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um Staitisticí agus Taighde

Estimates of the population aged 85 and over, Northern Ireland, 2016 (and revised 2001-2015)

Key Points:

- The number of people aged 85 and over in Northern Ireland has grown by around 900 people per annum throughout the decade ending mid-2016.
- Over the course of the decade in question the population aged 85 and over has reached 36,500, representing 2.0 per cent of the population. The rate of growth among this age group is almost six times that of those under 85 years of age (34.8 per cent and 6.4 per cent respectively). While women account for two thirds (66.8 per cent) of those aged 85 and over, the population increase among males over the decade has been noticeably higher than that among females (52.0 per cent and 27.7 per cent respectively).
- The estimates also suggest that there were 278 centenarians (i.e. those aged 100 and over) in mid-2016, the vast majority of whom (86.7 per cent) were female.
- At Local Government District level, the proportion of people aged 85 and over in mid-2016 ranged from 1.4 per cent (2,100 people) in Derry & Strabane to 2.4 per cent (3,900 people) in Ards & North Down.
- At a UK level Northern Ireland continues to have the lowest proportion of people aged 85 and over (2.0 per cent). However, over the decade ending mid-2016 the percentage growth here among this age group (34.8 per cent) was noticeably higher than in each of England (27.7 per cent), Scotland (26.8 per cent) and Wales (22.4 per cent).
- Growth in the population aged 85 and over is the result of more people 'ageing into' the 85 and over age group than are leaving it each year as a result of dying. At these ages, the impact of migration is negligible.

More detailed figures and analysis are included in the bulletin.

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Note: To ease readability throughout the bulletin, population figures have been presented to the nearest 100, with the exception of the population aged 100 and over as these are relatively smaller numbers where rounding would cause a loss of accuracy and knowledge for the reader. All figures in Annex A have been provided unrounded in order to provide consistency within the table, as it contains population age bands, including those aged 100 and over. In all cases, percentage changes have been presented to one decimal place. However, all calculations have been undertaken on the basis of unrounded numbers which will, in some instances, give rise to apparent discrepancies.

1. Introduction

This bulletin details the mid-year population estimates for those aged 85 and over in Northern Ireland for mid-2016, as published on 27 September 2017. These figures follow on from the [2016 mid-year population estimates](#), published on 22 June 2017, where population estimates at single years of age were provided up to 89 years, and for the age-group of those aged 90 and over.

The estimates of the population aged 85 and over provide a further age breakdown of those aged 90 and over, by single year of age up to 104 years, and collectively for those aged 105 and over. It presents information on how the overall number and gender composition of those aged 85 and over has changed during the decade mid-2006 to mid-2016, and presents analyses and commentary for those aged 90 to 99, and centenarians (i.e. those aged 100 and over).

Similar information relating to England & Wales, and Scotland was also released on 27 September 2017 by the Office for National Statistics (ONS) and National Records of Scotland (NRS) respectively. While the titles for the releases for the separate UK countries differ slightly, the methodology used by all three statistical organisations to create these statistics are very similar, producing comparable results.

The information in this bulletin contributes to the production of population projections and life expectancy statistics for Northern Ireland, all of which are of policy interest because of the implications for pensions and the delivery of front lines services for the older population such as housing, transport and health care. The single year estimates for those aged 90 and over for Northern Ireland also feed into the [Estimates of the Very Old for the United Kingdom](#), produced by the Demographic Analysis Unit within the Office for National Statistics.

2. Background to publication

NISRA produces mid-year population estimates on an annual basis using the components of change method. Using the most recent census as the baseline, each year the population is aged on by one year, births are added, deaths subtracted and estimates of migration are used for those moving in or out of Northern Ireland. Historically, these included estimates on a single year of age basis up to and including age 84. For those aged 85 and over aggregate statistics were produced, as single year of age estimates were considered to be less reliable for this age group due to the small number of people involved.

NISRA then responded positively to an increased demand for more detailed population estimates for those aged 85 and over and in 2010 produced single year of age mid-2009

estimates for those aged 85-104 using an internationally recognised methodology called the Kannisto-Thatcher Survivor Ratio Method (see Section 8). Similar arrangements were introduced by the other statistical offices across the UK.

Following the release of 2011 Census figures, mid-year population estimates for the years 2001 to 2011 were revised. One outcome of this revision was to extend the age range of population estimates to provide single year of age estimates up to age 89 with aggregate statistics for ages 90 and over. The Kannisto-Thatcher Survivor Ratio Method was then subsequently used to distribute the population estimates for the highest age group (90 and over) into single year of age up to and including 104, and a group aged 105 and over.

After the revision of the mid-year estimates and the increase of single year of ages from 0-84 to 0-89 within this publication, a decision was made to keep the title of “Estimates of the population aged **85 and over**”, rather than changing it to the “...population aged **90 and over**”. As the bulletin still contains information on the age group 85 to 89, and 85 and over, this decision was taken so that it would be clear to users that the publication being released continues to provide the same information as in previous years, and that both the methodology and figures within it are consistent and comparable with previous publications. The issue of whether or not to keep this title was discussed at the most recent population statistics user engagement event in January 2016 with attendees agreeing that the title of the publication should remain “Estimates of the population aged **85 and over**”¹.

It should be noted that the Kannisto-Thatcher Survivor Ratio Method gives rise to minor revisions to the age distribution within the aged 90 and over category as new information on actual deaths becomes available. Accordingly, slightly revised estimates for the 90 and over category are provided for the period mid-2001 to mid-2014. More information on these revisions and their impact on the estimates are provided in the Data Quality section on page 17.

3. Population in Northern Ireland²

The size of the resident population in Northern Ireland at 30 June 2016 is estimated to be 1.862 million people. Slightly more than half (50.9 per cent) of the population were female, with 946,900 females compared to 915,200 males.

Over the period mid-2015 to mid-2016 the number of people living in Northern Ireland is estimated to have increased by 10,500 people (0.6 per cent). This population increase was primarily a result of the following estimated factors:

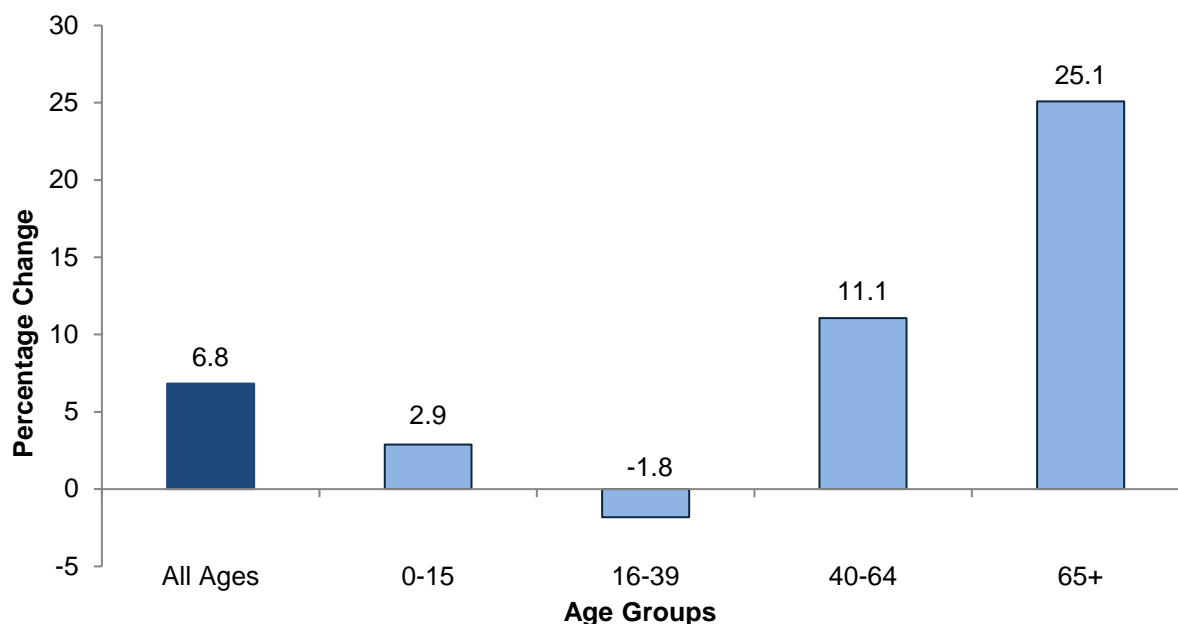
¹ A summary of the user engagement event can be found on the [NISRA](#) website.

² [Mid-2016 Population Estimates](#) were published on 22 June 2017.

- a. natural growth of 9,000 people (24,400 births minus 15,300 deaths); and
- b. an estimated net growth of 1,500 people due to migration, with 23,800 people coming to live in Northern Ireland and 22,300 people leaving; and

The population of Northern Ireland is becoming increasingly older. Improving survival, coupled with a general downward trend in the number of births, has resulted in an ageing population. This progressive ageing is evident in the relative percentage changes among those in different broad age groups over the decade mid-2006 to mid-2016. Figure 1 shows that the population increase of those aged 65 and over has been noticeably higher (25.1 per cent) than any other age group between mid-2006 and mid-2016. Interestingly, the population aged 16 to 39 (i.e. the younger working age population) has decreased by 1.8 per cent during this period.

Figure 1: Population change by age group (mid-2006 to mid-2016)



[Download Chart](#) (XLS Format – 1,670 KB)

Between mid-2015 and mid-2016, the population aged under 65 increased at a moderate rate (0.3 per cent) reaching 1,564,400. In contrast, the population aged 65 and over increased by 2.0 per cent over the same period, and has been growing by an average of 2.3 per cent per annum for the last ten years, increasing from 238,100 in mid-2006 to reach 297,800 in mid-2016.

4. Population aged 85 and over

It is estimated that there were 36,500 people aged 85 and over living in Northern Ireland at 30 June 2016, an increase of 1,000 people (2.8 per cent) since mid-2015. In the decade since mid-2006, the number of people aged 85 and over has increased by 34.8 per cent, almost six times faster than the population aged under 85 (6.4 per cent).

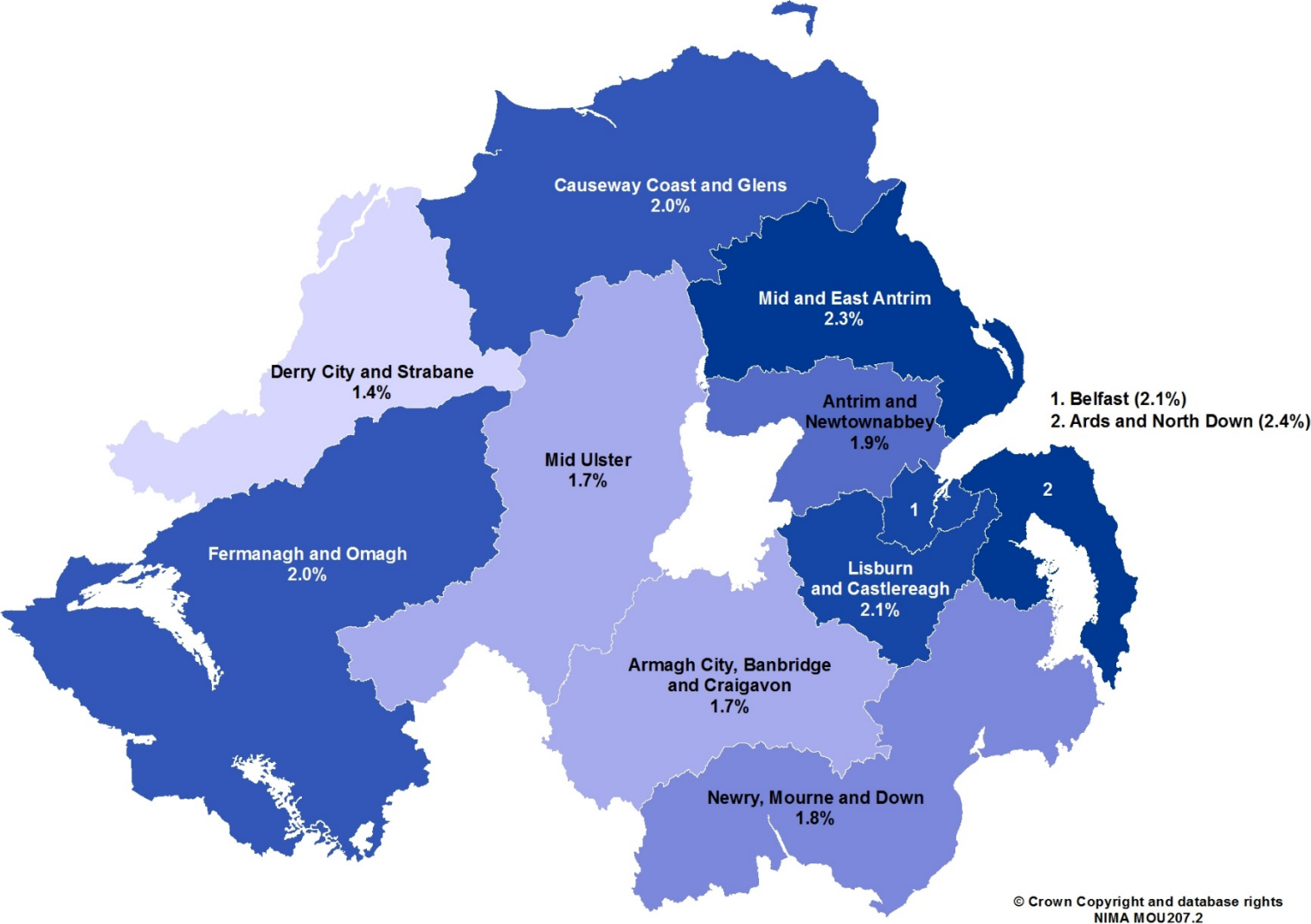
In mid-2016, the proportion of people aged 85 and over ranged from 1.4 per cent (2,100 people) in Derry & Strabane to 2.4 per cent (3,900 people) in Ards & North Down Local Government District. As the Local Government District with the largest population in Northern Ireland, Belfast also had the largest number of people aged 85 and over (7,200 people). However, as shown in Map 1, it is notable that Belfast Local Government District had the third highest proportion of people aged 85 and over (2.1 per cent), after North Down & Ards (2.4 per cent) and Mid & East Antrim (2.3 per cent).

The overall increase of 34.8 per cent (9,400 people) in the population aged 85 and over during the 10-year period mid-2006 to mid-2016 is the result of more people 'ageing into' the age group of 85 and over than are leaving it each year as a result of dying. At these ages, the impact of migration is negligible.

For example, between mid-2015 and mid-2016, net migration of people aged 85 and over to and from Northern Ireland was roughly in balance, with only 9 more people coming to live here than leaving to live elsewhere. In the same period 6,600 people aged into this age group and 5,600 people left as a result of dying. This resulted in an overall increase of 1,000 people aged 85 and over from mid-2015 to mid-2016. This pattern of marginal migration effects is consistent with estimated population changes in previous years.

Between mid-2006 and mid-2016, an average of 5,100 people aged 85 and over died each year, whereas an average of 6,000 people 'aged into' the 85 and over category each year. This has resulted in the number of people aged 85 and over growing by approximately 900 people per annum.

Map1: Proportion of Population aged 85 and over by Local Government District (mid-2016)



[Download Map](#) (PDF Format - 593 KB)

Table 1, which presents the changing size and sex composition of the population aged 85 and over from mid-2006 to mid-2016, shows that the proportion of males in this age group has been gradually increasing.

For example, between mid-2006 and mid-2016, the percentage increase in the number of males aged 85 and over (52.0 per cent) has been noticeably higher than that among females (27.7 per cent). Over the past decade, the number of males aged 85 and over has increased on average by 4.3 per cent each year, while the numbers of females aged 85 and over has increased by an average of 2.5 per cent each year.

Table 1: Estimates of the population aged 85 and over by sex (mid-2006 to mid-2016)³

Mid-Year	All Persons			Males			Females		
	Number	Proportion of NI population	% Change since 2006	Number	Proportion of All persons	% Change since 2006	Number	Proportion of All persons	% Change since 2006
2006	27,000	1.6		8,000	29.5		19,100	70.5	
2007	27,900	1.6	3.4	8,200	29.4	3.1	19,700	70.6	3.5
2008	28,900	1.6	7.0	8,600	29.7	7.6	20,300	70.3	6.7
2009	29,700	1.7	10.0	8,900	29.9	11.5	20,800	70.1	9.3
2010	30,800	1.7	14.0	9,400	30.4	17.6	21,400	69.6	12.5
2011	31,800	1.8	17.5	9,800	30.8	22.8	22,000	69.2	15.3
2012	32,700	1.8	21.0	10,300	31.4	28.9	22,400	68.6	17.7
2013	33,300	1.8	23.1	10,600	31.8	32.6	22,700	68.2	19.1
2014	34,400	1.9	27.4	11,100	32.1	38.8	23,400	67.9	22.6
2015	35,500	1.9	31.1	11,600	32.7	45.5	23,900	67.3	25.2
2016	36,500	2.0	34.8	12,100	33.2	52.0	24,300	66.8	27.7

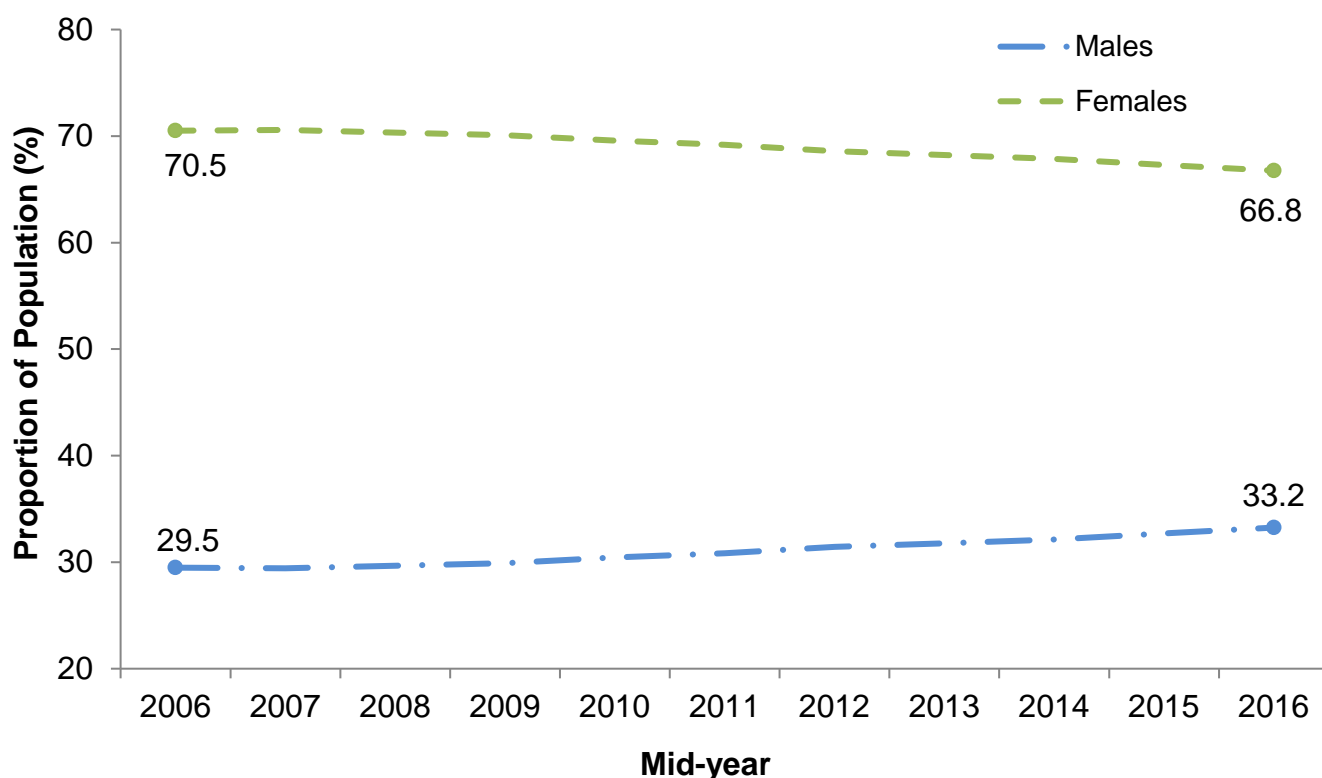
[Download Table](#) (XLS Format – 3,760 KB)

In mid-2016 males accounted for 33.2 per cent of those aged 85 and over and females for 66.8 per cent, whereas 10 years previously in mid-2006 the figures were 29.5 per cent and 70.5 per cent respectively. This compositional change, which is illustrated in Figure 2, is indicative of higher improvement in survival rates among males than females at older ages in recent years⁴.

³ A more detailed breakdown of the population aged 85 and over, by mid-year and sex, is presented in Annex A.

⁴ See page 3 of http://www.ons.gov.uk/ons/dcp171778_416983.pdf

Figure 2: Proportion of population aged 85 and over by sex (mid-2006 to mid-2016) (non-zero axis)



[Download Chart](#) (XLS Format –1,674 KB)

5. Population aged 90-99

It is estimated that there were 12,500 people aged between 90 and 99 in Northern Ireland at 30 June 2016, 71.7 per cent of whom were females (8,900) and 28.3 per cent of whom were males (3,500). Ten years previously in mid-2006, females accounted for 76.3 per cent of those aged 90 to 99 and males accounted for 23.7 per cent.

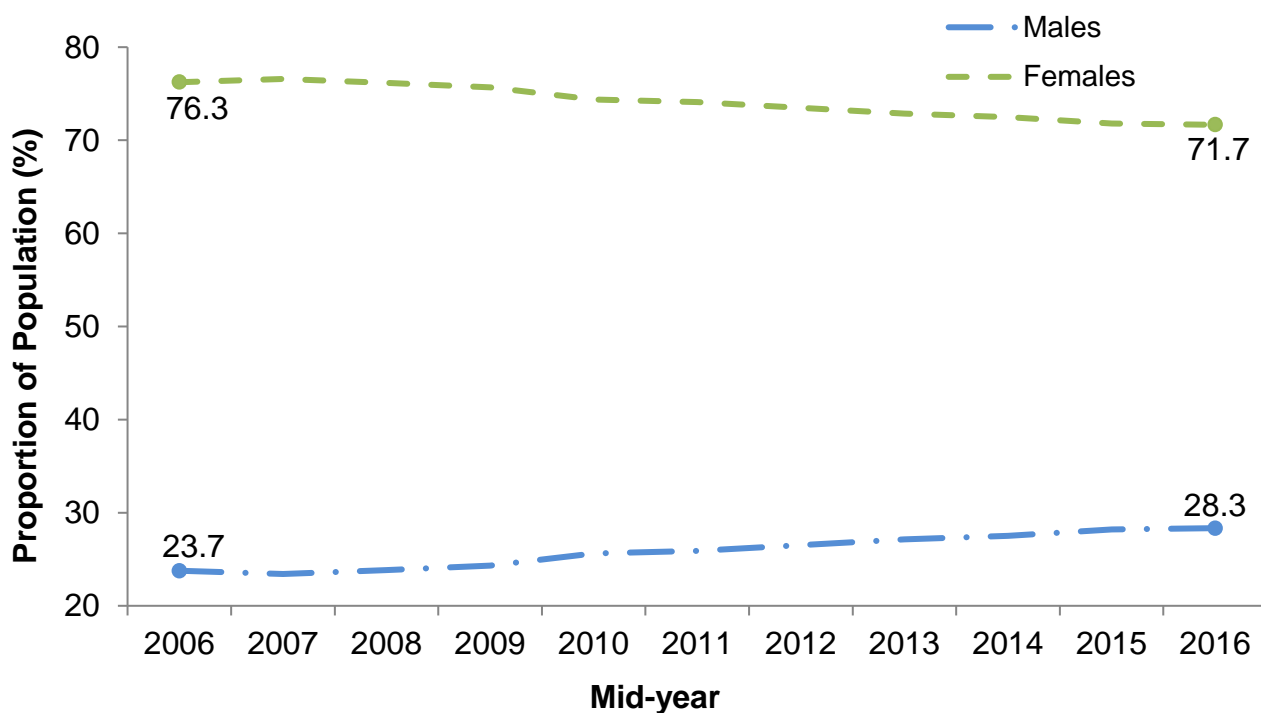
In the period mid-2006 to mid-2016, the population aged 90 to 99 increased by 45.5 per cent from 8,600 to 12,500. The number of males aged 90 to 99 increased from 2,000 to 3,500 over the same period while females increased from 6,500 to 8,900. Accordingly the percentage growth in the number of males aged 90 to 99 (73.7 per cent) was noticeably higher than that of females (36.8 per cent) over the decade in question (see Table 2 and Figure 3).

Table 2: Estimates of the population aged 90-99 by sex (mid-2006 to mid-2016)

Mid-Year	All Persons			Males			Females		
	Number	Proportion of NI population	% Change since 2006	Number	Proportion of All persons	% Change since 2006	Number	Proportion of All persons	% Change since 2006
2006	8,600	0.5		2,000	23.7		6,500	76.3	
2007	8,600	0.5	0.2	2,000	23.4	-1.2	6,600	76.6	0.6
2008	8,700	0.5	1.8	2,100	23.8	2.1	6,600	76.2	1.7
2009	9,000	0.5	4.9	2,200	24.3	7.4	6,800	75.7	4.1
2010	9,700	0.5	12.9	2,500	25.6	21.8	7,200	74.4	10.1
2011	10,200	0.6	19.3	2,600	25.9	30.1	7,600	74.1	16.0
2012	10,800	0.6	26.4	2,900	26.5	41.1	7,900	73.5	21.8
2013	11,100	0.6	29.6	3,000	27.1	48.1	8,100	72.9	23.9
2014	11,800	0.6	37.6	3,200	27.5	59.5	8,500	72.5	30.8
2015	12,200	0.7	42.1	3,400	28.2	68.7	8,700	71.8	33.9
2016	12,500	0.7	45.5	3,500	28.3	73.7	8,900	71.7	36.8

[Download Table](#) (XLS Format – 3,753 KB)

Figure 3: Proportion of population aged 90-99 by sex (mid-2006 to mid-2016) (non-zero axis)

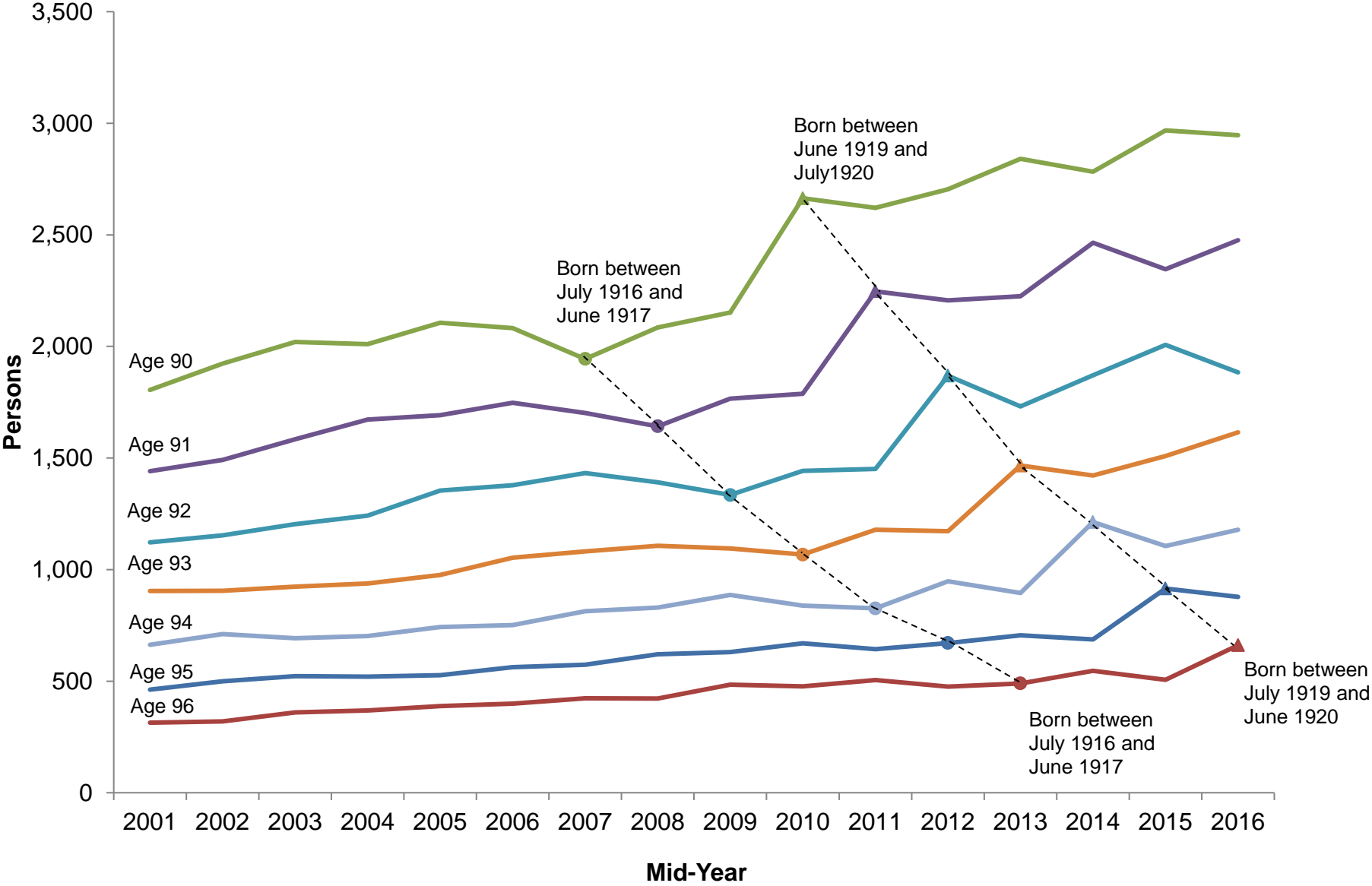


[Download Chart](#) (XLS Format - 1,674 KB)

Previous reports demonstrated that the impact which the First World War had on births occurring at that time has had knock-on effects on the number of persons aged 90 and over in recent years⁵. This continues to be the case as illustrated in Figure 4 below. The low number of births in 1917 can still be observed in the dips in the population estimates for those aged 90 in mid-2007, those aged 91 in mid-2008, those aged 92 in 2009, and so on. Equally, the peak in the number of births in 1920 is still visible in the number of those aged 90 in mid-2010, those aged 91 in mid-2011 right through to those aged 96 in mid-2016.

⁵ Historical births data are available from the [Vital Statistics](#) section of the NISRA website.

Figure 4: Population aged 90-96, Northern Ireland (mid-2001 to mid-2016)



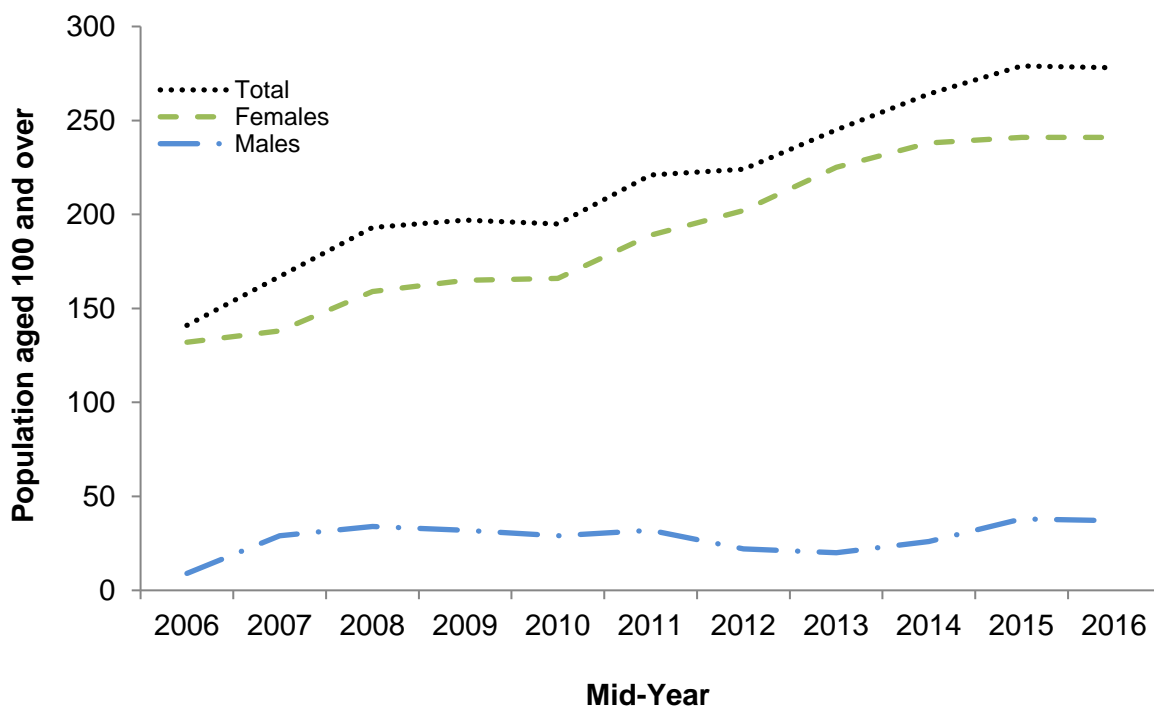
[Download Chart](#) (XLS Format – 1,732 KB)

6. Number of centenarians (aged 100 and over)

It is estimated that there were 278 centenarians living in Northern Ireland on 30 June 2016, the vast majority of whom (86.7 per cent) were female.

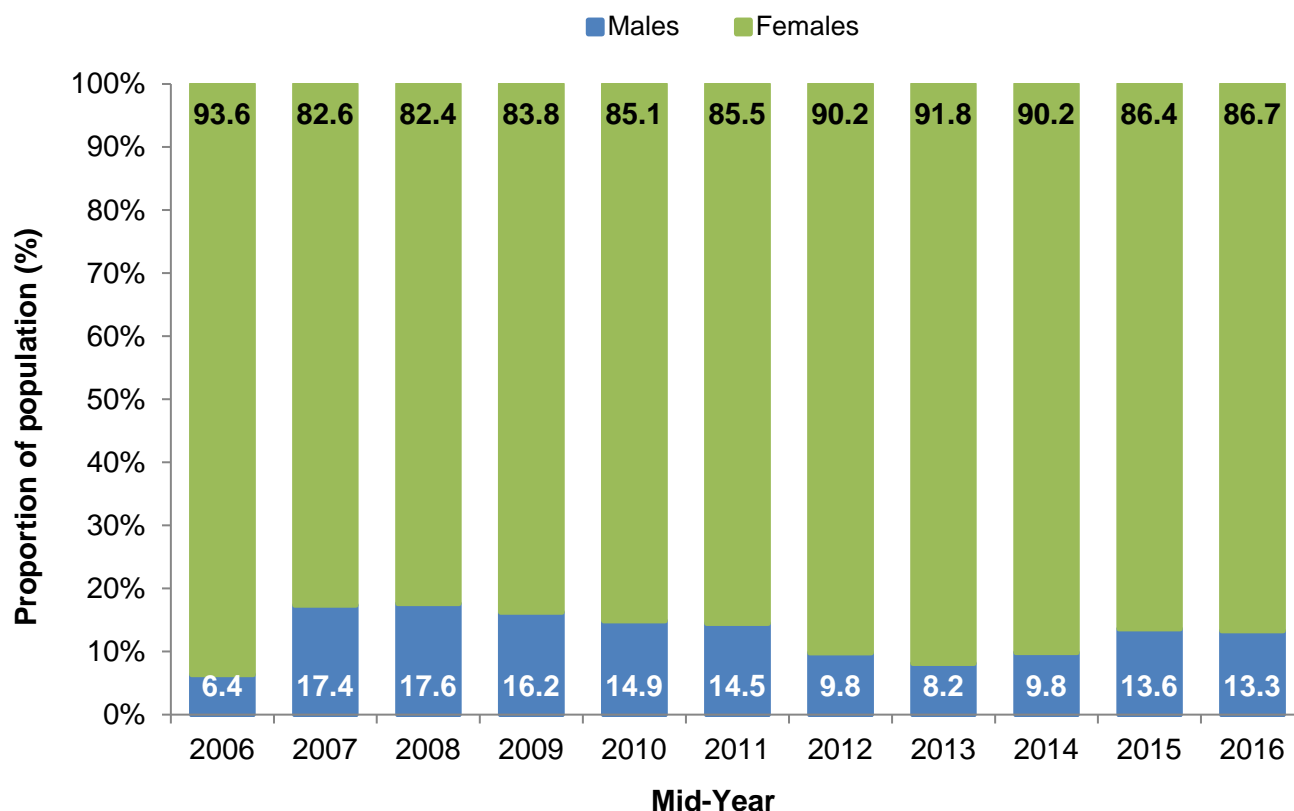
Figure 5 shows how the size and gender composition of the relatively small centenarian group has changed over the ten year period mid-2006 to mid-2016. Throughout the period in question, the centenarian group has almost doubled in size (141 centenarians in mid-2006 compared with 278 centenarians in mid-2016), with the number of females consistently and notably exceeding the number of males (see Figure 5). Because of the relatively small number of people in the centenarian age group, small changes in the number of males and females can result in larger changes in the proportional representation of males and females (see Figure 6).

Figure 5: Population aged 100 and over by sex (mid-2006 to mid-2016)



[Download Chart](#) (XLS Format – 1,669 KB)

Figure 6: Proportion of population aged 100 and over by sex (mid-2006 to mid-2016)



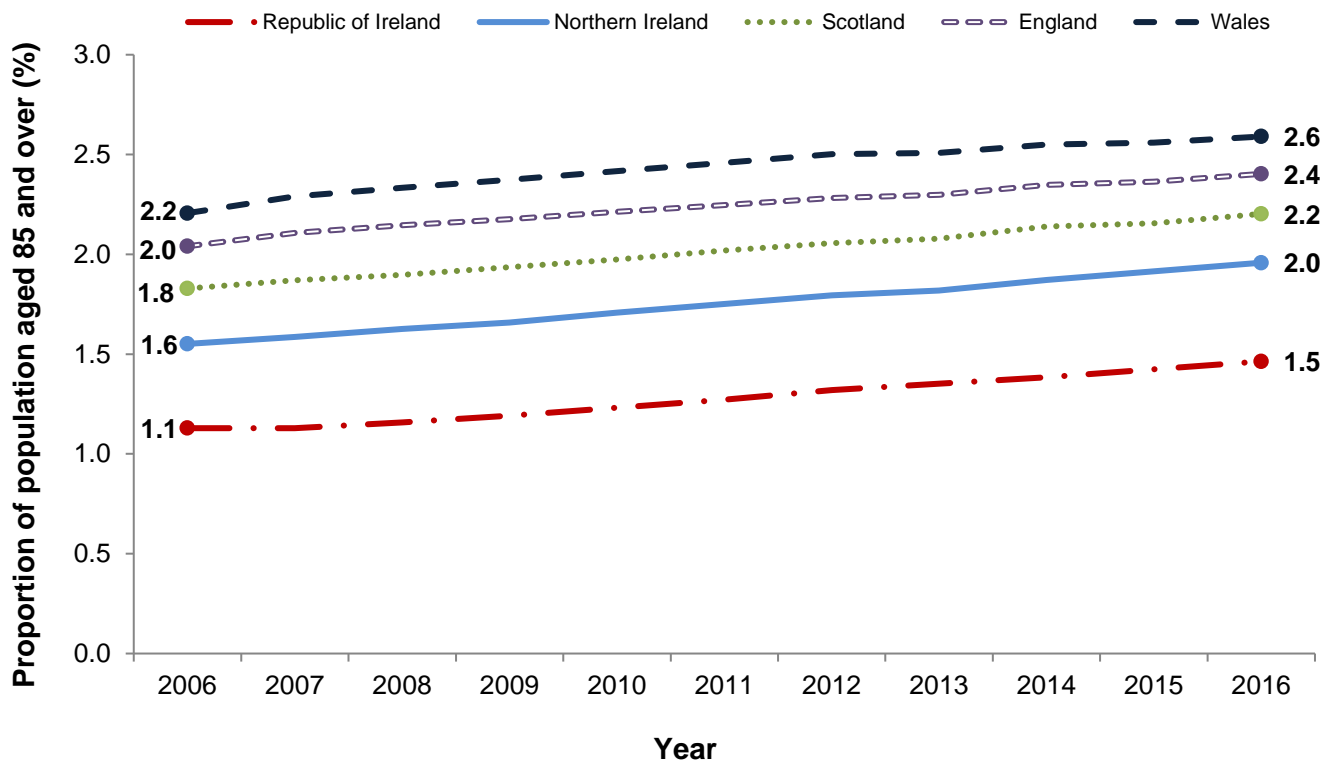
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7. Comparison of Population aged 85 and over across the UK and Ireland

Population estimates by age are available for each UK country and the Republic of Ireland. Figure 7 shows that of the UK countries, Northern Ireland had the lowest proportion of its population aged 85 and over (2.0 per cent) in mid-2016, whereas Wales had the highest (2.6 per cent). This was also the case 10 years previously in mid-2006 (1.6 per cent in Northern Ireland, and 2.2 per cent in Wales). However, the Republic of Ireland had even lower rates: its proportion of the population aged 85 and over in 2016 (1.5 per cent) was similar to that for Northern Ireland a decade ago (1.6 per cent).

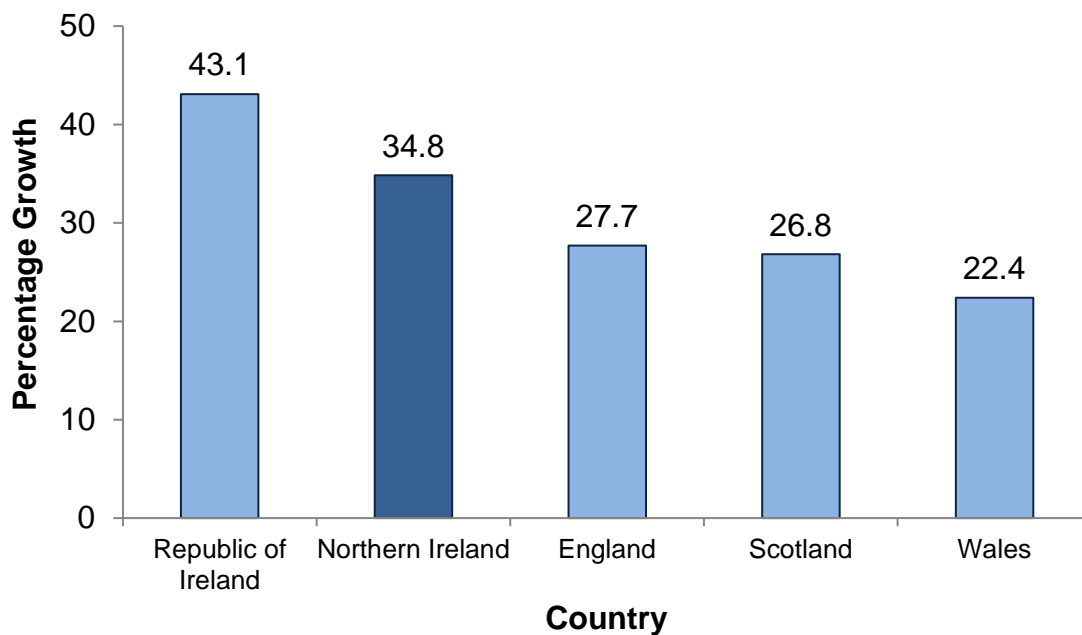
In contrast, Figure 8 shows that the percentage growth of this age group over the decade mid-2006 to mid-2016 has been noticeably higher in Northern Ireland (34.8 per cent) than in the other countries of the UK, but still lower than in the Republic of Ireland (43.1 per cent). This is the result of a combination of (i) differences in age distribution within this age group, (ii) age specific mortality rates, and (iii) cohort effects of those aging into this age group.

Figure 7: Proportion of population aged 85 and over by country (2006 to 2016)



[Download Chart](#) (XLS Format – 1,693 KB)

Figure 8: Growth of population aged 85 and over by country (2006 to 2016)



[Download Chart](#) (XLS Format – 2,991 KB)

8. Methodology

Mid-Year Population Estimates

The Northern Ireland Statistics and Research Agency produce annual [mid-year population estimates](#) at Northern Ireland level by single year of age from 0 to 89 using the 'cohort component' method. Using the most recent census as the baseline, each year the population is aged on by one year, births are added, deaths subtracted and estimates of migration are used for those moving in or out of Northern Ireland. For the official 30 June population estimate, ages 90 and over are aggregated into one age-group.

Population estimates for the 11 Local Government Districts and other areas within Northern Ireland are first created for Super Output Areas (SOAs) which, on average, have a population of 2,100 people (mid-2016). These SOAs become the building blocks to create population estimates for other geographies. Population estimates at the SOA level are generally calculated from an average of two statistical methods: the ratio change and cohort-component methods. In the Ratio Change method, selected indicators of population change are used to update the population from some earlier or base period. The method assumes an unchanged relationship over time between the chosen indicator and the true population⁶. For example, if the chosen indicator increases by five per cent over the period for which estimates are required, the base population is also increased by five per cent. As both methods are equally robust and each have separate advantages and disadvantages, the average of both methods is taken for the final figures. Further information is available in the [Methodology Report](#).

Estimates of the population aged 90 and over

To produce single year of age estimates of the population aged 90 and over, NISRA have adopted the Kannisto-Thatcher Survivor Ratio Method⁷, an internationally recognised method used to provide a more detailed breakdown of the older population by age.

Using death registration data, an estimate is produced of the number of people at a given age alive in a particular year. For the most recent year, the Kannisto-Thatcher Survivor Ratio Method uses an average of the last five years death data to produce an estimate of the number of survivors.

⁶ That is, the ratio of the true population to the indicator remains constant between the base period and the later period for which estimates are required, hence the name Ratio Change method.

⁷ The Survivor Ratio Method for Estimating Numbers at High Ages, Thatcher R, Kannisto V, Andreev K, 2002. <http://www.demographic-research.org/Volumes/Vol6/1/>. The Demography of Centenarians in England and Wales, *Population Trends* 96 pp5-12, Thatcher R, 1999.

For earlier years, if someone died aged 100 in 2016, this means that they were alive in 2015 aged 99, and aged 98 in 2014 and so on. This is used to produce age distribution profiles. The number of people aged 99 alive in 2015 is recalibrated from the estimated number of people alive aged 100 in 2016, plus the number of registered deaths of people aged 100 in 2016. One outcome of this method is that each year the estimates for earlier years become more accurate as more death data become available to inform age profiles. It also assumes that migration for those aged 85 and over is negligible. Estimates are then controlled to agree with the NISRA mid-year population estimates for those aged 90 and over.

9. Data Quality

Mid-Year Population Estimates

Mid-year population estimates are created using a variety of administrative data sources. A brief outline of these sources, and how quality is assured for each one, is detailed in the latest mid-year population estimates [statistical bulletin](#). A more comprehensive outline of these sources, including details of the quality management actions undertaken to ensure that the data is suitable for population estimates, is detailed within the [Administrative Data Quality Document](#).

Death Data Used in Kannisto-Thatcher Survivor Ratio Method

Information supplied at death registration is generally believed to be correct since wilfully supplying false information may render the informant liable to prosecution for perjury. Death figures by sex and single year of age are obtained from registrations with the General Register Office (GRO) and all that occurred over the 12 month period from 1 July to 30 June are included.

During registrations, information provided is first checked by the informant before being finalised on the GRO's electronic Northern Ireland Registration Office System (NIROS). Appropriate validation checks are embedded within the NIROS to help the Registrar with this process. Statistics are extracted directly from NIROS and are subjected to further checks by the Vital Statistics team in NISRA's Demography & Methodology Branch, and again by the Population and Migration team when the relevant data are supplied to them.

Quality Assessment Reports are available online and contain further details on the quality of [death](#) statistics.

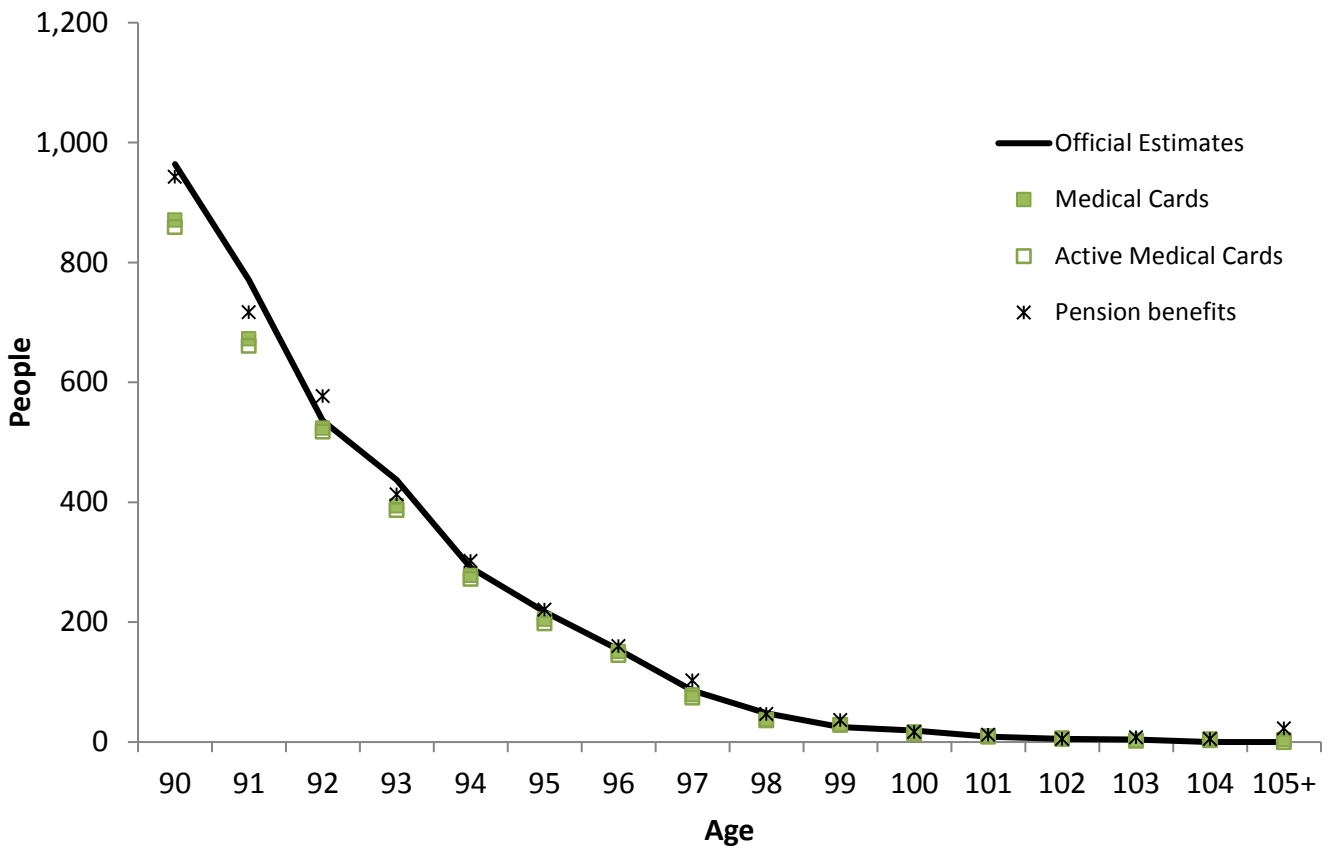
Further checks are made on deaths registrations of people aged 100 and over. Such registrations are flagged by the Vital Statistics and sent back to the GRO in order to manually check their validity.

Quality Assurance of the Population aged 90 and over – mid-2016

Estimates of the population aged 90 and over in Northern Ireland are produced by the Northern Ireland Statistics and Research Agency (NISRA) using the Kannisto-Thatcher Survivor Ratio Method, which uses an average of the last five years death data to produce an estimate of the number of survivors and applies this to the mid-year estimates.

Figures 9a and 9b show these estimates compared with other administrative data sources which collect data for males and females aged 90 and over, namely Medical Card Registration Data, Active Medical Card data⁸, and Pensions data. These graphs show a good degree of comparability across the various data sources, but particularly in terms of pension benefits, as might be expected, both in terms of numbers and trends.

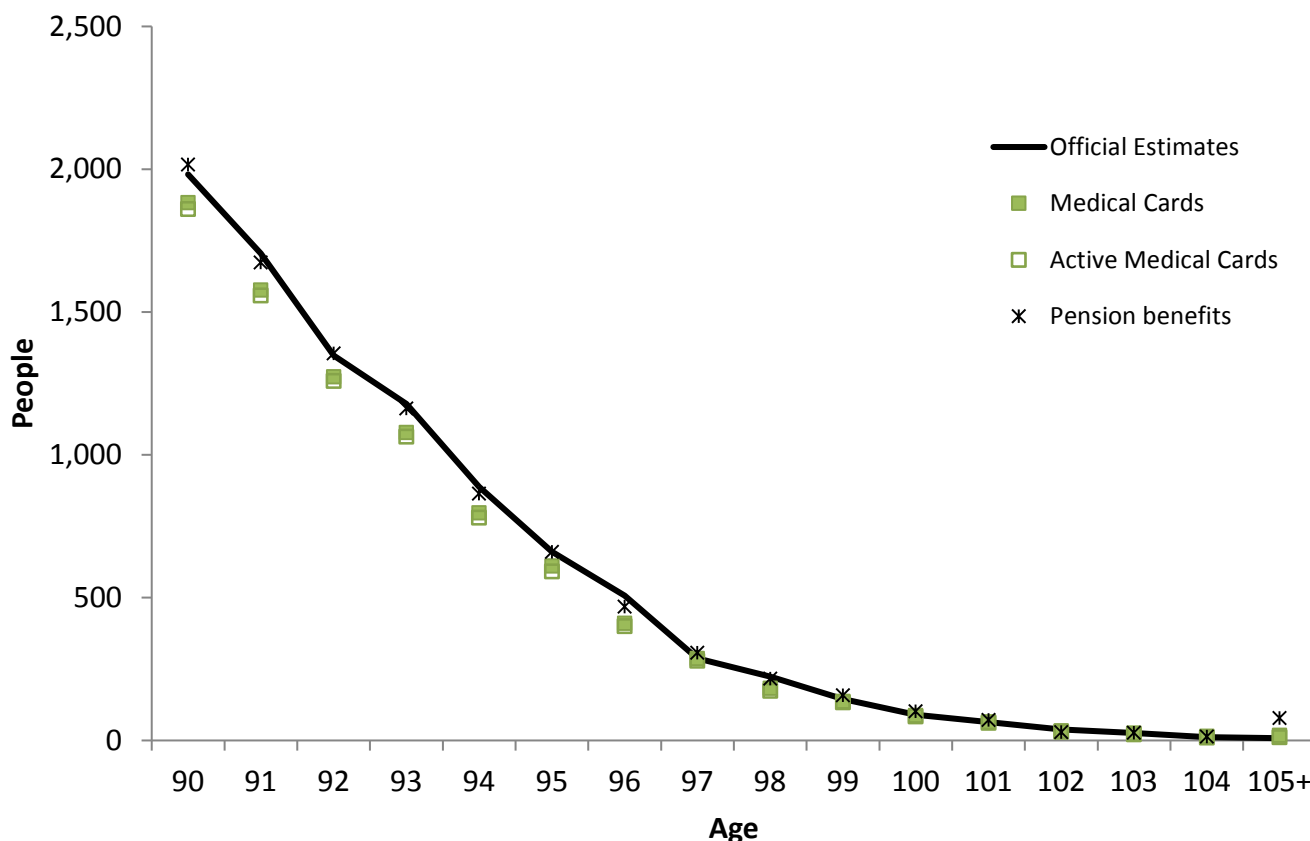
Figure 9a: Mid-2016 population aged 90 and over in comparison with administrative sources by age (males)



[Download Chart](#) (XLS Format - 1,715 KB)

⁸ Active Medical Card data is Medical Card Registration data that has been used in recent years.

Figure 9b: Mid-2016 population aged 90 and over in comparison with administrative sources by age (females)



[Download Chart](#) (XLS Format - 1,715 KB)

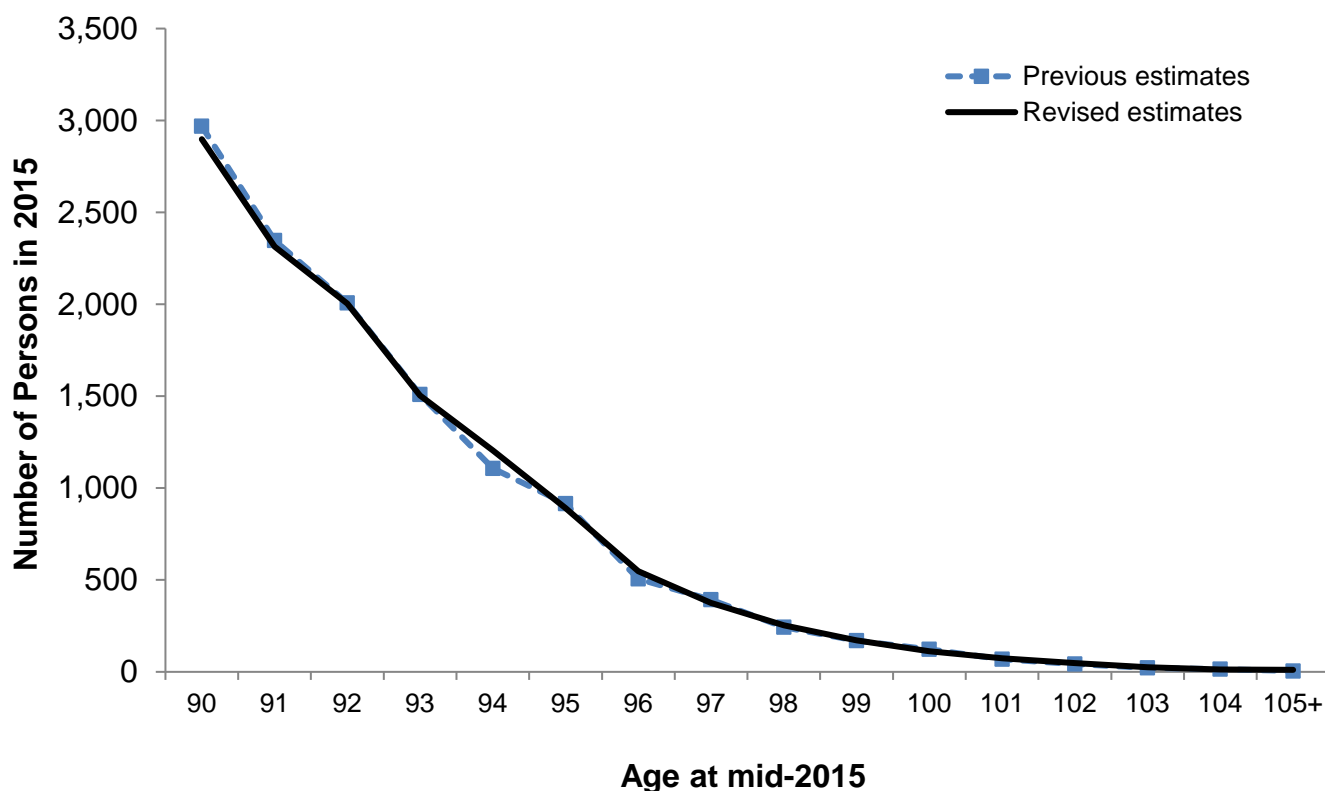
Quality Assurance of the Population aged 90 and over – revised⁹ mid-2001 to mid-2015

The Kannisto-Thatcher Survivor Ratio Method **does not revise the total estimates of the age-group 90 and over** which are already-published. However, **there could be changes in the age distribution within this age group over the years**. As such, it is classified as a scheduled revision¹⁰. Figure 10 plots the previous estimates for mid-2015 alongside the revised mid-2015 estimates.

⁹ “Revised” estimates refer to the estimates of those aged 90 and over at single year of age from mid-2001 to mid-2015 that have been updated with the release of the mid-2016 population estimates at the same ages.

¹⁰ <http://www.ons.gov.uk/ons/guide-method/revisions/revisions-policies-by-theme/population/population-statistics-revision-policy.pdf>

Figure 10: Previous and revised estimates of the population aged 90 and over by age (mid- 2015)



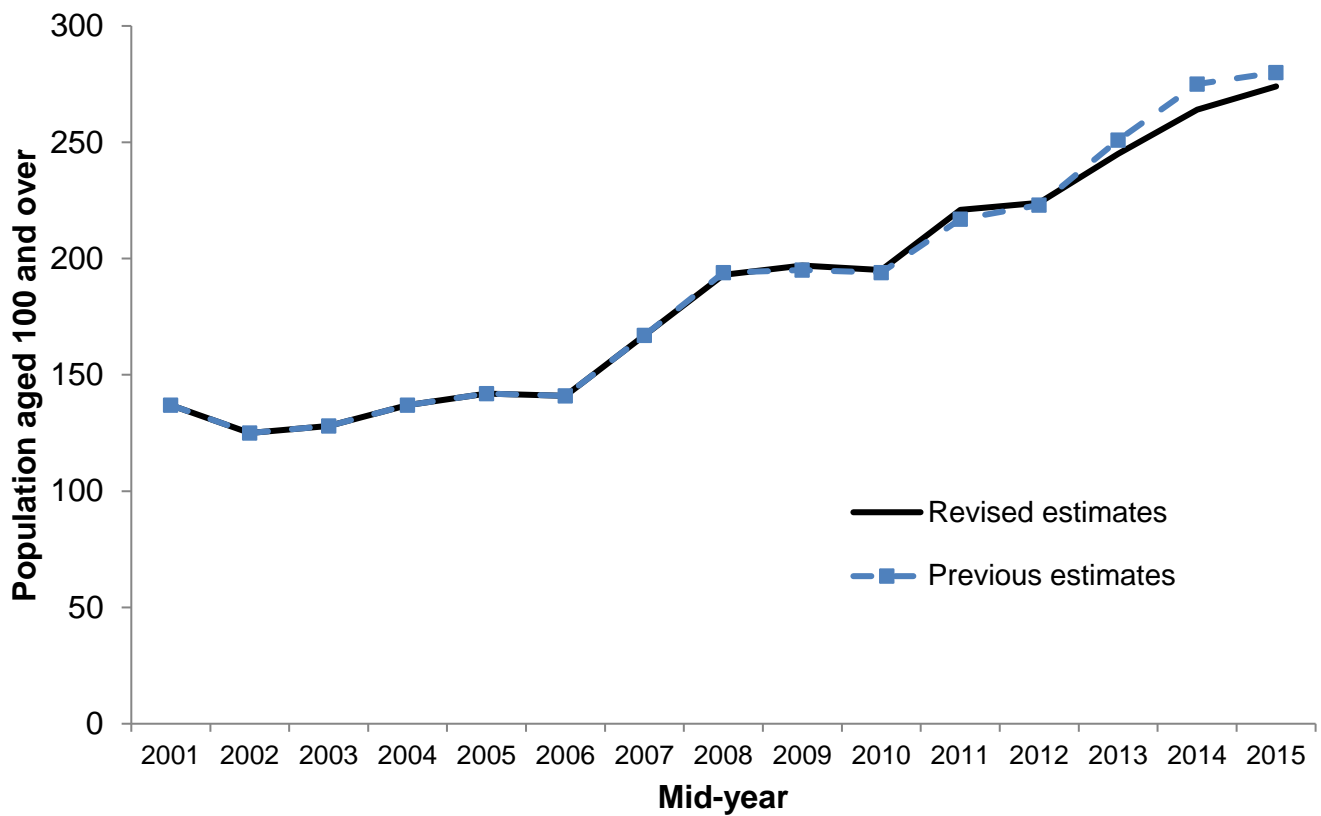
[Download Chart](#) (XLS Format – 1,681 KB)

Most differences are relatively small: the revised population estimate for those aged 90 to 94 in mid-2015 was 0.1 per cent higher than the previously published estimate (i.e. the estimated number of people aged 90 to 94 in mid-2015 increased by 13 out of 9,900 people). The revised population estimate for those aged 95 to 99 in mid-2015 was 0.5 per cent lower than the previously published estimate (decrease of 12 out of 2,200 people).

The estimated number of centenarians in mid-2015 has been revised downwards by 2.1 per cent. This 2.1 per cent revision in the estimated number of centenarians for mid-2015 relates to a decrease of 6 people aged 100 and over, from 280 in the previous estimates to 274 in the revised estimates.

Figure 11 shows the previous and current estimates of the number of centenarians over the period mid-2001 to mid-2015. It is evident that the difference between the two series becomes smaller when going further back in time, with negligible differences or identical figures prior to 2011.

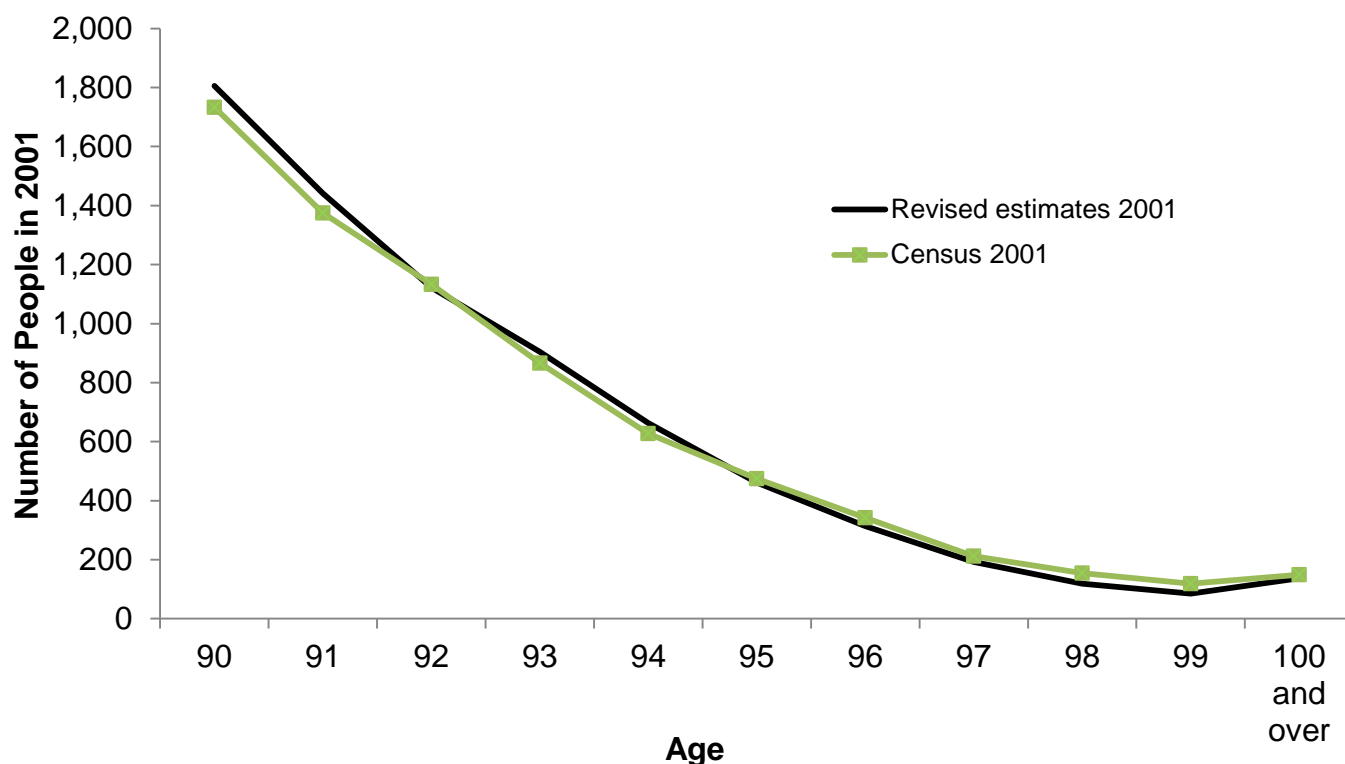
Figure 11: Previous and revised estimates of centenarians (mid-2001 to mid-2015)



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The revised estimates are also quality assured against 2001 and 2011 Census data, and as can be seen in Figures 12a and 12b, the estimates are again broadly in line with both the 2001 and 2011 Census figures.

Figure 12a: Revised estimates of the population aged 90 and over by age (mid-2001 compared to the 2001 Census)



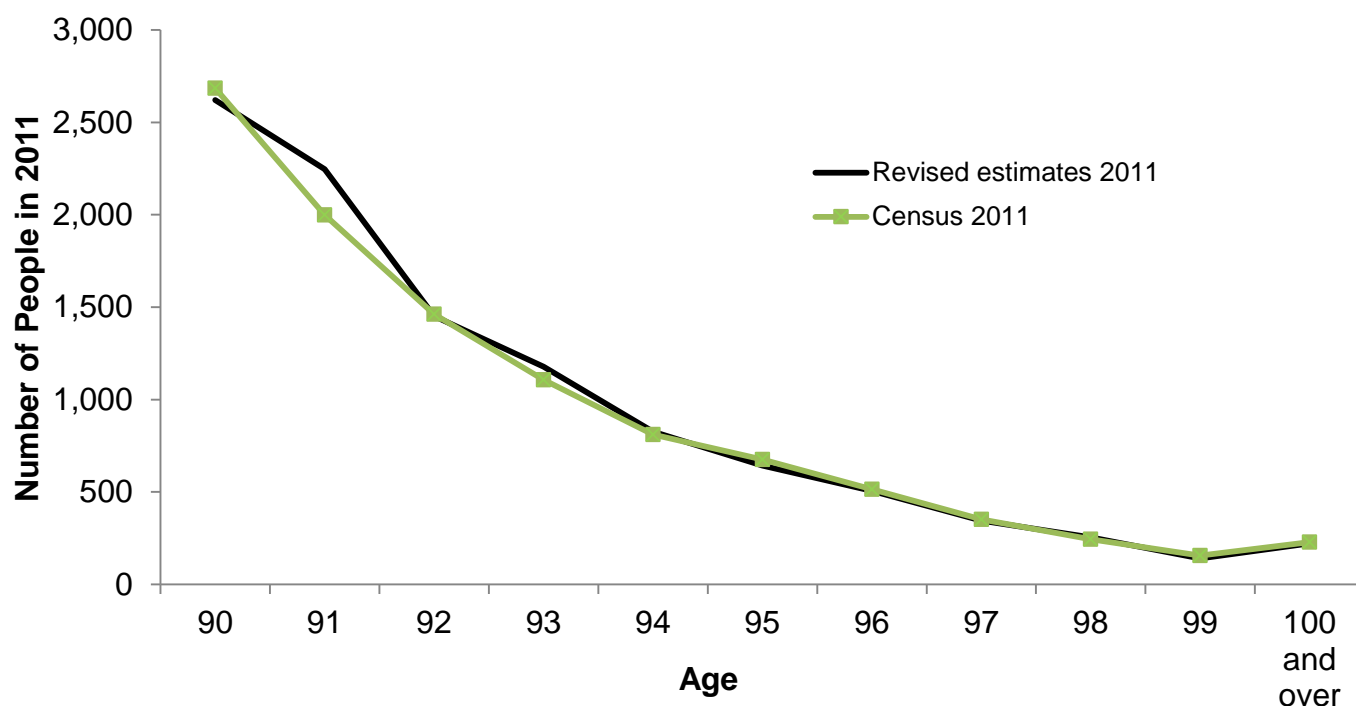
[Download Chart](#) (XLS Format – 1,687 KB)

In 2001, the greatest percentage difference by five year age-bands is for male centenarians, where the revised estimates for males aged 100 and over in mid-2001 are 38.9 per cent smaller than the 2001 Census figures for the same age-sex band. This is understandable as the number of males aged 100 and over is very small (females make up the majority of people aged 100 and over). This means that small changes in the numbers can equate to sizeable changes in percentage terms. In this instance the 38.9 per cent change relates to a difference of seven males aged 100 and over between the 2001 Census (18 males) and the revised estimates (11 males). Furthermore, as the 2001 Census refers to the population at 29 April 2001 and the mid-year estimates refer to the population at 30 June 2001, this may account for some of the difference in the number of people.

Males aged 100 and over again had the greatest percentage change in 2011, with the revised estimates of male centenarians in mid-2011 being 20.0 per cent smaller than the 2011 census figure of the same age-sex group (32 males and 40 males respectively). As with the 2001 Census figures, the 2011 figures do not refer to the population at mid-year, but instead to the

population at 27 March 2011. This may account for some of the difference between the revised estimates for mid-2011 and the 2011 census figures.

Figure 12b: Revised estimates of the population aged 90 and over by age (mid-2011 compared to the 2011 Census)



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Quality Analysis by the Office for National Statistics

Northern Ireland estimates are sent to the Office for National Statistics (ONS) for further checks on the calculations and formula used at all stages of the process, in order to ensure the quality is of compatible standards with their own data (see the [ONS Quality and Methodology Information Paper](#) for more information). When these are completed, the population aged 90 to 104 at single year of age and 105 and over aggregated are fed into the UK Estimates of the Very Old, produced by ONS.

National Statistics Designation

National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance review to ensure they meet customer needs. They are produced free from any political interference. The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the

Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

In line with the Statistics and Registration Service Act 2007, and signifying compliance with the Code of Practice for Official Statistics in 2011, the United Kingdom Statistics Authority (UKSA) appointed this publication as a National Statistics publication. Population estimates and projections for Northern Ireland statistics were re-assessed by the Statistics Authority in July 2015 ([UK Statistics Authority Assessment Report](#)). Following work to address recommendations that emerged from the assessment ([Assessment Action Plan](#)), UKSA confirmed the re-designation of these statistics as National Statistics in August 2016 (see [letter of designation](#)).

10. Limitations

When considering change over time, it is important to note that the number of centenarians is relatively small when compared with other population age groups and, as such, small changes in the numbers can equate to sizeable changes in percentage terms.

Estimates of the Population Aged 85 and Over are not produced for areas within Northern Ireland due to the fact that:

- the Kannisto-Thatcher Survivor Ratio Method does not take into account migration;
- the small numbers of people aged 85 and over would be unreliable if split into geographies lower than Northern Ireland as a whole.

Estimates of the population aged 90 and over at single year of age are constrained to the aggregated number of males and females aged 90 and over produced in the mid-year population estimates, thus making them consistent. However, due to the different approaches used (i.e. cohort component method for mid-year estimates and Kannisto-Thatcher Survival Ratio method for estimates of the population aged 85 and over), the transition between the number of people aged 89 to 90 may not be as smooth as at other ages.

As the Kannisto-Thatcher Survival Ratio Method uses the most recent deaths data, this can include some late registrations of deaths occurring in previous years (for example, deaths referred to a coroner can mean the date of occurrence of a death is not available until several months after the registration of that death). This means that, in order to allow these statistics to be available on an annual basis, previous years' estimates are revised with each publication. While these means there may be minor changes in previous years' figures, it also means the numbers are continuously improving and becoming more accurate.

NISRA

September 2017

NOTES TO EDITORS

- Mid-year population estimates are produced by the Northern Ireland Statistics and Research Agency (NISRA). The estimates refer to the size of the usually resident population at 30 June; the statistics are therefore often referred to as the mid-year estimates. The most recent estimates, published in June 2017, relate to the population at [mid-2016](#).
- The method used to estimate the age distribution of the population aged 90 and over is an internationally recognised standard approach known as the Kannisto-Thatcher Survivor Ratio Method. This method requires previous years' estimates to be revised when new death registration data becomes available. Estimates of the population aged 90 and over, by single year of age and sex, are constrained to mid-year population estimates for the entire 90 and over age group.
- Whilst this report concentrates on the significant increase in the population aged 85 and over, it is still important to recognise that the number of people aged 85 and over represents a small proportion of the total population (i.e. 2.0 per cent in mid-2016).
- Statistics for the population aged 85 and over are available on the [NISRA Website](#). An [infographic](#) highlighting the important figures and trends in the data has also been released.
- Equivalent and comparable estimates of the population aged 90 and over for [England and Wales](#) by the Office for National Statistics (ONS), and for [Scotland](#) by National Records Scotland (NRS) have also been released on 27 September 2017. A [UK comparison paper](#) analysing the comparability of these estimates between the four UK countries is also available.
- Estimates of the population aged 85 and over for mid-2017, as well as a revised series for mid-2001 to mid-2016, are expected to be published in September 2018.
- The revisions policy for population statistics is available [here](#).
- We welcome feedback from users on the content, format and relevance of this release. Users can send feedback directly to census@nisra.gov.uk.
- Follow NISRA on [Twitter](#) and [Facebook](#).
- All media inquiries should be directed to the DoF Communications Office:
Telephone: 028 9016 3389
- Further statistical information can be obtained from NISRA Customer Services:
Telephone: 028 9025 5156
E-mail: census@nisra.gov.uk
Responsible Statistician: Brian Green

Annex A: Estimates of those aged 85 years and over by sex and 5 year age bands (mid-2001 to mid-2016)

Mid-Year	Persons 85-89	Persons 90-94	Persons 95-99	Persons 100-104	Persons 105+	Persons 85+	Persons All Ages
2001	16,216	5,935	1,172	128	9	23,460	1,688,838
2002	16,160	6,184	1,258	119	6	23,727	1,697,534
2003	15,925	6,423	1,340	123	5	23,816	1,704,924
2004	16,300	6,564	1,375	130	7	24,376	1,714,042
2005	17,392	6,871	1,450	132	10	25,855	1,727,733
2006	18,343	7,011	1,545	132	9	27,040	1,743,113
2007	19,208	6,973	1,598	156	11	27,946	1,761,683
2008	20,028	7,055	1,654	188	5	28,930	1,779,152
2009	20,562	7,233	1,740	191	6	29,732	1,793,333
2010	20,977	7,799	1,859	189	6	30,830	1,804,833
2011	21,335	8,323	1,886	216	5	31,765	1,814,318
2012	21,673	8,899	1,917	217	7	32,713	1,823,634
2013	21,947	9,158	1,934	236	9	33,284	1,829,725
2014	22,406	9,754	2,020	251	13	34,444	1,840,498
2015	23,019	9,936	2,226	269	10	35,460	1,851,621
2016	23,730	10,100	2,353	267	11	36,461	1,862,137
Mid-Year	Males 85-89	Males 90-94	Males 95-99	Males 100-104	Males 105+	Males 85+	Males All Ages
2001	4,771	1,395	198	11	0	6,375	824,273
2002	4,805	1,462	228	5	0	6,500	828,986
2003	4,817	1,516	240	8	0	6,581	833,104
2004	5,012	1,590	268	9	0	6,879	838,251
2005	5,520	1,681	275	18	0	7,494	845,301
2006	5,934	1,743	289	9	0	7,975	853,110
2007	6,187	1,732	275	29	0	8,223	862,256
2008	6,476	1,785	290	34	0	8,585	870,998
2009	6,679	1,894	289	31	1	8,894	878,562
2010	6,879	2,148	326	28	1	9,382	884,535
2011	7,116	2,272	372	32	0	9,792	889,322
2012	7,389	2,486	382	21	1	10,279	894,548
2013	7,545	2,608	402	20	0	10,575	897,145
2014	7,800	2,812	429	25	1	11,067	902,711
2015	8,134	2,927	501	38	0	11,600	909,129
2016	8,556	2,999	530	37	0	12,122	915,213
Mid-Year	Females 85-89	Females 90-94	Females 95-99	Females 100-104	Females 105+	Females 85+	Females All Ages
2001	11,445	4,540	974	117	9	17,085	864,565
2002	11,355	4,722	1,030	114	6	17,227	868,548
2003	11,108	4,907	1,100	115	5	17,235	871,820
2004	11,288	4,974	1,107	121	7	17,497	875,791
2005	11,872	5,190	1,175	114	10	18,361	882,432
2006	12,409	5,268	1,256	123	9	19,065	890,003
2007	13,021	5,241	1,323	127	11	19,723	899,427
2008	13,552	5,270	1,364	154	5	20,345	908,154
2009	13,883	5,339	1,451	160	5	20,838	914,771
2010	14,098	5,651	1,533	161	5	21,448	920,298
2011	14,219	6,051	1,514	184	5	21,973	924,996
2012	14,284	6,413	1,535	196	6	22,434	929,086
2013	14,402	6,550	1,532	216	9	22,709	932,580
2014	14,606	6,942	1,591	226	12	23,377	937,787
2015	14,885	7,009	1,725	231	10	23,860	942,492
2016	15,174	7,101	1,823	230	11	24,339	946,924

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