

27 September 2017

Life Table
2014 - 2016

Men may expect to live 77.61 years and women 83.33 years

Life expectancy at birth for Portugal was estimated at 80.62 years for total population in the period 2014-2016, i.e. 77.61 years for men and 83.33 years for women, which accounted for a gain of 1.44 and 1.14 years respectively, in comparison with the values estimated for 2008-2010.

At birth, life expectancy continues to be higher for women, but the difference for men has been declining and is now 5.72 years (compared to 6.02 in 2008-2010).

By regions **NUTS 2**, the Norte recorded the highest values of life expectancy at birth for total population (80.99 years) e for men (78.07 years). The highest life expectancy for women was recorded in the Centro region (83,66 years).

By sub-regions **NUTS 3**, the highest life expectancies at birth were recorded in Cávado (81.45 years), Região de Coimbra (81.25 years) and Região de Leiria (81.24 years).

The greatest differences in longevity between men and women were observed in the Região Autónoma da Madeira e Região Autónoma dos Açores, where women can expect to live on average, respectively, over 7.45 years and 7.03 years more than men.

Life expectancy at age 65 reached 19.31 years for total population.

Men aged 65 may expect to live on average 17.44 years more and women 20.73 years more, which accounted for gains of 0.70 for both vis-à-vis 2008-2010.

Norte and Algarve - among the 7 **NUTS 2** regions – recorded the highest values of life expectancy at age 65 for men (17.70) and women (21.04), respectively.

By sub-regions **NUTS 3**, Região de Leiria (20.03 years), Médio Tejo (19.95 years) and Região de Coimbra (19.93 years) recorded the highest longevity at age 65.

Statistics Portugal releases the complete life tables for NUTS 2 regions, by sex and total population, and life expectancy at birth and at age 65 for NUTS 3 regions for both sexes.

The data refer to the period 2014-2016, and are compared to the 2008-2010 period (the first period for which life expectancies at birth and at age 65 are available for the sub-regions NUTS 3, version of NUTS 2013¹).

¹From January 1, 2015 came into force a new version of NUTS: NUTS 2013 (Regulation EU). This new organization of the Portuguese regions for statistical purposes includes changes to the boundaries and designation of NUTS 3 - see p. 7 - and the NUTS 2 "Lisboa" change name to "Área Metropolitana de Lisboa".

In the 2014-2016 period, life expectancy at birth for Portugal was estimated at 80.62 years for both sexes, i.e. 77.61 years for men and 83.33 years for women, which accounted for a gain of 1.44 and 1.14 years respectively, in comparison with the values estimated for 2008-2010. The difference in life expectancy at birth between men and women declined by 0.30 years, from 6.02 to 5.72 years.

Life expectancy at age 65 reached, in the 2014-2016 period, 19.31 years for both sexes. Men aged 65 may expect to live on average 17.44 years more and women 20.73 years more, which accounted for gains of 0.70, for both, compared to 2008-2010. The difference between the longevity at age 65 of men and women was of 3.29, returning to the values of 2008-2010 after a period of slight increase.

Figure 1. Life expectancy at birth and at age 65, Portugal, 2008-2010 to 2014-2016

	Portugal					
	Life expectancy at birth (years)			Life expectancy at age 65 (years)		
	Both sexes	Males	Females	Both sexes	Males	Females
2008 - 2010	79.29	76.17	82.19	18.59	16.74	20.03
2009 - 2011	79.55	76.47	82.43	18.75	16.92	20.20
2010 - 2012	79.78	76.67	82.59	18.84	16.94	20.27
2011 - 2013	80.00	76.91	82.79	18.97	17.07	20.40
2012 - 2014	80.24	77.16	83.03	19.12	17.23	20.55
2013 - 2015	80.41	77.36	83.23	19.19	17.32	20.67
2014 - 2016	80.62	77.61	83.33	19.31	17.44	20.73

Life expectancy at birth in NUTS 2 regions

Life expectancy at birth recorded improvements in all regions between 2008-2010 and 2014-2016; largest increase was recorded in Região Autónoma da Madeira

The Norte region recorded the highest values of life expectancy at birth both for total population and for men, while the highest life expectancy for women was recorded in the Centro region. By contrast, Região Autónoma da Madeira and Região Autónoma dos Açores recorded the lowest values for life expectancy at birth, both for total population and for men and women.

During the last six years, life expectancy at birth improved in all regions, although the biggest rise was seen in Região Autónoma da Madeira. In this region, life expectancy at birth went up from 76.13 years to 78.02 years, which means that in the 2014-2016 period people could expect to live at birth, on average, 1.89 years more than in 2008-2010.

The widest differences in longevity between men and women were recorded in Região Autónoma da Madeira and Região Autónoma dos Açores, where women could expect to live, on average, 7.45 and 7.03 years more than men respectively. The Norte and Centro regions showed the lowest differences in longevity between the two sexes (5.57 and 5.61 years respectively).

Figure 2. Life expectancy at birth, NUTS 2, 2008-2010 to 2014-2016

	Norte	Centro	A. M. Lisboa	Alentejo	Algarve	R. A. Açores	R. A. Madeira
Life expectancy at birth (years) - Both sexes							
2008 - 2010	79.64	79.59	79.29	78.58	78.90	75.86	76.13
2009 - 2011	79.97	79.90	79.52	79.01	79.43	76.01	76.54
2010 - 2012	80.14	80.09	79.65	79.26	79.67	76.32	77.03
2011 - 2013	80.32	80.24	80.00	79.45	80.02	76.49	77.49
2012 - 2014	80.55	80.55	80.32	79.81	80.22	76.82	77.68
2013 - 2015	80.69	80.80	80.50	80.03	80.38	77.15	77.76
2014 - 2016	80.99	80.98	80.71	80.04	80.34	77.28	78.02
Life expectancy at birth (years) - Males							
2008 - 2010	76.65	76.52	75.92	75.47	75.62	72.21	71.85
2009 - 2011	76.94	76.84	76.21	75.95	76.05	72.28	72.67
2010 - 2012	77.05	77.05	76.53	76.40	76.36	72.80	73.19
2011 - 2013	77.36	77.12	76.85	76.29	76.74	72.80	73.41
2012 - 2014	77.52	77.42	77.14	76.91	77.17	73.05	73.62
2013 - 2015	77.70	77.71	77.43	77.05	77.19	73.38	73.65
2014 - 2016	78.07	78.05	77.65	77.07	76.99	73.72	73.96
Life expectancy at birth (years) - Females							
2008 - 2010	82.43	82.43	82.34	81.49	82.22	79.41	79.68
2009 - 2011	82.82	82.71	82.38	81.89	82.59	79.73	79.74
2010 - 2012	82.90	82.94	82.54	82.02	82.90	79.88	80.27
2011 - 2013	83.01	83.07	82.77	82.24	83.01	79.99	80.91
2012 - 2014	83.24	83.37	83.10	82.57	83.03	80.27	81.12
2013 - 2015	83.42	83.54	83.19	82.70	83.31	80.65	81.19
2014 - 2016	83.64	83.66	83.3	82.72	83.48	80.75	81.41

Life expectancy at age 65 in NUTS 2 regions

Norte with the highest values for men and Algarve with the highest values for women; greatest gains in Região Autónoma da Madeira

The Algarve region recorded the highest values of life expectancy at age 65 for both the total population and women, with 19.66 and 21.04 years, respectively, in 2014-2016. The highest longevity at age 65 for the men, of 17.70 years, was recorded in Norte region. However, Região Autónoma da Madeira recorded the greatest increase in the last six years both for men and women, from 13.86 to 14.99 years and from 18.05 to 19.35 years respectively.

The biggest differences in longevity at age 65 between men and women were recorded in Região Autónoma da Madeira and Região Autónoma dos Açores, where women could expect to live, on average, 4.36 and 3.71 years more than men respectively. The Norte region experienced the lowest differences in longevity at age 65 between the two sexes (3.13 years).

Figure 3. Life expectancy at age 65, NUTS 2, 2008-2010 to 2014-2016

	Norte	Centro	A. M. Lisboa	Alentejo	Algarve	R. A. Açores	R. A. Madeira
Life expectancy at age 65 (years) - Both sexes							
2008 - 2010	18.61	18.63	18.83	18.20	18.79	16.18	16.40
2009 - 2011	18.88	18.89	18.91	18.32	19.03	16.07	16.65
2010 - 2012	18.95	19.03	18.86	18.48	19.09	16.30	17.11
2011 - 2013	19.04	19.08	19.11	18.65	19.17	16.62	17.45
2012 - 2014	19.21	19.32	19.35	18.74	19.33	16.66	17.53
2013 - 2015	19.25	19.45	19.43	18.87	19.66	16.84	17.67
2014 - 2016	19.45	19.55	19.52	19.05	19.66	17.06	17.67
Life expectancy at age 65 (years) - Males							
2008 - 2010	16.84	16.74	16.74	16.33	16.89	14.22	13.86
2009 - 2011	17.12	16.94	16.85	16.45	16.87	13.99	14.11
2010 - 2012	17.08	17.08	16.97	16.69	17.03	14.19	14.97
2011 - 2013	17.24	17.16	17.16	16.77	17.31	14.37	15.07
2012 - 2014	17.38	17.33	17.36	16.84	17.34	14.44	15.08
2013 - 2015	17.48	17.43	17.49	16.99	17.66	14.76	15.15
2014 - 2016	17.70	17.60	17.57	17.26	17.67	14.98	14.99
Life expectancy at age 65 (years) - Females							
2008 - 2010	20.08	20.15	20.39	19.68	20.44	17.71	18.05
2009 - 2011	20.31	20.41	20.38	19.83	20.69	17.67	18.24
2010 - 2012	20.42	20.58	20.34	19.98	20.82	18.06	18.51
2011 - 2013	20.46	20.56	20.63	20.14	20.75	18.23	18.89
2012 - 2014	20.55	20.81	20.81	20.2	20.89	18.29	18.99
2013 - 2015	20.64	20.95	20.86	20.28	20.99	18.41	19.17
2014 - 2016	20.83	20.99	21.03	20.48	21.04	18.69	19.35

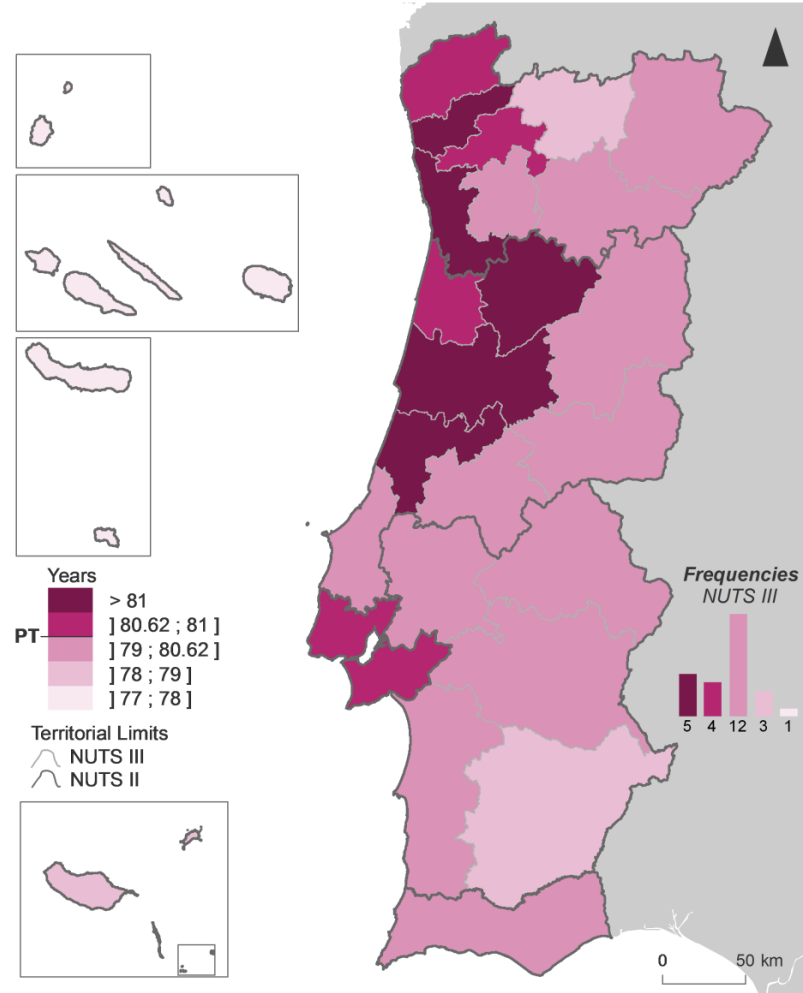
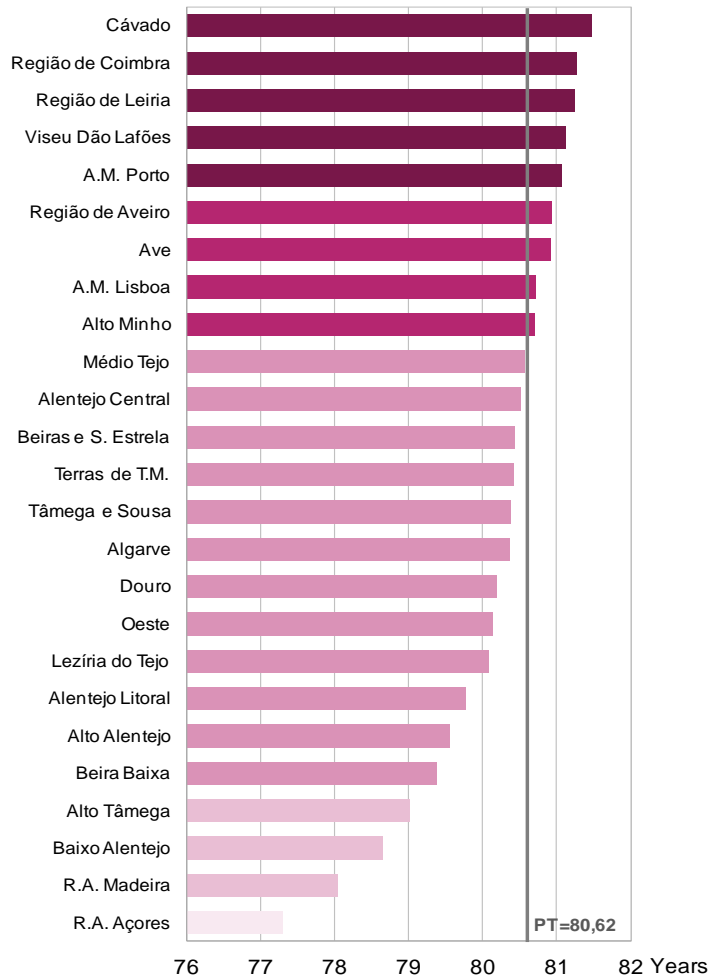
Life expectancy at birth in NUTS 3 sub-regions

Nine sub-regions NUTS 3 exceeded the national value (80.62 years); Região de Leiria recorded the highest increase

Results for the 2014-2016 period showed that, out of the 25 NUTS 3 sub-regions, 9 exceeded the national life expectancy at birth (80.62 years). Cávado, Região de Coimbra, Região de Leiria, Viseu Dão-Lafões and Área Metropolitana do Porto recorded the highest values of life expectancy at birth, above 81 years. By contrast, the lowest life expectancies at birth were observed in Região Autónoma da Madeira and Região Autónoma dos Açores and Baixo Alentejo, at below 79 years.

In the last six years, the highest gains in longevity at birth occurred in the Região de Leiria (2.08 years), while the lowest were recorded in Terras de Trás-os-Montes (0.35 years).

Figure 4. Life expectancy at birth, NUTS 3, 2014-2016



Life expectancy at age 65 in NUTS 3 sub-regions

Seventeen sub-regions exceeded the national value (19.31 years); Região de Leiria recorded the highest increase, exceeding 20 years.

Results for the 2014-2016 period showed that the three regions with the highest values were Região de Leiria (20.03 years), Médio Tejo (19.95 years), and Região de Coimbra (19.93 years).

In addition to Região Autónoma da Madeira and Região Autónoma dos Açores, the sub-regions of Baixo Alentejo and Oeste recorded the lowest life expectancy at age 65, at below 19 years.

Between the 2008-2010 and the 2014-2016 periods the highest gains in longevity at age 65 occurred in the Região de Leiria (1.37 years) while the lowest were recorded in Alto Alentejo (0.37 years).

Figure 5. Life expectancy at age 65, NUTS 3, 2014-2016

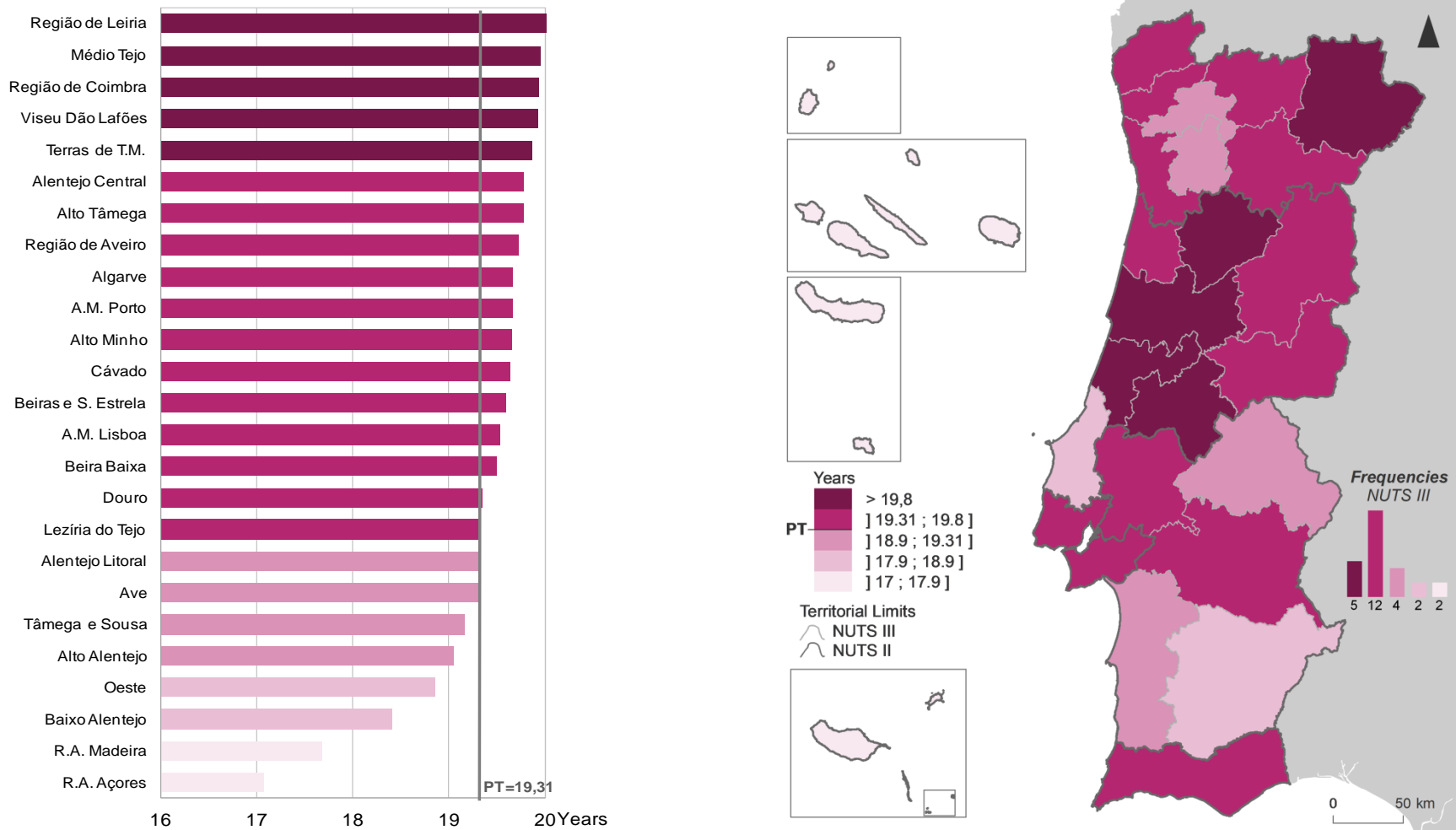


Figure 6. Life expectancy at birth and at age 65, Portugal NUTS 1, NUTS 2 e NUTS 3, 2008-2010 and 2014-2016

	Life expectancy at birth (years) - Both sexes		Life expectancy at age 65 (years) - Both sexes	
	2008-2010	2014-2016	2008-2010	2014-2016
Portugal	79.29	80.62	18.59	19.31
Continente	79.38	80.84	18.60	19.48
Norte	79.64	80.99	18.61	19.45
Alto Minho	79.37	80.69	18.75	19.65
Cávado	80.07	81.45	18.71	19.62
Ave	79.49	80.90	18.44	19.31
Área Metropolitana do Porto	79.72	81.04	18.79	19.66
Alto Tâmega	78.09	79,00	18.55	19.77
Tâmega e Sousa	78.90	80.36	18.23	19.16
Douro	78.79	80.18	18.38	19.33
Terras de Trás-os-Montes	80.06	80.41	19.42	19.85
Centro	79.59	80.98	18.63	19.55
Oeste	78.79	80.13	17.78	18.84
Região de Aveiro	79.64	80.92	19,00	19.72
Região de Coimbra	79.87	81.25	18.83	19.93
Região de Leiria	79.16	81.24	18.66	20.03
Viseu Dão Lafões	79.87	81.11	19.08	19.92
Beira Baixa	77.72	79.36	18.98	19.49
Médio Tejo	79.47	80.54	18.96	19.95
Beiras e Serra da Estrela	79.11	80.43	18.81	19.58
Área Metropolitana de Lisboa	79.29	80.71	18.83	19.52
Área Metropolitana de Lisboa	79.29	80.71	18.83	19.52
Alentejo	78.58	80.04	18.20	19.05
Alentejo Litoral	78.36	79.75	18.29	19.31
Baixo Alentejo	77.12	78.62	17.43	18.40
Lezíria do Tejo	78.62	80.07	18.04	19.32
Alto Alentejo	77.97	79.53	18.67	19.04
Alentejo Central	79.10	80.50	18.91	19.77
Algarve	78.90	80.34	18.79	19.66
Algarve	78.90	80.34	18.79	19.66
Região Autónoma dos Açores	75.86	77.28	16.18	17.06
Região Autónoma dos Açores	75.86	77.28	16.18	17.06
Região Autónoma dos Açores	75.86	77.28	16.18	17.06
Região Autónoma da Madeira	76.13	78.02	16.40	17.67
Região Autónoma da Madeira	76.13	78.02	16.40	17.67
Região Autónoma da Madeira	76.13	78.02	16.40	17.67

Following the release in May 2017 of the 2014-16 complete life table for Portugal, Statistics Portugal releases the complete life tables for NUTS 2 regions for the same period, by sex and both sexes, and life expectancy at birth and at age 65 for NUTS 3 (NUTS 2013) sub-regions for both sexes

Technical note:

The construction of life tables and the calculation of the population's life expectancy is an annual statistical study covering the whole resident population in Portugal, based on information from other statistical demographic operations carried out by Statistics Portugal. This study is part of derived statistics production projects, since the information produced integrates data from various sources of primary statistical production.

Statistics Portugal calculates complete life tables for Portugal, NUTS 1, 2 and 3 regions with a reference period of three consecutive years. With regard to NUTS 3 from the mainland ('Continente'), only life expectancy at birth and at age 65 are released.

The construction of complete life tables for Portugal and Continente uses the gross estimate of mortality rates, and the methodology proposed by Denuit and Goderniaux (2005) for closing and extrapolating old age mortality rates is applied. The complete life tables for NUTS 2 regions are based on graduation and smoothing methods of gross estimates of mortality rates, and the method for closing and extrapolating old age mortality rates is subsequently applied. For the 'Continente' NUTS 3 sub-regions the Brass relational model (1971, 1974) is applied, and subsequently also the method for closing and extrapolating old age mortality rates.

Values for life expectancy and other life table functions correspond to estimates calculated from statistical data and models, and should not be interpreted as deterministic indicators. However, assuming that the empirical mortality conditions observed in the reference period for the life table remain constant, it is possible, in a given population, to make probabilistic judgments on the evolution of mortality. In this sense, slight movements in these indicators between different periods should be interpreted in the methodological context explained, especially when analysing indicators with higher regional detail.

More detailed information on the methodology of construction of the complete life tables is available on the Statistics Portugal's website: <http://smi.ine.pt/DocumentacaoMetodologica/Detalhes/1239>

References

Brass, W. (1971). On the scale of mortality. In: Biological Aspects of Demography, London Taylor and Francis.

Brass, W. (1974). Mortality models and their uses in demography. Transactions of the Faculty of Actuaries, 33, 123-132.

Denuit, M. and Goderniaux, A. (2005). Closing and projecting life tables using log-linear models. Bulletin de l'Association Suisse des Actuaries, 1, 29-49.