Methodological notes

The publication follows the set of complete life tables for NUTS4 districts of the Czech Republic for period 2001-2005, and then the abridged life tables for 1996-2000, 1991-1995, 1986-1990 and 1981-85, published by the CZSO in 2006, 2001, 1996, 1992 and 1989.

The complete mortality life tables for the districts of the Czech Republic for the period 2006-2010 are calculated from the third main group of demographic events (age-period specific), separately for males and females. The complete mortality life tables have been processed for a five-year period to exclude random fluctuations.

Complete life tables indicators

- **Death probability (q_x)** expresses the probability that an individual at the exact age of x will die in a given period, i.e. before the exact age of x+1. The input death probabilities are derived from the age-specific mortality rates ($ú_x$). To see the detailed methodology of the computation of the input death probability, go to *Life Tables for the Czech Republic, Areas and Regions*.

$$q_x = 1 - e^{-ú_x}$$

- **Probability of survival (p_x)** complements the death probability and expresses the probability that an individual at the exact age of x will die in a given period, i.e. before the exact age of x+1:

$$p_x = 1 - q_x$$

- **Table number of survivors (l_x)** is the hypothetical number of individuals alive at the exact age of x out of 100,000 live births (table root - l_0), given the mortality conditions of the reference period.

$$l_{x+1} = l_x \cdot (1 - q_x)$$

- **Table number of deaths (d_x)** is the hypothetical number of individuals who die at the age of x.

$$d_x = l_x - l_{x+1}$$

- **Table number of person-years (L_x)** expresses the hypothetical number of individuals alive at the completed age of x. It is calculated as the average of two subsequent table numbers of survivors, except for the age of 0.

$$L_x = \frac{l_x + l_{x+1}}{2}$$

Table number of person-years at the age of 0 is derived from the frequency distribution of infant deaths during the analysed period by the year of born. The coefficient "α" informs what is the ratio of infant deaths born in the given year from all infant deaths in analysed year. In the life tables for districts the coefficient reflects the long-term situation of the whole Czech Republic and used fixed level of 0.86.

$$L_0 = l_0 - \alpha \cdot d_0$$

- **Auxiliary indicator (T_x)** expresses the number of years of life to be lived by the table generation (not of an individual) at a given age. It is the accumulation of L_x from the highest age of the table (ω-1) to the age of x.

$$T_x = T_{x+1} + L_x \qquad\qquad T_x = \sum_{\omega-1}^{x} L_x$$

- **Life expectancy (e_x)** indicates the expected remaining life duration with presumption of unchangeable mortality conditions of a given period. It is a synthetic indicator displaying mortality conditions of a given period through all age groups.

$$e_x = \frac{T_x}{l_x}$$