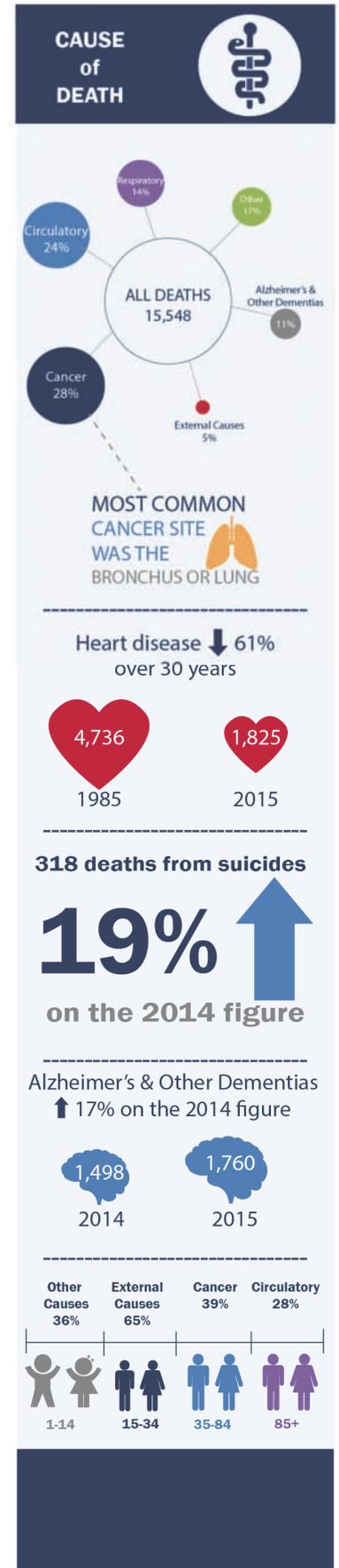


Cause of Death

In 2015:

- Of the 15,548 deaths, the leading cause of death was cancer (28 per cent), followed by circulatory disease (24 per cent).
- For both males and females, the most common cancer site was the bronchus or lung; the prostate was the second most common cancer site in male deaths whereas the breast was the second most common cancer site in females.
- 61 per cent fewer people died of heart disease than three decades ago - 1,825 compared to the 1985 figure of 4,736 deaths.
- There were 318 deaths registered due to suicide, a 19 per cent increase on the previous year. Just over three quarters of all suicides were males.
- The number of deaths due to Alzheimer’s and other dementias increased by 17 per cent on the previous year, from 1,498 in 2014 to 1,760.
- External causes of death (for example accidents, suicide) were the leading cause of death in people aged 15-34. Circulatory disease was the leading cause for those aged 85 and over. Cancer was the leading cause for all other age groups



Cancer was the leading cause of death

All deaths have been coded using the tenth revision of the International Statistical Classification of Diseases, Injuries and Causes of Death (ICD10).

In total cancer, circulatory diseases and respiratory diseases accounted for 67 per cent of the 15,548 deaths registered in 2015.

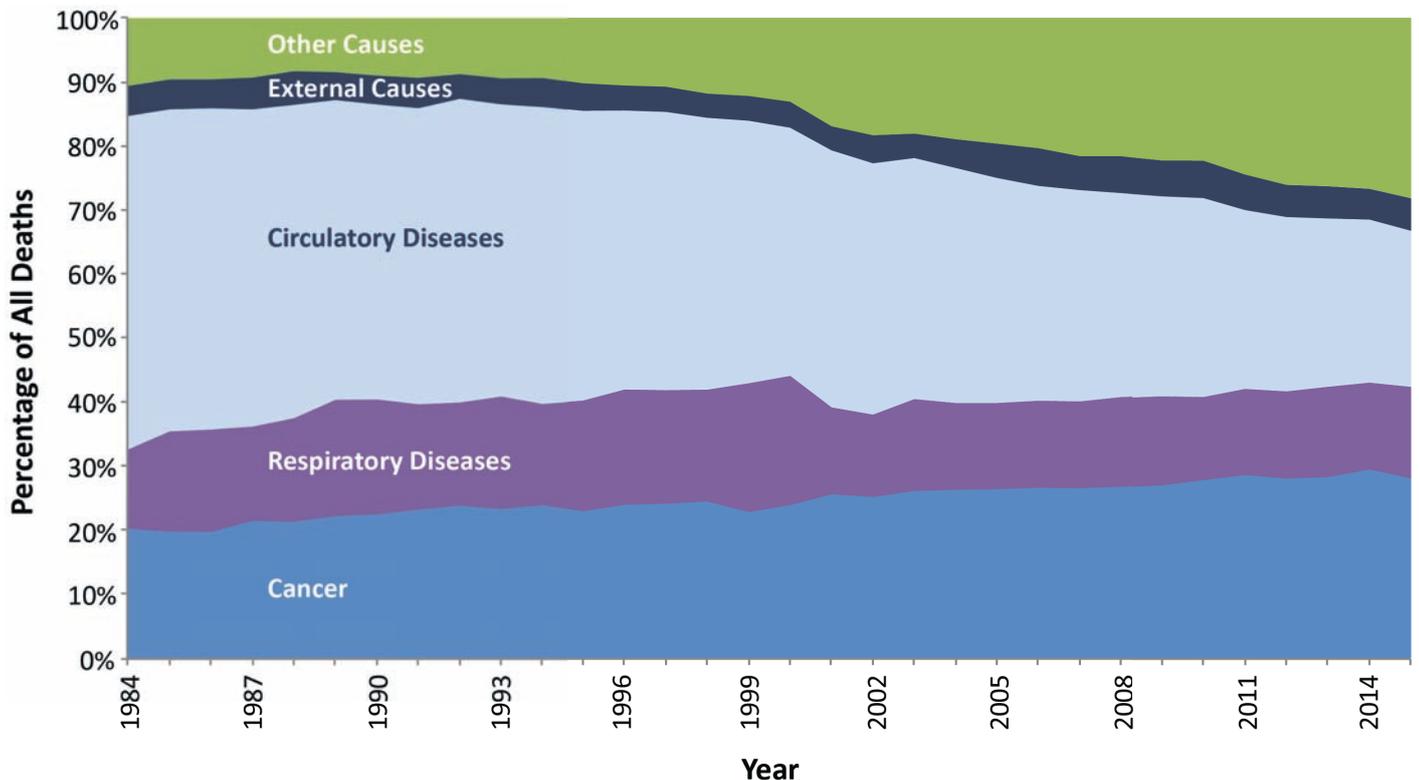
Cancer remains the leading cause of death in Northern Ireland, accounting for 28 per cent of all deaths (4,361), an increase of 35 per cent on the corresponding figure in 1985 (3,232 deaths).

In terms of Circulatory Diseases, while the number of deaths due to heart disease (Ischaemic heart disease) increased slightly in 2015 (1,825 deaths), this represents a decrease of 61 per cent on the corresponding number of deaths in 1985 (4,736).

In 2015, every day there was an average of 12 deaths registered due to cancer, 10 to circulatory diseases, 6 to respiratory diseases, 2 to external causes and 12 to all other causes.

Some of the principal causes of death are considered in the following sections.

Figure 1.35: Percentage of deaths by cause of death (1984 to 2015)



[Download Chart](#) (XLS Format – 32Kb)

Malignant Neoplasms (ICD10 Codes C00-C97)

Cancer deaths now account for 28 per cent of all deaths compared to 20 per cent in 1985. Although there have been advances in the diagnosis and treatment of cancer in recent years, it remains the case that in Northern Ireland cancer accounts for the largest number of deaths attributable to a single group of causes.

In part this is due to unavoidable factors such as the aging population and inherited genetic risks²³. However, experts agree that smoking is the single biggest avoidable cause of cancer, causing over a quarter (28 per cent) of cancer deaths in the UK²⁴. The most common cancer site was the bronchus or lung, which accounted for 23 per cent of male cancer deaths (551) and 21 per cent of female cancer deaths (439).

Prostate cancer was the second most common cancer site in males (262) whereas breast cancer was the second most common cancer site in females (291), accounting for 11 per cent of all male deaths and 14 per cent of all female deaths due to cancer.

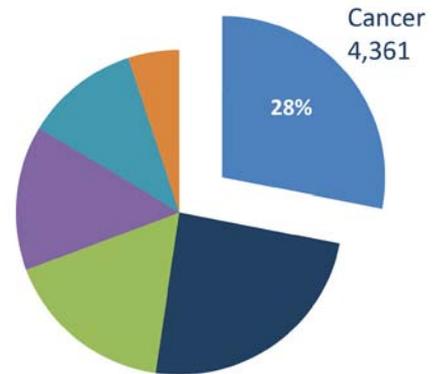
Diseases of the Circulatory System (ICD10 Codes I00-I99)

Just over 24 per cent of all deaths were due to diseases of the circulatory system. Over the past 3 decades this has fallen by 53 per cent, from 8,031 deaths in 1985. This improvement is due in part to advances in medical care coupled with greater public awareness of the causes and symptoms of heart disease.

Three quarters of deaths due to diseases of the circulatory system were the result of heart disease or stroke (Cerebrovascular disease).

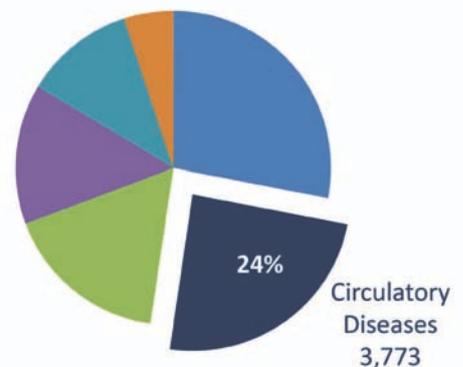
Deaths due to Ischaemic heart disease are more common in males than females with 1,060 males and 765 females dying as a result of these causes last year. Some research suggests that there are a number of possible reasons for this including the protective effect of female hormones up to menopause and gender differences in lifestyle and attitudes to health^{25, 26}.

Figure 1.36 Deaths by Cause (2015)



[Download Chart](#) (XLS Format – 42Kb)

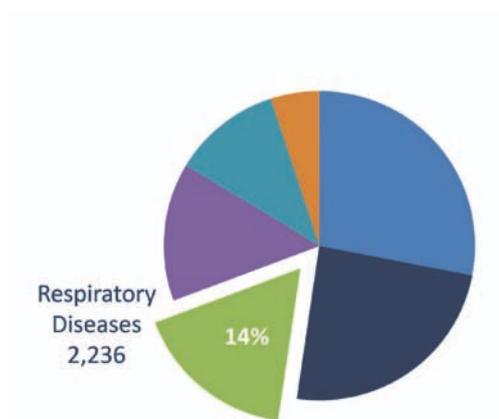
Figure 1.36 Deaths by Cause (2015)



[Download Chart](#) (XLS Format – 42Kb)

In contrast, deaths due to stroke are more common in females than males. Last year, 569 females and 419 males died as a result of a stroke. There are a number of risk factors that contribute to the gender difference, including the increased life expectancy of females and the use of hormone replacement therapy/contraception which can increase the risk of stroke in females^{25, 26}.

Figure 1.36 Deaths by Cause (2015)

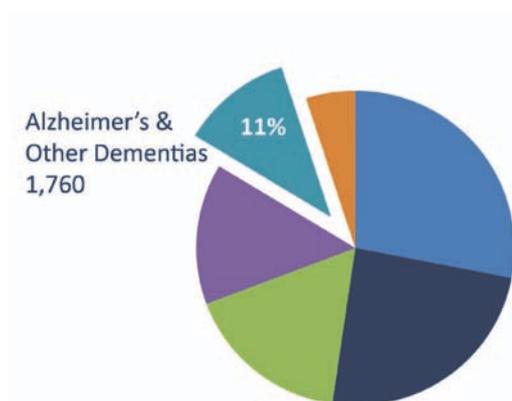


[Download Chart](#) (XLS Format – 42Kb)

Respiratory Diseases (ICD10 Codes J00-J99)

Deaths from respiratory diseases accounted for 14 per cent of all deaths registered in 2015. Of the 2,236 respiratory deaths, 794 deaths were from pneumonia, 934 from chronic lower respiratory diseases and 508 due to all other respiratory diseases. The number of deaths due to diseases of the respiratory system is higher than the previous ten-year average (2005 to 2014 inclusive) of 1,997 deaths and 11 per cent lower than 30 years ago – 2,511 in 1985.

Figure 1.36 Deaths by Cause (2015)



[Download Chart](#) (XLS Format – 42Kb)

Alzheimer's Disease (ICD10 Code G30) and Other Dementias (ICD10 Codes F01, F03)

Last year, 493 deaths were due to Alzheimer's disease (141 males, 352 females) and a further 1,267 deaths due to other dementias (420 males, 847 females). While there has been a sharp increase in the number of deaths due to Alzheimer's disease and other dementias in recent years, the increase in such deaths can be attributed to (i) changes in the coding of deaths that came into effect in January 2011, and (ii) the ageing of the Northern Ireland population. Between 2014 and 2015 the number of deaths due to Alzheimer's and other dementias increased by 17 per cent. Two thirds (66 per cent) of these deaths were of persons aged 85 years and older.

External Causes of Death (ICD10 Codes V01-Y98)

Deaths registered due to external causes accounted for 5.0 per cent of all deaths, of which twice as many were male (528) than female (256). In the previous ten-year period 2005-2014 inclusive, there were on average 786 deaths per year from external causes of death.

Of the 784 deaths due to external causes, 440 were due to accidents. Of these accidental deaths, 36 per cent were due to accidental falls and 18 per cent were due to transport accidents. Just over half (53 per cent) of deaths due to accidental falls were males, whilst over four fifths (83 per cent) of deaths due to transport accidents were males.

Deaths from Suicide and Events of Undetermined Intent (X60-X84, Y87.0, Y10-Y34, Y87.2)

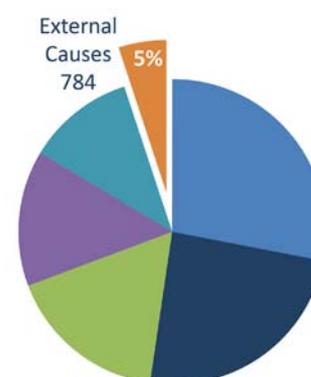
In the United Kingdom, deaths classified as 'events of undetermined intent' along with 'intentional self-harm' are classified as suicide. Last year there were 318 such deaths registered in Northern Ireland, representing an increase of 19 per cent on the 268 registrations in 2014. Males were over three times more likely to die from suicide than females, with males accounting for 77 per cent of such deaths.

Just under half (49 per cent) of all suicides were due to hanging, strangulation or suffocation, 80 per cent of which (124) were of males.

All suicides are referred to the coroner. These deaths can take time to be fully investigated and there is often a period of time between when the suicide occurs and when it is registered. For example, of the 318 such deaths registered in 2015, 150 actually occurred in 2015 and 141 occurred in 2014 with the remaining 27 occurring in 2013 or earlier.

Prior to 2004, there were 7 Coroner's districts in Northern Ireland. Following a review of the Coroner's service, the separate districts were amalgamated into one centralised Coroner's service. This change may have affected the timing of the registration of deaths, with statistics from 2004 onwards being more timely¹⁸.

Figure 1.36 Deaths by Cause (2015)



[Download Chart](#) (XLS Format – 42Kb)

Table 5: Number of suicide and undetermined deaths registered and actual number occurring (2005 to 2015)

Year	Suicide and Undetermined Deaths	
	Registered	Occurred
2005	213	230
2006	291	222
2007	242	258
2008	282	256
2009	260	230
2010	313	300
2011	289	255
2012	278	267
2013	303	292 ¹
2014	268	274 ¹
2015	318	150 ¹

¹ Figures should be treated with caution as a significant number of deaths occurring in these years will not yet have been registered.

Occurrence figures for 2012, 2013 and 2014 should be used with caution, as a significant number of deaths occurring in these years will, as yet, not have been registered. All occurrence figures above are subject to revision as additional late registrations of suicide and undetermined deaths are made¹⁸.

Table 6: Estimated number of smoking related deaths (2005 to 2015)

Year	Estimated Smoking Related Deaths
2005	2,290
2006	2,320
2007	2,310
2008	2,400
2009	2,360
2010	2,310
2011	2,270
2012	2,270
2013	2,400
2014	2,320
2015	2,390

Smoking Related Deaths

Information is not recorded on the death certificate on whether the deceased was a smoker. Estimates can however be made of the number of deaths attributable to smoking, by using information on the contribution of smoking to specific conditions which are recorded at death, for example lung cancer.

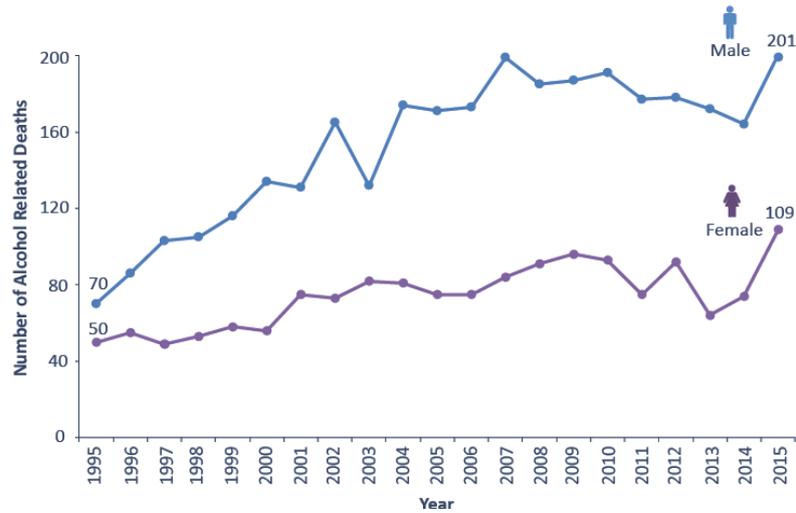
Research has been undertaken by the Health Development Agency to calculate the proportion of smoking related deaths in the population based on published relative risk factors for mortality of current and ex-smokers from various diseases, counts of death by cause, and estimates of current and ex-smoking behaviour.

These proportions were then applied to Northern Ireland counts of cause, sex and age specific mortality. Using this method, between 2,200 and 2,400 deaths can be attributed to smoking each year. Further information on the method used is given in Appendix 3.

Alcohol Related Deaths

A total of 310 people died from alcohol related deaths; 65 per cent were males and 35 per cent were females. This figure is a 30 per cent increase from the 2014 figure of 238 alcohol related deaths, and is 26 per cent higher than the corresponding figure a decade ago (246 deaths in 2005). The number of alcohol related deaths for males and females increased between 2014 and 2015.

Figure 1.37: Deaths from alcohol related diseases by sex (1995 to 2015)



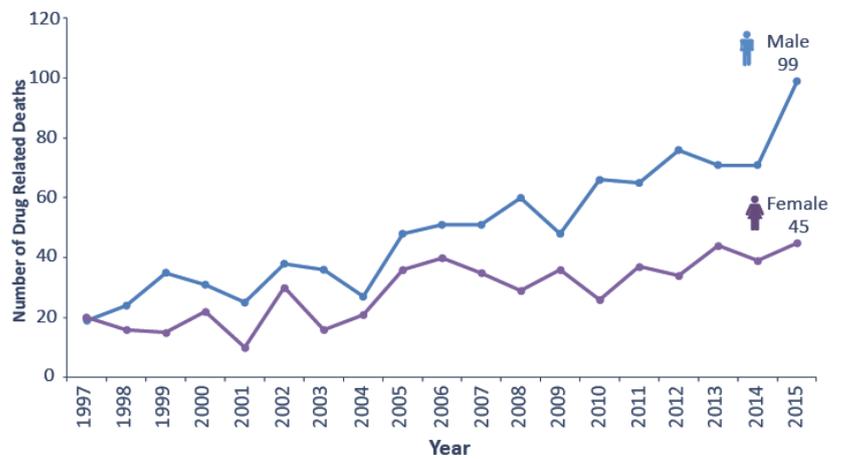
[Download Chart](#) (XLS Format – 41Kb)

Drug Related Deaths

Drug related deaths relate to cases where the underlying cause of death recorded on the death certificate is drug poisoning, drug abuse or drug dependence. Deaths from substances of abuse which are not traditionally regarded as drugs, such as alcohol and tobacco, are excluded from the definition. Further information on the definition can be found in Appendix 3.

While drug related deaths account for less than 1 per cent of all deaths, there has been a general upward trend in the number of such deaths, rising from 39 in 1997 to almost four times as many last year (144). The gender gap has widened, particularly in recent years with 54 more male than female deaths last year.

Figure 1.38: Drug related deaths by sex (1997-2015)



[Download Chart](#) (XLS Format – 39Kb)

Asbestos Related Deaths

In 2015, 70 asbestos related deaths were registered, 7 more than in 2014. The 2004 figure of 92 deaths was the highest number recorded in the period from 2003 to 2015. See Appendix 3 for further information on asbestos related deaths.

70 asbestos related deaths

17 deaths due to MRSA

67 deaths due to CDiff

Healthcare Associated Infections

Healthcare associated infections (HCIs) are infections that are acquired as a result of health care. There are many factors that contribute to Healthcare associated infections including advances in treatment that improve survival of patients but leave them more vulnerable to infections. A sharp increase in HCIs in 2007 and 2008 led to a public inquiry, focussing on prevention control and deaths from Methicillin resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (CDiff) which are now monitored on an ongoing basis. The number of such infections has declined over recent years.

In 2015, 17 deaths were registered where MRSA was mentioned on the death certificate. Of these, 10 deaths had MRSA recorded as the underlying cause of death. The corresponding figures for 2014 were 12 deaths and 5 deaths respectively.

CDiff was mentioned on 67 death certificates in 2015 and was stated as the underlying cause on 30 of these. In 2014, CDiff was mentioned on 64 death certificates and recorded as the underlying cause of death on 28 of these.

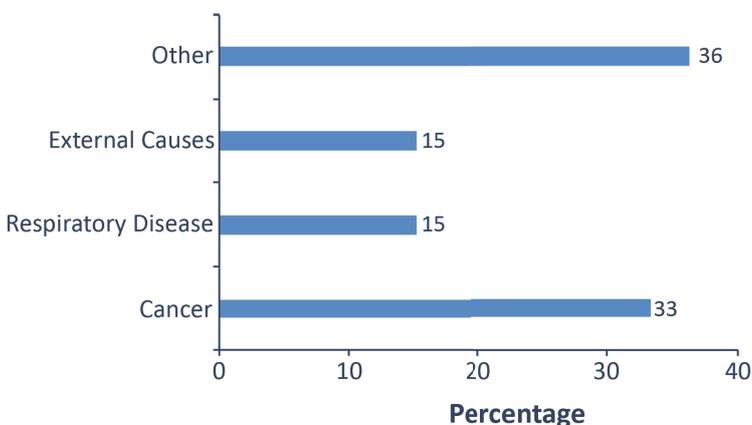
Main Causes of Death by Age and Sex

Mortality rates by cause of death vary with age and sex. For example, while deaths due to external causes account for the highest percentage of deaths among males aged 15 to 34 (70 per cent), deaths due to cancer (malignant neoplasms) account for the highest percentage of deaths among females aged 35 to 64 (46 per cent).

A total of 124 deaths of children aged less than one year were registered, 96 within the first four weeks of life. The majority of infant deaths were attributed to certain conditions originating in the perinatal period (66 deaths) and congenital anomalies (43 deaths).

A total of 33 children aged 1 to 14 died last year, 21 of whom were males and 12 of whom were females. One third (33 per cent) of the

Figure 1.39a: Deaths by cause for 1 to 14 year olds (2015)



[Download Chart](#) (XLS Format – 33Kb)

children concerned died from Cancer, 15 per cent from a Respiratory Disease, 15 per cent from External Causes and the remainder (36 per cent) from other causes. Differences between males and females should be treated with caution for this age group due to the relatively small numbers involved.

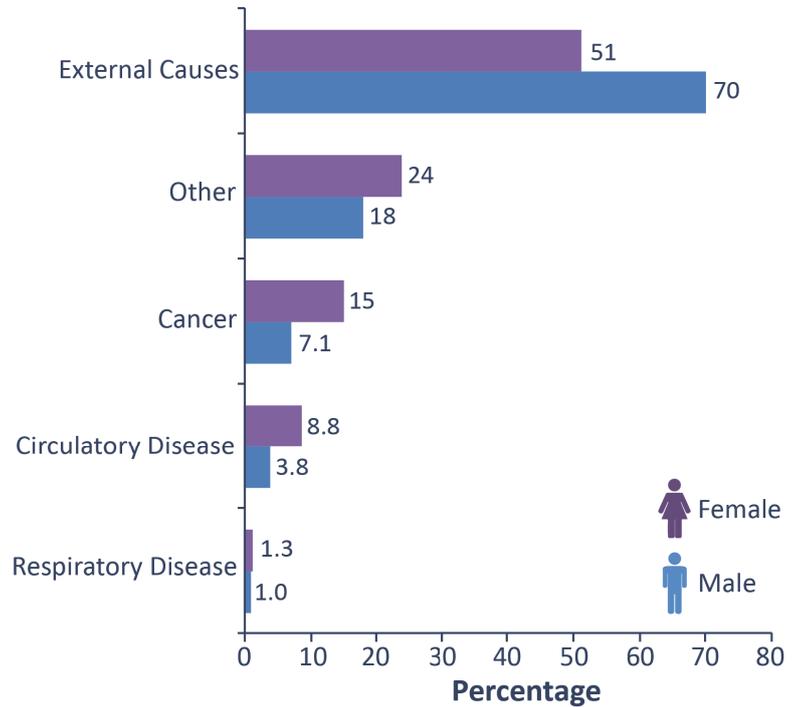
A total of 290 people aged 15 to 34 died last year, 210 males and 80 females. External causes of death accounted for the largest proportion of these deaths (65 per cent), made up primarily of suicide and transport accidents. In fact, 42 per cent of all suicide deaths (132 out of 318 suicides) and 47 per cent of deaths due to transport accidents (36 out of 77 transport accident deaths) involved people in this age group.

Differences between males and females can also be seen in this age group. While external causes remained the leading cause of death for both males (70 per cent) and females (51 per cent), it was more pronounced for males, mainly due to more males than females dying from suicide; of the 210 males aged 15-34 that died last year, 50 per cent died due to suicide. Cancer accounted for 15 per cent of deaths among females in this age group compared with 7.1 per cent of males.

Cancer accounted for 39 per cent of the 2,446 deaths among people between the ages of 35 to 64, with diseases of the circulatory system accounting for a further 19 per cent. Half (50 per cent) of all deaths due to suicide were of those aged 35 to 64.

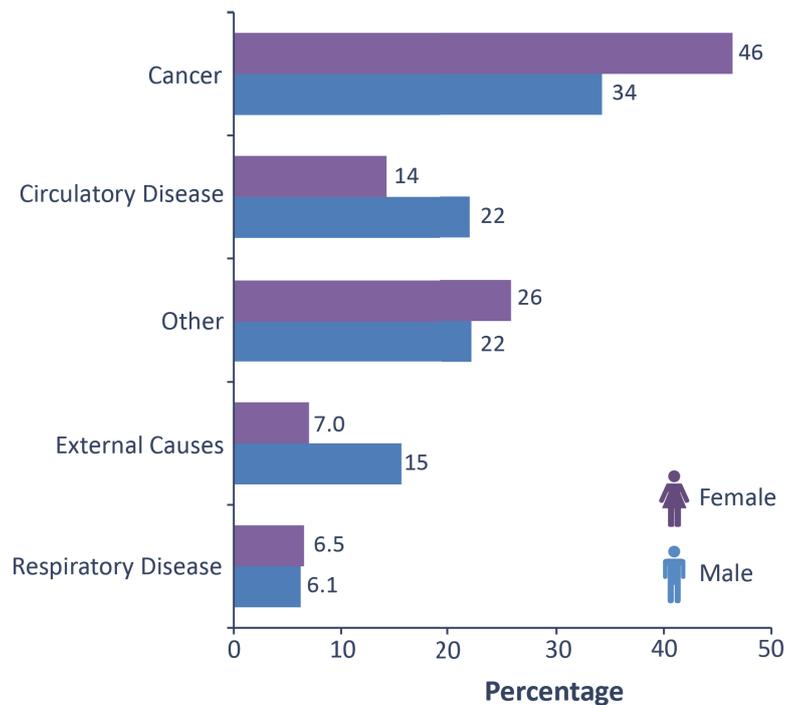
Cancer accounted for a higher proportion of deaths among females (46 per cent) than males (34 per cent) in this age group. Deaths due to Circulatory Disease were however more common among males than females (22 per cent versus 10 per cent) as were deaths due to external causes (15 per cent versus 4.9 per cent).

Figure 1.39b: Deaths by sex and cause 15 to 34 year olds (2015)



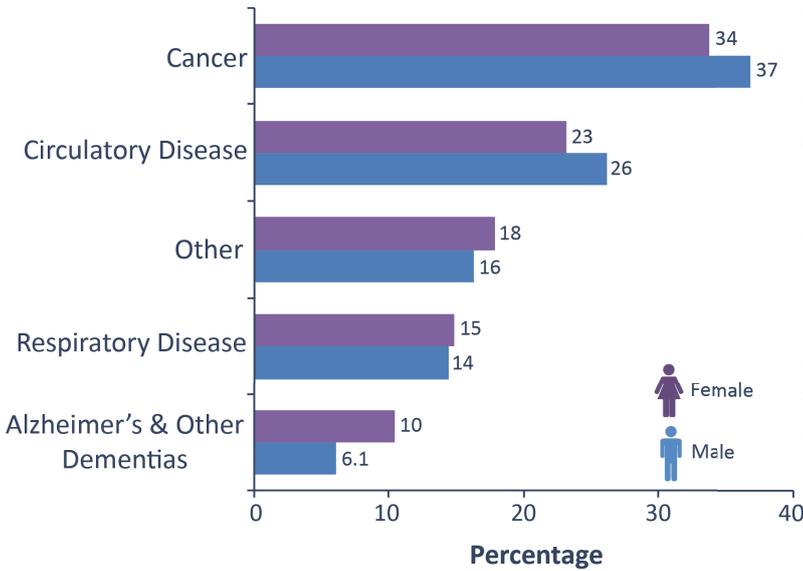
[Download Chart](#) (XLS Format – 38Kb)

Figure 1.39c: Deaths by cause 35 to 64 year olds (2015)



[Download Chart](#) (XLS Format – 40Kb)

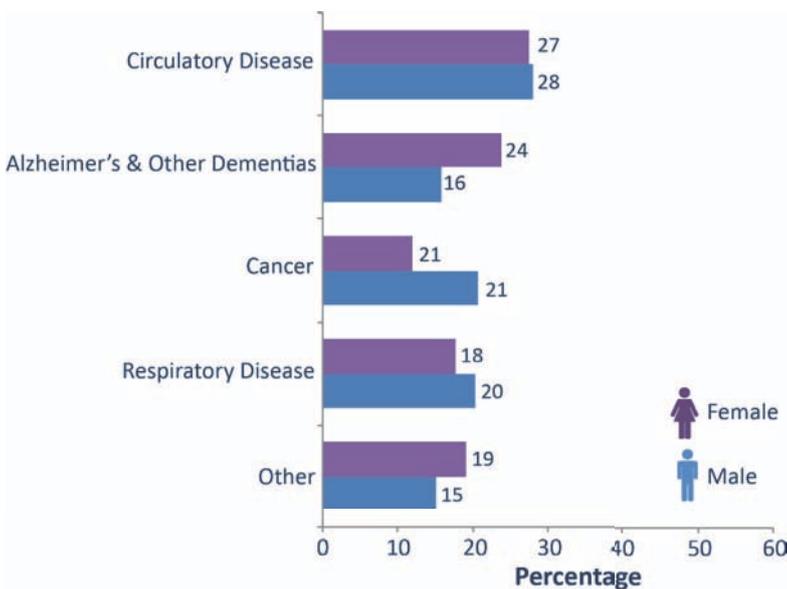
Figure 1.39d: Deaths by cause 65 to 84 year olds (2015)



A total of 7,149 people aged 65 to 84 years old died last year; 3,885 males and 3,264 females. Cancer again was the leading cause of death in this age group (35 per cent), followed by circulatory disease (25 per cent). Cancer accounted for a slightly higher proportion of deaths among males in this age group than females (37 per cent versus 34 per cent) as did Circulatory Diseases (26 per cent versus 23 per cent). In contrast, Alzheimer's and Other Dementias accounted for proportionally more deaths among females (10 per cent) than males (6.1 per cent).

[Download Chart](#) (XLS Format – 40Kb)

Figure 1.39e: Deaths by cause 85 years + (2015)



The number of deaths in the older population continues to rise. Last year, 35 per cent of deaths (5,506) were of people aged 85 years or over, compared to only 17 per cent of deaths (2,747) in 1985. More people are surviving into old age as a consequence of the improvements in mortality that we have seen over the past 50 years.

The proportion of deaths due to cancer among those aged 85 or over (15 per cent) is less than half that among those aged 65 to 84 (35 per cent). In contrast, the proportion of deaths due to Alzheimer's and other dementias among those aged 85 or over was considerably higher than that among those aged 65 to 84 (21 per cent and 8.1 per cent respectively).

[Download Chart](#) (XLS Format – 42Kb)

Circulatory disease was the leading cause of death among both males and females aged 85 and over. Cancer accounted for proportionally more deaths among males than females (21 per cent versus 12 per cent) as did Respiratory Diseases (20 per cent versus 18 per cent). In contrast Alzheimer's and Other Dementias accounted for proportionally more female deaths than male (24 per cent and 16 per cent respectively).