

IV. Analysis by cause of death

1. Mortality probability by cause of death

Mortality probability by cause of death means the probability that a person of a given age will die from a specific cause of death in the future according to the life tables.

As for leading causes of death in 2011, the mortality probability by malignant neoplasms was the highest for both males and females at age 0, followed by heart diseases, pneumonia and cerebrovascular diseases for males at and H.C.P. for females. The mortality probability by malignant neoplasms at age 65 was lower than the probability at age 0 and the probabilities by the other three causes were higher, and this trend was stronger at age 75 for both males and females. On the other hand, the probability by cerebrovascular diseases at 90 was lower than the probability at 75 for males, while the probability for females had the opposite tendency.

The total of the mortality probabilities by malignant neoplasms, heart diseases and cerebrovascular diseases was over 50 percent at age 0, 65 and 75 for male, however under 50 percent at all the ages for females.

Compared with the previous year, each of the probabilities by malignant neoplasms, heart diseases, cerebrovascular diseases and pneumonia was lower at each of the age 0, 65, 75 and 90 for both males and females.

Table 7. Mortality probability by causes of death

Cause of death	Age 0		Age 65		Age 75		Age 90	
	Male	Female	Male	Female	Male	Female	Male	Female
Malignant neoplasms	29.10	20.05	28.71	18.30	25.44	16.16	15.08	9.69
Heart diseases	14.41	18.36	14.67	19.21	15.10	19.83	17.09	20.90
Cerebrovascular diseases	9.32	11.04	9.66	11.40	9.98	11.67	9.84	11.70
Pneumonia	12.04	10.91	13.48	11.57	15.09	12.21	19.52	14.03
Accidents	4.59	3.95	3.74	3.39	3.54	3.10	2.72	2.19
Traffic accidents	0.58	0.28	0.30	0.21	0.25	0.16	0.08	0.04
Earthquake	1.13	1.36	0.73	0.90	0.56	0.69	0.21	0.28
Suicide	2.39	1.12	0.75	0.44	0.48	0.29	0.26	0.10
Renal failure	1.97	2.27	2.16	2.40	2.34	2.48	2.72	2.49
Diseases of liver	1.30	0.79	0.94	0.72	0.66	0.63	0.34	0.33
Diabetes mellitus	1.07	1.08	1.03	1.10	0.93	1.08	0.68	0.82
Hypertensive diseases	0.45	0.86	0.48	0.92	0.51	0.97	0.75	1.22
Tuberculosis	0.22	0.13	0.24	0.14	0.26	0.14	0.26	0.10
Senility	3.04	9.21	3.49	9.90	4.18	10.71	9.41	16.67
malignant neoplasms, heart diseases and cerebrovascular diseases	52.83	49.45	53.04	48.91	50.52	47.65	42.00	42.29

2. Potential years of life lost

If a certain cause of death was eliminated, a person who had died from the cause would die from another cause after he or she originally had died. As a result, life expectancy would be extended. This extended period of life time, which is called the potential years of life lost, can be regarded as one's life lost by the cause of death, and it enables us to estimate how much the cause affects life expectancy.

In 2011, the potential years of life lost by malignant neoplasms were the longest at age 0, followed by heart diseases, cerebrovascular diseases, and pneumonia for both males and females. In the same way, the order of the four causes at 65 was malignant neoplasms, heart diseases, pneumonia and cerebrovascular diseases for males, and malignant neoplasms, heart diseases, cerebrovascular diseases and pneumonia for females. The order was also the same at 75, while some causes changed ranks at 90: pneumonia, heart diseases, malignant neoplasms and cerebrovascular diseases for males, and heart diseases, pneumonia, cerebrovascular diseases and malignant neoplasms for females. Therefore, it turned out that malignant neoplasms became less effective at 90.

Potential years of life lost by malignant neoplasms, heart diseases and cerebrovascular diseases was 7.38 years for males and 6.22 for females at age 0, 5.93 for males and 5.04 for females at 65, 4.49 for males and 4.21 for females at 75, 1.93 for males and 2.22 for females at 90.

Table 8. Potential years of life lost

Cause of death	(years)							
	Age 0		Age 65		Age 75		Age 90	
	Male	Female	Male	Female	Male	Female	Male	Female
Malignant neoplasms	3.75	2.88	2.93	1.94	1.97	1.35	0.55	0.41
Heart diseases	1.46	1.47	1.12	1.40	0.94	1.32	0.61	0.90
Cerebrovascular diseases	0.89	0.91	0.72	0.82	0.62	0.75	0.34	0.47
Pneumonia	0.87	0.73	0.89	0.73	0.90	0.72	0.72	0.57
Accidents	0.78	0.66	0.31	0.31	0.23	0.23	0.09	0.09
Traffic accidents	0.16	0.07	0.03	0.03	0.02	0.02	0.00	0.00
Earthquake	0.26	0.34	0.07	0.11	0.04	0.06	0.01	0.01
Suicide	0.74	0.38	0.08	0.06	0.03	0.03	0.01	0.00
Renal failure	0.15	0.16	0.14	0.16	0.13	0.15	0.09	0.09
Diseases of liver	0.22	0.11	0.10	0.07	0.05	0.05	0.01	0.01
Diabetes mellitus	0.12	0.10	0.09	0.09	0.06	0.08	0.02	0.03
Hypertensive diseases	0.04	0.05	0.03	0.05	0.03	0.05	0.02	0.04
Tuberculosis	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.00
malignant neoplasms, heart diseases and cerebrovascular diseases	7.38	6.22	5.93	5.04	4.49	4.21	1.93	2.22