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 2018, 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, however heart diseases, cerebrovascular diseases and pneumonia for females. Comparing data between age 0 and 65, the mortality probability was lower at age 65 than at age 0 for malignant neoplasms. And for the other three leading causes it was higher at age 65. This trend was more likely observed at age 75. On the other hand, for cerebrovascular diseases, the mortality probability was lower at age 90 than at age 75 for both males and females.

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

Table 6. Mortality probability by causes of death, 2018

(%)

Cause of death	Age 0		Age 65		Age 75		Age 90	
	Male	Female	Male	Female	Male	Female	Male	Female
Malignant neoplasms	28.23	20.01	27.93	18.31	24.90	16.13	15.30	9.67
Heart diseases	14.42	17.15	14.55	17.75	14.86	18.24	16.67	19.24
Cerebrovascular diseases	7.41	8.36	7.44	8.48	7.54	8.59	6.91	8.29
Pneumonia	8.44	6.88	9.22	7.21	10.19	7.56	12.83	8.51
Accidents	3.31	2.50	3.01	2.43	2.99	2.38	2.70	1.96
Traffic accidents(regrouped)	0.40	0.18	0.22	0.14	0.18	0.11	0.07	0.03
Suicide	1.73	0.78	0.56	0.30	0.39	0.20	0.15	0.07
Chronic obstructive pulmonary disease	2.30	0.47	2.53	0.49	2.72	0.49	2.63	0.43
Renal failure	2.04	1.94	2.19	2.02	2.35	2.08	2.65	2.00
Aortic aneurysm and dissection	1.31	1.27	1.26	1.29	1.22	1.24	1.01	0.90
Diseases of liver	1.35	0.78	0.98	0.68	0.74	0.62	0.36	0.32
Diabetes mellitus	1.02	0.89	0.98	0.90	0.90	0.89	0.59	0.70
Hypertensive diseases	0.60	0.93	0.61	0.97	0.62	1.02	0.80	1.18
Tuberculosis	0.21	0.13	0.22	0.14	0.25	0.15	0.29	0.14
Senility	5.78	15.29	6.46	16.18	7.57	17.31	14.56	24.60
Malignant neoplasms, heart diseases and cerebrovascular diseases (regrouped)	50.06	45.52	49.92	44.54	47.29	42.96	38.88	37.21

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 2018, the potential years of life lost by malignant neoplasms were the longest at age 0 for both males and females, followed by heart diseases, cerebrovascular diseases and pneumonia. The order of the four causes at age 65 and 75 was malignant neoplasms, heart diseases, pneumonia and cerebrovascular diseases for males, and malignant neoplasms, heart diseases, then cerebrovascular diseases and pneumonia for females. However, some causes changed ranks at age 90: heart diseases were the longest for both males and females, followed by malignant neoplasms, pneumonia and cerebrovascular diseases for males, and malignant neoplasms, pneumonia and cerebrovascular diseases at the same year for females.

Potential years of life lost by malignant neoplasms, heart diseases and cerebrovascular diseases was 6.70 years for males and 5.55 years for females at age 0, 5.46 years for males and 4.45 years for females at age 65, 4.08 years for males and 3.63 years for females at age 75, 1.72 years for males and 1.85 years for females at age 90.

Table 7. Potential years of life lost, 2018

（years）

Cause of death	Age 0		Age 65		Age 75		Age 90	
	Male	Female	Male	Female	Male	Female	Male	Female
Malignant neoplasms	3.54	2.84	2.87	1.96	1.95	1.35	0.56	0.41
Heart diseases	1.41	1.31	1.11	1.24	0.92	1.17	0.59	0.81
Cerebrovascular diseases	0.73	0.69	0.57	0.60	0.47	0.54	0.23	0.33
Pneumonia	0.57	0.43	0.58	0.43	0.57	0.43	0.44	0.33
Accidents	0.44	0.28	0.23	0.19	0.18	0.16	0.09	0.07
Traffic accidents(regrouped)	0.11	0.04	0.02	0.02	0.01	0.01	0.00	0.00
Suicide	0.56	0.28	0.06	0.04	0.03	0.02	0.00	0.00
Chronic obstructive pulmonary disease	0.16	0.04	0.17	0.04	0.16	0.03	0.09	0.02
Renal failure	0.15	0.14	0.14	0.13	0.13	0.13	0.09	0.08
Aortic aneurysm and dissection	0.14	0.12	0.10	0.11	0.08	0.09	0.03	0.04
Diseases of liver	0.23	0.11	0.10	0.07	0.05	0.05	0.01	0.01
Diabetes mellitus	0.12	0.08	0.08	0.07	0.06	0.06	0.02	0.03
Hypertensive diseases	0.05	0.05	0.04	0.05	0.03	0.05	0.02	0.04
Tuberculosis	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malignant neoplasms, heart diseases and cerebrovascular diseases	6.70	5.55	5.46	4.45	4.08	3.63	1.72	1.85