

# Causes of death 2009

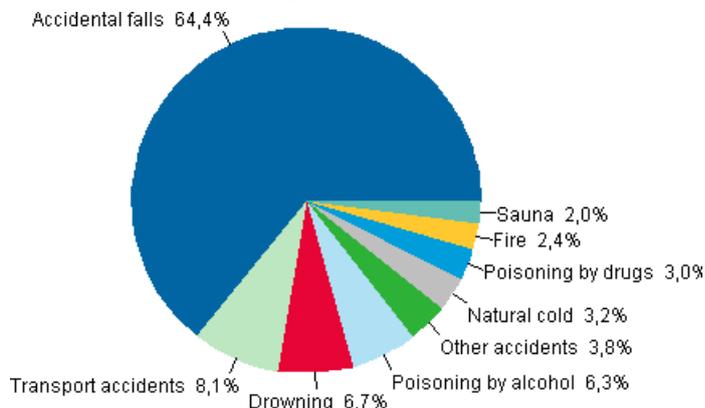
## Annual review

### *Injuries caused by falls the most common reason for fatal accidents*

*Accidental falls were the most common accidents leading to death for both men and women. A total of 1,188 persons died in such accidents, 57 per cent of whom were men. Over one third of men's fatal accidents and over one half of women's were caused by accidental falls.*

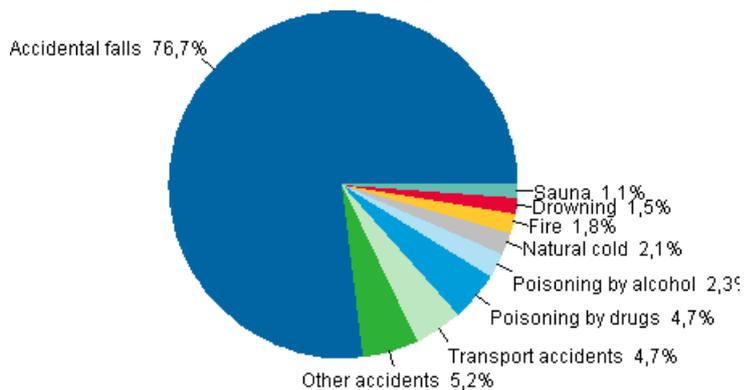
*Accidents caused around six per cent of all deaths in 2009. In 2009, accidents were the cause of the death of 2,903 persons, of whom 1,986 were men and 917 women.*

#### **Fatal accidents among men aged 65 or over in 2009**



The majority of the accidental falls leading to death, i.e. 80 per cent, occurred to persons aged 65 or over. Accidental falls were among them the biggest causes of fatal accidents. Among women, aged 65 or over, three quarters of fatal accidents were caused by falls and stumbles and among men two thirds.

### Fatal accidents among women aged 65 or over in 2009



A total of 1,390 persons aged 65 or over died in accidents, 762 men and 628 women. After accidental falls the most fatal accidents occurred to men aged 65 or over in transportation and drowning accidents and to women in transportation and poisoning by drugs.

In all, a total of 49,904 persons died in 2009, of whom 25,152 were men and 24,752 women. The longer life expectancy is visible in the change in the age distribution of deaths: in 1989 still around 9,000, or 18 per cent, died at the age of 85 or over, while in 2009 the corresponding figure was 15,881, i.e. 32 per cent.

The data concerning causes of death for 2009 were first released in December 2010. This publication is a more extensive review of the previous release.

# Contents

Foreword.....	5
1. Causes of death in 2009.....	6
2. Fatal accidents and violence.....	8
2.1 Homicides and suicides.....	9
3. Infant mortality and maternal mortality.....	10
4. Accident, alcohol and dementia mortality by region in 2009.....	12

## Tables

Table 1a. Leading causes of death among men aged 15 to 64 in 1989 and 2009.....	6
Table 1b. Leading causes of death among women aged 15 to 64 in 1989 and 2009.....	6
Table 2a. Leading causes of death among men aged 65 or over in 1989 and 2009.....	6
Table 2b. Leading causes of death among women aged 65 or over in 1989 and 2009.....	7
Table 3. Deaths in accidents by cause of accident and share of accidents while intoxicated in deaths in 1999 and 2009.....	9
Table 4. Causes of death among under one-year-olds in 2009.....	10
Table 5a. Leading causes of death among boys aged 1 to 14 in 1989 and 2009.....	11
Table 5b. Leading causes of death among girls aged 1 to 14 in 1989 and 2009.....	11
Table 6. Maternal mortality in 1960–2009.....	11

## Appendix tables

Appendix table 1a. Deaths by underlying cause of death (72-group classification) and by age in 2009, both sexes.....	14
Appendix table 1b. Deaths by underlying cause of death (72-group classification) and by age in 2009, men.....	16
Appendix table 1c. Deaths by underlying cause of death (72-group classification) and by age in 2009, women.....	18
Appendix table 2a. Mortality among persons aged 15 to 64 from cancer, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009.....	20
Appendix table 2b. Mortality among persons aged 15 to 64 from cancer, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, men.....	21
Appendix table 2c. Mortality among persons aged 15 to 64 from cancer, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, women.....	22
Appendix table 3a. Mortality among persons aged 65 or over from dementia, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, both sexes.....	23
Appendix table 3b. Mortality among persons aged 65 or over from dementia, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, men.....	24
Appendix table 3c. Mortality among persons aged 65 or over from dementia, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, women.....	25
Appendix table 4. Mortality during infant and perinatal period 1987–2009.....	26
Appendix table 5. Mean population in 2009 by sex.....	27
Appendix table 6. Standard population used in calculating age-standardised figures.....	27

## Figures

Figure 1a. Fatal accidents among men in 2009.....	8
Figure 1b. Fatal accidents among women in 2009.....	8

Figure 2. Stillborn and deaths at the age of under one year and under one week in 1987-2009.....	10
Figure 3. Deaths at the age of under one year by age in 1989 and 2009.....	10
Figure 4. Accident mortality among working-age population (aged 15 to 64) by region in 2009.....	12
Figure 5. Mortality of working-age population (aged 15 to 64) from alcohol-related causes of death by region in 2009.....	12
Figure 6. Dementia mortality of those aged 65 or over by region in 2009.....	13
<b>Appendix figures</b>	
Appendix figure 1. Leading causes of death among men aged 15 to 64 in 2009.....	28
Appendix figure 2. Leading causes of death among women aged 15 to 64 in 2009.....	28
Appendix figure 3. Deaths from dementia (incl. Alzheimer's) in 1985–2009.....	28
Appendix figure 4. Suicides by sex in 1985–2009 .....	29
Quality description of cause of death statistics.....	30

## *Foreword*

This publication contains data on causes of death in 2009 and some data on the development of mortality in recent years. Annual time series data on causes of death are available as database tables on Statistics Finland's web pages.

The publication was edited by Helena Korpi and Irmeli Penttilä. Ulla Arkkio, Jari Hellanto, Mauno Huohvanainen, Raija Maljanen and Terttu Turpeinen contributed to the publication and compilation of the statistics. Forensic pathologist Sari Papinaho and professor Erkki Vuori acted as medical experts. Jouni Asp and Ismo Jauhiainen were in charge of IT issues.

# 1. Causes of death in 2009

The life expectancy of a Finnish man in the early 1950s was around 60 years and that of a woman 65 years. The life expectancy is 76.5 years for a boy born in 2009 and 83.1 years for a girl.

Over the last 20 years, the number of deaths in Finland has been between 47,000 and 50,000 per year. A total of 49,904 persons, 25,152 men and 24,752 women, died in 2009.

In 1989, the number of deaths among working-age population (aged 15 to 64) was 12,241 and in 2009, or twenty years later it was 10,653.

Infant mortality, i.e. deaths of infants under one year of age, has further declined in recent decades. Over the 1980s around 400 infants under one year of age died per year, in 2009 only 160. Mortality of children aged one to 14 has more than halved in the last twenty years: in 1989 the number of deaths among children was 197 and in 2009 only 81. This corresponds to under ten (9.7) deaths per 100,000. The decrease in mortality is mainly due to the lower number of fatal accidents.

The most common disease of the circulatory system, ischaemic heart disease, was the cause of only about one fifth (22%) of all deaths in 2009. Diseases of the circulatory system caused 40 per cent of all deaths. Neoplasms were the cause of nearly every fourth (23%) death. Lung cancer was the most common type of cancer among men and breast cancer among women.

Dementia and Alzheimer's caused around every tenth death, 15 per cent of women's deaths and seven per cent of men's. The number of deaths caused by dementia has grown in the past few decades mainly due to the ageing of the population. Dementia mortality is clearly higher among women than among men, which may mainly be because women live longer than men do.

**Table 1a. Leading causes of death among men aged 15 to 64 in 1989 and 2009**

	TOTAL DEATHS	Alcohol related diseases and accid. poisoning by alcohol	Ischaemic heart diseases	Suicides	Lung cancer	Cerebrovascular diseases	Accidental poisonings excl. accidental poisonings by alcohol	Diseases of the respiratory system	Accidental falls
1989	8879	734	2319	962	544	448	184	322	176
<b>2009</b>	<b>7389</b>	<b>1307</b>	<b>1139</b>	<b>630</b>	<b>401</b>	<b>285</b>	<b>236</b>	<b>202</b>	<b>201</b>

**Table 1b. Leading causes of death among women aged 15 to 64 in 1989 and 2009**

	TOTAL DEATHS	Alcohol related diseases and accid. poisoning by alcohol	Malignant neoplasm of breast	Suicides	Lung cancer	Ischaemic heart diseases	Cerebrovascular diseases	Accidental poisonings excl. accidental poisonings by alcohol	Accidental falls
1989	3362	137	330	235	95	419	289	49	35
<b>2009</b>	<b>3264</b>	<b>332</b>	<b>324</b>	<b>232</b>	<b>192</b>	<b>186</b>	<b>155</b>	<b>81</b>	<b>34</b>

**Table 2a. Leading causes of death among men aged 65 or over in 1989 and 2009**

	TOTAL DEATHS	Ischaemic heart diseases	Dementia, Alzheimer's disease	Cerebrovascular diseases	Lung cancer	Malignant neoplasm of prostate	Accidental falls
1989	15 314	5 218	602	1 506	1 032	514	227
<b>2009</b>	<b>17 643</b>	<b>4 885</b>	<b>1 649</b>	<b>1 471</b>	<b>1 067</b>	<b>719</b>	<b>477</b>

**Table 2b. Leading causes of death among women aged 65 or over in 1989 and 2009**

	TOTAL DEATHS	Ischaemic heart diseases	Dementia, Alzheimer's disease	Cerebrovascular diseases	Malignant neoplasm of breast	Accidental falls	Lung cancer
1989	20 998	6 112	1 476	3 192	402	390	241
<b>2009</b>	<b>21 367</b>	<b>5 324</b>	<b>3 805</b>	<b>2 468</b>	<b>495</b>	<b>475</b>	<b>409</b>

In 2009, altogether 10,653 persons of working age (aged 15 to 64) died, 7,389 men and 3,264 women.

Men's deaths from ischaemic heart disease have halved in the past two decades or so. Over the same time period, alcohol-related diseases and alcohol poisonings have doubled and clearly more men of working age now die from alcohol-related causes than from ischaemic heart disease. Other leading causes of death among men of working age are accidents and suicides. The number of suicides has gone down over the past twenty years. In 2009, the number of suicides among working-age men was 630, which is 47 lower than in the previous year.

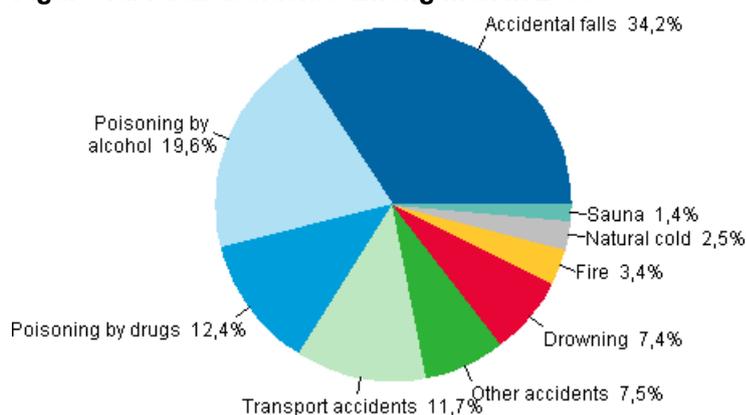
The most common causes of death among working-age women were alcohol-related causes, cancers and especially breast cancer, and suicides and accidents. Over the same period, women's deaths from alcohol-related causes have more than doubled and their number now exceeds women's deaths from breast cancer and ischaemic heart disease. The number of suicides among working-age women has remained unchanged over the past decades, but in 2009 they numbered 232, which is 42 more than in the previous year.

## 2. Fatal accidents and violence

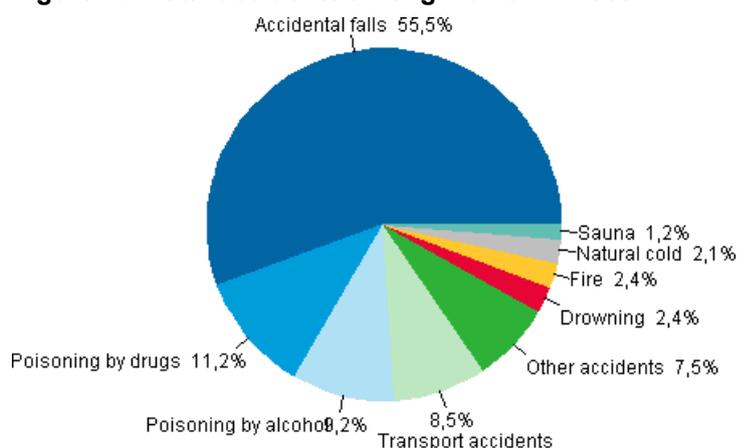
In 2009, accidents caused the death of 2,903 persons, of whom 1,986 were men and 917 women. Accidents, including alcohol poisonings, caused around six per cent of all deaths.

Fatal accidents are such as fatal traffic accidents, fatal falls and stumbles, drownings, fatal fires and alcohol and drug poisonings. Fatal accidents are classified by the external cause of the accident. The cause of an accident is derived from the classification of diseases (ICD-10, group XX).

**Figure 1a. Fatal accidents among men in 2009**



**Figure 1b. Fatal accidents among women in 2009**



Among both men and women the most common accidents leading to death were falls or stumbles, in which a total of 1,188 persons died. Fifty-seven per cent of them were men. Over one third of men's fatal accidents and over one half of women's were caused by falls or stumbles.

The next most common causes of fatal accidents were alcohol and drug poisonings. A total of 473 persons died from alcohol poisonings, of whom 80 per cent were men. In all, 349 persons died of drug poisonings, 70 per cent of whom were men. The majority of these deaths concerned working-age people. Fatal poisonings also include cases involving both drug and alcohol. Then the cause of death is determined according to the most effective substance. In all, 32 per cent of men's fatal accidents were caused by accidental alcohol or drug poisonings. The corresponding figure for women was 20.4 per cent.

In all, 311 persons died in transportation accidents, two thirds of them were men. Among men around one in ten (11.7%) fatal accidents took place in traffic (transportation), among women slightly fewer (8.5% of women's fatal accidents).

There were 169 drowning accidents, the majority of whom were men, i.e. 87 per cent. A total of 124 persons died by drowning of whom 45 in water traffic.

In fatal accidents intoxication means that the doctor signing the death certificate judged that alcohol had contributed to the death. The number of fatal accidents while intoxicated has been around 500 persons in recent years. In 2009, a total of 2,081 persons died accidentally (excl. actual alcohol and drug poisonings), of whom 22 per cent were intoxicated, or 462 persons. In heat of sauna deaths 34 out of 39 persons were intoxicated at death; in fires (57%), in drowning accidents (55%) and among those dying of cold over one half (54%) were intoxicated. Every fifth road traffic fatality occurred while intoxicated.

**Table 3. Deaths in accidents by cause of accident and share of accidents while intoxicated in deaths in 1999 and 2009**

	Accidental deaths		Of which under alcohol intoxication <sup>1)</sup>		Accidental deaths		Of which under alcohol intoxication <sup>1)</sup>		Accidental deaths		Of which under alcohol intoxication <sup>1)</sup>	
	1999	2009	1999	2009	1999	2009	1999	2009	1999	2009	1999	2009
Falls	1 014	1 188	12,5	11,2	528	679	20,4	16,6	486	509	3,9	3,9
Transport accidents (excl. drownings)	487	311	21,1	24,8	348	233	26,7	28,8	139	78	7,2	12,8
Drowning	251	169	55,4	56,8	207	147	59,9	55,8	44	22	34,1	63,6
Fire	74	89	56,8	65,2	59	67	66,1	71,6	15	22	20,0	45,5
Natural cold	72	68	54,2	41,2	52	49	57,7	44,9	20	19	45,0	31,6
Eating, inhalation of food	93	49	45,2	42,9	62	29	53,2	44,8	31	20	29,0	40,0
Heat of sauna	31	39	87,1	64,1	26	28	88,5	78,6	5	11	80,0	27,3
Accidental poisoning by carbon monoxide	11	16	45,5	43,8	9	12	55,6	50,0	2	4	0,0	25,0
Other accidents	157	152	7,6	11,8	116	107	10,3	14,9	41	45	0,0	4,4
<b>Accidents total, excl. poisonings by alcohol and medicaments<sup>2)</sup></b>	<b>2 190</b>	<b>2 081</b>	<b>24,5</b>	<b>22,2</b>	<b>1 407</b>	<b>1 351</b>	<b>33,2</b>	<b>28,8</b>	<b>783</b>	<b>730</b>	<b>8,8</b>	<b>10,1</b>

1) Alcohol intoxications

2) The figure does not include alcohol poisonings (473 deaths in 2009) or poisonings by drugs (349 deaths in 2009).

## 2.1 Homicides and suicides

The doctor signing the death certificate determines whether the person's death was caused by a homicide. A total of 110 persons, 83 men and 27 women, died as a result of a homicide in 2009.

The number of suicides was 1,034 in 2009. Three quarters of suicides were men, or 761. The number of suicides has fallen clearly during the last few years. The figure was at its highest in 1990, when there were a total of 1,520 suicides in Finland. The number of suicides has been highest around 1990 and lowest in the last few years, i.e. about 1,000 persons per year.

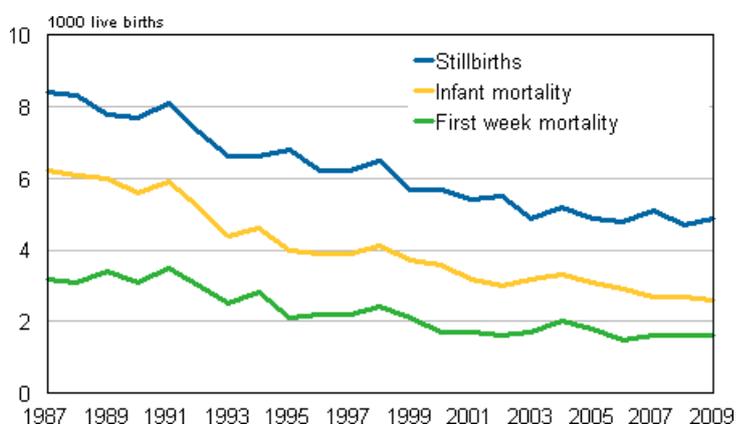
For some deaths it is not possible to determine whether the death had been intentional. Then deaths are classified under unclear cases, of which there were 96 cases, 66 men and 30 women.

### 3. Infant mortality and maternal mortality

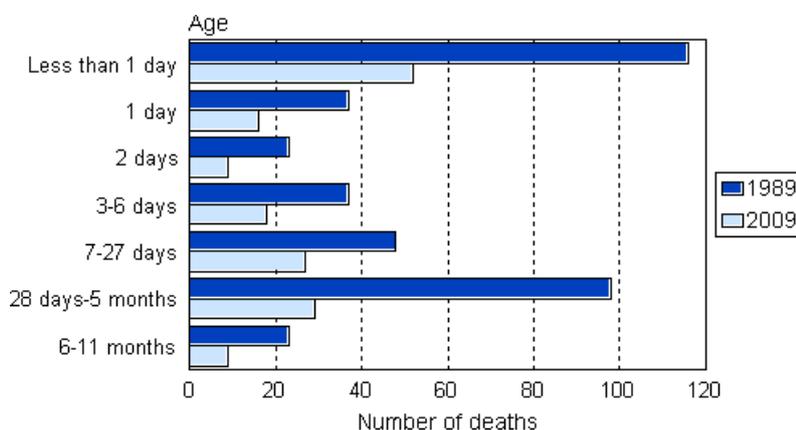
In 2009, 160 children died aged under one year, the figure being almost the same as the year before. Sixty per cent of children dying in their first year die during their first week of life and 76 per cent during the first four weeks of life. Perinatal mortality (deaths during the first week and stillborn) was 4.9 per thousand births. The figure has fallen by almost one half in the last decades. In 2009 there were 15 cot deaths. Cot deaths mostly occur to children over the age of one month.

Maternal mortality started to fall already in the 1970s, after which around one to seven mothers have died per year.

**Figure 2. Stillborn and deaths at the age of under one year and under one week in 1987-2009**



**Figure 3. Deaths at the age of under one year by age in 1989 and 2009**



**Table 4. Causes of death among under one-year-olds in 2009**

Causes of death	Total	Less than 1 day	1-6 days	7-27 days	28 days-5 months	6-11 months
<b>TOTAL DEATHS</b>	<b>160</b>	<b>52</b>	<b>43</b>	<b>27</b>	<b>29</b>	<b>9</b>
Perinatal causes	74	30	31	10	3	0
Congenital malformations	52	18	10	13	10	1
Sudden infant death syndrome	15	0	0	2	8	5
Diseases of circulatory system and respiratory system	5	0	0	1	3	1
Endocrine, nutritional and metabolic diseases	5	0	1	1	2	1
Other diseases	4	0	1	0	2	1
Assault	4	4	0	0	0	0
Accidents	1	0	0	0	1	0

**Table 5a. Leading causes of death among boys aged 1 to 14 in 1989 and 2009**

	TOTAL DEATHS	Congenital malformations	Malignant neoplasms	Accidents	Endocrine, nutritional and metabolic diseases	Other diseases of the nervous system and sense organs	Assault	Suicides
1989	121	7	12	53	7	14	6	3
<b>2009</b>	<b>42</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>

**Table 5b. Leading causes of death among girls aged 1 to 14 in 1989 and 2009**

	TOTAL DEATHS	Malignant neoplasms	Congenital malformations	Endocrine, nutritional and metabolic diseases	Accidents	Other diseases of the nervous system and sense organs	Suicides	Assault
1989	76	12	12	3	28	4	0	2
<b>2009</b>	<b>39</b>	<b>11</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>0</b>

**Table 6. Maternal mortality in 1960–2009**

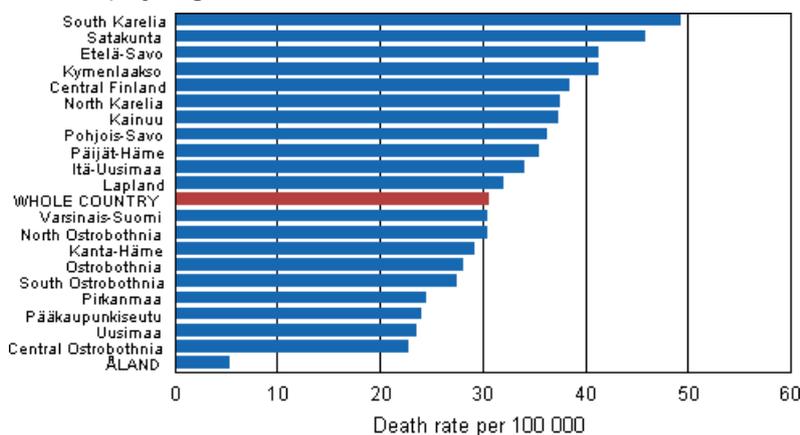
Year	Maternal deaths per 100 000 live births	Maternal deaths
1960	71,8	59
1965	25,7	20
1970	12,4	8
1975	10,6	7
1980	1,6	1
1985	6,4	4
1990	6,1	4
1995	1,6	1
2000	5,3	3
2005	5,2	3
2006	6,8	4
2007	1,7	1
2008	8,4	5
2009	1,6	1

## 4. Accident, alcohol and dementia mortality by region in 2009

It is difficult to compare causes of death by area because of differences in the age structures of areas, the low number of cases in small areas and annual random variations. In this publication mortality rates are calculated per 100,000 persons by age group and mortality among working-age population and mortality among those aged over 65 are compared separately, in which case the effect of the regional age structure is low.

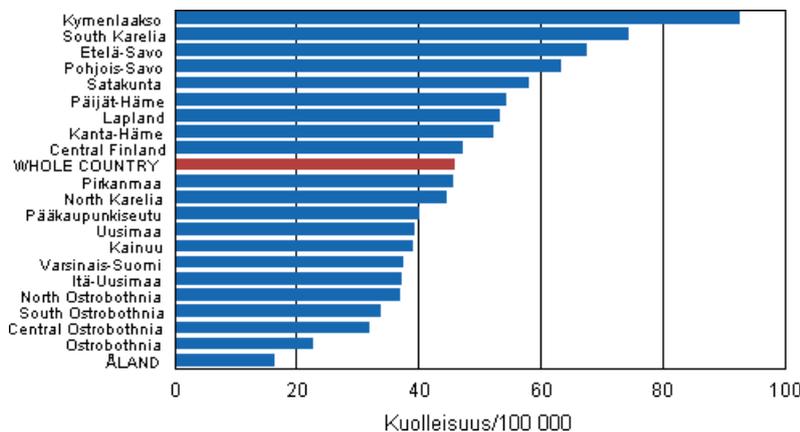
In 2009, the accident mortality of working-age people (aged 15 to 64) was in Finland, on average, 31 persons per 100,000 population. In this classification alcohol poisonings are not counted in accidents but in alcohol-related deaths. Accident mortality was highest in South Karelia, nearly 50 persons per 100,000 population and in Satakunta, 46 per 100,000 population. In Satakunta the numbers of both fatal traffic accidents and fatal falls were higher than in the rest of the country. In South Karelia especially pharmaceutical and drug mortality was higher than elsewhere in Finland. Accident mortality was lowest in Åland, Central Ostrobothnia, Uusimaa and Ostrobothnia (formerly Swedish Ostrobothnia).

**Figure 4. Accident mortality among working-age population (aged 15 to 64) by region in 2009**



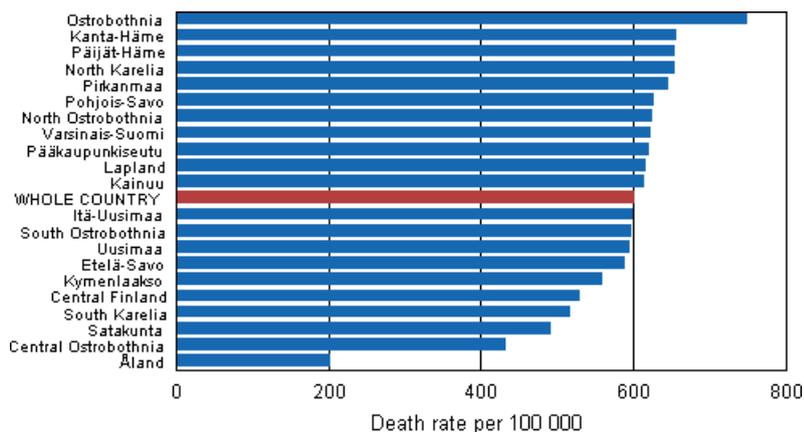
Mortality from alcohol-related causes (alcohol-related diseases and alcohol poisonings) has been of the same magnitude among working-age population in recent years. In the whole country it was around 46 persons per 100,000 population in 2009. Alcohol mortality was clearly highest in Kymenlaakso, followed by South Karelia. It was lowest in Åland, Ostrobothnia and Central Ostrobothnia (Figure 5).

**Figure 5. Mortality of working-age population (aged 15 to 64) from alcohol-related causes of death by region in 2009**



In Finland 17 per cent of the population are aged 64 or over. The population is most aged in the region of Etelä-Savo, where 22.5 per cent of the population are over the age of 65. Next come South Karelia, Kainuu, Satakunta and Kymenlaakso, where the share of those aged 65 or over was around 20 per cent. Dementia mortality is clearly highest in Swedish-speaking Ostrobothnia, 750 persons per 100,000 population. This is followed by several regions where it was 650 persons per 100,000: Päijät-Häme, Kanta-Häme, Pirkanmaa and North Karelia. Dementia mortality was lowest in Åland, Central Ostrobothnia and Satakunta. The leading cause of death among Finns, ischaemic heart disease, was most common in Kainuu. It was least common in Åland and Uusimaa.

**Figure 6. Dementia mortality of those aged 65 or over by region in 2009**



Data are available on mortality by region in Appendix tables 2 and 3 of this publication and on the number of deaths by cause of death in database tables.

## Appendix tables

**Appendix table 1a. Deaths by underlying cause of death (72-group classification) and by age in 2009, both sexes**

	Age			
	Total	0-14	15-64	65-
01-72 TOTAL DEATHS (A00-Y89)	49 904	241	10 653	39 010
01-58 ALL DISEASES (A00-R99)	45 597	222	8 042	37 333
01-05 I CERTAIN INFECTIOUS AND PARASITIC DISEASES (A00-B99)	430	4	72	354
01 Tuberculosis (A15-A19, B90)	54	0	4	50
02 Meningococcal infection (A39)	3	0	2	1
03 Viral hepatitis (B15-B19)	13	0	10	3
04 Human immunodeficiency virus (HIV) disease (B20-B24)	3	0	3	0
05 Other infectious and parasitic diseases (A00-A09, A20-A38, A40-B09, B25-B89, B91-B99)	357	4	53	300
06-24 II NEOPLASMS (C00-D48)	11 310	22	2 968	8 320
06-23 Malignant neoplasms (C00-C97)	10 996	21	2 923	8 052
06 Malignant neoplasm of lip, oral cavity, pharynx (C00-C14)	178	0	85	93
07 Malignant neoplasm of oesophagus (C15)	233	0	80	153
08 Malignant neoplasm of stomach (C16)	487	0	141	346
09 Malignant neoplasm of colon (C18, C19)	749	0	145	604
10 Malignant neoplasm of rectum and anus (C20-C21)	361	0	99	262
11 Primary malignant neoplasm of liver (C22)	464	1	104	359
12 Malignant neoplasm of pancreas (C25)	948	0	243	705
13 Malignant neoplasm of larynx, trachea, lung (C32-C34)	2 069	0	593	1 476
14 Malignant melanoma of skin (C43)	177	0	55	122
15 Malignant neoplasm of breast (C50)	823	0	326	497
16 Malignant neoplasm of cervix uteri (C53)	54	0	25	29
17 Malignant neoplasm of uterus (C54-C55)	202	0	51	151
18 Malignant neoplasm of ovary (C56)	307	0	97	210
19 Malignant neoplasm of prostate (C61)	778	0	59	719
20 Malignant neoplasm of kidney (C64)	304	1	86	217
21 Malignant neoplasm of bladder (C67)	284	0	37	247
22 Malignant neoplasm of lymphoid and haematopoietic tissue (C81-C96)	1 056	9	257	790
23 Other malignant neoplasms	1 522	10	440	1 072
24 Other neoplasms (D00-D48)	314	1	45	268
25 III DISEASES OF BLOOD, BLOOD-FORMING ORGANS (D50-D89)	37	0	7	30
26-27 IV ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES (E00-E90)	563	15	157	391
26 Diabetes mellitus (E10-E14)	436	1	121	314
27 Other endocrine, nutritional and metabolic diseases (E00-E07, E15-E90)	127	14	36	77
28-31 V MENTAL AND BEHAVIOURAL DISORDERS (F00-F99)	2 347	1	180	2 166
28 Dementia (F01, F03) <sup>1)</sup>	2 050	0	7	2 043
29 Disorders due to use of alcohol (F10)	172	0	116	56
30 Disorders due to use of drugs (F11-F16, F18-F19)	14	0	14	0
31 Other mental and behavioural disorders (F00, F02, F04-F09, F17, F20-F99)	111	1	43	67
32-33 VI-VIII DISEASES OF THE NERVOUS SYSTEM, SENSE ORGANS (G00-H95)	4 649	6	325	4 318
32 Meningitis (G00-G03)	13	0	8	5
33 Other diseases of the nervous system and sense organs (G04-H95)	4 636	6	317	4 313
34-37 IX DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	20 361	8	2 569	17 784
34 Ischaemic heart diseases (I20-I25)	11 534	0	1 325	10 209

	Age			
	Total	0-14	15-64	65-
35 Other heart diseases except rheumatic (I30-I52)	2 146	6	513	1 627
36 Cerebrovascular diseases (I60-I69)	4 380	1	440	3 939
37 Other diseases of the circulatory system (I00-I15, I26-I28, I70-I99)	2 301	1	291	2 009
38-42 X DISEASES OF THE RESPIRATORY SYSTEM (J00-J99)	2 210	5	300	1 905
38 Influenza (J09-J11)	41	3	14	24
39 Pneumonia (J12-J18)	540	1	75	464
40 Bronchitis, emphysema (J40-J44, J47)	1 138	0	152	986
41 Asthma (J45-J46)	95	0	16	79
42 Other diseases of the respiratory system (J00-J06, J20-J39, J60-J99)	396	1	43	352
43-45 XI DISEASES OF THE DIGESTIVE SYSTEM (K00-K93)	2 600	3	1 213	1 384
43 Gastric, duodenal and gastrojejunal ulcer (K25-K28)	207	0	59	148
44 Diseases of liver (K70, K73-K74)	1 225	0	906	319
45 Other diseases of the digestive system (K00-K23, K29-K67, K71-K72, K75-K93)	1 168	3	248	917
46 XII DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (L00-L99)	41	0	10	31
47-48 XIII DISEASES MUSCULOSKEL. SYSTEM AND CONNECT. TISSUE (M00-M99)	221	0	36	185
47 Rheumatoid arthritis and arthrosis (M05-M06, M15-M19)	121	0	12	109
48 Other diseases of the musculoskeletal system and connective tissue (M00-M03, M07-M14, M20-M99)	100	0	24	76
49-50 XIV DISEASES OF THE GENITOURINARY SYSTEM (N00-N99)	416	0	20	396
49 Diseases of kidney and ureter (N00-N29)	318	0	15	303
50 Other diseases of the genitourinary system (N30-N99)	98	0	5	93
51 XV PREGNANCY, CHILDBIRTH AND THE PUERPERIUM (O00-O99)	1	0	1	0
52 XVI CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (P00-P96)	75	74	1	0
53-55 XVII CONGENITAL MALFORM., CHROMOSOMAL ABNORMALITIES (Q00-Q99)	184	68	88	28
53 Congenital malformations of the nervous system (Q00-Q07)	15	11	4	0
54 Congenital malformations of the circulatory system (Q20-Q28)	54	18	27	9
55 Other congenital malformations, chromosomal abnormalities (Q10-Q18, Q30-Q99)	115	39	57	19
56-58 XVIII SYMPTOMS AND ILL-DEFINED CONDITIONS (R00-R99)	152	16	95	41
56 Sudden infant death syndrome (R95)	15	15	0	0
57 Unknown and unspecified causes (R96-R99)	126	1	94	31
58 Other symptoms and ill-defined conditions (R00-R94)	11	0	1	10
59-71 XX ACCIDENTS AND VIOLENCE (V01-Y89)	4 150	19	2 540	1 591
59-67 Accidents (V01-X59, Y85-Y86)	2 903	12	1 501	1 390
59 Traffic accidents	269	5	186	78
60 Other land transport accidents	32	0	21	11
61 Water transport accidents (V90-V94)	48	0	29	19
62 Others and unspecified transport accidents (V95-V99)	7	0	7	0
63 Accidental falls (W00-W19)	1 188	1	235	952
64 Drowning (W65-W74)	124	0	84	40
65 Accidental poisonings by alcohol (X45)	473	0	412	61
66 Accidental poisonings by other substances (X40-X44, X46-X49)	365	0	314	51
67 Other accid., sequelae of accidental injuries (W20-W64, W75-X39, X50-X59, Y85-Y86)	397	6	213	178
68 Suicides and sequelae of suicides (X60-X84, Y87.0)	1 034	1	862	171
69 Homicide and injury purposely inflicted by other persons (X85-Y09, Y87.1)	110	3	94	13
70 Event of undetermined intent (Y10-Y34, Y87.2)	96	3	79	14
71 Other external causes and late effects (Y35-Y84, Y88-Y89)	7	0	4	3
72 NO DEATH CERTIFICATE	157	0	71	86

1) Alzheimer's disease is included in class 33.

**Appendix table 1b. Deaths by underlying cause of death (72-group classification) and by age in 2009, men**

	Age, Males			
	Total	0-14	15-64	65-
01-72 TOTAL DEATHS (A00-Y89)	25 152	120	7 389	17 643
01-58 ALL DISEASES (A00-R99)	22 153	107	5 357	16 689
01-05 I CERTAIN INFECTIOUS AND PARASITIC DISEASES (A00-B99)	196	2	47	147
01 Tuberculosis (A15-A19, B90)	28	0	3	25
02 Meningococcal infection (A39)	0	0	0	0
03 Viral hepatitis (B15-B19)	9	0	7	2
04 Human immunodeficiency virus (HIV) disease (B20-B24)	2	0	2	0
05 Other infectious and parasitic diseases (A00-A09, A20-A38, A40-B09, B25-B89, B91-B99)	157	2	35	120
06-24 II NEOPLASMS (C00-D48)	5 953	10	1 589	4 354
06-23 Malignant neoplasms (C00-C97)	5 810	9	1 563	4 238
06 Malignant neoplasm of lip, oral cavity, pharynx (C00-C14)	121	0	69	52
07 Malignant neoplasm of oesophagus (C15)	156	0	64	92
08 Malignant neoplasm of stomach (C16)	278	0	94	184
09 Malignant neoplasm of colon (C18, C19)	316	0	60	256
10 Malignant neoplasm of rectum and anus (C20-C21)	229	0	66	163
11 Primary malignant neoplasm of liver (C22)	271	1	70	200
12 Malignant neoplasm of pancreas (C25)	464	0	143	321
13 Malignant neoplasm of larynx, trachea, lung (C32-C34)	1 468	0	401	1 067
14 Malignant melanoma of skin (C43)	108	0	40	68
15 Malignant neoplasm of breast (C50)	4	0	2	2
16 Malignant neoplasm of cervix uteri (C53)	0	0	0	0
17 Malignant neoplasm of uterus (C54-C55)	0	0	0	0
18 Malignant neoplasm of ovary (C56)	0	0	0	0
19 Malignant neoplasm of prostate (C61)	778	0	59	719
20 Malignant neoplasm of kidney (C64)	174	1	62	111
21 Malignant neoplasm of bladder (C67)	215	0	34	181
22 Malignant neoplasm of lymphoid and haematopoietic tissue (C81-C96)	537	3	158	376
23 Other malignant neoplasms	691	4	241	446
24 Other neoplasms (D00-D48)	143	1	26	116
25 III DISEASES OF BLOOD, BLOOD-FORMING ORGANS (D50-D89)	15	0	6	9
26-27 IV ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES (E00-E90)	288	6	104	178
26 Diabetes mellitus (E10-E14)	224	0	81	143
27 Other endocrine, nutritional and metabolic diseases (E00-E07, E15-E90)	64	6	23	35
28-31 V MENTAL AND BEHAVIOURAL DISORDERS (F00-F99)	764	0	138	626
28 Dementia (F01, F03) <sup>1)</sup>	562	0	3	559
29 Disorders due to use of alcohol (F10)	137	0	93	44
30 Disorders due to use of drugs (F11-F16, F18-F19)	11	0	11	0
31 Other mental and behavioural disorders (F00, F02, F04-F09, F17, F20-F99)	54	0	31	23
32-33 VI-VIII DISEASES OF THE NERVOUS SYSTEM, SENSE ORGANS (G00-H95)	1 734	3	191	1 540
32 Meningitis (G00-G03)	8	0	5	3
33 Other diseases of the nervous system and sense organs (G04-H95)	1 726	3	186	1 537
34-37 IX DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	9 858	2	2 040	7 816
34 Ischaemic heart diseases (I20-I25)	6 024	0	1 139	4 885
35 Other heart diseases except rheumatic (I30-I52)	1 039	2	396	641
36 Cerebrovascular diseases (I60-I69)	1 756	0	285	1 471
37 Other diseases of the circulatory system (I00-I15, I26-I28, I70-I99)	1 039	0	220	819

	Age, Males			
	Total	0-14	15-64	65-
38-42 X DISEASES OF THE RESPIRATORY SYSTEM (J00-J99)	1 333	2	202	1 129
38 Influenza (J09-J11)	22	2	7	13
39 Pneumonia (J12-J18)	262	0	52	210
40 Bronchitis, emphysema (J40-J44, J47)	788	0	106	682
41 Asthma (J45-J46)	30	0	6	24
42 Other diseases of the respiratory system (J00-J06, J20-J39, J60-J99)	231	0	31	200
43-45 XI DISEASES OF THE DIGESTIVE SYSTEM (K00-K93)	1 547	3	899	645
43 Gastric, duodenal and gastrojejunal ulcer (K25-K28)	105	0	39	66
44 Diseases of liver (K70, K73-K74)	907	0	684	223
45 Other diseases of the digestive system (K00-K23, K29-K67, K71-K72, K75-K93)	535	3	176	356
46 XII DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (L00-L99)	15	0	7	8
47-48 XIII DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE (M00-M99)	67	0	15	52
47 Rheumatoid arthritis and arthrosis (M05-M06, M15-M19)	30	0	3	27
48 Other diseases of the musculoskeletal system and connective tissue (M00-M03, M07-M14, M20-M99)	37	0	12	25
49-50 XIV DISEASES OF THE GENITOURINARY SYSTEM (N00-N99)	174	0	12	162
49 Diseases of kidney and ureter (N00-N29)	126	0	8	118
50 Other diseases of the genitourinary system (N30-N99)	48	0	4	44
51 XV PREGNANCY, CHILDBIRTH AND THE PUERPERIUM (O00-O99)	0	0	0	0
52 XVI CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (P00-P96)	39	38	1	0
53-55 XVII CONGENITAL MALFORMATIONS, CHROMOSOMAL ABNORMALITIES (Q00-Q99)	88	34	45	9
53 Congenital malformations of the nervous system (Q00-Q07)	8	6	2	0
54 Congenital malformations of the circulatory system (Q20-Q28)	24	8	14	2
55 Other congenital malformations, chromosomal abnormalities (Q10-Q18, Q30-Q99)	56	20	29	7
56-58 XVIII SYMPTOMS AND ILL-DEFINED CONDITIONS (R00-R99)	82	7	61	14
56 Sudden infant death syndrome (R95)	6	6	0	0
57 Unknown and unspecified causes (R96-R99)	74	1	60	13
58 Other symptoms and ill-defined conditions (R00-R94)	2	0	1	1
59-71 XX ACCIDENTS AND VIOLENCE (V01-Y89)	2 901	13	1 980	908
59-67 Accidents (V01-X59, Y85-Y86)	1 986	8	1 216	762
59 Traffic accidents	193	4	139	50
60 Other land transport accidents	30	0	20	10
61 Water transport accidents (V90-V94)	46	0	29	17
62 Others and unspecified transport accidents (V95-V99)	7	0	7	0
63 Accidental falls (W00-W19)	679	1	201	477
64 Drowning (W65-W74)	104	0	71	33
65 Accidental poisonings by alcohol (X45)	389	0	342	47
66 Accidental poisonings by other substances (X40-X44, X46-X49)	258	0	236	22
67 Other accidents and sequelae of accidental injuries (W20-W64, W75-X39, X50-X59, Y85-Y86)	280	3	171	106
68 Suicides and sequelae of suicides (X60-X84, Y87.0)	761	0	630	131
69 Homicide and injury purposely inflicted by other persons (X85-Y09, Y87.1)	83	3	74	6
70 Event of undetermined intent (Y10-Y34, Y87.2)	66	2	57	7
71 Other external causes and late effects (Y35-Y84, Y88-Y89)	5	0	3	2
72 NO DEATH CERTIFICATE	98	0	52	46

1) Alzheimer's disease is included in class 33.

**Appendix table 1c. Deaths by underlying cause of death (72-group classification) and by age in 2009, women**

	Total	0-14	15-64	65-
01-72 TOTAL DEATHS (A00-Y89)	24 752	121	3 264	21 367
01-58 ALL DISEASES (A00-R99)	23 444	115	2 685	20 644
01-05 I CERTAIN INFECTIOUS AND PARASITIC DISEASES (A00-B99)	234	2	25	207
01 Tuberculosis (A15-A19, B90)	26	0	1	25
02 Meningococcal infection (A39)	3	0	2	1
03 Viral hepatitis (B15-B19)	4	0	3	1
04 Human immunodeficiency virus (HIV) disease (B20-B24)	1	0	1	0
05 Other infectious and parasitic diseases (A00-A09, A20-A38, A40-B09, B25-B89, B91-B99)	200	2	18	180
06-24 II NEOPLASMS (C00-D48)	5 357	12	1 379	3 966
06-23 Malignant neoplasms (C00-C97)	5 186	12	1 360	3 814
06 Malignant neoplasm of lip, oral cavity, pharynx (C00-C14)	57	0	16	41
07 Malignant neoplasm of oesophagus (C15)	77	0	16	61
08 Malignant neoplasm of stomach (C16)	209	0	47	162
09 Malignant neoplasm of colon (C18, C19)	433	0	85	348
10 Malignant neoplasm of rectum and anus (C20-C21)	132	0	33	99
11 Primary malignant neoplasm of liver (C22)	193	0	34	159
12 Malignant neoplasm of pancreas (C25)	484	0	100	384
13 Malignant neoplasm of larynx, trachea, lung (C32-C34)	601	0	192	409
14 Malignant melanoma of skin (C43)	69	0	15	54
15 Malignant neoplasm of breast (C50)	819	0	324	495
16 Malignant neoplasm of cervix uteri (C53)	54	0	25	29
17 Malignant neoplasm of uterus (C54-C55)	202	0	51	151
18 Malignant neoplasm of ovary (C56)	307	0	97	210
19 Malignant neoplasm of prostate (C61)	0	0	0	0
20 Malignant neoplasm of kidney (C64)	130	0	24	106
21 Malignant neoplasm of bladder (C67)	69	0	3	66
22 Malignant neoplasm of lymphoid and haematopoietic tissue (C81-C96)	519	6	99	414
23 Other malignant neoplasms	831	6	199	626
24 Other neoplasms (D00-D48)	171	0	19	152
25 III DISEASES OF BLOOD, BLOOD-FORMING ORGANS (D50-D89)	22	0	1	21
26-27 IV ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES (E00-E90)	275	9	53	213
26 Diabetes mellitus (E10-E14)	212	1	40	171
27 Other endocrine, nutritional and metabolic diseases (E00-E07, E15-E90)	63	8	13	42
28-31 V MENTAL AND BEHAVIOURAL DISORDERS (F00-F99)	1 583	1	42	1 540
28 Dementia (F01, F03) <sup>1)</sup>	1 488	0	4	1 484
29 Disorders due to use of alcohol (F10)	35	0	23	12
30 Disorders due to use of drugs (F11-F16, F18-F19)	3	0	3	0
31 Other mental and behavioural disorders (F00, F02, F04-F09, F17, F20-F99)	57	1	12	44
32-33 VI-VIII DISEASES OF THE NERVOUS SYSTEM, SENSE ORGANS (G00-H95)	2 915	3	134	2 778
32 Meningitis (G00-G03)	5	0	3	2
33 Other diseases of the nervous system and sense organs (G04-H95)	2 910	3	131	2 776
34-37 IX DISEASES OF THE CIRCULATORY SYSTEM (I00-I99)	10 503	6	529	9 968
34 Ischaemic heart diseases (I20-I25)	5 510	0	186	5 324
35 Other heart diseases except rheumatic (I30-I52)	1 107	4	117	986
36 Cerebrovascular diseases (I60-I69)	2 624	1	155	2 468
37 Other diseases of the circulatory system (I00-I15, I26-I28, I70-I99)	1 262	1	71	1 190
38-42 X DISEASES OF THE RESPIRATORY SYSTEM (J00-J99)	877	3	98	776

	Total	0-14	15-64	65-
38 Influenza (J09-J11)	19	1	7	11
39 Pneumonia (J12-J18)	278	1	23	254
40 Bronchitis, emphysema (J40-J44, J47)	350	0	46	304
41 Asthma (J45-J46)	65	0	10	55
42 Other diseases of the respiratory system (J00-J06, J20-J39, J60-J99)	165	1	12	152
43-45 XI DISEASES OF THE DIGESTIVE SYSTEM (K00-K93)	1 053	0	314	739
43 Gastric, duodenal and gastrojejunal ulcer (K25-K28)	102	0	20	82
44 Diseases of liver (K70, K73-K74)	318	0	222	96
45 Other diseases of the digestive system (K00-K23, K29-K67, K71-K72, K75-K93)	633	0	72	561
46 XII DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE (L00-L99)	26	0	3	23
47-48 XIII DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE (M00-M99)	154	0	21	133
47 Rheumatoid arthritis and arthrosis (M05-M06, M15-M19)	91	0	9	82
48 Other diseases of the musculoskeletal system and connective tissue (M00-M03,M07-M14,M20-M99)	63	0	12	51
49-50 XIV DISEASES OF THE GENITOURINARY SYSTEM (N00-N99)	242	0	8	234
49 Diseases of kidney and ureter (N00-N29)	192	0	7	185
50 Other diseases of the genitourinary system (N30-N99)	50	0	1	49
51 XV PREGNANCY, CHILDBIRTH AND THE PUERPERIUM (O00-O99)	1	0	1	0
52 XVI CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD (P00-P96)	36	36	0	0
53-55 XVII CONGENITAL MALFORMATIONS, CHROMOSOMAL ABNORMALITIES (Q00-Q99)	96	34	43	19
53 Congenital malformations of the nervous system (Q00-Q07)	7	5	2	0
54 Congenital malformations of the circulatory system (Q20-Q28)	30	10	13	7
55 Other congenital malformations, chromosomal abnormalities (Q10-Q18, Q30-Q99)	59	19	28	12
56-58 XVIII SYMPTOMS AND ILL-DEFINED CONDITIONS (R00-R99)	70	9	34	27
56 Sudden infant death syndrome (R95)	9	9	0	0
57 Unknown and unspecified causes (R96-R99)	52	0	34	18
58 Other symptoms and ill-defined conditions (R00-R94)	9	0	0	9
59-71 XX ACCIDENTS AND VIOLENCE (V01-Y89)	1 249	6	560	683
59-67 Accidents (V01-X59, Y85-Y86)	917	4	285	628
59 Traffic accidents	76	1	47	28
60 Other land transport accidents	2	0	1	1
61 Water transport accidents (V90-V94)	2	0	0	2
62 Others and unspecified transport accidents (V95-V99)	0	0	0	0
63 Accidental falls (W00-W19)	509	0	34	475
64 Drowning (W65-W74)	20	0	13	7
65 Accidental poisonings by alcohol (X45)	84	0	70	14
66 Accidental poisonings by other substances (X40-X44, X46-X49)	107	0	78	29
67 Other accidents and sequelae of accidental injuries(W20-W64, W75-X39, X50-X59, Y85-Y86)	117	3	42	72
68 Suicides and sequelae of suicides (X60-X84, Y87.0)	273	1	232	40
69 Homicide and injury purposely inflicted by other persons (X85-Y09, Y87.1)	27	0	20	7
70 Event of undetermined intent (Y10-Y34, Y87.2)	30	1	22	7
71 Other external causes and late effects (Y35-Y84, Y88-Y89)	2	0	1	1
72 NO DEATH CERTIFICATE	59	0	19	40

1) Alzheimer's disease is included in class 33.

**Appendix table 2a. Mortality among persons aged 15 to 64 from cancer, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009 <sup>1)</sup>**

	Total	Malignant neoplasms	Ischaemic heart diseases	Alcohol related <sup>2)</sup>	Suicides	Accidents	traffic accidents	accidental falls
WHOLE COUNTRY	300,3	82,4	37,3	46,2	24,3	30,8	5,2	6,6
MAINLAND FINLAND	300,6	82,2	37,5	46,3	24,3	30,9	5,3	6,7
Uusimaa	258,8	72,5	29,8	39,6	20,9	23,8	2,7	5,9
Pääkaupunkiseutu	256,2	71,8	28,9	40,5	20,5	24,2	2,2	6,2
Itä-Uusimaa	279,9	74,9	39,1	37,4	37,4	34,2	9,8	3,3
Varsinais-Suomi	286,6	82,4	29,7	37,9	25,2	30,7	7,8	4,6
Satakunta	356,0	96,0	46,0	58,3	25,4	46,0	10,3	12,3
Kanta-Häme	324,5	96,3	30,3	52,6	21,4	29,4	6,2	4,5
Pirkanmaa	276,0	74,3	32,3	46,0	23,9	24,6	4,0	5,3
Päijät-Häme	347,4	97,3	49,4	54,7	20,5	35,7	6,8	12,9
Kymenlaakso	426,2	113,3	36,4	93,0	22,0	41,4	7,6	16,9
South Karelia	439,5	116,2	49,5	74,8	23,0	49,5	5,8	10,4
Etelä-Savo	377,7	79,0	61,8	67,9	30,4	41,5	5,1	6,1
Pohjois-Savo	343,7	87,6	45,0	63,6	35,2	36,4	3,7	5,6
North Karelia	327,2	72,6	53,3	45,0	23,9	37,7	5,5	7,4
Central Finland	299,2	73,8	41,4	47,5	26,3	38,6	7,3	6,7
South Ostrobothnia	310,6	87,0	50,4	34,1	20,3	27,6	3,3	5,7
Ostrobothnia	230,0	96,4	20,3	23,0	15,9	28,3	7,1	2,7
Central Ostrobothnia	252,7	87,3	32,2	32,2	16,1	23,0	4,6	2,3
North Ostrobothnia	271,5	69,1	37,7	37,3	30,2	30,6	7,5	5,1
Kainuu	391,6	97,4	71,2	39,4	35,6	37,5	1,9	11,2
Lapland	342,7	103,2	47,9	53,7	28,9	32,2	5,8	8,3
ÅLAND	231,9	110,4	11,0	16,6	16,6	5,5	0,0	0,0

1) Classification: 54 categories

2) The figure includes categories F10, G312, G4051, G621, G721; I426, K292, K70, K852, K860, O354, P043, X45 as underlying cause of death.

**Appendix table 2b. Mortality among persons aged 15 to 64 from cancer, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, men <sup>1)</sup>**

	Death rate per 100 000							
	Total deaths	Malignant neoplasms	Ischaemic heart diseases	Alcohol related diseases and accid.poisoning by alcohol <sup>2)</sup>	Suicides	Accidents	Land traffic accidents	Accidental falls
WHOLE COUNTRY	412,0	87,1	63,5	72,9	35,1	48,7	7,8	11,2
MAINLAND FINLAND	412,8	87,0	63,8	73,1	35,2	48,9	7,8	11,3
Uusimaa	349,3	74,8	51,8	63,3	30,2	37,0	4,1	10,1
Pääkaupunkiseutu	348,1	71,9	51,1	67,1	30,6	38,2	3,6	10,9
Itä-Uusimaa	363,9	61,2	74,1	61,2	48,3	48,3	6,4	6,4
Varsinais-Suomi	408,2	94,2	53,0	64,1	37,9	48,4	11,8	7,8
Satakunta	485,3	108,9	73,9	87,4	36,3	78,0	16,1	22,9
Kanta-Häme	435,6	105,8	44,1	75,8	33,5	45,9	10,6	7,1
Pirkanmaa	375,3	78,5	54,0	68,1	31,9	42,3	6,1	9,8
Päijät-Häme	474,8	108,9	68,0	89,2	30,2	57,5	10,6	21,2
Kymenlaakso	553,1	100,4	67,5	128,4	34,6	54,3	4,9	26,3
South Karelia	628,2	137,1	77,4	121,7	37,6	75,2	8,8	15,5
Etelä-Savo	547,4	83,0	112,6	116,6	47,4	63,2	7,9	11,9
Pohjois-Savo	463,7	86,7	79,5	98,8	49,4	49,4	7,2	6,0
North Karelia	469,8	88,6	86,9	76,2	33,7	60,3	8,9	12,4
Central Finland	413,3	69,1	66,9	82,2	37,3	61,4	12,1	11,0
South Ostrobothnia	430,7	86,5	86,5	50,3	36,2	45,6	4,7	9,4
Ostrobothnia	287,3	104,3	34,2	35,9	22,2	44,5	10,3	3,4
Central Ostrobothnia	319,2	94,4	58,4	49,4	18,0	40,5	4,5	4,5
North Ostrobothnia	361,5	69,1	63,8	54,7	42,5	48,6	9,9	8,4
Kainuu	562,6	107,5	118,3	64,5	50,2	68,1	3,6	21,5
Lapland	520,7	123,0	87,8	89,4	39,9	57,5	11,2	16,0
ÅLAND	252,6	109,8	11,0	22,0	11,0	11,0	0,0	0,0

1) Classification: 54 categories

2) The figure includes categories F10, G312, G4051, G621, G721; I426, K292, K70, K852, K860, O354, P043, X45 as underlying cause of death.

**Appendix table 2c. Mortality among persons aged 15 to 64 from cancer, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, women<sup>1)</sup>**

	Total	Malignant neoplasms	Ischaemic heart diseases	Alcohol related <sup>2)</sup>	Suicides	Accidents	traffic accidents	accidental falls
WHOLE COUNTRY	186,1	77,5	10,6	18,9	13,2	12,4	2,7	1,9
MAINLAND FINLAND	185,9	77,3	10,6	19,0	13,2	12,5	2,7	1,9
Uusimaa	171,3	70,3	8,6	16,5	11,9	11,0	1,4	1,8
Pääkaupunkiseutu	168,5	71,7	7,8	15,2	11,0	11,0	0,8	1,6
Itä-Uusimaa	194,1	88,8	3,3	13,2	26,3	19,7	13,2	0,0
Varsinais-Suomi	165,3	70,5	6,5	11,8	12,4	13,1	3,9	1,3
Satakunta	221,3	82,6	16,8	28,0	14,0	12,6	4,2	1,4
Kanta-Häme	210,9	86,5	16,2	28,8	9,0	12,6	1,8	1,8
Pirkanmaa	174,0	70,0	10,1	23,3	15,8	6,3	1,9	0,6
Päijät-Häme	218,6	85,6	30,6	19,9	10,7	13,8	3,1	4,6
Kymenlaakso	292,2	127,0	3,5	55,7	8,7	27,8	10,4	7,0
South Karelia	235,0	93,5	19,2	24,0	7,2	21,6	2,4	4,8
Etelä-Savo	199,4	74,8	8,3	16,6	12,5	18,7	2,1	0,0
Pohjois-Savo	217,6	88,6	8,9	26,6	20,2	22,8	0,0	5,1
North Karelia	173,7	55,4	17,2	11,5	13,4	13,4	1,9	1,9
Central Finland	180,4	78,8	14,8	11,4	14,8	14,8	2,3	2,3
South Ostrobothnia	181,8	87,6	11,8	16,8	3,4	8,4	1,7	1,7
Ostrobothnia	168,6	88,0	5,5	9,2	9,2	11,0	3,7	1,8
Central Ostrobothnia	183,3	79,9	4,7	14,1	14,1	4,7	4,7	0,0
North Ostrobothnia	175,3	69,0	9,7	18,7	17,0	11,4	4,9	1,6
Kainuu	204,2	86,4	19,6	11,8	19,6	3,9	0,0	0,0
Lapland	152,1	82,0	5,1	15,4	17,1	5,1	0,0	0,0
ÅLAND	211,0	111,1	11,1	11,1	22,2	0,0	0,0	0,0

1) Classification: 54 categories

2) The figure includes categories F10, G312, G4051, G621, G721; I426, K292, K70, K852, K860, O354, P043, X45 as underlying cause of death.

**Appendix table 3a. Mortality among persons aged 65 or over from dementia, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, both sexes<sup>1)</sup>**

	TOTAL DEATHS	Dementia, Alzheimers disease	Ischaemic heart diseases	Alcohol related <sup>2)</sup>	Suicides	Accidents	Traffic accidents	Accidental falls
WHOLE COUNTRY	4 328,4	605,2	1 132,8	47,3	19,0	147,5	8,7	105,6
MAINLAND FINLAND	4 328,2	607,3	1 134,2	47,2	19,0	147,5	8,5	105,8
Uusimaa	4 082,4	597,7	964,5	58,2	22,1	148,1	7,0	112,0
Pääkaupunkiseutu	4 081,1	623,3	943,9	63,7	20,2	164,1	3,0	126,6
Itä-Uusimaa	3 919,6	603,0	991,6	40,2	20,1	120,6	13,4	67,0
Varsinais-Suomi	4 354,2	625,0	1 013,3	44,9	21,8	133,5	4,9	99,5
Satakunta	4 370,9	493,8	1 239,9	41,0	23,7	146,6	10,8	99,2
Kanta-Häme	4 438,2	658,7	1 169,9	40,8	18,8	175,6	9,4	128,6
Pirkanmaa	4 354,9	649,6	1 036,1	61,2	14,7	144,3	8,6	94,2
Päijät-Häme	4 568,0	657,5	1 344,0	55,4	13,2	129,4	5,3	100,3
Kymenlaakso	4 589,0	562,8	1 222,6	64,6	16,2	142,7	2,7	105,0
South Karelia	4 422,2	520,5	1 177,3	68,2	10,8	136,4	7,2	75,4
Etelä-Savo	4 680,2	591,8	1 294,5	37,0	37,0	173,6	17,1	102,4
Pohjois-Savo	4 532,5	629,6	1 346,2	40,3	17,0	165,4	6,4	131,4
North Karelia	4 303,8	656,4	1 234,6	53,1	6,3	93,8	6,3	65,6
Central Finland	4 340,2	533,4	1 148,1	39,6	37,5	200,0	8,3	164,6
South Ostrobothnia	4 482,4	600,0	1 108,5	29,6	16,1	145,3	13,5	83,4
Ostrobothnia	4 322,7	752,4	1 020,5	12,2	9,1	127,9	18,3	79,2
Central Ostrobothnia	4 323,0	434,9	1 458,0	17,1	0,0	119,4	8,5	93,8
North Ostrobothnia	4 123,3	627,9	1 243,1	30,6	12,6	156,5	5,4	116,9
Kainuu	4 675,5	617,5	1 546,7	35,3	5,9	211,7	17,6	158,8
Lapland	4 290,9	619,7	1 177,5	53,1	20,7	115,1	11,8	82,6
ÅLAND	4 365,7	205,9	864,9	61,8	20,6	144,2	41,2	82,4

1) Classification: 54 categories

2) The figure includes categories F10, G312, G4051, G621, G721; I426, K292, K70, K852, K860, O354, P043, X45 as underlying cause of death.

**Appendix table 3b. Mortality among persons aged 65 or over from dementia, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, men <sup>1)</sup>**

	Death rate per 100 000, males							
	TOTAL DEATHS	Dementia, Alzheimers disease	Ischaemic heart diseases	Alcohol related <sup>2)</sup>	Suicides	Accidents	Traffic accidents	Accidental falls
WHOLE COUNTRY	4 764,3	445,3	1 319,1	92,9	35,4	193,1	13,5	128,8
MAINLAND FINLAND	4 764,3	447,4	1 320,5	92,9	35,3	193,1	13,3	129,0
Uusimaa	4 474,6	403,7	1 144,7	103,0	37,9	178,8	10,8	131,4
Metropolitan area	4 450,0	416,0	1 124,1	112,2	34,8	209,0	5,8	156,7
Itä-Uusimaa	4 245,9	426,2	1 152,2	78,9	15,8	189,4	31,6	94,7
Varsinais-Suomi	4 653,7	402,0	1 214,8	98,3	50,6	163,8	8,9	116,1
Satakunta	4 678,4	334,2	1 462,0	83,5	41,8	203,6	20,9	125,3
Kanta-Häme	4 716,4	460,1	1 365,1	84,4	38,3	230,1	15,3	168,7
Pirkanmaa	4 872,1	538,3	1 137,1	127,0	15,1	181,5	12,1	111,9
Päijät-Häme	4 768,8	469,0	1 400,3	125,5	19,8	125,5	13,2	85,9
Kymenlaakso	5 099,1	511,9	1 325,6	111,6	32,8	170,6	0,0	111,6
South Karelia	4 814,9	342,0	1 262,9	149,1	8,8	219,3	8,8	96,5
Etelä-Savo	5 052,2	402,8	1 420,1	75,1	81,9	239,0	34,1	116,1
Pohjois-Savo	5 089,9	459,0	1 547,1	92,8	36,1	288,8	10,3	216,6
North Karelia	5 209,5	542,0	1 678,8	105,4	15,1	150,6	15,1	82,8
Central Finland	4 665,1	400,4	1 311,4	85,1	85,1	240,3	10,0	185,2
South Ostrobothnia	5 148,0	457,3	1 332,7	65,3	19,6	176,4	13,1	84,9
Ostrobothnia	4 658,9	611,7	1 152,3	28,5	21,3	170,7	21,3	92,5
Central Ostrobothnia	5 186,7	343,1	1 715,4	20,2	0,0	181,6	20,2	121,1
North Ostrobothnia	4 466,7	472,4	1 484,7	50,6	21,1	202,5	8,4	147,6
Kainuu	5 554,4	525,0	1 837,7	82,9	13,8	345,4	27,6	262,5
Lapland	4 882,2	501,1	1 449,1	88,0	47,4	142,2	13,5	108,3
ÅLAND	4 750,1	90,5	1 085,7	90,5	45,2	181,0	45,2	90,5

1) Classification: 54 categories

2) The figure includes categories F10, G312, G4051, G621, G721; I426, K292, K70, K852, K860, O354, P043, X45 as underlying cause of death.

**Appendix table 3c. Mortality among persons aged 65 or over from dementia, ischaemic heart diseases, alcohol-related causes, suicides and accidents by region in 2009, women<sup>1)</sup>**

	Death rate per 100 000, females							
	TOTAL DEATHS	Dementia, Alzheimers disease	Ischaemic heart diseases	Alcohol related <sup>2)</sup>	Suicides	Accidents	Traffic accidents	Accidental falls
WHOLE COUNTRY	4 024,4	716,7	1 002,8	15,4	7,5	115,6	5,3	89,5
MAINLAND FINLAND	4 024,3	718,7	1 004,4	15,3	7,6	115,7	5,1	89,5
Uusimaa	3 823,7	725,8	845,5	28,6	11,6	127,8	4,5	99,2
Pääkaupunkiseutu	3 848,1	754,2	830,0	33,0	11,0	135,7	1,2	107,6
Itä-Uusimaa	3 678,9	733,5	873,2	11,6	23,3	69,9	0,0	46,6
Varsinais-Suomi	4 148,2	778,4	874,7	8,2	2,0	112,7	2,0	88,1
Satakunta	4 154,6	606,1	1 083,6	11,0	11,0	106,5	3,7	80,8
Kanta-Häme	4 245,6	796,1	1 034,9	10,6	5,3	138,0	5,3	100,8
Pirkanmaa	4 003,6	725,1	967,5	16,4	14,4	119,1	6,2	82,2
Päijät-Häme	4 434,2	783,0	1 306,5	8,8	8,8	132,0	0,0	110,0
Kymenlaakso	4 233,9	598,3	1 151,0	32,0	4,6	123,3	4,6	100,5
South Karelia	4 150,1	644,1	1 118,0	12,2	12,2	79,0	6,1	60,8
Etelä-Savo	4 414,4	726,8	1 204,8	9,8	4,9	126,8	4,9	92,7
Pohjois-Savo	4 143,5	748,8	1 206,0	3,6	3,6	79,2	3,6	72,0
North Karelia	3 660,9	737,5	919,2	16,0	0,0	53,4	0,0	53,4
Central Finland	4 108,5	628,2	1 031,6	7,1	3,6	171,3	7,1	149,9
South Ostrobothnia	4 016,4	699,9	951,5	4,6	13,7	123,5	13,7	82,3
Ostrobothnia	4 070,8	857,8	921,8	0,0	0,0	95,9	16,0	69,3
Central Ostrobothnia	3 691,1	502,0	1 269,7	14,8	0,0	73,8	0,0	73,8
North Ostrobothnia	3 868,0	743,5	1 063,5	15,7	6,3	122,3	3,1	94,1
Kainuu	4 024,2	686,1	1 331,1	0,0	0,0	112,6	10,2	81,9
Lapland	3 834,2	711,4	967,7	26,2	0,0	94,2	10,5	62,8
ÅLAND	4 044,6	302,4	680,4	37,8	0,0	113,4	37,8	75,6

1) Classification: 54 categories

2) The figure includes categories F10, G312, G4051, G621, G721; I426, K292, K70, K852, K860, O354, P043, X45 as underlying cause of death.

**Appendix table 4. Mortality during infant and perinatal period 1987–2009**

	Perinatal deaths (stillbirths and first week deaths)	Perinatal mortality/ 1000 births (incl. stillbirths) <sup>1)</sup>	Stillbirths	First week mortality	First week mortality/ 10000 births	Neonatal deaths	Neonatal mortality <sup>2)</sup>	Infant deaths	Infant mortality <sup>3)</sup>
1987	505	8,4	311	194	3,2	252	4,2	370	6,2
1988	530	8,3	333	197	3,1	250	3,9	385	6,1
1989	495	7,8	282	213	3,4	261	4,1	382	6,0
1990	507	7,7	307	200	3,1	245	3,7	368	5,6
1991	531	8,1	305	226	3,5	276	4,2	383	5,9
1992	490	7,3	288	202	3,0	248	3,7	344	5,2
1993	428	6,6	267	161	2,5	195	3,0	285	4,4
1994	431	6,6	248	183	2,8	220	3,4	300	4,6
1995	429	6,8	299	130	2,1	172	2,8	251	4,0
1996	378	6,2	242	136	2,2	176	2,9	238	3,9
1997	368	6,2	239	129	2,2	165	2,8	233	3,9
1998	373	6,5	237	136	2,4	169	3,0	236	4,1
1999	329	5,7	208	121	2,1	154	2,7	213	3,7
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

1) Perinatal mortality = Stillborn (the duration of the mother's pregnancy at least 22 weeks) 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 5. Mean population in 2009 by sex**

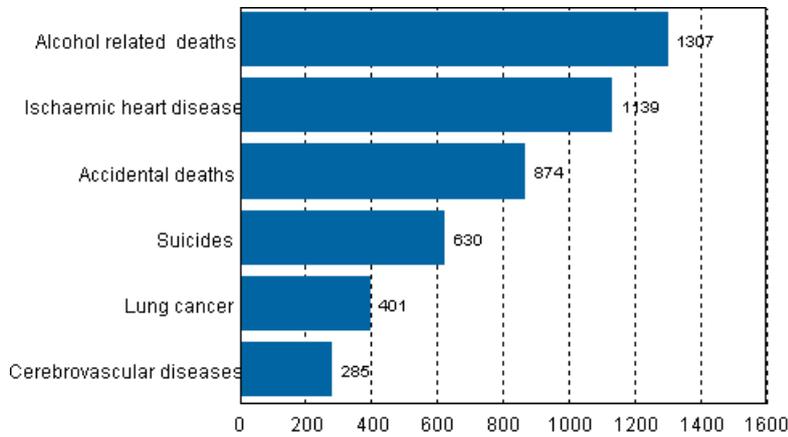
	Both sexes	Males	Females
Total	5 338 871	2 618 360	2 720 511
0	60 051	30 644	29 407
1 - 4	236 508	120 857	115 651
5 - 9	287 302	147 042	140 260
10 - 14	305 883	155 955	149 928
15 - 19	333 907	170 272	163 635
20 - 24	324 956	166 238	158 718
25 - 29	342 525	175 869	166 657
30 - 34	336 023	172 552	163 471
35 - 39	311 349	159 250	152 100
40 - 44	363 440	184 488	178 952
45 - 49	378 160	190 975	187 186
50 - 54	379 854	189 988	189 866
55 - 59	391 341	194 360	196 981
60 - 64	386 321	189 552	196 769
65 - 69	256 796	121 538	135 258
70 - 74	221 309	99 454	121 855
75 - 79	180 270	73 962	106 308
80 - 84	136 636	48 179	88 457
85 - 89	74 592	20 530	54 062
90 - 94	25 345	5 564	19 781
95 -	6 308	1 094	5 215

**Appendix table 6. Standard population used in calculating age-standardised figures**

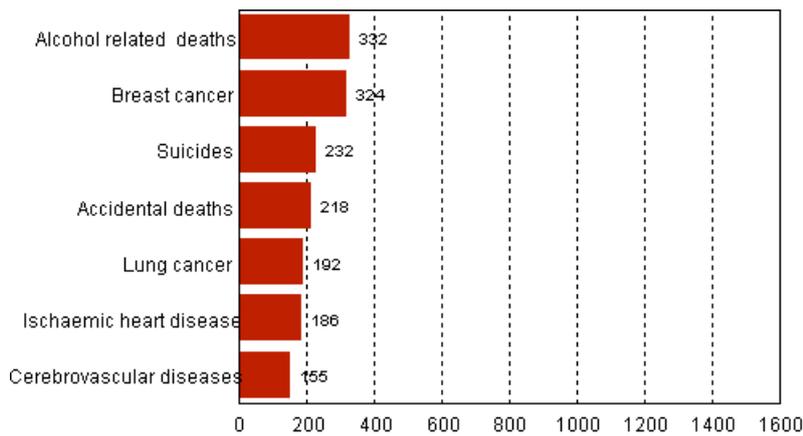
Age	Standard population
0	1 305
1-4	5 021
5-9	6 472
10-14	6 772
15-19	7 208
20-24	7 792
25-29	7 871
30-34	7 528
35-39	7 212
40-44	6 860
45-49	5 865
50-54	5 876
55-59	5 553
60-64	5 245
65-69	4 680
70-74	2 932
75-79	2 897
80-84	1 606
85-	1 305
Total	100 000

# Appendix figures

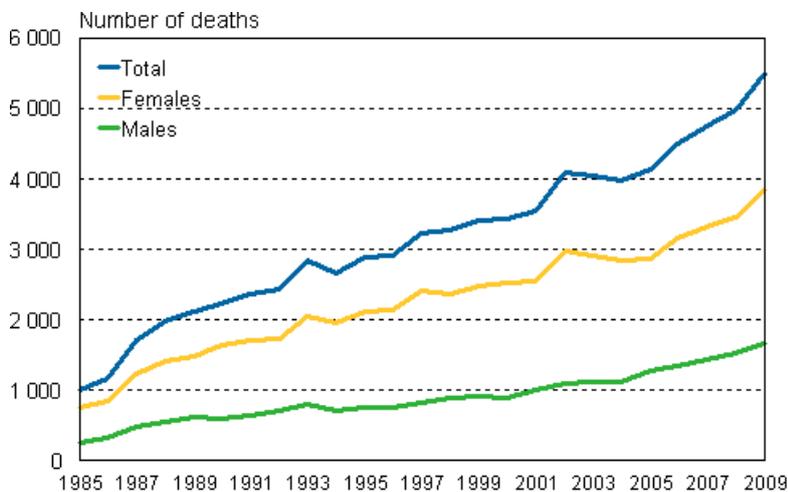
**Appendix figure 1. Leading causes of death among men aged 15 to 64 in 2009**



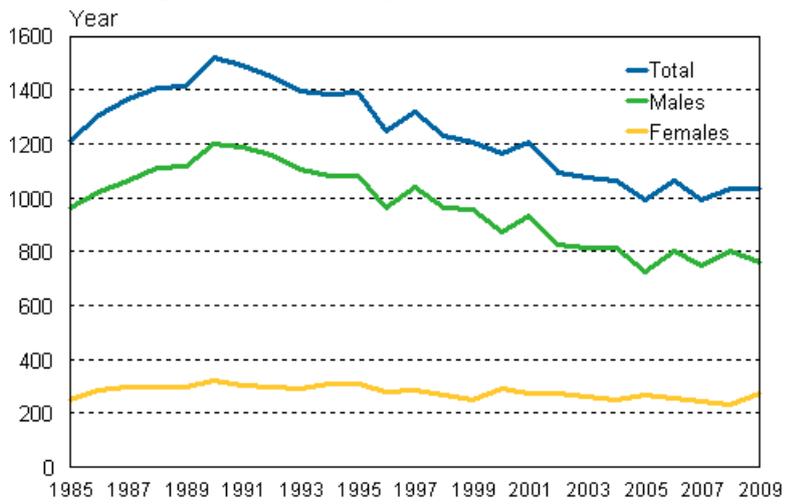
**Appendix figure 2. Leading causes of death among women aged 15 to 64 in 2009**



**Appendix figure 3. Deaths from dementia (incl. Alzheimer's) in 1985–2009**



**Appendix figure 4. Suicides by sex in 1985–2009**



# Quality description of cause of death statistics

## 1. Relevance of cause of death statistics

In the cause of death statistics statistical information is produced annually on the causes of death of persons permanently resident in Finland. The statistics are compiled on the basis of death certificates on deaths, and the data are supplemented with and verified against data from the Population Information System of the Population Register Centre. Death certificates are archived at Statistics Finland. The cause of death statistics and the archive of death certificates have been operating since 1936.

Cause of death data are used i.a. in health surveys, in allocating health promotion measures and monitoring health as well as in various medical examinations. By combining the data with other data files it is possible to study, for instance, differences in mortality between different population groups. The basis for an investigation of the cause of death is the information on the death certificate. The basis in law for an investigation of the cause of death is the Act on the Investigation of the Cause of Death (1973/459). Furthermore, Regulation (EC) No 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work regulates the data produced for Community cause of death statistics. Draft Implementing Regulation regarding this Regulation is in hand.

### Definitions

**Age-standardized mortality** rate indicates the number of deaths per 100,000 persons of the mean population, when the age structure is kept calculatorily unchanged during the reference period. The standardisation is necessary so that changes in mortality not due to the ageing of the population structure or differences in the age structure of regions can be highlighted. The standardation used in cause of death statistics is made by using direct age standardation (Standardized death rate, SDR). The formulae used in the standardation is as follows.

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

$m_i$  = mortality rate at age  $i$

$P_i$  = standard population at age  $i$

$P$  = standard population

**European standard population** used in calculation is in Appendix table 5. The age structure of standard population used is in Appendix table 4.

**Mortality rate** indicates the number of deaths in a given age group per mean population in the corresponding age group.

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The causes of death included in the statistics have since 1987 been the underlying cause of death, direct cause, intervening causes and contributing causes. Annual cause of death statistics are compiled according to the statistical underlying cause of death.

- The underlying cause of death is the disease which has initiated the series of illnesses leading directly to death, or the circumstances connected with an accident or an act of violence which caused the injury or poisoning leading to death. The underlying cause of death used in statistics (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)
- The direct cause of death refers to the disease, failure of injury whose symptoms cause the person to die.
- The intervening cause of death indicates the condition leading from the underlying cause to the direct caus

- The contributing cause of death is recorded in the death certificate. The doctor will report in part II of the death certificate as contributing causes of death the reasons which have adversely affected the development of the condition leading to death and hence contributed to it.
- If the death entails an accident or violence, the death is described with an external cause. Data on the cause is supplemented with data on mortal injuries, poisonings and certain other consequences of external causes.

In the case of stillbirths and infants dying before the age of 28 days the causes of death are the main diseases or conditions in the fetus or infant, other conditions in the fetus or infant and maternal diseases affecting the fetus or infant. Above causes of death can be retrieved from the records in the cause-of-death data base.

**Early neonatal mortality** refers to the number of deaths during the first week of life relative to the live births during the statistical year.

**General death rate** indicates the number of deaths per 1,000 or 10 000 persons of the mean population. Infant mortality is calculated by dividing the number of deaths of infants under one year of age by the number of live births during the statistical year. Multiplying the result by 1,000 gives the figure in per mille.

**Late neonatal mortality** refers to the number of deaths which occur at the age of 7 to 27 days relative to the live births during the statistical year. Maternal mortality covers all deaths which occur during the pregnancy or during 42 days after the end of the pregnancy, regardless of the duration or location of the pregnancy. Included are all deaths of pregnant women due to any pregnancy related cause or a cause exacerbated by pregnancy, but not accidental or violent deaths. Maternal mortality is obtained by dividing the number of maternal deaths by 100,000 live-born children. Neonatal mortality is calculated by dividing the number of deaths during the first week of life by the number of live births during the statistical year and multiplying the result by 1,000.

**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.

**Stillbirths** include a fetus or a newborn who shows no signs of life at the time of birth after a pregnancy lasting at least 22 weeks or, when the duration of the pregnancy is unknown, if the newborn weighs at least 500 grams. Miscarriages that occurred at before 22 week of the pregnancy are not regarded as stillbirths.

## ***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. Amount of deaths is yearly about 49 000.

Death certificates are issued by physicians. 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 National Institute for Health and Welfare (THL) to the regional unit where the deceased was a resident. A forensic pathologist there checks the correctness of the certificate and the certificates are sent on to Statistics Finland.

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.

From the beginning of 2010 the Provincial State Offices were discontinued and the forensic tasks of the Provincial State Offices were transferred to THL (the National Institute for Health and Welfare). These include the responsibility for checking and monitoring death certificates.

Statistics on stillbirths are made separately; cases of stillbirths are not included in deaths during the year. The coverage of statistics on stillbirths is supplemented with data from the birth register of THL.

### ***3. Correctness and accuracy of data***

The data of the cause of death statistics comprise information on causes of death and other background information on the deceased and on the mother of those dead at the age of under 28 days. The information is given on the home page of the cause of death statistics under Tietoluettelot (In Finnish only).

The physician records the cause of death on the death certificate as a code and as 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 (as free text) 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 (free text) in the death certificate in about two to three per cent of the cases yearly. Additional information is requested from the issuer of the death certificate in about 200 to 400 cases per year. Around two to three per cent of the cases are handled by a medical expert every year. Additional information is obtained for around 200 to 300 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 as well. The number of deaths on which no information on the cause of death is obtained is a good 100 per year. Some of them are deaths abroad, on which only a notification on death is obtained, and some are deaths in Finland, on which a death certificate was not acquired by the compilation time of the statistics.

Causes of death are currently coded according to the ICD-10 classification (International Statistical Classification of Diseases and Related Health Problems, Volume 1-3, WHO Geneva 1992, new edition 2004). The causes of death are coded mainly in the most accurate level of the classification. The death certificate form is confirmed by the Ministry of Social Affairs and Health.

The classification of causes of death has changed several times; the classifications used in different years and the available comparable shortened cause of death classifications are described on the home page of the cause of death statistics under Classifications.

### ***4. Timeliness and promptness of published data***

Cause of death data are produced annually and they are completed in 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.

### ***5. Accessibility and transparency/clarity of data***

Data are produced yearly under the topic Health on the home pages the cause of death statistics and are released on Statistics Finland's StatFin database. Data are provided on the whole country, by region and by hospital district. The cause of death statistics are produced according to the underlying cause of death. Cause of death data are available since 1936 in publications and from 1969 as time series in the database. The variables in the time series file are described on the home pages of the cause of death statistics under Tietoluettelot (in Finnish only). Tailored statistics and research data can be made from the file for customer needs. A licence to use Statistics Finland's data files is required for research data and statistics produced by municipality. An application for a licence to use the data can be found on Statistics Finland's home page. The cause of death data can also be combined with other data files, such as longitudinal data of population censuses and employment statistics.

The cause of death data is published also in interational databases:

— in Health statistics in nordic countries, <http://nomesco-da.nom-nos.dk/>

— in Eurostat Public Health databas

[http://epp.eurostat.ec.europa.eu/portal/page/portal/health/public\\_health/data\\_public\\_health/database](http://epp.eurostat.ec.europa.eu/portal/page/portal/health/public_health/data_public_health/database)

— in WHO databases, f. ex. European Health for all database,  
<http://www.euro.who.int/en/what-we-do/data-and-evidence/databases/>

Statistics Finland maintains the Finnish Archive of death certificates. The archive contains the death certificates of Finnish residents since 1936. Copies of death certificates and unit level data on causes of death are released from the archives for the purposes specified in the Act on the Inquest into the Cause of Death (459/1973). These purposes cover the releasing of data to 1) the deceased person's next of kin, 2) a pension institution or to the authorities, 3) for scientific research or statistical surveys.

Instructions for requesting death certificates and on the procedures of requesting a license to use statistical data are available on the home page of Statistics Finland's Archive of death certificates.

## 6. Comparability of statistics

Statistics on cause of death have been compiled since 1936; the years 1936 to 1968 exist only in printed publications. The classification of causes of death has changed several times. The classifications of causes of death used in the classification of the basic data and the existing comparable shortened classifications are described on the home page of the cause of death statistics under Classifications.

The longest comparable time series classification (54 categories) is from 1969 onwards. Statistics following this classification are available in Statistics Finland's StatFin database under the topic Health.

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.

**In vital statistics** the numbers of deaths are presented i.a. by gender, age and area. The number of deaths differs by some ten cases yearly from their number in the cause of death statistics. The difference is due i.a. to the fact that the vital statistics data do not include deaths registered after the compilation time of the statistics concerned (after January of the following year). On the other hand, the vital statistics can also contain deaths from the five previous years on which information about the death is obtained during the compilation time of the vital statistics (in January of the following year).

**Statistics on road traffic accidents** concern the number of deaths in road traffic. The data are obtained from the information system of the police. The coverage of these statistics is checked against the data of the cause of death statistics. The numbers of the statistics on road traffic accidents deviate from those in the cause of death statistics by some tens of cases each year. The deviation is caused by the following differences in 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 very little from the figures in the cause of death statistics.

## 7. Coherence and consistency/uniformity

The cause of death statistics are the only comprehensive statistics on causes of death in Finland. Statistics Finland's vital statistics are exhaustive statistics on the numbers of deaths.

When using the cause of death statistics it should be noted that mortality and the frequency of causes of death are strongly dependent on age. For that reason age standardisation is used in the statistics when

comparing mortality differences between different time periods and areas. In the cause of death statistics the age standardised mortality figure is calculated most often per 100,000 persons.

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