

INFORMATION
ANALYSIS
DIRECTORATE



Life Expectancy in Northern Ireland 2017-19

A product of the NI Health and Social Care Inequalities Monitoring System



Department of
Health

An Roinn Sláinte

Mánnystrie O Poustie

www.health-ni.gov.uk

February 2021

Life Expectancy in Northern Ireland

2017-19

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Information Analysis Directorate (IAD) sits within the **Department of Health (DoH)** and carries out various statistical work and research on behalf of the department. It comprises four statistical areas: Hospital Information, Community Information, Public Health Information & Research and Project Support Analysis.

IAD is responsible for compiling, processing, analysing, interpreting and disseminating a wide range of statistics covering health and social care.

The statisticians within IAD are out-posted from the Northern Ireland Statistics & Research Agency (NISRA) and our statistics are produced in accordance with the principles and protocols set out in the UK Code of Practice for Official Statistics.

About Public Health Information and Research Branch

The role of Public Health Information and Research Branch (PHIRB) is to support public health policy development through managing the public health survey function while also providing analysis and monitoring data. The head of the branch is the Principal Statistician, Mr. Bill Stewart.

In support of the public health survey function, PHIRB is involved in the commissioning, managing and publishing of results from departmental funded surveys, such as the Health Survey Northern Ireland, All Ireland Drug Prevalence Survey, Young Persons Behaviour & Attitudes Survey, Patient Experience Surveys and the Adult Drinking Patterns Survey.

The branch also houses the NI Health and Social Care Inequalities Monitoring System which covers a range of different health inequality/equality based projects conducted for both the region as well as for more localised area levels. In addition, PHIRB is responsible for the production of official life expectancy estimates for NI, and areas within the region.

PHIRB provides support to a range of key DoH NI strategies including Making Life Better, a 10 year cross-departmental public health strategic framework as well as a range of other departmental strategies such as those dealing with suicide, sexual health, breastfeeding, tobacco control and obesity prevention. It also has a key role in supporting the Departmental Alcohol and Drug Strategy, by maintaining and developing key departmental databases such as, the Substance Misuse Database, Impact Measurement Tool and the Census of Drug & Alcohol Treatment Services, which are all used to monitor drug misuse and treatments across Northern Ireland. In addition to Departmental functions, PHIRB also support the executive level Programme for Government and its strategic outcomes through a series of performance indicators.

Key Findings	Pg.4
1. Life Expectancy 2017-19	Pg.7
2. Male Life Expectancy Decomposition	Pg.8
3. Female Life Expectancy Decomposition	Pg.10
4. Gender Gap Life Expectancy Decomposition	Pg.12
5. Deprivation Gap Life Expectancy Decomposition	Pg.14
6. Life Expectancy by HSC Trust	Pg.19
7. Life Expectancy by Local Government District	Pg.21
8. Additional Health Expectancies	Pg.23
Appendix A: Tables	Pg.25
Appendix B: Technical Notes and Definitions	Pg.28

Introduction

The Official Life Expectancy Figures for Northern Ireland

The Department of Health are the official producers of life expectancy figures for Northern Ireland. This report presents the latest estimates of life expectancy, healthy life expectancy and disability-free life expectancy estimates for Northern Ireland. The report includes an analysis of change in life expectancy including the extent to which mortality within certain age groups and causes of death contributed to the change. In addition, life expectancy estimates are presented for Health and Social Care Trusts and Local Government Districts. This release is calculated based on figures prior to the coronavirus (COVID-19) pandemic and will not reflect the impact of the pandemic on health and life expectancies. The publication is one of a series of reports produced as part of the NI Health & Social Care Inequalities Monitoring System (HSCIMS)¹.

A guide on the terminology and how to interpret the charts used in this report, alongside technical notes, are set out in [Appendix B](#).

Review of suicide statistics in Northern Ireland

Please note that in light of an on-going review by NISRA and the Coroners' Service into the classification of undetermined deaths, this publication will not use the UK National Statistics definition for suicide. To ensure comparability across years, the sub series relating to self-inflicted injury/intentional self-harm will be used in its place. Full details on this change can be found in [Appendix B](#).

Key Findings

Current Life Expectancy Estimates

- In 2017-19, life expectancy in Northern Ireland (NI) was 78.8 years for males and 82.6 years for females, similar to last year (2016-18).
- Male life expectancy was highest in the Lisburn & Castlereagh LGD (80.1 years) and the lowest in the Belfast LGD (76.1 years).
- As with males, life expectancy for females was highest in the Lisburn and Castlereagh LGD (83.5 years) and lowest in the Belfast LGD (81.0 years).

Decomposition of Life Expectancy² Trend over the Last 5 Years

- Male life expectancy has increased by 0.4 years from 78.3 years in 2013-15, while female life expectancy has increased by 0.3 years from 82.3 years over the same period.

¹ <https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/health-inequalities-statistics>

² Life table decomposition is a statistical technique that allows changes in life expectancy to be broken down into positive and negative contributions by age and cause of death.

- Decreased mortality rates among 60-89 year olds contributed to the majority of the increase in male life expectancy over the period.
- Reduced mortality from circulatory disease and cancer, among other causes, increased male life expectancy by 0.9 years. However this increase was offset by 0.5 years due to a rise in mortality for a range of causes, including non-traffic related accidents and other circulatory illness.
- Compared with the previous 5-year period (2009-11 to 2013-15), when male life expectancy increased by 0.9 years, improvements have slowed down. This can largely be attributed to the reduction in mortality from circulatory disease being only 0.2 years compared with a reduction of 0.6 years in the previous period.
- As with males, decreased mortality rates among 60-89 year olds in females contributed to the majority of the increase in female life expectancy over this period.
- An improvement of 0.7 years in female life expectancy, mainly due to reduced mortality from circulatory disease and cancer, was offset by 0.4 years due to increased mortality from mental and behavioural disorders (mainly dementia) and non-traffic related accidents.
- As with males, the positive contribution to female life expectancy since 2013-15 from reduced circulatory mortality was half that when compared with the previous period (2009-11 to 2013-15) when life expectancy increased by 0.4 years, however the overall improvements in life expectancy have remained similar.

Gender Gap

- In 2017-19, females in NI could expect to live 3.8 years longer than males, a decrease of 0.2 years since 2013-15.
- Across all age groups, male mortality was higher than that of females, with the exception of those aged 0-9 where there was no difference in the levels of mortality.
- Higher male mortality from circulatory disease and cancer accounted for 1.2 and 0.8 years of the gap respectively. Mortality from accidental causes was also higher among males and accounted for a further 0.5 years of the gender gap.

Deprivation Gap

- In 2017-19, males living in the 20% most deprived areas of NI could expect to live 74.7 years, 7.0 years less than those living in the 20% least deprived areas (81.6 years).
- Female life expectancy in the 20% most deprived areas was 79.6 years, 4.8 years fewer than females in the 20% least deprived areas (84.5 years).
- Higher mortality from circulatory disease (1.4 years) and cancer (1.3 years) combined, contributed more than a third of the male life expectancy deprivation gap. Cancer was the largest contributor to the female life expectancy deprivation gap.

Life Expectancy at 65

- Life expectancy at age 65 in 2017-19 was 18.5 years for males and 20.8 years for females.
- Over the last five years, there has been an increase in male life expectancy at 65 of 0.4 years. Over the same period, female life expectancy at age 65 has increased by 0.2 years.

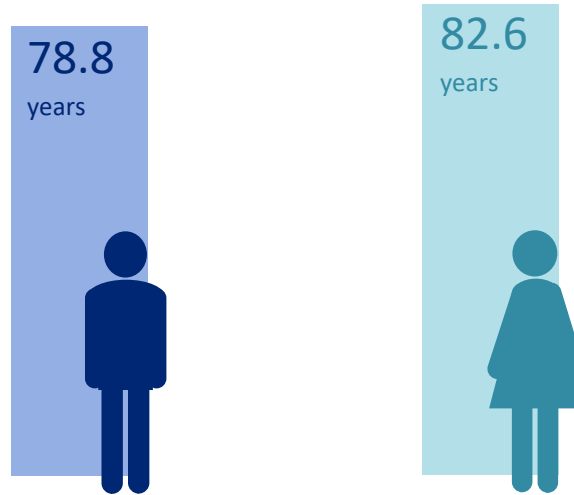
Healthy and Disability-Free Life Expectancy

- In 2017-19, male healthy life expectancy was 59.2 years, compared to 58.4 years in 2013-15. Female healthy life expectancy was 61.0 years in 2017-19 with no change from 2013-15.
- The healthy life expectancy inequality gap was 13.5 years for males and 15.4 years for females in 2017-19, showing no significant change for both males (11.9 years) and females (14.3 years) from 2013-15.
- Disability-free life expectancy was 57.9 years for males and 58.4 years for females in 2017-19, with neither showing a significant change from 2013-15.
- The disability-free life expectancy inequality gap in 2017-19 was 12.5 years for males and 13.3 years for females. There has been no significant change for either males (11.5 years) or females (11.6 years) from 2013-15.

Life expectancy at birth in 2017-19 was 78.8 years for males and 82.6 years for females.

Life expectancy refers to the number of years a person would expect to live if the current mortality patterns remain constant. In 2017-19, females in Northern Ireland could expect to live 3.8 years longer than males.

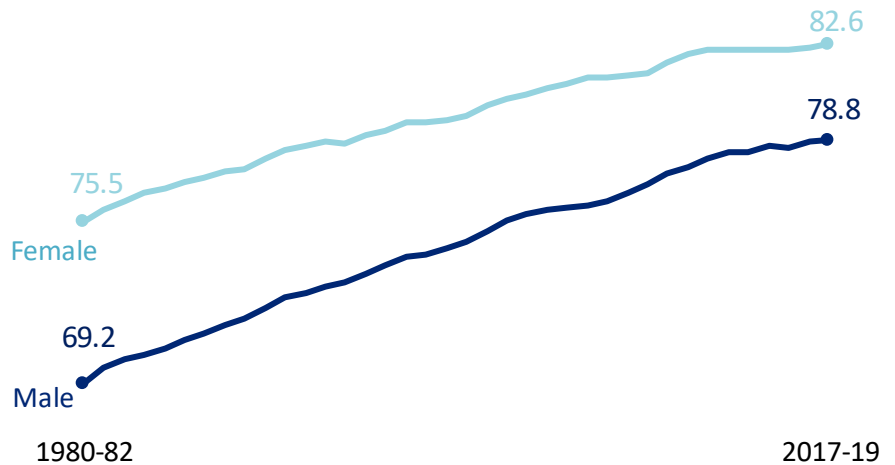
Male and Female Life Expectancy at Birth (2017-19)



Life expectancy for both males and females has grown steadily since 1980-82.

Since 1980-82, life expectancy at birth has increased by 7.1 years for females and 9.6 years for males. As a result, the gender gap has narrowed from 6.3 years in 1980-82 to 3.8 years in 2017-19.

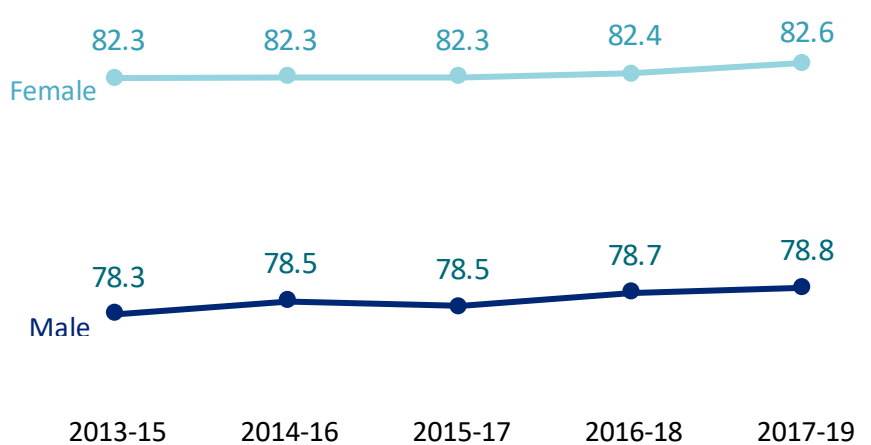
Life Expectancy at Birth (1980-82 to 2017-19)



The increase in life expectancy has slowed in recent years.

Since 2013-15, life expectancy has increased by 0.4 years for males and by 0.3 years for females. This compares with an increase of 0.9 years for males and 0.4 years for females in the previous five-year period.

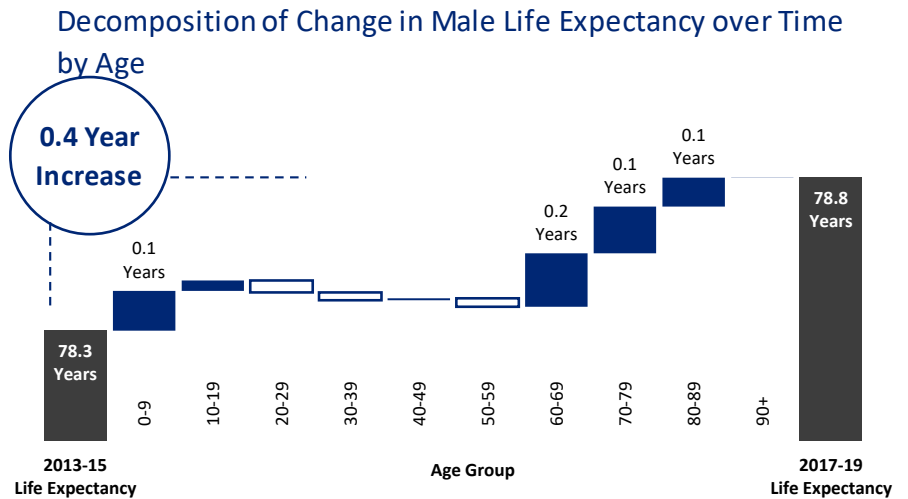
Life Expectancy at Birth (2013-15 to 2017-19)



* Values presented are rounded to one decimal place independently. As a result, the sum of component items may not therefore always add to the totals shown.

Decreased mortality rates among 60-89 year olds contributed to the majority (0.4 years) of the increase in male life expectancy over the last 5 years.

Reduced mortality among those aged 0-9 also contributed 0.1 years to the increase in male life expectancy.



Reduced mortality from circulatory disease and cancer, among other causes, increased male life expectancy. However, these gains were partly offset by increases in mortality from other causes.

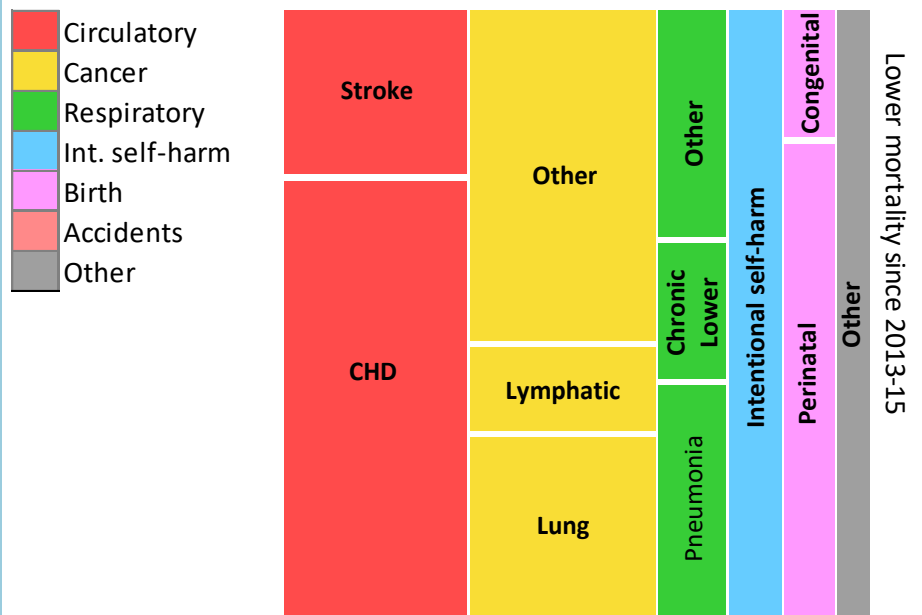
Lower mortality from circulatory disease contributed 0.3 years to the increase in life expectancy, the majority of which was attributable to Coronary Heart Disease (CHD). Reduced mortality from cancer contributed a further 0.3 years; the majority of which was attributable to a reduction in 'Other' cancer mortality, such as stomach and liver cancer.

However, this increase was offset by 0.5 years due to increased mortality from non-traffic related accidents and other circulatory diseases.

* A more detailed breakdown of the various contributions from different causes of death is available in [Appendix A](#).

* Values presented are rounded to one decimal place independently. As a result, the sum of component items may not therefore always add to the totals shown.

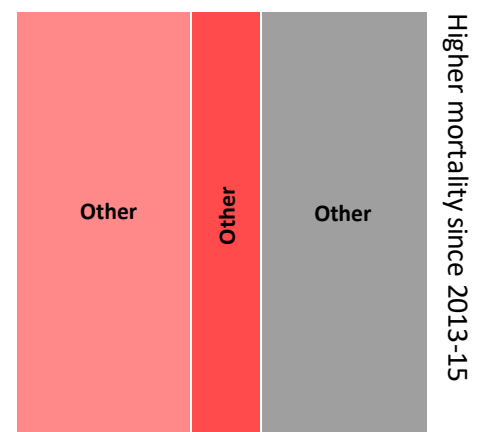
Decomposition of Change in Male Life Expectancy over Time by Cause of Death (2013-15 to 2017-19)



0.9 year increase from lower mortality



0.5 year decrease from higher mortality

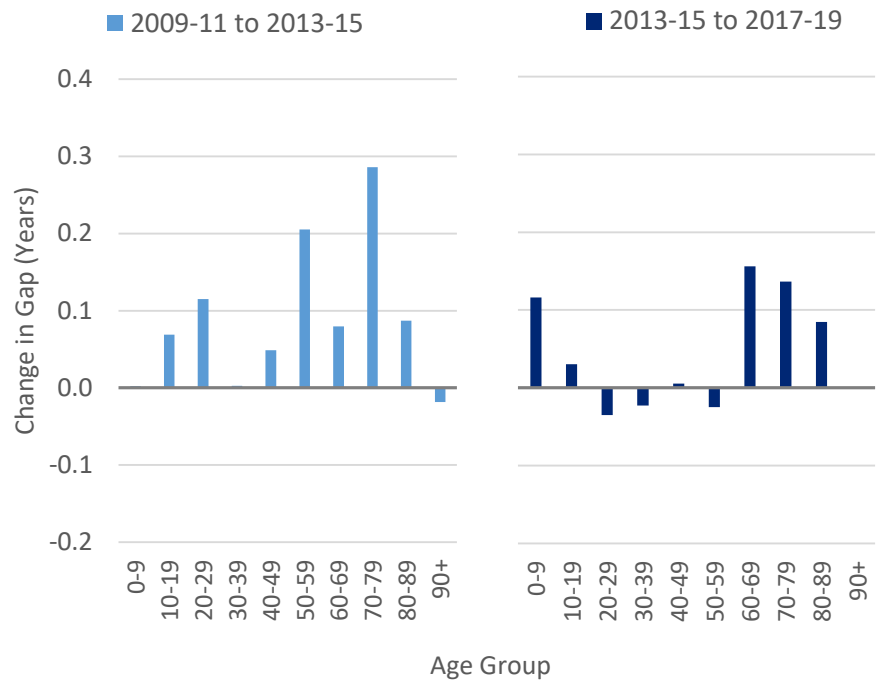


Compared with the previous 5-year period improvements in mortality slowed for the majority of age groups from 2013-15 to 2017-19.

The recent slowdown in life expectancy improvement can be explained by comparing the changes observed from 2013-15 to 2017-19 with the previous 5-year period when male life expectancy increased by 0.9 years.

Between 2013-15 and 2017-19, with the exception of those aged 0-9, 60-69 and 90+, all age groups contributed less to the increase in life expectancy when compared with the previous period.

Decomposition of Change in Male Life Expectancy by Age

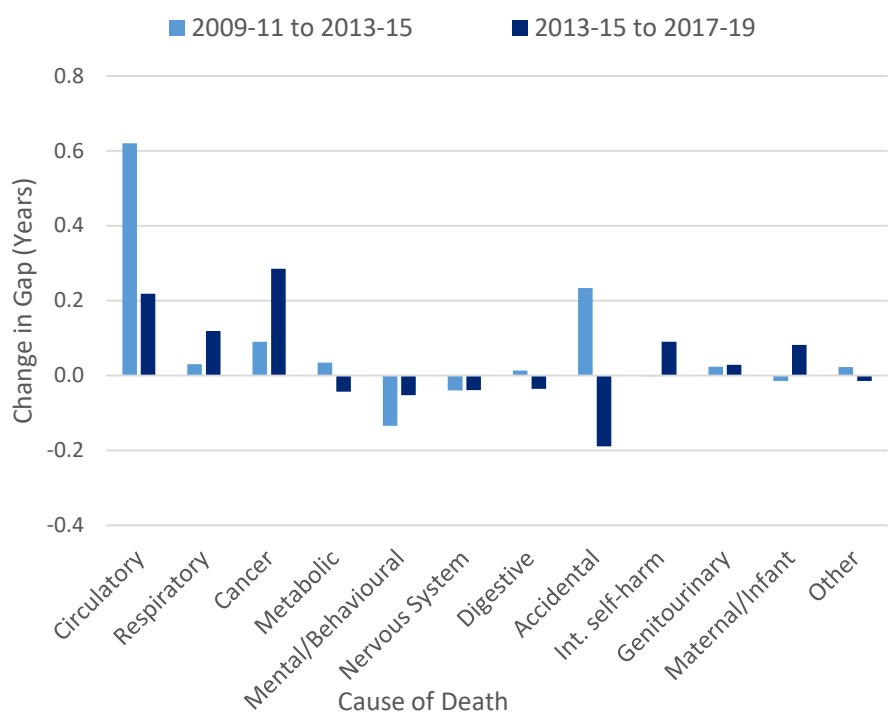


Between 2013-15 and 2017-19, there was a slower improvement in circulatory disease mortality (0.2 years) than that seen in the previous 5 year period (0.6 years).

While several causes have continued to make a positive contribution to improvements in life expectancy; mortality due to accidents, metabolic diseases and digestive diseases now provide a negative contribution to life expectancy changes when compared with the previous period.

* A more detailed breakdown of the various contributions from different causes of death is available in [Appendix A](#).

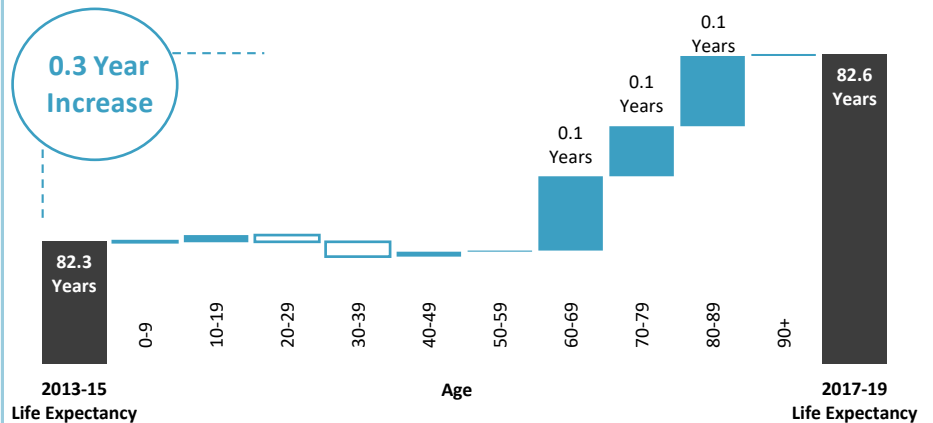
Decomposition of Change in Male Life Expectancy by Cause of Death



Similar to males, decreased mortality rates among 60-89 year olds contributed considerably to the majority of the increase in female life expectancy over the last 5 years.

Mortality among the rest of the age groups showed no notable contribution to the change in female life expectancy over time since 2013-15.

Decomposition of Change in Female Life Expectancy over Time by Age



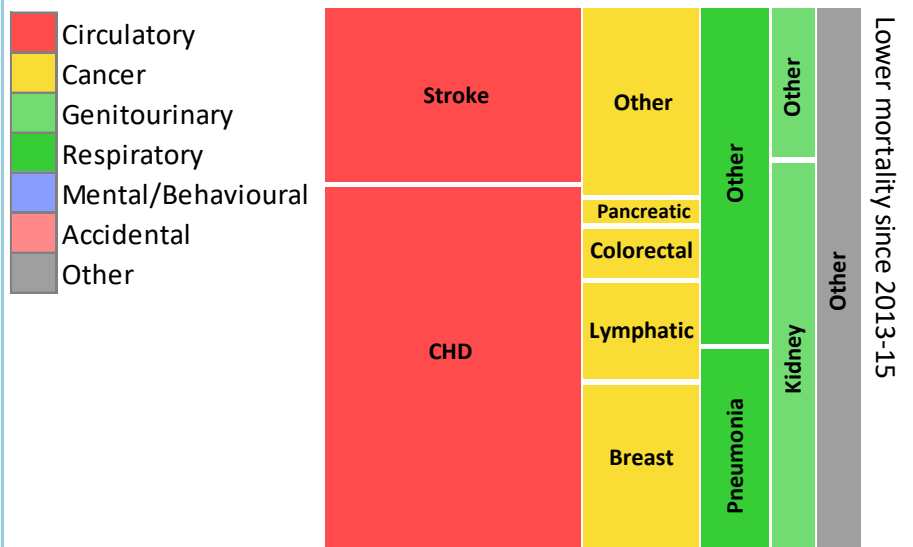
Improvements in female life expectancy, mainly due to reduced mortality from circulatory disease and cancer, increased life expectancy by 0.7 years. However, this increase was offset by 0.4 years by increased mortality due to other causes.

Lower mortality from circulatory disease accounted for almost half (0.3 years) of the increase in female life expectancy, the majority of which was attributable to Coronary Heart Disease (CHD). Reduced mortality from cancer, genitourinary causes and some respiratory diseases also contributed to the increase.

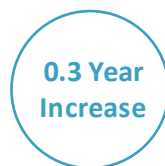
However, this increase was offset by 0.7 years by increased mortality from mental and behavioural disorders, mainly dementia, as well as non-traffic related accidents and other circulatory causes.

* A more detailed breakdown of the various contributions from different causes of death is available in [Appendix A](#).

Decomposition of Change in Female Life Expectancy over Time by Cause of Death (2013-15 to 2017-19)



0.7 year increase from lower mortality

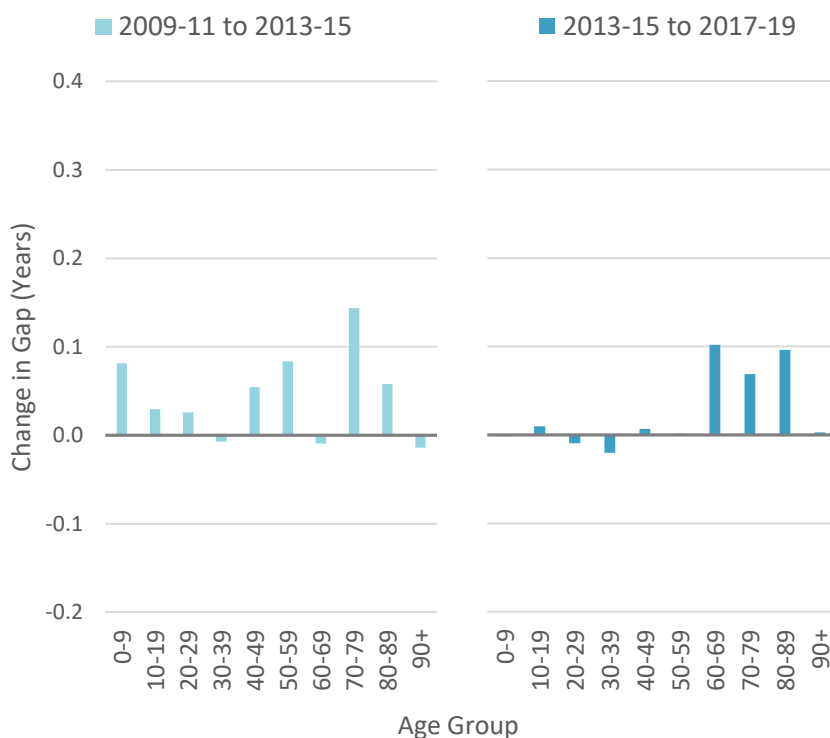


0.4 year decrease from higher mortality

Unlike the previous 5 year period, broadly static mortality in age groups under 60 years made little or no change to female life expectancy from 2013-15 to 2017-19. However, improved mortality in those aged 60 and over led to an overall increase.

Improvements in female life expectancy have remained similar to that of 2009-11 to 2013-15 which also saw a 0.3 year increase. However, whereas previously improvements were spread across age groups, it is now concentrated on those aged 60-89. Those aged 60-69 years, saw a positive contribution of 0.1 years, as opposed to a small negative contribution in the previous 5 year period.

Decomposition of Change in Female Life Expectancy by Age

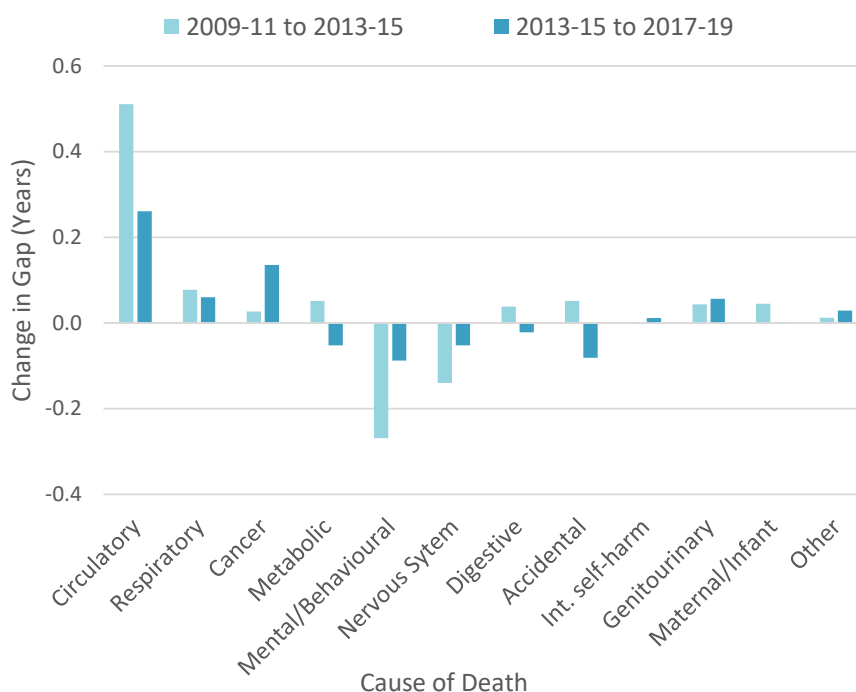


The positive contribution to female life expectancy from reduced circulatory mortality was half that seen in the previous 5 year period.

There was also an increase in mortality from accidental causes when compared with the previous period.

In contrast, there were greater improvements in mortality from cancer, as well as a reduction in the negative contribution from mental/behavioural and nervous system disorders.

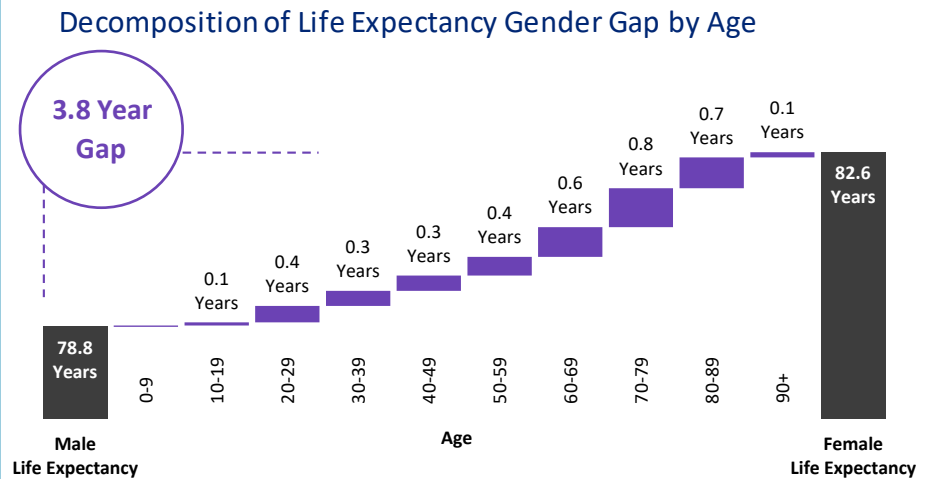
Decomposition of Change in Female Life Expectancy by Cause of Death



* A more detailed breakdown of the various contributions from different causes of death is available in [Appendix A](#).

In 2017-19, females in NI could expect to live 3.8 years longer than males.

Across all age groups, male mortality was higher than that of females. The contribution to the life expectancy gender gap is most pronounced at older ages, with over two-thirds of the gap attributable to lower mortality for females aged 50-89.

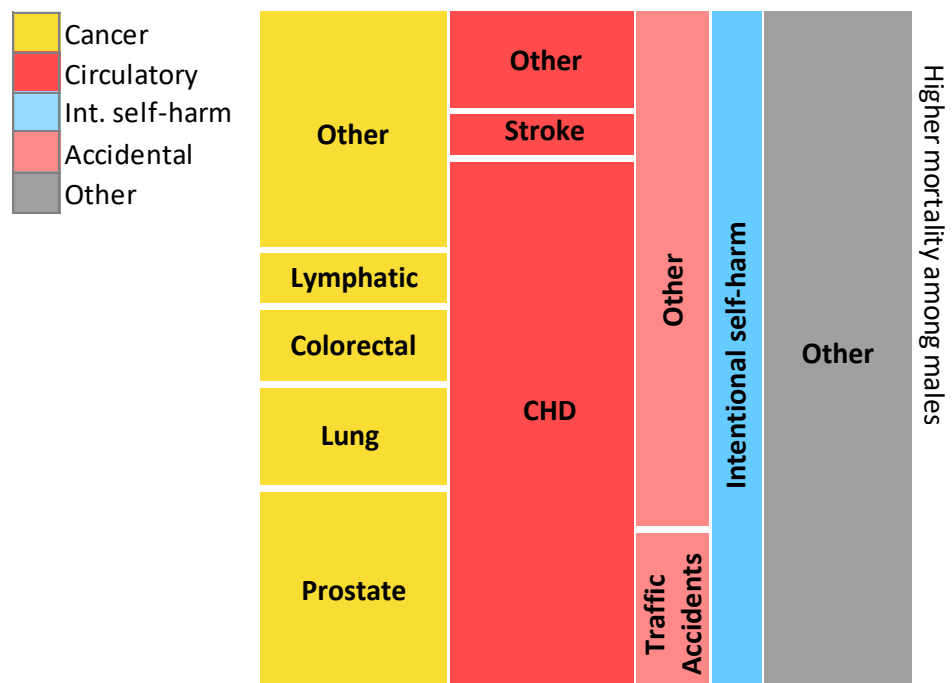


Higher mortality among males, particularly from cancer and circulatory disease, contributed 4.2 years to the gender gap in life expectancy.

In 2017-19, higher mortality among males for a range of cancer and circulatory causes contributed 2.4 years to the life expectancy gender gap. A further 0.4 years of the gap was attributable to higher mortality among males due to non-traffic related accidental deaths.

However, the life expectancy gender gap was offset by 0.4 years mainly due to higher female mortality from breast cancer. Female mortality was also slightly higher than males in a small number of other causes, mainly mental and behavioural disorders, specifically dementia.

Decomposition of Life Expectancy Gender Gap by Cause of Death



4.2 year gap from higher male mortality



0.4 year gap from higher female mortality

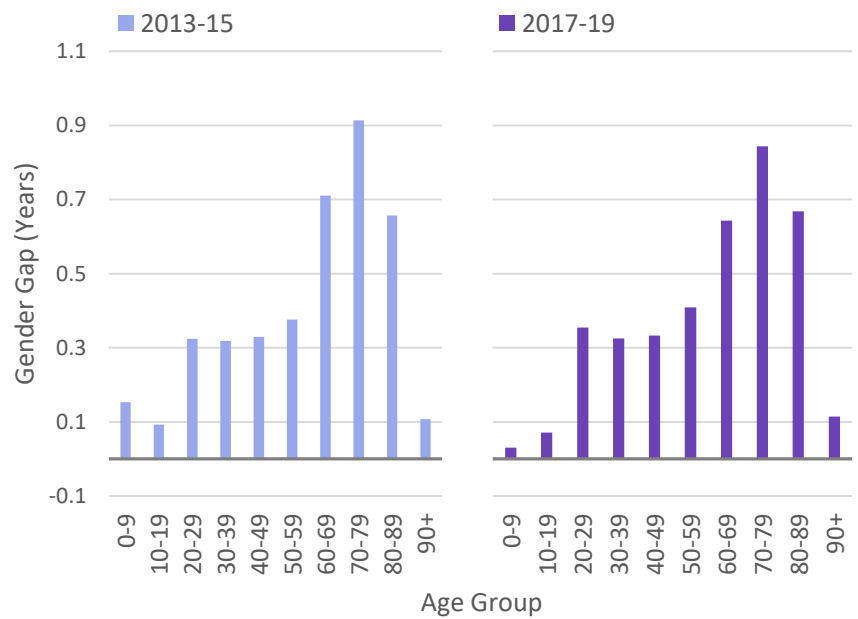


* A more detailed breakdown of the various contributions from different causes of death is available in [Appendix A](#).

The contribution of each age group to the gender gap in 2017-19 was similar to that in 2013-15. Higher mortality among males at older ages continued to provide the largest contribution to the life expectancy gender gap.

As shown previously, there have been many changes in the contribution of age groups to changes in both male and female life expectancy since 2013-15. However, in terms of the gender gap, the only age group that saw any notable change since 2013-15 was those aged 0-9, where mortality rates for males and females are now broadly similar as a result of decreased mortality for males from perinatal causes.

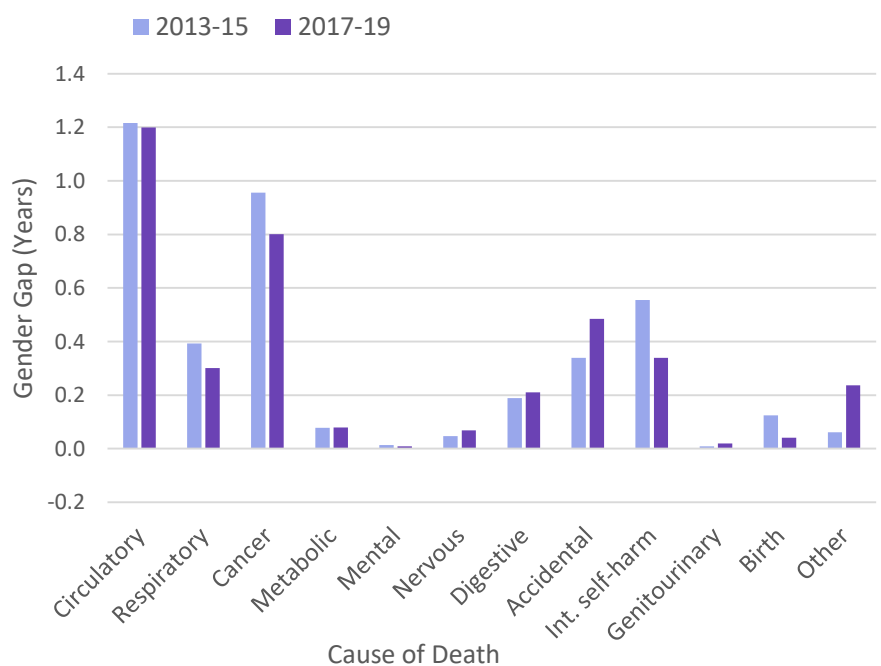
Contribution of Age Groups to Differences in the Life Expectancy Gender Gap



There has been little change in the pattern of contribution to the life expectancy gender gap by different causes of death since 2013-15.

Higher mortality among males from circulatory disease and cancer continues to be the largest contributor to the life expectancy gender gap. Similar to 2013-15, mortality for each broad cause of death was greater for males in 2017-19.

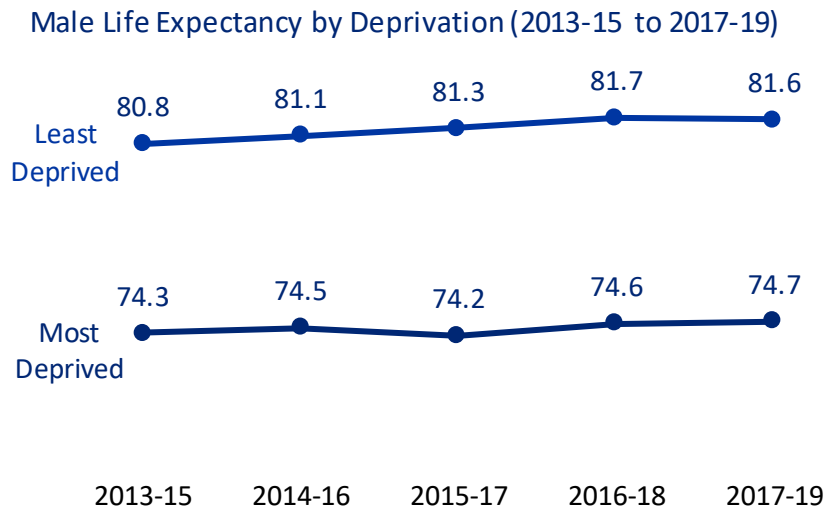
Contribution of Cause of Death to Differences in the Life Expectancy Gender Gap



Values above 0 on the y-axis represent greater mortality among males, with values below 0 representing greater female mortality.

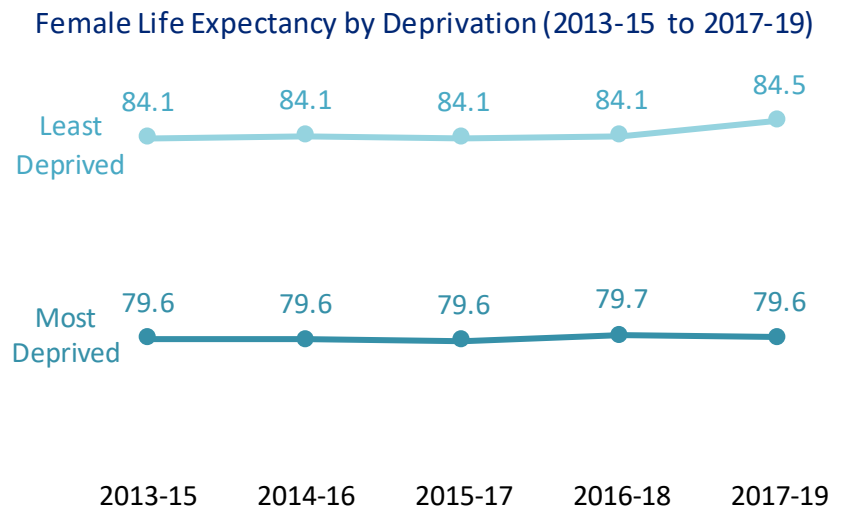
Between 2013-15 and 2017-19, life expectancy for males living in both the 20% most deprived and 20% least deprived areas in NI increased.

Life expectancy for males in the most deprived areas increased from 74.3 years in 2013-15 to 74.7 years in 2017-19. Whereas life expectancy in the least deprived areas increased from 80.8 years to 81.6 years across the same period.



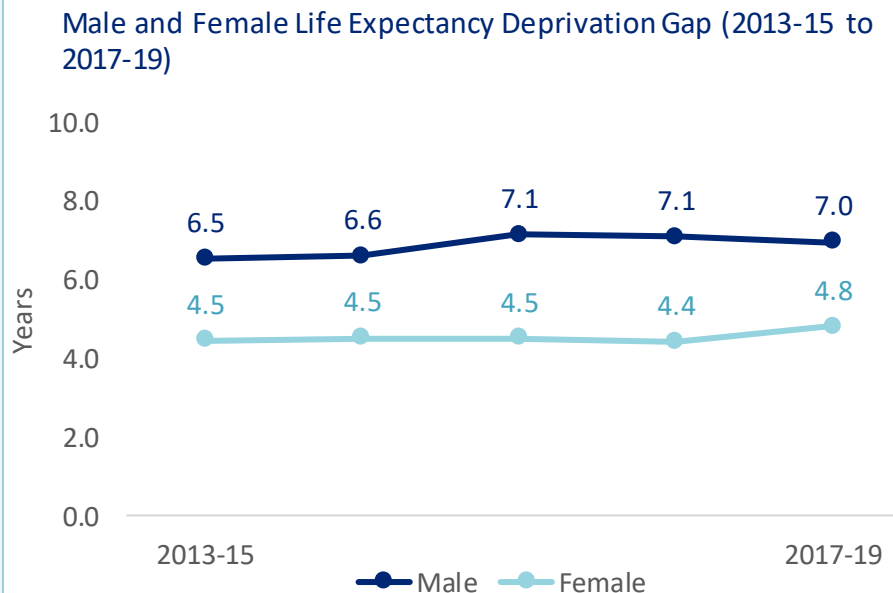
There was no significant change in life expectancy for females living in the 20% most deprived and 20% least deprived areas.

Female life expectancy in the most deprived areas in 2017-19 remained the same as 2013-15 at 79.6 years. Life expectancy for females living in the least deprived areas was 84.5 years in 2017-19, with no significant change from 84.1 years in 2013-15.



There has been no significant change to the life expectancy at birth gap for either males or females since 2013-15.

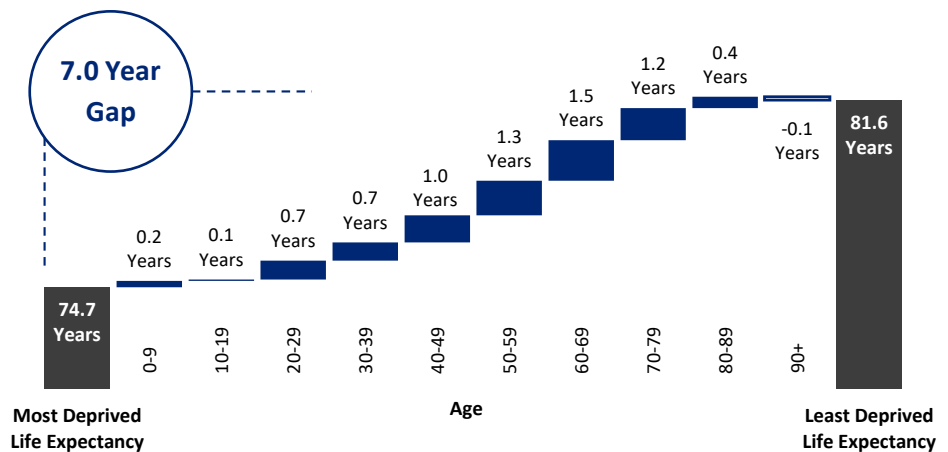
The life expectancy gap between the 20% most and least deprived areas stood at 7.0 years for males and 4.8 years for females in 2017-19. Changes observed from 2013-15 were not significant.



In 2017-19, life expectancy for males living in the 20% most deprived areas of NI was 74.7 years. This was 7.0 years less than those in the 20% least deprived areas (81.6 years).

Almost all age groups contributed towards the life expectancy deprivation gap, with higher mortality in the most deprived areas compared with the least deprived. Mortality rates for males aged 90 and over, in the least deprived areas were higher. This is likely due to a larger proportion of the population in the least deprived areas surviving into this age group.

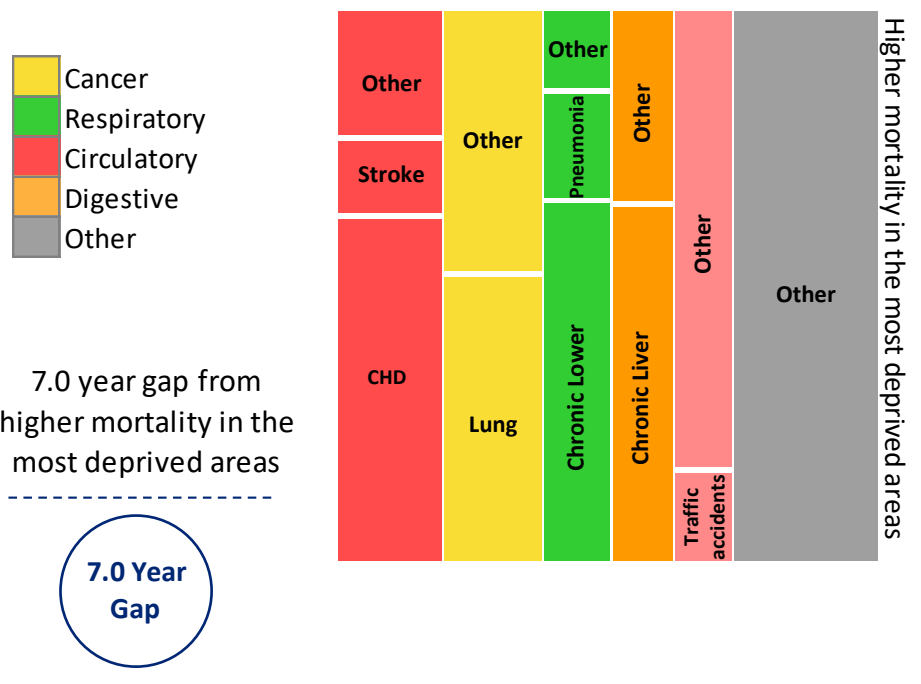
Decomposition of Male Life Expectancy Deprivation Gap by Age



Mortality across all causes of death was higher in the most deprived areas than in the least deprived.

All causes of death were higher in the 20% most deprived areas when compared with the 20% least deprived areas with the exception of 'other genitourinary', where mortality was slightly higher in the least deprived areas (not large enough to display in chart). Higher mortality from circulatory disease (1.4 years) and cancer (1.3 years) combined contributed more than a third of the male life expectancy deprivation gap. Respiratory illness was the third highest contributor, adding 0.9 years.

Decomposition of Male Life Expectancy Deprivation Gap by Cause of Death

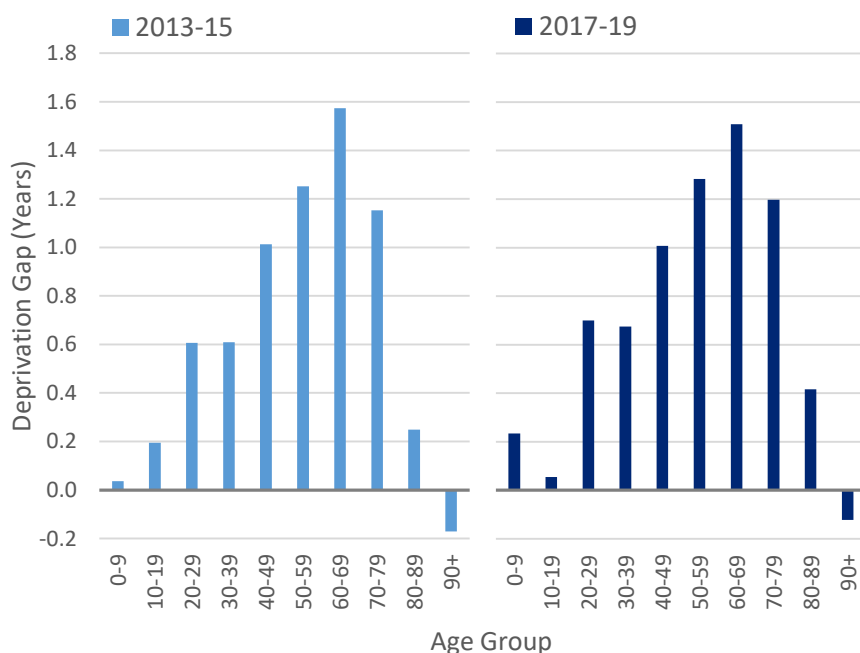


* Values presented are rounded to one decimal place independently. As a result, the sum of component items may not therefore always add to the totals shown.

The age contribution to the male deprivation gap in 2017-19, remains similar to that in 2013-15 with higher mortality among males at older ages as the largest contributor.

Although the gap for most age groups remained similar, there was a notable increase the gap for those aged 0-9 from 0.0 years in 2013-15 to 0.2 years in 2017-19. Likewise, the gap for the age group 80-89 increased from 0.2 years to 0.4 years in this period. These were offset however by decreased contributions across the 10-39 age groups.

Contribution of Age Groups to Differences in the Male Life Expectancy Deprivation Gap

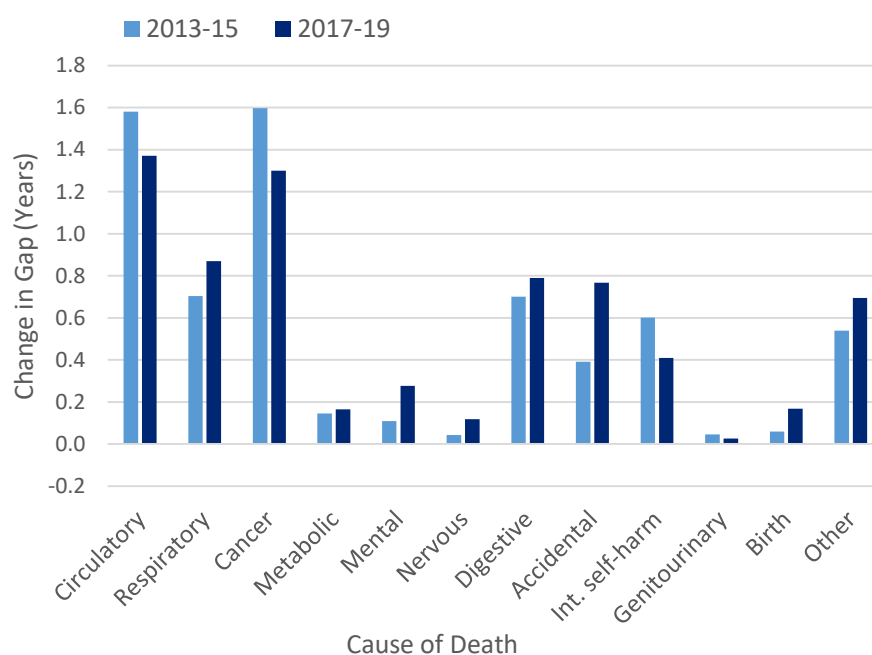


There has been little change in the contribution by different causes of death to the male life expectancy deprivation gap since 2013-15.

Higher mortality from circulatory disease and cancer among males in the 20% most deprived areas are the largest contributors to the life expectancy deprivation gap, though this gap has decreased by more than 0.2 years for both causes since 2013-15.

The contribution to the gap for accidental causes has almost doubled from 2013-15 to 2017-19. The majority of which, is attributed to an increase in non-traffic related accidents.

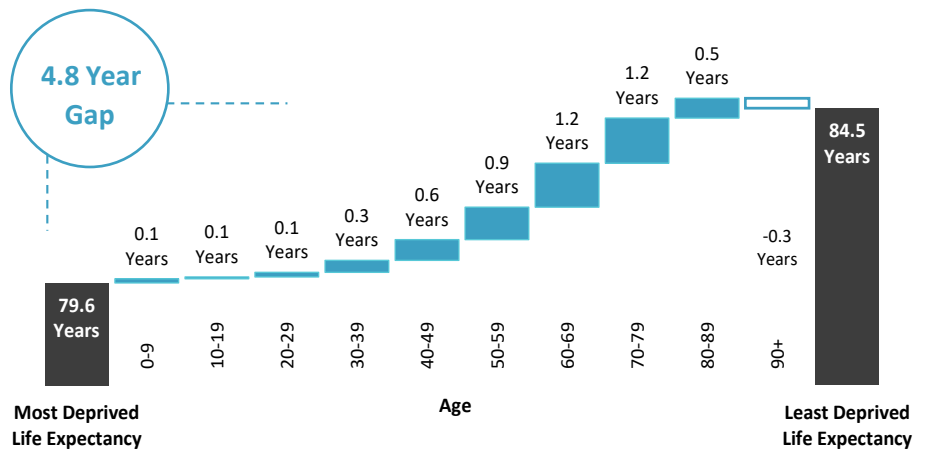
Contribution of Cause of Death to Differences in the Male Life Expectancy Deprivation Gap



Life expectancy for females living in the 20% most deprived areas in NI was 79.6 years. This was 4.8 years less than those in the 20% least deprived areas (84.5 years).

Half of the contribution to the total female life expectancy deprivation gap was in the 60-79 age group (2.4 years). This was largely attributable to higher mortality from chronic lower respiratory disease and lung cancer in the most deprived areas. The mortality rate for females aged 90+ in the least deprived areas was higher than in the most deprived areas. As with males, this is likely due to a larger proportion of females from the least deprived areas living beyond 90 years.

Decomposition of Female Life Expectancy Deprivation Gap by Age

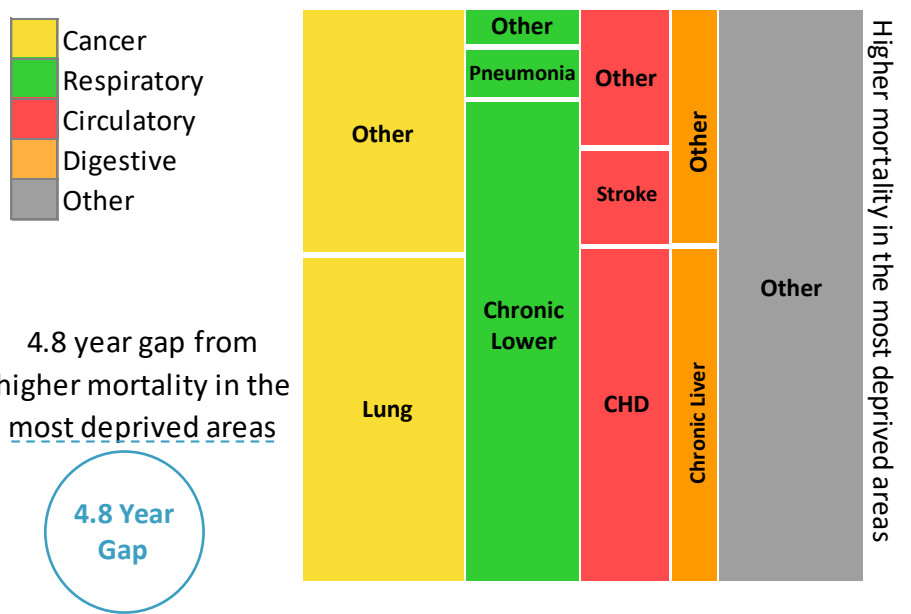


Mortality from cancer (1.4 years) was the largest contributor to the female deprivation gap, more than half of which (0.8 years) was due to lung cancer.

Additionally, 1.0 years of the gap were attributable to mortality from respiratory disease, with chronic lower respiratory illness contributing the majority (0.8 years). The next largest contributor was circulatory illness with 0.8 years, of which 0.5 years was attributable to Coronary Heart Disease (CHD).

* A more detailed breakdown of the various contributions from different causes of death is available in [Appendix A](#).

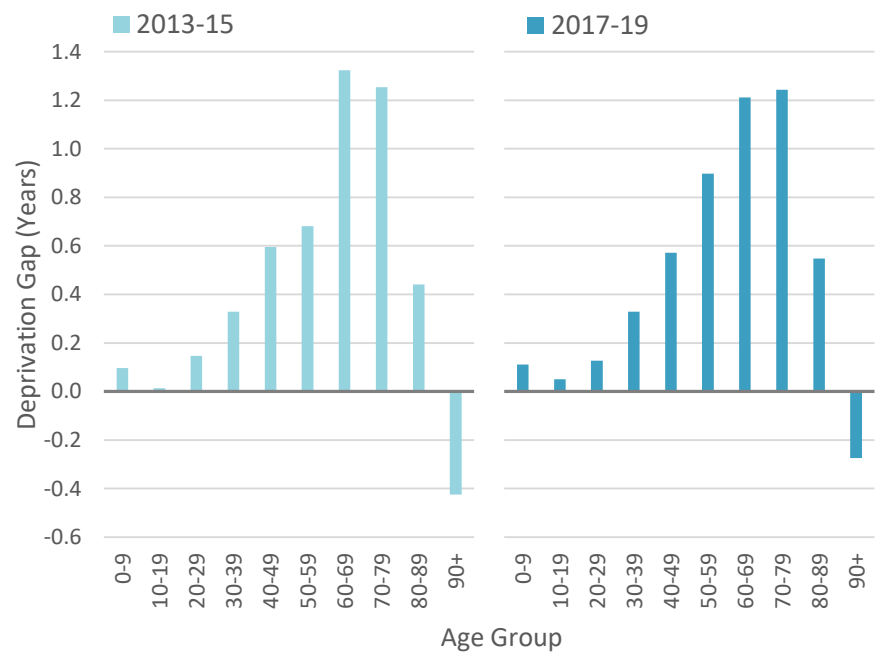
Decomposition of Female Life Expectancy Deprivation Gap by Cause of Death



As with males, in 2017-19 the age contribution to the female life expectancy deprivation gap remains similar to that in 2013-15 when the deprivation gap was 4.5 years.

The most notable difference was for those aged 50-59, with a 0.2 year increase in the contribution to the life expectancy deprivation gap from 0.7 years in 2013-15 to 0.9 years in 2017-19. The negative effect of higher mortality among those aged 90 and over was also less pronounced in 2017-19 when compared with 2013-15.

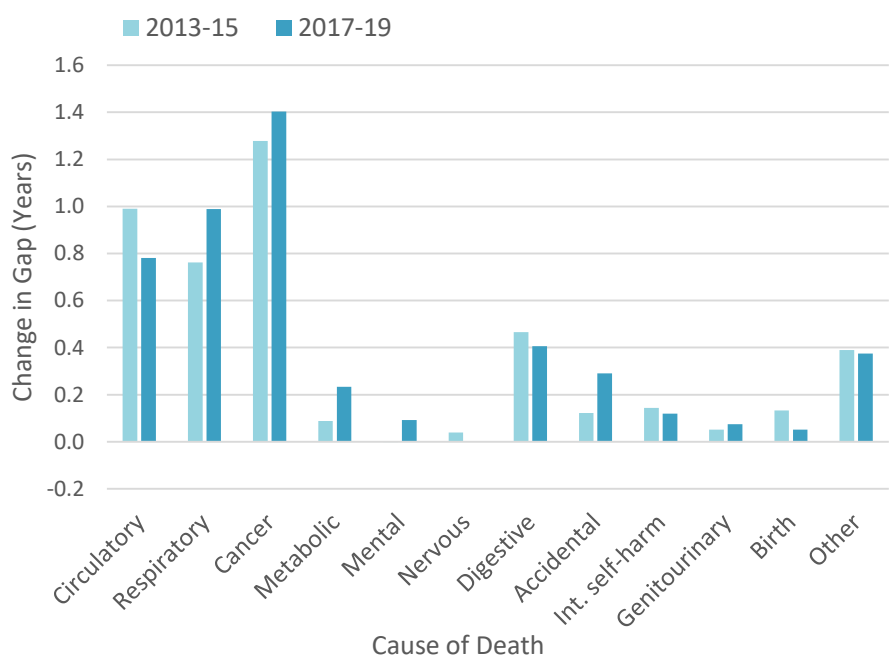
Contribution of Age Groups to Differences in the Female Life Expectancy Deprivation Gap



Between 2013-15 and 2017-19, there has been little change in the causes of death that contributed to the female life expectancy deprivation gap.

Although figures remain similar, higher mortality from respiratory illnesses and cancer have increased the deprivation gap by 0.2 and 0.1 years respectively when compared with the same causes in 2013-15. However, the positive contribution from circulatory disease to the gap decreased by 0.2 years in 2017-19.

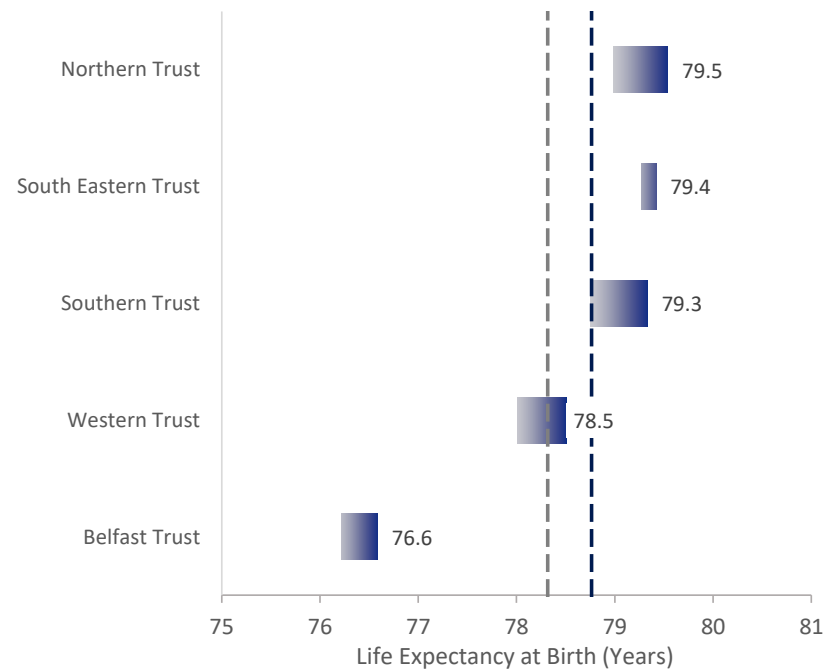
Contribution of Cause of Death to Differences in the Female Life Expectancy Deprivation Gap



In 2017-19, male life expectancy at birth ranged from 76.6 years in the Belfast Trust to 79.5 years in the Northern Trust.

Male life expectancy increased across all HSC Trusts since 2013-15 with the exception of the South Eastern Trust, which had the highest life expectancy in 2013-15 but has shown little change since. The largest increase in life expectancy for males occurred in the Southern and Northern Trusts (both 0.6 years). This was closely followed by the Western Trust, with an increase of 0.5 years.

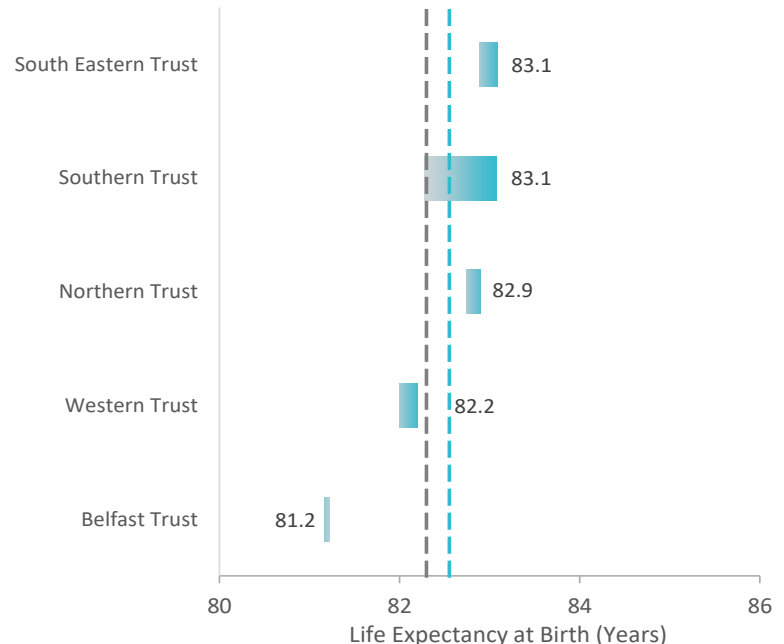
Male Life Expectancy at Birth by Trust (2013-15 to 2017-19)



Life expectancy at birth for females ranged from 81.2 years in the Belfast Trust to 83.1 years in the Southern and South Eastern Trusts.

Female life expectancy remained broadly similar across the majority of Trusts, with the only notable increase (0.8 years) in the Southern Trust area. Life expectancy increased by 0.2 years in the Northern, South Eastern and Western Trusts, although these changes were not statistically significant. Life expectancy in the Belfast Trust remained broadly the same.

Female Life Expectancy at Birth by Trust (2013-15 to 2017-19)



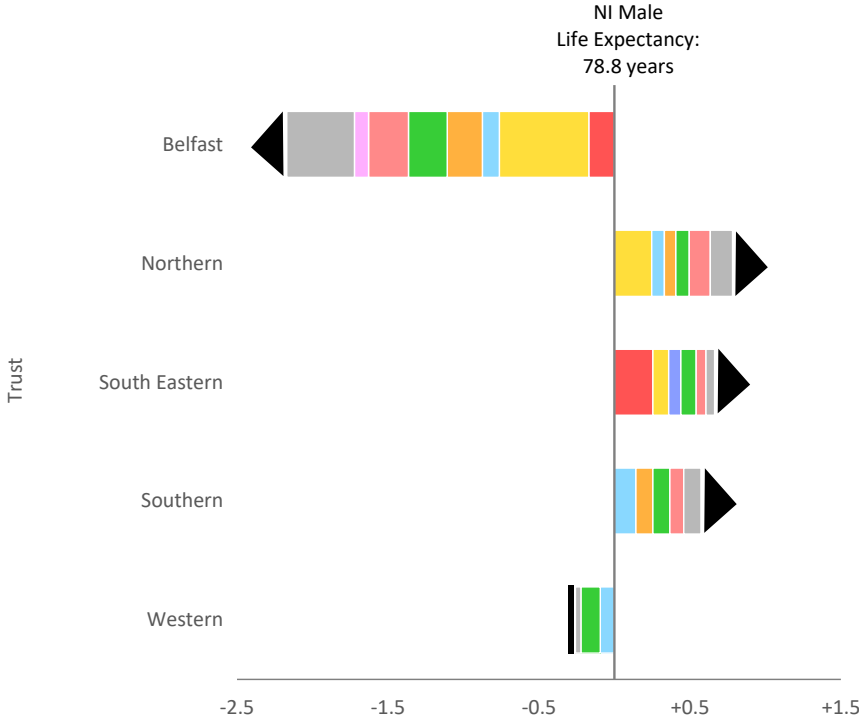
Key

- Life Expectancy 2013-15
- Life Expectancy 2017-19
- Change in Life Expectancy 2013-15 to 2017-19

Deaths from cancer, circulatory disease and respiratory illness were the main contributors to the male life expectancy gap between Trusts and the NI average.

In 2017-19, male life expectancy was above the NI average for three of the five Trusts. However, life expectancy was significantly lower for the Belfast Trust. This was due to higher mortality from cancer, accidental deaths and respiratory disease. Life expectancy for the Northern, South Eastern and Southern Trusts were all significantly higher than the NI average.

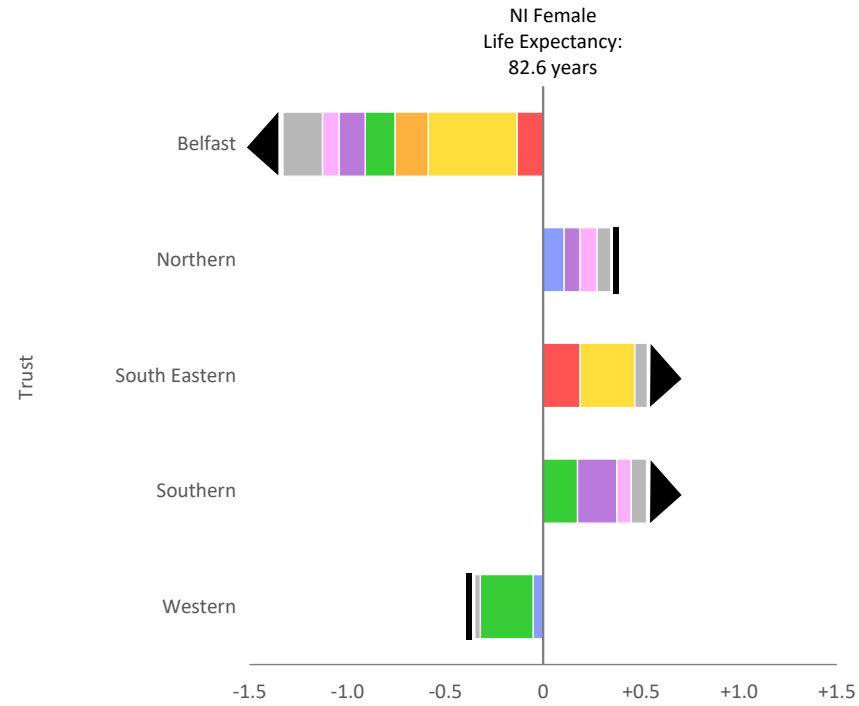
Decomposition of Male Life Expectancy (2017-19): Trust with NI



Deaths from cancer, respiratory disease and nervous system disorders were the main contributors to the female life expectancy gap between Trusts and the NI average.

In the Belfast Trust, female life expectancy was significantly lower than the NI average, largely due to higher cancer mortality rates. Life expectancy in the South Eastern and Southern Trusts was significantly higher than the NI average. The Western and Northern Trusts both had a similar life expectancy to the NI average.

Decomposition of Female Life Expectancy (2017-19): Trust with NI



Key

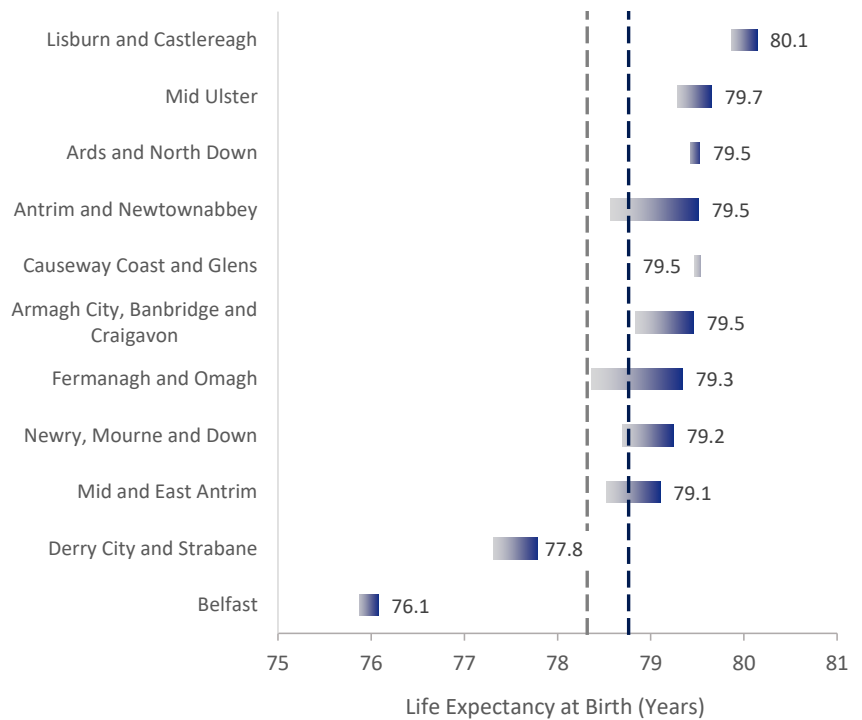
Cancer	Circulatory	Respiratory	Mental & BD	Accidental
Digestive	Nervous	Maternal/Infant	Int. Self Harm	Other

Below NI Average
 Similar to NI Average
 Above NI Average

Across LGDs in 2017-19, male life expectancy at birth ranged from 76.1 years in Belfast to 80.1 years in Lisburn and Castlereagh.

Since 2013-15, male life expectancy has increased across the majority of LGDs. However, some LGDs have seen greater improvements than others, with life expectancy increasing by 1.0 years in Fermanagh & Omagh and 0.9 years in Antrim and Newtownabbey. Male life expectancy in the Ards & North Down and Causeway Coast & Glens LGDs remained similar to 2013-15.

Male Life Expectancy at Birth by Local Government District (2013-15 to 2017-19)



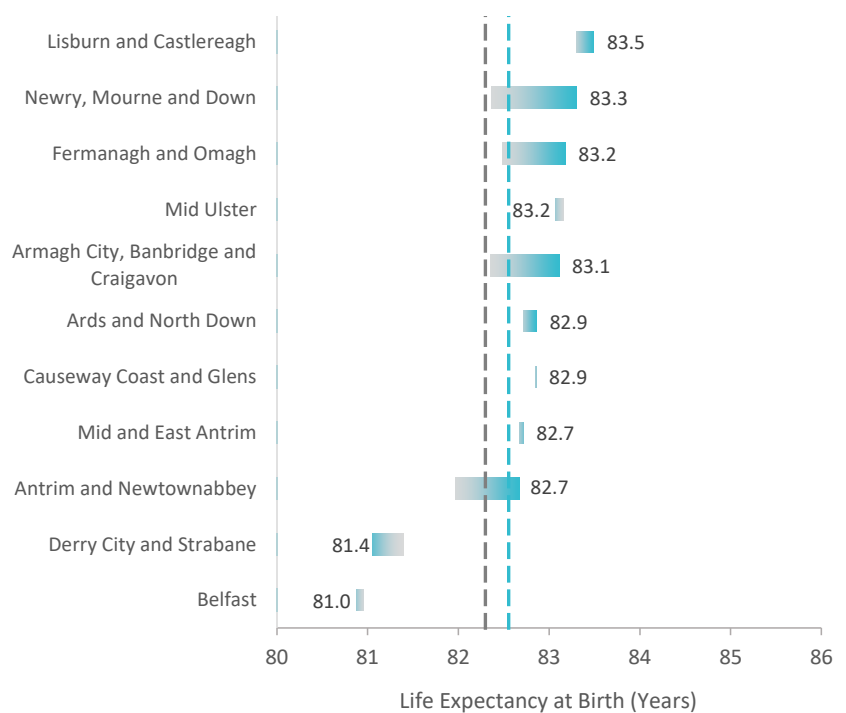
As with males, female life expectancy was highest in Lisburn and Castlereagh (83.5 years) and lowest in Belfast (81.0 years).

Female life expectancy has experienced more variation in change across LGDs since 2013-15 when compared with male life expectancy. Life expectancy in Derry City & Strabane was 0.3 years less than in 2013-15. While Newry, Mourne & Down and Armagh City, Banbridge & Craigavon have increased by 0.9 years and 0.8 years respectively.

There was little or no change to life expectancy in the Causeway Coast & Glens or Mid & East Antrim LGDs.

A full assessment of change and differences in LGD figures, including confidence intervals, can be requested from [PHIRB](#).

Female Life Expectancy at Birth by Local Government District (2013-15 to 2017-19)



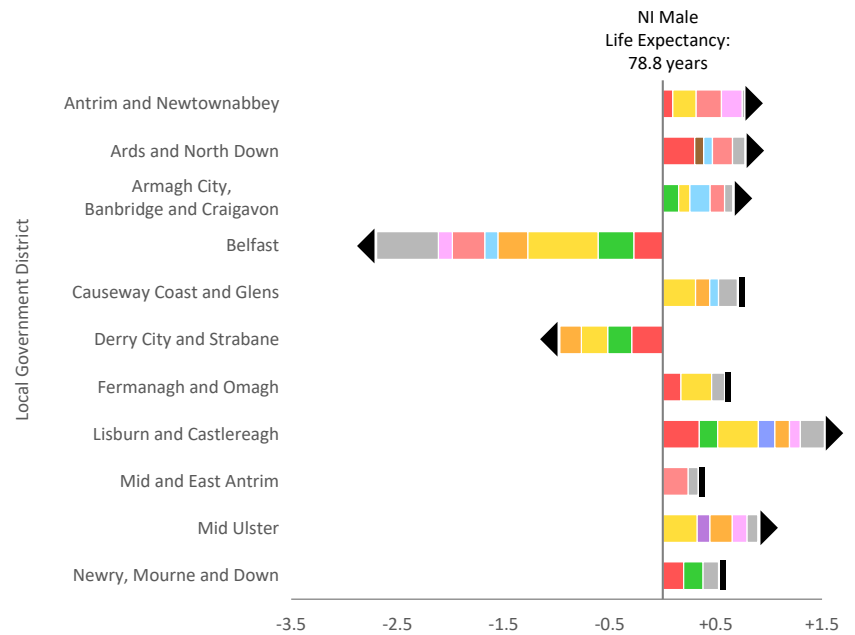
Key

- Life Expectancy 2013-15
- Life Expectancy 2017-19
- Change in Life Expectancy 2013-15 to 2017-19

Deaths from cancer, circulatory disease and accidents were the main contributors to the male life expectancy gap between LGDs and the NI average.

Male life expectancy was significantly lower than the NI average in the Belfast LGD as a result of higher mortality from cancer, respiratory illness and accidental deaths. Life expectancy in the Antrim & Newtownabbey, Ards & North Down, Armagh City, Banbridge & Craigavon, Lisburn & Castlereagh and Mid Ulster LGDs were significantly higher than the NI average.

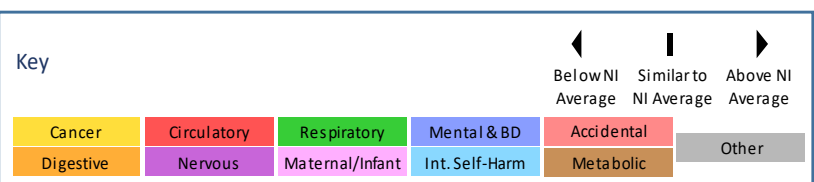
**Decomposition of Male Life Expectancy (2017-19):
Local Government Districts Compared with NI**



Deaths from cancer, nervous system disorders and respiratory diseases were the main contributors to the female life expectancy gap between LGDs and NI.

Female life expectancy was significantly lower than the NI average in the Belfast and Derry City & Strabane LGDs. While life expectancy in the Lisburn & Castlereagh was significantly higher than the NI average largely due to lower cancer mortality. Life expectancy was also significantly higher in the Newry, Mourne & Down LGD.

**Decomposition of Female Life Expectancy (2017-19):
Local Government Districts Compared with NI**

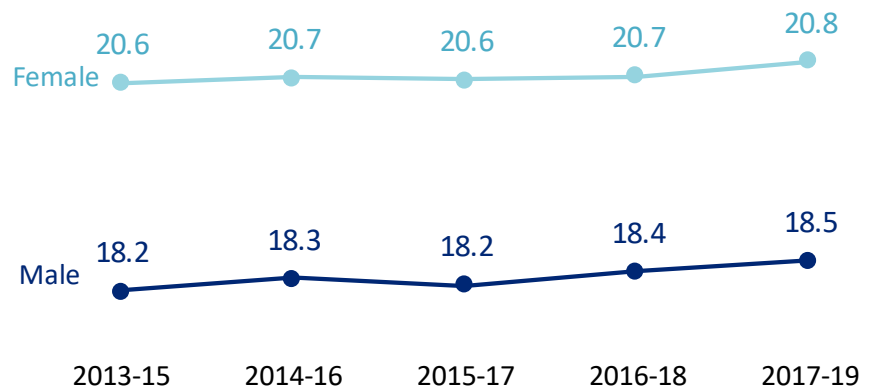


For each area, the life expectancy gap with Northern Ireland has been broken down into its largest contributory causes of death. The contribution from other causes, including those that offset the gap, are combined into the 'Other' category. A more detailed breakdown is available in the accompanying tables available [online](#).

Life expectancy at age 65 in 2017-19 was 18.5 years for males and 20.8 years for females.

Over the last five years, there has been an increase of 0.2 years in life expectancy at age 65 for females. Over the same period, male life expectancy at age 65 has increased by 0.4 years.

Male and Female Life Expectancy at 65 (2013-15 to 2017-19)

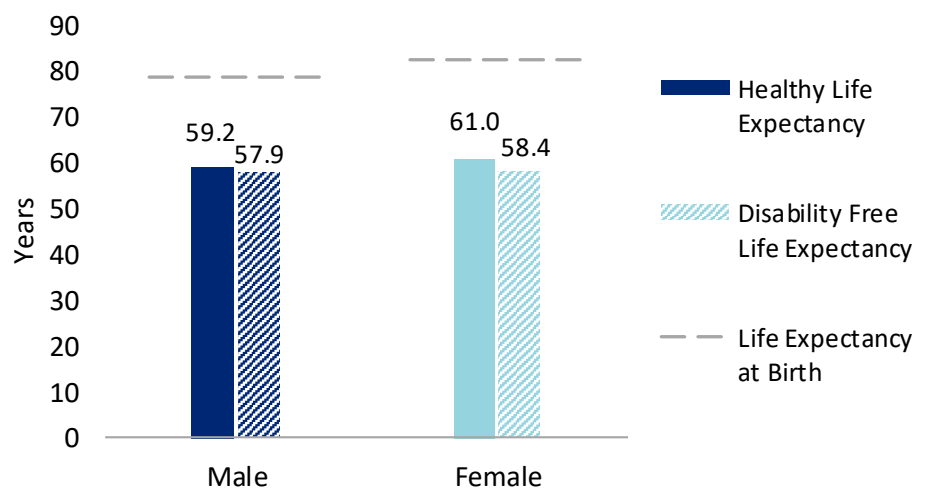


Males and females could both expect to live around three-quarters of their lives in good health.

In 2017-19, males could expect to live 59.2 years in good health, while females could expect to live 61.0 years. Disability free life expectancy (DFLE) was 57.9 years for males and 58.4 years for females.

For both Healthy Life Expectancy (HLE) and DFLE, the gender gap is not as wide as that for life expectancy at birth.

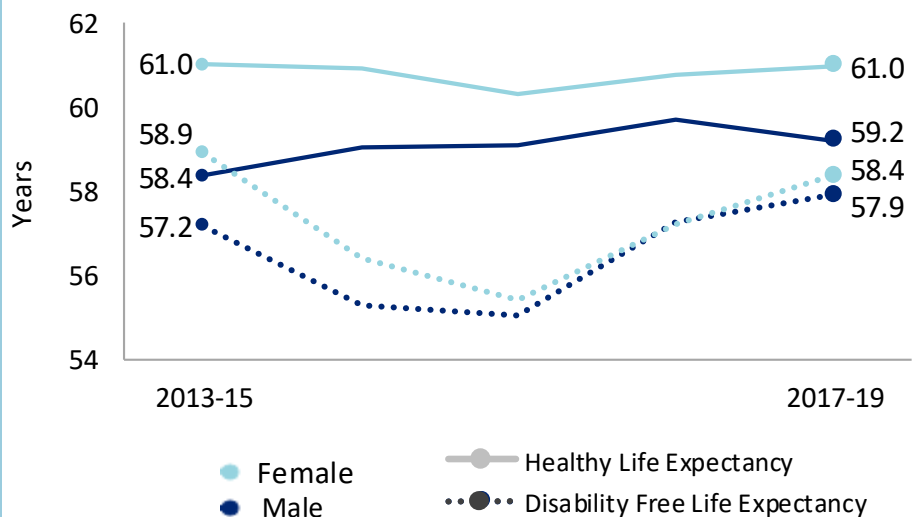
Healthy and Disability Free Life Expectancy (2017-19)



Since 2013-15, there has been no significant change for healthy life expectancy for either males or females. Similarly, there was no change seen for disability-free life expectancy for both males and females since 2013-15.

Male HLE has seen no significant change from 58.4 years in 2013-15, while female HLE has remained at 61.0 years. DFLE has not changed significantly from 57.2 years for males and 58.9 years for females in 2013-15.

Healthy and Disability Free Life Expectancy (2013-15 to 2017-19)

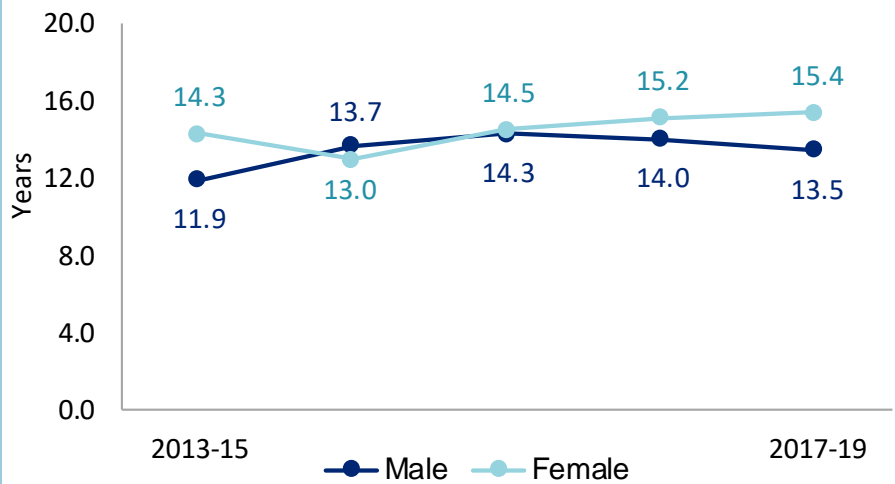


Since 2013-15 there has been no significant change to the healthy life expectancy gap for both males and females.

In 2017-19, the HLE gap between the 20% most and least deprived stood at 13.5 years for males and 15.4 years for females, with no significant change from 2013-15.

The deprivation gap for HLE is notably wider than the gap for life expectancy at birth.

Healthy Life Expectancy Gap (2013-15 to 2017-19)

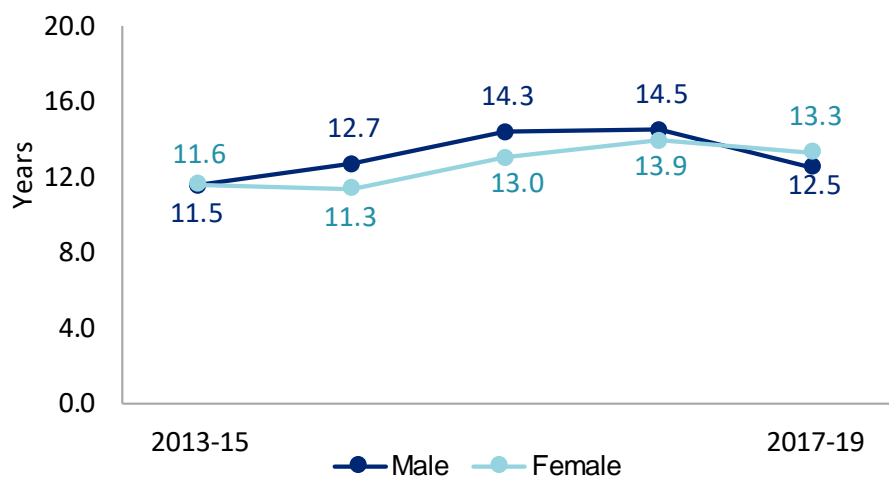


The disability-free life expectancy gap has seen no significant change between 2013-15 and 2017-19.

The DFLE gap between the most and least deprived areas for males was 11.5 years in 2013-15 and 12.5 years in 2017-19. For females, the gap was 11.6 years in 2013-15 and 13.3 years in 2017-19.

Similar to HLE, the deprivation gap for DFLE is notably wider than the gap for life expectancy at birth.

Disability-Free Life Expectancy Gap (2013-15 to 2017-19)



NI Life Expectancies (All figures in Years)		2013-15	2014-16	2015-17	2016-18	2017-19
Male	Life Expectancy at Birth	78.3	78.5	78.5	78.7	78.8
	Life Expectancy at 65	18.2	18.3	18.2	18.4	18.5
	Healthy Life Expectancy	58.4	59.1	59.1	59.7	59.2
	Disability-Free Life Expectancy	57.2	55.3	55.0	57.3	57.9
Female	Life Expectancy at Birth	82.3	82.3	82.3	82.4	82.6
	Life Expectancy at 65	20.6	20.7	20.6	20.7	20.8
	Healthy Life Expectancy	61.0	60.9	60.3	60.8	61.0
	Disability-Free Life Expectancy	58.9	56.4	55.4	57.2	58.4

NI Life Expectancy Gaps (All figures in Years)		2013-15 to 2017-19		Gender Gap	
		Male	Female	2013-15	2017-19
Total Gap		0.4	0.3	4.0	3.8
Age Bands	0-9	0.1	0.0	0.2	0.0
	10-19	0.0	0.0	0.1	0.1
	20-29	0.0	0.0	0.3	0.4
	30-39	0.0	0.0	0.3	0.3
	40-49	0.0	0.0	0.3	0.3
	50-59	0.0	0.0	0.4	0.4
	60-69	0.2	0.1	0.7	0.6
	70-79	0.1	0.1	0.9	0.8
	80-89	0.1	0.1	0.7	0.7
	90+	0.0	0.0	0.1	0.1
Circulatory	CHD	0.2	0.2	1.0	0.9
	Stroke	0.1	0.1	0.1	0.1
	Other	-0.1	-0.1	0.1	0.2
Respiratory	Pneumonia	0.0	0.0	0.1	0.1
	Chronic Lower	0.0	0.0	0.1	0.1
	Other	0.0	0.1	0.1	0.1
Cancer	Lung	0.1	0.0	0.3	0.2
	Breast	0.0	0.0	-0.5	-0.4
	Prostate	0.0	0.0	0.4	0.4
	Colon	0.0	0.0	0.1	0.1
	Lymph	0.0	0.0	0.1	0.1
	Pancreas	0.0	0.0	0.0	0.1
	Other	0.2	0.1	0.5	0.4
Metabolic	Diabetes	0.0	0.0	0.1	0.1
	Other	0.0	0.0	0.0	0.0
Mental	Mental & BD	-0.1	-0.1	0.0	0.0
Nervous	Nervous	0.0	-0.1	0.0	0.1
Digestive	Chronic Liver	0.0	0.0	0.1	0.1
	Other	0.0	0.0	0.0	0.1
Accidental	Car Accidents	0.0	0.0	0.1	0.1
	Accidents	-0.2	-0.1	0.2	0.4
Int. self-harm	Int. self-harm	0.1	0.0	0.4	0.3
Genitourinary	Kidney	0.0	0.0	0.0	0.0
	Other	0.0	0.0	0.0	0.0
Maternal/Infant	Perinatal	0.1	0.0	0.1	0.0
	Congenital	0.0	0.0	0.0	0.0
Other	Other	0.0	0.0	0.2	0.2

NI Life Expectancy Gaps (All figures in Years)		Male Deprivation Gap		Female Deprivation Gap	
		2013-15	2017-19	2013-15	2017-19
Total Gap		6.5	7.0	4.5	4.8
Age Bands	0-9	0.0	0.2	0.1	0.1
	10-19	0.2	0.1	0.0	0.1
	20-29	0.6	0.7	0.1	0.1
	30-39	0.6	0.7	0.3	0.3
	40-49	1.0	1.0	0.6	0.6
	50-59	1.3	1.3	0.7	0.9
	60-69	1.6	1.5	1.3	1.2
	70-79	1.2	1.2	1.3	1.2
	80-89	0.2	0.4	0.4	0.5
	90+	-0.2	-0.1	-0.4	-0.3
Circulatory	CHD	1.0	0.9	0.5	0.5
	Stroke	0.2	0.2	0.2	0.1
	Other	0.4	0.3	0.3	0.2
Respiratory	Pneumonia	0.2	0.2	0.0	0.1
	Chronic Lower	0.5	0.6	0.6	0.8
	Other	0.1	0.1	0.1	0.1
Cancer	Lung	0.8	0.7	0.7	0.8
	Breast	0.0	0.0	0.1	0.0
	Prostate	-0.1	0.0	0.0	0.0
	Colon	0.2	0.0	0.1	0.0
	Lymph	0.0	0.0	0.0	0.1
	Pancreas	0.0	0.0	0.0	0.0
	Other	0.6	0.5	0.4	0.5
Metabolic	Diabetes	0.1	0.1	0.1	0.2
	Other	0.0	0.0	0.0	0.1
Mental	Mental & BD	0.1	0.3	0.0	0.1
Nervous	Nervous	0.0	0.1	0.0	0.0
Digestive	Chronic Liver	0.5	0.5	0.2	0.2
	Other	0.2	0.3	0.2	0.2
Accidental	Car Accidents	0.0	0.1	0.0	0.0
	Accidents	0.4	0.6	0.1	0.3
Int. self-harm	Int. self-harm	0.6	0.4	0.1	0.1
Genitourinary	Kidney	0.0	0.0	0.0	0.1
	Other	0.0	0.0	0.0	0.0
Maternal/Infant	Perinatal	0.0	0.1	0.1	0.0
	Congenital	0.0	0.1	0.0	0.0
Other	Other	0.5	0.7	0.4	0.4

Male Life Expectancy at Birth

Trust	2013-15	2014-16	2015-17	2016-18	2017-19
Belfast Trust	76.2	76.4	76.3	76.7	76.6
Northern Trust	79.0	79.2	79.2	79.3	79.5
Southern Trust	78.8	79.1	78.9	78.9	79.3
South Eastern Trust	79.3	79.5	79.3	79.5	79.4
Western Trust	78.0	78.3	78.3	78.6	78.5

Female Life Expectancy at Birth

Trust	2013-15	2014-16	2015-17	2016-18	2017-19
Belfast Trust	81.3	81.3	81.3	81.3	81.2
Northern Trust	82.7	82.9	82.7	82.7	82.9
Southern Trust	82.3	82.5	82.5	82.8	83.1
South Eastern Trust	82.9	83.1	82.8	82.7	83.1
Western Trust	82.0	82.2	82.0	82.1	82.2

Male Life Expectancy at Birth

Local Government District	2013-15	2014-16	2015-17	2016-18	2017-19
Antrim and Newtownabbey	78.6	78.8	79.1	79.4	79.5
Ards and North Down	79.4	79.7	79.5	79.7	79.5
Armagh City, Banbridge and Craigavon	78.8	79.2	79.0	79.1	79.5
Belfast	75.9	76.0	75.8	76.3	76.1
Causeway Coast and Glens	79.5	79.8	79.6	79.3	79.5
Derry City and Strabane	77.3	77.6	77.7	78.0	77.8
Fermanagh and Omagh	78.4	78.6	78.7	79.2	79.3
Lisburn and Castlereagh	79.9	80.1	79.8	80.2	80.1
Mid and East Antrim	78.5	78.8	78.6	78.9	79.1
Mid Ulster	79.3	79.6	79.4	79.3	79.7
Newry, Mourne and Down	78.7	79.0	78.9	78.9	79.2

Female Life Expectancy at Birth

Local Government District	2013-15	2014-16	2015-17	2016-18	2017-19
Antrim and Newtownabbey	82.0	82.1	82.0	82.0	82.7
Ards and North Down	82.7	82.9	82.6	82.6	82.9
Armagh City, Banbridge and Craigavon	82.4	82.5	82.7	82.9	83.1
Belfast	81.0	81.1	81.0	81.1	81.0
Causeway Coast and Glens	82.8	83.0	83.2	83.1	82.9
Derry City and Strabane	81.7	81.9	81.4	81.3	81.4
Fermanagh and Omagh	82.5	82.6	82.5	83.0	83.2
Lisburn and Castlereagh	83.3	83.5	83.4	83.2	83.5
Mid and East Antrim	82.7	82.8	82.7	82.5	82.7
Mid Ulster	83.2	83.4	82.7	82.7	83.2
Newry, Mourne and Down	82.4	82.6	82.6	83.1	83.3

Official Figures

This report produced by Information Analysis Directorate (IAD) presents the latest official life expectancy estimates for NI, Local Government Districts and Health & Social Care Trust areas. The latest official Healthy Life Expectancy (HLE) and Disability Free Life Expectancy (DFLE) are also presented for NI.

Life Expectancy

The average number of years an individual born within a specified period can expect to live providing mortality patterns remain constant. Life expectancy figures are calculated using the [Chiang II](#)³ abridged life table method. This method has been adapted to extend the open-ended final age group to those aged 90 and over. Figures are presented for the expected years of life at time of birth, or at age 65, for both males and females and are aggregated by three years.

Life Expectancy Gap

This is defined as the difference between life expectancy estimates, either between two populations at a given point in time, or within a single population between two points of time. Further life expectancy gaps between the most & least deprived areas and between rural & urban areas are routinely calculated for the Health Inequalities Annual Report⁴.

Contributions to Life Expectancy Gap

Life expectancy gaps exist due to differences in mortality patterns between areas, which can be assessed by the contribution of differences in death rates within age bands and across different causes of death. Contributions to gaps presented within this report represent the amount that life expectancy would improve in the area with lower life expectancy if its mortality rate was reduced to that in the area it is being compared with, assuming all other rates remained constant. Within this report, contributions that widen the inequality gap (i.e. where mortality rate is higher in the area with lower life expectancy) are represented with a positive value, while contributions that offset the gap (i.e. where mortality rate is higher in the area with higher life expectancy) are represented with a negative value.

Life Expectancy Decomposition Methodology

To measure the contribution of age-specific mortality changes to the change in the life expectancy gap over time, a life table decomposition method⁵ for both age and cause of death is used. It assumes that the distribution of deaths by cause is constant within five year age bands in each population. The difference in all-cause mortality between populations can then be distributed into contributions from each cause of death within each age group, proportionate to the difference in mortality from each cause of death within each age group.

³ http://apps.who.int/iris/bitstream/10665/62916/1/15736_eng.pdf

⁴ <https://www.health-ni.gov.uk/articles/health-inequalities-statistics>

⁵ Arriaga, Eduardo. 1984 "Measuring and Explaining the Changes in Life Expectancies".

Healthy Life Expectancy and Disability-Free Life Expectancy

Healthy Life Expectancy is the average number of years a person can expect to live in good health. HLE provides an estimate of lifetime spent in 'Very Good' or 'Good' health, calculated using respondents' perception of their own health according to the Health Survey Northern Ireland (HSNI). Disability-Free Life Expectancy is the average number of years a person can expect to live disability free. DFLE provides an estimate of lifetime spent free from a limiting persistent (twelve months or more) illness or disability, based upon a self-rated functional assessment of health recorded in the HSNI. Each figure is calculated using the [Sullivan](#)⁶ method excluding populations that reside in communal establishments.

Rounded Figures

Values presented are rounded to one decimal place independently. As a result, the sum of component items may not therefore always add to the totals shown.

Sources of Information

All life expectancy analyses and calculations are based on official deaths data sourced from the General Register Office and population data published by NISRA. Information used to calculate Healthy Life Expectancy (HLE) and Disability Free Life Expectancy (DFLE) have been sourced from the Health Survey Northern Ireland (HSNI), Interim Life Tables (ONS), Labour Force Survey Population Estimates (DoF), Mid-Year Population Estimates (NISRA).

Year of Death

All death figures used in this report are based on the year in which the death was registered, and therefore not necessarily the year in which the death occurred. While the majority of deaths are registered shortly after death, there may be some delay in registering others, particularly involving events such as infant death or suicide.

Cause of Death Classification

Analyses contained within this report are based on the single main underlying cause of death classification, which simplifies the fact that a death can be the result of a variety of different causes. Causes of death have been disaggregated into 11 broad causes, which are further broken down into 26 specific sub-causes, defined according to the International Classification of Diseases, Tenth Revision (ICD-10). A full breakdown of ICD-10 codes grouped into each cause of death can be found on page 20.

Other regular reports in this series include⁷:

Health Inequalities Annual Report – This annual publication analyses health inequality gaps within NI and presents a comprehensive analysis of health inequality gaps between the most and least deprived areas of NI, and within HSC Trust and LGD areas across a range of indicators.

Making Life Better: Key Indicators – Monitoring report for the key indicators of the wider social determinants of health & wellbeing, contained in the Making Life Better, the public health strategic framework for NI.

⁶ https://webgate.ec.europa.eu/chafea_pdb/assets/files/pdb/2006109/2006109_d5sullivan_guide_final_jun2007.pdf

⁷ <https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/health-inequalities-statistics>

Review of Suicide Statistics in Northern Ireland

Suicide deaths in Northern Ireland are defined as deaths from Self-inflicted Injury (also referred to as intentional self-harm) as well as Events of Undetermined Intent. This is consistent with the UK National Statistics definition. A death which is suspected to be suicide must be referred to the Coroner with the information provided by coroners at registration of the death is used to code the underlying cause of death. In some instances, it can be difficult to establish whether the cause of death was suicide. If it is not clear, or the Coroner has not specifically stated that it is a suicide, these are coded as 'Undetermined'.

Following a quality exercise between NISRA Vital Statistics Unit and the Coroners' Service, to better understand drug related deaths and intent, improvements have been made in order to reduce the number of deaths coded as 'undetermined' since Quarter 3 2018. These changes have resulted in a discontinuity in the statistical series, with the number of 'undetermined' deaths reducing from 132 in 2017 to 10 in 2019.

NISRA is working with the Coroners' Service to review and revise, as necessary, drug related deaths within the 'undetermined deaths' category from 2015 to 2018. NISRA recommends that until this review has completed users should refer to the sub-series relating to self-inflicted injury (also referred to as intentional self-harm) only, as this is unaffected by the discontinuity outlined above and remains a reliable indication of the trend in suicides over recent years.

Further information on this review and detailed statistics on the number of suicides registered each year in Northern Ireland can be accessed at the link below.

<https://www.nisra.gov.uk/publications/suicide-statistics>

Use of Suicide Statistics in this Publication

In previous iterations of this report, and other reports produced by PHIRB, mortality from suicide is calculated according to the UK National Statistics definition shown in the table below.

ICD-10 Underlying Cause Code	Description
X60-84, Y87.0	Self-inflicted Injury
Y10-Y34, Y87.2	Events of Undetermined Intent

In line with the review and advice from Vital Statistics Unit this definition has not been used in this publication. The sub-series relating to self-inflicted injury/intentional self-harm will be used in its place in order to ensure comparability across years. Mortality from deaths recorded as events of undetermined intent will be included in the 'Other' category. Please note however that due to the changes made since Q3 2018, there will be a decreased number of deaths due to events of undetermined intent recorded in the 'Other' category in 2019 compared with the years 2015-2018. Those deaths no longer considered as undetermined intent, have been recoded as accidental deaths. It is envisaged that following the completion of the review subsequent editions of this publication will revert to original UK National Statistics definition for suicide.

Charts Presented in this Report

This report contains charts examining each of the observed life expectancy gaps. An explanation of how to interpret these charts is illustrated below.

The sample charts below analyse two fictional areas or time period, “A” and “B”, in which area “A” has a life expectancy 5 years lower than that in area “B”.

Decomposition by Age

The chart to the right is used to illustrate the proportion of each life expectancy gap attributable to various age bands.

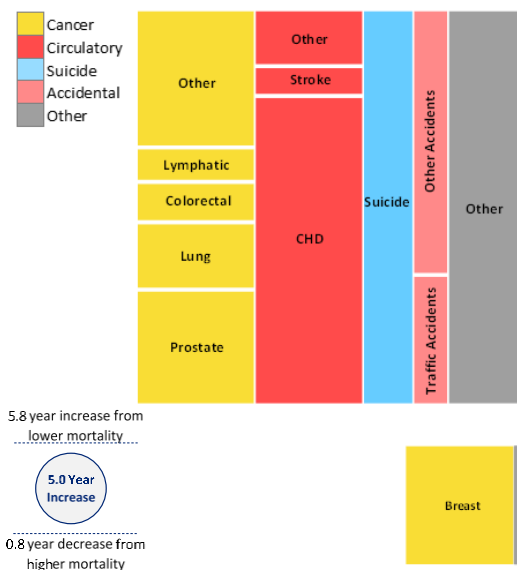
The lower life expectancy (Area A) is presented on the left, while the higher life expectancy (Area B) is presented to the right.



Between these columns, the contribution of mortality within each age band is represented by the height of the floating column. Age bands which offset the gap are presented as hollow squares.

Decomposition by Cause of Death

Throughout this report, grid charts (as below) set out the contribution of various causes of death to the difference in life expectancy between two areas or time periods. Those causes depicted in the square to the top represent causes of death which were more prevalent in Area A, while the square at the bottom presents the causes that had higher mortality in Area B, which offset the inequality gap.



The greater the area allocated to a cause, the greater the contribution of that cause to the difference in life expectancy.

Next to the grids (in the bottom left corner), the total positive and negative contributions are presented as well as the overall differential. A full breakdown of the contribution from individual causes can be found in tables in Appendix A. Causes labelled “Other” indicate the combined contribution of causes which were individually too small to present.

Causes of Death ICD-10 Definitions

Cause of death	ICD-10 code
Diseases of the circulatory system (Circulatory)	I00-I99
Ischaemic heart disease (CHD)	I20-I25
Cerebrovascular disease (stroke)	I60-I69
All other diseases of the circulatory system	
Diseases of the respiratory system (Respiratory)	J00-J99
Pneumonia	J12-J18
Chronic lower respiratory diseases	J40-J47
All other diseases of the respiratory system	
Malignant neoplasms (Cancer)	C00-C99
Malignant neoplasm of trachea, bronchus or lung	C33-C34
Malignant neoplasm of breast	C50
Malignant neoplasm of prostate	C61
Malignant neoplasm of colon, rectum and anus	C18-C21
Malignant neoplasm of lymphatic, haematopoietic tissue	C81-C96
Malignant neoplasm of pancreas	C25
All other malignant neoplasms	
Endocrine, nutritional and metabolic diseases (Metabolic)	E00-E90
Diabetes mellitus	E10-E14
All other endocrine, nutritional and metabolic diseases	
Mental and behavioural diseases (Mental)	F00-F99
Diseases of the nervous system and the sense organs (Nervous)	G00-H95
Diseases of the digestive system (Digestive)	K00-K93
Chronic liver disease	K70, K73-K74
All other diseases of the digestive system	
Accidents	V01-X59, Y85, Y86
Transport accidents	V01-V99
All other accidents	
Intentional self-harm and event of undetermined intent (Suicide)	X60-X84, Y10-Y34, Y87.0, Y87.2
Diseases of the genitourinary system (Genitourinary)	N00-N99
Diseases of the kidney and ureter	N00-N29
All other diseases of the genitourinary system	
Maternal/Infant	
Certain conditions originating in the perinatal period	P00-P96
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
Other causes (all causes not covered by the above categories)	

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