

## 1. Health<sup>1</sup>

The latest available data documents a situation of stability, or improvement, for most of the indicators of the Health domain, if compared both with data referred to the immediately preceding year and to 2019 (10 out of 15 indicators of the domain). The most recent variations, however, do not always concur with the tendencies observed in the pre-pandemic period (Table 1).

In particular, in 2023 the mental health indicator confirms a similar score to that of 2022 (68.7 as opposed to 69.0 in 2022). The measure remains stable compared to 2019 as well (68.4), but, in the face of this relative stability, starting from 2020 it is possible to notice a worrying worsening of psychological well-being especially among the youngest, first and foremost the girls.

**Table 1. Health indicators: value for the latest available year and percentage changes compared to the previous year and 2019**

INDICATORS	Year	Value	Unit of measure	Polarity	Percentage changes	
					compared to the previous year	compared to 2019
Life expectancy at birth* (a)	2023	83.1	years	+		
Healthy life expectancy at birth* (a)	2023	59.2	years	+		
Mental health index (SF36)	2023	68.7	average score	+		
Avoidable mortality (age 0-74)	2021	19.2	per 10.000 inhabitants	-		
Infant mortality rate	2021	2.6	per 10.000 inhabitants	-		
Road accidents mortality rate (15-34 years old)	2022	0.7	per 10.000 inhabitants	-		
Cancer mortality rate (20-64 years old)	2021	7.8	per 10.000 inhabitants	-		
Mortality rate for dementia and nervous system diseases (65 years and over)	2021	33.3	per 10.000 inhabitants	-		
Multimorbidity and severe limitations (75 years and over)	2022	49.0	%	-		
Life expectancy without activity limitations at 65 years of age* (a)	2023	10.6	years	+		
Overweight or obesity	2023	44.6	standardised rates	-		
Smoking	2023	19.9	standardised rates	-		
Alcohol consumption	2023	15.6	standardised rates	-		
Sedentariness	2023	34.2	standardised rates	-		
Adequate nutrition	2023	16.5	standardised rates	+		

Source: Istat, Bes Indicators

Nota: The green colour indicates improvement, red worsening and grey stability, taking into account the polarity of the indicator. The indicators have positive polarity if the increase in their value shows an improvement in well-being, negative polarity if the increase in their value shows a deterioration in well-being. For variations within  $\pm 1\%$  the indicators are considered stable in the reference period.

\* For this indicator, the punctual difference is considered in the calculation of the variation.

(a) 2023 data is provisional.

In 2023, the share of overweight or obese people among the population aged 18 and over (44.6%) remains stable compared both to the previous year and to 2019, although, over time, the component of obesity of the indicator worsened, with the indicator on the rise in the middle-to long-term.

The share of the population with risky consumption of alcoholic beverages likewise remained stable in 2023 when compared to the previous year (15.6% of people aged 14 and over) and on levels resembling those of 2019 (15.8%).

Indicators that showed an improvement in the last year include life expectancy at birth, which rises from 82.6 to 83.1 in 2023, almost completely recovering the level of 83.2 years in 2019, albeit with territorial and gender differences; while the average life expectancy without limitations at the age of 65 years rises to 10.6 years, compared to 10 both in 2022 and in 2019.

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With regard to lifestyles, the share of sedentary population is decreasing (34.2% of people aged 14 and over in 2023), with a marked improvement compared to both 2022 (36.3%) and 2019 (35.5%). Slightly on the decline compared to 2022 is also the percentage of smokers aged 14 and over (19.9%), which had nevertheless recorded a tendency to constant growth in previous years (in 2019, the share of smokers was 18.7%).

There is also improvement in some mortality indicators referred to 2021<sup>2</sup> compared to 2020, particularly the avoidable mortality of the population aged 0-74 years, which is 19.2 per 10 thousand inhabitants in 2021 compared with 19.7 in 2020. Despite this improvement, in 2020 and 2021 the indicator shows a significant increase, in contrast with the long-term decrease throughout the 2005-2019 period, which was certainly affected by the mortality attributable to *COVID-19*<sup>3</sup>.

The cancer mortality rate of the adult population aged 20-64 also decreased (7.8 per 10 thousand residents compared to 8.0 per 10 thousand residents in 2020). This decreasing trend is in line with the downward tendency that has been observed for several years.

A similar trend can be seen for mortality from dementia and diseases of the nervous system among people aged 65 and over which, in 2021, is 33.3 per 10 thousand inhabitants, as opposed to 35.6 per 10 thousand inhabitants in 2020. The value of the indicator is also lower than that recorded in 2019 (33.9).

Indicators showing on the other hand a worsening compared to the previous year include healthy life expectancy at birth, which in 2023 drops to 59.2 years as opposed to 60.1 in 2022. This reduction almost brought the indicator back to the 2019 level (58.6 years), downsizing the anomalous increase that occurred between 2020 and 2022 due to the subjective component, stemming from the more widespread perception of good health during a pandemic, documented in the previous Bes Reports<sup>4</sup>.

In terms of healthier eating habits, in 2023, the percentage of population aged 3 and over who daily consumed at least four portions of fruit or vegetables is equal to 16.5%. This share is slightly below the 2022 level, yet with a more pronounced decline if compared to the values observed until 2019.

Among the elderly, aged 75 and over, the number of people in multi-chronic conditions and with serious limitations has risen from 47.8% in 2021 to 49.0% in 2022, regaining the 2019 level.

Road accident mortality among young people aged 15-34, which stood at 0.7 per 10 thousand residents in 2022 as opposed to 0.6 in 2021, is also on the rise. This trend sets the indicator exactly at the 2019 level, after the reduction observed in 2020-2021, attributable to the lower mobility across the territory due to the restricted movements aimed at contrasting the spread of the *COVID-19* pandemic.

Infant mortality also worsened reaching 2.6 per 1,000 live births in 2019-2020.

If we compare, for each indicator of the domain, the deviation of each region from the national value, what is then observed is a significant heterogeneity in geographical distributions (Figure 1).

<sup>2</sup> The latest available year for data on causes of death is 2021, in line with the timeframe prescribed by Regulation (EU) No. 328/2011 of the Commission, laying down implementing provisions for Regulation (EC) No. 1338/2008 of the European Parliament and the Council relating to EU statistics on public health and workplace health and safety.

<sup>3</sup> Mortality from *COVID-19* was included by Eurostat in the list of causes relating to the avoidable dimension of the indicator starting from the 2020 data.

<sup>4</sup> Istat, 2021 Bes Report. <https://www.istat.it/en/publication/bes-2021-equitable-and-sustainable-well-being-in-italy/>.

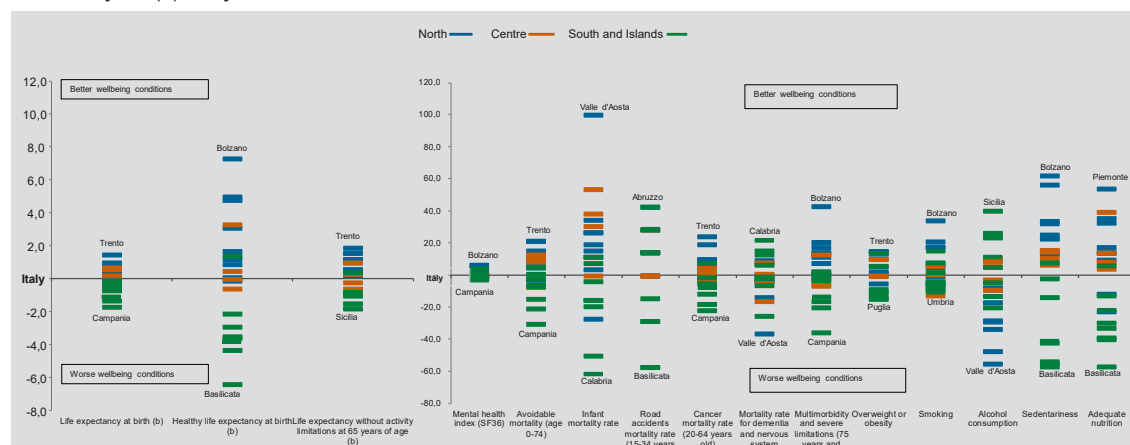
The autonomous provinces of Trento and Bolzano are among the most virtuous territories, with 5 out of 15 indicators reaching the highest well-being values, whereas Campania and Basilicata settles more often than the other areas of the country on minimum values (respectively in 5 and 4 out of 15 indicators).

Indicators with the greatest territorial variability compared to the national average include life expectancy in good health at birth (with the best value compared to the national average in Bolzano and the most critical value in Basilicata), infant mortality (with the worst level in Calabria and the best in Valle d'Aosta) and mortality from road accidents (for which the lowest value compared to the national average is observed in Abruzzo and the highest one in Basilicata).

As for lifestyles, the highest regional heterogeneity is observed in respect of sedentariness, alcohol abuse and an adequate nutrition, while it is less pronounced for smoking habit and excess body weight.

For the indicator on sedentariness, Basilicata records a value nearly 60% higher than the Italian average (53.7% vs an Italian average of 34.2%), whereas the lowest value is recorded in Bolzano, where only about 15% of people aged 14 years and over practice neither sports nor physical activity. The highest proportion of people who daily consume adequate quantities of fruit and vegetables is recorded in Piemonte (+54% over the Italian average value) and the lowest in Basilicata (-57% from the average). What instead stands out is the territorial trend for risky consumption of alcohol, for which more critical values are observed in some regions of the North, particularly in Valle d'Aosta where risky consumption concerns 24.2% of people, while the most virtuous one is recorded in Sicilia (9.3%). The mental health index, life expectancy at birth and life expectancy without limitations in activities at the age of 65 represent the indicators whose level fluctuates the least among regions. The autonomous province of Bolzano shows the best situation compared to the Italian average for the mental health index, whereas Trento tops the ranking as regards both life expectancy at birth and life expectancy without limitations in activities at the age of 65.

**Figura 1. Health indicators: percentage differences\* between regional values and the Italian value. Latest available year (a). Italy = 0**



Source: Istat, Bes indicators

Nota: The values represented on the graph are calculated as  $100 \times (\text{Vreg} - \text{Vita}) / \text{Vita}$ , where Vreg is the value of a region and Vita is the Italy value. The calculation shall take into account the polarity of the indicator. Values greater than zero indicate a better state of well-being than the average Italy; on the other side, values lower than zero indicate a worse condition. For greater usability of the Figure, please visit: <https://www.istat.it/it/archivio/296050> (in Italian).

\* For life expectancy at birth, healthy life expectancy at birth, and life expectancy without activity limitations at age 65 in calculating the change, the punctual difference from the Italy value is considered.

(a) The base year for each indicator is as shown in Table 1.

(b) The 2023 data is provisional.

In particular, Trento stands out with the highest average expected life expectancy at birth, equal to 84.2 years, at the opposite side Campania, with the lowest level of expected survival (80.9 years).

In Campania there are the most critical values for the mental health index, and in Calabria and Sicilia for life expectancy without limitations in activities at the age of 65 (8.7 years).

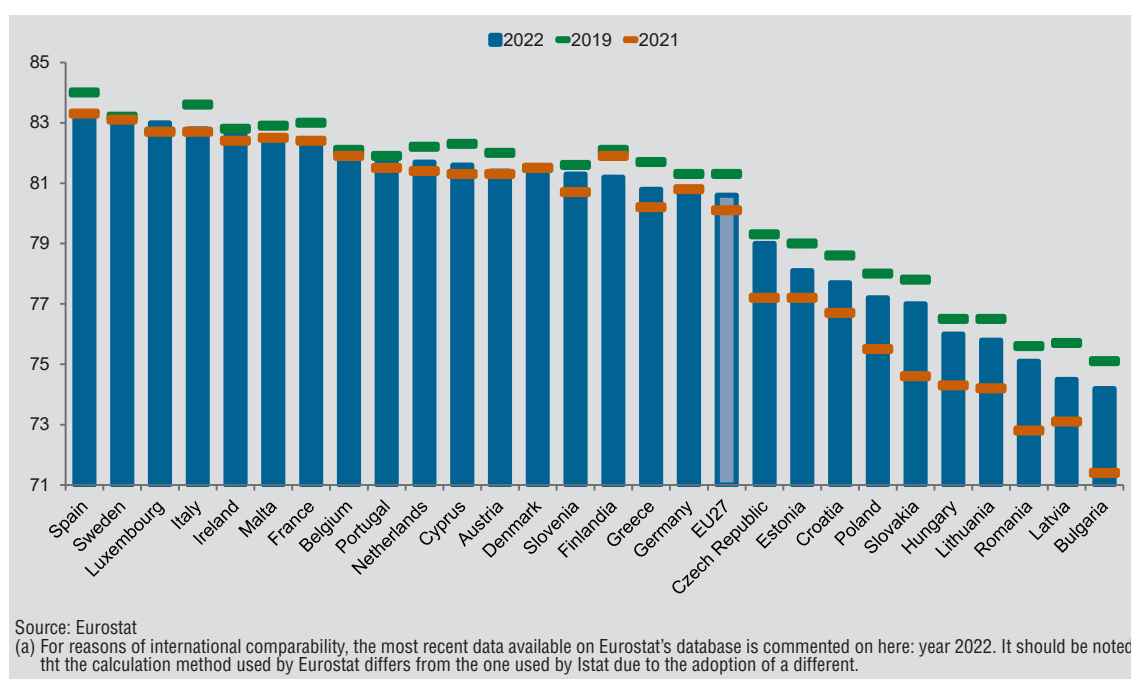
### Life expectancy at birth approaches pre-pandemic levels

According to the latest provisional estimates for 2023, life expectancy at birth stands in Italy at 83.1 years, with an estimated increase of approximately 6 months compared to 2022 (it was 82.6 years). In 2023, this indicator shows further improvement, recovering almost in full the loss of life expectancy caused by the pandemic (83.2 years in 2019). Men with an average life expectancy of 81.1 years bounce back to the same level as in 2019, the year in which the highest level ever recorded was reached, whereas women (85.2 years) are still short of 0.2 years compared to the maximum level of 2019 (85.4).

In the European context, the latest available data for 2022 allows us to compare the extent of the recovery of the years lost during the pandemic across the various EU countries. In 2019, the year before pandemic, Italy, with a life expectancy at birth of 83.6 years, occupied the second place in the EU ranking behind Spain (84.0), whereas in 2022 it was in fourth place with 82.8 years, following Spain (83.2), Sweden (83.1) and Luxembourg (83.0); whereas Bulgaria (74.2 years) confirmed itself at the lowest levels of the ranking for 2022 as well, behind Latvia (74.5) and Romania (75.1) (Figure 2).

Comparing the 2022 average life expectancy at birth with that for 2019, what emerges is that, for the European Union, there are still 0.7 years on average to recover, with differences exceeding the EU average especially for Eastern European countries, as shown in Figure 2. In particular, compared to 2019, Latvia (with 74.5 years) must still recover 1.2 years, having lost almost

Figure 2. Life expectancy at birth in EU27 countries (a). Years 2019, 2021 and 2022. In years

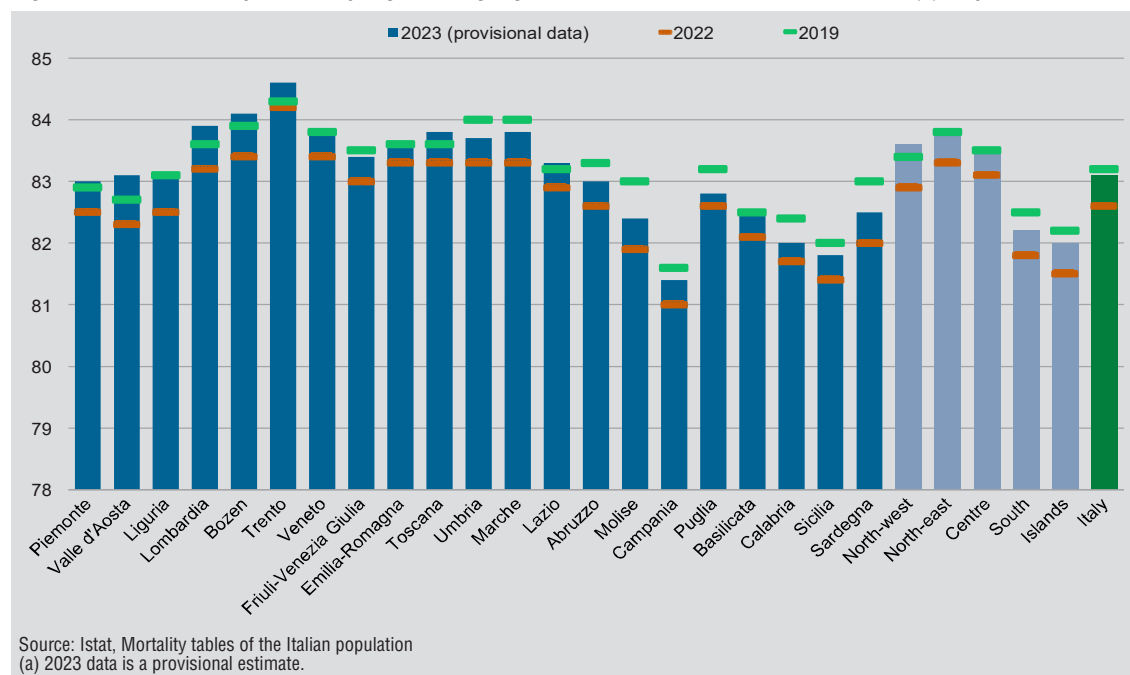


twice as many during the pandemic, whereas Estonia and Croatia are still nearly 1 year behind 2019 (-0.9). Even Western European countries such as Finland (81.2) and Greece (80.8) must still recover a gap of similar magnitude: compared to 2019, it is 0.9 years for both, whereas for Italy and Spain there are 0.8 years still left to regain, for France 0.7, and for Germany 0.6. Furthermore, Figure 2 also highlights the strong recovery achieved by Eastern European countries compared to 2021, particularly Bulgaria (+2.8 years), Romania (+2.3), Latvia (+1.4), but also Slovakia, which in 2021 had however already recovered most of the years lost compared to 2019 (+2.4, out of a total of 3.2 years lost altogether).

At a regional level, in 2023 the well-known territorial gap is confirmed, with the average life expectancy at birth in Trento amounting to 84.6 years, 3.2 years higher than in Campania (81.4 years).

For the recovery of years of life lost in the two-year pandemic period, it is worth highlighting different dynamics in the macro areas and in the regions (Figure 3). The North-West, which recorded the worst loss (approximately two years), quickly regained a large part of the lost years, and in 2023, with a sizeable +0.7 years gain over 2022, exceeds even the 2019 estimate by 0.2 years (83.6 years). The North-East also fully restores the 2019 level (83.8) with +0.5 years compared to the 2022 data, similarly to what happens in the Centre (83.5), +0.4 years, although the years lost were less (-0.6 years in 2020). In the South, despite having gained +0.4 years compared to 2022, the latest provisional estimate settles at 82.1 (82.2 for the South and 82.0 for the Islands): there is therefore still a gap compared to 2019, with 0.3 years waiting to be recovered. In particular, among northern regions the Autonomous Province of Trento (84.6 years in 2023) has regained the year and a half lost (84.3 years in 2019) and went as far as improving the expected survival levels, perching also in 2023 on the top of the ranking among regions, followed by Bolzano (84.1). Improvements comparing to 2019 were also shown by Valle d'Aosta (83.1 vs 82.7 years) and Lombardia, which reaches 83.9 years (they were 83.6), in this case, too, the best level never achieved before. Among central regions, despite the fact that they all recovered compared to 2022 (about +0.4 or +0.5 years), only Toscana (83.8) and Lazio (83.3) exceed the 2019 value.

Figure 3. Life expectancy at birth by region and geographic areas. Years 2019, 2022 and 2023 (a). In years



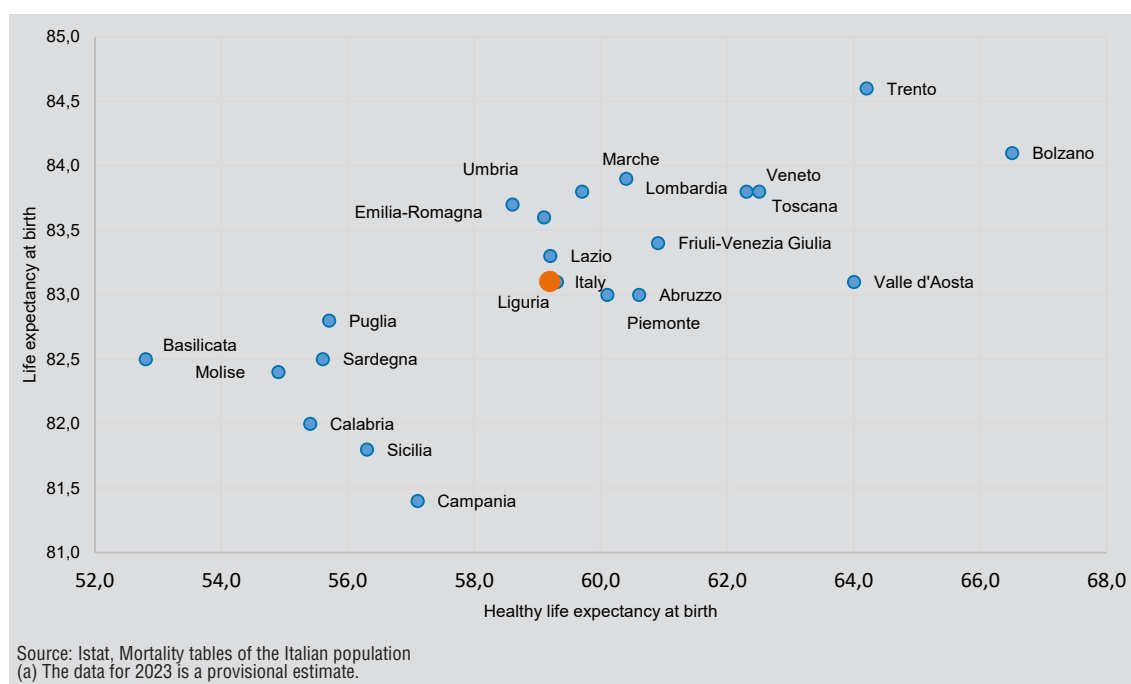


Instead, among southern regions, only Basilicata (82.5) is back in line with 2019. Molise and Sardegna still have to recover at least six months compared to the pre-pandemic data: in 2023, the average life expectancy at birth is estimated respectively at 82.4 years and 82.5 (it was 83.0 in both regions in 2019).

### Healthy life expectancy at birth decreases compared to 2022

For the healthy life expectancy at birth indicator, the decreasing trend compared to the anomalous data recorded in the first year of pandemic continues in 2023<sup>5</sup>: in fact, the latest (provisional) estimate relating to 2023 stands at 59.2 years, i.e. a value closer to that of 2019 (58.6 years). The indicator had reached its maximum peak of 61.0 years in the first year of the pandemic, subsequently dropping to 60.5 years in 2021 and 60.1 years in 2022. Taking into account the overall realignment of average life expectancy in 2019, the decrease of this indicator is due to the trend of the subjective component, the perceived good health which, after the high peak of 2020, is constantly going back to the 2019 data. In 2023, in fact, the share of the population declaring itself in good health is estimated at 68.7%, settling at the 2019 level (68.8), albeit more than 3 points below the 2020 value (72.0%). The North-South territorial gap is widening again compared to 2022. The geographical differential of healthy life expectancy at birth in 2023 is about 4 years to the detriment of the South (56.5 years), compared to the North (60.6). After the North-South gap had dropped to its minimum levels in 2021 and 2022 (about 2.5 years), the differential goes back to pre-pandemic levels (it was 3.9 years in 2019). The regional breakdown, represented in Figure 4, allows us to distinguish the regions where people live longer or shorter lives compared to the Italian average, jointly considering the years of life expectancy in good health.

Figure 4. Life expectancy at birth and healthy life expectancy at birth by region. Year 2023 (a). In years



5 Istat, 2021 Bes Report. <https://www.istat.it/en/publication/bes-2021-equitable-and-sustainable-well-being-in-italy/>.

Thus, although residents in Trento are the longest-lived in Italy in 2023, those expecting to live the greatest number of years in good health are the inhabitants of Bolzano: 66.5 years of the 84.1 years of life expectancy at birth, equal to approximately 80% of future years, as opposed to the 64.2 years of Trento (equal to 76% of expected life).

In the positive quadrant in which high life expectancy at birth and healthy life expectancy at birth combine, regions such as Toscana and Veneto also stand out (respectively 62.5 and 62.3 years in good health with 83.8 of life expectancy for both). Valle d'Aosta, despite showing one of the highest levels of life expectancy in good health (64.0) behind the two aforementioned Autonomous Provinces in Trentino Alto Adige, is in line with the average for Italy for life expectancy (83.1 years). The opposite quadrant includes almost all the regions of the South: Basilicata is the region with the lowest number of years of healthy life expectancy at birth (52.8 years out of the 82.5 still to live) in 2023, followed by Molise (54.9) and Calabria (55.4) respectively with 82.4 and 82.0 years of life expectancy. Campania, despite having one of the lowest levels of average life expectancy in Italy, shows a value of 57.1 years of life in good health, surpassed only by Abruzzo (60.6 years) if account is taken of southern region.

### The gender gap in longevity continues to shrink, while remaining stable for healthy life expectancy at birth

In 2023, the gender gap (-4.1 years) in life expectancy at birth shrinks down, although it is still to the detriment of men (it was -4.3 in 2019 and -4.7 in 2020, but almost -6 years at the beginning of 2000). The reduction in the gap particularly concerns the North-West with a differential of -4 years, whereas in the South it is equal to -4.3 years, as in 2019. This is also traceable to the fact that when on average men in the North-West have gained nearly 5 months of life more compared to 2019, women only succeeded in restoring the 2019 value. Even in the Centre, the differential is similar, but men's gain is just 0.1 years, compared to a stability back to 2019 values for women. In the South, the gender gap remains similar to 2019, since the partial recovery of 2023 entails the fact that both men and women are still short of 0.3 years compared to 2019.

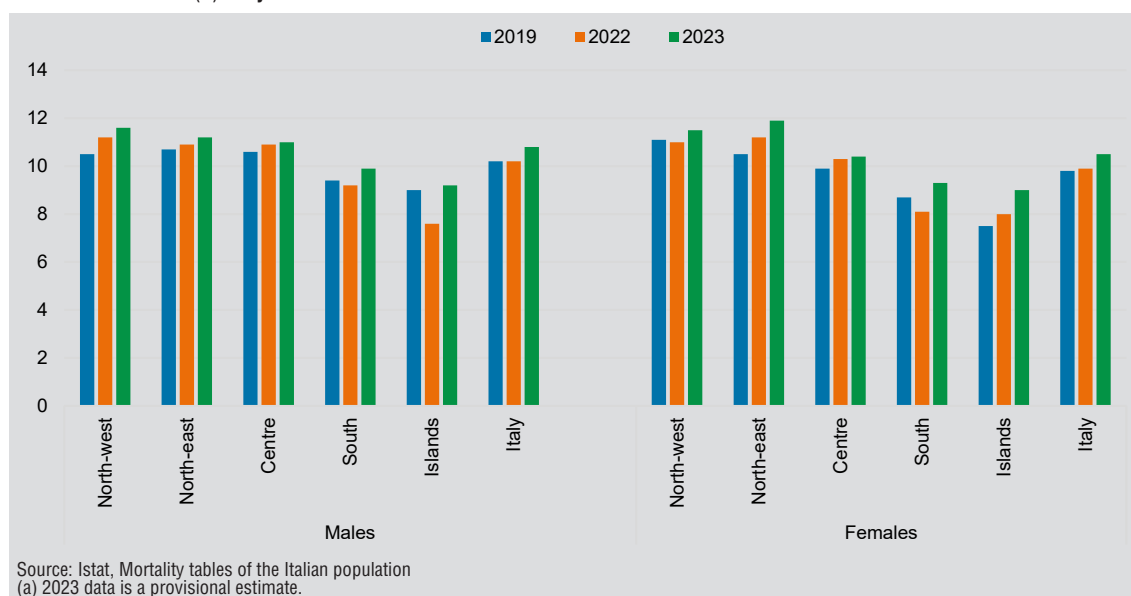
Notwithstanding the greater longevity of women, it is for men to spend a greater number of future years to live in good health, as has been the case for some time now: in 2023, the healthy life expectancy at birth amounts to 60.5 years for men and 57.9 for women. Furthermore, the higher survival level among women determines for them a longer period to live with no good health (about 27 for women and about 20 for men).

Compared to 2022, healthy life expectancy at birth seems to decrease more among women (from 59.1 years down to 57.9) than among men (from 61.2 to 60.5), but for both genders the reduction has a geographical gradient the more we move from North to South, where we record -1.5 years for men and -2.0 for women (vs an improvement for men of +0.2 years and -0.4 for women in the North). If we extend the comparative period to 2019 to understand the post-pandemic effects of such indicator in terms of gender, a decidedly more positive sign prevails for men (+0.7 years of good health), one that retains a similar extent in the different macro areas of the country; women abundantly recover the pre-pandemic data (57.9 years, it was 57.6 in 2019), but while the Centre improves (+1.5 years), the South returns a negative value (-0.4 years compared to 2019).

## Life expectancy without limitations at the age of 65 slightly increasing in 2023, also when compared to the pre-pandemic period

In 2023, life expectancy without limitations at the age of 65 settles at 10.6 years, without any substantial gender-related differences (10.8 years for men and 10.5 for women). Whereas life expectancy at the age of 65 has almost recovered the years lost in the pandemic period (-0.1 years), the indicator that analyses survival in full autonomy, i.e. relating to the years a person aged 65 expects to live without limitations in activities, has instead improved compared both to the previous year (it was 10.1 years) and to 2019 (it was 10.0). The territorial gap endures: in the North, in 2023 life expectancy in full autonomy at the age of 65 stands at 11.5 years, while it dips to 9.4 years in the South and Islands, with a differential of 1.9 years for men and 2.3 years for women. During the pandemic, the North-South territorial gap had considerably reduced for women (from 2.5 years in 2019 to 1.7 in 2020 and 2021), while for men it was more contained in 2019 (1.3 years), but reaches almost 2 years in 2023 (a slight drop from 2022). Figure 5 highlights in even greater detail the 2023 improvement in all five geographical macro areas, but with an increasingly growing trend compared to both 2022 and 2019 in the northern areas, as opposed to a more complex trend in the other geographical areas. Furthermore, in the Islands life expectancy without limitations at the age of 65 for women is 2.9 years lower than for residents in the North-East, while for men the difference is 2 years.

Figure 5. Life expectancy without activity limitations at 65 years of age by geographic area and sex. Years 2019, 2022 and 2023 (a). In years



## Criticalities in psychological well-being for women and young people

In line with the indications of the World Health Organisation, which identifies in mental health an essential component of health<sup>6</sup>, psychological well-being is by now recognised as a public health priority on which to direct specific actions and projects.

6 OECD (2023), *Measuring Population Mental Health*, OECD Publishing, Paris, <https://doi.org/10.1787/5171eef8-en>.

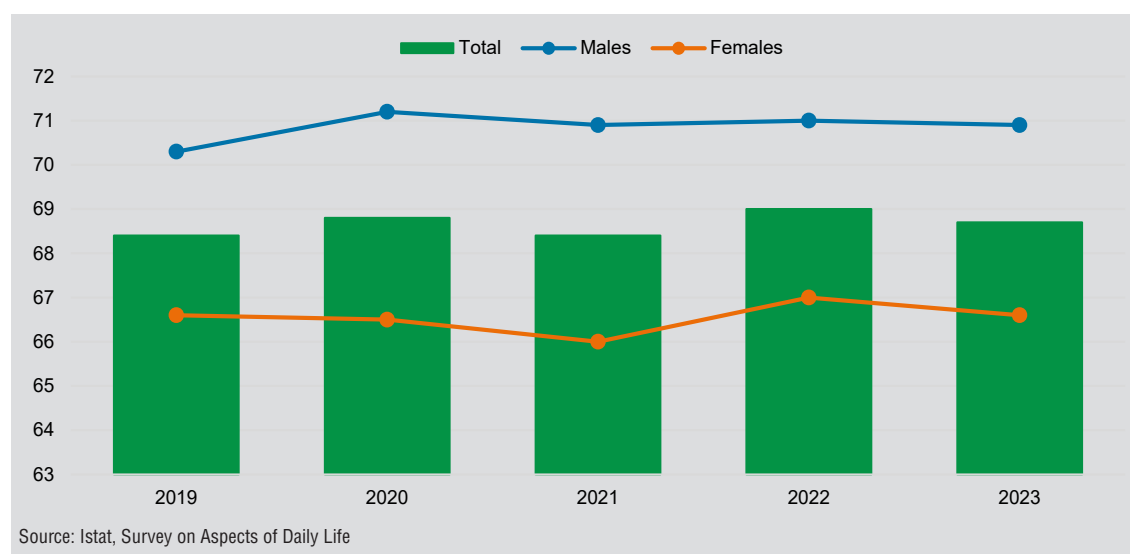


The analysis of the mental health (MH) index<sup>7</sup>, despite the limits of a synthetic measurement, provides a useful tool to monitor its evolution.

In 2023, the age standardised MH index stands in Italy at the score of 68.7, a value only slightly below that of 2022 (when it was 69.0), and essentially stable by comparison to 2019 (when it settled at 68.4)<sup>8</sup>.

The psychological well-being conditions for women, however, are constantly worse, with a gap compared to the relative score for men of 4.3 points in 2023, up from the 3.7 point differential in 2019 (Figure 6).

Figure 6. Mental health index for people aged 14 and over by sex. Years 2019-2023. Standardised average scores



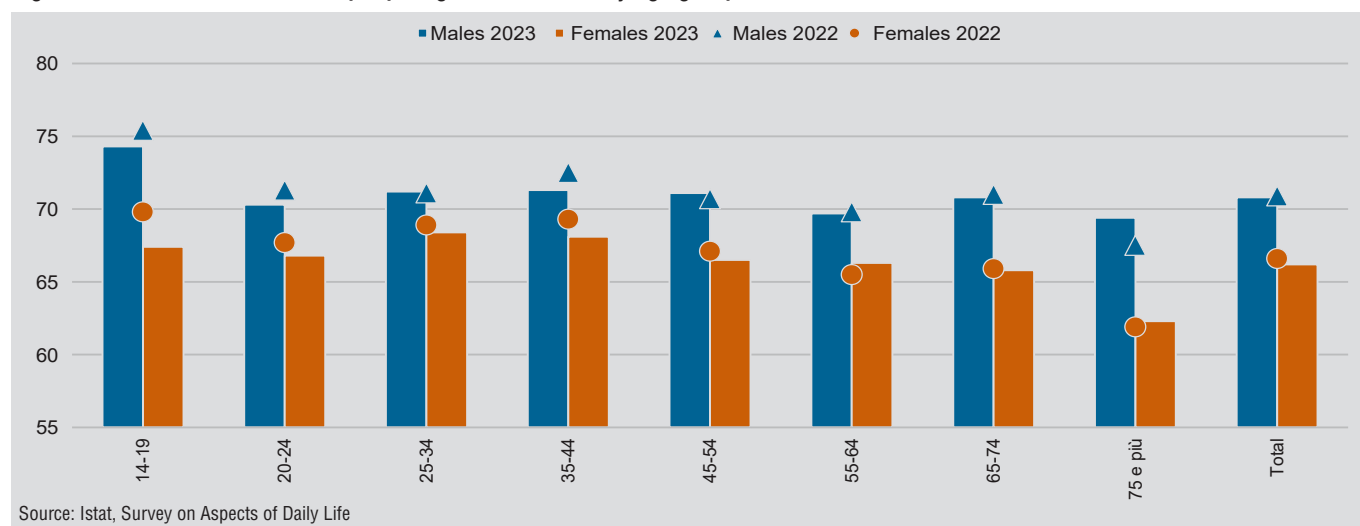
The mental health index enjoys a higher average score among young people (71.0 among 14-19 year olds in 2023), decreases between the ages of 20 and 24 (68.6), and then rises again with a second positive peak between the ages of 25 and 44, when the score climbs up almost to 70. Thereafter, conditions worsen in older ages and the MH index reaches its minimum value among people aged 75 and over (65.2). The gender difference to the detriment of women is discernible across the age groups (Figure 7), but is particularly wide among the young people and the elderly. In 2023, in these population groups the gender gap reaches 7 points: the score is equal to 74.3 for 14-19 year olds (67.4 among their female peers) and amounts to 69.4 among men aged 75 and over (62.3 among women of the same age). Whereas among the older persons the extent of the gap is at least partly attributable to the greater longevity of women, among the younger ones the increase in the gap has widened in recent years, characterised by a far more precarious social and environmental

<sup>7</sup> One of the internationally developed psychometric tools that is paid regard to in the set of Bes indicators is the mental health (MH) index of the SF-36, based on adding up the scores achieved by each individual by answering 5 specific questions. The index provides a measure of the psychological distress of individuals and comprises states associated with anxiety and depression (Keller, S.D., J.E. Ware, P.M. Bentler et al. 1998. Use of structural equation modelling to test the construct validity of the SF-36 Health Survey in ten countries: Results from the IQOLA Project. Journal of Clinical Epidemiology, Volume 51, Issue 11: 1179-1188).

<sup>8</sup> As the score, whose values range between 0 and 100, increases, so does the evaluation of mental health conditions, connected to psychological well-being, improves.

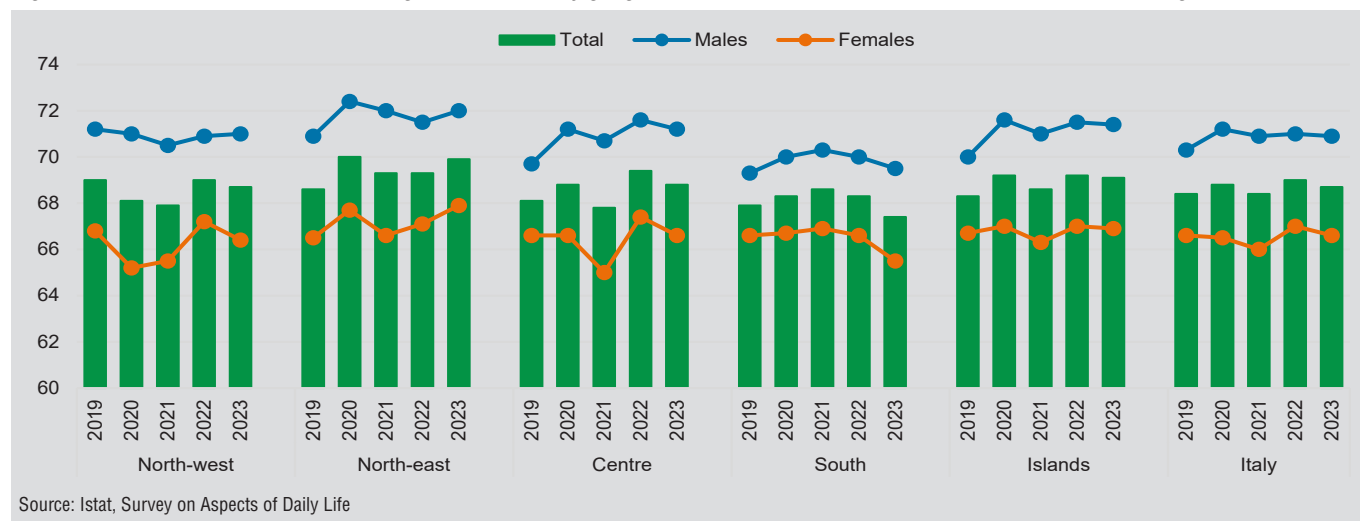
context, internationally as well. Already in 2021, in fact, a deeper impact of the consequences of the pandemic on the psychological well-being of girls had been observed<sup>9</sup>, and in the last year, too, the younger girls are the group recording the greatest decline of the index, which drops from 69.8 in 2022 to 67.4 in 2023.

Figure 7. Mental Health Index for people aged 14 and over by age group and sex. Years 2022, 2023. Mean scores



The 2023 MH index trend also differs across the territory. The North-East, thanks to the improvement over the previous year (+0.6 points), is once again the area with the highest levels of psychological well-being (69.9), followed by the Islands (69.1) and the Centre (68.8). The North-West, which had witnessed a greater decline in mental well-being in the two years of the pandemic and had become the territory with the lowest MH index levels in 2021 together with the Centre, consolidates also in 2023 the realignment with the 2019 levels (68.7). Lastly, the South, where the worst conditions of psychological well-being are observed, is the only geographical area in which the index shows a further drop over the last year; the index declines in fact from 68.3 to 67.4, with values which are even lower than those of 2019 (Figure 8).

Figure 8. Mental health index for people aged 14 and over by geographic area and sex. Years 2019-2023. Standardised average scores



9 Istat, 2021 Bes Report. <https://www.istat.it/en/publication/bes-2021-equitable-and-sustainable-well-being-in-italy/>.

## In 2020 and 2021, avoidable mortality on the rise

Avoidable (preventable and treatable) mortality refers to deaths that might be significantly reduced thanks to the spread of healthier lifestyles and the reduction of environmental and behavioural risk factors, as well as to an adequate and accessible healthcare<sup>10</sup>.

In 2021, the standardised avoidable mortality rate for people aged 0-74 in Italy is 19.2 per 10 thousand inhabitants, slightly down from 2020, when it had reached 19.7 per 10 thousand inhabitants. The trend of the indicator<sup>11</sup>, after showing a constant drop throughout the period from 2005 to 2019 (it amounted to 23.4 per 10 thousand residents in 2005 and had reached 16.5 in 2019), had suffered an important increase in the period straddling 2020 and 2021, no doubt affected by the mortality attributable to *COVID-19*, which in 2020 is the cause of 18 thousand 370 deaths and in 2021 of 18 thousand 164 deaths.

If we break down the indicator into its two sub-dimensions, treatable and preventable mortality, the increase observed in 2020 and 2021 mainly concerns the component of preventable mortality (which also includes mortality from *COVID-19*), which rises from 10.1 per 10 thousand inhabitants in 2019 to 13 per 10 thousand in 2020, and then dropped slightly to 12.8 per 10 thousands in 2021. This component is the one that has declined the most from 2005 to the pre-pandemic period (it was 14.7 per 10 thousand inhabitants in 2005 and 10.1 in 2019). This decrease was due to the reduction in deaths from lung cancer (for people under 75, from 18 thousand 332 in 2005 to 15 thousand 658 in 2019) and for ischemic heart disease, which fell from 18 thousand 826 to 11 thousand 781.

Treatable mortality, which had also fallen until 2019, albeit with different intensity, unlike the preventable type, is also more stable in the 2020-2021 period: the rate, which was 6.4 deaths per 10 thousand residents in 2019, reached 6.6 in 2020 and settled again at 6.4 in 2021 (Figure 9).

Even in 2021, marked gender differences are confirmed, with higher values among men than among women (25.5 per 10 thousand residents among men as opposed to 13.4 among women). The disadvantage suffered by males is mostly explained by the “preventable” component and is linked to aspects that are for the main part associated with lifestyles (for example, eating habits, physical activity) and particularly risky behaviours (alcohol abuse, greater propensity to smoke, etc.)<sup>12</sup>.

<sup>10</sup> Avoidable mortality is made up of two components, preventable and treatable mortality. In particular, what is meant by preventable mortality is defined as mortality that can be avoided through effective primary prevention and public health interventions. By treatable mortality, we refer to those deaths that might be contained thanks to timely and effective healthcare in terms of secondary prevention and adequate health treatments. Defining the lists of treatable and preventable causes is based on the joint OECD/Eurostat work, revised in November 2019. In this definition, the age up to which a death is considered avoidable is set at 74 years in order to reflect current life expectancy. The list of diseases/conditions and the age limit reflect current expectations of health, technology, medical knowledge and developments in public health policy and, accordingly, could be subject to changes in the future.

<sup>11</sup> Starting in 2020, *COVID-19* was included by Eurostat among the causes of death deemed preventable. For this reason, the preventable and avoidable mortality rates referring to 2020 and 2021 also take this cause into account. Avoidable mortality: OECD/Eurostat lists of preventable and treatable causes of death (January 2022 version), <https://www.oecd.org/health/health-systems/Avoidable-mortality-2019-Joint-OECD-Eurostat-List-preventable-treatable-causes-of-death.pdf>.

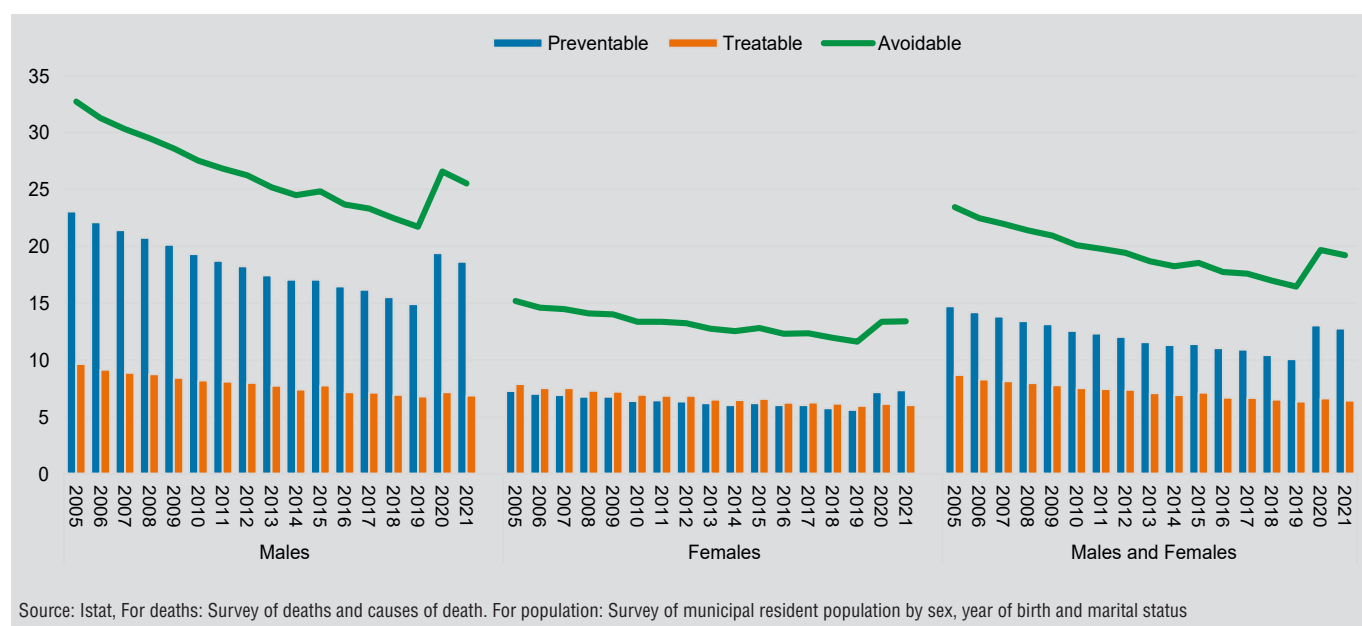
<sup>12</sup> Starting in 2020, mortality from *COVID-19*, which in 2020 involved 13 thousand 463 men as opposed to 4 thousand 907 women (in 2021, 12 thousand 538 men versus 5 thousand 626 women) was also added to these causes.

Overall in 2021, the preventable death rate for men is 18.6 per 10 thousand inhabitants, while for women it is 7.3, with a drop, compared to 2020, which mainly concerns men (the rate was 19.4 per 10 thousand residents in 2020), while the decline for women remained almost constant (it was 7.2 in 2020). As for treatable mortality, on the other hand, the rate for men in 2021 is 6.9 per 10 thousand inhabitants and 6 for women. Similar man-woman differences had been observed in 2020 (7.2 as opposed to 6.1).

The preventable mortality rate for men has always been at least twice as high as the treatable mortality rate, and this gap has intensified in the 2020-2021 two-year period. Conversely, for women, treatable mortality always exceeded preventable mortality, except in 2020-2021, when preventable mortality due to *COVID-19* exceeds treatable mortality.

In the European context, Italy retains an advantageous position in the ranking by countries for avoidable mortality. In 2021<sup>13</sup>, in fact, the European average for avoidable mortality is 29.4 per 10 thousand inhabitants.

Figure 9. Standardised rates of avoidable mortality (preventable and treatable) for people aged 0-74 by sex. Years 2005-2021. Per 10,000 residents

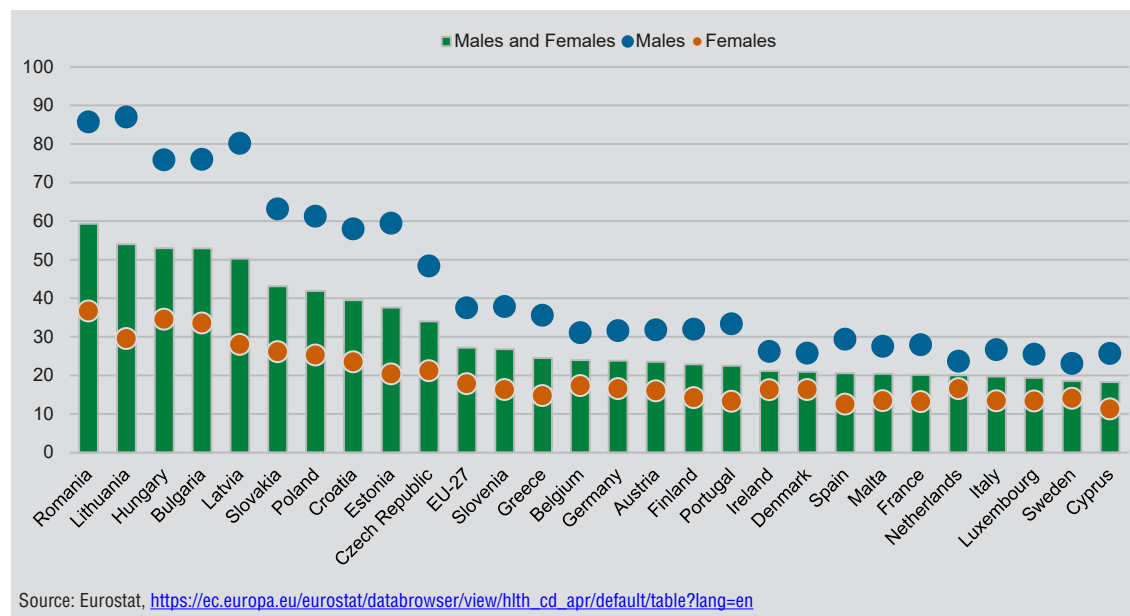


The analysis of levels for 2020<sup>14</sup>, when rates are available also broken down by gender, highlights the fact that the countries with the highest levels of avoidable mortality are Romania (59.3 per 10 thousand residents), Lithuania (54 per 10 thousand residents), Hungary (53 per 10 thousand residents) and Bulgaria (52.9 per 10 thousand residents), followed in decreasing order by other countries. In all countries, the man-woman gap is very pronounced, with values on average twice as higher among men than among women (Figure 10).

13 The latest available data referring to the total of the EU average relates to 2021: [https://ec.europa.eu/eurostat/databrowser/view/sdg\\_03\\_42/default/table#:text=Avoidable%20mortality%20covers%20both%20preventable,injuries%2C%20to%20reduce%20incidence](https://ec.europa.eu/eurostat/databrowser/view/sdg_03_42/default/table#:text=Avoidable%20mortality%20covers%20both%20preventable,injuries%2C%20to%20reduce%20incidence).

14 [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Preventable\\_and\\_treatable\\_mortality\\_statistics&oldid=569188#Number\\_and\\_rate\\_of\\_avoidable\\_deaths](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Preventable_and_treatable_mortality_statistics&oldid=569188#Number_and_rate_of_avoidable_deaths).

Figure 10. Standardised rates of avoidable mortality (preventable and treatable) of people aged 0-74 by sex in EU27 countries. Year 2020. Per 10,000 residents



Analysing the two components of avoidable mortality (preventable and treatable), we can observe that at European level, in 2020, the main cause of treatable mortality is ischemic heart disease (1.9 per 10 thousand residents, amounting to 20.1% of the total number of deaths for treatable diseases), colon-rectal cancer (1.4 per 10 thousand residents), breast cancer among women (1.0 per 10 thousand residents) and cerebrovascular diseases (1 per 10 thousand residents).

The main causes of preventable deaths, on the other hand, are lung cancer (3.3 per 10 thousand residents, equal to 18.4% of the total number of avoidable deaths), *COVID-19* (2.7 per 10 thousand residents), ischemic heart diseases (1.9 per 10 thousand residents) and alcohol-related disorders and poisonings (1.2 per 10 thousand residents).

The analysis of the two components of avoidable mortality at national level nevertheless highlights differentiated regional profiles. The most critical situations are encountered in Campania, followed by Molise, Sicilia, Puglia and Lazio, where mortality rates, both preventable and treatable, are higher than the national average.

An opposite scenario is discernible in the autonomous provinces of Bolzano and Trento, followed by Veneto, Lombardia, Toscana, Emilia Romagna, Marche and Valle d'Aosta in which, for both components of avoidable mortality, the values settle below the general average. Liguria, Abruzzo, Sardegna, Piemonte and Basilicata show values that overlap with the national average for both components of avoidable mortality. For other regions, we detect differentiated behaviours in the two sub-dimensions: in some instances, the values for preventable mortality are higher than the average value and, conversely, they are lower for the treatable type (this is the case of Calabria, for example); in other instances, the values for the preventable component are lower than the average value, and, by contrast, those for treatable mortality are higher (this is the case, for example, of Friuli-Venezia Giulia).



### **Mortality from cancers among adults and mortality from dementia and diseases of the nervous system among the elderly population declined. Infant mortality slightly on the rise**

In 2021, the infant mortality rate is 2.6 per 1,000 live births, up from 2.5 per 1,000 live births in 2020), with a confirmed higher rate among boys than among girls (2.8 per 1,000 male live births as opposed to 2.3 for females). The increase in 2021 concerns only males, while the data among females are stable (even compared to 2019).

The territorial analysis highlights different situations; the increase, in fact, is mainly in the Islands (where the rate rises from 3.0 to 3.6 per 1,000 live births) – the macro-area with the highest values in the country – and the North-East (where it goes from 1.9 to 2.1 per 1,000 live births). The phenomenon is stable in the North-West (2.3 per 1,000 live births both in 2020 and in 2021) and declines in the central and southern regions (from 2.3 in 2020 to 2.1 per 1,000 live births in 2021 and from 3.2 to 3.1 per 1,000 live births respectively). In 2021, the highest values were recorded in Calabria (4.2 per 1,000 live births) and Sicilia (3.9 per 1,000 live births), and the lowest ones in Umbria and Toscana (1.2 and 1.6 per 1,000 live births).

Mortality from cancer among people aged 20-64 refers to a set of causes of mortality considered premature for this age group. In 2021, the mortality rate from cancer is 7.8 per 10 thousand residents (8.3 among men and 7.4 among women).

The value is on the decline compared to 2020 (8.0 per 10 thousand residents), in line with the downward trend already observed for many years (in 2004 it was equal to 11.1 per 10 thousand residents). In 2021, the drop concerned both women and men, although the latter is more pronounced (in 2020, the figures are 8.6 per 10 thousand residents for men and 7.5 for women).

At territorial level, even 2021 confirms the higher cancer mortality values in the South (8.5 per 10 thousand inhabitants as opposed to 7.2 in the North and 7.8 in the Centre).

The highest value of the indicator is recorded in Campania (9.4 per 10 thousand inhabitants, respectively 10.2 for men and 8.7 for women), but it is lower than in the previous year (in 2020 it was 9.8).

Compared to 2020, Sardegna is the region with the most significant gender inequalities, albeit with rather opposite values: in fact, it is for man that the highest rise across regions is observed (from 10 to 10.9 per 10 thousand inhabitants), whereas, conversely, women show the most pronounced reduction (from 8.8 to 7.4 per 10 thousand inhabitants), right after Basilicata, whose female rate goes from 7.5 to 5.8 per 10,000.

In the Italian population, characterised by a very high life expectancy and, simultaneously, by a substantial percentage of elderly people, pathologies such as dementia and diseases of the nervous system, for which, in 2021, the mortality rate is 33.1 per 10 thousand inhabitants aged 65 and over (with a rate among women of 32.1 e among men of 33.6) are widespread.

After an almost constant rise recorded from 2015 to 2017, a subsequent slight drop in 2018 and an upward trend in the following two years, 2021 shows instead a marked decrease (the rate was indeed 35.6 per 10 thousand inhabitants in 2020).

In 2021, the decrease equally affects both men and women. The highest mortality rates from dementia and diseases of the nervous system are encountered above all in the Islands (35.9 per 10 thousand inhabitants) and in the North (34.1 per 10 thousand inhabitants in the North-West and 33.2 in the North-East), less so in the Centre (32.8 per 10 thousand inhabitants) and in the South (30.3 per 10 thousand inhabitants).

Between 2020 and 2021, while the mortality rate for dementia and diseases of the nervous system decreases in the northern regions and remains stable in the central ones, it increases in the South and the Islands (which rose, respectively, from 28.7 to 30.5 and from 34.7 to 36.0 per 10 thousand inhabitants).

In 2022, the mortality rate from road accidents among young people aged 15-34 stands at 0.7 per 10 thousand residents, recording a slight increase over the 0.6 per 10 thousand residents of 2021. This trend confirms the upward curve observed in 2021 as well, and brings the indicator in line precisely with the values observed between 2013 and 2019, i.e. before the appearance of the *COVID-19* pandemic. In 2020, in fact, the indicator had recorded a drop likely ascribable to the reduced mobility in the territory, especially during some periods of the year, due to travel restrictions aimed at containing the spread of the *COVID-19* pandemic.

A marked gender difference is confirmed for 2022 as well, with a value of 1.1 per 10 thousand residents among men and 0.2 among women, and the increase in the indicator in 2022 is only observed for men (the rate was equal to 1 per 10 thousand residents in 2021).

From a territorial viewpoint, in 2022 the mortality rate from road traffic accidents shows higher values in the North-East (0.9 per 10 thousand residents) and in the Islands (0.7 per 10 thousand residents) and a lower value in the North-West, Centre and South (0.6 per 10 thousand residents). In 2022, the standardised rate of serious injuries from road traffic accidents<sup>15</sup> for the population aged 15-34<sup>16</sup> is 3.2 per 10 thousand residents and, similarly to the road accident mortality rate, is higher among men than among women (4.9 as opposed to 1.3 per 10 thousand residents). Across the territory, the highest rates are observed in the Islands (4.2 per 10 thousand residents) and the North-East (3.4 per 10 thousand inhabitants), being macro areas also characterised by higher road accident mortality rates, whereas lower values concern the Centre-South (3.2 per 10 thousand residents) and the North-West (2.5 per 10 thousand residents).

<sup>15</sup> The standardised rate of serious injury is calculated through the direct method of the typical population and the recourse to specific rates of injury stemming from the ratio between serious road accident injuries by gender and age groups, from 15 to 34, and the corresponding resident population, per 10,000. The standard population used is the 2013 European one.

<sup>16</sup> Serious road accident injuries are calculated starting from the data of the Hospital Discharge Cards, provided by the Ministry of Health, and through the use of the AIS (Abbreviated Injury Scale) classification and the MAIS 3+ (maximum AIS 3 e + score) variant. Copyright *Association for the Advancement of Automotive Medicine* (AAAM) and European Commission.

## BES MORTALITY MEASURES BY EDUCATIONAL LEVEL

The reduction of socioeconomic inequalities in the health field represents an important objective of Italian health policy and is one of the pillars of the National Prevention Plan<sup>1</sup>. It has been noted that mortality is usually higher among people in disadvantaged socio-economic conditions, regardless of the level of development of the country<sup>2,3</sup>.

For the first time, it is possible to analyse the Bes mortality indicators<sup>4</sup> by educational qualification, a variable considered the best available *proxy* of the socio-economic condition, being strongly connected to other social status measures<sup>5</sup>. Table A sets out the standardised mortality rates per 10 thousand residents, by educational level and sex, calculated for 2020, the latest available data.

**Table A. Bes mortality indicators by educational level and sex: standardised rates per 10 thousand residents in Italy. Year 2020**

EDUCATIONAL QUALIFICATION	Treatable			Preventable			Avoidable			Cancer			Dementia and nervous system diseases		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
No qualification or primary school diploma	16.0	12.1	<b>13.6</b>	42.4	14.8	<b>26.0</b>	58.4	26.9	<b>39.6</b>	14.9	11.3	<b>12.7</b>	37.3	35.8	<b>36.7</b>
Middle school diploma	11.5	9.5	<b>10.5</b>	33.1	12.0	<b>23.0</b>	44.6	21.5	<b>33.5</b>	12.0	9.9	<b>10.9</b>	36.2	33.0	<b>34.9</b>
High school diploma	9.5	8.3	<b>8.9</b>	25.2	9.5	<b>17.5</b>	34.6	17.8	<b>26.4</b>	9.2	8.7	<b>9.0</b>	34.0	30.2	<b>32.2</b>
Degree or higher tertiary qualification	7.2	7.2	<b>7.3</b>	18.7	7.5	<b>13.1</b>	25.9	14.7	<b>20.3</b>	7.1	7.8	<b>7.5</b>	31.4	29.1	<b>30.6</b>
<b>Total</b>	<b>10.8</b>	<b>9.2</b>	<b>9.9</b>	<b>29.6</b>	<b>11.0</b>	<b>19.9</b>	<b>40.4</b>	<b>20.2</b>	<b>29.8</b>	<b>10.5</b>	<b>9.2</b>	<b>9.8</b>	<b>35.8</b>	<b>34.3</b>	<b>35.3</b>

Source: Istat. For deaths: Survey of deaths and causes of death. For population: Survey of municipal resident population by sex, year of birth and marital status

In Italy, avoidable mortality, which comprises preventable and treatable mortality, between 30 and 74 years of age, is equal to 29.8 deaths per 10 thousand residents, with the component of preventable mortality predominating over the treatable variety. Avoidable mortality is higher among men (40.4 per 10 thousand residents) compared to women (20.2 per 10 thousand). The rate is also highly variable depending on educational qualification, and is equal to 39.6 deaths per 10 thousand residents

1 2020-2025 National Prevention Plan. [https://www.Health.gov.it/imgs/C\\_17\\_pubblicazioni\\_2955\\_allegato.pdf](https://www.Health.gov.it/imgs/C_17_pubblicazioni_2955_allegato.pdf).

2 World Health Organization. Commission on Social Determinants of Health. Closing the gap in a generation. 2008.

3 Petrelli, A., M. Ventura, A. Di Napoli, M. Pappagallo, S. Simeoni, and L. Frova. 2024. "Socioeconomic inequalities in avoidable mortality in Italy: results from a nationwide longitudinal cohort". *BMC Public Health*, Volume 24, Issue 757. <https://doi.org/10.1186/s12889-024-18205-6>.

4 The indicators set out in this box differ from those normally published in the Bes, having been calculated considering only individuals aged 30 and over, who represent the population with an educational qualification generally acquired and invariant over time. It is furthermore important to highlight that since 2020, after the pandemic began, *COVID-19* was also added to the list of preventable causes. Accordingly, the preventable and avoidable mortality indicators makes reference to the updated list. In addition to the mortality rates, the Mortality Rate Ratios (MRRs) were calculated, having been obtained as the ratios between mortality rates, by sex, geographical distribution and study qualification, and the average Italian rate.

5 National Institute of Statistics - Istat. 2024. "Disuguaglianze nella mortalità per causa in Italia secondo caratteristiche demografiche, sociali e territoriali - Anno 2020". *Tavole di Dati*. Rome, Italy: Istat. <https://www.istat.it/it/archivio/286642>.

in the population with a low study qualification (primary school diploma or less), while it drops to 20.3 in the population with a higher qualification (degree or higher). Inequality by educational qualification in avoidable mortality is more pronounced among males than among females: less educated males have a mortality approximately 2.3 times higher than their more educated counterparts, whereas among females this ratio is more or less 1.8.

Mortality from cancers between the ages of 30 and 64 amounts to 9.8 deaths per 10 thousand residents, higher among males than among females (respectively 10.5 and 9.2 by 10 thousand residents). Socio-economic inequalities are also evident in mortality from cancer, with the disadvantage increasing as the educational level decreases. These inequalities are more accentuated among males, where the less educated individuals have a mortality 2.1 times higher than the more educated ones. Among females, this ratio drops to 1.4.

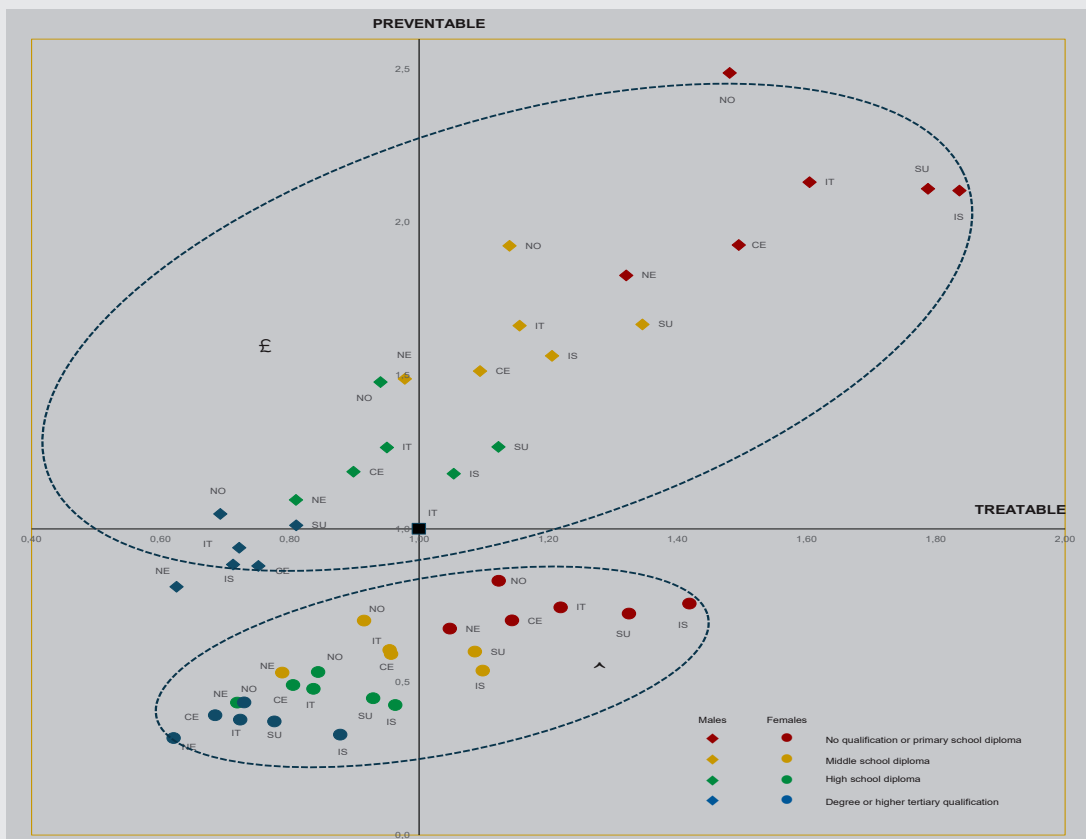
Mortality from dementia and diseases of the nervous system in people over sixty-five is equal to 35.3 deaths per 10 thousand residents, with few gender differences (35.8 for males and 34.3 for females). At the national level, even for these causes, there is confirmation of the gradient that mortality increases as the educational level decreases, for both sexes. As with the rates, there are no gender differences in the measurement of inequalities, and people with a low study qualification have a mortality 1.2 times higher than those who obtained a university qualification, regardless of sex.

Figure A represents the territorial differences of avoidable mortality, broken down into its two components, preventable and treatable, both by sex and by study qualification, compared to average national values<sup>6</sup>.

The first element that emerges is a clear separation between the cloud of points of the female and male populations, indicating an increasingly higher mortality of the latter compared to the former. An analysis of the female population cloud highlights a distribution of points that is more spread out on the treatable mortality axis and more flattened on that of the preventable type, thereby indicating a lower territorial and social variability for this second component compared to the first. As for men, instead, the cloud is more extended compared to both axes, denoting a greater variability of social and territorial inequalities vis-à-vis women, except for the more educated among them, for whom the geographical differences in preventable mortality are very limited. In general, the higher the level of education, the lower the territorial inequalities in avoidable mortality.

6 The horizontal ("x") axis shows the MRRs, i.e. the ratios between rates, by sex, geographical distribution and educational qualification, and the average Italian rate, of treatable mortality. Similarly, the y-axis refers to preventable mortality. The centre of the graph, with coordinates (1.1), represents the average Italian value both for treatable and for preventable mortality. The geographical areas are positioned on the Cartesian plan of avoidable mortality differently based on sex and educational level and depend on the relevance of one of the two components, either treatable or preventable. In particular, when the mortality rates for both components exceed the national average, the points are located in the first quadrant, and in the third quadrant when both treatable and preventable mortality dip below that average. Lastly, the points positioned close to the intersection of the axes represent populations for which both indicators are similar to the national average.

Figure A. Ratios of treatable and preventable mortality rates by sex, educational qualification, geographic areas, and average Italian rate. Year 2020



Source: Istat, For deaths: Survey of deaths and causes of death. For population: Survey of municipal resident population by sex, year of birth and marital status

In general, an increase in mortality, both preventable and treatable, is observed as the educational level drops. Males always disclose a higher preventable mortality than females, whereas for treatable mortality this gender gap is visible at lower educational levels and disappears at higher levels of education (same coordinates on the x-axis). This dynamics can be explained by the fact that preventable mortality, unlike the treatable variety, depends not only on the quality of public health interventions, but also on the different lifestyles and risky behaviours, which are often more common among men. Males with a lower study qualification who live in the South and the Islands have the highest treatable mortality rates compared to the Italian average, while those who live in the North-West have the highest preventable mortality rates: the latter data is partly determined by mortality from *COVID-19*, which, in 2020, was mostly concentrated in this area. Women who live in the North-East with a high study qualification have in absolute terms the lowest treatable and preventable mortality in the whole of Italy. Males who live in the North-East with a primary school level have a lower treatable mortality than males with a middle school diploma who live in the South or females with a primary school diploma who live in the Islands. The Islands are the Italian area in which inequalities by study qualification are more pronounced.

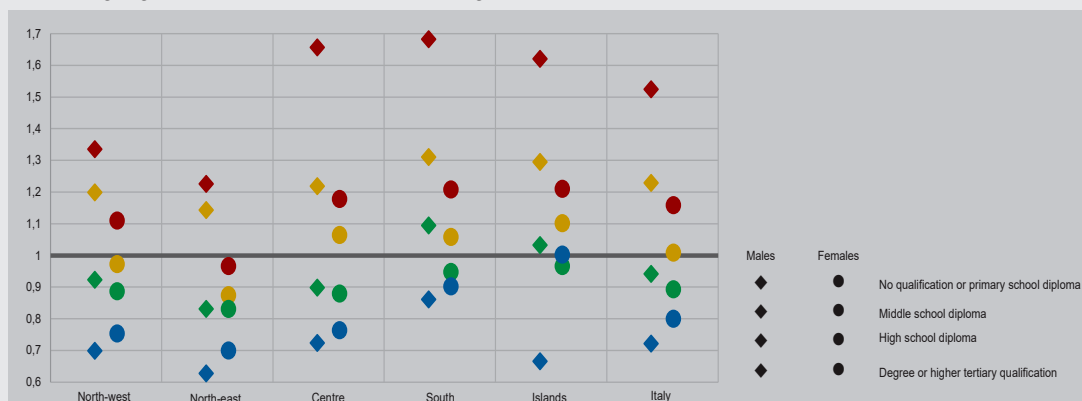


Figures B and C show the MRR ratio between rates broken down by sex, geographical area and educational qualification, and the average Italian rate, respectively of mortality from cancers and from dementia and diseases of the nervous system. The MRR value equal to 1 on the vertical axis measures the average Italian level.

The territorial analysis of mortality from cancers, set out in Figure B, confirms both the gradient by study qualification and women's advantage across all geographical areas and educational levels. The only exception is represented by the most educated women who have everywhere a higher mortality than that observed among men with the same study qualification. Compared to the known phenomenon of male super-mortality, the latter is a conflicting and surprising result, that calls for special concern for future generations.

Inequalities are more pronounced for men, but are not territorially uniform. The gap between people with low and high educational level is greater in the Islands, where the less educated have a mortality rate 2.4 times higher than the most educated, whereas in the North-East we encounter the lowest inequalities, with a 1.9 ratio. For women, the highest inequalities are observed in the Centre, where the mortality among the less educated is 1.5 times higher than among the more educated, while they are smaller in the Islands where this ratio falls to 1.2.

**Figure B. Ratios of cancer mortality rates between 30 and 64 years of age, by sex, educational qualification, geographic areas and the Italian average rate. Year 2020**



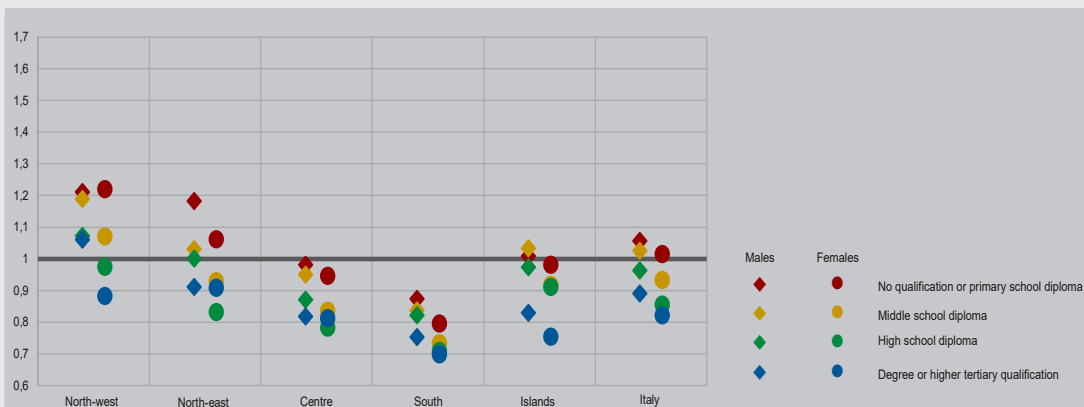
Source: Istat, For deaths: Survey of deaths and causes of death. For population: Survey of municipal resident population by sex, year of birth and marital status

In contrast to the other Bes mortality indicators, the indicator for dementia and diseases of the nervous system highlights an advantage for the South in terms of both lower mortality and smaller inequalities by study qualification (Figure C). Those who live in the South, regardless of their educational qualification, have an increasingly lower mortality compared not only to the national average, but also to the people who live in the North-West, an area where the highest mortality levels are recorded. A person with a university qualification in the North-West has a higher mortality rate than someone with a primary school diploma in the South.

The North-East has similar mortality levels than those of the North-West. However, the two geographical areas differ in terms of inequalities by educational qualification, which are more pronounced for males from the North-East and females from the North-West. The Centre and the Islands have comparable mortality rates with more pronounced inequalities in the Islands.

The analysis performed shows that socio-economic and territorial inequalities influence Bes mortality indicators as well, thus providing useful elements for the definition of health policies aimed at reducing inequalities in access to quality medical care, prevention and the adoption of healthy lifestyles.

**Figure C. Ratios of mortality rates from dementias and diseases of the nervous system among people aged 65 and older, by sex, educational qualification, geographic areas, and the Italian average rate. Year 2020**



Source: Istat, For deaths: Survey of deaths and causes of death. For population: Survey of municipal resident population by sex, year of birth and marital status

## Sedentariness is decreasing, excess weight stable, on the decline the daily consumption of fruit and vegetables

In 2023, the share of sedentary people who declare that they practice neither sports nor any physical activity is equal to 34.2% (Figure 11). Women show higher levels of sedentariness than men (37.1% as opposed to 31.2%), although the gender gap has shrunk down over time (it was 7.8 percentage points in 2010 and drops to 5.9 percentage points in 2023). Sedentary lifestyle increases with age: it concerns 2 people in 10 among adolescents and young people up to 24 years and, eventually, 7 in 10 within the population aged 75 and over. In 2023, the indicator of sedentariness shows a significant improvement over 2022, when it had reached 36.3% (-2.1 percentage points) and settles at lower values even by comparison to the figures of the pre-pandemic period (in 2019, a sedentary lifestyle characterised 35.5% of people aged 14).

The drop in sedentariness recorded in 2023 has involved both sexes, but to a greater extent men (-2.5 percentage points as opposed to -1.7 percentage points) and has been observed across almost all age groups, least of all among 14-19 year olds (-2 percentage points), but especially within the adult and elderly population aged 60-74 years (about -4.2 percentage points). The downward trend recorded for sedentariness in 2023 goes hand in hand with an increase in the practice of sports (especially of a continuous type), which had dropped sharply, in particular in 2021 (when it had declined to 22.5%), and which, on the other hand, concerns more than one person in 4 (25.5%). This value exceeds the sports practice levels reached in the pre-pandemic period (in 2019, it amounted to 23.4%).

The increased practice of sports has been observed transversally throughout age groups, albeit with higher peaks of growth (equal to approximately 3 percentage points) among the population aged 55-74.

A strong North-South territorial gradient is confirmed even in 2023, with sedentariness rates of 25.4% in the northern regions that reach up to 48.5% in the South and Islands. Compared to 2022, however, the decrease in sedentary lifestyle has mostly concerned the southern regions (-37 percentage points as opposed to approximately one percentage point in the North). This trend has slightly reduced the wide pre-existing gap.

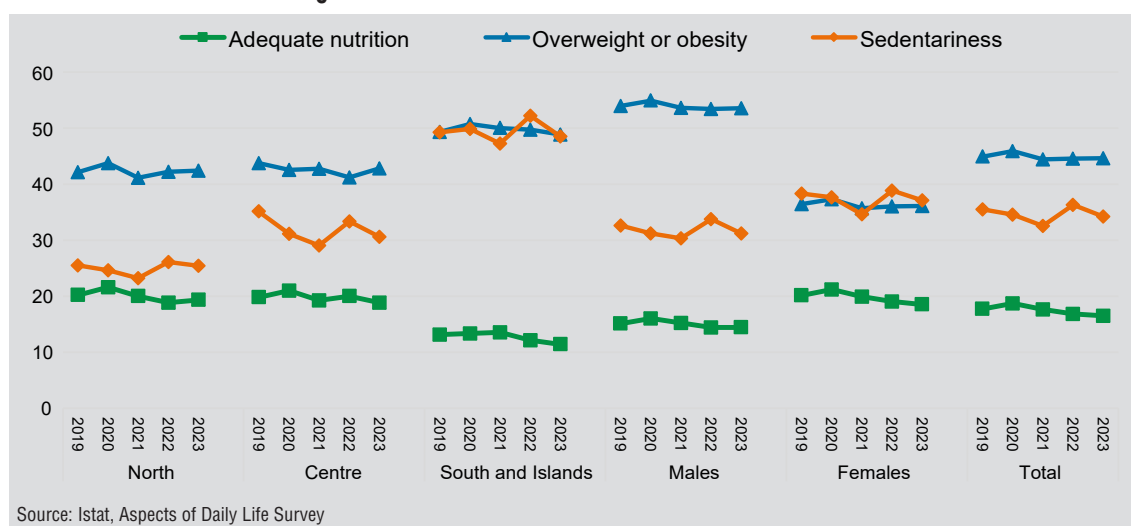
In 2023, 44.6% of people aged 18 and over are overweight or obese. The data is stable compared to what had been recorded in 2022 (44.5%).

Men show higher overweight or obesity levels than women (53.5% as opposed to 36.1%). This trend is detected across all age groups and is particularly high in the central age brackets, in which the share of overweight men is approximately 40% higher than that of women. Excess weight increases with age (starting already from the 45-54 age group, it involves nearly 5 people in 10) and is especially pronounced in the southern regions (49.9% as against 41% of the North-West regions) (Figure 11).

If we analyse the two components of overweight and obesity making up the indicator, in 2023 we can notice a slight increase in the proportion of people in a condition of obesity (11.3%) that confirms the upward trend that has characterised this indicator over the long term (the share of obese persons was 10% in 2005).

Compared to 2022, the share of excess weight rises slightly in the Central and North-East regions, and, conversely, declines in the southern regions (from 51.1% down to 49.9%); the situation remains almost stable in the North-West.

Figure 11. Standardised proportion of sedentary people aged 14 years and over, standardised proportion of people aged 18 years and over who are overweight/obese, and standardised proportion of people aged 3 years and over who consume at least 4 portions of fruit and/or vegetables daily by sex and geographic areas. Years 2019 - 2023. Percentage values



The strong association between sedentary lifestyle and excess weight is confirmed in 2023 as well: these risk factors, alone or jointly, affect in fact 61.3% of the adult population, with a share of approximately 20% of people with both behaviours overlapping. Furthermore, the shares of overweight or obese people and sedentary ones are very much aligned for women, who present similar levels on both risk factors, whereas among men higher excess weight levels are generally observed compared to lower sedentariness levels. Across the territory, instead, the overweight or obesity percentages are always higher than those relating to sedentary lifestyle, save for the South where excess weight and sedentariness reach similarly high levels.

Attention to healthier behaviours is greater among people with a higher educational qualification. Worth noting, for instance, is a higher share of overweight or obese people among those who have at the most a lower secondary school diploma (54.8%), compared to holders of university degrees or higher tertiary qualifications (34.3%). Likewise, a higher share of sedentary people is observed among those with a low educational qualification (50.6%), compared to people with at least a tertiary qualification (17.9%). In terms of healthier eating habits, in 2023, the share of the population aged 3 and over who consumed at least 4 portions of fruit and/or vegetables is 16.5%. This percentage is almost stable compared to the previous year (when it was 16.8%), but it is confirmed at lower levels than those recorded in the 2015-2018 period, when this indicator reached approximately 20%.

Although the levels of consumption of at least 4 daily portions of fruit and/or vegetables are on average low throughout the Italian territory, we nevertheless observe slightly higher percentages in the regions of the North (19.3%) and the Centre (18.8%), compared to the South and Islands (11.4%) (Figure 11). Between 2022 and 2023, despite a general stability of the indicator, a reduction was observed in the share of consumers in the southern and central regions (respectively -1.9 and -1.2 percentage points), whereas, by contrast, in the northern regions the share of consumers has risen slightly.

More virtuous behaviours are confirmed among women compared to men (18.5% as opposed to 14.4%), although, if we compare the 2023 prevalence with that for 2020 (the year in which the indicator had reached on average 18.7% and represents the consumption peak of the last 5 years), women have suffered the greatest losses (-2.7 as against -1.6 percentage points).

## Risky alcohol consumption stable, smoking habit slightly decreasing

In 2023, the proportion of smokers aged 14 and over amounts to 19.9%. This share has decreased slightly compared to 2022, but with a markedly increasing trend by comparison with 2019 (18.7%) (Figure 12).

The smoking habit is more widespread among men than among women (23.6% as opposed to 16.4%); over time, the gender gap has significantly shrunk down (it was equal to 11.2 percentage points in 2010 and down to 7.2 percentage points in 2023), due to the greater long-term contraction of male smokers compared to their female counterparts (-4.9 percentage points among men and -2.8 among women between 2010 and 2023).

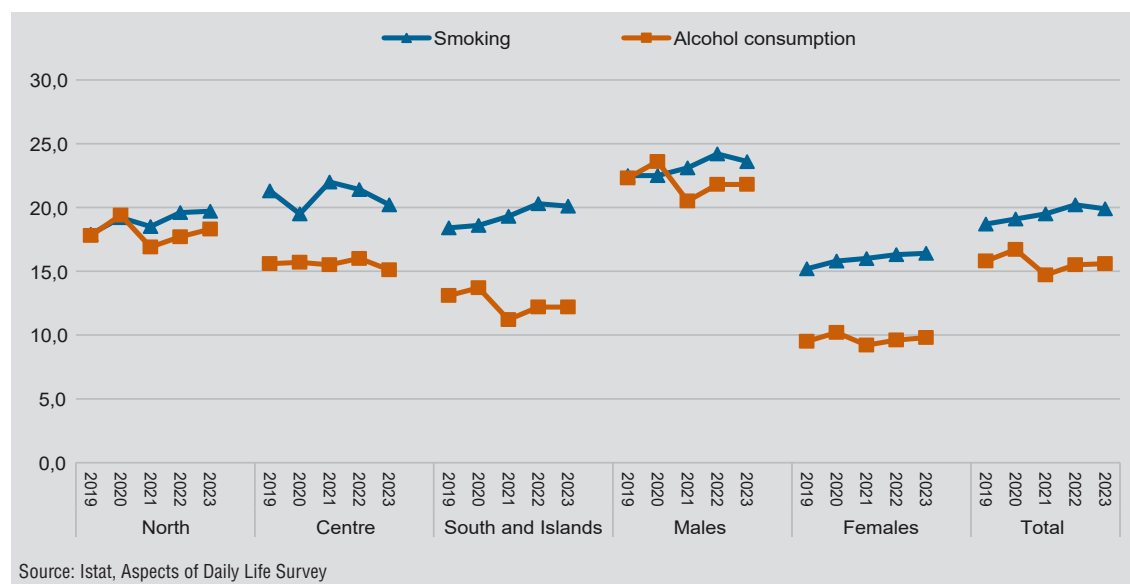
Higher percentages of smokers are observed starting from the 20-24 age group of young people, eventually reaching the highest level among people aged 25-34 (26.9%). The prevalence decreases slightly in the subsequent age groups while remaining quite stable until the 60-64 age group and decreasing in a more pronounced manner within the population over sixty-four.

In 2023, we discern similar percentage shares of smokers in the different macro areas of the country, with values settling at 19.7% in northern Italy, 20.1% in the South and Islands and 20.2% in central Italy. Between 2022 and 2023, worth noting is a decline in the share of smokers in the regions of central Italy, whereas the situation proved almost stable in the macro areas of the North and the South.

It must be said that the trends recorded already since 2019 in the various regions have reduced the gap with the Centre, a geographic area that has in general always shown the highest prevalence levels, standardising smoking habit behaviours across the whole territory.

In 2023, the habit of risky alcohol consumption concerned 15.6% of the population aged 14 and over.

**Figure 12. Standardised proportion of people aged 14 and over who report currently smoking and standardised proportion of people aged 14 and over who have at least one risk behaviour in alcohol consumption by sex and geographic areas. Years 2019 - 2023. Percentage values**





In 2023, risky consumption, after recording a rather fluctuating trend throughout the 2020-2022 period, which witnessed a see-saw of increases and decreases, remained stable compared to the previous year, thereby continuing to settle at the 2019 levels (15.8%) (Figure 12). The highest risky consumption prevalence is confirmed in the regions of the North, especially the North-East (19.4%), compared to the Centre (15.1%) and the South and Islands (12.2%); by comparison with 2022, it is noticeable an increase in the prevalence of risky consumers in the North and, conversely, a reduction in the Centre, resulting in a further widening of territorial gaps. In the regions of southern Italy, the situation has remained stable over the last two years, albeit with an upward trend compared to 2021 (+1.2 percentage points).

The gender gap remains high in 2023, with a larger share of men having risky alcohol consumption habits (21.8% as opposed to 9.8% among women).

Over time, the gender gap has reduced and risky behaviours among women have slowly aligned themselves to those for men (in 2010, the man-woman gap was 17.6 percentage points compared to 12 in 2023).

In 2023, high percentages of risky consumers endure among minors aged 14-17 (24.5%) and young people aged 18-24 (15.7%).

Another age group in which risky consumption is high is that of people aged 65 and over (18.1%). Risky consumption behaviours that characterise young and elderly people are clearly different: more associated with excessive consumption, especially on weekends, the behaviour of the former, and of a non-moderate daily type that of the latter.

The smoking habit and non-moderate alcohol consumption are often interconnected risky factors. It should be noted that almost one person in four, besides having a risky alcohol consumption behaviour, is also a smoker at the same time (23.8% of the population aged 14 and over), a value that is halved among non-smokers (10.8%). If we take into account the heavy smokers, i.e. those who smoke at least 20 cigarettes a day, the value is even higher (31.3%).

## Indicators

1. **Life expectancy at birth:** Life expectancy expresses the average number of years that a child born in a given calendar year can expect to live if exposed during his whole life to the risks of death observed in the same year at different ages.  
Source: Istat, Life tables of Italian population.
2. **Healthy life expectancy at birth:** It expresses the average number of years that a child born in a given calendar year can expect to live in good health on the assumption that the risks of death and perceived health conditions remain constant. It is built using the prevalence of individuals who respond positively ("good" or "very good") to the question on perceived health.  
Sources: Istat, Life tables of Italian population and Survey on Aspects of daily life.
3. **Mental health index (SF36):** The mental health index is a measure of psychological distress obtained from the synthesis of the scores obtained by each individual of 14 years and over to 5 questions from the SF36 questionnaire (36-Item Short Form Survey). It includes one or more items from each of the four major mental health dimensions (anxiety, depression, loss of behavioural or emotional control, and psychological well-being). The final score is a standardised measure, which varies between 0 and 100, with better psychological well-being corresponding to higher scores.  
Source: Istat, Survey on Aspects of daily life.
4. **Avoidable Mortality (age 0-74):** Deaths of persons aged 0-74, due to causes identified as treatable (in the light of medical knowledge and technology at the time of death, most deaths from that cause could be avoided through optimal quality health care) or preventable (in the light of understanding of the determinants of health at the time of death, most deaths from that cause could be avoided by public health interventions in the broadest sense). The definition of the lists of treatable and preventable causes of mortality is based on a joint OECD/Eurostat work, revised in November 2019. Standardised rates with European 2013 population aged 0-74, per 10,000 residents.  
Source: Istat - Vital register on deaths and causes of death.
5. **Infant mortality rate:** Deaths during the first year of life per 10,000 born alive.  
Source: Istat - For deaths: Vital register on deaths and causes of death. For live births: Migration and calculation of yearly resident population.
6. **Road accidents mortality rate (15-34 years old):** Mortality rate in road accidents by five year age groups for people aged 15-34 years, standardised by the European 2013 population of the same age groups.  
Source: Istat, As regards deaths: Survey of road accidents with injuries to people. As regards population: Survey on the resident municipal population broken down by sex, year of birth and marital status.
7. **Age-standardised cancer mortality rate (20-64 years old):** Mortality rate for cancer (initial cause) by five year age groups for people aged 20-64 years, standardised by the European 2013 population in the same age groups.  
Source: Istat, As regards deaths: Survey on deaths and causes of death. As regards population: Survey on the resident municipal population broken down by sex, year of birth and marital status.
8. **Age-standardised mortality rate for dementia and nervous system diseases (65 years and over):** Mortality rate for nervous system diseases and psychical and behavioural disorders (initial cause) by five year age groups for people aged 65 years and over, standardised by the European 2013 population in the same age groups.  
Source: Istat - For deaths: Istat, Vital register on deaths and causes of death. For population: Survey on the municipal resident population.
9. **Multimorbidity and severe limitations (75 years and over):** Percentage of people aged 75 and over who declare to be affected by 3 or more chronic conditions and/or to be severely limited, for at least the past 6 months, because of a health problem in activities people usually do.  
Source: Istat, Survey on Aspects of daily life.
10. **Life expectancy without limitations in activities at the age of 65:** It expresses the average number of years that a person aged 65 can expect to live without suffering limitations in activities due to health problems. It is based on the prevalence of individuals who answer to be limited, for at least the past 6 months, because of a health problem in activities people usually do.  
Source: Istat, Survey on Aspects of daily life.
11. **Overweight or obesity (standardised rates):** The indicator refers to the Body Mass Index (BMI), which classifies people as overweight ( $25 \leq \text{BMI} < 30$ ) or obese ( $\text{BMI} \geq 30$ ) as classified by the World Health Organization (WHO). The indicator is standardized using the 2013 European standard population.  
Source: Istat, Survey on Aspects of daily Life.
12. **Smoking (standardised rates):** Standardised proportion of people aged 14 and over who state that they currently smoke out of the total of people aged 14 and more.  
Source: Istat, Survey on Aspects of daily life.
13. **Alcohol consumption (standardised rates):** Proportion of people aged 14 and over who are at-risk consumers of alcohol. Taking into account the definitions adopted by the WHO and the recommendations from INRAN, in agreement with the National Institute of Health, are identified as "at-risk consumers" all those individuals who have at least one risk behaviour, exceeding the daily consumption of alcohol (according to specific thresholds for sex and age) or concentrating on a single occasion of consumption the intake of 6 or more units of any alcoholic drink (binge drinking). The indicator is standardised using the 2013 European standard population.  
Source: Istat, Survey on Aspects of daily life.
14. **Sedentariness (standardised rates):** Proportion of people aged 14 and over referring not to play sports neither continuously nor intermittently during their spare time, and people aged 14 and over referring not to perform any physical activity, such as walking at least 2 km, cycling, swimming, etc. The indicator is standardised using the 2013 European standard population.  
Source: Istat, Survey on Aspects of daily life.
15. **Adequate nutrition (standardised rates):** Percentage of people aged 3 years and over who say they take every day at least 4 portions of fruit and vegetables. The indicator is standardised using the 2013 European standard population.  
Source: Istat, Survey on Aspects of daily life.

## Indicators by region and geographic areas

REGIONS GEOGRAPHIC AREAS	Life expectancy at birth (a)	Healthy life expectancy at birth (a)	Mental health index (SF36) (b)	Avoidable mortality (0-74 years) (c)	Child mortality (d)	Mortality from road accidents (15-34 years) (e)	Mortality from cancer (20-64 years) (f)
	2023 (*)	2023 (*)	2023	2021	2021	2022	2021
Piemonte	83.0	60.1	68.1	19.7	1.9	0.6	7.7
Valle d'Aosta/Vallée d'Aoste	83.1	64.0	69.7	17.6	-	0.4	8.0
Liguria	83.1	59.3	68.6	18.3	3.3	0.5	7.6
Lombardia	83.9	60.4	68.9	17.2	2.3	0.6	7.4
Trentino-Alto Adige/Südtirol	84.3	65.3	72.5	15.1	1.8	0.6	6.1
<i>Bolzano/Bozen</i>	<i>84.1</i>	<i>66.5</i>	<i>73.2</i>	<i>15.1</i>	<i>1.7</i>	<i>0.6</i>	<i>6.3</i>
<i>Trento</i>	<i>84.6</i>	<i>64.2</i>	<i>71.8</i>	<i>15.1</i>	<i>1.9</i>	<i>0.7</i>	<i>5.9</i>
Veneto	83.8	62.3	69.7	16.2	2.1	1.1	7.0
Friuli-Venezia Giulia	83.4	60.9	69.2	19.7	2.2	0.9	7.1
Emilia-Romagna	83.6	59.1	69.8	17.2	2.5	0.7	7.2
Toscana	83.8	62.5	69.2	17.0	1.6	0.5	7.4
Umbria	83.7	58.6	68.1	17.5	1.2	0.6	7.6
Marche	83.8	59.7	68.0	16.7	1.8	0.7	7.7
Lazio	83.3	59.2	68.9	20.6	2.6	0.7	8.1
Abruzzo	83.0	60.6	68.3	19.0	2.3	0.4	7.2
Molise	82.4	54.9	68.0	23.2	3.0	0.5	7.9
Campania	81.4	57.1	66.8	25.0	3.1	0.6	9.5
Puglia	82.8	55.7	67.2	20.3	2.7	0.9	8.2
Basilicata	82.5	52.8	67.4	18.2	3.0	1.1	7.2
Calabria	82.0	55.4	69.2	20.6	4.2	0.5	8.4
Sicilia	81.8	56.3	68.3	22.0	3.9	0.6	8.7
Sardegna	82.5	55.6	71.4	19.6	2.4	0.8	9.2
North	83.6	60.6	69.2	17.5	2.3	0.7	7.3
North-West	83.6	60.2	68.7	18.0	2.3	0.6	7.5
North-East	83.8	61.2	69.9	16.9	2.2	0.9	7.0
Centre	83.5	60.3	68.8	18.7	2.1	0.6	7.8
South and Islands	82.1	56.5	68.0	21.8	3.2	0.7	8.7
South	82.2	56.6	67.4	22.0	3.1	0.6	8.6
Islands	82.0	56.2	69.1	21.4	3.6	0.7	8.8
Italy	83.1	59.2	68.7	19.2	2.6	0.7	7.8

(a) Average number of years;

(b) Standardised mean scores;

(c) Standardised rates per 10,000 residents of 0-74 years;

(d) Standardised rates per 1,000 resident live births;

(e) Standardised rates per 10,000 residents aged 15-34;

(f) Standardised rates per 10,000 residents aged 20-64;

## 1. Health

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Mortality from dementia and nervous system diseases (65 years and over) (g)	Multi-chronicity and severe limitations (75 years and over) (h)	Life expectancy without limitations in activities at the age of 65 (a)	Excess weight (i)	Smoking (l)	Alcohol (l)	Sedentary lifestyle (l)	Adequate nutrition (m)
2021	2022	2023 (*)	2023	2023	2023	2023	2023
34.7	41.9	11.8	39.9	18.9	20.0	29.1	25.4
45.4	38.8	11.6	38.3	16.5	24.2	26.4	18.9
33.1	48.5	11.8	38.0	20.1	14.1	29.6	18.8
34.4	45.3	11.2	42.1	20.8	16.8	25.5	18.1
34.1	34.1	12.3	37.9	14.4	20.0	13.8	17.6
37.8	27.9	12.2	37.9	13.1	23.0	12.9	12.8
30.8	40.4	12.5	37.8	15.7	17.0	14.8	22.4
34.1	42.2	12.2	43.8	18.4	20.1	23.1	14.6
30.2	43.4	11.2	43.5	16.3	20.8	22.6	19.4
33.4	47.9	10.8	46.9	21.1	18.2	26.2	21.9
33.0	42.7	10.9	40.1	19.8	17.0	29.1	18.8
34.5	52.2	10.0	44.6	22.4	16.0	30.5	17.2
38.7	51.7	11.6	40.1	18.7	14.3	28.8	23.0
30.6	49.5	10.4	44.9	20.6	13.9	32.0	17.9
35.4	50.5	11.0	42.0	20.7	16.3	31.5	14.4
29.0	49.1	9.6	48.5	21.9	18.7	38.9	11.6
28.1	66.5	9.7	51.0	21.4	11.5	53.1	9.9
33.6	50.1	9.1	51.1	18.3	11.9	48.6	11.1
31.1	56.9	9.6	50.0	20.9	14.8	53.7	7.1
26.1	55.5	8.8	49.8	16.9	13.8	48.2	12.9
33.9	58.8	8.8	49.1	21.6	9.3	52.5	10.1
41.7	47.8	9.8	38.5	19.5	17.6	34.8	17.5
34.0	44.4	11.5	42.4	19.7	18.3	25.4	19.3
34.4	44.6	11.5	41.0	20.2	17.5	26.8	20.1
33.3	44.0	11.5	44.3	18.9	19.4	23.5	18.2
32.9	47.8	10.7	42.8	20.2	15.1	30.6	18.8
32.3	56.8	9.4	48.8	20.1	12.2	48.5	11.4
30.5	57.3	9.5	49.9	19.7	12.7	48.7	11.0
36.0	55.8	9.1	46.4	21.0	11.3	48.0	12.1
33.3	49.0	10.6	44.6	19.9	15.6	34.2	16.5

(g) Standardised rates per 10,000 residents aged 65 and over;

(h) Per 100 people aged 75 and over;

(i) Standardised rates per 100 people aged 18 and over;

(l) Standardised rates per 100 people aged 14 and over;

(m) Standardised rates per 100 people aged 3 and over;

(\*) Provisional data.

