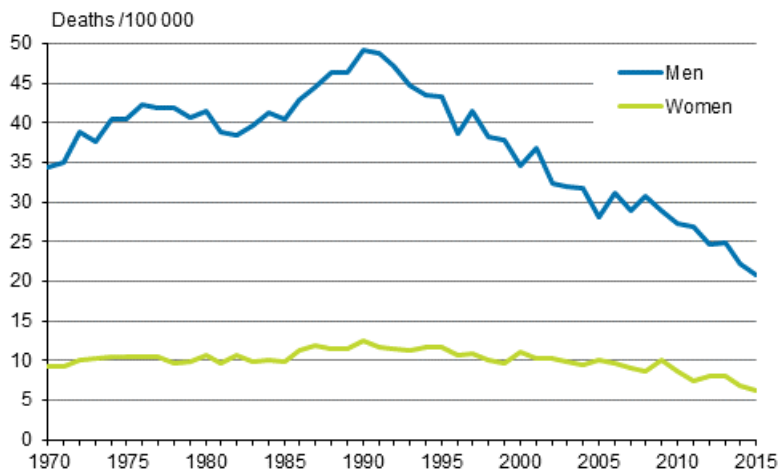


Causes of death in 2015

The number of suicides decreased further in 2015

According to Statistics Finland's statistics on causes of death, altogether 731 suicides were committed in Finland in 2015, which is around 60 fewer than in the year before. Suicide mortality has decreased by 40 per cent in fifteen years. Suicides have decreased most among men aged 35 to 44. However, men still committed clearly more suicides than women: of those who committed suicide, three out of four were men. Most suicides in relative terms were committed by men aged 45 to 54 and aged 75 or over.

Suicide mortality 1970 to 2015



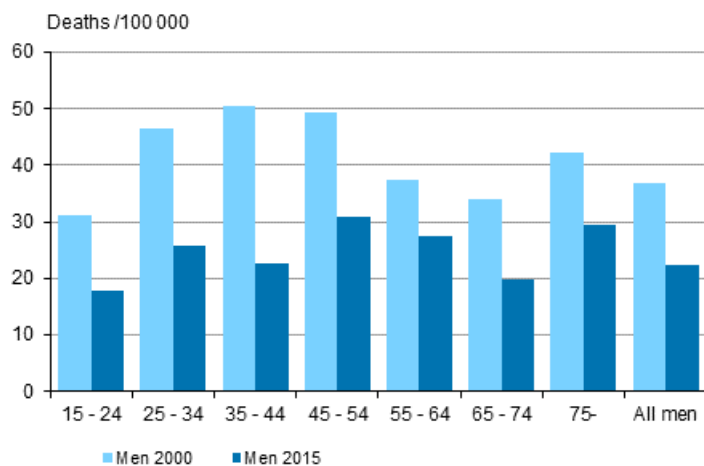
The number of suicides has decreased clearly from the top figures of 1990, when there were over 1,500 suicides in Finland. Since then, suicide mortality has decreased almost continuously according to statistics. In 2015, suicide mortality was 40 per cent lower than 15 years ago. However, nearly three times as many persons died of suicides than in traffic accidents. In 2015, among one hundred thousand Finns, 13 committed suicide (21 among men and six among women).

Most suicides in relative terms were committed by men aged 45 to 54 and aged 75 or over

The relative number of suicides has decreased since 2000 in all age groups. Among men, suicide mortality decreased most in the age group 35 to 44 and least in the age group 55 to 64. Differences between age

groups in suicide mortality have narrowed. In 2015, most suicides per 100,000 inhabitants were committed by men aged 45 to 54 and aged 75 or over. Among women, suicide mortality was highest in the age group 45 to 54 and lowest in the age group 15 to 24. The median average age of men who committed suicide was 48 years and of women 51 years.

Men's suicide mortality by age group in 2000 and 2015



In 2015, the share of suicides in all causes of death was only one per cent. However, suicides are a central cause of death for young people. One in three persons aged 20 to 29 that died had committed suicide and one in six of those aged 35 to 44. The share of suicides in causes of death for young people is high because other mortality among young people is low. One in ten of all those having committed a suicide was a young person aged under 25 and one in five was aged over 65.

Despite the downward trend in suicide mortality, Finland is still an exception among Nordic and western countries. According to Eurostat's statistics, the suicide mortality in Finland of the population aged under 65 was around 1.5 times higher than the EU average in 2013. By contrast, for persons aged 65 and over, suicide mortality in Finland did not differ from the EU average.

One in five of women and one in ten of men died from dementia

In 2015, altogether 52,300 persons died. The average age at death (median) was 85 years for women and 76 years for men. In 2015, thirty-seven per cent of all deaths were caused by diseases of the circulatory system and 24 per cent by neoplasms. The most common disease of the circulatory system was ischaemic heart disease, which caused around one-fifth of all deaths. The most common types of cancer leading to death for men were lung cancer and prostate cancer, and correspondingly for women breast cancer and lung cancer.

Altogether 8,600 persons died from dementia, including Alzheimer's disease, which represented 16 per cent of all deaths. The number of deaths caused by dementia has grown rapidly in the past decade partly due to the ageing of the population. One in five deaths among women and one in ten deaths among men were caused by dementia. More than double the amount of women die of dementia than the amount of men, which is mainly because women live longer than men. There are no clear differences in age-standardised dementia mortality among genders (Figure 5).

Number of persons that died from alcohol-related causes decreased from 2014

Close on 1,700 persons died of alcohol-related diseases and alcohol poisonings in 2015, which is nearly 200 lower than in the previous year. The share of alcohol-related causes in all deaths was three per cent. The majority of those dying of alcohol, three out of four, were men. Persons who died from alcohol-related causes are older than before. During the past ten years, mortality from alcohol among both men and women aged 65 or over has grown while in younger age groups it has decreased. The median average age of both men and women in alcohol-related causes of death was 61 years.

In 2015, nearly 2,200 persons died of accidents, being four per cent of deaths, when alcohol poisonings are included in alcohol-related deaths in the time series classification. The number of fatalities from accidents was 65 fewer than in the year before. The number of deaths from accidents has slowly and almost continuously fallen since 2004, when 2,600 persons died from accidents.

Causes of death 2015

54-group time series classification	Total	Males	Females	Total	Males	Females
	Number	Number	Number	%	%	%
27–30 Diseases of the circulatory system	19 365	9 471	9 894	37	37	37
04–22 Neoplasms	12 481	6 623	5 858	24	26	22
25 Dementia, Alzheimer's disease	8 580	2 717	5 863	16	10	22
42–49 Accidents	2 161	1 354	807	4	5	3
41 Alcohol related diseases and accidental poisoning by alcohol	1 666	1 288	378	3	5	1
31–35 Disease of the respiratory system	1 940	1 158	782	4	4	3
50 Suicides	731	558	173	1	2	1
Other causes of death	5 378	2 725	2 663	10	10	10
01–54 Deaths total	52 302	25 884	26 418	100	100	100

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1. Causes of death in 2015

In 2015, in all 52,300 persons died, of which 25,900 were men and 26,400 women. The longer life expectancy is visible in the age distribution of deaths. People are dying at an ever older age: two in three were aged over 75 and more than one in three were over 85. Four hundred of dead persons were aged 100 or over. The average age at death (median) was 85 years for women and 76 years for men while ten years ago the average ages were 82 and 73 years.

Due to the age structure of persons who died, the typical causes of death of older age groups dominate the causes of death distribution of the entire population. In 2015, thirty-seven per cent of deaths of Finns were caused by diseases of the circulatory system and 24 per cent by neoplasms. The most common disease of the circulatory system was ischaemic heart disease, which caused around one-fifth of all deaths. The most common types of cancer leading to death for men were lung cancer and prostate cancer, and correspondingly for women breast cancer and lung cancer.

Altogether 8,600 persons died from dementia, including Alzheimer's disease, which represented 16 per cent of all deaths. The number of deaths caused by dementia has grown rapidly in the past decade partly due to the ageing of the population. One in five deaths among women and one in ten deaths among men were caused by dementia. More than double the amount of women die of dementia than the amount of men, which is mainly because women live longer than men. There are no clear differences in age-standardised dementia mortality among genders (Figure 5).

Fewer deaths of alcohol-related causes and suicides than in the year before

Close on 1,700 persons died of alcohol-related diseases and alcohol poisonings in 2015, which is nearly 200 lower than in the previous year. The share of alcohol-related causes in all deaths was three per cent. The majority (three out of four) of those dying of alcohol were men. During the past ten years, mortality from alcohol among both men and women aged 65 or over has grown while, correspondingly, in younger age groups mortality from alcohol has decreased. Persons who die from alcohol-related reasons are getting older: the median average age at death was 61 years for both men and women.

In 2015, suicides were committed by 731 persons, which is around 60 fewer than in the year before. The number of suicides was at its highest in 1990, when there were over 1,500 suicides in Finland. Since then, suicide mortality has decreased almost continuously (Figure 10). In 2015, suicide mortality was nearly 30 per cent lower than ten years ago. The median average age of men who committed suicide was 48 years and of women 51 years. One in ten of all those having committed a suicide was aged under 25 and one in five was aged over 65.

In 2015, nearly 2,200 persons died of accidents, being four per cent of deaths, when alcohol poisonings are included in alcohol-related deaths in the time series classification. The number of fatalities from accidents was 65 fewer than in the year before. The number of deaths from accidents has slowly and almost continuously fallen since 2004, when 2,600 persons died from accidents.

Nearly one-half of working-age women died of neoplasms

In Finland, ever fewer working-age persons are dying annually (aged 15 to 64). In 2015, altogether 8,200 of them died, which was 16 per cent of all deaths. The number of deaths among working-age persons declined by nearly 500 persons. The age-standardised mortality of working-age people has diminished in ten years by around one-quarter.

One in five of the men that died in 2015 were of working-age and one in ten of women. The mortality of working-age men is still more than double compared to women, even though the mortality of men has diminished slightly faster than that of women, which has decreased the difference in mortality between genders.

Working-age people died most from neoplasms and from diseases of the circulatory system. More than one-half of deceased working-age people died of these two causes. As many as 45 per cent of working age women died from neoplasms. Diseases of the circulatory system have decreased in relative terms for

women: their share of deaths was only 15 per cent in 2015, while twenty years ago the share was nearly one-quarter. For working-age men the importance of diseases of the circulatory system in causes of death is still higher than that of neoplasms. The most common type of cancer resulting in death among women was breast cancer, which caused the death of nearly every tenth working-age woman. For working-age men, the most common cancer resulting in death was lung cancer.

More than 1,100 persons of working age, or 14 per cent, died of alcohol-related causes 3.5 times more working-age men died of alcohol-related causes than working-age women. One in seven of working age men and one in ten of working age women died from alcohol-related causes. Alcohol mortality among working-age men and women has decreased clearly from the peak level of 2007 and was in 2015 at the same level as in the 1990s.

Table 1. Main causes of death among working-age population (aged 15 to 64) in 2015

54-group time series classification	Total	Males	Females	Total	Males	Females
	Number	Number	Number	%	%	%
04–22 Neoplasms	2 513	1 360	1 153	31	24	45
27–30 Diseases of the circulatory system	1 856	1 474	382	23	26	15
31–35 Disease of the respiratory system	190	129	61	2	2	2
41 Alcohol related diseases and accidental poisoning by alcohol	1 118	872	246	14	15	10
42–49 Accidents	750	606	144	9	11	6
50 Suicides	570	441	129	7	8	5
Other causes of death	1 192	752	440	15	13	17
01–54 Deaths total	8 189	5 634	2 555	100	100	100

Persons aged over 65 died most from diseases of the circulatory system

In 2015, ninety per cent of women who died and 78 per cent of men had turned 65. The causes of death structure for older age groups differs from that of the working-age population: the relative share of neoplasms, suicides, accidents and alcohol-related causes of death is smaller than among working-age people.

Persons aged over 65 died most from diseases of the circulatory system that caused 40 per cent of deaths. The share of diseases of the circulatory system in causes of death grows with age: For those aged 65 to 74 they killed one-third and for those aged over 95 as many as one-half (Figure 1). Correspondingly, the share of neoplasms in causes of death diminishes after the age of 70. When the share of neoplasms among deaths of persons aged 65 to 69 was 40 per cent, only six per cent of those who died at the age of over 95 died of neoplasms.

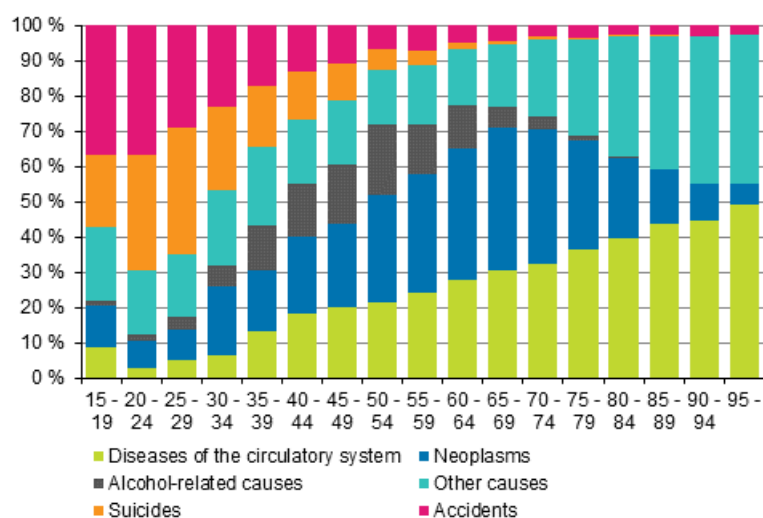
The importance of dementia, including Alzheimer’s disease as a cause of death has grown strongly. In 2015, dementia was the third most common cause of death category for elderly people after diseases of the circulatory system and neoplasms. Nearly one-fifth of persons who had turned 65 and one-third of those aged over 95 died of dementia.

In 2015, one in five of the persons who committed a suicide were aged 65 or over. The share of suicides in causes of death for elderly people is, however, very low, under one per cent. In an international comparison, the suicide mortality of Finns aged over 65 did not differ from the average for EU countries in 2013. Additional information on the causes of death of persons aged 65 or over can be found in Appendix tables 1a-c and database tables.

Table 2. Main causes of death among persons aged 65 or over in 2015

54-group time series classification	Total	Males	Females	Total	Males	Females
	Number	Number	Number	%	%	%
04–22 Neoplasms	9 959	5 260	4 699	23	26	20
25 Dementia, Alzheimer's disease	8 540	2 696	5 844	19	13	25
27–30 Diseases of the circulatory system	17 505	7 996	9 509	40	40	40
31–35 Disease of the respiratory system	1 749	1 028	721	4	5	3
36 Diseases of the digestive system (excl. alcohol-related diseases)	989	413	576	2	2	2
41 Alcohol related diseases and accidental poisoning by alcohol	548	416	132	1	2	1
42–49 Accidents	1 386	734	652	3	4	3
Suicides	156	112	44	0	1	0
Other causes of death	3 118	1 510	1 608	7	7	7
01–54 Deaths total	43 950	20 165	23 785	100	100	100

Figure 1. Proportions of causes of death by age groups in 2015



2. Ischaemic heart disease still the cause of one in five deaths

Of the main cause of death categories, most Finns died of diseases of the circulatory system in 2015. The group's importance as a cause of death has decreased, however, over the past twenty years from 44 to 37 per cent. Simultaneously, men's and women's age-standardised mortality from diseases of the circulatory system has declined by over 40 per cent (Appendix figure 1).

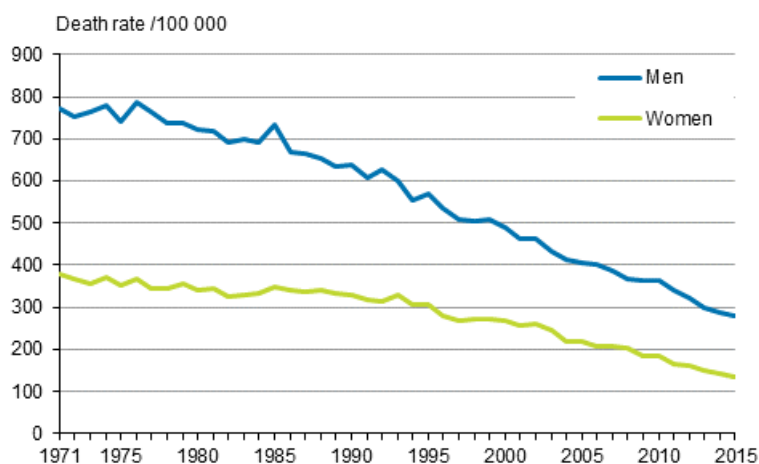
Among diseases of the circulatory system, ischaemic heart disease is still one of the most common causes of death for Finns, even though mortality from ischaemic heart disease has decreased clearly in Finland. Ischaemic heart disease still caused every fifth death and over 10,000 persons died of it in 2015.

Persons dying of ischaemic disease are older than before

Persons dying of this disease are older than before. In 1971, nearly four out of ten persons that died of ischaemic heart disease were of working-age, while in 2015 only one in ten was of working-age. The median average age for those dying of ischaemic heart disease in 1971 was 65 years for men and 73 years for women, while the corresponding figures in 2015 were 79 and 87 years.

Figure 2 shows age-standardised ischaemic heart disease mortality. In age standardisation, the effect of the age structure of the population and its changes are eliminated. Then it is seen in which level mortality from ischaemic heart disease would be if the age structure of the population remained unchanged during the whole reference period. The new standard population of Eurostat is used as the standard population in age-standardisation. When the ageing of the population is eliminated from the figures by age standardisation, it can be seen that ischaemic heart disease mortality has fallen evenly over the last 40 years. In 2015, ischaemic heart disease mortality decreased further for both men and women.

Figure 2. Age-standardised mortality from ischaemic heart disease in 1971 to 2015

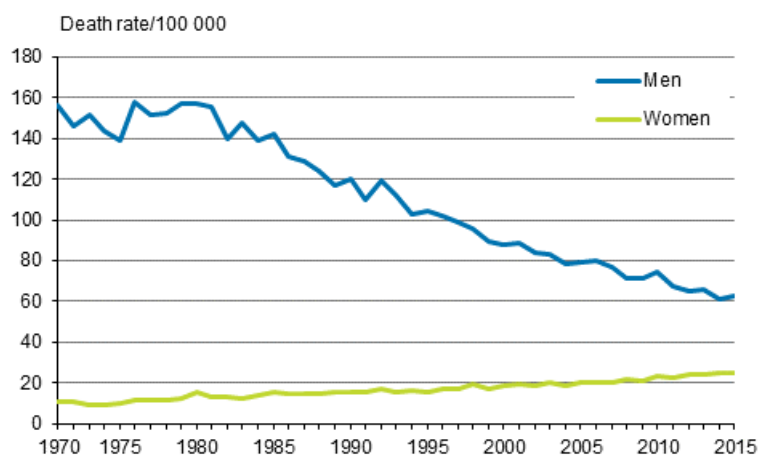


Women's lung cancer mortality has grown by one-fifth in ten years

Of the main cause of death categories, second most Finns died of neoplasms. In 2015, they caused nearly one in four deaths. Persons who died of neoplasms are on average 10 years younger than those who died of diseases of the circulatory system. Over the past ten years, age-standardised neoplasm mortality has decreased by around ten per cent for men and slightly less for women, that is, six per cent (Appendix figure 2). In 2015, neoplasm mortality increased slightly for both men and women from the year before. The most common type of cancer resulting in death was still lung cancer for men and breast cancer for women.

In 2015, a total of 1,500 men and 800 women died from carcinoma of the larynx, carcinoma of the tracheitis and lung cancer. The difference between men and women in lung cancer mortality has narrowed since the 1980s as lung cancer mortality among men has decreased and simultaneously it has grown slowly among women. Over the past ten years, women’s lung cancer mortality has grown by more than 20 per cent. In 2015, men’s lung cancer mortality, however, increased slightly and women's decreased from the year before (Figure 3).

Figure 3. Age-standardised mortality from carcinoma of larynx, trachea and lung in 1971 to 2015

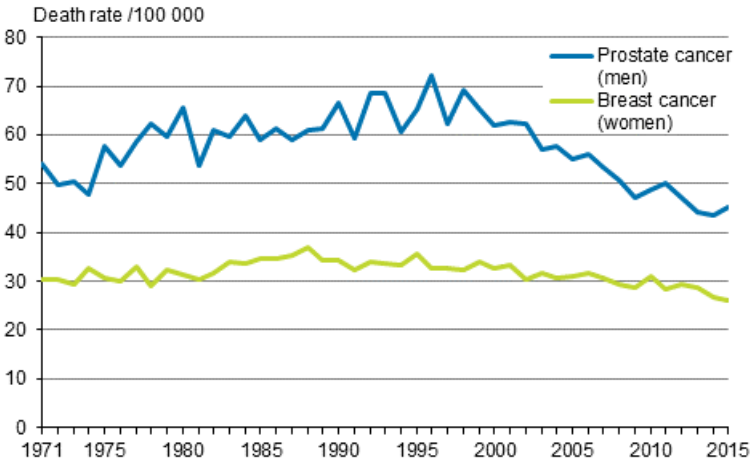


The most common type of cancer causing death among women is breast cancer. In 2015 the number of deaths from breast cancer was 816, that is, 29 deaths per 100,000 women. The average age of persons that died of breast cancer was 72 and only one in ten of the persons that died were aged under 55. Nearly as many working-age women died of breast cancer (237 women) as died of alcohol-related causes (246 women). The number of deaths from breast cancer was nearly the same in 2015 as ten years earlier but age-standardised breast cancer mortality has decreased by 16 per cent (Figure 4).

After lung cancer, prostate cancer is the second most common type of cancer resulting in death among men. In 2015, altogether 898 men died from prostate cancer, which was slightly more than women dying from breast cancer. Men’s prostate cancer mortality is almost on level with women's breast cancer mortality, that is, 33 deaths per 100,000 men.

Above all, prostate cancer is a common cause of death for aged men: more than nine out of ten of the deceased were over 65 and the average age of the deceased was 80. Men's age-standardised prostate cancer mortality has decreased clearly in the 2000s.

Figure 4. Age-standardised prostate cancer mortality for men and breast cancer mortality for women 1971 to 2015

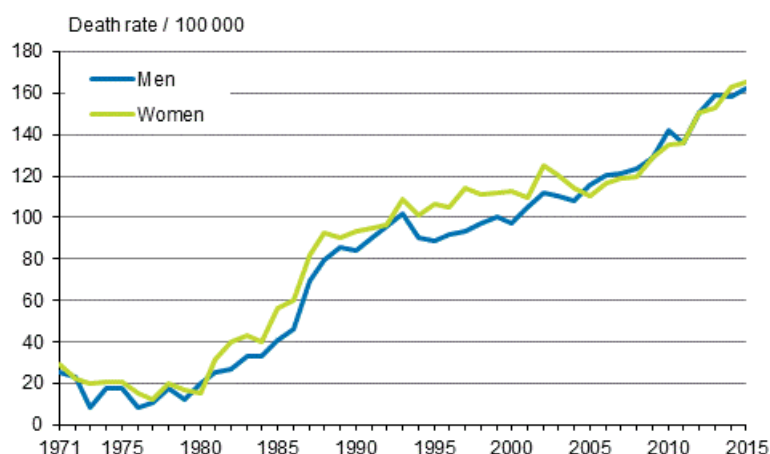


3. Deaths from dementia and Alzheimer's disease are increasing

In 2015, nearly 8,600 Finns died of dementia and Alzheimer's disease, which was over 400 persons more than in 2014. The number of deaths from dementia has more than doubled over the past ten years. The growth is also visible in the age-standardised figures (Figure 5), where the effects of the population structure are taken into consideration. The growth is in part the result of more specific diagnostics and changes in the definitions of causes of death (WHO guidelines). From 2005, causes of death statistics have adopted an international guideline that limits the use of pneumonia as a primary cause of death in connection with several chronic diseases. If a person is, in addition to pneumonia, suffering from, for example, dementia, dementia is selected as the primary cause of death.

Dementia mortality has developed in a similar fashion for both men and women. A majority, or two-thirds, of those who die from this disease group are, however, women. The higher share of deaths from dementia among women than men is caused by women living longer than men. The average age at death of persons that died from dementia was 85 years for men and 89 years for women. Dementia mortality of Finnish men and women was the highest in EU countries relative to the population in 2013.

Figure 5. Age-standardised dementia mortality (incl. Alzheimer's disease) 1971 to 2015



4. Alcohol mortality diminished further

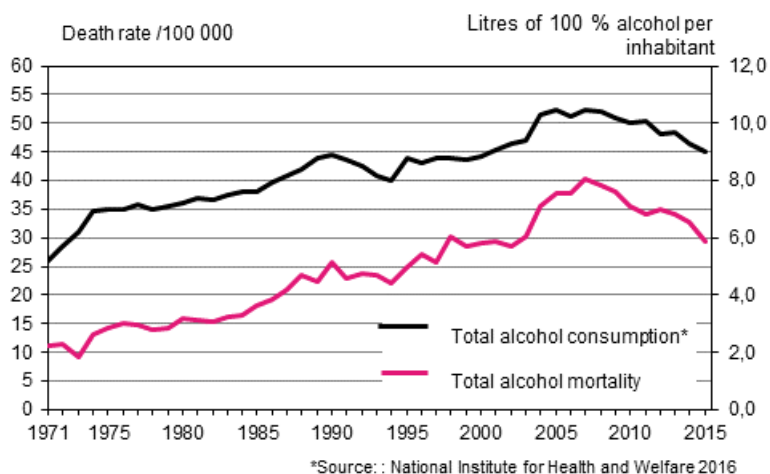
Deaths related to the use of alcohol grew relatively evenly in Finland from the 1980s until 2003, after which deaths from alcohol-related causes increased by around one-quarter within a few years. The slow decrease in the number of deaths from alcohol-related causes that started in 2008 continued in 2015. Alcohol mortality in 2015 was almost on level with 2003. In 2015, close on 1,700 persons died from alcohol-related diseases and alcohol poisonings. Of them, around 1,300 were men and 400 women.

The most significant reason for the growth in alcohol mortality in the early 2000s was increased consumption of alcohol. Since 2007, total alcohol consumption has decreased, however. In 2015, converted to 100% alcohol, total consumption was 9.0 litres per capita (National Institute for Health and Welfare 2016). Changes in alcohol-related mortality has followed fairly regularly the graph for total consumption of alcoholic beverages even though alcohol-related deaths usually call for long-term detrimental use of alcohol that lasts for several years. The changes in the number of deaths from alcohol-related causes between 2009 and 2015 were mainly caused by changes in men's deaths from alcohol-related causes.

Several different alcohol-related diseases used as primary causes of death and accidental alcohol poisonings have been collected into alcohol-related causes of death. Diseases related to long-term alcohol use, such as liver and heart diseases, cause a majority of deaths from alcohol-related causes. The share of alcohol poisonings in deaths from alcohol-related causes has decreased from 27 to 16 per cent over a ten-year period. In 2015, altogether 263 persons died from alcohol poisonings, three-quarters of whom were men.

Fewer people die of alcohol-related causes than from neoplasms or diseases of the circulatory system. However, more working-age persons still die of alcohol-related causes than of individual neoplasm types or ischaemic heart diseases. In addition, alcohol is also a contributing factor to death in many fatal accidents (not the primary cause of death). The share of intoxication in accidents will be discussed in the following section.

Figure 6. Age-standardised mortality from alcohol-related diseases and accidental poisonings by alcohol and total consumption of alcohol in 1971 to 2015



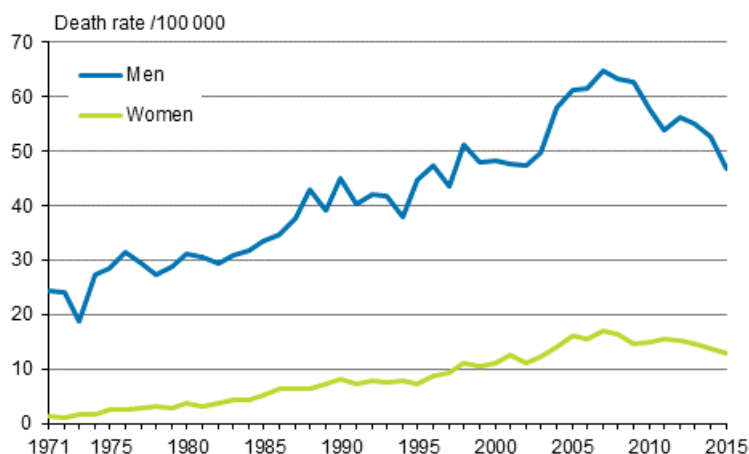
Men die from alcohol-related causes considerably more often than women (Figure 7). Male mortality has also followed more closely changes in total consumption of alcohol. Women are lagging behind in alcohol statistics but women's mortality from alcohol-related causes has also risen over several decades following men's mortality from alcohol-related causes. In 2015, alcohol mortality of both men and women was one-fifth lower than in 2005.

Persons who died of alcohol-related causes are older than before. During the past ten years, mortality from alcohol among both men and women aged 65 or over has grown while, correspondingly, in younger age groups mortality from alcohol has decreased. Two-thirds of persons who died of alcohol-related causes are still of working age but alcohol mortality of persons aged over 65 has grown from 17 to 33 per cent

over the past ten years. In 2015, the average age of men and women dying of alcohol-related causes was exactly 61.

In 2015, the share of alcohol-related causes in all deaths was only three per cent. Alcohol-related causes are, however, more common causes of death for middle-aged people than for retirement-age people. Of men that died aged 50 to 54 one in four died of alcohol-related causes and among those aged 65 to 69 fewer than one in ten.

Figure 7. Age-standardised mortality from alcohol-related diseases and accidental poisonings by alcohol in 1971 to 2015



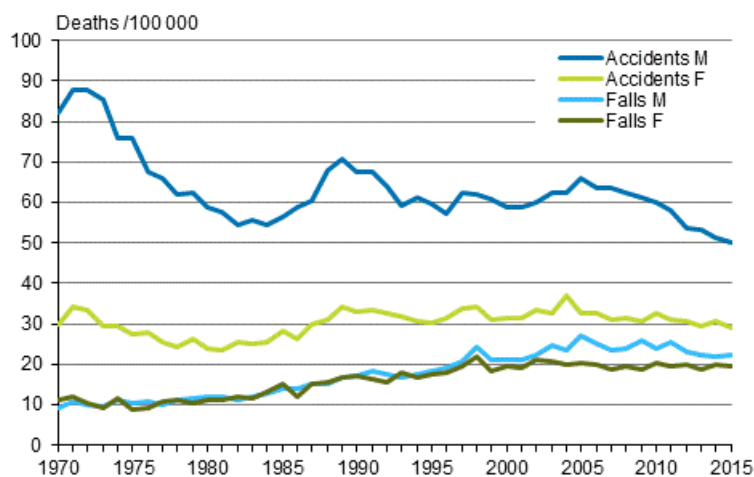
5. Stumbling the commonest reason for fatal accidents

The most common reasons for deaths from accidents are fatal falls and stumbles, fatal traffic accidents, drownings, poisonings and fatal fires. In this publication, all other poisonings apart from alcohol poisonings that belong to alcohol-related causes are considered accidents.

In 2015, accidents caused good four per cent of all deaths. Accidents (excl. alcohol poisonings) were the cause of the death of nearly 2,200 persons, of whom 1,400 were men and 800 women. The number of deaths from accidents has slowly and continuously fallen since 2004. In 2004, around 2,600 persons died from accidents. Fatal traffic accidents in particular have decreased. Women's accident mortality is clearly lower than men's but the accident mortality of men has developed particularly favourably in recent years and the difference between men and women has narrowed.

Examined by age group, nearly two out of three persons who died from accidents in 2015 were aged over 65. Women who died from accidents were on average 20 years older than men who died from accidents. The difference is primarily explained by that the share of old persons' fatal stumbles or falls among all who died from accidents is higher among women than among men.

Figure 8. Accident mortality and separately deaths from accidental stumbles and falls in 1970 to 2015



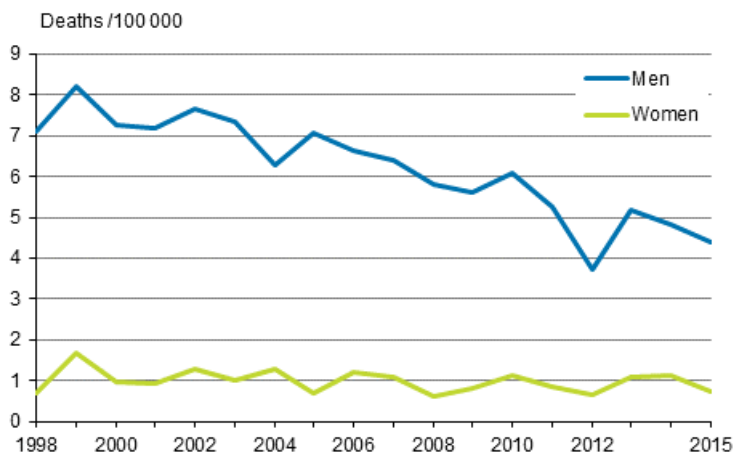
The commonest accident leading to death is caused by stumbling or falling. In 2015, stumbling and falling caused the death of over 1,100 persons, which is around one-half of all fatal accidents. A little under one-half of stumbling accidents took place inside one's home or in its immediate vicinity and one-quarter in care institutions. Nine out of ten fatal falls happened to persons aged over 65. In absolute numbers, slightly more deaths occurred among elderly women than elderly men but relative to the number of living people, elderly men had more stumbles resulting in death than women in relative terms (Figure 8).

The second most common fatal accidents were transport accidents. There were 268 deaths in transport accidents (excl. drowning accidents in water traffic) in 2015. The number of deaths has decreased by over one-third in the past ten years. Suicides committed in traffic are not included in deaths in transport accidents in the statistics.

Drowning accidents include drowning from falling into water and drowning while swimming or boating. In 2015, altogether 139 persons drowned, 28 of whom in water traffic. Most drowning victims, over 80 per cent, were men. Deaths by drowning have decreased clearly since the beginning of the 2000s when there were over 200 drowning victims per year (Figure 9).

In 2015, altogether 61 persons died in accidental fires while in 2014 the number of deaths was 70. Seven out of ten victims were men. Deaths in accidental fires do not include deaths in deliberately lit fires. There were six persons that committed suicide with fire and smoke. There were 31 deaths caused by the heat of sauna and 52 deaths caused by hypothermia.

Figure 9. Mortality from drowning accidents in 1998 to 2015



300 fatal accident victims were intoxicated

In 2015, alcohol was a contributing factor in one in six fatal accidents, on average. Sixteen per cent of those who died in fatal accidents were intoxicated, i.e. 300 persons (Appendix table 2). Ten years ago, the corresponding share was 25 per cent of fatal accidents. In the statistics on causes of death, alcohol intoxication is determined from the death certificate where the doctor signing the certificate judged that alcohol had contributed to the death. The figures exclude alcohol and drug poisonings where alcohol or drugs have not directly caused the death.

In 2015, intoxication was most common in accidental sauna and drowning deaths, where around one-half of victims were under the influence of alcohol. Nearly one-half of the persons that died in fires were also intoxicated. In traffic deaths, one in five were intoxicated at the time of death. By contrast, in stumbling accidents, of which a majority occurred among persons aged over 70, only one in ten were under the influence of alcohol.

Number of deaths from drugs have decreased

The total number of fatal poisonings (excl. alcohol poisonings) has fallen by 23 per cent from 2010. In 2015, their number was 243 cases, which was the same as in the year before. The average age of those dying of fatal poisonings was 40 years for men and 58 years for women.

In 2015, the number of deaths caused by drugs in Finland was 166, which is 10 fewer than in the previous year. When calculating drug-related deaths, Statistics Finland uses a classification (Selection B) compiled by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). The Monitoring Centre publishes statistics and reports on its Internet site: www.emcdda.europa.eu.

According to the EMCDDA, cases where the primary cause of death is drug psychoses, accidental poisoning, self-inflicted poisoning, and poisoning with undetermined intent are calculated as drug-related deaths. Deaths caused by drug psychoses are usually a result of drug addiction and long-term drug use. Accidental drug poisonings are cases where the death occurs shortly after the consumption of the substance. They can often also be referred to as overdoses. In 2015, there were 119 accidental overdoses. The number is smaller than in previous years (2014: 122 and 2013:143). Self-inflicted poisonings with drugs are suicides (primary cause of death). In 2015, twenty-four suicides were committed with drugs. In poisonings with undetermined intent, the intent remains unclear.

Table 3. Drug-related mortality 2000 to 2015

	Total	Males	Females	Total	Males	Females
	Number	Number	Number	Per 100 000 mean population	Per 100 000 mean population	Per 100 000 mean population
2000	134	109	25	2,6	4,3	0,9
2001	110	78	32	2,1	3,1	1,2
2002	97	69	28	1,9	2,7	1,1
2003	101	76	25	1,9	3,0	0,9
2004	135	96	39	2,6	3,8	1,5
2005	126	95	31	2,4	3,7	1,2
2006	138	107	31	2,6	4,2	1,2
2007	143	116	27	2,7	4,5	1,0
2008	169	120	49	3,2	4,6	1,8
2009	175	130	45	3,3	5,0	1,7
2010	156	117	39	2,9	4,4	1,4
2011	197	156	41	3,7	5,9	1,5
2012	213	161	52	3,9	6,1	1,9
2013	201	148	53	3,7	5,5	1,9
2014	176	141	35	3,2	5,2	1,3
2015	166	127	39	3,0	4,7	1,4

The drugs referred to in the EMCDDA's classification are mainly opioids. In addition to opioids, drugs also refer to cannabis and cannabinoids, other hallucinogens, and stimulants suitable for abuse, such as amphetamine and its derivatives. In 2015, four out of five drug-related deaths were associated with overdoses of opioids.

The numbers of deaths have been calculated in accordance with the WHO's recommendation based on the substance judged as most influential. In many cases, the death is the result of multiple substance poisoning where the person has also digested other substances like alcohol and/or psychopharmacons.

Considerably fewer women than men die from drugs. In 2015, women's share of all deaths from drugs was one-quarter. Sixteen per cent of the persons that died accidentally from drugs were women but in suicides committed with drugs, the share of women was clearly higher, over one-half. Most drug-related deaths in absolute numbers occurred among persons aged 30 to 34.

6. Number of suicides fell clearly

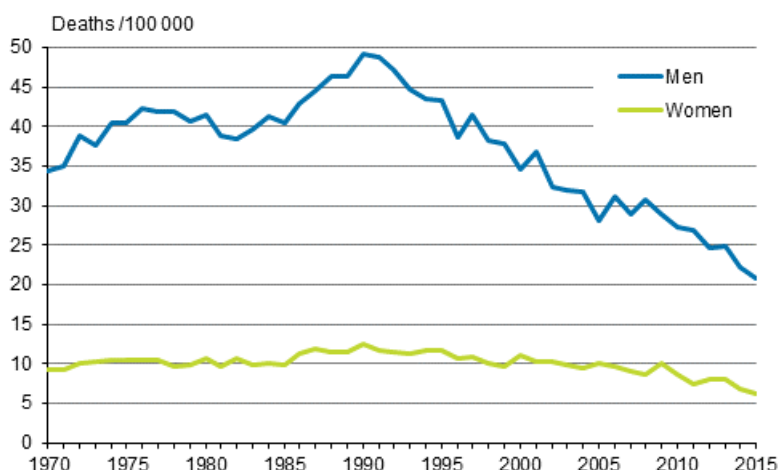
In 2015, suicides were committed by 731 persons, which was nearly 60 fewer than in the year before. The number of suicides was at its highest in 1990, when there were over 1,500 suicides in Finland. Since then, suicide mortality has decreased. Suicide mortality has decreased by 40 per cent in the past fifteen years.

Men's suicide mortality is much higher than women's. In 2015, suicide mortality or the number of suicides a year per 100,000 population was 13.3, being 20.7 for men and 6.2 for women. Three out of four of the persons who committed a suicide were men.

Suicides are a central cause of death for young people. One-third of young people aged under 25 that died had committed suicides. The share of suicides in all causes of death is high for young people because other mortality among young people is low. The share of persons aged under 25 among all those having committed a suicide was, however, low: only one in ten suicide victims were aged under 25.

The relative number of suicides has decreased in all age groups over the past 15 years. Young people's suicide mortality in Finland has been high by European comparison. According to Eurostat's statistics for 2013, suicide mortality among young people was higher than in Finland only in Lithuania. By contrast, for persons aged 65 and over, suicide mortality in Finland did not differ from the EU average. Of those who committed suicides, one in five were aged over 65.

Figure 10. Suicides mortality 1970 to 2015



7. Record low number of deaths of children during the first year of life

In 2015, altogether 96 children died under the age of one, which was 29 fewer than in the year before. Infant mortality was 1.7 per 1,000 live-born children. The main causes of death among children under the age of one were perinatal reasons and inborn malformations (Table 3). Infectious diseases, accidents and violence are rare causes of death for infants.

In 2015, there were 172 stillbirths, which was slightly higher than in the year before (2014: 163 children). Perinatal mortality (deaths during the first week and stillborn) was 4.0 per thousand births. More than one-half of children dying during their first year of life die during their first week of life (in the early neonatal period) and 70 per cent during the first four weeks of life (in the neonatal period). The main causes of death after the neonatal period are inborn malformations and cot deaths. In 2015, six children suffered cot death, whereas in 2014 the corresponding number was 14. Cot deaths mostly occur to children over the age of one month.

The mortality of children aged 1 to 14 has nearly halved over the past twenty years. In 2015, the number of deaths among children was 67, which was 20 fewer than in the previous year. This corresponds with approximately 8 deaths per 100,000 children. The most common causes of death among children were cancers and traffic accidents.

Over the past ten years, women dying from reasons related to pregnancy or childbirth has been three per year, on average. The year 2011 was the first year in the history of the statistics on causes of death when there were no maternal deaths. In 2015, there were two maternal deaths, which meant that maternal mortality was 3.6 deaths per 100,000 live-born children.

More information about mortality during infant and perinatal period can be found in Appendix table 3.

Figure 11. Mortality during infant and perinatal period in 1992–2015

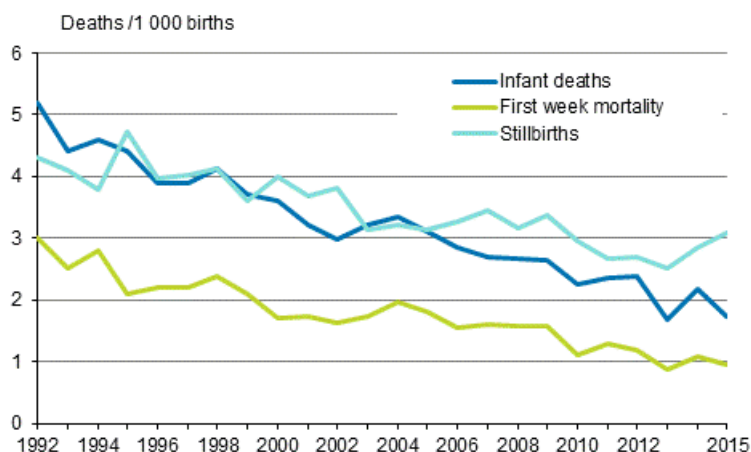


Table 4. Causes of death among children under the age of one 2000, 2005, 2010, 2014 and 2015

	2000	2005	2010	2014	2015
Total deaths	205	179	138	125	96
Certain conditions originating in the perinatal period (P00–P96)	84	77	58	46	49
Congenital malformations and chromosomal abnormalities (Q00–Q99)	78	61	40	42	30
Sudden infant death syndrome (R95)	18	19	17	14	6
Diseases of circulatory system and respiratory system (J00–J99, I00–I99)	4	5	5	3	1
Endocrine, nutritional and metabolic diseases (E00–E90)	5	6	3	6	2
Other diseases and unknown	13	9	11	10	8
Accidents and assault (V01–Y89)	3	2	4	4	0

Appendix tables

Appendix table 1a. Deaths by underlying cause of death and by age in 2015, both sexes

Underlying cause of death (54-group classification)	Ages total	0-14	15-64	65-
01-54 TOTAL DEATHS (A00-Y89)	52 302	163	8 189	43 950
01-41 DISEASES AND ACCIDENTAL POISONING BY ALCOHOL (A00-R99, X45)	48 912	131	6 670	42 111
01-03 Certain infectious and parasitic diseases (A00-B99, J65)	258	1	40	217
01 Tuberculosis (A15-A19, B90, J65)	33	0	0	33
02 Human immunodeficiency virus (HIV) disease (B20-B24)	0	0	0	0
03 Other infectious and parasitic diseases (A00-A09, A20-B19, B25-B89, B91-B99)	225	1	40	184
04-22 Neoplasms (C00-D48)	12 481	9 2 513	9 959	
04-21 Malignant neoplasms (C00-C97)	12 168	9 2 489	9 670	
04 Malignant neoplasms of lip, oral cavity and pharynx (C00-C14)	232	0	55	177
05 Malignant neoplasm of oesophagus (C15)	233	0	70	163
06 Malignant neoplasm of stomach (C16)	441	0	124	317
07 Malignant neoplasm of colon (C18, C19)	821	0	130	691
08 Malignant neoplasm of rectum, anus and anal canal (C20-C21)	390	0	87	303
09 Primary malignant neoplasm of liver and intrahepatic bile ducts (C22)	509	0	80	429
10 Malignant neoplasm of pancreas (C25)	1 137	0	236	901
11 Malignant neoplasm of larynx, trachea, bronchus and lung (C32-C34)	2 275	0	465	1 810
12 Malignant melanoma of skin (C43)	229	0	56	173
13 Malignant neoplasm of breast (C50)	823	0	241	582
14 Malignant neoplasm of cervix uteri (C53)	63	0	28	35
15 Malignant neoplasm of uterus (C54-C55)	194	0	32	162
16 Malignant neoplasm of ovary (C56)	334	0	88	246
17 Malignant neoplasm of prostate (C61)	898	0	62	836
18 Malignant neoplasm of kidney (C64)	367	0	70	297
19 Malignant neoplasm of bladder (C67)	261	0	39	222
20 Malignant neoplasm of lymphoid, haematopoietic and related tissue (C81-C96)	1 165	1	200	964
21 Other malignant neoplasms	1 796	8	426	1 362
22 Other neoplasms (D00-D48)	313	0	24	289
23-24 Endocrine, nutritional and metabolic diseases (E00-E90)	637	5	162	470
23 Diabetes mellitus (E10-E14)	483	0	122	361
24 Other endocrine, nutritional and metabolic diseases (E00-E09, E15-E90)	154	5	40	109
25 Dementia, Alzheimers disease (F01, F03, G30, R54)	8 580	0	40	8 540
26 Other diseases of the nervous system and sense organs excl. alcohol-related	1 624	13	246	1 365
27-30 Diseases of the circulatory system excl. alcohol-related (I00-I425, I427-I99)	19 365	4 1 856	17 505	
27 Ischaemic heart diseases (I20-I25)	10 209	0	935	9 274
28 Other heart diseases excl. rheumatic and alcohol-related (I30-I425, I427-I52)	1 768	2	309	1 457
29 Cerebrovascular diseases (I60-I69)	4 299	1	323	3 975
30 Other diseases of the circulatory system (I00-I15, I26-I28, I70-I99)	3 089	1	289	2 799
31-35 Diseases of the respiratory system (J00-J64, J66-J99)	1 940	1	190	1 749
31 Influenza (J09-J11)	134	1	7	126
32 Pneumonia (J12-J18, J849)	157	0	20	137
33 Bronchitis and emphysema (J40-J44, J47)	1 231	0	130	1 101
34 Asthma (J45-J46)	78	0	9	69
35 Other diseases of the respiratory system (J00-J06, J20-J39, J60-J64, J66-J848, J85-J99)	340	0	24	316
36 Diseases of the digestive system excl. alcohol-related diseases	1 178	1	188	989
37 Diseases of the genitourinary system (N00-N99)	282	1	14	267

Underlying cause of death (54-group classification)	Ages total	0-14	15-64	65-
38 Congenital malformations (Q00-Q99)	162	35	89	38
39 Other diseases excl. alcohol-related	564	58	112	394
40 Ill-defined and unknown causes of mortality (R96-R99)	175	3	102	70
41 Alcohol-related diseases and accidental poisoning by alcohol	1 666	0	1 118	548
42-53 ACCIDENTS AND VIOLENCE excl. accidental poisoning by alcohol (V01-X44, X46-Y89)	3 034	31	1 435	1 568
42-49 Accidents excl. accidental poisoning by alcohol (V01-X44, X46-X59, Y10-Y15, Y85-Y86)	2 161	25	750	1 386
42 Land traffic accidents	232	12	143	77
43 Other land transport accidents	33	3	19	11
44 Water transport accidents (V90-V94)	30	1	15	14
45 Others and unspecified transport accidents (V95-V99)	1	0	1	0
46 Accidental falls (W00-W19)	1 143	1	140	1 002
47 Accidental drownings (W65-W74)	111	6	62	43
48 Accidental poisonings excl. accidental poisoning by alcohol (X40-X44, X46-X49, Y10-Y15)	243	0	205	38
49 Other accidents and sequelae of accidents	368	2	165	201
50 Suicides (X60-X84, Y87.0)	731	5	570	156
51 Assault (X85-Y09, Y87.1)	70	1	63	6
52 Event of undetermined intent (Y16-Y34, Y87.2)	65	0	49	16
53 Other external causes and sequelae of other external causes (Y35-Y84, Y88-Y89)	7	0	3	4
54 NO DEATH CERTIFICATE	356	1	84	271

Appendix table 1b. Deaths by underlying cause of death and by age in 2015, males

Underlying cause of death (54-group short list)	Ages total	0-14	15-64	65-
01-54 TOTAL DEATHS (A00-Y89)	25 884	85	5 634	20 165
01-41 DISEASES AND ACCIDENTAL POISONING BY ALCOHOL (A00-R99, X45)	23 654	64	4 433	19 157
01-03 Certain infectious and parasitic diseases (A00-B99, J65)	132	1	25	106
01 Tuberculosis (A15-A19, B90, J65)	16	0	0	16
02 Human immunodeficiency virus (HIV) disease (B20-B24)	0	0	0	0
03 Other infectious and parasitic diseases (A00-A09, A20-B19, B25-B89, B91-B99)	116	1	25	90
04-22 Neoplasms (C00-D48)	6 623	3	1 360	5 260
04-21 Malignant neoplasms (C00-C97)	6 481	3	1 345	5 133
04 Malignant neoplasms of lip, oral cavity and pharynx (C00-C14)	134	0	31	103
05 Malignant neoplasm of oesophagus (C15)	168	0	57	111
06 Malignant neoplasm of stomach (C16)	249	0	74	175
07 Malignant neoplasm of colon (C18, C19)	406	0	69	337
08 Malignant neoplasm of rectum, anus and anal canal (C20-C21)	248	0	57	191
09 Primary malignant neoplasm of liver and intrahepatic bile ducts (C22)	321	0	59	262
10 Malignant neoplasm of pancreas (C25)	540	0	144	396
11 Malignant neoplasm of larynx, trachea, bronchus and lung (C32-C34)	1 494	0	301	1 193
12 Malignant melanoma of skin (C43)	151	0	35	116
13 Malignant neoplasm of breast (C50)	7	0	4	3
14 Malignant neoplasm of cervix uteri (C53)	0	0	0	0
15 Malignant neoplasm of uterus (C54-C55)	0	0	0	0
16 Malignant neoplasm of ovary (C56)	0	0	0	0
17 Malignant neoplasm of prostate (C61)	898	0	62	836
18 Malignant neoplasm of kidney (C64)	219	0	55	164
19 Malignant neoplasm of bladder (C67)	190	0	25	165
20 Malignant neoplasm of lymphoid, haematopoietic and related tissue (C81-C96)	636	0	128	508
21 Other malignant neoplasms	820	3	244	573
22 Other neoplasms (D00-D48)	142	0	15	127
23-24 Endocrine, nutritional and metabolic diseases (E00-E90)	326	2	106	218
23 Diabetes mellitus (E10-E14)	251	0	83	168
24 Other endocrine, nutritional and metabolic diseases (E00-E09, E15-E90)	75	2	23	50
25 Dementia, Alzheimers disease (F01, F03, G30, R54)	2 717	0	21	2 696
26 Other diseases of the nervous system and sense organs excl. alcohol-related	841	5	134	702
27-30 Diseases of the circulatory system excl. alcohol-related (I00-I425, I427-I99)	9 471	1	1 474	7 996
27 Ischaemic heart diseases (I20-I25)	5 549	0	804	4 745
28 Other heart diseases excl. rheumatic and alcohol-related (I30-I425, I427-I52)	886	1	250	635
29 Cerebrovascular diseases (I60-I69)	1 800	0	210	1 590
30 Other diseases of the circulatory system (I00-I15, I26-I28, I70-I99)	1 236	0	210	1 026
31-35 Diseases of the respiratory system (J00-J64, J66-J99)	1 158	1	129	1 028
31 Influenza (J09-J11)	55	1	2	52
32 Pneumonia (J12-J18, J849)	69	0	13	56
33 Bronchitis and emphysema (J40-J44, J47)	799	0	92	707
34 Asthma (J45-J46)	20	0	1	19
35 Other diseases of the respiratory system (J00-J06, J20-J39, J60-J64, J66-J848, J85-J99)	215	0	21	194
36 Diseases of the digestive system excl. alcohol-related diseases	538	1	124	413
37 Diseases of the genitourinary system (N00-N99)	132	1	9	122
38 Congenital malformations (Q00-Q99)	87	22	48	17
39 Other diseases excl. alcohol-related	221	26	59	136
40 Ill-defined and unknown causes of mortality (R96-R99)	120	1	72	47

Underlying cause of death (54-group short list)	Ages total	0-14	15-64	65-
41 Alcohol-related diseases and accidental poisoning by alcohol	1 288	0	872	416
42-53 ACCIDENTS AND VIOLENCE excl. accidental poisoning by alcohol (V01-X44, X46-Y89)	2 021	20	1 135	866
42-49 Accidents excl. accidental poisoning by alcohol (V01-X44, X46-X59, Y10-Y15, Y85-Y86)	1 354	14	606	734
42 Land traffic accidents	166	6	112	48
43 Other land transport accidents	26	2	15	9
44 Water transport accidents (V90-V94)	29	1	15	13
45 Others and unspecified transport accidents (V95-V99)	1	0	1	0
46 Accidental falls (W00-W19)	605	1	112	492
47 Accidental drownings (W65-W74)	92	4	54	34
48 Accidental poisonings excl. accidental poisoning by alcohol (X40-X44, X46-X49, Y10-Y15)	180	0	165	15
49 Other accidents and sequelae of accidents	255	0	132	123
50 Suicides (X60-X84, Y87.0)	558	5	441	112
51 Assault (X85-Y09, Y87.1)	54	1	49	4
52 Event of undetermined intent (Y16-Y34, Y87.2)	52	0	37	15
53 Other external causes and sequelae of other external causes (Y35-Y84, Y88-Y89)	3	0	2	1
54 NO DEATH CERTIFICATE	209	1	66	142

Appendix table 1c. Deaths by underlying cause of death and by age in 2015, females

Underlying cause of death (54-group short list)	Ages total	0-14	15-64	65-
01-54 TOTAL DEATHS (A00-Y89)	26 418	78	2 555	23 785
01-41 DISEASES AND ACCIDENTAL POISONING BY ALCOHOL (A00-R99, X45)	25 258	67	2 237	22 954
01-03 Certain infectious and parasitic diseases (A00-B99, J65)	126	0	15	111
01 Tuberculosis (A15-A19, B90, J65)	17	0	0	17
02 Human immunodeficiency virus (HIV) disease (B20-B24)	0	0	0	0
03 Other infectious and parasitic diseases (A00-A09, A20-B19, B25-B89, B91-B99)	109	0	15	94
04-22 Neoplasms (C00-D48)	5 858	6	1 153	4 699
04-21 Malignant neoplasms (C00-C97)	5 687	6	1 144	4 537
04 Malignant neoplasms of lip, oral cavity and pharynx (C00-C14)	98	0	24	74
05 Malignant neoplasm of oesophagus (C15)	65	0	13	52
06 Malignant neoplasm of stomach (C16)	192	0	50	142
07 Malignant neoplasm of colon (C18, C19)	415	0	61	354
08 Malignant neoplasm of rectum, anus and anal canal (C20-C21)	142	0	30	112
09 Primary malignant neoplasm of liver and intrahepatic bile ducts (C22)	188	0	21	167
10 Malignant neoplasm of pancreas (C25)	597	0	92	505
11 Malignant neoplasm of larynx, trachea, bronchus and lung (C32-C34)	781	0	164	617
12 Malignant melanoma of skin (C43)	78	0	21	57
13 Malignant neoplasm of breast (C50)	816	0	237	579
14 Malignant neoplasm of cervix uteri (C53)	63	0	28	35
15 Malignant neoplasm of uterus (C54-C55)	194	0	32	162
16 Malignant neoplasm of ovary (C56)	334	0	88	246
17 Malignant neoplasm of prostate (C61)	0	0	0	0
18 Malignant neoplasm of kidney (C64)	148	0	15	133
19 Malignant neoplasm of bladder (C67)	71	0	14	57
20 Malignant neoplasm of lymphoid, haematopoietic and related tissue (C81-C96)	529	1	72	456
21 Other malignant neoplasms	976	5	182	789
22 Other neoplasms (D00-D48)	171	0	9	162
23-24 Endocrine, nutritional and metabolic diseases (E00-E90)	311	3	56	252
23 Diabetes mellitus (E10-E14)	232	0	39	193
24 Other endocrine, nutritional and metabolic diseases (E00-E09, E15-E90)	79	3	17	59
25 Dementia, Alzheimers disease (F01, F03, G30, R54)	5 863	0	19	5 844
26 Other diseases of the nervous system and sense organs excl. alcohol-related	783	8	112	663
27-30 Diseases of the circulatory system excl. alcohol-related (I00-I425, I427-I99)	9 894	3	382	9 509
27 Ischaemic heart diseases (I20-I25)	4 660	0	131	4 529
28 Other heart diseases excl. rheumatic and alcohol-related (I30-I425, I427-I52)	882	1	59	822
29 Cerebrovascular diseases (I60-I69)	2 499	1	113	2 385
30 Other diseases of the circulatory system (I00-I15, I26-I28, I70-I99)	1 853	1	79	1 773
31-35 Diseases of the respiratory system (J00-J64, J66-J99)	782	0	61	721
31 Influenza (J09-J11)	79	0	5	74
32 Pneumonia (J12-J18, J849)	88	0	7	81
33 Bronchitis and emphysema (J40-J44, J47)	432	0	38	394
34 Asthma (J45-J46)	58	0	8	50
35 Other diseases of the respiratory system (J00-J06, J20-J39, J60-J64, J66-J848, J85-J99)	125	0	3	122
36 Diseases of the digestive system excl. alcohol-related diseases	640	0	64	576
37 Diseases of the genitourinary system (N00-N99)	150	0	5	145
38 Congenital malformations (Q00-Q99)	75	13	41	21
39 Other diseases excl. alcohol-related	343	32	53	258
40 Ill-defined and unknown causes of mortality (R96-R99)	55	2	30	23

Underlying cause of death (54-group short list)	Ages total	0-14	15-64	65-
41 Alcohol-related diseases and accidental poisoning by alcohol	378	0	246	132
42-53 ACCIDENTS AND VIOLENCE excl. accidental poisoning by alcohol (V01-X44, X46-Y89)	1 013	11	300	702
42-49 Accidents excl. accidental poisoning by alcohol (V01-X44, X46-X59, Y10-Y15, Y85-Y86)	807	11	144	652
42 Land traffic accidents	66	6	31	29
43 Other land transport accidents	7	1	4	2
44 Water transport accidents (V90-V94)	1	0	0	1
45 Others and unspecified transport accidents (V95-V99)	0	0	0	0
46 Accidental falls (W00-W19)	538	0	28	510
47 Accidental drownings (W65-W74)	19	2	8	9
48 Accidental poisonings excl. accidental poisoning by alcohol (X40-X44, X46-X49, Y10-Y15)	63	0	40	23
49 Other accidents and sequelae of accidents	113	2	33	78
50 Suicides (X60-X84, Y87.0)	173	0	129	44
51 Assault (X85-Y09, Y87.1)	16	0	14	2
52 Event of undetermined intent (Y16-Y34, Y87.2)	13	0	12	1
53 Other external causes and sequelae of other external causes (Y35-Y84, Y88-Y89)	4	0	1	3
54 NO DEATH CERTIFICATE	147	0	18	129

Appendix table 2. Deaths from accidents by external cause and deaths from alcohol intoxication 2015

External cause	Deaths from accidents	Of which under alcohol intoxication	
		Persons	%
Accidental deaths (excl. poisonings)	1 918	300	15,6
Transport accidents	268	53	19,8
Falls	1 143	91	8,0
Drowning	139	63	45,3
Eating, inhalation of food (W79)	56	17	30,4
Heat of sauna (W92)	31	18	58,1
Fire (X00–X09)	61	27	44,3
Natural cold (X31)	52	20	38,5
Other accident	168	11	6,5

Appendix table 3. Mortality during infant and perinatal period 1987–2015

	Perinatal deaths (stillbirths and first week deaths)	Perinatal mortality/ 1000 births (incl. stillbirths) ¹⁾	Stillbirths	First week mortality	First week mortality/ 1,000 births	Neonatal deaths	Neonatal mortality ²⁾	Infant deaths	Infant mortality ³⁾
1987	505	8,4	311	194	3,2	252	4,2	370	6,2
1990	507	7,7	307	200	3,1	245	3,7	368	5,6
1995	429	6,8	299	130	2,1	172	2,8	251	4,0
2000	325	5,7	228	97	1,7	136	2,4	205	3,6
2001	306	5,4	208	98	1,7	122	2,2	181	3,2
2002	304	5,5	213	91	1,6	117	2,1	165	3,0
2003	276	4,9	178	98	1,7	120	2,1	182	3,2
2004	300	5,2	187	113	2,0	142	2,5	193	3,3
2005	286	4,9	182	104	1,8	125	2,2	179	3,1
2006	284	4,8	193	91	1,5	119	2,0	168	2,9
2007	298	5,1	204	94	1,6	109	1,9	159	2,7
2008	283	4,7	189	94	1,6	116	1,9	159	2,7
2009	300	4,9	205	95	1,6	122	2,0	160	2,6
2010	248	4,1	181	67	1,1	91	1,5	138	2,3
2011	239	4,0	161	78	1,3	97	1,6	142	2,4
2012	232	3,9	161	71	1,2	85	1,4	141	2,4
2013	197	3,4	147	50	0,9	61	1,0	98	1,7
2014	225	3,9	163	62	1,1	81	1,4	125	2,2
2015	225	4,0	172	53	1,0	69	1,2	96	1,7

1) Perinatal mortality = Stillborn (the duration of the mother's pregnancy at least 22 weeks or birth weight at least 500 g) and deaths during the first week of life per thousand births (incl. stillborn).

2) Neonatal mortality = The number of deaths during the four first weeks of life per thousand live births.

3) Infant mortality = The number of deaths at under one year per thousand live births.

Appendix table 4. Mean population 2015 by age and sex

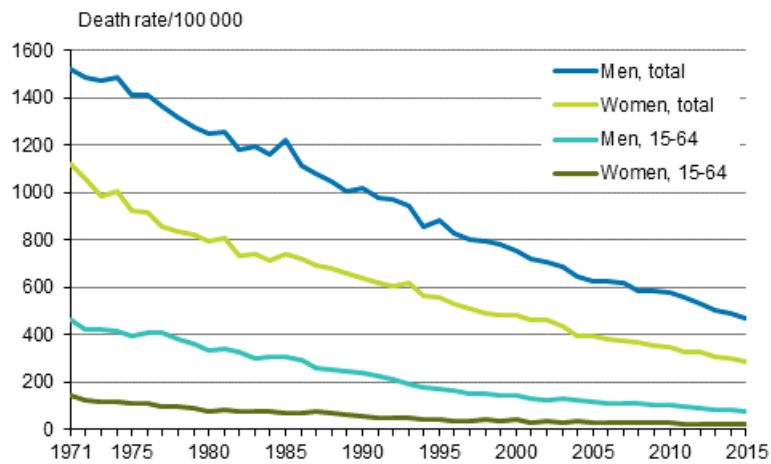
Age	Total	Males	Females
Total	5 479 531	2 696 676	2 782 854
0	56 615	29 005	27 610
1–4	240 642	123 028	117 615
5–9	305 946	156 361	149 585
10–14	293 113	149 831	143 283
15–19	303 877	155 272	148 605
20–24	340 651	174 047	166 604
25–29	341 047	174 794	165 253
30–34	356 160	183 519	172 641
35–39	345 123	177 459	167 664
40–44	316 279	161 704	154 575
45–49	354 843	179 491	175 352
50–54	375 043	188 291	186 752
55–59	369 504	183 159	186 345
60–64	373 445	182 369	191 076
65–69	378 939	182 170	196 769
70–74	250 019	115 579	134 441
75–79	197 809	85 104	112 706
80–84	143 836	55 708	88 129
85–89	92 379	29 491	62 888
90–94	36 467	8 860	27 607
95+	7 798	1 439	6 359

Appendix table 5. Standard population used in calculating age-standardised figures (Eurostat 2012)

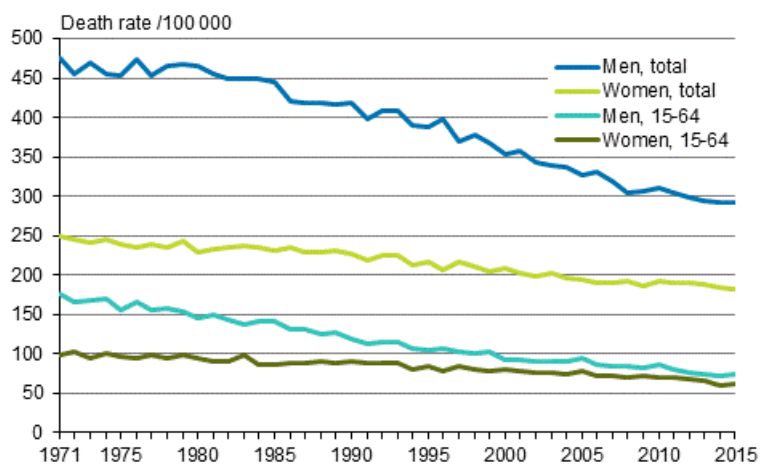
Age	Standard population
0	1 000
1–4	4 000
5–9	5 500
10–14	5 500
15–19	5 500
20–24	6 000
25–29	6 000
30–34	6 500
35–39	7 000
40–44	7 000
45–49	7 000
50–54	7 000
55–59	6 500
60–64	6 000
65–69	5 500
70–74	5 000
75–79	4 000
80–84	2 500
85–89	1 500
90–94	800
95+	200
Total	100 000

Appendix figures

Appendix figure 1. Age-standardised mortality from diseases of the circulatory system in 1971 to 2015



Appendix figure 2. Age-standardised mortality from neoplasms in 1971 to 2015



Quality Description: Causes of death 2015

1. Relevance of statistical information

In the statistics on causes of death, statistical data are produced annually on the causes of death of persons permanently resident in Finland. The statistics are compiled on the basis of death certificates. The data are supplemented with and verified against data on deaths from the Population Information System of the Population Register Centre. Statistics Finland has death certificates and data on causes of death from 1936 onwards.

Cause of death data are highly significant for general information systems describing the population's state of health. Cause of death data are used in various medical surveys, and by combining the data with other Statistics Finland's data files, it is possible to study, for instance, differences in mortality between different population groups.

Investigating the cause of death and the related procedures including the production of statistics and archiving of death certificates is based on the act (1973/459) and decree (1973/948) on the investigation of the cause of death. In April 2011, Commission Regulation (EC) No 1338/2008 was passed and it confirms the variables, specifications and metadata which the EU Member States have to supply as concerns statistics on causes of death.

Concepts

Causes of death are obtained from death certificates. Data on underlying causes of death have been collected in database tables from 1969 onwards and from 1987, in addition to the underlying cause of death, there are also data on **immediate, intermediate and contributing causes of death**:

- The underlying cause of death is the disease which has initiated the series of illnesses leading directly to death. In accidental or violent deaths, the underlying cause of death is the external reason which caused the injury or poisoning leading to death. The underlying cause of death issued by the physician's death certificate is not directly applied to statistics compilation, but it is used when forming the underlying cause of death in the statistics.
- The statistical underlying cause of death is determined according to the selection and application rules of the International Classification of Diseases (ICD-10) compiled by the World Health Organisation (WHO). On their basis, the underlying cause of death is determined from the causes of death given by the physician in the death certificate. Annual causes of death statistics are made according to the underlying cause of death determined for the statistics. Other causes of death are mainly used in surveys.
- The immediate cause of death refers to the disease, failure or injury whose symptoms cause the person to die. However, the mechanisms of death, e.g. cardiac arrest, are not regarded as immediate causes of death.
- The intermediate cause of death refers the condition which leads from the underlying cause to the immediate cause of death.
- The contributing cause of death are other significant circumstances that contributed to the death recorded in the part II of the death certificate but are not related to the cause-consequence chain in part I of the death certificate.

In the case of **stillbirths and infants dying before the age of 28 days** the statistical data include the child's main cause of death, the mother's main reason contributing to the child's death, and two other reasons contributing to the child's death.

Stillbirths include a foetus or a newborn who shows no signs of life at the time of birth after a pregnancy lasting at least 22 weeks or the newborn weighing at least 500 grams. This concept has been used in Finnish annual tables since 1987. In the earlier used definition, stillbirths were newborns or foetuses when the duration of pregnancy had been at least 28 weeks. The changed concept also influenced the definition of perinatal deaths for stillbirths. Terminations of pregnancy prior to the 22nd week of pregnancy are considered miscarriages. Terminations of pregnancy are not included in the cause of death statistics.

Infant mortality refers to the share of deaths in infancy (at under one year) per thousand live births. **Neonatal mortality** refers to the share of deaths during the four first weeks of life per thousand live births. The figure is often given in tables as per mil. **Early neonatal mortality** refers to the number of deaths during the first week of life relative to the live births. **Late neonatal mortality** refers to the number of deaths which occur at the age of 7 to 27 days relative to the live births.

Perinatal mortality refers to the share of stillbirths and deaths during the first week of life among all births (incl. stillbirths). The age during the first week is calculated in hours.

Perinatal mortality is calculated by dividing the number of stillbirths and deaths during the first week of life by the number of all births during the statistical year. The age during the first week is calculated in hours.

More concepts of the cause of death statistics can be found at: http://tilastokeskus.fi/til/ksyyt/kas_en.html

2. Methodological description of survey

The cause of death statistics data are total data including all deaths in Finland or abroad of persons permanently resident in Finland at the time of their death. Statistics on stillbirths are made separately; cases of stillbirths are not included in deaths during the statistical reference year. The statistics on stillbirths are supplemented with data from the birth register of the National Institute for Health and Welfare (THL).

Death certificates are issued by the physician establishing the death. If determining the cause of death requires an autopsy, the death certificate is issued by a forensic pathologist after the information acquired from the autopsy is complete. The physician issuing the death certificate delivers the certificate to the regional unit of the National Institute for Health and Welfare (THL) where the deceased was a resident. A forensic pathologist there verifies the correctness of the certificate and the certificates are sent on to Statistics Finland. In addition, the health care unit or the physician has to report the death to the Population Information System. At Statistics Finland, the death certificate data are compared with data on the deceased obtained from the Population Information System and lists of missing death certificates are sent to THL for monitoring purposes. The data files on causes of death are supplemented with other demographic data from the Population Information System.

Death certificates are received at Statistics Finland in paper form from THL. Death certificates are scanned at Statistics Finland in picture format and part of the data is read optically to the database. Diagnosis texts and cause of death codes issued by physicians are checked with the help of an electronic dictionary. The statistical underlying cause of death is determined according to the selection and application rules of the International Classification of Diseases (ICD-10) compiled by the World Health Organization (WHO). Some of the statistical underlying causes of death are coded automatically with the application and part manually utilising the description of events written by the physician.

Since 1996, causes of death have been coded according to the international ICD-10 classification (International Statistical Classification of Diseases and Related Health Problems). The ICD-10 classification is an international classification maintained by the World Health Organization (WHO) describing causes of death, illnesses, accidents and reasons for using health care services. The classification can be found on [WHO's pages](#). Causes of death are coded mainly in the most accurate level of the classification, the 3-digit level is the publication level. In certain cases, specifying codes according to the Finnish national classification of diseases are used. THL maintains the Finnish version of the ICD-10 classification of diseases.

In the publication, the mortality rate can be measured with the general mortality rate, where the number of deaths is divided by mean population and multiplied by one thousand or one hundred thousand. The mortality rate can also be calculated by age group, when deaths in each age group are expressed as a proportion to the population of corresponding age.

Age-standardised mortality rate refers to mortality where the effect of age structure is eliminated by age standardisation. The standardisation used in cause of death statistics is made by using direct age standardisation (standardised death rate, SDR), which means that mortality figures for the year in question

have been used to calculate how many people would die if the age structure of the population remained the same throughout time. The formula for direct standardisation is as follows:

$$SDR = \sum (m_i P_i / P) \times 100\,000$$

m_i = mortality rate in age group i

P_i = standard population in age group i

P = standard population

Mortality and the generality of causes of death are heavily dependent on age. For this reason, age standardisation is used in the statistics when comparing mortality differences of different times and areas. In the publication on cause of death statistics, the 'new' standard population of Europe has been used since 1996 as the standard population when calculating age-standardised mortality rates (Appendix 5). Different standard population has been used in the age-standardised mortality figures published by Eurostat, for which reason the figures differ from those released by Statistics Finland.

3. Correctness and accuracy of data

The death certificate form is confirmed by the Ministry of Social Affairs and Health. The physician records the cause of death on the death certificate as a code and as a text specifying the diagnosis. At Statistics Finland, the causes of death are coded mainly on the basis of the diagnosis text.

In case the information in the death certificate is deficient, inconsistent or difficult to classify, the information about the event recorded on the death certificate or a medical expert will be consulted or more information is requested from the issuer of the death certificate. In cases of alcohol and medicinal poisonings, the additional information used consists of the research results from the register of forensic chemistry. The underlying cause of death is determined from the event information in the death certificate in about 1,000 cases yearly. Around 700 cases are handled by a medical expert every year. Additional information is requested from the issuer of the death certificate in about 50 cases per year. Additional information is obtained for some 150 cases per year from the register of forensic chemistry.

In practice, the coverage of the cause of death statistics is around 100 per cent, because the data on death are verified from the Population Information System. The number of deaths on which no information on the cause of death is obtained has previously been 100 to 150 per year, but in the last few years the number of missing death certificates has been growing. In 2015, there were 356 missing death certificates. Of them, 23 were deaths abroad on which only a notification on death was obtained. The data derived from late death certificates are combined to the survey database and death certificate archives.

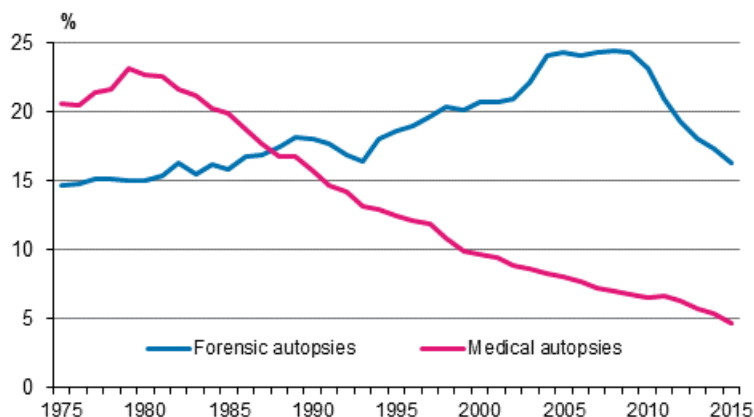
Number of death certificates missing from statistics yearly

Year	Number	Proportion of all deaths, %
2000	40	0,1
2005	118	0,2
2006	135	0,3
2007	139	0,3
2008	146	0,3
2009	157	0,3
2010	107	0,2
2011	132	0,3
2012	226	0,4
2013	267	0,5
2014	477	0,9
2015	356	0,7

Most causes of death are based on clinical data, but qualitatively better data for death certificates are derived from autopsies. The share of autopsies in all deaths were highest in Finland of all Nordic countries.

The number of forensic autopsies has decreased fast in Finland since 2010, however. In 2015, a forensic autopsy was performed for 16 per cent and a medical autopsy for 5 per cent of dead persons.

Share of forensic and medical autopsies in death cases in 1975 to 2015



4. Timeliness and promptness of published data

Cause of death data are produced yearly and they are completed at the end of the following year. The data are final and describe the deaths during the previous calendar year of persons permanently resident in Finland. After the data are published, death certificates are not added afterwards to the annual data of the statistics, but they are included in research data and death certificate archives.

5. Accessibility and transparency/clarity of data

The data of the cause of death statistics are published yearly under the topic Health on the home pages of the cause of death statistics and the tables are released in Statistics Finland's StatFin database. The tables of the cause of death statistics are made according to the underlying cause of death.

The cause of death statistics are available starting from 1936. The data for 1936 to 1968 are in table format in the paper publications. From 1969, there are data as a time series database. Tailored tables and research data can be made from unit-level data at Statistics Finland to customer needs. A licence is always needed for unit-level research data. The application for licence can be found on [Statistics Finland's home page](#). Cause of death data can also be combined to other datasets by means of the person number (e.g. with population census and employment statistics data).

Cause of death data are also published for international sources and databases, such as:

- The Nordic Statistical Yearbook "Health Statistics for the Nordic Countries" <http://nowbase.org/>
- Eurostat's database, e.g. <http://ec.europa.eu/eurostat>
- WHO's databases, e.g. European Health for All database, <http://www.euro.who.int/en/data-and-evidence>

Statistics Finland also maintains Finland's death certificate archive. The archive contains Finnish residents' death certificates from 1936 onwards. The death certificates from 1936 to 1965 are located in the National Archive. More recent death certificates are archived at Statistics Finland.

If it has been less than 50 years since the person died, the death certificate data are confidential. Copies of death certificates and unit-level cause of death data are released from the archive to the purposes prescribed in the act on the investigation of the cause of death (459/1973). They are mainly released to the dead person's next of kin, pension institutions and official use and for scientific research and statistical surveys. Instructions for applying for death certificates and on the licence procedure can be found on Statistics Finland's web pages.

6. Comparability of statistics

The classification of causes of death used in the statistics has changed a number of times. Since 1996, causes of death have been coded according to the ICD-10 classification (International Statistical Classification of Diseases and Related Health Problems). Between 1987 and 1995, the data were coded using the national classification of diseases 1987 and from 1969 to 1986, the international classification ICD-8 was in use.

To improve the comparability of cause of death data from different years, Statistics Finland has made time series classifications. The longest comparable national time series classification (54 categories) contains data from 1969 onwards. In addition, use is made of a 72-category classification where data are available from 1998. This classification complies in main aspects with the 65-category European shortlist classification used by the EU, which was used by Eurostat from 1998 to 2013. Since the beginning of 2014, an updated 86-category European shortlist 2012 classification has been available on Eurostat's website. This classification has also been available on the data of the causes of death statistics at Statistics Finland.

7. Coherence and consistency/uniformity

The cause of death statistics are the only comprehensive statistics on causes of death in Finland. Other Statistics Finland's statistics describing the mortality rate and causes of death are vital statistics, [statistics on road traffic accidents](#) and [occupational accident statistics](#).

The data on deaths published by Statistics Finland's vital statistics are comprehensive statistics on the number of deaths. The number of deaths per year differs somewhat from the number of deaths in the cause of death statistics. The difference is mainly caused by that the vital statistics do not contain deaths registered as deaths after the compilation time of the statistics (the end of the following year's January). In the vital statistics for 2014, the number of deaths was 52,492, which was 190 deaths more than in the cause of death statistics. The number of deaths under the age of one year was 97 in the vital statistics and 96 in the cause of death statistics. When calculating infant mortality, the number of deaths under the age of one in the vital statistics is used in official connections.

The statistics on road traffic accidents compile statistics on deaths in road traffic. Data are obtained from the information system of the police. The coverage of the data is checked against those of the cause of death statistics. The figures deviate from those in the cause of death statistics by some tens of cases each year. The deviation is due to the following differences in the statistical criteria:

- The statistics on road traffic accidents contain all deaths in traffic in the area of Finland, whereas the cause of death statistics include all deaths of the permanent population of Finland occurring either in Finland or abroad.
- The cause of death statistics are compiled on the basis of the day of the death, but the time period of the statistics on road traffic accidents is the day of the accident and at most the 30 following days.
- In the cause of death statistics suicides committed in traffic are included in suicides, in the statistics on road traffic accidents they are regarded as road traffic accidents.

Occupational accident statistics are compiled on the basis of information on insurance activities and the statistics include all those accidents at work on which insurance institutions have paid compensation. By contrast, in the cause of death statistics the information on occupational accidents is derived from death certificates as defined by the physician. The number of deaths from occupational accidents differs yearly very little from the figures in the cause of death statistics.

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Source: Causes of death, Statistics Finland