Vital Stats

Life Expectancy for areas within Northern Ireland 2011-2013

Northern Ireland Statistics & Research Agency

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Contents

Key Points

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Life expectancy at birth, if born between 2011 and 2013...

82.4 years of age

78.1 years of age

In Northern Ireland, males born between 2011 and 2013 can expect to live 78.1 years on average. Females can expect to live just over 4 years longer (82.4 years of age).

Life expectancy varies across all geographical areas with females expected to live longer than males on average.

In terms of the 11 new Local Government Districts which came in to effect in April 2015:

- life expectancy was lowest in Belfast for both males (75.7 years) and females (81.0 years).
- for males, those born in Lisburn & Castlereagh can expect to live the longest (79.4 years), 3.7 years longer than those born in Belfast.
- for females, those born in Mid Ulster can expect to live the longest (83.5 years), 2.5 years longer than those born in Belfast.

The Health and Social Care Trust with the highest male life expectancy was the South Eastern Trust (79.0 years). Female life expectancy was highest in both the South Eastern and Northern Trusts (82.9 years).

The Health and Social Care Trust with the lowest male and female life expectancies was Belfast (76.2 and 81.2 years respectively).

The Parliamentary Constituency with the highest male life expectancy was Strangford (79.5 years), with female life expectancy being highest in Mid Ulster (83.8 years).

The Parliamentary Constituency with the lowest male and female life expectancies was Belfast West (73.9 and 79.8 years respectively).

Indeed, males in Strangford and females in Mid Ulster can expect to live 5.6 and 4 years longer respectively than those born in Belfast West Parliamentary Constituency.

Improvements in life expectancy at various geographical levels over the decade 2001-2003 to 2011-2013 are discussed in each of the sections that follow.

Background

Background

Life expectancy at birth provides a useful indicator of relative mortality

This paper summarises the Northern Ireland Statistics and Research Agency's 2011-2013 based life expectancy figures for both Northern Ireland and the following geographical areas within Northern Ireland :-

- The 11 new Local Government Districts;
- Health and Social Care Trusts; and
- Parliamentary Constituencies

The main thrust of the report focuses on life expectancy at birth for both males and females born in the period 2011-2013. Figures are presented for each of the above geographical areas with comparative figures provided for the decade previously (i.e. 2001-2003). The latter information is particularly useful to show how life expectancy has changed over time, and how the gender gap has changed.

Life expectancy figures at age 65 are also presented within the bulletin for the period 2011-2013, with the supporting information for other age groupings provided online.

Life expectancy is the most commonly used measure to describe the health of the population and provides a useful indicator of relative mortality. Life expectancy statistics provide a good indicator of the health status of a population, and can provide insightful comparisons for different geographical areas. Such statistics can be used to inform policy, planning and research in both the public and private sectors in areas such as health, population, pensions and insurance.

The life expectancy figures in this bulletin are all period life expectancies. Period life expectancies are calculated using age specific mortality rates for a given period, with no allowance for any future changes in mortality. This means, for example, that period life expectancy at birth for a specific place and time is an estimate of the average number of years a baby would survive if they experienced the age specific mortality rates at the time and in that area for the remainder of their life. Life expectancy at birth statistics provide an estimate and are subject to change, both because death rates are likely to change in the future and because many newborns may live elsewhere for at least some part of their lives. This equally applies to each of the other age groupings for which life expectancy statistics have been provided.

Differences in life expectancy by geography can be largely attributed to differences in the life style, relative deprivation and health. The Information & Analysis Directorate (IAD) within the Department of Health, Social Services & Public Safety (DHSSPS) publish further life expectancy estimates. These include healthy life expectancy and disability-free life expectancy, as part of the Northern Ireland Health & Social Care Inequalities Monitoring System (HSCIMS) to allow for an assessment of health inequality gaps between different areas and population groups, including the most and least deprived areas in Northern Ireland. These can be found within the Health Inequalities section of the IAD webpage.

Life expectancy at birth

11 Local Government Districts

Males in Lisburn & Castlreagh and females in Mid Ulster had the highest life expectancy.

Life expectancies at birth have improved for both males and females across all Districts over the decade 2001-2003 to 2011-2013, with the life expectancy of women exceeding that of men.

The degree of variation in 2011-2013 based life expectancy across the districts was greater among males than females.

In 2011-2013, life expectancy at birth was highest in Lisburn & Castereagh for males (79.4 years) and Mid Ulster for females (83.5 years). Conversely, it was lowest in Belfast for both males (75.7 years) and females (81.0 years).

Among males, the largest increase in life expectancy over the decade in question arose in both Lisburn & Castlereagh and Fermanagh & Omagh, increasing by 3.1 years.

Among females, the largest increase over the decade arose in Fermanagh & Omagh, increasing by 2.8 years from 80.5 years to 83.3 years.
The distribution of male and female life expectancy at birth by the current 11 new Local Government Districts in 2011-2013 can be found in Maps 1 and 2 below.

With the exception of Mid Ulster and Mid & East Antrim, the increase in life expectancy at birth among males over the decade was greater than that of females.

Figure 1a: Change in **Male** life expectancy at birth for Northern Ireland and by Local Government District in 2001-2003 and 2011-2013; non-zero axis

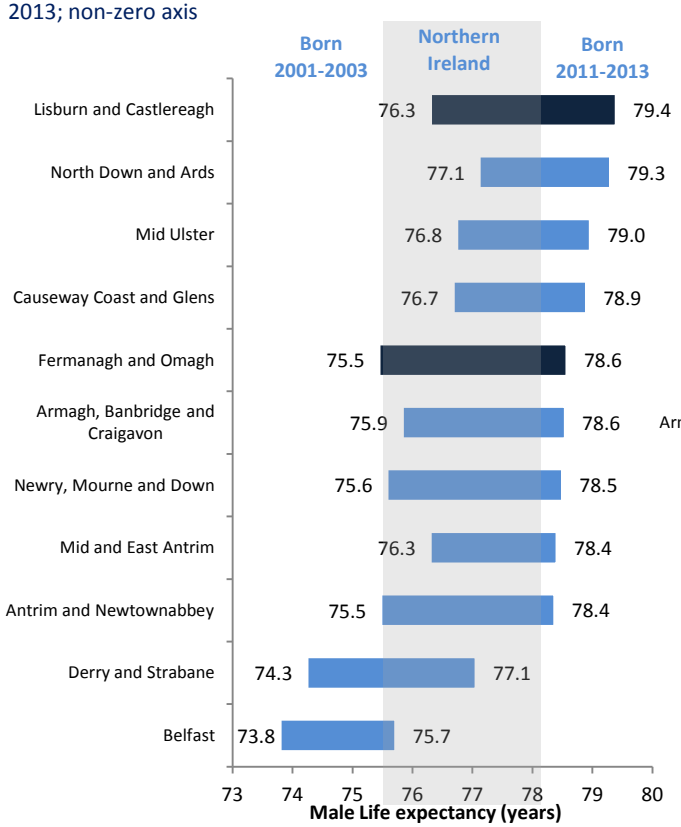
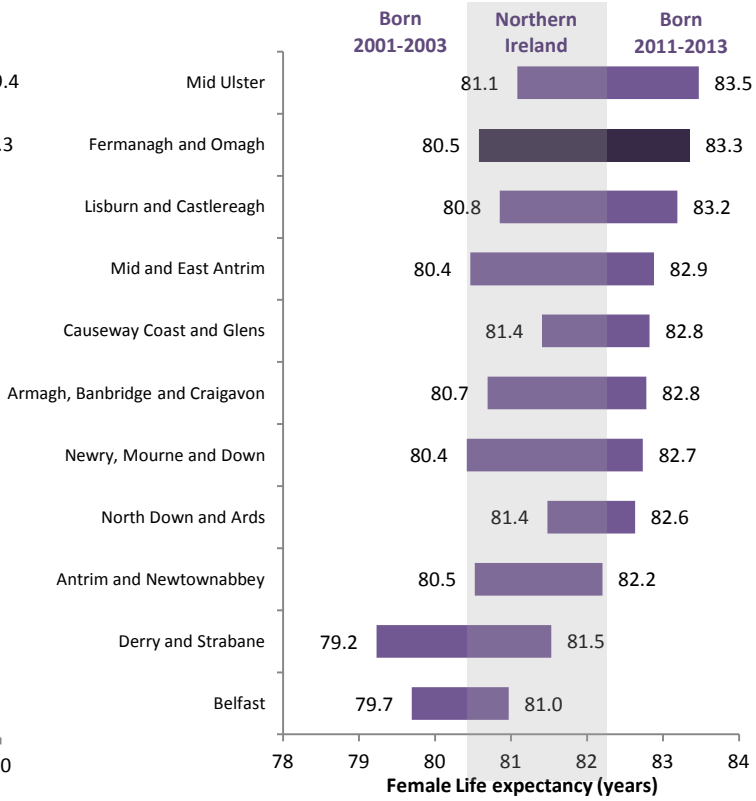


Figure 1b: Change in **Female** life expectancy at birth for Northern Ireland and by Local Government District in 2001-2003 and 2011-2013; non-zero axis



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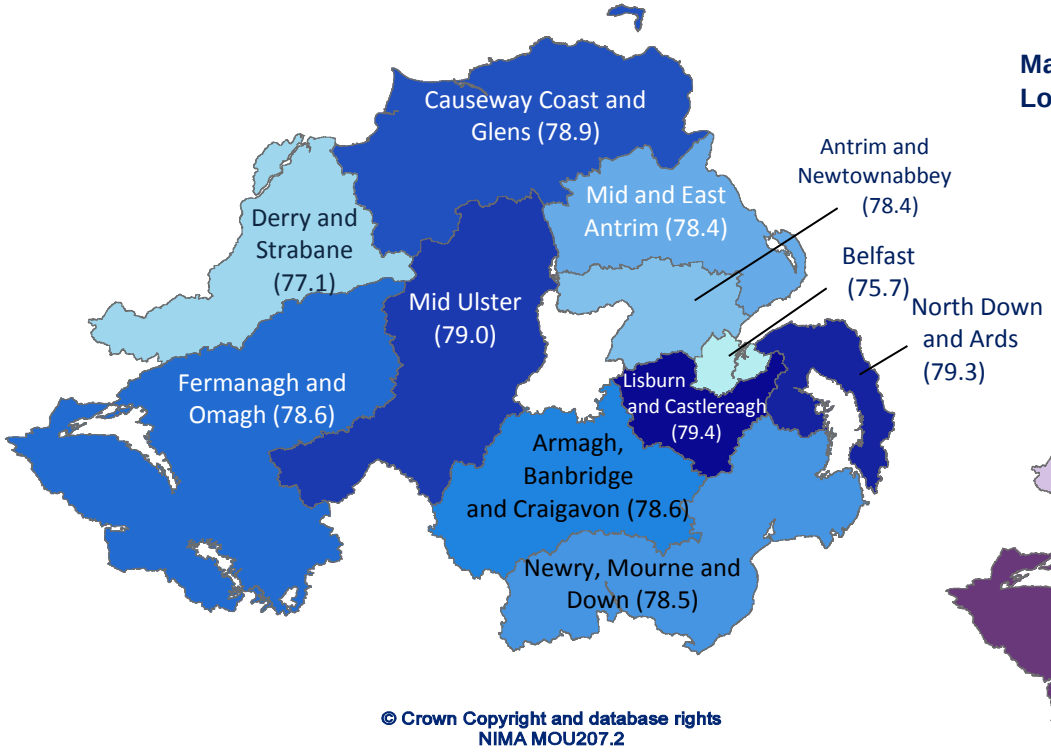
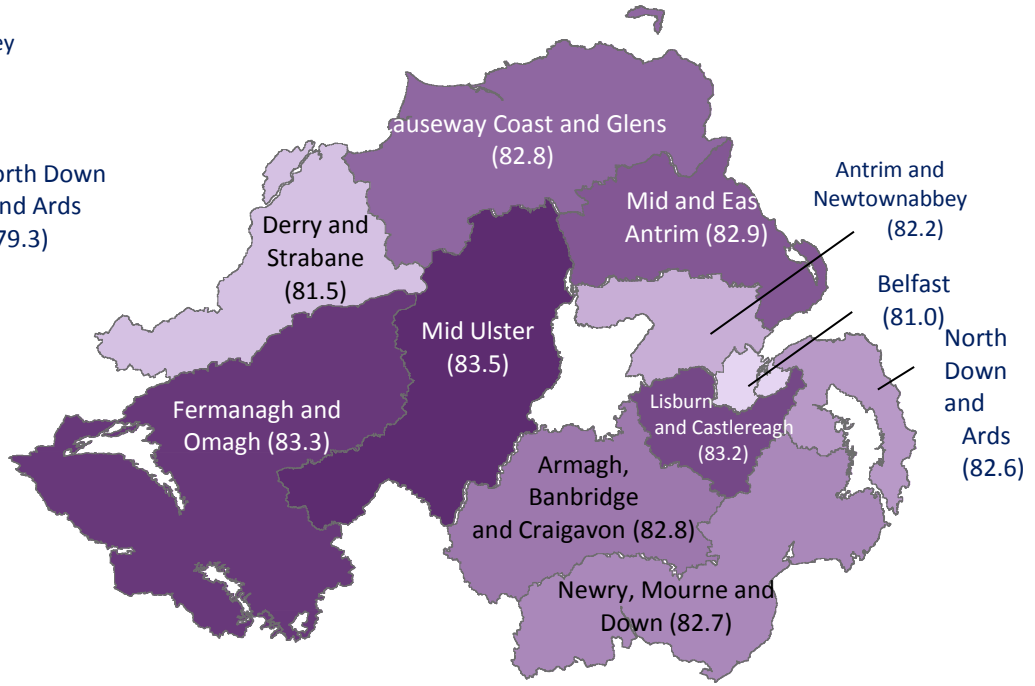
11 Local Government Districts

Life expectancy at birth was highest in Lisburn and Castlereagh for males (79.4 years) and in Mid Ulster for females (83.5 years) in 2011-2013.

Map 1: Life Expectancy for males at birth by Local Government District, 2011-2013



Map 2: Life Expectancy for females at birth by Local Government District, 2011-2013



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South Eastern and Northern Health Trusts had the highest life expectancy for males and females respectively.

Life expectancy at birth has also improved in each of the five Health and Social Care Trusts within Northern Ireland over the decade 2001-2003 to 2011-2013.

The degree of variation in 2011-2013 based life expectancy across the Trusts was more marked among males than females, with the life expectancy of females exceeding that of males.

The South Eastern Health Trust had the highest life expectancy in 2011-2013 for males, with males expected to live 79.0 years. At 82.9 years, the Northern Health Trust had the highest life expectancy for females.

Among males, the largest increase in life expectancy over the decade in question arose in the Western Health Trust, increasing by 3.0 years from 74.9 years to 78.0 years.

This was also the case for females, where life expectancy increased from 79.8 years to 82.3 years, an increase of 2.5 years over the decade in question.

In each of the Health Trusts, the life expectancies of males has increased more than that of females over the decade 2001-2003 to 2011-2013. As such, the gap between male and female life expectancies has narrowed during the period in question.

Figure 2a: Change in **Male** life expectancy at birth for Northern Ireland and by Health and Social Care Trust in 2001-2003 and 2011-2013; non-zero axis

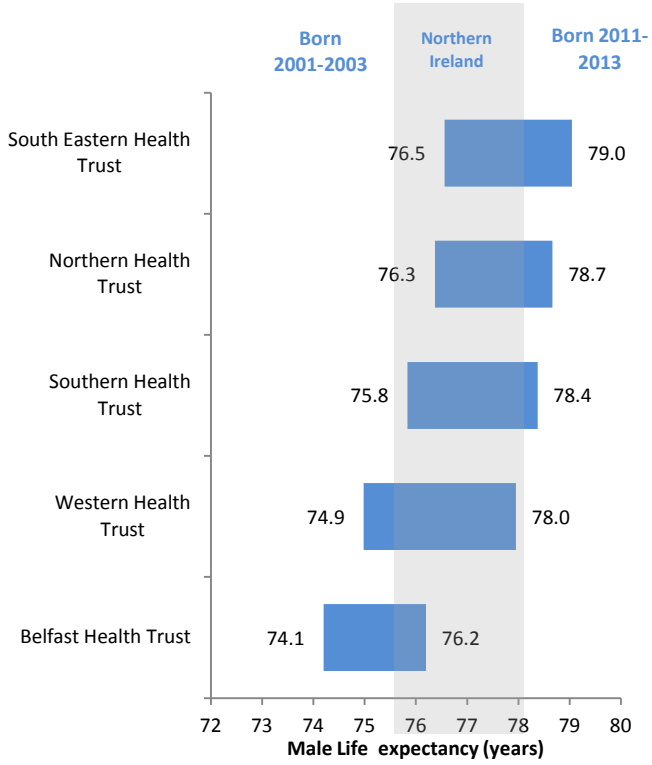
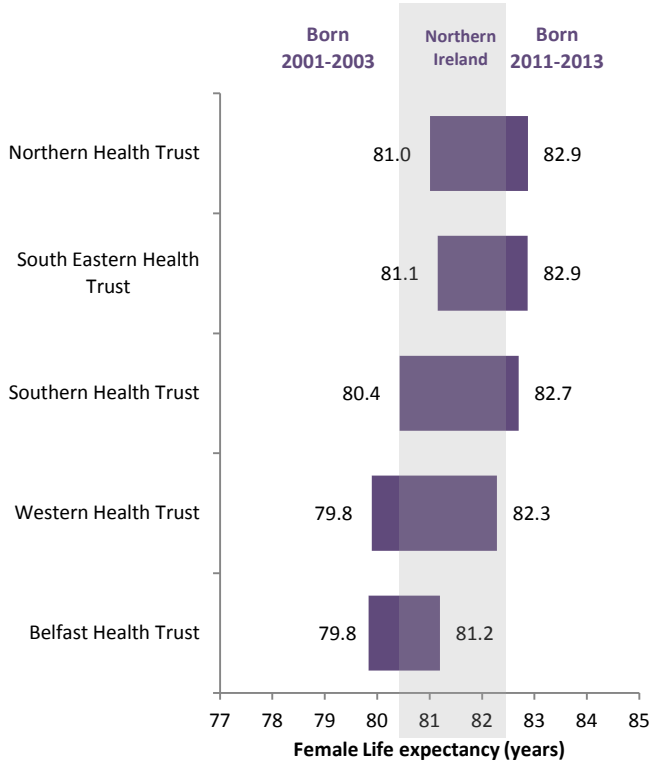


Figure 2b: Change in **Female** life expectancy at birth for Northern Ireland and by Health and Social Care Trust in 2001-2003 and 2011-2013; non-zero axis



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Parliamentary Constituency (PC)

Mid Ulster had the highest female life expectancy and Strangford and Lagan Valley had the highest male life expectancy.

Life expectancy at birth has also improved in each of the 18 Parliamentary Constituencies (PCs) over the decade 2001-2003 to 2011-2013.

The degree of variation in 2011-2013 based life expectancy across the PCs was more noteably for males than females, with the life expectancy of females exceeding that of males.

Strangford PC had the highest life expectancy at birth in 2011-2013 for males (79.5 years) whereas Mid Ulster PC had the highest for females (83.8 years).

Among males, the largest increase in male life expectancy over the decade in question arose in West Tyrone (3.7 years). This was also the case for females, although the increase was not as marked (3.2 years).

In 2011-2013, the life expectancy of both males and females in Belfast West and Belfast North remained below the Northern Ireland level of life expectancy at birth of 10 years previously.

Figure 3a: Change in **Male** life expectancy at birth for Northern Ireland and by Parliamentary Constituency in 2001-2003 and 2011-2013; non-zero axis

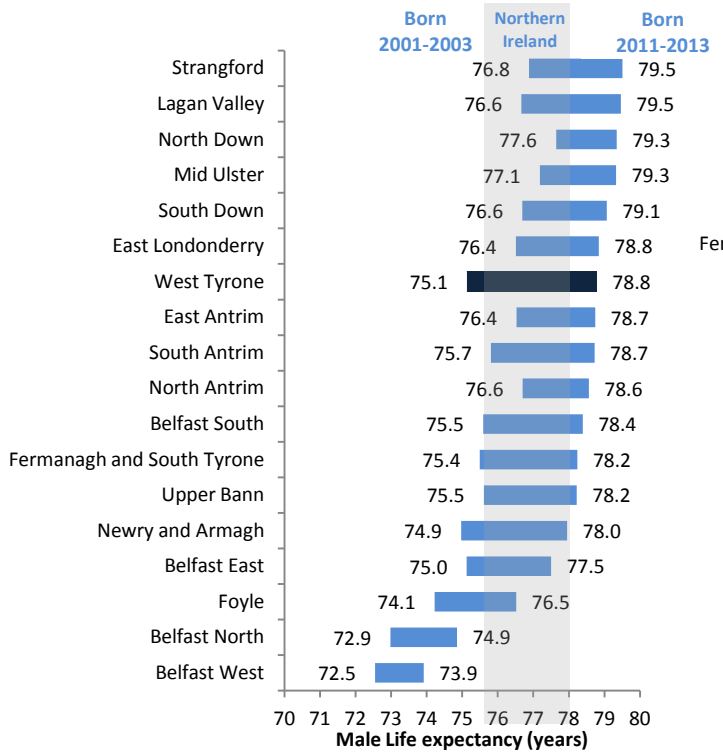
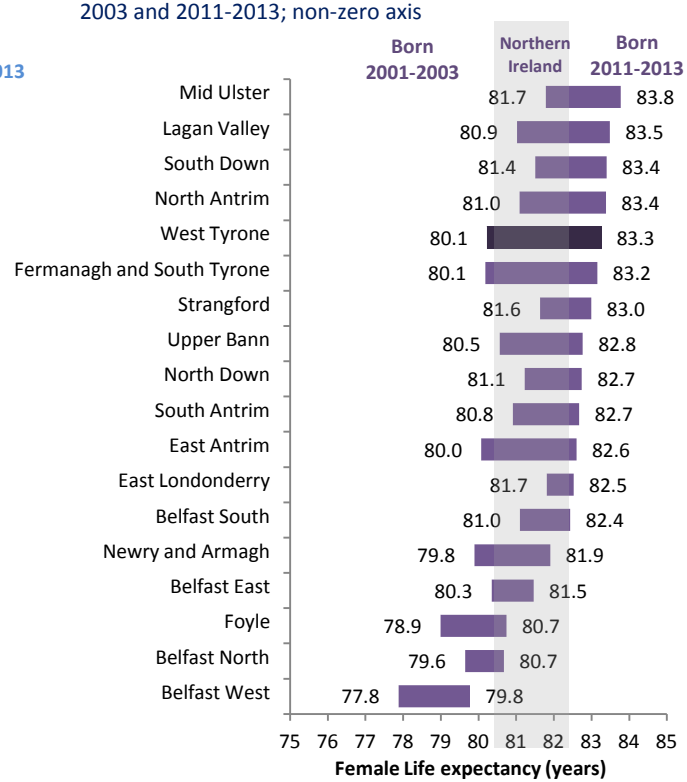


Figure 3b: Change in **Female** life expectancy at birth for Northern Ireland and Parliamentary Constituency in 2001-2003 and 2011-2013; non-zero axis



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Life expectancy at age 65

Life expectancy at age 65

While life expectancy can be estimated for any age group, another common reference point is at age 65. In Northern Ireland males aged 65 in the period 2011-2013 can expect to live for another 18.1 years whereas females can expect to live a further 20.6 years.

Over the decade 2001-2003 to 2011-2013, male life expectancy at age 65 has improved by 2.2 years at the Northern Ireland level, whereas that of females has improved by 1.7 years.

At age 65, between 2011 and 2013...

20.6 years longer

18.1 years longer

In terms of the 11 new Local Government Districts:

Males in Armagh, Banbridge & Craigavon had the highest life expectancy (18.5 years) at age 65 and can expect to live 1.4 years longer than those in Belfast, where life expectancy (17.1 years) at age 65 was lowest. Similarly, females in Fermanagh & Omagh can expect to live 1.4 years longer than those in Belfast (21.2 years compared with 19.8 years).

The difference between male and female life expectancies at age 65 ranged from a low of 2.3 years in Antrim & Newtownabbey, Armagh, Banbridge & Craigavon and Lisburn & Castlereagh to 2.9 years in Causeway Coast & Glens and Mid Ulster.

Health and Social Care Trust:

Life expectancy for males at age 65 was highest in the South Eastern Trust (18.5 years) and for females in the Northern Trust (20.9 years). Both males and females in the Belfast Trust experienced the lowest life expectancy (17.2 years and 20.0 years respectively).

The gender gap was highest in both the Belfast and Western Trusts (2.7 years) and lowest in the South Eastern Trust (2.3 years).

Parliamentary Constituency:

Male life expectancy was highest in Lagan Valley (18.9 years) and lowest in Belfast West (16.4 years). For females, life expectancy was highest in both Strangford and West Tyrone (21.7 years) and lowest in Belfast West (18.6 years).

At 3.1 years, the gender gap was highest in Belfast North, Fermanagh & South Tyrone, North Antrim and West Tyrone and lowest in Foyle and Newry & Armagh (2.0 years).

Appendix

Appendix

Interpretation of life expectancy

The life expectancy figures published by NISRA are all period life expectancies. Period life expectancies are calculated using age specific mortality rates for a given period, with no allowance for any future changes in mortality. This means that period life expectancy at birth for a specific place and time is an estimate of the average number of years a baby would survive if they experienced the age specific mortality rates at that time and in that area for the remainder of their life. Life expectancy at birth is an estimate and subject to change, both because death rates are likely to change in the future and because many newborns may live elsewhere for at least some part of their lives.

Methods

In the reports for life expectancy in administrative areas abridged life tables are provided (based on five year age groups). These tables give expectation of life at an 'exact age'. This is the average number of years that those at this age would survive thereafter, if they experienced the particular area's age specific mortality rates for the time period throughout the remainder of their life.

In the extracts from period life tables the column headed lx shows the numbers who would survive to exact age of x, out of 100,000 persons who, from birth, were subject to the mortality probabilities indicated by the deaths for the corresponding time period. The column headed ex 0 shows the expectation of life – that is, the average number of years of life left to persons aged exactly x who are subject to the corresponding years mortality probabilities from age x onwards.

A life table template (192.5kb Excel sheet) which illustrates the method used to calculate life expectancy for this bulletin including a description of the notation can be found on the Office for National Statistics (ONS) website.

Appendix

Difference between Period and Cohort Life Expectancy

Life expectancy estimates can be measured using both ‘period’ and ‘cohort’ measures and have a degree of uncertainty irrespective of how they are calculated. Period life expectancy statistics are calculated using today’s age-specific mortality rates enabling the comparison of mortality rates over time and for different areas, however they make no allowance for future changes in mortality.

Cohort life expectancies are calculated using age-specific mortality rates that allow for projected changes in mortality in later years. As a result, estimates of cohort life expectancy are generally slightly higher than period life expectancy as mortality rates are generally improving. For example, a man aged 65 today in Northern Ireland, by his period life expectancy, could expect to live another 17.9 years whereas the same man by cohort life expectancy, could expect to live another 21.0 years.

Period life expectancies are a useful measure of relative mortality actually experienced over a given period and, provide an objective means for comparing trends in mortality over time, between areas of a country and with other countries. Official life tables in the UK and in other countries which relate to past years are generally period life tables for these reasons. Cohort life expectancies, even for past years, usually require projected mortality rates for their calculation and so, in such cases, involve an element of subjectivity.

Appendix

Quality Measures

Relevance: Life expectancy is a key indicator which can be used to inform policy, planning and research in both the public and private sectors in areas such as health, population, pensions and insurance.

Accuracy: To calculate life expectancy by geographical area within Northern Ireland, Mid-year Population Estimates for each area, broken down by sex and 5 year age bands (above the age of 0) are used. More information on the how these estimates are produced are available in the Northern Ireland Population Estimates: Methodology paper on the NISRA website.

Timeliness and Punctuality: Life expectancy estimates are published in autumn each year, following the release of annual death registration data and mid-year population estimates for the previous year. This means that estimates are available 10 to 11 months after the end of the reference period. The Vital Statistics Publication Schedule is available on the NISRA Website and is published at the start of each financial year.

Accessibility and Clarity: The NISRA website is the primary vehicle for the release of life expectancy estimates in Northern Ireland. A combination of narrative, charts, graphs and data (specifically tailored to draw out the key findings from the statistics) may be downloaded in PDF and Microsoft Excel format. This bulletin also includes details about the methods used to calculate life expectancy figures and how to interpret them.

Comparability: NISRA use the Chiang II method when calculating life expectancy figures. Both the ONS and National Records of Scotland (NRS) also use this method for calculating life expectancy. The methodology of calculating life expectancy is published by ONS in the following report: GSSM series – number 33 Life expectancy at birth: methodological options for small populations, which can be found within the GSS Methodology (GSSM) series section of their website.

All life expectancy figures calculated by NISRA include the deaths of non-residents. Deaths of Northern Ireland residents occurring in Northern Ireland are assigned to place of normal residence whereas deaths of non–residents are allocated to place of death. Currently ONS and NRS/NISRA differ in the approach taken to deal with non-resident deaths for sub-national life expectancy figures. ONS do not include deaths of non-residents for sub-national life expectancy figures for England and Wales, whereas NISRA and NRS do. NRS impute a pseudo place of residence for the non-resident deaths when calculating these statistics. Work is planned to bring the methods of the three organisations more in line.

More detailed information is available in the Methodology and Information paper on the NISRA website.

Vital Stats

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