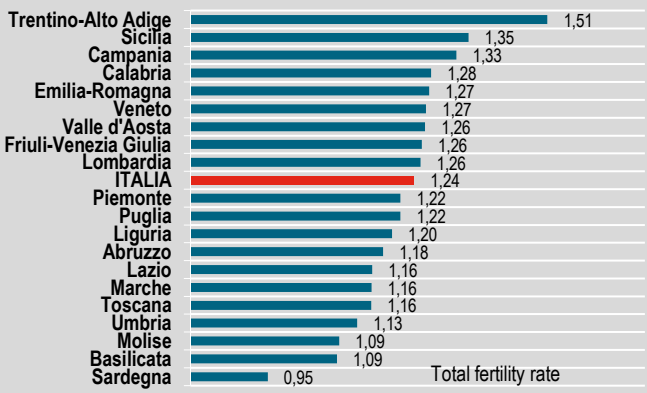
In the South, that records a total fertility rate of 1.26, only Sicilia, Campania and Calabria have a fertility rate above the national average (1.35, 1.33 and 1.28 children per woman), while the other five regions have this rate below.

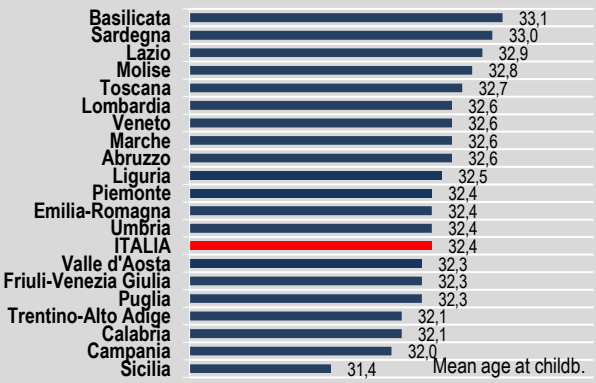
At the opposite, in the North, that registers the same fertility as the South, only Piemonte (1.22) and Liguria (1.20) show a fertility below the national average, in the other six regions it is higher than 1.24.

In the South there are the regions with the highest mean age at childbearing, Basilicata (33.2), Sardegna and Molise (32.9). These are the regions with the lowest fertility rate, and the decline is precisely linked to the continued postponement of the childbearing experience, that actually increasingly translates into a definitive choice to not have children.

Analyzing the provincial level, the record for the highest fertility belongs to the province of Bolzano/Bozen (1.65), followed by Gorizia (1.45), Crotone (1.44), Ragusa (1.43), Palermo (1.42) and Catania (1.41). The record for the lowest fertility belongs to Sardegna provinces, with three provinces out of five, Cagliari, Sud Sardegna, and Oristano, below one child per woman (the former 0.93, the latter two 0.90).

FIGURE 4. AVERAGE NUMBER OF CHILDREN PER WOMAND AND MEAN AGE AT CHILDBEARING (in years and tenths of year). Year 2022, estimate





Source: Istat, Sistema di *nowcasting* per indicatori demografici (2022).

Migratory movements on the rise, the North is the most attractive destination

In 2022, migratory movements returns at pre-pandemic levels. The changes of residence, internal and international, increase compared both to 2021 and, above all, to 2020, when restrictions due to the Covid-19 diffusion had led to a drop in the movements.

In 2022, 1 million 484thousand internal changes of residence occurred, 4% more compared to the previous year and as much as 10% more compared to 2020, thus returning to 2019 levels, when the changes of residence had been 1 million 485thousand.

In 2021 there are still internal migratory movements unfavourable to the South. In this context, 420thousand individuals left a southern municipality during the year to move to another Italian municipality (possibly even in the same South), while 352thousand people elected a municipality in the South as a place of habitual residence (possibly also coming from another municipality of the same South).

This trend generated, for the whole geographic area, a negative balance of more than 55thousand units (-3.4‰ inhabitants). This phenomenon affects all regions of southern Italy, especially Basilicata and Calabria, for which the negative balance is 5.5‰, ahead of Molise (-4.7‰) and Campania (-4.3‰).

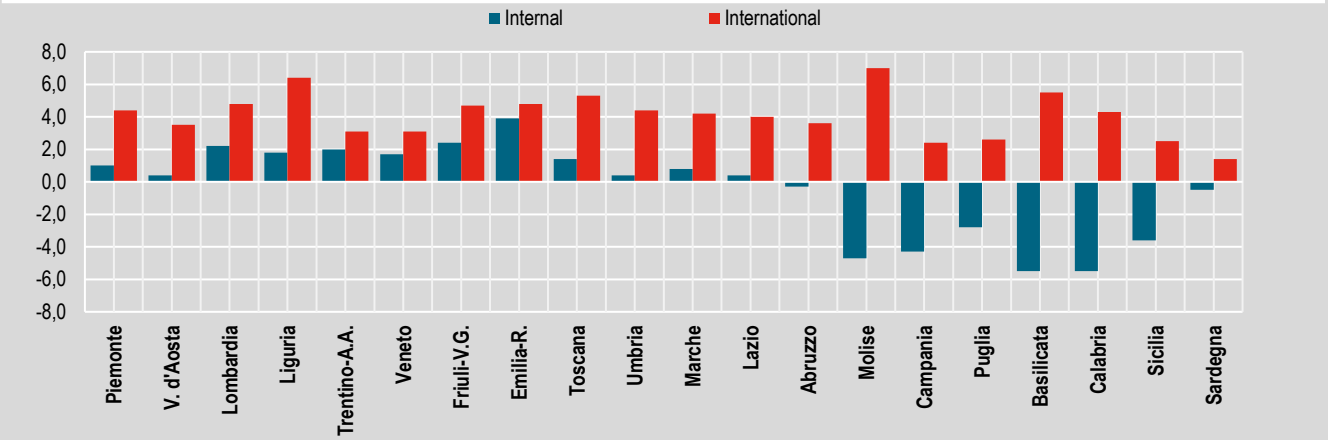
Regions of the North, where overall there is a rate of +2.2‰, remain those with greater attractiveness, compared to those in the Center, which overall registers a +0.7‰. The most attractive region is Emilia-Romagna (+3.9‰), followed by Friuli-Venezia Giulia (+2.4‰) and Lombardia (+2.2‰).

Immigration from abroad are 361thousand, grown by 13.3% over 2021 (318thousand), 45.7% over 2020 (247thousand), and 8.4% over 2019 (333thousand). Emigration to abroad, on the other hand, continues to decline. In 2022 just 132thousand cancellations have been registered, down by about 17% when compared with the last two years, and 26.5% compared to 2019 when 153thousand were counted.

The net migration with foreign countries rises to 3.9‰ inhabitants, confirming an increase trend that began in 2014 and only stopped during the pandemic period. The rate, therefore, is on the rise not only from the previous two years, but also from 2019 when the net migration with foreign countries was equal to 2.6‰ inhabitants.

The North and Center are the geographical areas with the most relevant net migration with foreign countries, +4.4‰ for both, the South has a lower net migration, equal to 2.8‰. Lombardia collects 20% (+47thousand) of the total 229thousand individuals who represent the net migration with foreign countries; Lazio follows, with a balance of +23thousand.

FIGURE 5. NET INTERNAL MIGRATION AND NET MIGRATION WITH FOREIGN COUNTRIES, BY REGION
Year 2022, per thousand inhabitants.



Source: Istat, Bilancio demografico annuale (2022, provisional data).

One out of four individuals is at least 65 years old

Despite the high number of deaths occurred in the last three years, more than 2 million and 150thousand, 90% of which involving people aged 65 years and more, the population ageing process has continued, raising the mean age of the population from 45.7 to 46.4 years between the beginning of 2020 and 2023. Consequently, during this period, the resident population aged at least an additional eight months on average.

The population aged 65 years and more, including a total of 14 million and 177thousand individuals at the beginning of 2023, makes up 24.1% of the total population compared to 23.8% in the previous year.

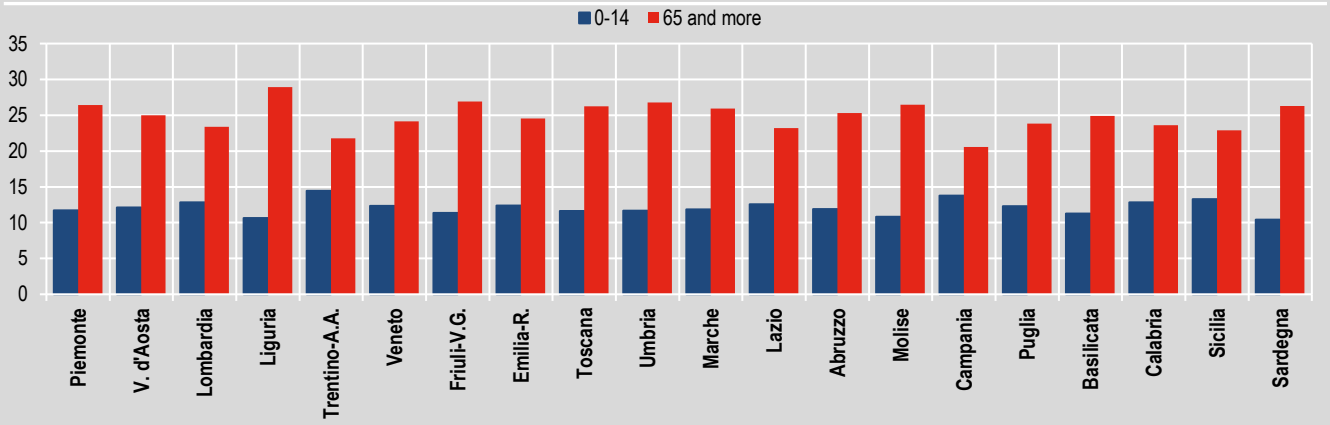
In the specific case of the oldest people who are most affected by super-mortality, i.e. people aged 80 years and more, there is an increase, bringing them to reach 4 million and 530thousand and accounting for 7.7% of the total population, compared to 7.6% in the previous year. In contrast, both individuals of active age and younger people are decreasing: 15-64 year olds drop from 37 million 489thousand (63.5%) to 37 million 339thousand (63.4%), while children up to 14 years old (-160 thousand) decrease from 7 million 490thousand (12.7%) to 7 million 334thousand (12.5%).

The Center and North have a slightly higher proportion of people over 65 than the national one, equal to 24.7% and 24.6%, respectively. In the South, on the other hand, this proportion is equal to 23%. People over 80 years old constitute 8.2% of the total population in the North and Center, and 6.8% in the South.

Liguria is the oldest region, with a share of people over 65 equal to 28.9% and a proportion of people over 80 years old equal to 10.4%. Friuli-Venezia Giulia (26.9% and 9.1%) and Umbria (26.8% e 9.2%) follow. The region with the lowest percentages of people over 65 and over 80 is Campania (20.6% and 5.6%), followed by Trentino-Alto Adige (21.8% and 7%) and Sicilia (22.9 and 6.7%).

The estimated number of centenarians (100 years and over) reach its highest historical level in 2022, touching the 22thousand unit's threshold, more than 2thousand compared to the previous year. Over the last 20 years, thanks to an increase of 15thousand units, the number of centenarians has tripled. The five-year period from 2015-2019, when there was a temporary decline in the number of centenarians due to the gradual entry into that contingent of those born between the outbreak of the First World War and the Spanish flu pandemic, i.e., individuals who were not only less numerous originally, but also subjected to more significant mortality regimes over the course of their subsequent existence, has been definitively surpassed.

FIGURE 6. RESIDENT POPULATION 0-14 YEARS AND 65 YEARS AND MORE BY REGION
January 1st 2023, estimate, percentage values



Source: Istat, Sistema di *nowcasting* per indicatori demografici.

Glossary

Average number of children per woman: the number of children a woman would have if she was subjected to the fertility calendar (in the form of age-specific fertility rates) of a given calendar year during her reproductive life span.

Balance for other reasons: difference between the number of enrolled people and the number of those deleted from the registry of residents due to other reasons. It is a balance between registrations and de-registrations which do not correspond to actual transfers between one municipality of residence and another, but rather to post-census correction operations. As regards the registrations, these are mainly subjects previously canceled due to unavailability and reappeared, or subjects not registered but actually resident. On the other hand, de-registrations for other reasons include subjects canceled as they are no longer resident following a registry check, or subjects who have registered themselves as residents in a municipality without possessing the requisites.

Birth (rate): ratio between the number of live births in the year and the average amount of the resident population, multiplied by 1,000.

Death: the cessation of any sign of life at any time after the vital birth.

Life expectancy at age "x": the average number of years that a person of completed age "x" can count to survive in the hypothesis that, in the course of his subsequent life, he was subjected to the risks of mortality by age (from age "x" up) of the year of observation.

Life expectancy at birth: the average number of years that a person can count to live from birth in the hypothesis that, in the course of his existence, he was subjected to mortality risks by age of the year of observation.

Live birth: the product of conception which, once expelled or completely extracted from the maternal body, regardless of the duration of gestation, breathes or manifests other signs of life.

Mean age: mean age of the population at a certain date expressed in years and tenths of a year.

Mean age at birth: the mean age at birth of mothers expressed in years and tenths of a year, calculated considering only live births.

Mortality (rate of): ratio between the number of deaths in the year and the average amount of the resident population, multiplied by 1,000.

Natural balance: difference between the number of registered live births and the number of those canceled by death from the registry of residents.

Net internal migration (rate): difference between the number of enrolled people due to change of residence from another municipality and the number of those canceled due to change of residence to another municipality (per thousand inhabitants).

Net migration with abroad (rate): the difference between the immigration rate from abroad and the emigration rate with abroad.

Population register (Anagrafe): the continuous system of registration of the resident population. It is continuously updated through registrations for births from parents resident in the Municipality, cancellations due to death of residents and registrations/cancellations for change of residence from/to another Municipality or from/to abroad.

Registration and de-registration for transfer of residence: registration concerns people who have moved to a Municipality from other Municipalities or from abroad; the de-registration concerns people who have moved to another municipality or abroad.

Resident population: constituted in each Municipality (and similarly for other territorial divisions) of people with habitual residence in the Municipality itself. Persons temporarily residing in another Municipality or abroad, for the exercise of seasonal occupations or for reasons of limited duration, do not cease to belong to the resident population.

Total growth (rate of): the sum of the total net migration rate and the natural growth rate.

Total migratory balance: the sum of the migration balance with abroad and the internal migration balance.

Methodological note

The estimates of the main demographic indicators provide, with provincial detail, an updated picture of the demographic situation of the country on: movement of the resident population (live birth, mortality and migration rates), main demographic trends (fertility, life expectancy) and population structure (sex, age, citizenship).

The estimates of the demographic indicators are updated once the final validation process of data takes place.

It should be remembered that the indicators published as estimates are of a provisional nature due to the error associated with them and that the margin of error is all the more significant the more the analysis is articulated on a territorial basis.

Finally, we remind you that the demographic indicators are available on the datawarehouse http://dati.istat.it as well as on the thematic site http://demo.istat.it.

Objectives and reference framework

The growing demand for statistical information and the need to reduce dissemination times led to the creation, in 2002, by the National Statistical Institute, of a territorial system of provisional estimates. This project, called “Nowcasting system for demographic indicators”, has as its purpose the production of “quick” estimates of the main demographic behaviors and structural trends in progress of the Italian population.

The main feature of nowcasts, therefore, consists in the fact that the results are released in a short time compared to the date to which the events and related indicators refer. Therefore, they represent the first official source of the country's demographic trends awaiting their replacement with definitive data.

Contents

Demographic phenomena are characterized by a certain stability over time. They are transformed slowly and gradually and, compared to other social and economic phenomena, present fewer uncertainties. The "Nowcasting system for demographic indicators" project aims to define short-term forecasts, relating to some of the main demographic aggregates and indicators, based on the analysis of the historical series of data available at the time of the estimate.

The aim of the work is to obtain, in a short period of time, information on the latest developments in demographic dynamics through the statistical documentation of the most recent trends, with particular attention to the territorial articulation of the phenomena studied. The results produced concern on the one hand the estimates of the aggregates of the demographic balance components and on the other those relating to the main demographic indicators.

Process and methodologies

For the year 2022, the estimates are produced starting from the analysis of the provisional balance of the resident population (births, deaths, changes of residence) collected through traditional demographic surveys by Istat. Using a specific micro-simulation model with constrained totals, basically based on the general principle of the cohort-component-model, this set of aggregate information is further broken down into the variables of interest (sex, age, citizenship, territory, origin/destination) when not already recorded (as in the case of migratory movements for example, but not of deaths that are already partially known at a disaggregated level). This procedure is necessary in order to calculate the resident population at the end of the year. Once these results have been obtained, it is possible to calculate the various demographic indicators illustrated in the report.

Notes

[i] The simulation is produced by applying, for Italy, the specific fertility rates by age of the mother in 2019 to the average female population of childbearing age in 2022.

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