Basic Characteristics of Health, Illness and Mortality
(Table 5)

Source: Life tables and demographic statistics (CZSO); IHIS CR

Healthy life expectancy at birth – World Health Organisation estimates

Life expectancy is derived from life tables compiled on the basis of age-specific mortality rates in the initial year. Life expectancy at x-years means the additional number of years to be lived by man or woman surviving to exact age x (given the mortality conditions of the table). The average age at death is then determined by adding the age of x years to the life expectancy. Life expectancy should never be confused with the average age of population.

The indicator for "healthy life expectancy at birth" expresses how many years a neonatal child can expect to live in full health at current sickness and mortality rates. These data are not available before 2001.

The probability of death between 15 and 60 years of age (the probability that a person will die between his or her fifteenth and sixtieth birthdays) is also derived from life tables.

The infant mortality rate is calculated as the proportion of infants who die before their first year to every one thousand live births in the same year.

Data for those hospitalised are averages for the relevant year relative to 100,000 of the mid-year population.

Women live to a higher age than men. In 2004, life expectancy at birth for Czech women was 6.5 years longer than for men. In recent years, however, the differences have been narrowing – in 1990 the difference was 7.8 years in favour of women, while in 1995 this figure had already fallen to 6.9 years. Women also have the chance to live longer than men in good health (in 2002, when this figure was last ascertained in the Czech Republic, it was 5.0 years). The probability of death between 15 and 60 years of age is also falling. For women, this figure fell by 1.6 percentage points from 1995, and for men by 2.9 percentage points. For years, the Czech Republic has been among those countries with the lowest infant and neonatal mortality rates, and it is encouraging to know that this rate has continued to fall in recent years as well. Indeed, in the case of infants it has fallen by roughly one-half in the last ten years. Recent years have also seen a fall in incapability for work (IFW). Average period of IFW has risen and rising trend was also in number of hospitalised in hospitals per 100 thousand people.

Table 5: Basic Characteristics of Health, Illness and Mortality

		1995		2001		2004	
		women	men	women	men	women	men
Life expectancy of age	0	76.7	69.7	78.4	72.1	79.0	72.5
	20	57.5	50.8	58.9	52.8	59.5	53.2
	40	38.0	32.0	39.4	33.8	39.9	34.2
	60	20.0	15.9	21.2	17.3	21.6	17.6
Healthy life expectancy at birth		–	–	69.5	63.8	70.9*)	65.9*)
Probability of dying between 15th and 60th birthday (%)		8.5	19.0	7.6	16.8	6.9	16.1
Infant mortality (‰)		6.4	8.9	3.4	4.5	3.4	4.3
Child mortality 1–4 years (‰)		0.3	0.4	0.2	0.3	0.2	0.2
Number of completed IFW per 100,000 of insured persons		106,760	92,561	89,517	80,949	87,136**)	76,302**)
Average duration of 1 case of IFW (in days)		26.9	24.6	29.4	28.5	31.2**)	30.6**)
Hospitalized persons in Hospitals per 100,000 people		23,252	18,067	23,198	19,003	24,924**)	20,504**)

*) latest data are available for 2002

**) latest data are available for 2003

Age-specific Mortality

(Graph 8)

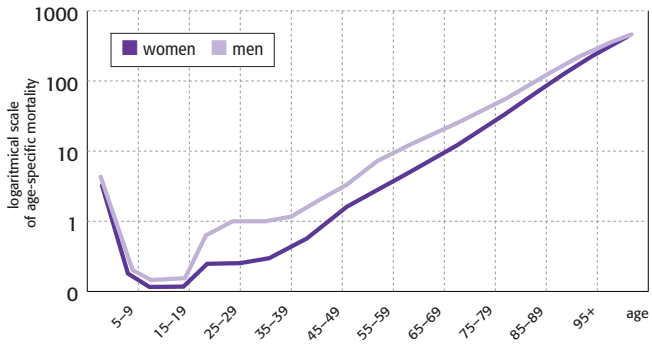
Source: Demographic statistics (CZSO) – data for 2004

We calculate the mortality rate by age (so-called age-specific mortality rate) as the proportion of deceased in the relevant age per 1000 persons of this age alive as at 1st of July of the calendar year (so-called mid-year population).

Women die most frequently at the age of 80–84. In 2004, 23.6 % of female deaths was at this age. Men die most frequently at the age of 75–79. In 2004, 15.9 % of all male deaths were in this age group.

In all age groups up to the age of 74, men's proportion of deaths is higher than that for women. This changes at the age of 75, when the number of female deaths is higher than that for men. Women made up 52.5 % of deaths in the 75–79 age group, 60.8 % in the 80–84 age group, and 67.3 % in the 85–89 age group. This is clearly connected to the fact that women generally live longer than men.

Graph 8: Age-specific Mortality in 2004



Incidence of Sexually Transmitted Diseases

(Table 6)

Source: National Institute of Public Health (National Reference Laboratory for AIDS) – information on people HIV-positive and with developed AIDS; Mandatory notification "Notification of sexual illness" (NZIS form 017 2) collected via the Public Health Service.

The data in the table cover citizens of the Czech Republic and foreigners with permanent residence in the Czech Republic.

In recent years, the Czech Republic has seen an annual increase of 50–60 new cases of people infected with HIV. Whereas in 1995 there were 194 HIV positive people in the Czech Republic, in 2003 this number had risen to 532, an increase of 174.2 %. The incidence of HIV increased among women, who since 2000 have comprised almost one-quarter (in 2003 the figure was 23.1 %) of all HIV positive cases, from 19.1 % in 1995.

In 2003, a total of 800 new cases of syphilis were reported (of which 54.3 % were women) and 1,016 new cases of gonorrhoea (33.8 % women). In recent years women have made up roughly one-third of patients with gonorrhoea, while cases of syphilis are distributed relatively equally between men and women. Between 1995 and 2003, newly reported cases of gonorrhoea fell by one half, both for women and men. In recent years, however, the numbers have begun to rise again: in comparison with 2000 the number of newly reported cases rose by 17.5 % (22.1 % for women and 15.2 % for men). Between 1995 and 2003, the number of newly reported cases of syphilis rose by 97.0 % (women 98.2 %, men 95.7 %). In opposite to the year 2000, however, the year 2003 saw a fall of 4.9 % in the number of newly reported cases of syphilis. This was due to a reduction of 16.4 % among men, although the figures for women rose again, this time by 7.7 %. Resident aliens made up almost half of all syphilis cases in 2003 (45.4 %).

Table 6: Incidence of Sexually Transmitted Diseases

		2000		2002		2003	
		women	men	women	men	women	men
HIV positive	new cases in year	14	44	11	39	12	49
	abs.	93	298	112	368	123	409
	per 100,000	1.8	6.0	2.1	7.4	2.4	8.2
AIDS	new cases in year	2	12	1	8	1	8
	abs.	7	52	9	55	9	58
	per 100,000	0.1	1.0	0.2	1.1	0.2	1.2
Syphilis	new cases in year	403	438	462	462	434	366
	per 100,000	7.6	8.8	8.8	9.3	8.3	7.4
Gonorrhea	new cases in year	281	584	276	628	343	673
	per 100,000	5.3	11.7	5.3	12.6	6.6	13.5

WOMEN AND MEN in Data

Cause-specific Death Rate for the Most Important Causes of Death by Age Groups

(Graph 9)

Source: Demographic statistics (CZSO) (data for 2004)

We calculate the cause-specific death rate rate (mortality rates broken down by cause of death) by age (age-specific lethality) as the proportion of the number of deaths to the relevant cause of death in 2004 per 100 000 people of the relevant age (mid-year – as at 1st of July 2004). Codes for the categories of cause of death have been taken from the tenth revision of international classification of diseases. For the sake of simplicity, the names of causes of death have not been used directly in the graph.

The important codes are the following (in order of frequency):

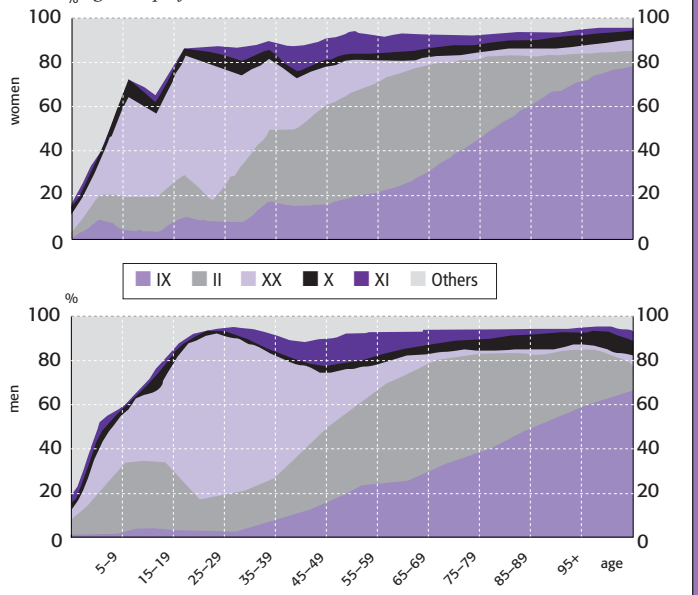
IX	*Diseases of the circulatory system*	X	*Diseases of the respiratory system*
II	*Neoplasms*	XI	*Diseases of the digestive system*
XX	*External causes of death*		

Men and women die most frequently of diseases of the circulatory system. In 2004, these were the cause of death for 30,123 women and 24,919 men. This represents 56.8 % of all women and 46.0 % of all men who died in this year. In 2004, 574,4 out of 100,000 women in the Czech Republic died of these diseases, while for men the figure was 501,2. Only in cases of disease of the circulatory system is women's lethality rate higher than that of men.

The second most common cause of death are neoplasms. In 2004, these were the cause of death for 13,024 women and 16,280 men. This represents 24.6 % of all women and 30.0 % of all men who died in this year. 248,8 out of 100,000 women thus died this way, while for men the figure was 327,5.

This is followed by external causes, diseases of the respiratory system and diseases of the digestive system. In 2004, external causes were responsible for the deaths of 46.1 women per 100,000 women and 92.1 men per 100,000 men. The corresponding figures for diseases of the respiratory system were 39.5 women and 54,0 men, and for diseases of the digestive system 37.3 women and 52.0 men.

Graf 9: Cause-specific Death Rate for the Most Important Causes of Death by Age Groups (for 2004)



The most common causes of death in the lowest age group were recorded in the category "other" (this most often refers to category XVI – Certain conditions originating in the perinatal period, and XVII – Congenital malformations, deformations and chromosomal abnormalities). From the age of ten, women and men most commonly die from external causes: in 2004 this concerned women up to the age of 34 and men up to the age of 44. For women between 35 and 64 the most common cause of death were neoplasms, from 65 and above diseases of the circulatory system. Men aged 45–49 die most frequently of diseases of the circulatory system, from 55 to 64 of neoplasms and, like women, from 65 onwards of diseases of the circulatory system.

Development of Incidence and Cause-specific Death Rate of Malignant Neoplasms

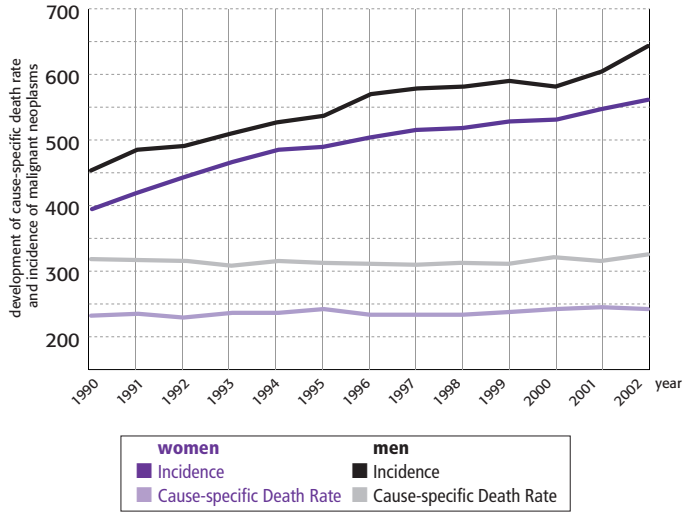
(Graph 10)

Source: IHIS CR – mandatory report – "Report on Neoplasms", maintained in the National Oncological Register

Incidence rates are calculated as the proportion of ill people to 100,000 living people in the relevant calendar year. Cause-specific death rates are calculated in the same way (numbers of deceased from malignant neoplasms as a proportion of 100,000 living people in the relevant year). Because the rates are calculated as a proportion of two values changing over time, the value for incidence and cause-specific death rates cannot be confused with absolute numbers of ill and deceased people.

From 1990 to 2002, the incidence rate of malignant neoplasms rose, while their cause-specific death rate remained essentially constant. Both indicators are higher for men than for women. Between 1960 and 1990, the incidence rate of malignant neoplasms rose 1.6 times for women and 1.7 times for men. Since 1990 and 2002 the incidence rate increased 1.4 times for both women and men. The cause-specific death rate for malignant neoplasms rose 1.3 times for women between 1960 and 1990, and 1.3 times for men. From 1990 to 2002 it more or less stagnated.

Graf 10: Development of Incidence and Cause-specific Death Rate of Malignant Neoplasms



This trend can be ascribed chiefly to advances in medicine, in particular the introduction of new and more effective treatment methods, as well as the prompt detection of the early stages of illness. Whereas in 1960, 250.5 women out of every 100,000 women in the Czech Republic fell ill, (262.4 men out of every 100,000 men) in 2002 the corresponding figures were 563.2 women and 643.7 men. Despite the rise in the incidence of malignant tumours, however, their cause-specific death rate has remained at roughly the same level: while the incidence rate of malignant tumours has risen 2.2 times for women between 1960 and 2002, (2.5 times for men) the cause-specific death rate during this period has only risen 1.3 times for women and 1.4 times for men.

Development of the Number of Mammographs

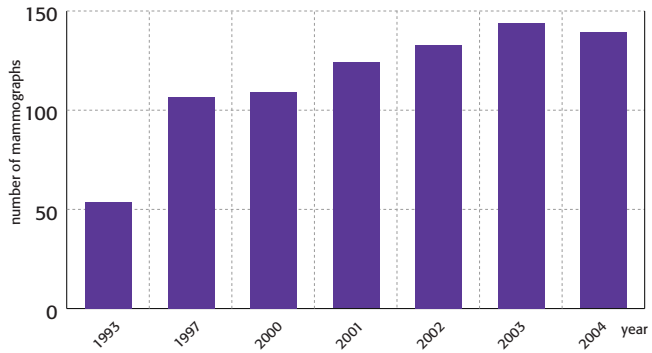
(Graph11)

Source: Annual Report on the Apparatus and Equipment in Health Establishments (T(MZ)1 – 01)

In the period of five years from 2000 to 2004, the number of mammographs in the Czech Republic rose by 31 to 140.

Whereas in 1993, there were 23 mammographs for every million women aged 40 and over, in 2000 there were 42, and in 2004, 53.

Graf 11: Development of the Number of Mammographs



Heart Surgery Operations
(Graph 12)

Source: IHIS CR KSRZIS – National Heart Surgery Register

Men undergo more heart surgery operations than women. In 2002, there were 8683 heart surgery operations in the Czech Republic, of which 28.8 % involved women and 71.2 % men. Men make up the majority in all age categories, and most of all in the age category 40–49 (84.5 %) and 50–59 (82.4 %).

Almost 90 % of heart operations in 2002 concerned people aged 50–79. Among operated women, 90.6 % was in this age group, and among men 89.3 %. Women most commonly have heart operations aged 70–79 (42.0 % of all operations in 2002). Between 60 and 69 the figure is 34.3 % and from 50 to 59 14.4 %. Among men, the highest proportion of heart operations is between the ages of 60 and 69 (33.8 % of all such operations in 2002), followed by 70–79 (28.3 %), and 50–59 (27.2 %). The biggest differences in the age structure of female and male patients who underwent heart operations in 2002 were in the age categories 50–59, where the difference was 12.8 percentage points in favour of men, and 70–79, when the points difference was 13.7 in favour of women.

Graph 12: Heart Surgery Operations in 2002