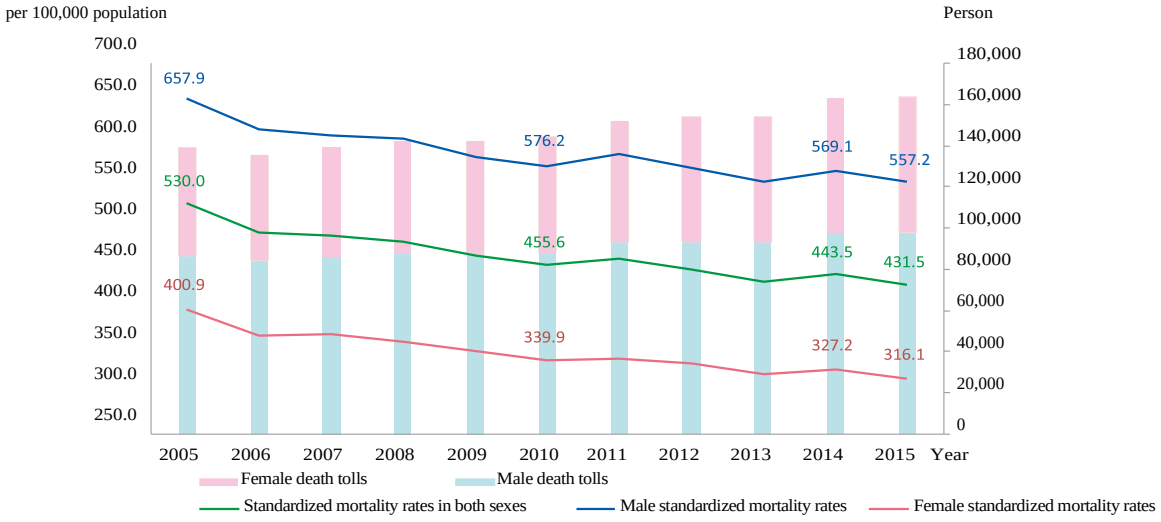
I. Statistics on Causes of Death

1. Mortality Rates of Leading Causes of Death

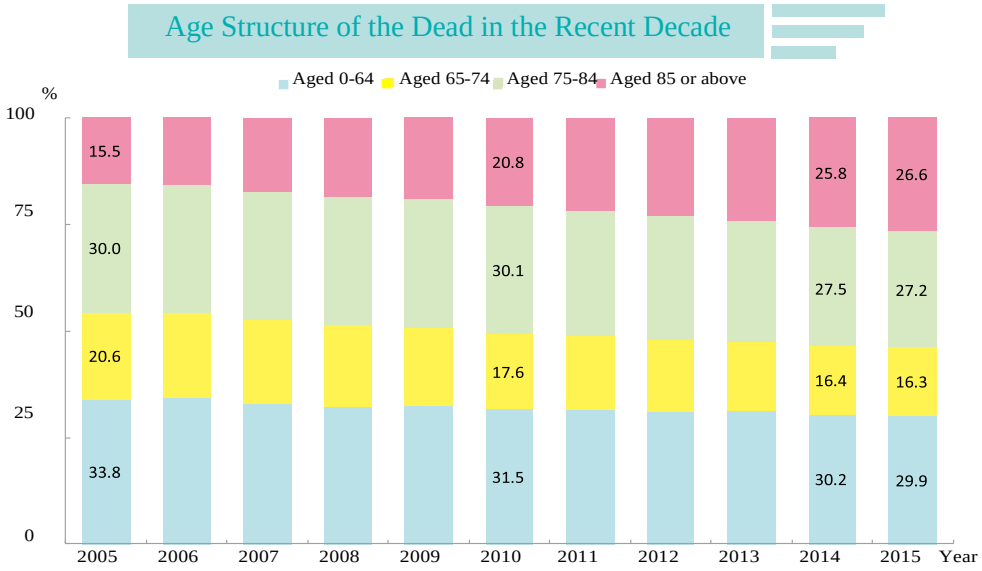
(1) Changes in Death Tolls and Mortality Rates in The Recent Decade

The standardized mortality rate shows a declining trend.

Death Tolls and Standardized Mortality Rates in the Recent Decade - by Sex



Age Structure of the Dead in the Recent Decade



The standardized mortality rate shows declining trend. In 2015, the standardized mortality rate was 431.5 per 100,000 population, representing a decrease of 18.6% compared with 2005, and males have a higher standardized mortality rate than females. In terms of age, the death tolls of those aged 85 or above increases year by year, but of those aged 0-64 shows a declining trend in the long run.

In 2015, the national death tolls were 163,574, representing an increase of 17.7% compared with 2005. In terms of sex, male deaths have outnumbered female deaths over the years, accounting for 60% to 63% of all deaths. In terms of age, those aged 0-64 accounted for 29.9% of all deaths, and those aged 65 or above accounted for 70.1%, which was 4.0 percentage points higher than that in 2005. The death tolls for those aged between 65 and 74 have decreased, and for those aged 75 or above increased. The death tolls of those aged 85 or above has increase by 11.1 percentage points compared with 2005, showing the most significant increase, meaning that the increased death tolls were due mainly to aging.

(2) Overview of Leading Causes of Death by Age

Five Leading Causes of Death by Age in 2015

Leading causes of death	Aged <1	Aged 1-14	Aged 15-24	Aged 25-44	Aged 45-64	Aged 65-69	Aged 70 or above
Death tolls (person)	881	416	1,228	8,767	37,593	11,989	102,700
Percentage of all deaths (%)	0.5	0.3	0.8	5.4	23.0	7.3	62.8
Mortality rate (per 100,000 population)	413.4	13.7	39.4	119.8	543.0	1301.1	5260.8
1	Congenital deformation, malformation, and chromosomal abnormalities	Accidents and adverse effects	Accidents and adverse effects	Malignant neoplasms	Malignant neoplasms	Malignant neoplasms	Malignant neoplasms
	180 people	77 people	569 people	2,231 people	16,101 people	4,933 people	23,337 people
	20.4%	18.5%	46.3%	25.4%	42.8%	41.1%	22.7%
2	Certain conditions originating in the perinatal period	Malignant neoplasms	Intentional self-harm (suicide)	Accidents and adverse effects	Diseases of heart (except hypertensive diseases)	Diseases of heart (except hypertensive diseases)	Diseases of heart (except hypertensive diseases)
	117 people	74 people	183 people	1,325 people	3,763 people	1,281 people	13,344 people
	13.3%	17.8%	14.9%	15.1%	10.0%	10.7%	13.0%
3	Disorders relating to length of gestation and fetal growth	Congenital deformation, malformation, and chromosomal abnormalities	Malignant neoplasms	Intentional self-harm (suicide)	Chronic liver diseases and cirrhosis	Diabetes mellitus	Pneumonia
	60 people	41 people	147 people	1,165 people	2,149 people	831 people	9,270 people
	6.8%	9.9%	12.0%	13.3%	5.7%	6.9%	9.0%
4	Accidents and adverse effects	Assault (homicide)	Diseases of heart (except hypertensive diseases)	Diseases of heart (except hypertensive diseases)	Accidents and adverse effects	Cerebrovascular diseases	Cerebrovascular diseases
	46 people	24 people	43 people	729 people	2,032 people	761 people	8,053 people
	5.2%	5.8%	3.5%	8.3%	5.4%	6.3%	7.8%
5	Infections specific to the perinatal period	Diseases of heart (except hypertensive diseases)	Diseases of the musculoskeletal system and connective tissue	Chronic liver diseases and cirrhosis	Cerebrovascular diseases	Accidents and adverse effects	Diabetes mellitus
	36 people	23 people	24 people	696 people	1,975 people	498 people	6,737 people
	4.1%	5.5%	2.0%	7.9%	5.3%	4.2%	6.6%

In 2015, 881 infants under the age of 1 year died, accounting for 0.5% of all deaths. In comparison to 2005, the death rate fell by 0.09%. The top 3 causes of death were 1. congenital malformations, deformations, and chromosomal abnormalities, accounting for 20.4%; 2. certain conditions originating in the perinatal period, accounting for 13.3%; and 3. disorders relating to length of gestation and fetal growth, accounting for 6.8%. These 3 causes accounted for 40.5% of infant deaths.

416 children between the ages of 1 and 14 years died, accounting for 0.3% of all deaths. In comparison to 2005, the death rate fell by 38.6%. The top 3 causes of death were 1. accidents and adverse effects, accounting for 18.5%; 2. malignant neoplasms, accounting for 17.8%; and 3. congenital malformations, deformations, and chromosomal abnormalities, accounting for 9.9%. These 3 causes accounted for 46.2% of all deaths in this age group.

1,228 people between the ages of 15 and 24 years died, accounting for 0.8% of all deaths. In comparison to 2005, the death rate fell by 35.3%. The top 3 causes of death were 1. accidents and adverse effects, accounting for 46.3%; 2. suicide, accounting for 14.9%; and 3. malignant neoplasms, accounting for 12.0%. These 3 causes accounted for 73.2% of all deaths in this age group.

8,767 people between the ages of 25 and 44 years died, accounting for 5.4% of all deaths. In comparison to 2005, the death rate fell by 26.7%. The top 3 causes of death were 1. malignant neoplasms, accounting for 25.4%; 2. accidents and adverse effects, accounting for 15.1%; and 3. suicide, accounting for 13.3%. These 3 causes accounted for 53.8% of all deaths in this age group.

37,593 people between the ages of 45 and 64 years died, accounting for 23.0% of all deaths. In comparison to 2005, the death rate fell by 8.3%. The top 3 causes of death were 1. malignant neoplasms, accounting for 42.8%; 2. diseases of heart, accounting for 10.0%; and 3. chronic liver diseases and cirrhosis, accounting for 5.7%. These 3 causes accounted for 58.5% of all deaths in this age group.

11,989 people between the ages of 65 and 69 years died, accounting for 7.3% of all deaths. In comparison to 2005, the death rate fell by 24.2%. The top 3 causes of death were 1. malignant neoplasms, accounting for 41.1%; 2. diseases of heart, accounting for 10.7%; and 3. diabetes mellitus, accounting for 6.9%. These 3 causes accounted for 58.7% of all deaths in this age group.

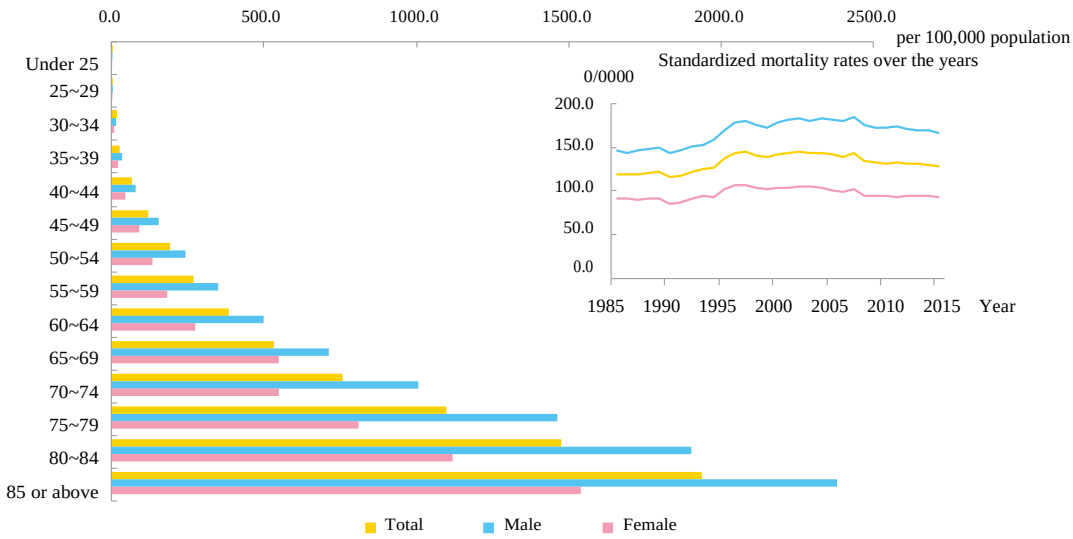
102,700 people over the age of 70 years died, accounting for 62.8% of all deaths. In comparison to 2005, the death rate fell by 2.5%. The top 3 causes of death were 1. malignant neoplasms, accounting for 22.7%; 2. diseases of heart, accounting for 13.0%; and 3. pneumonia, accounting for 9.0%. The 3 causes accounted for 44.7% of all deaths in this age group.

2. Leading Causes of Death

(1) Malignant Neoplasms

The standardized mortality rate of malignant neoplasms for males is 1.8 times that for females.

Mortality Rates of Malignant Neoplasms by Age in 2015



Death Tolls and Standardized Mortality Rates of Malignant Neoplasms in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	37,222	141.2	23,944	181.3	13,278	101.1
2006	37,998	139.3	24,428	179.5	13,570	99.5
2007	40,306	142.6	25,819	184.7	14,487	101.6
2008	38,913	133.7	24,972	174.4	13,941	94.4
2009	39,918	132.5	25,284	171.6	14,634	95.1
2010	41,046	131.6	26,022	171.3	15,024	93.9
2011	42,559	132.2	27,045	173.7	15,514	93.4
2012	43,665	131.3	27,270	170.4	16,395	95.1
2013	44,791	130.4	27,883	169.4	16,908	94.7
2014	46,093	130.2	28,476	168.8	17,617	94.9
2015	46,829	128.0	28,776	166.3	18,053	93.4
2015 vs. 2005 increase/decrease %	25.8	-9.3	20.2	-8.3	36.0	-7.6

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.
2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

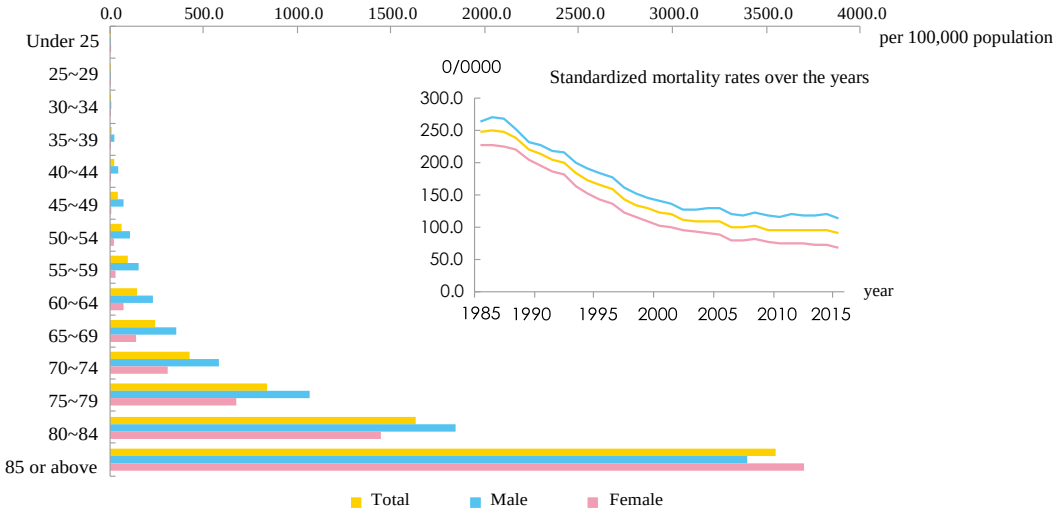
In 2015, malignant neoplasms were the leading cause of death in Taiwan. The standardized death rate was 128.0 per 100,000 people, a decline of 9.3% versus 2005. The standardized death rate among women was 93.4 per 100,000 people, a decline of 7.6% versus 2005.

Looking at the age distribution, in 2015, death rates from malignant neoplasms increased progressively with age. The male death rate was higher than the female death rate at every age.

(2) Cardiovascular Diseases

The standardized mortality rate of cardiovascular diseases shows a declining trend over the long run.

Mortality Rates of Cardiovascular Diseases by Age in 2015



Death Tolls and Standardized Mortality Rates of Cardiovascular Diseases in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	29,026	108.0	17,263	128.5	11,763	87.0
2006	27,739	98.6	16,551	118.9	11,188	78.4
2007	28,972	98.6	17,002	118.0	11,970	79.4
2008	31,072	101.8	18,141	122.4	12,931	81.8
2009	30,319	95.6	17,793	116.4	12,526	75.5
2010	31,196	94.0	18,243	115.2	12,953	73.8
2011	33,169	95.7	19,482	118.9	13,687	73.9
2012	34,388	95.5	19,946	118.3	14,442	74.3
2013	35,290	94.3	20,478	117.8	14,812	72.4
2014	36,591	94.1	21,289	118.9	15,302	71.3
2015	35,907	89.2	20,686	112.9	15,221	67.5
2015 vs. 2005 increase/decrease %	23.7	-17.4	19.8	-12.1	29.4	-22.5

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

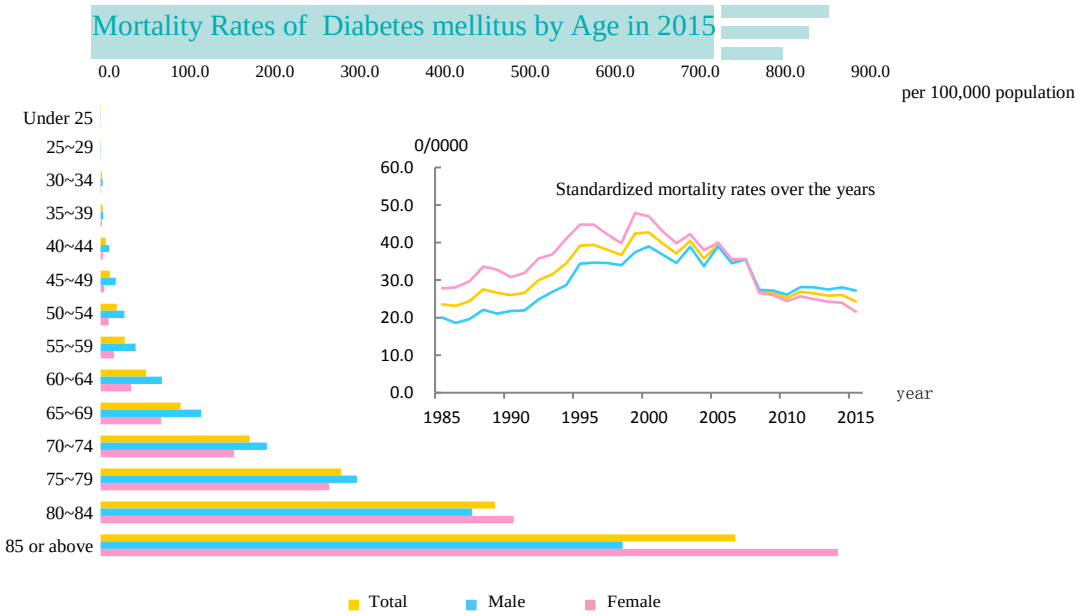
Cardiovascular diseases include diseases of heart, cerebrovascular diseases, and hypertensive diseases; all of these are among the top ten causes of death for Taiwanese. An analysis of the trend over the years shows that the standardized mortality rate of cardiovascular diseases has declined from 108.0 per 100,000 population in 2005 to 89.2 in 2015, and the percentage decrease in the recent decade is 17.4.

In 2015, the standardized mortality rate for males was 112.9 per 100,000 population and for females was 67.5 per 100,000 population, representing a decrease of 12.1% and 22.5, respectively, compared with 2005.

Observing from the perspective of age structure, in 2015, the mortality rate of cardiovascular diseases increases with age. The mortality rate for males is higher than that for females in all age groups below 84 years; in particular, the mortality rate for males is more than 3 times that for females in all age groups between 35 and 59 years.

(3) Diabetes mellitus

The standardized mortality rate of diabetes mellitus for males exceeds that for females in recent years.



Death Tolls and Standardized Mortality Rates of diabetes mellitus in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	10,501	39.4	5,163	39.0	5,338	40.0
2006	9,690	34.9	4,712	34.5	4,978	35.5
2007	10,231	35.5	4,995	35.5	5,236	35.7
2008	8,036	26.9	3,958	27.4	4,078	26.5
2009	8,230	26.6	4,051	27.2	4,179	26.0
2010	8,211	25.3	4,062	26.1	4,149	24.4
2011	9,081	26.9	4,484	28.1	4,597	25.7
2012	9,281	26.5	4,599	28.0	4,682	24.9
2013	9,438	25.8	4,653	27.5	4,785	24.2
2014	9,846	26.0	4,883	28.1	4,963	24.0
2015	9,530	24.3	4,853	27.2	4,677	21.6
2015 vs. 2005 increase/decrease %	-9.2	-38.3	-6.0	-30.3	-12.4	-46.0

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.
2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

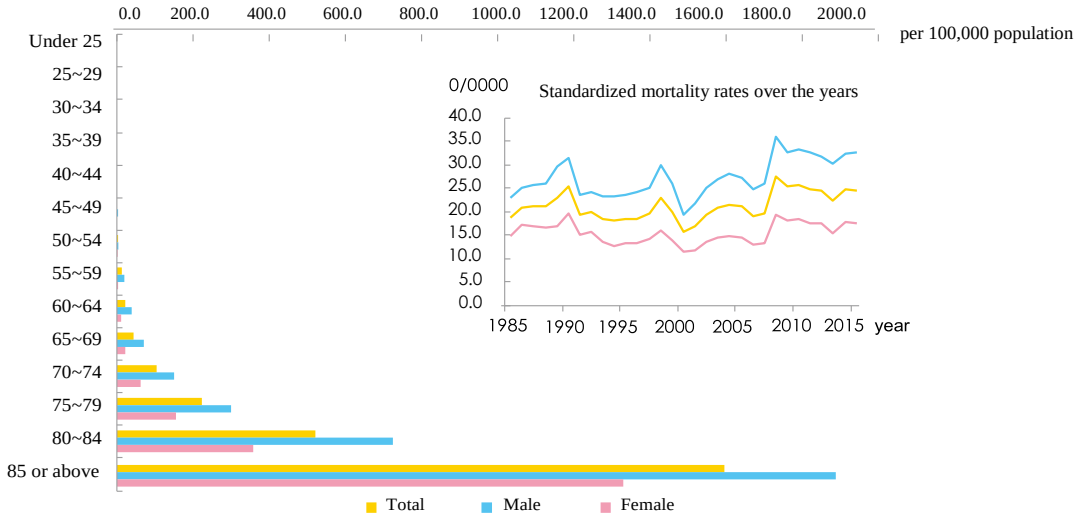
Death tolls due to diabetes mellitus in 2015 totaled 9,530, and the standardized mortality rate was 24.3 per 100,000 population; the rate for males was 27.2 per 100,000 population and that for females was 21.6. The rate for males was 1.3 times that for females. It shows the relatively higher standardized mortality rate for males over that for females since 2008.

Observing from the perspective of age structure, the mortality rate of diabetes mellitus increases with age. The mortality rate for males is higher than that for females in all age groups below 79 years, while that for females exceeds that for males in the age group of over 80 years.

(4) Pneumonia

Deaths caused by pneumonia concentrate on elderly age groups.

Mortality Rates of Pneumonia by Age in 2015



Death Tolls and Standardized Mortality Rates of Pneumonia in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	5,687	21.0	3,718	27.3	1,969	14.5
2006	5,396	18.9	3,536	24.8	1,860	12.9
2007	5,895	19.6	3,853	26.0	2,042	13.3
2008	8,661	27.5	5,527	35.9	3,134	19.4
2009	8,358	25.3	5,240	32.7	3,118	18.2
2010	8,909	25.6	5,565	33.3	3,344	18.4
2011	9,047	24.8	5,669	32.5	3,378	17.5
2012	9,314	24.4	5,764	31.8	3,550	17.5
2013	9,042	22.5	5,680	30.1	3,362	15.5
2014	10,353	24.7	6,305	32.4	4,048	17.8
2015	10,761	24.6	6,579	32.8	4,182	17.5
2015 vs. 2005 increase/decrease %	89.2	17.2	76.9	20.2	112.4	20.3

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

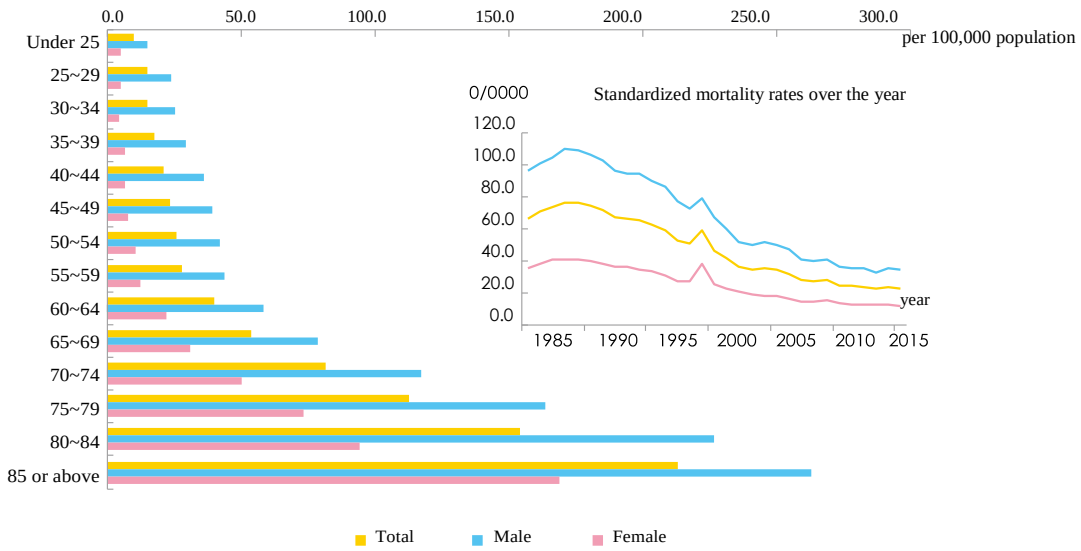
In 2015, the standardized death rate from pneumonia was 24.6 per 100,000 people, an increase of 17.2% versus 2005. The male standardized death rate was 32.8 per 100,000 people, an increase of 20.2% versus 2005. The female standardized death rate was 17.5 per 100,000 people, an increase of 20.3% versus 2005.

Observing from the perspective of age structure, in 2015, deaths caused by pneumonia distribute mostly among the elderly aged 80 or above, who account for 67.9% of the deaths in this category. The mortality rate increases with age, and the increase is particularly significant for those aged 75 or above.

(5) Accidents and adverse effects

The standardized mortality rate of accidents and adverse effects for males is 2.9 times that for females, showing a declining trend over the years.

Mortality Rates of Accidents and adverse effects by Age in 2015



Death Tolls and Standardized Mortality Rates of Accidents and adverse effects in the Recent

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	8,365	34.0	6,227	50.0	2,138	17.8
2006	8,011	31.9	5,992	47.2	2,019	16.3
2007	7,130	27.9	5,276	41.0	1,854	14.6
2008	7,077	27.0	5,239	39.9	1,838	14.1
2009	7,358	27.7	5,354	40.3	2,004	15.1
2010	6,669	24.4	4,835	35.8	1,834	13.1
2011	6,726	24.1	4,875	35.5	1,851	12.8
2012	6,873	23.8	4,950	34.9	1,923	12.8
2013	6,619	22.4	4,733	32.8	1,886	12.2
2014	7,118	23.7	5,108	35.0	2,010	12.8
2015	7,033	22.8	5,096	34.3	1,937	11.7
2015 vs. 2005 increase/decrease %	-15.9	-33.0	-18.2	-31.4	-9.4	-34.3

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

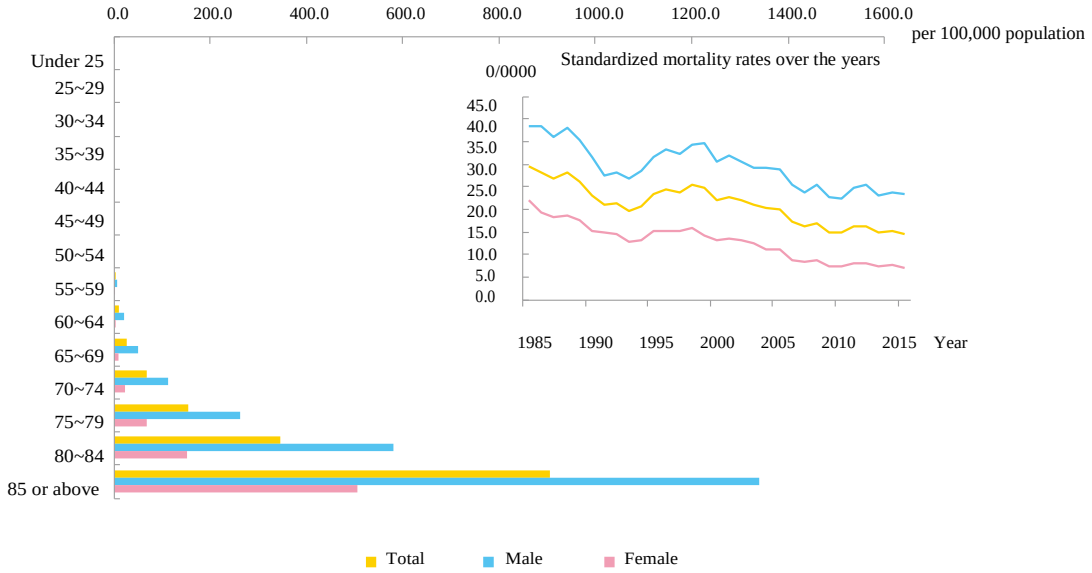
In 2015, 7,033 people died from accidents and adverse effects. The standardized death rate was 22.8 per 100,000 people, a decrease of 33.0% versus 2005. The male standardized death rate was 34.3 per 100,000 people versus 11.7 among women. The male death rate was 2.9 times greater than the female death rate. These rates all decreased by approximately 30% versus 2005.

Observing from the perspective of age structure, in 2015, the standardized mortality rate of accidents and injuries for males is higher than that for females in all age groups. In particular, the mortality rate for males is more than 3 times that for females in the age group of 25-29 years.

(6) Chronic lower respiratory diseases

Deaths caused by chronic lower respiratory diseases concentrate on the elderly population.

Mortality Rates of Chronic lower respiratory diseases by Age in 2015



Death Tolls and Standardized Mortality Rates of Chronic lower respiratory diseases in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	5,484	20.0	3,959	28.8	1,525	11.1
2006	4,969	17.2	3,673	25.5	1,296	8.9
2007	4,914	16.2	3,603	23.9	1,311	8.5
2008	5,374	16.9	3,957	25.3	1,417	8.8
2009	4,955	14.9	3,686	22.6	1,269	7.4
2010	5,197	14.8	3,823	22.5	1,374	7.6
2011	5,984	16.2	4,406	24.8	1,578	8.2
2012	6,326	16.4	4,685	25.5	1,641	8.1
2013	5,959	14.9	4,408	23.2	1,551	7.3
2014	6,428	15.3	4,698	23.9	1,730	7.7
2015	6,383	14.6	4,733	23.4	1,650	6.9
2015 vs. 2005 increase/decrease %	16.4	-27.1	19.6	-18.9	8.2	-38.1

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

The standardized mortality rate of chronic lower respiratory diseases shows a downward trend over the long run; the percentage decrease in the recent decade is 27.1, and it has dropped to a level below 20 per 100,000 after 2006.

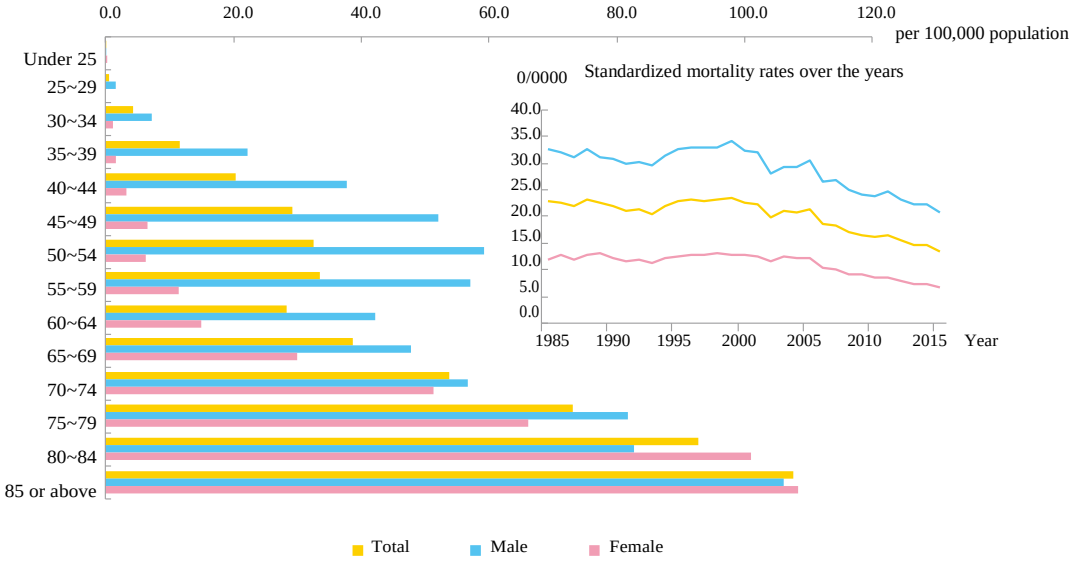
In 2015 death tolls due to chronic lower respiratory diseases totaled 6,383, and the standardized mortality rate was 14.6 per 100,000 population, representing a decrease of 27.1, compared with 2005; the rate for males was 23.4 and that for females was 6.9; the rate for males was 3.4 times that for females.

Observing from the perspective of age structure, in 2015, deaths caused by chronic lower respiratory diseases distribute predominantly among the elderly aged 80 or above, who account for 67.8% of the deaths in this category. The mortality rate increases significantly with age.

(7) Chronic Liver Diseases and Cirrhosis

The death rate from chronic liver disease and cirrhosis among men aged 25 to 79 years was significantly higher than that of women.

Mortality rates of chronic liver diseases and cirrhosis by age in 2015



Death tolls and standardized mortality rates of chronic liver diseases and cirrhosis in the recent decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	5,621	21.3	4,030	30.5	1,591	12.1
2006	5,049	18.6	3,613	26.6	1,436	10.5
2007	5,160	18.4	3,729	26.8	1,431	10.1
2008	4,917	17.1	3,576	25.1	1,341	9.1
2009	4,918	16.6	3,477	24.0	1,441	9.4
2010	4,912	16.1	3,508	23.7	1,404	8.7
2011	5,153	16.5	3,728	24.7	1,425	8.5
2012	4,975	15.6	3,572	23.3	1,403	8.1
2013	4,843	14.8	3,513	22.4	1,330	7.4
2014	4,962	14.8	3,558	22.3	1,404	7.5
2015	4,688	13.6	3,354	20.6	1,334	6.8
2015 vs. 2005 increase/decrease %	-16.6	-36.1	-16.8	-32.4	-16.2	-43.9

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

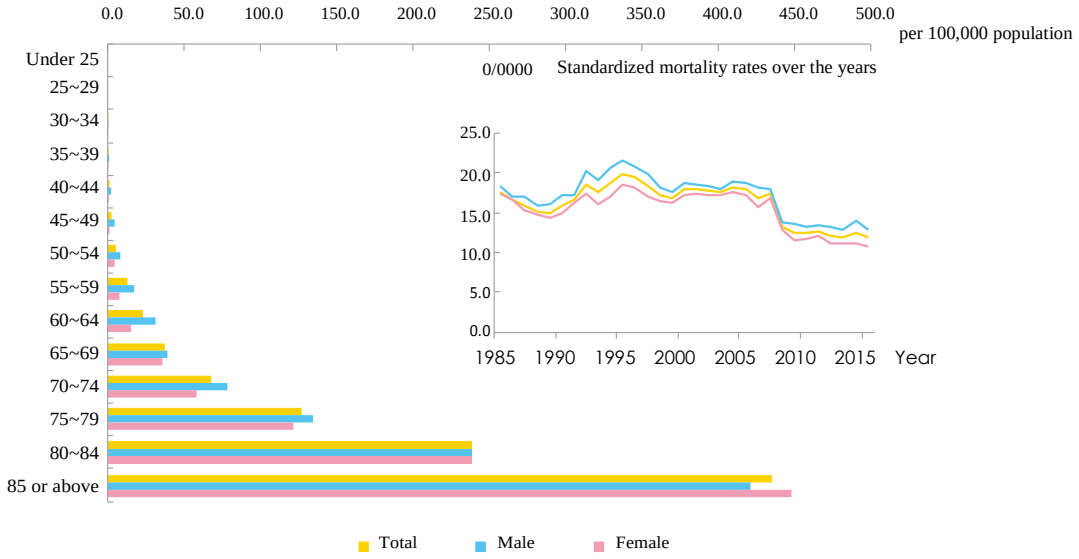
In 2015, 4,688 people died from liver disease and cirrhosis. The standardized death rate was 13.6 per 100,000 people, a decrease of 36.1% versus 2005. The male rate was 20.6 per 100,000 people and the female rate was 6.8 per 100,000 people, decreases of 32.4% and 43.9% versus 2005, respectively.

Observing from the perspective of age structure, in 2015, those aged 40-64 account for more than 50% of the deaths caused by chronic liver diseases and cirrhosis, and the mortality rate for males is much higher than those for females in the age group of 25-59; in particular the largest gap is seen in the age group of 40-44, where the mortality rate for males is 11.5 times that for females.

(8) Nephritis, Nephrotic Syndrome and Nephrosis

The standardized death rate from nephritis, nephrotic syndrome, and nephropathy has decreased by 34.2% over 10 years.

Mortality Rates of Nephritis, Nephrotic Syndrome and Nephrosis by Age in 2015



Death Tolls and Standardized Mortality Rates of Nephritis, Nephrotic Syndrome and Nephrosis in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	4,822	17.9	2,502	18.6	2,320	17.3
2006	4,712	16.8	2,511	18.1	2,201	15.6
2007	5,099	17.3	2,607	18.0	2,492	16.7
2008	4,012	13.2	2,017	13.7	1,995	12.8
2009	3,999	12.5	2,100	13.5	1,899	11.6
2010	4,105	12.4	2,088	13.1	2,017	11.7
2011	4,368	12.6	2,190	13.3	2,178	12.0
2012	4,327	12.1	2,240	13.2	2,087	11.1
2013	4,489	11.9	2,257	12.8	2,232	11.2
2014	4,868	12.5	2,541	14.0	2,327	11.2
2015	4,762	11.8	2,413	12.9	2,349	10.8
2015 vs. 2005 increase/decrease %	-1.2	-34.2	-3.6	-30.8	1.3	-37.4

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

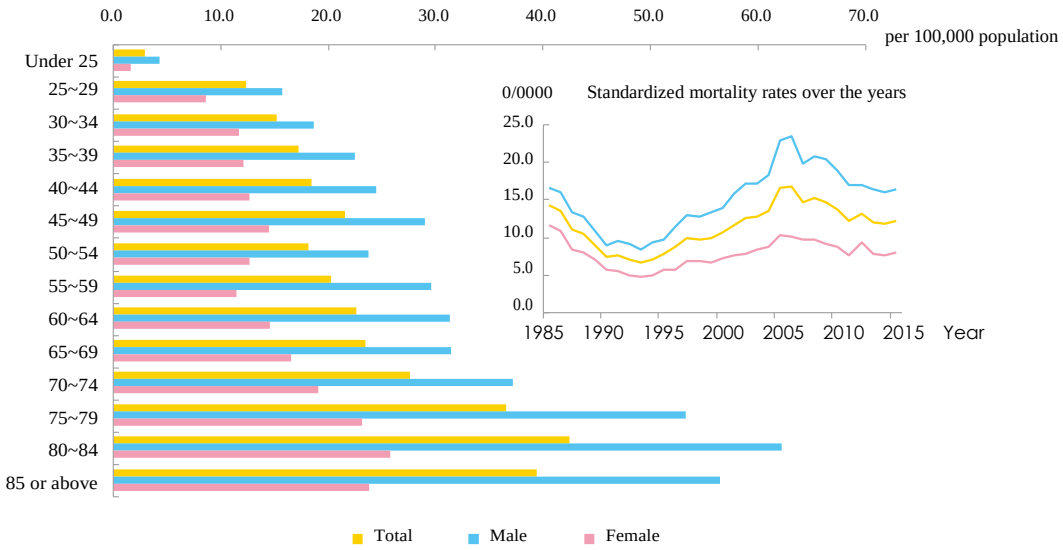
In 2015, death tolls due to nephritis, nephrotic syndrome and nephrosis totaled 4,762, and the standardized mortality rate was 11.8 per 100,000 population, representing a decrease of 34.2%.; the rate for males was 12.9 per 100,000 population and that for females was 10.8; the rate for males was 1.2 times that for females.

Observing from the perspective of age structure, in 2015, deaths caused by nephritis, nephrotic syndrome and nephrosis concentrate mainly on the elderly aged 75 or above, who account for 64.4% of the deaths in this category. The mortality rate for males is higher than that for females in all age groups except those in the age groups of 25-29 and over 85 years.

(9) Intentional Self-Harm (Suicide)

Suicide deaths concentrate mainly on population between 25 and 64 years.

Mortality Rates of Intentional Self-Harm (Suicide) by Age in 2015



Death Tolls and Standardized Mortality Rates of Intentional Self-Harm (Suicide) in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	4,282	16.6	2,977	22.9	1,305	10.2
2006	4,406	16.8	3,088	23.4	1,318	10.1
2007	3,933	14.7	2,647	19.7	1,286	9.7
2008	4,128	15.2	2,820	20.8	1,308	9.7
2009	4,063	14.7	2,798	20.3	1,265	9.2
2010	3,889	13.8	2,639	18.8	1,250	8.8
2011	3,507	12.3	2,392	16.9	1,115	7.7
2012	3,766	13.1	2,430	17.0	1,336	9.3
2013	3,565	12.0	2,388	16.3	1,177	7.8
2014	3,546	11.8	2,364	15.9	1,182	7.7
2015	3,675	12.1	2,426	16.3	1,249	8.1
2015 vs. 2005 increase/decrease %	-14.2	-27.0	-18.5	-28.8	-4.3	-20.7

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

Over the years, the standardized death rate from intentional self-harm (suicide) reached a peak of 16.8 per 100,000 people in 2006 and has trended downward in the past few years.

In 2015, the number of suicide deaths totaled 3,675, and the standardized mortality rate was 12.1 per 100,000 population, representing a drop of 27.0% compared with the figure in 2005. The standardized mortality rate for males was 16.3 per 100,000 population and that for females was 8.1; the rate for males was 2.0 times that for females.

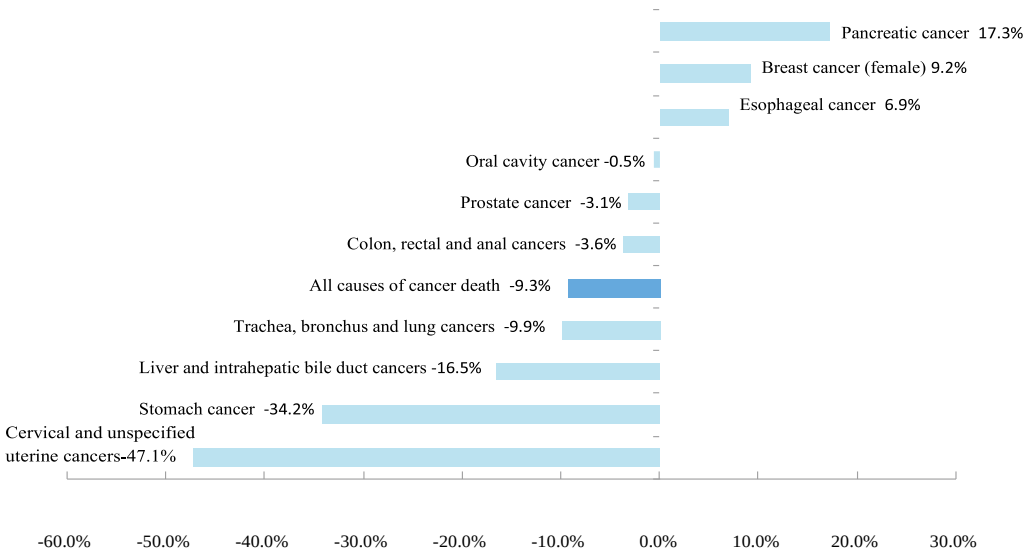
Looking at the age distribution, in 2015, those between the ages of 25 and 64 years accounted for 70.4% of all suicides, whereas those over the age of 65 years accounted for 24.4%. The death rate increases with age over the age of 50 years.

3. Mortality Rates of Leading Causes of Cancer Death

(1) Changes in Mortality Rates of Leading Causes of Cancer Death

Lung cancer continues to be the top causes of cancer death.

2015 vs. 2005 Changes in Standardized Mortality Rates Regarding Leading Causes of Cancer Death



Death Tolls and Standardized Mortality Rates Regarding Leading Causes of Cancer Death in 2015

Order	Cause of death	Death toll		Standardized mortality rate (0/0000)
		(person)	%	
	All cancer causes of death	46,829	100.0	128.0
1	Trachea, bronchus and lung cancers	9,232	19.7	24.7
2	Liver and intrahepatic bile duct cancers	8,258	17.6	22.8
3	Colon, rectal and anal cancers	5,687	12.1	14.9
4	Breast cancer (female)	2,141	4.6	12.0(1)
5	Oral cavity cancer	2,667	5.7	7.8
6	Prostate cancer	1,231	2.6	6.4(2)
7	Stomach cancer	2,326	5.0	6.1
8	Pancreatic cancer	1,948	4.2	5.3
9	Esophageal cancer	1,807	3.9	5.1
10	Cervical and unspecified uterine cancers	661	1.4	3.5(1)

Notes: (1) Death rate per 100,000 women

(2) Death rate per 100,000 men

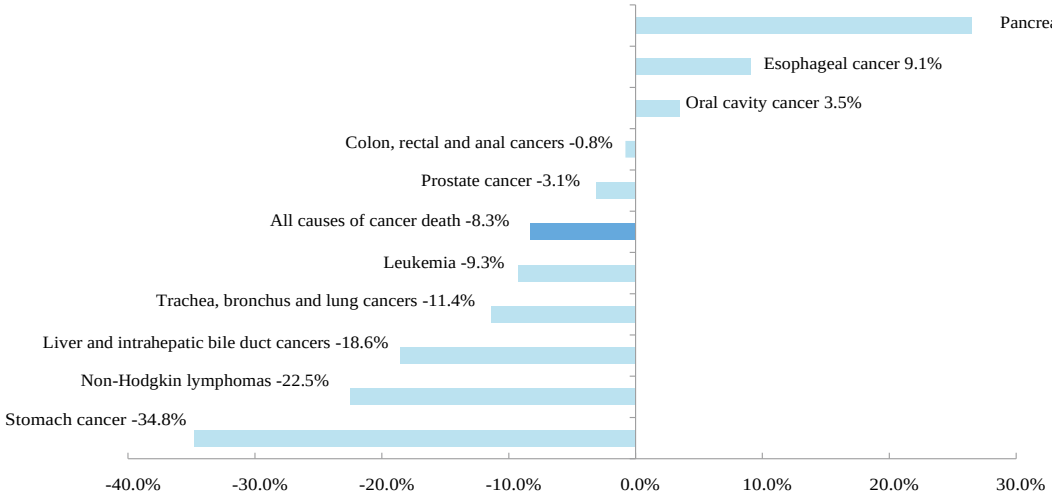
In the order of mortality rates, the top ten causes of death in 2015 were: 1. trachea, bronchus and lung cancers; 2. liver and intrahepatic bile duct cancers; 3. colon, rectal and anal cancers; 4. breast cancer (female); 5. oral cavity cancer; 6. prostate cancer; 7. stomach cancer; 8. pancreatic cancer; 9. esophageal cancer; and 10. cervical and unspecified uterine cancers. The top ten causes of cancer death accounted for 76.8% of all cancer deaths.

Compared with 2005, standardized mortality rates of three types of cancers increased, including pancreatic cancer, breast cancer (female), and esophageal cancer, with the greatest increase (17.3) seen in pancreatic cancer; remaining types of cancer decreased, with the greatest decrease (47.1) seen in cervical cancer. The top two causes of cancer death, i.e., lung cancer and liver cancer, also saw a drop of 9.9% and of 16.5% in standardized mortality rate, respectively.

(2) Changes in Leading Cancer Mortality Rates for Males

The standardized mortality rate of stomach cancer for males sees the greatest decline over the decade.

2015 vs. 2005 Changes in Standardized Mortality Rates Regarding Leading Causes of Cancer Death For Males



Death Tolls and Standardized Mortality Rates Regarding Leading Causes of Cancer Death for Males in 2015

Order	Cause of death	Death toll		Standardized mortality rate (0/0000)
		(person)	%	
	All cancer causes of death	28,776	100.0	166.3
1	Trachea, bronchus and lung cancers	5,884	20.4	33.5
2	Liver and intrahepatic bile duct cancers	5,586	19.4	32.9
3	Colon, rectal and anal cancers	3,212	11.2	18.1
4	Oral cavity cancer	2,445	8.5	14.8
5	Esophageal cancer	1,680	5.8	9.9
6	Stomach cancer	1,458	5.1	8.0
7	Prostate cancer	1,231	4.3	6.4
8	Pancreatic cancer	1,086	3.8	6.3
9	Non-Hodgkin lymphomas	716	2.5	4.1
10	Leukemia	620	2.2	3.9

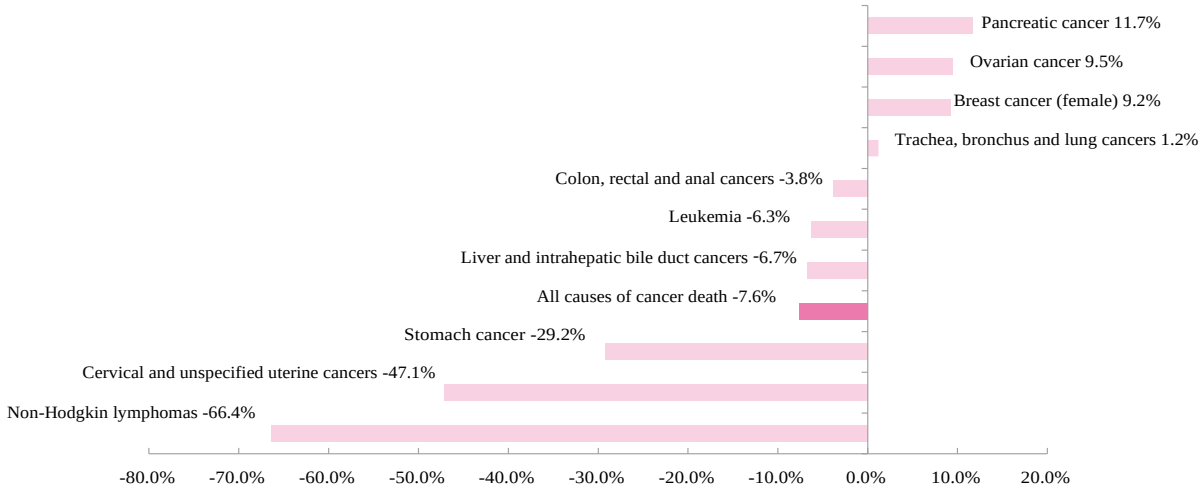
Based on death rates, the top 10 causes of death from cancer among men in 2015 were 1. tracheal, bronchial, and lung cancer; 2. liver cancer and intrahepatic cholangiocarcinoma; 3. colon, rectal, and anal cancer; 4. oral cavity cancer; 5. esophageal cancer; 6. stomach cancer; 7. prostate cancer; 8. pancreatic cancer; 9. non-Hodgkin's lymphoma; and 10. leukemia. The top 10 causes of death from cancer among men accounted for 83.2% of all cancer deaths among men.

In comparison to 2005, the standardized death rates of pancreatic cancer, esophageal cancer, and oral cancer increased. The rates of increase of pancreatic and esophageal cancer were relatively high, reaching 9% and higher. The other leading causes of death from cancer declined, with stomach cancer having the greatest decline, reaching 34.8%.

(3) Changes in Leading Cancer Mortality Rates for Females

Over the past 10 years, the female standardized death rate from non-Hodgkin's lymphoma has decreased the most.

2015 vs. 2005 Changes in Standardized Mortality Regarding Leading Causes of Cancer Death for Females



Death Tolls and Standardized Mortality Rates Regarding Leading Causes of Cancer Death for Females in 2015

Order	Cause of death	Death toll		Standardized mortality rate (0/0000)
		(person)	%	
	All cancer causes of death	18,053	100.0	93.4
1	Trachea, bronchus and lung cancers	3,348	18.5	17.0
2	Liver and intrahepatic bile duct	2,672	14.8	13.4
3	Colon, rectal and anal cancers	2,475	13.7	12.2
4	Breast cancer (female)	2,141	11.9	12.0
5	Stomach cancer	868	4.8	4.3
6	Pancreatic cancer	862	4.8	4.4
7	Cervical and unspecified uterine	661	3.7	3.5
8	Ovarian cancer	529	2.9	3.0
9	Non-Hodgkin lymphomas	473	2.6	2.5
10	Leukemia	429	2.4	2.4

Based on death rates, the top 10 causes of death from cancer among women in 2015 were 1. tracheal, bronchial, and lung cancer; 2. liver cancer and intrahepatic cholangiocarcinoma; 3. colon, rectal, and anal cancer; 4. breast cancer (female); 5. stomach cancer; 6. pancreatic cancer; 7. cervical cancer and uterine cancer of unspecified sites; 8. ovarian cancer; 9. non-Hodgkin's lymphoma; and 10. leukemia. The top 10 causes of death from cancer among women accounted for 80.1% of all cancer deaths among women.

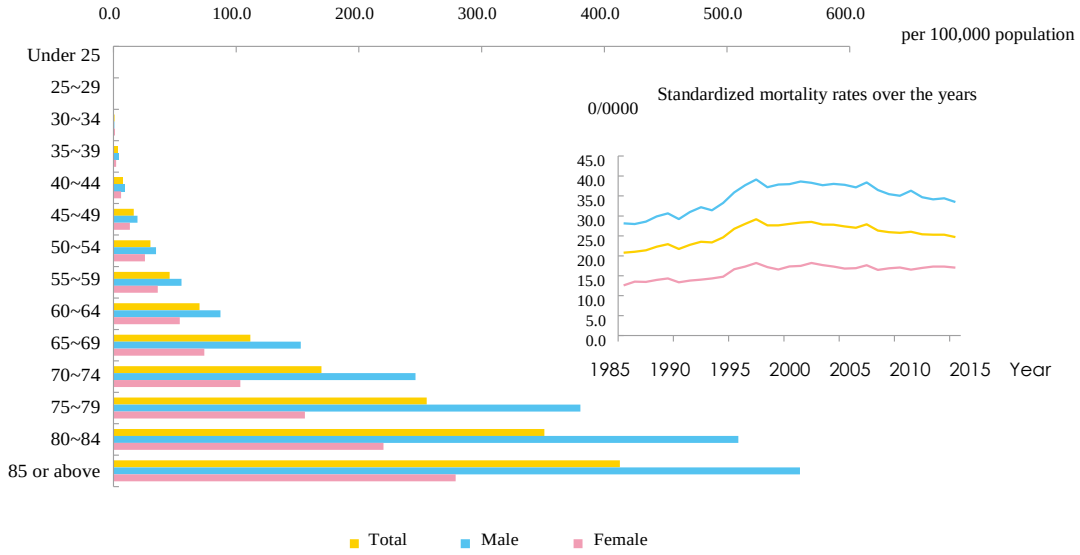
Lung cancer and liver cancer were also the top two causes of death from cancer among women. However, the standardized death rates were lower than those of men. In comparison to 2005, the standardized death rates of pancreatic cancer, ovarian cancer, breast cancer (female), and tracheal, bronchial, and lung cancer increased. The others declined, with a decline of 66.4% in non-Hodgkin's lymphoma being the most significant.

4. Leading Causes of Cancer Death

(1) Trachea, Bronchus and Lung Cancers

Over the past 10 years, the standardized death rate from tracheal, bronchial, and lung cancer among men has been approximately 2 times that of women.

Mortality rates of trachea, bronchus and lung cancers by age in 2015



Death tolls and standardized mortality rates of trachea, bronchus and lung cancers in the recent decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	7,302	27.4	5,083	37.8	2,219	16.8
2006	7,479	27.0	5,149	37.2	2,330	16.9
2007	7,993	27.9	5,458	38.4	2,535	17.6
2008	7,777	26.3	5,306	36.5	2,471	16.5
2009	7,951	25.9	5,336	35.5	2,615	16.9
2010	8,194	25.8	5,412	35.1	2,782	17.1
2011	8,541	26.0	5,740	36.3	2,801	16.5
2012	8,587	25.4	5,628	34.7	2,959	17.0
2013	8,854	25.3	5,713	34.2	3,141	17.3
2014	9,167	25.3	5,893	34.4	3,274	17.3
2015	9,232	24.7	5,884	33.5	3,348	17.0
2015 vs. 2005 increase/decrease %	26.4	-9.8	15.8	-11.4	50.9	1.2

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

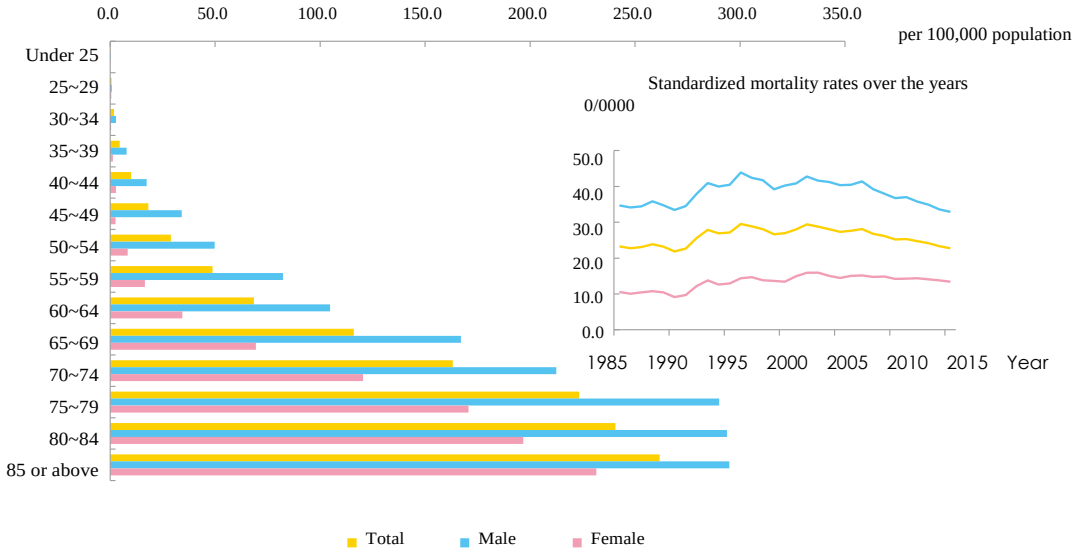
Lung cancer was the top cause of cancer death for Taiwanese in 2015, with the death tolls totaling 9,232, and the standardized mortality rate being 24.7 per 100,000 population, representing a drop of 9.8% compared with the figure in 2005; the rate for males was 33.5 per 100,000 population and that for females was 17.0. The rate for males was 2.0 times that for females.

Looking at the age distribution, the death rate increased with age. Over the age of 65 years, the death rate of men in every age group was at least 2 times that of women.

(2) Liver and Intrahepatic Bile Duct Cancers

The standardized mortality rate of liver cancer shows a downward trend in the recent decade.

Mortality Rates of Liver and Intrahepatic Bile Duct Cancers by Age in 2015



Death tolls and standardized mortality rates of liver and intrahepatic bile duct cancers in the recent decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	7,108	27.3	5,221	40.4	1,887	14.4
2006	7,415	27.6	5,383	40.5	2,032	15.0
2007	7,809	28.1	5,650	41.4	2,159	15.2
2008	7,651	26.8	5,483	39.3	2,168	14.7
2009	7,759	26.2	5,467	38.0	2,292	14.9
2010	7,744	25.2	5,454	36.8	2,290	14.2
2011	8,022	25.3	5,633	37.0	2,389	14.3
2012	8,116	24.7	5,596	35.8	2,520	14.4
2013	8,217	24.2	5,649	34.9	2,568	14.1
2014	8,178	23.3	5,554	33.6	2,624	13.8
2015	8,258	22.8	5,586	32.9	2,672	13.4
2015 vs. 2005 increase/decrease %	16.2	-16.5	7.0	-18.5	41.6	-7.1

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

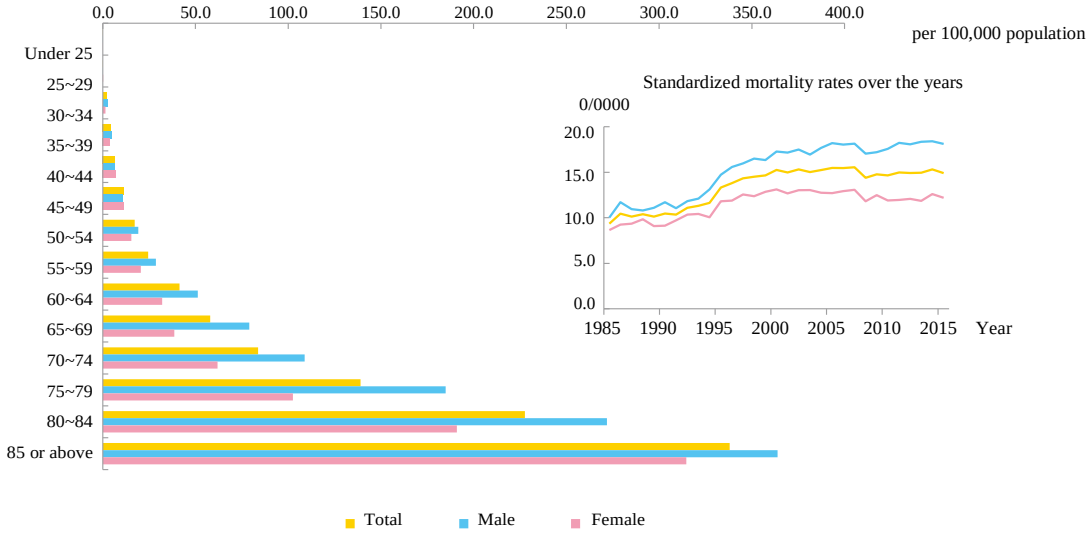
Liver cancer was the second leading cause of cancer death for Taiwanese in 2015, with the death tolls totaling 8,258, and the standardized mortality rate being 22.8 per 100,000 population, representing a drop of 16.5% compared with the figure in 2005; the rate for males was 32.9 per 100,000 population and that for females was 13.4. The rate for males was 2.5 times that for females.

Observing from the perspective of age structure, the mortality rate for males is higher than that for females in all age groups above 30. This is particularly significant in the young and middle-aged population between 25 and 64 years, where the mortality rate for males is more than 3 times that for females.

(3) Colon, Rectal and Anal Cancers

The standardized death rate from colon, rectal, and anal cancer has declined versus 10 years ago.

Mortality Rates of Colon, Rectal and Anal Cancers by Age in 2015



Death Tolls and Standardized Mortality Rates of Colon, Rectal and Anal Cancers in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	4,111	15.5	2,425	18.2	1,686	12.7
2006	4,284	15.5	2,485	18.0	1,799	12.9
2007	4,470	15.6	2,558	18.1	1,912	13.1
2008	4,266	14.4	2,480	17.0	1,786	11.8
2009	4,531	14.8	2,562	17.2	1,969	12.5
2010	4,676	14.6	2,719	17.6	1,957	11.9
2011	4,921	15.0	2,875	18.2	2,046	11.9
2012	5,131	14.9	2,956	18.1	2,175	12.1
2013	5,265	14.9	3,069	18.3	2,196	11.9
2014	5,603	15.3	3,158	18.4	2,445	12.6
2015	5,687	14.9	3,212	18.1	2,475	12.2
2015 vs. 2005 increase/decrease %	38.3	-3.7	32.5	-0.6	46.8	-3.9

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

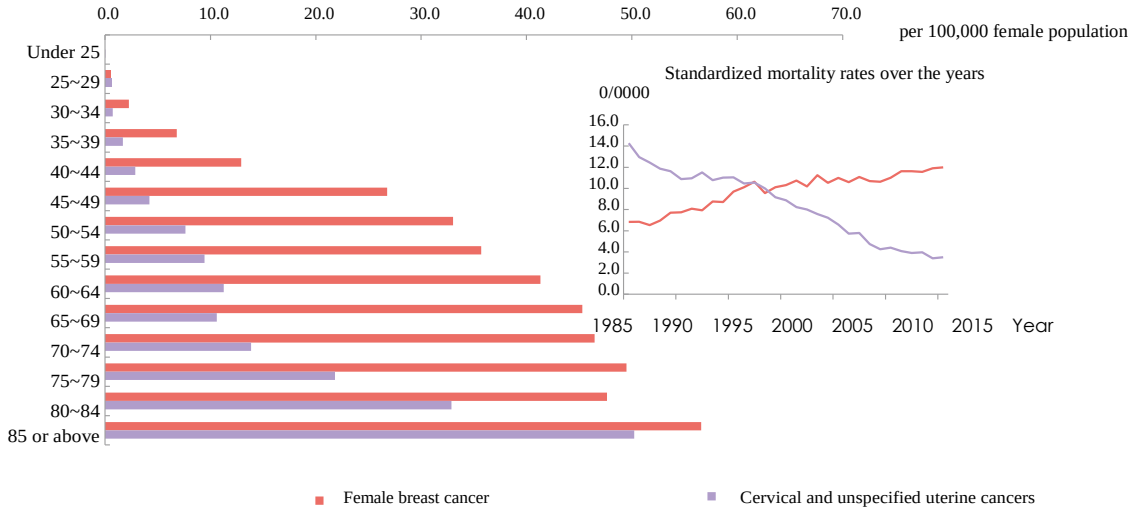
Colon, rectal, and anal cancer was the 3rd leading cause of cancer death among Taiwanese in 2015, leading to the deaths of 5,687 people. The standardized death rate was 14.9 per 100,000 people, a decline of 3.7% versus 2005. This was 18.1 per 100,000 people among men, a decline of 0.6% versus 2005, and 12.2 per 100,000 people among women, a decline of 3.9% versus 2005.

Looking at the age distribution, death rates increase progressively with age. With the exception of those aged 40 to 49 years, where the death rate of women is higher than that of men, the death rate of men is higher than that of women at all other ages.

(4) Breast cancer (female) and Cervical and Unspecified Uterine Cancers

The standardized mortality rate of breast cancer for females continues to rise, whereas that of cervical cancer continues to drop.

Mortality Rates of Breast cancer (female) and Cervical and Unspecified Uterine Cancers by Age in 2015



Death Tolls and Standardized Mortality Rates of Breast cancer (female) and Cervical and Unspecified Uterine Cancers in the Recent Decade

Unit: person, per 100,000 female population

Year	Female breast cancer		Cervical and unspecified uterine cancer	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	1,439	11.0	874	6.6
2006	1,439	10.6	792	5.7
2007	1,552	11.1	833	5.8
2008	1,541	10.7	710	4.7
2009	1,589	10.6	657	4.2
2010	1,706	11.0	704	4.4
2011	1,852	11.6	681	4.1
2012	1,912	11.6	669	3.9
2013	1,962	11.6	702	4.0
2014	2,071	11.9	640	3.4
2015	2,141	12.0	661	3.5
2015 vs. 2005 increase/decrease %	48.8	9.3	-24.4	-46.9

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

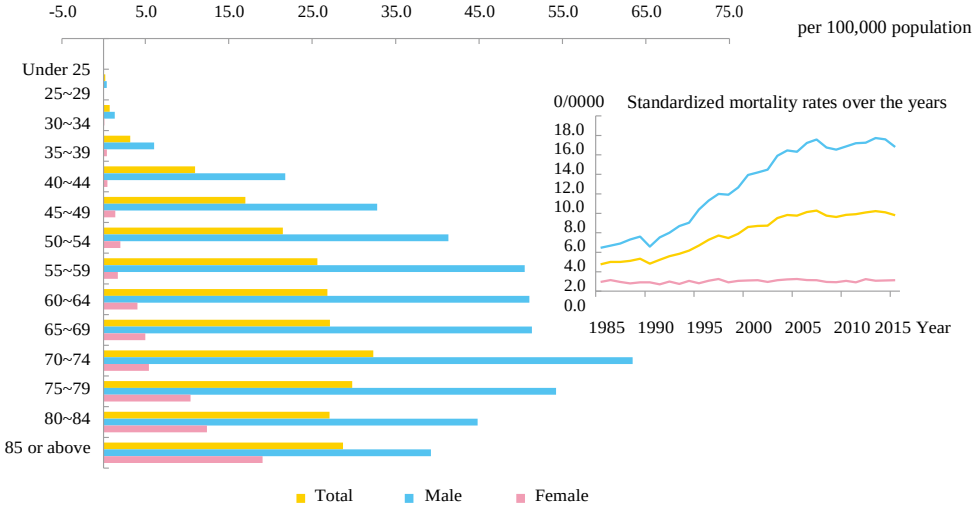
Over the years, the standardized death rate from breast cancer (female) has trended upward, whereas cervical cancer has trended downward. In 2015, 2,141 women died from breast cancer (female). The standardized death rate was 12.0 per 100,000 people, an increase of 9.3% versus 2005. 661 women died from cervical cancer. The standardized death rate was 3.5 per 100,000 people, a decline of 46.9% versus 2005. These two cancers ranked fourth and seventh among the leading causes of death from cancer among women.

Observing from the perspective of age structure, those who died of breast cancer (female) are mostly middle-aged women (45-69 years), who account for 65.8% of the deaths in this category; those who died of cervical cancer are mostly middle-aged and elderly women over 50 years or above, who account for 85.6% of the deaths in this category.

(5) Oral Cavity Cancer

Over 90% of those who died of oral cavity cancer are males.

Mortality Rates of Oral Cavity Cancer by Age in 2015



Death Tolls and Standardized Mortality Rates of Oral Cavity Cancer in the Recent Decade

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	2,041	7.8	1,874	14.3	167	1.3
2006	2,202	8.1	2,044	15.2	158	1.2
2007	2,312	8.3	2,152	15.6	160	1.1
2008	2,218	7.8	2,079	14.8	139	0.9
2009	2,249	7.6	2,103	14.6	146	0.9
2010	2,370	7.8	2,198	14.9	172	1.1
2011	2,463	7.9	2,308	15.2	155	0.9
2012	2,566	8.1	2,359	15.3	207	1.2
2013	2,694	8.2	2,505	15.7	189	1.1
2014	2,717	8.1	2,503	15.6	214	1.1
2015	2,667	7.8	2,445	14.8	222	1.1
2015 vs. 2005 increase/decrease %	30.7	0.4	30.5	3.3	32.9	-9.6

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

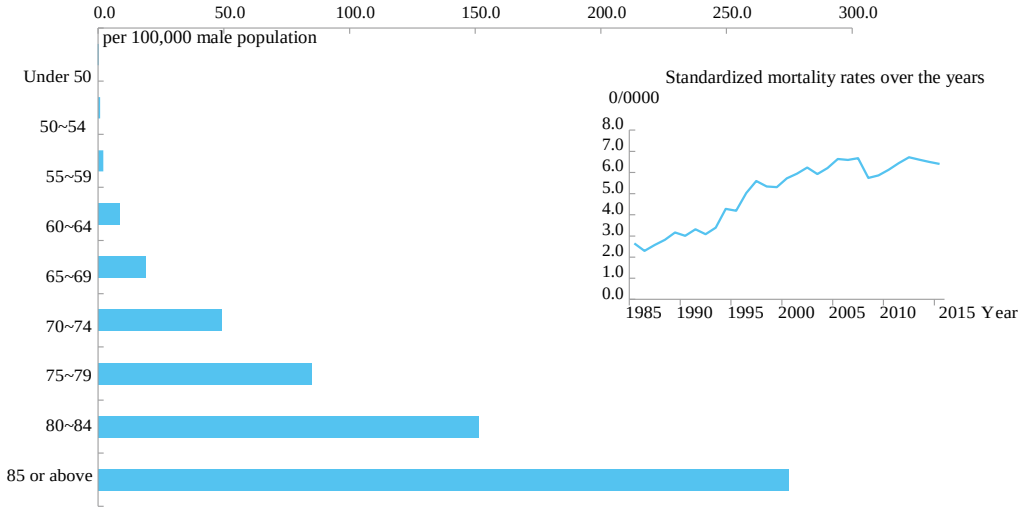
Oral cavity cancer is the fifth leading cause of cancer death for Taiwanese in 2015, with the death tolls totaling 2,667 and the standardized mortality rate being 7.8 per 100,000 population, representing an increase of 0.4% compared with the figure in 2005; the rate for males was 14.8 per 100,000 population and that for females was 1.1. The rate for males was 13.5 times that for females, and males accounted for over 90% of the deaths.

Observing from the perspective of age structure, the mortality rate of oral cavity cancer for males soars considerably from age 40 onwards and peaks at age 55-79, while the mortality rate for females increases slowly with age. The mortality rate for males is more than 10 times that for females in all age groups between 35 and 69 years. Gender difference is significant.

(6) Prostate Cancer

Prostate cancer is found mostly among the elderly population.

Mortality Rates of Prostate Cancer by Age in 2015



Death Tolls and Standardized Mortality Rates of Prostate Cancer in the Recent Decade

Unit: person, per 100,000 male population

Year	Death toll	Standardized mortality rate
2005	909	6.6
2006	957	6.6
2007	1,003	6.7
2008	892	5.7
2009	936	5.9
2010	1,021	6.1
2011	1,096	6.4
2012	1,187	6.7
2013	1,207	6.6
2014	1,218	6.5
2015	1,231	6.4
2015 vs. 2005 increase/decrease %	35.4	-3.5

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

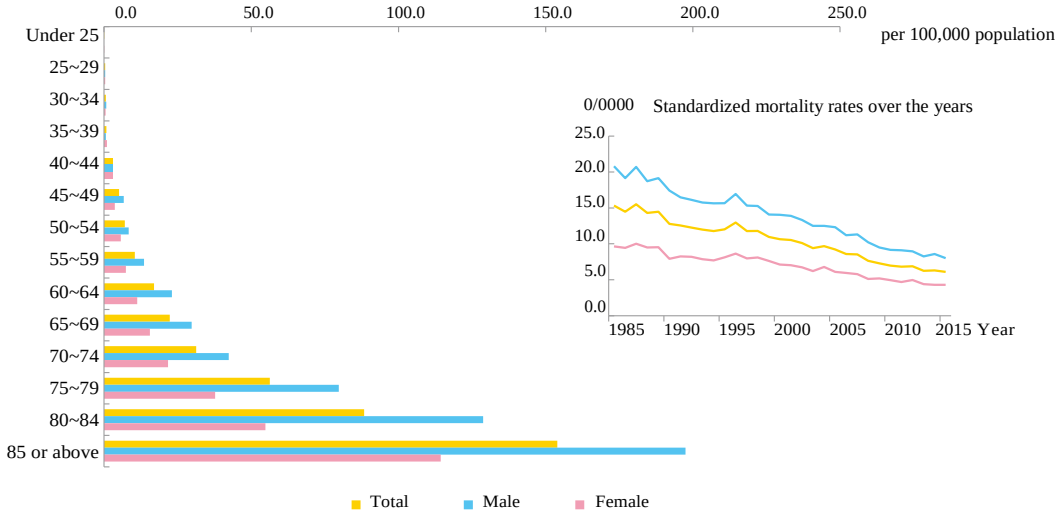
Prostate cancer ranked 6th among the leading causes of death from death in men in 2015, leading to the deaths of 1,231 people. The standardized death rate was 6.4 per 100,000 people, a decline of 3.5% versus 2005.

Looking at the age distribution, deaths from prostate cancer were mainly distributed among those over the age of 55 years. Deaths among those over the age 75 years accounted for 73.4% of deaths from prostate cancer.

(7) Stomach Cancer

The standardized mortality rate of stomach cancer shows a downward trend over the long run.

Mortality Rates of Stomach Cancer by Age in 2015



Death Tolls and Standardized Mortality Rates of Stomach Cancer in The Recent

Unit: person, per 100,000 population

Year	Total		Male		Female	
	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate	Death toll	Standardized mortality rate
2005	2,490	9.2	1,671	12.3	819	6.1
2006	2,398	8.6	1,571	11.2	827	6.0
2007	2,474	8.5	1,631	11.3	843	5.8
2008	2,292	7.6	1,516	10.2	776	5.1
2009	2,282	7.3	1,457	9.5	825	5.2
2010	2,261	7.0	1,446	9.2	815	4.9
2011	2,288	6.8	1,482	9.1	806	4.7
2012	2,386	6.9	1,502	9.0	884	5.0
2013	2,241	6.2	1,420	8.3	821	4.4
2014	2,350	6.3	1,536	8.6	814	4.3
2015	2,326	6.1	1,458	8.0	868	4.3
2015 vs. 2005 increase/decrease %	-6.6	-33.9	-12.7	-35.1	6.0	-29.6

Notes: 1. Standardized mortality rates are based on the age structure of the WHO 2000 world population.

2. Classification of causes of death was based on ICD9 before 2007 and has been based on ICD10 since 2008.

Stomach cancer ranked 7th among the leading causes of death from cancer in Taiwanese in 2015, leading to the deaths of 2,326 people. The standardized death rate was 6.1 per 100,000 people, a decline of 33.9% in comparison to 2005. Among men and women, the death rates were 8.0 and 4.3 per 100,000 people, respectively. The male death rate was 1.9 times the female death rate.

Looking at the age distribution, the deaths were mainly distributed among elderly over the age of 65 years, who accounted for 67.9% of the total. Over the age of 45 years, the death rate of men was higher than that of women at every age.

5. Median Age of Death

(1) Median Age of Death by Main Cause of Death

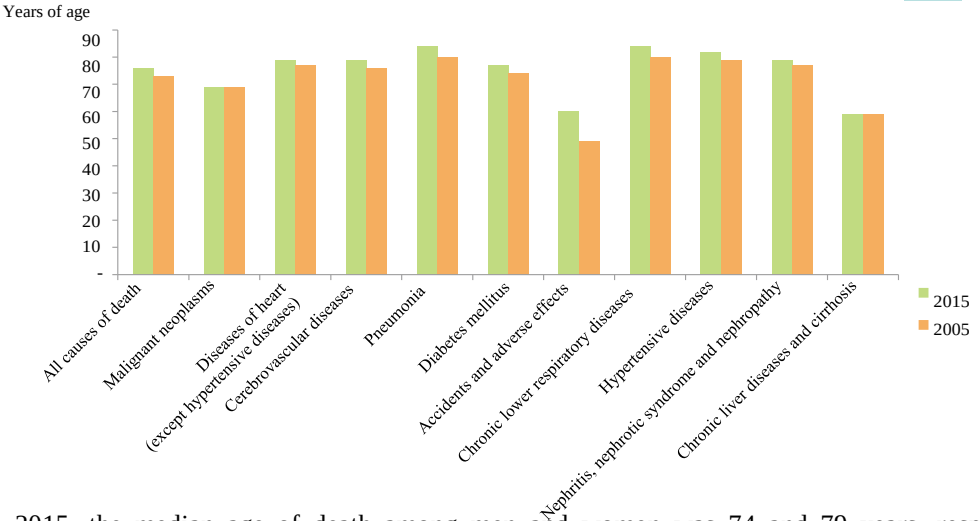
The median age of death among Taiwanese has trended upward. This is most significant among deaths by accidents and adverse effects.

Median Age of Death by Main Cause of Death

Unit: Years of age

	2015			Increase/decrease compared with a decade ago		
	Total	Male	Female	Total	Male	Female
All causes of death	76	74	79	3	3	4
Malignant neoplasms	69	68	71	-	-1	2
Diseases of heart (except hypertensive diseases)	79	75	83	2	-	3
Cerebrovascular diseases	79	77	82	3	3	4
Pneumonia	84	84	86	4	5	3
Diabetes mellitus	77	74	80	3	2	4
Accidents and adverse effects	60	57	67	11	10	12
Chronic lower respiratory diseases	84	83	85	4	4	3
Hypertensive diseases	82	79	84	3	2	3
Nephritis, nephrotic syndrome and nephropathy	79	78	81	2	1	3
Chronic liver diseases and cirrhosis	59	55	73	-	2	2

Median Age of Death by Main Cause of Death in 2015 and 2005



In 2015, the median age of death among men and women was 74 and 79 years, respectively. This increased by 3 and 4 years versus 2005, respectively. Looking at main causes of death, the lowest age among men was 55 years for chronic liver disease and cirrhosis, following by 57 years for accidents and adverse effects and 68 years for malignant neoplasms. The lowest age among women was 67 years for accidents and adverse effects, followed by 71 years for malignant neoplasms and 73 years for chronic liver disease and cirrhosis.

In comparison to 2005, with the exception of the median age for death from malignant neoplasms and chronic liver disease and cirrhosis, which did not change, the median age of death for the other causes of death grew. This was most significant for accidents and adverse effects, where it rose by 11 years. This is related to the effectiveness of long-term prevention as well as the decrease in death rates from accidental injury in adolescents.

(2) Median Age of Death for the Main Causes of Cancer Death

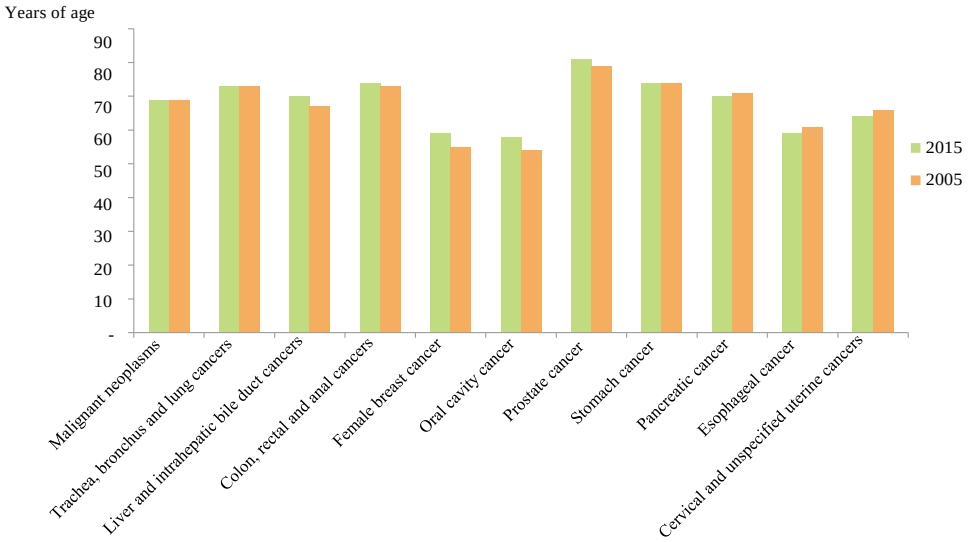
Over the past 10 years, the median age of death from cancer among men has decreased by 1 year, whereas that of women has grown by 2 years.

Unit: Years of age

Median Age of Death for the Main Causes of Cancer Death

	2015			Increase/decrease compared with a decade ago		
	Total	Male	Female	Total	Male	Female
Malignant neoplasms	69	68	71	-	-1	2
Trachea, bronchus and lung cancers	73	73	71	-	-	-
Liver and intrahepatic bile duct cancers	70	66	75	3	2	4
Colon, rectal and anal cancers	74	73	75	1	-	3
Breast cancer (female)	59	…	59	4	…	4
Oral cavity cancer	58	58	70	4	4	…
Prostate cancer	81	81	…	2	2	…
Stomach cancer	74	75	74	-	-	2
Pancreatic cancer	70	68	73	-1	-2	1
Esophageal cancer	59	59	68	-2	-1	…
Cervical and unspecified uterine cancers	64	…	64	-2	…	-2

Median Age of Death for the Main Causes of Cancer Death in 2015 and 2005



The median age of death from cancer in 2015 was 69 years, remaining stable since 2005. The median age of death from cancer among men and women was 68 and 71 years, respectively. The median age for men declined by 1 year versus 2005, whereas that of women declined by 2 years.

In comparison to 2005, pancreatic cancer, esophageal cancer, and cervical cancer have trended downward, whereas lung cancer and stomach cancer have remained stable. The median ages of death of the other cancers have all increased.

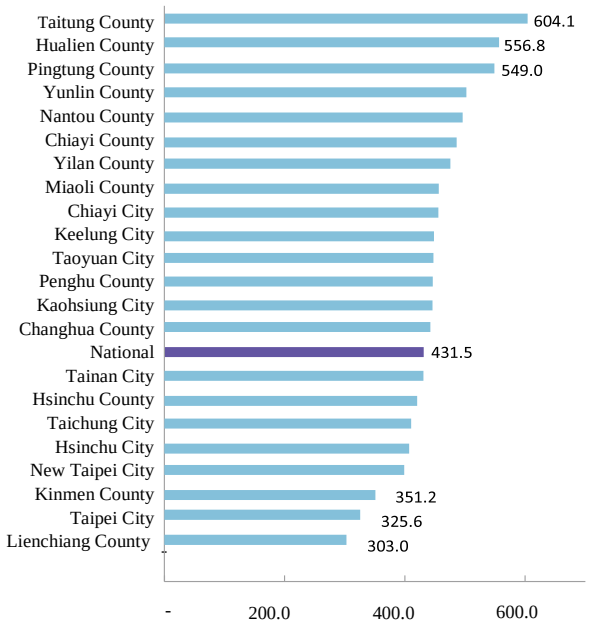
Looking at sex, the lowest median age of death among men in 2015 was for oral cancer, whereas that of women was for breast cancer. Both were 60 years. In comparison to 2005, the median age of death from pancreatic cancer and esophageal cancer among men and esophageal cancer and cervical cancer among women declined. The median age of death from oral cancer among men increased by 4 years versus 2005. The median age of death from liver cancer, breast cancer, and oral cancer among women also increased by 4 years versus 2005.

6. Standardized Mortality Rates by County/City

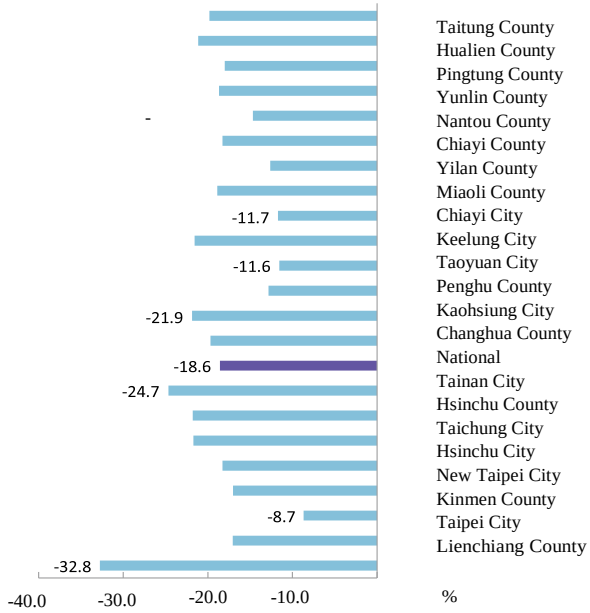
(1) Standardized Mortality Rates of All Causes of Death

Among counties and cities, Taitung County had the highest standard death rate and Lienchiang County had the lowest.

Standardized Mortality Rates by County/City



Increase/Decrease of Standardized Mortality Rates in a Decade by County/City (%)



Note: Standardized mortality rates are based on the age structure of the WHO 2000 world population.

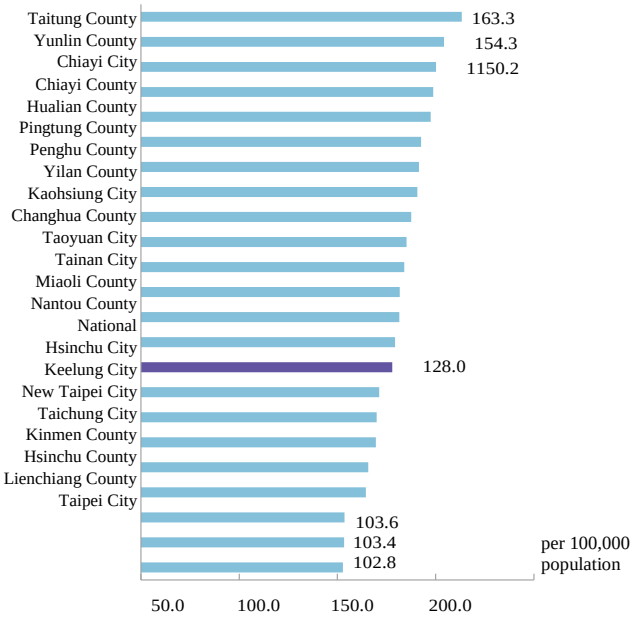
The national standardized death rate in 2015 was 431.5 per 100,000 people. 14 counties and cities were higher than the national average, with Taitung County having the highest at 604.1 per 100,000 people, followed by Hualien County with 556.8 and Pingtung County with 549.0 per 100,000 people. 8 counties and cities were lower than the national average, with Lienchiang County having the lowest at 303.0 per 100,000 people, following by Taipei City at 325.6 and Kinmen County with 351.2 per 100,000 people.

Over the past 10 years, the national standardized death rate has dropped by 18.6%. Looking at this by county/city, the standardized death rate was lower versus 10 years ago in every county and city. 11 counties and cities saw decreases higher than the national decrease. The largest decrease was Lienchiang County at -32.8%, followed by Tainan City at -24.7% and Kaohsiung City at -21.9%. 11 counties and cities saw decreases lower than the national decrease. The lowest decrease was Kinmen County at -8.7%, following by Taoyuan City at -11.6% and Chiayi City at -11.7%.

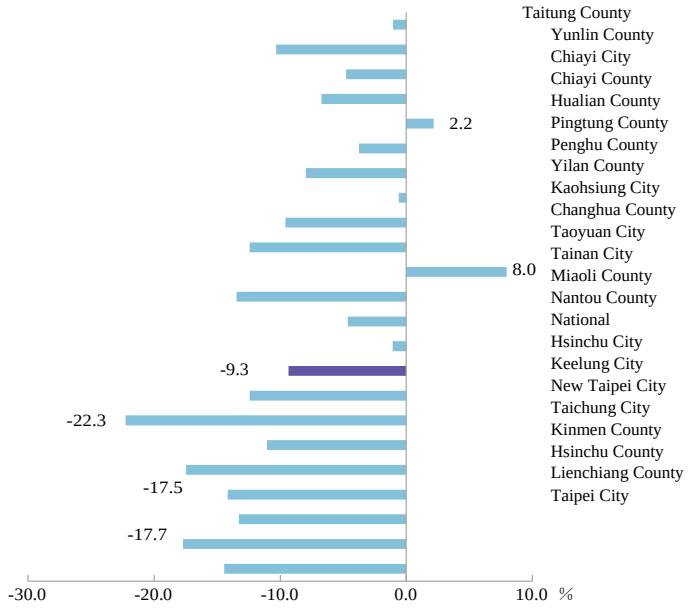
(2) Standardized Mortality Rates Associated with Cancers

Taitung County has the highest and Taipei County the lowest standardized mortality rate.

Standardized Mortality Rates Associated with Cancers by County/City



Increase/Decrease of Standardized Mortality Rates Associated with Cancers in a Decade by County/City (%)



The national standardized rate of death from cancer in 2015 was 128.0 per 100,000 people. Looking at this by county/city, 14 counties and cities were higher than the national average. The highest rate was Taitung County at 163.3 per 100,000 people, followed by Yunlin County at 154.3 and Chiayi City at 150.2 per 100,000 people. 8 counties and cities were lower than the national average. The lowest rate was Taipei City at 102.8 per 100,000 people, followed by Lienchiang County at 103.4 and Hsinchu County at 103.6 per 100,000 people.

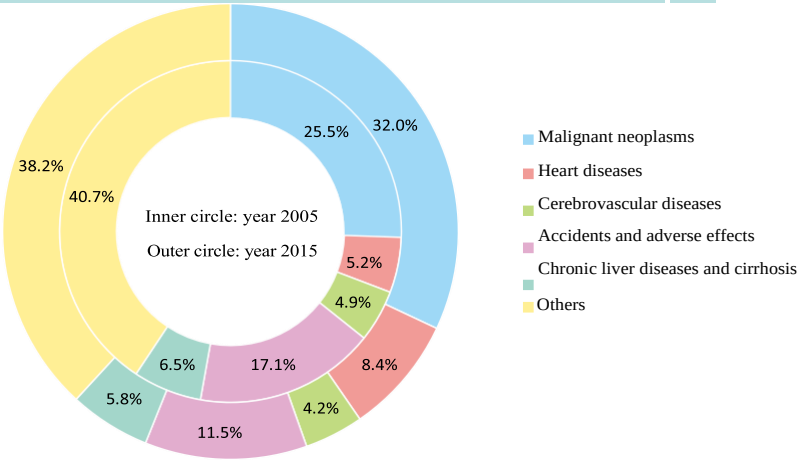
Over the past 10 years, the national standardized death rate has declined by 9.3%. Looking at this by county/city, 12 counties and cities saw declines greater than the national decline. The greatest decrease was Keelung City at -22.3%, followed by Lienchiang County at -17.7% and Taichung City at -17.5%. 2 counties/cities saw increases versus 10 years ago; these were Taoyuan City at 8.0% and Hualien County at 2.2%.

7. Years of Potential Life Lost

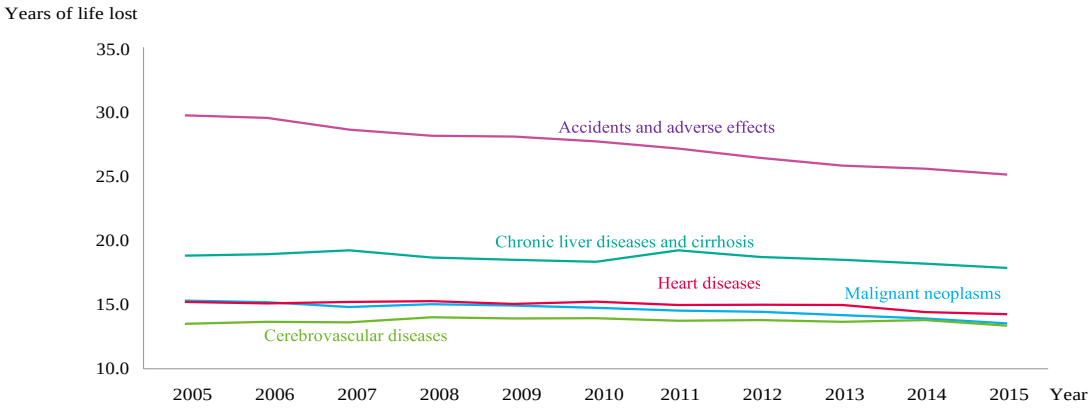
(1) Average Years of Life Lost by Main Causes of Death

Over the past few years, the average number of years of life lost among those who died under the age of 70 years has decreased.

Number of Potential Years of Life Lost by Main Causes of Death Among Those Under the Age of 70 Years



Average Years of Life Lost by Main Causes of Death Among Those Under the Age of 70 Years



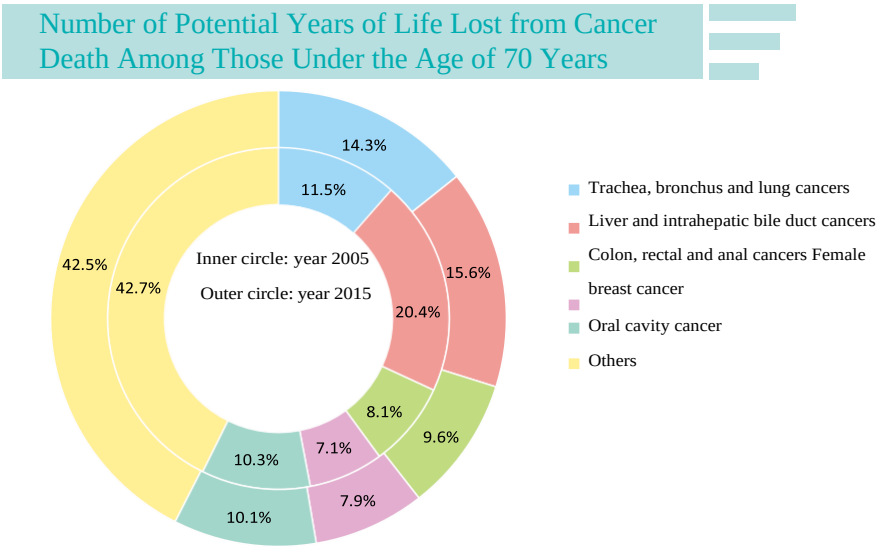
Potential years of life lost is a statistical indicator used to quantify premature death. Potential years of life lost for those under the age of 70 years refers to the total number of years of life lost by death among those under the age of 70 years. Average years of life lost refers to the average years of life lost for each death under the age of 70 years.

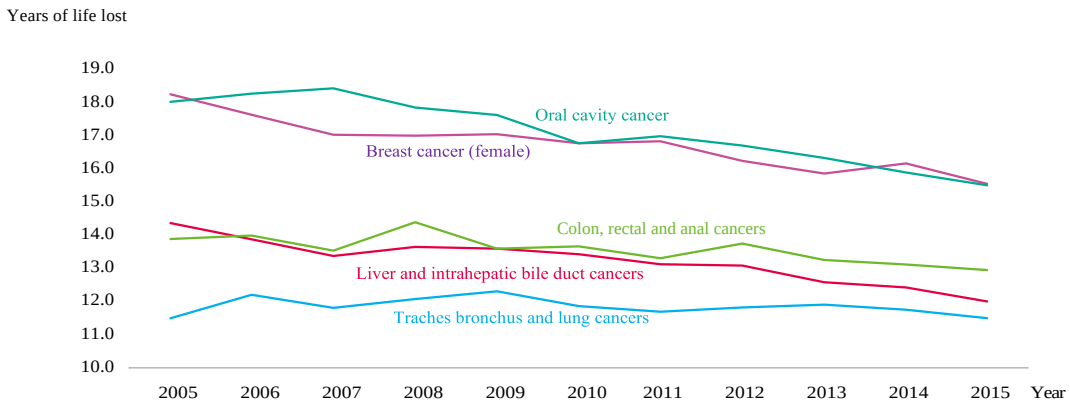
Looking at the main causes of death in 2015, malignant neoplasms accounted for the highest percentage of potential years of life lost, 32.0%, followed by accidents and adverse effects at 11.5% and heart disease at 8.4%. In comparison to 2005, malignant neoplasms grew by 6.5%, heart disease grew by 3.2%, and accidental injury decreased by 5.6%.

In 2015, the average number of years of life lost from death under the age of 70 was 16.3 years, a decrease of 2.9 years versus 2005. Looking at the main causes of death, the average number of years of life lost from accidents and adverse effects was the highest was 25.1 years, followed by chronic liver disease and cirrhosis at 17.8 years. In comparison to 2005, the average years of life lost from the main causes of death have tended to decrease. Accidents and adverse effects had the greatest decrease of 4.6 years.

(2) Average Number of Years of Life Lost by Main Causes of Cancer Death

In 2015, the average number of years of life lost from cancer death among those under the age of 70 years was highest in female breast cancer and oral cancer, both of which were 15.5 years.



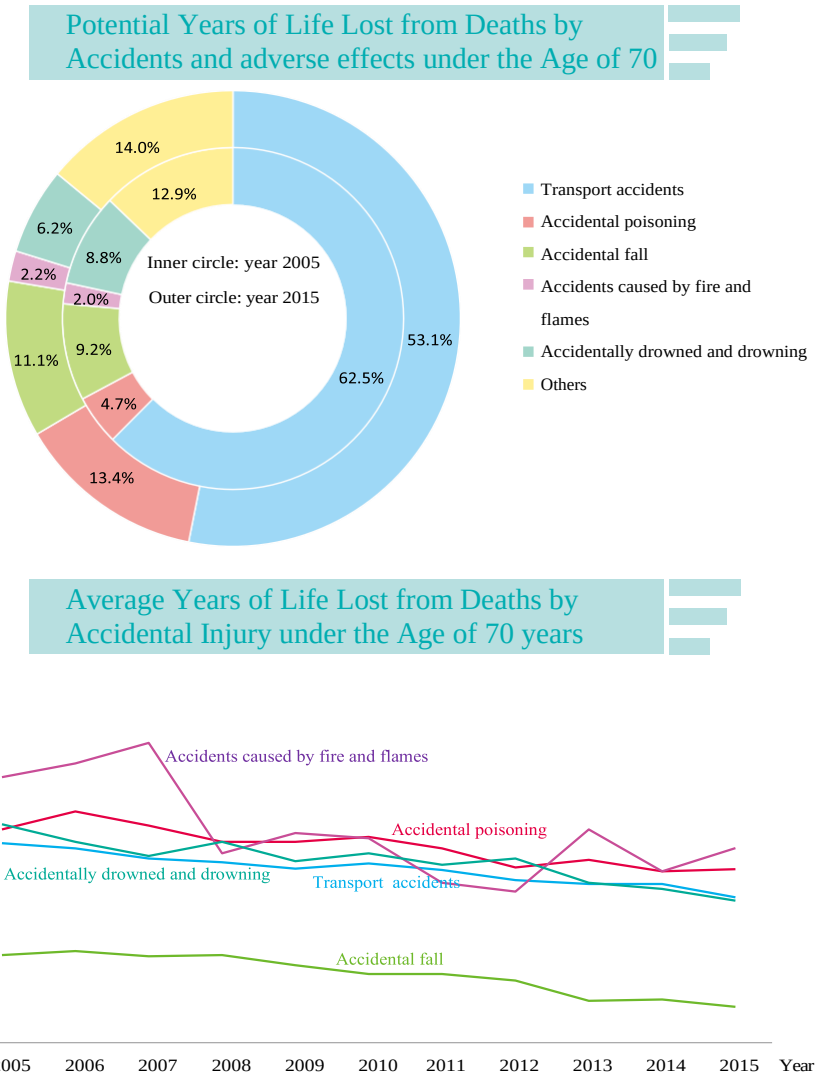


Looking at potential number of years lost from cancer death among those under the age of 70 years, in 2015, liver cancer accounted for the highest proportion at 15.6%, followed by lung cancer at 14.3%, oral cancer at 10.1%, colon and rectal cancer at 9.6%, and breast cancer (female) at 7.9%. In comparison to 2005, the potential number of years of life for liver cancer and intrahepatic cholangiocarcinoma decreased by 4.8%, that of oral cancer decreased by 0.2%, that of lung cancer increased by 2.8%, that of colon and rectal cancer increased by 1.5%, and that of female breast cancer increased by 0.8%.

In 2015, the average number of years of life lost from death by the main cancer deaths was 13.5 years, 1.8 years lower than 2005. Looking at the main causes of death, the highest total was 15.5 years for both breast cancer (female) and oral cancer. In comparison to 2005, with the exception of tracheal, bronchial, and lung cancer, which remained stable, the average life lost from the main cancers trended downward. The decreases for liver cancer and intrahepatic cholangiocarcinoma, colon, rectal, and anal cancer, breast cancer (female), and oral cancer were 2.3 years, 1.0 year, 2.7 years, and 2.5 years, respectively.

(3) Average Number of Years of Life Lost from Accidents and adverse effects

Among deaths from accidents and adverse effects in 2015, the average number of years of life lost from fires and flames was the highest at 30.3 years.



Looking at the number of potential years of life lost from deaths by accidents and adverse effects among those under the age of 70 years, in 2015, transport accidents accounted for the highest proportion at 53.1%, followed by accidental poisoning at 13.4% and accidental falls at 11.1%. In comparison to 2005, transport accidents decreased by 9.4%, accidental poisoning increased by 8.7%, and accidental falls increased by 1.9%.

In 2015, the average number of years of life lost by accidents and adverse effects under the age of 70 years was 25.1 years, a decline of 15.5% versus 2005. Looking at cause of death, the highest total was 30.3 years for fires and flames, followed by 28.7 years for accidental poisoning and 26.5 years for transport accidents. In comparison to 2005, the average number of years of life lost by accidents and adverse effects declined by 4.6 years overall. The average life lost also decreased for each cause of death. The majority of accidents and adverse effects are avoidable causes of death. Over the years, the average number of years of life lost in deaths caused by accidents and adverse effects has been higher than the overall national average. By strengthening accidents and adverse effects prevention, the loss of life among Taiwanese could be effectively reduced.

8. Definitions

(1) Age-specific mortality rate = Age-specific death tolls / mid-year population at that specific age×100,000
(2) Standardized mortality rate =
[Σ (age-specific mortality rate×reference set age-specific population)] / reference set total population
WHO standard populations in 2000 are taken as the standardized populations in this essay, and they are:

Age group	Standard population	Age group	Standard population
Total	100,000	40-44	6,600
0	1,800	45-49	6,000
1-4	7,000	50-54	5,400
5-9	8,700	55-59	4,600
10-14	8,600	60-64	3,700
15-19	8,500	65-69	3,000
20-24	8,200	70-74	2,200
25-29	7,900	75-79	1,500
30-34	7,600	80-84	900
35-39	7,200	85+	600

(3) Potential years of life lost under age 70 (PYLL) =Σ (70 – age at death) × death tolls
(4) Average years of life lost under age 70 (AYLL) = PYLL / death tolls
(5) Underlying cause of death
Cause of death written on the Death Certificate refers to the disease or morbid condition leading to death or related to death, the accident or violent environment, etc. that causes such harm. Underlying cause of death refers to (a) the disease or harm that may give rise to a series of diseases which cause death directly; (b) accidents or violent environments that cause fatal harms.

(6) Scope of leading causes of death

	ICD9	ICD10
Communicable diseases, pregnancy and perinatal conditions and malnutrition	001-139 (minus 038), 243, 260-269, 279.5, 280-281, 285.9, 320-323, 381-382, 460-465, 466, 480-487, 614-616, 630-676, 760-779	A00-B99 (minus A40-A41), G00-G04, N70-N73, J00-J06, J10-J18, J20-J22, H65-H66, O00-O99, P00-P96, E00-E02, E40-E46, E50, D50-D53, D64.9, E51-64
Non-communicable diseases	140-242, 244-259, 270-279 (minus 279.5), 282-285 (minus 285.9), 286-319, 324-380, 383-459, 470-478, 490-611, 617-629, 680-759	C00-C97, D00-D48, D55- D64 (minus D 64.9), D65-D89, E03-E07, E10-E16, E20-E34, E65-E88, F01-F99, G06-G98, H00-H61, H68-H93, I00-I99, J30-J98, K00-K92, N00-N64, N75-N98, L00-L98, M00-M99, Q00-Q99
Malignant neoplasms	140-208	C00-C97
Cardiovascular diseases	390-398, 410-414, 420-438	I01-I02, I05-I09, I20-I25, I27, I30-I52, I60-I69
Diabetes mellitus	250	E10-E14
Pneumonia	480-486	J12-J18
Accidents and adverse effects	E800-E949	V01-X59, Y85-Y86
Chronic lower respiratory diseases	490-494, 496	J40-J47
Chronic liver diseases and cirrhosis	571, 571A	K70, K73-K74
Nephritis, nephrotic syndrome and nephropathy	580-589	N00-N07, N17-N19, N25-N27
Intentional self-harm (suicide)	E950-E959	X60-X84, Y87.0
Hypertensive diseases	401-405	I10-I15
Trachea, bronchus and lung cancers	162	C33-C34
Liver and intrahepatic bile duct cancers	155	C22
Colon, rectal and anal cancers	153,154	C18-C21
Oral cavity cancer	140, 141, 143-146, 148, 149	C00-C06, C09-C10, C12-C14
Stomach cancer	151	C16
breast cancer (female)	174	C50
Cervical and unspecified uterine cancers	179,180	C53, C55
Prostate cancer	185	C61
Pancreatic cancer	157	C25
Esophageal cancer	150	C15