

# LIST OF THE BES INDICATORS

## Health

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.*
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 ("well" or "very well") to the question on perceived health.*
3. Physical Component Summary (PCS): *Summary of the scores of each individual answering the 12 questions on the questionnaire SF12 on physical state (Physical Component Summary).*
4. Mental Component Summary (MCS): *Summary of the scores of each individual answering the 12 questions on the questionnaire SF12 on psychological state (Mental Component Summary).*
5. Infant mortality rate: *Deaths during the first year of life per 10.000 born alive.*
6. Traffic accidents (15-34 years old): *Mortality rate for traffic accidents (initial cause) by five year age groups for people aged 15-34 years, standardized by the Italian 2001 Census population of the same age groups.*
7. Age-standardised cancer mortality rate (19-64 years old): *Mortality rate for cancer (initial cause) by five year age groups for people aged 19-64 years, standardized by the Italian 2001 Census population of the same age groups.*
8. Age-standardised mortality rate for dementia and related illnesses (people aged 65 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, standardized by the Italian 2001 Census population of the same age groups.*
9. Life expectancy without activity limitations at 65 years of age: *It expresses the average number of years that a person aged 65 can expect to live without suffering limitations in daily activities due to health problems, assuming that the risks of death and disability remain constant over time and equal to those observed in a specific calendar year. 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.*
10. Overweight or obesity: *Standardized percentage of people aged 18 years and over who are overweight or obese: The indicator refers to the Body Mass Index (BMI), which classifies people as overweight ( $25 \leq BMI < 30$ ) or obese ( $BMI > 30$ ) as classified by the World Health Organization (WHO). The indicator is standardized using the Italian 2001 Census population as standard population.*
11. Smoking: *Standardized percentage of people aged 14 years and over declaring to smoke: Proportion of people aged 14 and over who report current smoking. The indicator is standardized using the Italian 2001 Census population as standard population.*
12. Alcohol consumption: *Standardized percentage of people aged 14 years and over with at least one risk behaviour in alcohol consumption: 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).*
13. Sedentariness: *Standardized percentage of people aged 14 years and over who do not practice any physical activity: 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.*
14. Nutrition: *Standardized percentage of people aged 3 years and over who consume at least 4 portions of fruit and vegetables a day: Percentage of people aged 3 years and over who say they take every day at least 4 portions of fruit and vegetables. According to the guidelines for a healthy diet published by INRAN the recommended daily servings would be at least 5, but since the definition of portion remains a*

*difficult concept to be standardized for the Italian eating habits, although there are objective criteria of measurement, such as the weight of the food considered, it was considered appropriate to refer to the declared consumption of at least 4 portions. Very often, for example, a portion of vegetables taken as side dish is greater in quantity compared to the amount in grams recommended. The indicator is standardized using the Italian 2001 Census population as standard population.*

## **Education and Training**

1. Participation in early childhood education: *Percentage of children aged 4-5 years participating in pre-primary education on total children aged 4-5 years.*
2. People with at least upper secondary education: *Percentage of people aged 25-64 years having completed at least upper secondary education (ISCED level not below 3a, 3b or 3c) on total people aged 25-64 years.*
3. People with at least upper secondary education: *Percentage of people aged 25-64 years having completed at least upper secondary education (ISCED level not below 3a, 3b or 3c) on total people aged 25-64 years.*
4. People with tertiary education: *Percentage of people aged 30-34 years having completed tertiary education (ISCED 5 or 6) on total people aged 30-34 years.*
5. Early leavers from education and training: *Percentage of people aged 18-24 years who have achieved only lower secondary (ISCED 2) and are not included in a training program on total people aged 18-24 years.*
6. Young not in education, employment, or training (Neet): *Percentage of people aged 15-29 years that are not in education, employment, or training on total people aged 15-29 years.*
7. Participation in long-life learning: *Percentage of people aged 25-64 years participating in formal or non-formal education on total people aged 25-64 years.*
8. Level of literacy: *Scores obtained in the tests of functional literacy skills of students in the 2nd class of upper secondary education.*
9. Level of numeracy: *Scores obtained in the tests of numeracy skills of students in the II classes of upper secondary education.*
10. People with high level of ICT competencies: *Percentage of people aged 16 years and over who can perform at least 5 over the 6 listed operations on the computer on total people aged 16 years and over.*
11. Cultural participation: *Percentage of people aged 6 years and over who have carried out 3 or more activities in the 12 months before the interview on total people aged 6 years and over. The activities considered are: percentage of people aged 6 and over that, in the 12 months preceding the interview, have gone at least once to: cinema, theatre, exhibitions and museums, archaeological sites, monuments, concerts of classical music, opera, concerts of other kind of music; percentage of people aged 6 and over who read the newspaper at least once a week, who read at least one book in the 12 months preceding the interview, who usually read some magazines (weekly or periodic), who watches DVDs at home.*

## **Work and Life Balance**

1. Employment rate of people 20-64 years old: *Employed persons 1 aged 20-64 / persons aged 20-64 \*100.*
2. Non-participation rate: *Unemployed persons aged 15-74 + part of the potential labour force aged 15-74 (persons who are inactive not having looked for a job in the past 4 weeks but willing to work) / Labour force aged 15-74 + part of the potential labor force aged 15-74 (persons who are inactive not having looked for a job in the past 4 weeks but willing to work).*
3. Transition rate (12 months time-distance) from non-standard to standard employment: *Persons employed in nonstandard jobs at the time t1 (employees with temporary jobs + term-contract workers + project worker + occasional hired workers + single customer self-employed without employees) which*

*have a standard job (permanent employees + self-employed with employees + no single customer self-employed without employees) a year later / Employed in non-standard jobs at the time t1 \* 100.*

4. Share of employed persons with temporary jobs for at least 5 years: *Temporary employees and term-contract workers who began their current job at least 5 years prior to interview / Total Temporary employees and term-contract workers \* 100.*
5. Share of employees with below 2/3 of median hourly earnings: *Employees with an hourly wage of less than 2/3 of the median / Total number of employees \* 100..*
6. Share of over-qualified employed persons: *Employees with a higher qualification than that mostly held to exercise a certain profession / Total employed population \* 100.*
7. Incidence rate of fatal occupational injuries or injuries leading to permanent disability: *Number of fatal occupational injuries or injuries leading to permanent disability/ Total employed population (excluding the armed forces)\*1,000.*
8. Share of employed persons not in regular occupation: *Employees who do not comply with work, fiscal and pension laws / total employee.*
9. Ratio of employment rate for women 25-49 years with children under compulsory school age to the employment rate of women 25-49 years without children: *Employment rate of women aged 25-49 with at least one children under compulsory school age / Employment rate of women aged 25-49 without children.*
10. Share of population aged 15-64 years that work over 60 hours per week (including paid work and household work): *Population aged 15-64 years that work over 60 hours per week of paid work and household work / population aged 15-64 years.*
11. Share of household work time carried out by women in a couple on the total of the household work time: *Household work time carried out by women / household work time carried out by both partner \* 100.*
12. Share of employed persons who feel satisfied with their work: *I The indicator is built as the average level of satisfaction (eg, using a scale from 0 to 10) in more than one dimension: the type of work, earnings, prospects of career, relations with others, working conditions and environment, reconciliation with lifetimes..*
13. Share of employed persons who feel their work unsecure: *Employed persons who, in the following 6 months, consider it is likely they lose their job and it is not at all or a little likely that they find another similar job / Total employed persons \* 100.*

## **Economic Well-being**

1. Per capita adjusted disposable income: *Ratio of adjusted household disposable income (inclusive of the value of in-kind services provided by public and non-profit institutions) to the total number of residents.*
2. Disposable income inequality: *Ratio of total equivalised income received by the 20% of the population with the highest income to that received by the 20% of the population with the lowest income.*
3. People at risk of relative poverty: *Percentage of persons at risk of poverty, with an equivalised income less than or equal to 60% of the median equivalised income.*
4. Per capita net wealth: *Ratio of total net wealth of households to the total number of residents..*
5. People living in financially vulnerable households: *Percentage of people in households with debt service greater than 30% of disposable income.*
6. People living in absolute poverty: *Proportion of individuals belonging to households with consumption expenditure below the threshold of absolute poverty*
7. Severely materially deprived people: *Proportion of people living in households with at least 4 out of 9 deprivation items.*
8. People suffering poor housing conditions: *Proportion of people experiencing overcrowding in houses without some services and with structural problems.*
9. Index of subjective evaluation of economic distress: *It combines three indicators: (a) share of individuals living in households answering "with great difficulty" to the question "Considering all the available income, how does your household manage to get to the end of the month?"; (b) proportion of*

*individuals living in households with insufficient resources to face an unexpected expense of a given amount, fixed as a fraction of the median of the distribution of previous year equivalised income; (c) share of individuals who expect to be unable to make savings in the next 12 months.*

10. People living in jobless households: *Proportion of individuals living in households with at least one component aged 18-59 years (with the exception of households where all members are full time students under 25 years) where nobody works or receives an occupational pension.*

## **Social Relationships**

1. Very satisfied with family relations: *Percentage of people aged 14 and over that are very satisfied with family relations on the total people aged 14 and over.*
2. Very satisfied with friends: *Percentage of people aged 14 and over that are very satisfied with relations with friends on the total people aged 14 and over.*
3. People to rely on: *Percentage of people aged 14 and over that have relatives, friends or neighbors they can rely on, on the total people aged 14 and over.*
4. Ludic activities of children aged 3 to 10 performed with parents: *Percentage of children aged 3 to 10 that play every day with their father and/or mother on the total of children aged 3 to 10.*
5. Free help provided: *Percentage of people aged 14 and over that have provided free help during the last four weeks to people (relatives and non-relatives) living under the same roof on the total of people aged 14 and over..*
6. Social participation: *People aged 14 and over that have performed at least one social participation activity in the last 12 months on the total of people aged 14 and over. The activities in question are: participation in meetings of associations (cultural/recreational, ecological, civil rights, peace); participation in meetings of trade union organizations, professional or trade associations; meetings of political parties and/or performance of free activities for a party; payment of a monthly or quarterly fee for a sports club.*
7. Voluntary activity: *People aged 14 and over that have performed free activities for voluntary associations or groups in the last 12 months on the total people aged 14 and over.*
8. Funding of associations: *People aged 14 and over that have funded associations in the last 12 months on the total people aged 14 and over.*
9. No profit organizations: *Percentage of no profit organizations per 10,000 inhabitants.*
10. Social cooperatives: *Percentage of social cooperatives per 10,000 inhabitants.*
11. Generalized trust: *Percentage of people aged 14 and over that feel that most people are worthy of trust on the total people aged 14 and over.*

## **Politics and Institutions**

1. Electoral participation: *Percentage of people who voted in the last European Parliament elections on the total number of electors..*
2. Civic and political participation: *People aged 14 and over who perform at least one of the activities of civic and political participation on the total number of persons aged 14 and more. The activities in question are: to speak about politics at least once a week; to inform of the facts of Italian politics at least once a week; to attend online consultation or voting on social issues (civic) or political (e.g. urban planning, sign a petition) at least once in the 3 months prior to the interview, to read and to post opinions on social or political issues on the web at least once in the 3 months preceding the interview.*
3. Confidence in the Italian Parliament: *Average rating of confidence in the Italian Parliament (on a scale from 0 to 10) expressed by the persons aged 14 and over.*
4. Confidence in the judicial system: *Average rating of trust in the judicial system (on a scale from 0 to 10) expressed by persons aged 14 and over.*
5. Trust in political parties: *Average rating of trust in political parties (on a scale from 0 to 10) expressed by the persons aged 14 and over.*

6. Trust in local institutions: Average rating of confidence in the regional government, provincial and municipal level (on a scale from 0 to 10) expressed by persons aged 14 and over.
7. Trust in other types of institutions: Average rating of confidence in the police and fire department (on a scale from 0 to 10) expressed by the persons aged 14 and over.
8. Women and political representation in Parliament: Percentage of women elected to the Senate and the Chamber of Deputies on the total of the elect.
9. Women and political representation at the local level: Percentage of women elected to the total number of elected in regional councils.
10. Women in decision-making bodies: Percentage of women in senior positions in decision-making on the total of the components. Organs considered are: Constitutional Court Council; Authority warranty and regulation (Antitrust, Communications Authority, Authority Privacy), Consob; Ambassadors.
11. Women on boards of directors of companies listed in the Italian stock exchange: Percentage of women on boards of directors of listed companies on the total of the components.
12. Average age of the Italian Parliament: Average age of parliamentarians in the Senate and the House.
13. Length of civil proceedings: Average duration in days of civil proceedings defined by a judgment.

## Security

1. Homicide rate: Number of homicide on total population per 100,000.
2. Burglary rate: Number of burglaries on total households per 1000.
3. Pick-pocketing rate: Number of pick-pocketing on total population per 1,000
4. Robbery rate: Number of robberies on total population per 1,000.
5. Physical violence rate: Percentage of women aged 16-70 victim of physical violence on total women aged 16-10.
6. Sexual violence rate: Percentage of people women 16-70 victim of sexual violence in the last 12 months before the interview on total women aged 16-70.
7. Intimate partnership violence rate: Percentage of women aged 16-70 victim of physical or sexual violence by the partner on total women aged 16-70 who have or had a partner.
8. Worries of being victim of a sexual offence: Percentage of people aged 14 years and over who are very or quite worried of suffering a sexual violence on total population aged 14 years and over.
9. Fear of crime rate: Percentage of people aged 14 years and over feeling unsafe when walking alone in the dark in the area where they live on total population aged 14 years and over.
10. Concrete fear rate: Percentage of people aged 14 years and over who are afraid of becoming concretely a victim of crime on total population aged 14 years and over.
11. Social decay (or incivilities) rate: Percentage of people aged 14 years and over who often see elements of social and environmental decay (vandalism acts, people selling drugs, drugs users, prostitute looking for clients) in the area where they live on total population aged 14 years and over.

## Subjective Well-being

1. Percentage of people aged 14 and over with a level of life satisfaction from 8 to 10:  $\frac{\text{Persons aged 14 and over with a level of life satisfaction from 8 to 10}}{\text{Persons aged 14 and over}} * 100$ .
2. Percentage of people aged 14 and over very satisfied of their leisure time:  $\frac{\text{Persons aged 14 and over who are very satisfied with their leisure time}}{\text{Persons aged 14 and over}} * 100$
3. Percentage of people aged 14 and over which believe their personal situation will improve in the next 5 years:  $\frac{\text{Persons aged 14 and over which believe their personal situation will improve in the next 5 years}}{\text{Persons aged 14 and over}} * 100$ .

## Landscape and cultural heritage

1. Endowment of cultural heritage items: *The number of archaeological sites, monuments and museums surveyed by the "Risk Map of Cultural Heritage" (an information system held by the Italian Ministry of Culture), per sq.km..*
2. Current expenditure of Municipalities for the management of cultural heritage (museums, libraries and art galleries), per capita
3. Illegal building rate: *Ratio of the number of unauthorized buildings to the number of building permits issued by the Municipalities.*
4. Urbanization rate of areas subject to building restrictions by virtue of the Italian laws on landscape protection: *Number of buildings realized after 1981 in areas subject to building restrictions by the "Galasso Law" (no. 431/1985, as integrated by the Cultural Heritage and Landscape Code – Legislative Decrees no. 42/2004, no. 157/2006 and n. 63/2008), per sq.km.*
5. Erosion of farmland from urban sprawl: *Percentage ratio of rural areas affected by urban sprawl to the total of rural areas..*
6. Erosion of farmland from abandonment: *Percentage ratio of abandoned rural areas [8] to the total of rural areas.*
7. Presence of historic rural landscapes: *Percentage ratio of areas classified as such by the National Inventory of historic rural landscapes to the total area of the Region..*
8. Quality assessment of Regional programmers for rural development (PSRs), with regard to the landscape protection: *Score assigned to the PSRs based on the adoption of measures of a potentially positive impact on the rural landscape, among those envisaged by the National Strategic Plan for Rural Development 2007-2013..*
9. Presence of Historic Parks/Gardens and other Urban Parks recognized of significant public interest: *Percentage ratio of the area of parks and gardens classified as "historic" and/or "of a significant public interest" by the Legislative Decree no. 42/2004 to the total area of the provincial capital Municipalities.*
10. Conservation of historic urban fabric: *Share of inhabited buildings realized before 1919 and in excellent or good state on the total number of building realized before 1919..*
11. People that are not satisfied with the quality of landscape of the place where they live: *Proportion of regional population reporting that the landscape of the place where they live is affected by evident deterioration.*
12. Concern about landscape deterioration: *Proportion of population reporting, among the environmental problems for which they express more concern, the decay of landscape due to overbuilding.*

## Environment

1. Drinkable water: *Volume of drinkable water supplied every day per capita*
2. Quality of marine coastal waters: *Percentage of bathing marine coastal waters on total coasts.*
3. Quality of urban air: *Number of days during which the level of PM<sub>10</sub> exceeds the limit of 50 µg/m<sup>3</sup>.*
4. Urban green: *Square meters of urban parks and gardens per inhabitants.*
5. Areas with hydrogeological risks: *Percentage of areas subject to landslide on total surface.*
6. Contaminated sites: *Number and size of contaminated sites.*
7. Terrestrial parks: *Share of the size of terrestrial parks on total surface*
8. Marine protected areas: *Extension of marine protected areas on total coastal area.*
9. Areas of special naturalistic interest: *Share of areas of special naturalistic interest of total surface.*
10. Concern for biodiversity loss: *Percentage of people aged 14 and over who believe that biodiversity loss is among the five most important environmental problems*
11. Material flows: *Quantity of materials, transformed in emissions, waste or new stocks, limited to internal material consumption*
12. Energy from renewable sources: *Share of energy consumptions provided by renewable sources on total internal consumptions.*
13. Emissions of CO<sup>2</sup> and other greenhouse gasses: *Tons of CO<sup>2</sup> equivalent per capita.*

## Research and innovation

1. Intensity of research: *Percentage of R&D expenditure on GDP.*
2. Propensity to patent: *Number of patent applications filed to the European Patent Office (EPO) per million of inhabitants..*
3. Impact of knowledge workers on employment: *Percentage of persons employed with university education (ISCED 5-6) in scientific-technological occupations (ISCO 2-3) on total persons employed.*
4. Innovation rate of the productive system: *Percentage of firms that have introduced technological (product or process), organizational or marketing innovation in a three-year period on total number of firms with at least 10 number of persons employed.*
5. Innovation rate of product/service of the national productive system: *Percentage of firms that have introduced innovations of product/service in a three-years period on total number of firms with at least 10 number of persons employed .*
6. Productive specialization in knowledge-intensive sectors: *Percentage of persons employed in high-tech manufacturing sectors and those in knowledge-intensive services on total of persons employed.*
7. Intensity of Internet use: *Percentage of people aged 16-74 years who have used internet at least once a week during the 12 months before the interview on total people aged 16-74 years.*

## Quality of services

1. Beds in residential health care facilities: *Beds in residential health care facilities per 1,000 inhabitants.*
2. Waiting lists: *Individuals who renounced to see a specialist or to undertake a therapeutic treatment (not dental) because of the length of waiting lists.*
3. Taking charge of users for early childhood services: *Percentage of children aged zero to three years who benefited of early childhood services (crèches, micro-crèches or supplementary and innovative services).*
4. Taking charge of the elderly for home assistance: *Percentage of elderly people who benefited from integrated home assistance service (Adi) compared to the total elderly population (65 and over).*
5. Irregularities in electric power distribution: *Frequency of accidental long lasting electric power cuts (cuts without notice longer than 3 minutes) (average number per consumer).*
6. Percentage of household served by methane gas: *Percentage of household declaring that the apartment is supplied with methane gas on the total number of households.*
7. Irregularities in water supply: *Percentage of households who report irregularities in water supply.*
8. Landfill of waste: *Percentage of municipal waste sent to landfill on total municipal waste collected.*
9. Separate collection of municipal waste: *Percentage of municipal waste object of separate collection on total municipal waste.*
10. Prison density: *Percentage of prisoners in penal institutions on the total capacity of penal institutions.*
11. Time devoted to mobility: *Minutes devoted to mobility on an average weekday.*
12. Density of urban public transport networks: *Km of urban public transport networks in provincial capitals per 100 sqKm of municipal surface.*
13. Composite index of service accessibility: *Percentage of households who find very difficult to reach some basic services (pharmacy, emergency room, post office, police, carabinieri, municipal offices, crèches, nursery, primary and secondary school, market and supermarket).*