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Mental Health in the Italian Regions

On average it grew by an amount equal to 0.92% between 2016 and 2022 in the Italian regions

Istat calculates the mental health index in the Italian regions. The mental health index is a measure of psychological distress obtained from the synthesis of the scores obtained by each individual aged 14 years and over on 5 questions extracted from the SF36-36 Item Short Form Survey questionnaire. The questions refer to the four main dimensions of mental health - anxiety, depression, loss of behavioural or emotional control and psychological well-being. The index varies between 0 and 100, with better psychological well-being conditions as the value of the index increases. Data is available for the period 2016-2022.

Ranking of the Italian regions by value of the mental health index in the Italian regions in 2022. Trentino Alto Adige is in first place by value of the mental health index in 2022 with an amount equal to 71.9 units, followed by Sardinia with a value equal to 71 units, from Lazio with an amount of 70.6 units. In the middle of the table are Liguria and Sicily with an amount of 68.6 units and Piedmont with an amount of 68.5 units. Basilicata closes the ranking with an amount of 67.8 units, Campania with a value of 67.7 units and Marche with an amount of 66.9 units.

Ranking of the Italian regions by value of the change in the mental health index in the Italian regions between 2016 and 2022. Umbria is in first place by the value of the mental health index in the Italian regions between 2016 and 2022 with a value equal to 4.52% equivalent to an amount of 3 units, followed by Campania with an amount of 3.83% equal to an amount of 2.5 units, and by Calabria with an amount of 3.72% equal to a amount of 2.5 units. In the middle of the table are Lombardy with an amount equal to 1.62% equivalent to an amount of 1.1 units, followed by Marche with an amount of 0.9% equal to a value of 0.6 units, and Lazio with a value equal to 0.86% equal to an amount of -0.8 units, followed by Emilia Romagna with a value of -1.28% equal to an amount of -0.9 units, and from Trentino Alto Adige with a value of -2.04% equal to an amount of -1.5 units.

Italian macro-regions. Southern Italy is in first place in terms of the value of the change in the mental health index between 2016 and 2022 with a value equal to 2.86% or equal to an amount of 1.90 units, followed by Southern Italy with an amount of 2.54% equal to an amount of 1.70 units and from the Islands with an amount of 1.76% equal to a value of 1.20 units. Followed by the North-West with an amount of 1.62% equal to a value of 1.10 units, by the Center with a value of 1.31% equal to an amount of 0.90 units, by the North with a value of 0.58% equal to an amount of 0.40 units, and from the North-East with a value of -1.00% equal to an amount of -0.70 units. In 2022 the macro-region with the highest value in terms of mental health index was Central Italy with an amount of 69.4 units, followed by the North with a value of 69.3 units, by the Islands with an amount of 69.2 units, from the North with a value of 68.6 units and from the South with an amount of 68.3. We can note that the areas of Southern and Southern Italy are the only ones to have a mental health index value lower than the Italian average.

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Clustering with k-Means algorithm optimized with the Silhouette coefficient. Below we present a clustering with k-Means algorithm optimized with the Silhouette coefficient. The data shows the presence of three clusters as indicated below:

- Cluster 1: Veneto, Lombardy, Valle d'Aosta, Emilia Romagna, Liguria, Piedmont, Tuscany, Friuli Venezia Giulia, Marche, Umbria, Lazio, Abruzzo, Molise, Puglia;
- Cluster 2: Basilicata, Sardinia, Calabria, Sicily, Campania;
- Cluster 3: Trentino Alto Adige.

From the point of view of clustering, it appears that cluster 3 has the highest level in terms of mental health, followed by cluster 1 and cluster 2. Therefore, within the dynamics of the mental health index, a contrast between the areas occurs Italians who tend to recall the distinction between North, Center and South. In particular, most of the southern regions have medium-low levels of mental health index, while the central-northern regions have high levels of the same indicator. Obviously there are exceptions as in the case of Puglia and Abruzzo. This condition suggests that where per capita incomes are lower there is also the onset of some problems relevant to mental health which can be associated with poverty, social isolation, and induced by material deprivation. Furthermore, with the reduction of income, life chances are also restricted and this condition could further act to create a gap in terms of mental health between the regions of the Centre-North and those of the Centre-South. Finally, as income decreases, the cultural level of the population also tends to decrease and therefore it is possible that certain psychological illnesses are not treated at a medical level as they are ignored for socio-economic and cultural reasons.

Conclusions. The mental health index grew on average between 2016 and 2020 from an amount of 68.26 to an amount of 69.05. However, it subsequently decreased between 2020 and 2021, reaching a value of 68.26 and then growing further in 2022 to reach an amount of 68.89. That is, the mental health index decreased by 1.14% between 2020 and 2021 in relation to Covid-19. The pandemic has put the mental health of Italians to the test. In particular, the regions that suffered the most in terms of reduction in the mental health index during Covid-19 or between 2020 and 2021 are Friuli Venezia Giulia with an amount of -3.51%, Umbria with -4 .11%, Marche with -4.25% and Valle d'Aosta with -5.25%.





