
Report To:	Policy and Resources Committee	Date:	17 November 2020
Report By:	Steven McNab Head of Organisational Development, Policy and Communications	Report No:	PR/41/20/KM
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Subject:	National Records of Scotland 'Life Expectancy in Scotland 2017-19'		

1.0 PURPOSE

- 1.1 The purpose of this report is to provide the Committee with details of the National Records of Scotland (NRS) recent publication, 'Life Expectancy in Scotland 2017-19' and to highlight the data relating to Inverclyde.

2.0 SUMMARY

- 2.1 The NRS published new statistics on life expectancy estimates for Scotland, council areas and health boards on 24 September 2020. The latest estimates are based on data collated over the three year period 2017 to 2019.
- 2.2 Life expectancy in Scotland has remained virtually unchanged since 2012-14, as shown in appendix 1. Scotland has the lowest life expectancy at birth in both Western Europe and the UK. In 2017-2019, life expectancy at birth for Scottish males was 77.1 years and 81.1 years for Scottish females, compared to 79.4 years for males and 83.1 years for females in the UK.
- 2.3 Life expectancy varies considerably across Scotland. Female life expectancy at birth is highest in East Renfrewshire (84 years) and lowest in Glasgow City (78.5 years). Male life expectancy at birth is highest in East Dunbartonshire (80.5 years) and lowest in Glasgow City (73.6 years). Appendix 2 shows the variation in life expectancy at birth across all Scottish council areas.
- 2.4 The extent to which life expectancy varies across Scotland shows that deprivation continues to have a highly detrimental impact. In Scotland, life expectancy for females living in the least deprived SIMD decile is 10 years more than those living in the most deprived decile (85.6 years compared to 75.6 years). For males, the difference increases to 13.3 years (82.8 years compared to 69.5 years). New data on the estimated life expectancy in each SIMD decile for all council areas is due to be published in December 2020, alongside data on healthy life expectancy.
- 2.5 Related statistics on life expectancy in Scottish Council areas split by deprivation quintile will be published by NRS in December 2020 alongside Healthy Life Expectancy. Once published these statistics will be analysed to identify the data zones in Inverclyde where the greatest inequalities in life expectancy and healthy life expectancy exist. A report detailing the findings of this analysis will thereafter be brought to this Committee.
- 2.6 In Inverclyde, life expectancy at birth for males is 74.87 years, this is 2.29 years below the Scottish average and the third lowest life expectancy in Scotland, with only Glasgow and Dundee males having a lower life expectancy at birth at 73.6 years and 73.92 years respectively.

- 2.7 Life expectancy at birth for females in Inverclyde is 79.01 years, this is 2.13 years below the Scottish average and the second lowest in Scotland, with only Glasgow females having a lower life expectancy at 78.6 years.
- 2.8 Whilst the majority of council areas have experienced a slow-down or a stall in life expectancy growth since 2012-2014, there are also areas in Scotland where life expectancy is decreasing. Inverclyde is one of seven councils in Scotland where there has been negative growth in both male and female life expectancy between 2012/14 and 2017/19. Over this period, Inverclyde had the largest rate of decline in female life expectancy and the third largest rate of decline in male life expectancy of all Scottish council areas.
- 2.9 Appendix 3 shows how life expectancy in Inverclyde for both males and females compares with that of Scotland over the period 1991-93 to 2017-19. The data shows that there has been a greater fluctuation in life expectancy for both males and females in Inverclyde than has occurred nationally. Despite female life expectancy in Inverclyde almost being on a par with the Scottish average at several points over the period, the gap between the two has widened again in recent years. The chart also shows that while there has been a significant improvement in male life expectancy over the period, the gap here is also beginning to widen.
- 2.10 The life expectancy statistics are derived from data on the number of deaths and death rates. Appendix 4 provides an overview of deaths by age group as a proportion of all deaths in Inverclyde and Scotland in 2019. The most notable difference is in the age range 60-69 years where the proportion of deaths in this group is higher in Inverclyde than in Scotland, whilst the proportion of deaths that are in the 70-79 age group is lower than in Scotland as a whole. A higher proportion of deaths at a younger age will contribute to Inverclyde's life expectancy rates being lower than the national average.
- 2.11 Appendix 5 shows a slight increase in the annual number of deaths in Inverclyde as a proportion of the population since 2011. The overall impact of this however is amplified due to a decreasing population. The Committee will be aware that the biggest driver of Inverclyde's population decline is negative natural change (more deaths than births). The combination of an increasing number of deaths proportionate to the size of the population; a falling birth rate and a decrease in life expectancy highlight the scale of the challenge in stemming Inverclyde's depopulation. It should also be noted that the data does not take into account the impact of the Covid-19 pandemic, which is expected to result in a decrease in life expectancy globally, with a disproportionate effect on those living in deprivation.
- 2.12 The Scottish Public Health Observatory (ScotPHO) has analysed recent mortality trends and found that a wide range of causes of death are responsible for the changes in life expectancy growth. As such, it is unlikely that any single factor provides a sufficient explanation for the changes e.g. the increase in mortality from dementia and Alzheimer's disease has been attributed to a number of factors, including: people living longer and surviving other illnesses; increased awareness of dementia and policies encouraging dementia diagnosis.
- 2.13 The slowdown in life expectancy nationally has affected both men and women, almost every age group and almost every cause of death. Previous life expectancy gains that were due to improvements in mortality from circulatory causes, which most benefited those aged 55-84 years, have more than halved since 2012-14. This is of particular relevance to Inverclyde as heart disease was the leading cause of death for males in 2018 and the third leading cause of death in females (dementia and Alzheimer's disease being the leading cause). Prior to 2012-14, reductions in circulatory deaths had been the principal means through which life expectancy had been improving.
- 2.14 A national increase in drug related deaths is of particular importance in explaining increasing mortality amongst those aged 35-54 years and the generational effect such that people who were young adults in the 1980s are at much higher risk now of such deaths. Drug related deaths within Inverclyde increased from 23 in 2017 to 24 in 2018 with the average age at death being 46. Whilst Inverclyde did not see the dramatic increase in drug deaths compared to other areas in 2018, it did have the third highest rate of drug deaths in Scotland.

- 2.15 ScotPHO also cite research that links austerity with negative health impacts, with a reduction in the real value of benefits since 2010 contributing to poorer health outcomes. A slower rate of improvement in mortality has also been found in those countries that implemented greater austerity measures.
- 2.16 These new statistics, which show a decrease in life expectancy at birth for males and females in Inverclyde, will potentially have a detrimental impact on the effectiveness of the Inverclyde Alliance's repopulation activity and as such, will require to be considered by the Inverclyde Alliance and the LOIP Population Partnership and any next steps agreed in line with the approved Repopulation Strategy and Action Plan.

3.0 RECOMMENDATIONS

3.1 It is recommended that the Committee:

- Notes the publication of the new NRS statistics on estimated life expectancy;
- Notes that a further report on life expectancy split by deprivation quintile and healthy life expectancy will be brought to this Committee following publication in December 2020;
- Agrees that this report be submitted for the consideration of the Inverclyde Alliance Board on 7 December 2020; and
- Remits it to the Population Partnership to consider and agree any additional actions arising from this new data.

Steven McNab

Head of Organisational Development, Policy and Communications

4.0 BACKGROUND

- 4.1 The National Records of Scotland (NRS) is the responsible agency of the Scottish Government that handles all matters relating to population and household statistics, including the Census and mid-year population estimates. On 24 September it published a report, 'Life Expectancy in Scotland 2017-19', detailing life expectancy estimates for Scotland and comparisons with estimates for the rest of the UK. It also includes life expectancy estimates for councils, health boards and other areas within Scotland.
- 4.2 The figures are calculated from the mid-year population estimates and the number of deaths registered in Scotland during 2017, 2018 and 2019. Life expectancy for Scotland is calculated for each year of age, and represents the average number of years that someone of that age could expect to live if death rates for each age group remained constant. A three year average is taken, produced by combining deaths and population data for the three year period. Three years of data is needed to provide a large enough sample size to make these figures accurate and also to lessen the effect of very 'good' or 'bad' years. The methodology for calculating life expectancy for areas within Scotland is very similar, although there are some differences.
- 4.3 Stemming and ultimately reversing population decline is a key priority for the Council and the Inverclyde Alliance. Previous reports on population have highlighted that negative natural change due to deaths out-numbering births is a major driver in population decline in Inverclyde, therefore improving healthy life expectancy is an important strand of the work focusing on stemming population decline.

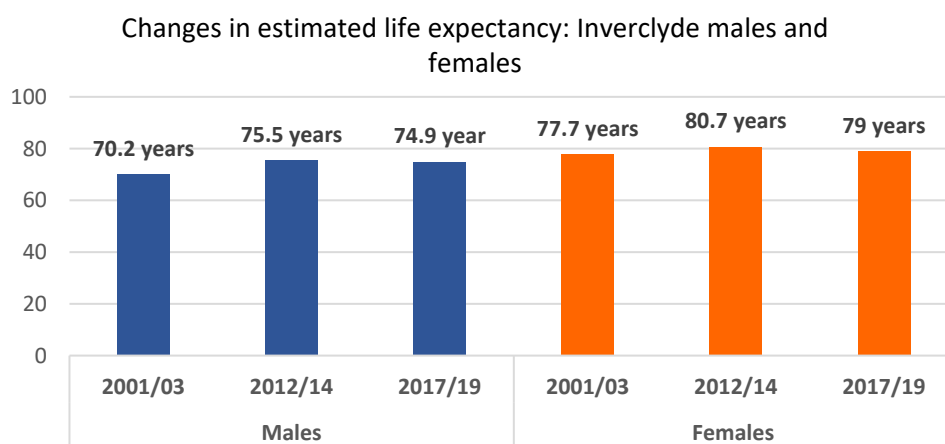
5.0 LIFE EXPECTANCY AT BIRTH IN SCOTLAND

- 5.1 Life expectancy at birth is a useful indicator of mortality conditions across a population at a particular point in time. Whilst life expectancy in Scotland increased from the early 1980s, it has remained virtually unchanged since 2012-2014, as shown in appendix 1. Looking ahead however, life expectancy is still projected to grow, increasing to 80.6 years for males and 83.8 years for females by 2043.
- 5.2 Scotland has the lowest life expectancy at birth in Western Europe and of all UK countries. In Scotland in 2017-2019, life expectancy at birth was 77.1 years for males and 81.1 years for females. This is a small increase of around 0.1 years for both males and females from the previously published figures (2016-2018). Average life expectancy in the UK was 79.4 years for males and 83.1 years for females.
- 5.3 Female life expectancy at birth was highest in East Renfrewshire (84.0 years) and lowest in Glasgow City (78.5 years). Male life expectancy at birth was highest in East Dunbartonshire (80.5 years) and lowest in Glasgow City (73.6 years). Appendix 2 shows how male and female life expectancy at birth compares across all Scottish council areas.
- 5.4 The majority of Scotland's council areas have experienced a slow-down or a stall in life expectancy growth since 2012-2014 and many areas, including Inverclyde, now have decreasing life expectancy according to the new statistics.
- 5.5 Poverty and deprivation continue to be highly detrimental to life expectancy. Life expectancy for females is 10 years more in the least deprived SIMD decile compared to the most deprived decile in Scotland (85.6 years compared to 75.6 years). For males, the difference increases to 13.3 years (82.8 years compared to 69.5 years).

6.0 LIFE EXPECTANCY AT BIRTH IN INVERCLYDE

- 6.1 Life expectancy at birth for males in Inverclyde is 74.87 years, this is 2.29 years below the Scottish average and the third lowest in Scotland, with only Glasgow and Dundee males having a lower life expectancy at 73.6 years and 73.92 years respectively.

- 6.2 Life expectancy at birth for females in Inverclyde is 79.01 years, this is 2.13 years below the Scottish average and the second lowest in Scotland, with only Glasgow females having a lower life expectancy at 78.6 years.
- 6.3 While the stall in life expectancy has occurred across the whole of Scotland, some council areas have experienced greater change than others. Inverclyde and Dundee City Councils are highlighted in the report as two areas where the rate of growth has fallen dramatically from before 2012-14 to after 2012-14
- 6.4 The chart below shows how the life expectancy of males and females in Inverclyde has changed over the period 2001/03, 2012/14 and 2017/19. Between 2012/14 and 2017/19 the rate of growth in life expectancy in Inverclyde became negative, with female life expectancy falling at a greater rate than male life expectancy. Overall, seven councils in Scotland experienced negative growth in both male and female life expectancy between 2012/14 and 2017/19, resulting in a decrease in life expectancy. Inverclyde had the largest rate of decline in female life expectancy (-18 weeks/year) and the third largest rate of decline in male life expectancy (-6.3 weeks/year) in Scotland over this period.



- 6.5 Appendix 3 shows how life expectancy in Inverclyde for both males and females compares with that of Scotland over the period 1991-93 to 2017-19. The data shows that there has been a greater fluctuation in life expectancy for both males and females in Inverclyde than has been the case nationally. Female life expectancy in Inverclyde has come close to the Scottish average at several points over the period, however the gap between female life expectancy in Inverclyde compared to Scotland appears in recent years to be widening again. The chart also shows that while there has been a significant improvement in male life expectancy over the period, the gap between Inverclyde and Scotland is also beginning to increase.
- 6.6 The life expectancy statistics are derived from data on the number of deaths and the death rate in an area. Appendix 4 provides an overview of deaths by age group as a proportion of all deaths in Inverclyde and Scotland in 2019. The most notable difference is in the age range 60-69 years where the proportion of deaths in this group is higher in Inverclyde than in Scotland, while the proportion of deaths that are in the 70-79 age group is lower than in Scotland as a whole. A higher proportion of deaths at a younger age will contribute to Inverclyde's life expectancy rates being lower than the national average.
- 6.7 Appendix 5 shows that there has been a slight increase in the annual number of deaths in Inverclyde as a proportion of the population since 2011. The overall impact of this however is amplified due to a decreasing population. The Committee will be aware that the biggest driver of population decline locally is negative natural change i.e. more deaths than births and that this is projected to continue. The combination of an increasing number of deaths proportionate to the size of the population; a falling birth rate and a decrease in life expectancy highlight the scale of the challenge in stemming Inverclyde's depopulation. It should also be noted that the data does

not take into account the impact of the Covid-19 pandemic on life expectancy, which is expected to result in a decrease in life expectancy globally, with a disproportionate effect on those affected by deprivation.

- 6.8 Related statistics on life expectancy in Scottish Council areas split by deprivation quintile will be published by NRS in December 2020 alongside Healthy Life Expectancy. Following publication, an analysis will be carried out to identify the data zones in Inverclyde where the greatest inequalities in life expectancy and healthy life expectancy exist. A report on this will thereafter be brought to this Committee.

7.0 MORTALITY TRENDS AND LIFE EXPECTANCY

- 7.1 The Scottish Public Health Observatory (ScotPHO) has analysed recent mortality trends and found that a wide range of causes of death are responsible for the changes in life expectancy growth. As such, it is unlikely that any single factor provides a sufficient explanation for the changes e.g. the increase in mortality from dementia and Alzheimer’s disease has been attributed to a number of factors, including: people living longer and surviving other illnesses; increased awareness of dementia and NHS policies encouraging dementia diagnosis.
- 7.2 The slowdown in life expectancy nationally has affected both men and women, almost every age group and almost every cause of death. Previous life expectancy gains that were due to improvements in mortality from circulatory causes, which most benefited those aged 55-84 years, have more than halved since 2012-14. This is of particular relevance to Inverclyde because heart disease was the leading cause of death for males in 2018 and the third leading cause of death in females (dementia and Alzheimer’s disease being the leading cause). Prior to 2012-14, reductions in circulatory deaths had been the principal means through which life expectancy had been improving.
- 7.3 The national increase in drug related deaths is of particular importance in explaining increasing mortality amongst those aged 35-54 years and the generational effect such that people who were young adults in the 1980s are at much higher risk now of such deaths. Drug related deaths within Inverclyde increased from 23 in 2017 to 24 in 2018 with the average age at death being 46. Whilst Inverclyde did not see the dramatic increase in drug deaths compared to other areas in 2018, the area had the third highest rate of drug death in Scotland. The data for 2019 is due in December 2020.
- 7.4 ScotPHO also cite research that links austerity with negative health impacts, with a reduction in the real value of benefits since 2010 contributing to poorer health outcomes. A slower rate of improvement in mortality has also been found in those countries that implemented greater austerity measures.
- 7.5 Earlier this year the Committee considered two NRS publications focusing on the Mid-year Population Estimates 2019 and Population Projections (2018 based). It was highlighted at that time that the biggest driver of population decline in Inverclyde in recent years has been negative natural change i.e. more deaths than births and that this is projected to continue. These latest statistics, which show a decrease in life expectancy at birth in Inverclyde, will potentially have a detrimental impact on the effectiveness of the Inverclyde Alliance’s repopulation activity and as such, will require to be considered by the Inverclyde Alliance and the LOIP Population Partnership.

8.0 IMPLICATIONS

- 8.1 Financial Implications - One off Costs

Cost Centre	Budget Heading	Budget Year	Proposed Spend this Report	Virement From	Other Comments
n/a					

Financial Implications - Annually Recurring Costs/ (Savings)

Cost Centre	Budget Heading	With Effect from	Annual Net Impact	Virement From (if applicable)	Other Comments
n/a					

8.2 Human Resources: none at present

8.3 Legal: none at present

8.4 Equalities

There are no direct equalities implications arising from this report,

(a) Has an Equality Impact Assessment been carried out?

	YES
X	NO – This report does not introduce a new policy, function or strategy or recommend a substantive change to an existing policy, function or strategy. Therefore, no Equality Impact Assessment is required

(b) Fairer Scotland Duty

If this report affects or proposes any major strategic decision:-

Has there been active consideration of how this report's recommendations reduce inequalities of outcome?

	YES – A written statement showing how this report's recommendations reduce inequalities of outcome caused by socio-economic disadvantage has been completed.
X	NO

(c) Data Protection

Has a Data Protection Impact Assessment been carried out?

	YES – This report involves data processing which may result in a high risk to the rights and freedoms of individuals.
X	NO

8.5 Repopulation

The new statistics show a reversal in the growth in life expectancy with the result that Inverclyde has experienced a decrease in life expectancy for both males and females over the period 2017-19. This is a cause for concern as previous reports on population have highlighted that negative natural change due to deaths out-numbering births is a major drive in population decline in Inverclyde, therefore increasing life expectancy is an important strand of the work focusing on stemming population decline.

9.0 CONSULTATION

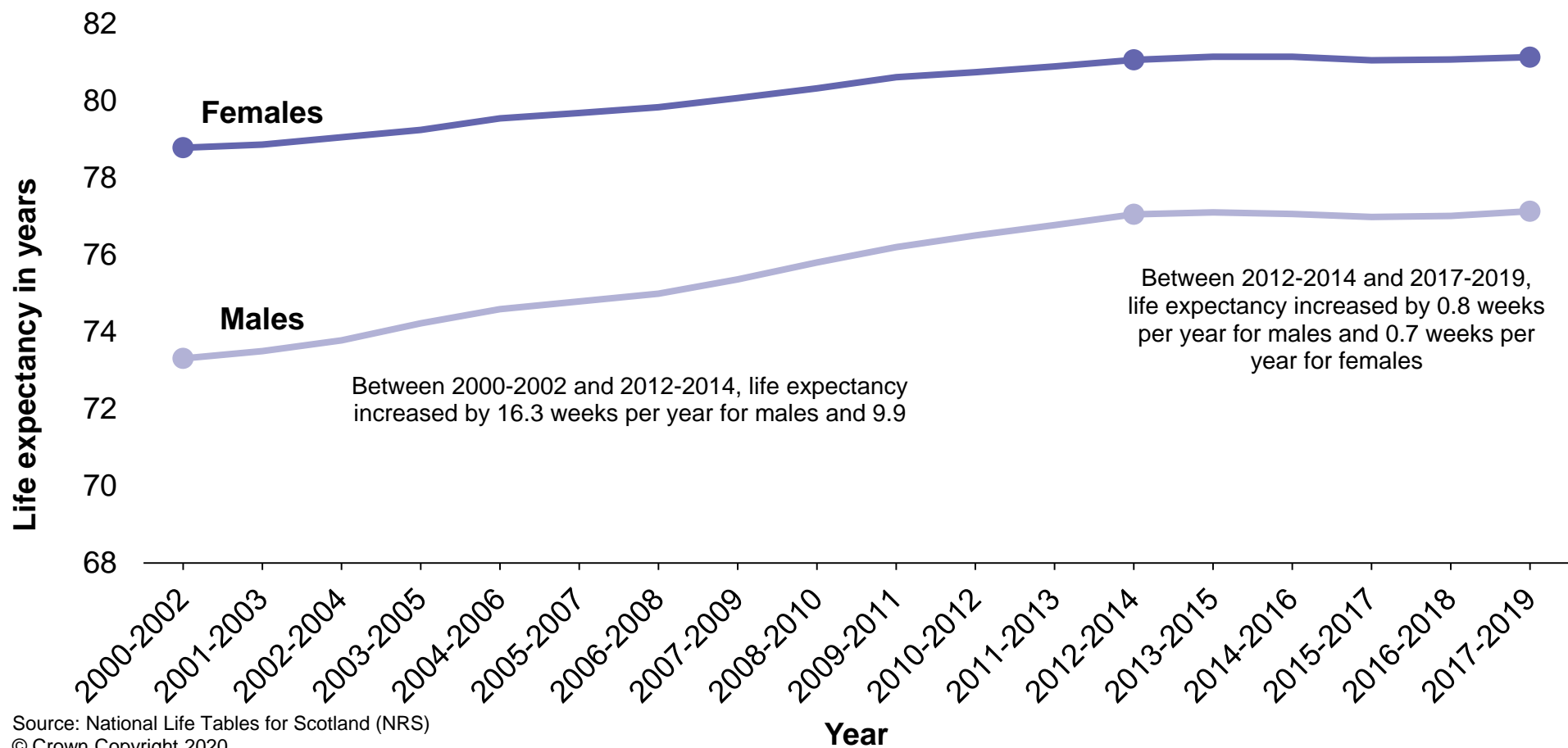
9.1 None

10.0 LIST OF BACKGROUND PAPERS

10.1 None

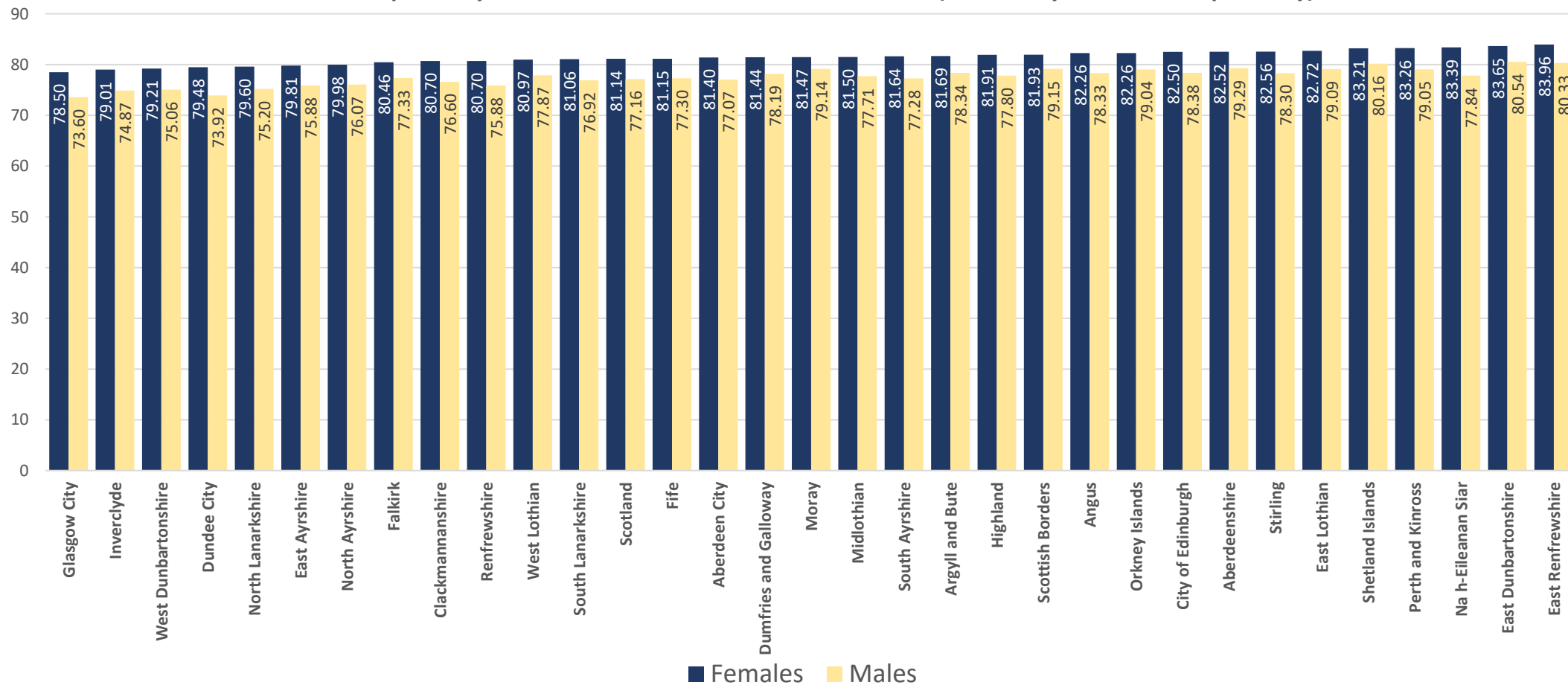
Appendix 1: The slowing rate of improvement to life expectancy in Scotland

The slowing rate of improvement to life expectancy in Scotland, 2000-2002 to 2017-2019



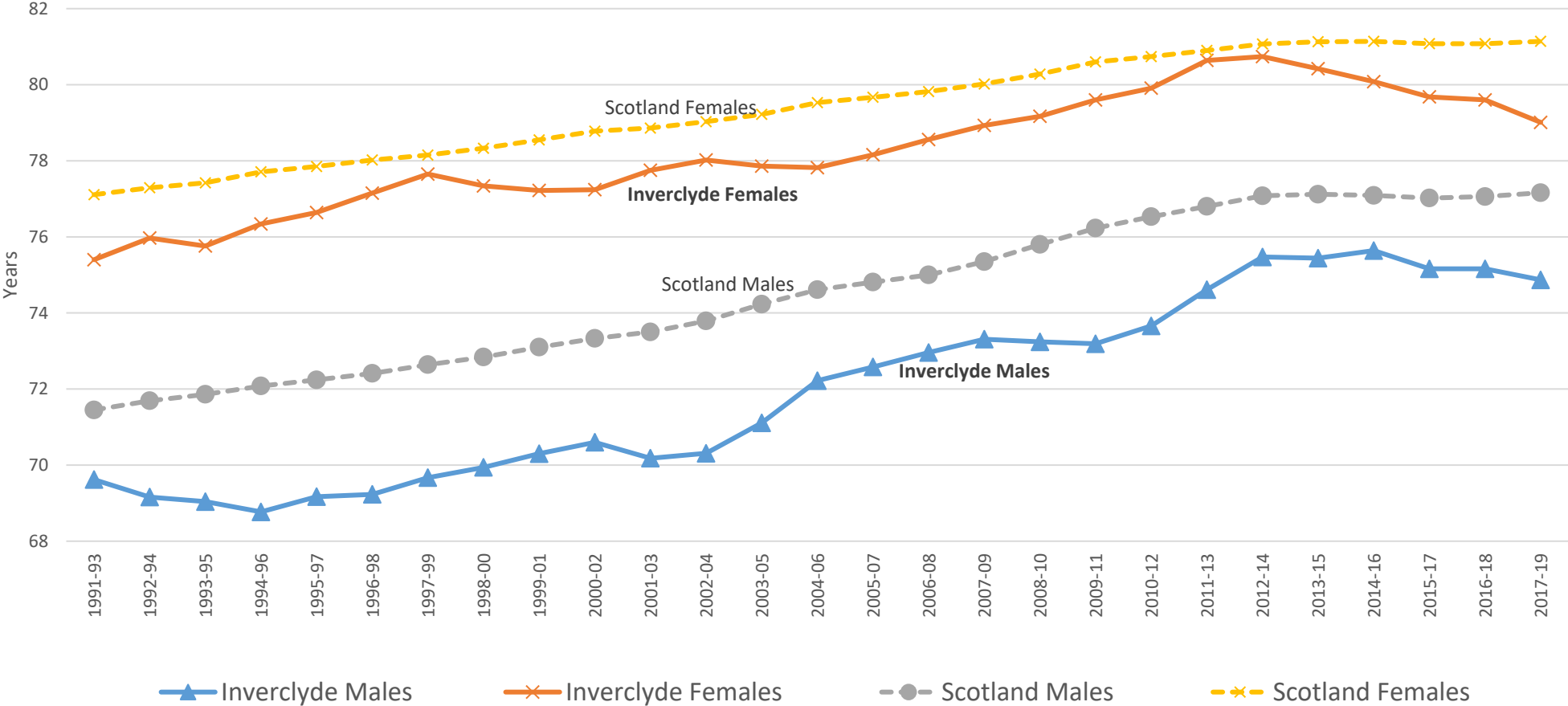
Appendix 2: Life expectancy at birth for males and females all council areas in Scotland

Life Expectancy at birth 2017-19 all Scottish council areas (ordered by female life expectancy)



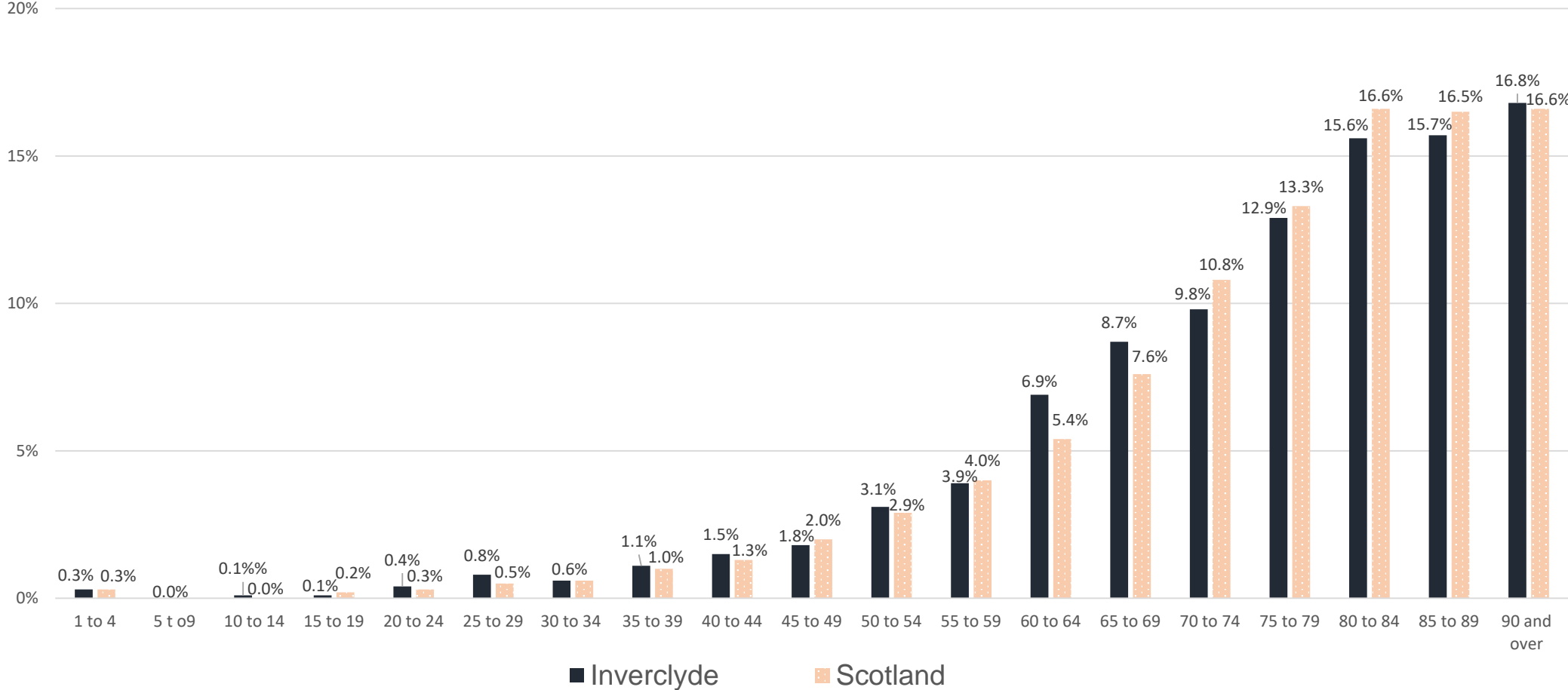
Appendix 3: Life Expectancy at birth 1991 onwards (Inverclyde and Scotland)

Life expectancy (males and females) Inverclyde and Scotland 1991 onwards



Appendix 4: Deaths by age group as a % of all deaths in Inverclyde and Scotland 2019

Deaths by age group as a % of all deaths in Inverclyde and Scotland, 2019



Appendix 5: Inverclyde mid-year population estimate and total number of deaths as a proportion of the population

