

## Life expectancy at birth by local authority in England and Wales, 1991 to 2001 (3 year aggregate figures)

### Figures presented

Figures on life expectancy at birth for males and females in each local authority in England and Wales are presented in the accompanying Excel workbook [LIFEEXP\\_LA1991\\_2001.xls](#) and PDF document [LIFEXP\\_LA1991\\_2001.pdf](#). The figures are for three year rolling averages from 1991-1993 to 1999-2001, produced by aggregating deaths and population for each of these three year periods, so as to provide large enough numbers to ensure that the figures presented are sufficiently robust. Two local authorities, City of London and Isles of Scilly, are excluded from the tables because of small numbers of deaths and populations in these areas. The areas are presented in alphabetic order and are based on boundaries that existed at 1<sup>st</sup> April 2001.

Additional worksheets are presented to show the relative position (rank order) within England and Wales of life expectancy of each authority, for males and females separately.

### Population denominators used in calculations

#### 1991-1993 to 1998-2000

Mid-year population estimates based on the 1991 Census were used to calculate life expectancy for the periods 1991-1993 to 1998-2000.

Figures on life expectancy at birth for local authorities, using these populations, have previously been published in [Health Statistics Quarterly](#) for the years 1995-1997, 1997-1999 and 1998-2000.<sup>1,2,3</sup>

Previously published figures for the last of these periods match those presented in this report, while, for some areas, those previously released for earlier periods will differ from those given in this report because of boundary changes.

#### 1999 to 2001

Newly released population estimates for 2001, based on the 2001 Census, were used to calculate life expectancy in 1999-2000. As this leads to a discontinuity with figures for earlier years, a second set of life expectancy figures are presented for this period. These are based on mid-year population estimates for 2000 and are comparable with the life expectancy results presented for earlier periods (1991-1993 to 1999-2000). This should enable users to assess the impact of the change in population denominators.

The tables for life expectancy at birth present both sets of results next to each other, with the difference between them, in years, and the percentage difference. The tables giving the rank order also show the difference in relative position for both sets of figures. For some areas there is a large difference in the life expectancy in years between results, without the rank order being affected.

ONS has previously published life expectancy results with the warning that year to year changes may reflect variability in small area mortality rates or growing numerator-denominator discrepancies over the inter-censal period. Comparisons between the two sets of results for 1999 to 2001 can be used to assess the likely degree to which the trend data has been affected by these discrepancies.

### Planned revisions to population estimates for years prior to 2001

Rebased population estimates for local authorities from 1991 to 2000 will be issued by ONS in February 2003. These will be used to revise life expectancy figures in England and Wales from 1991 onwards. The revised life expectancy figures will be published on the National Statistics website in Spring 2003.

## Scotland and Northern Ireland

Life expectancy at birth figures for 1998 to 2000 have been published for local and health authorities:

[http://www.statistics.gov.uk/downloads/theme\\_population/Life\\_Expect\\_Birth\\_1998-2000/Life\\_Expect\\_Birth\\_1998-2000.pdf](http://www.statistics.gov.uk/downloads/theme_population/Life_Expect_Birth_1998-2000/Life_Expect_Birth_1998-2000.pdf)

Life expectancy figures for sub-national areas in Scotland and Northern Ireland for 1999 to 2001 will be made available on the National Statistics website at a later date.

### Interpretation of life expectancy at birth

Life expectancy at birth for an area in each time period is an estimate of the average number of years a newborn baby would survive if he or she experienced the particular area's age-specific mortality rates for that time period throughout his or her life. The figure reflects mortality among those living in the area in each time period. It is not the number of years a baby born in the area in each time period could actually expect to live, both because the death rates of the area are likely to change in the future and because many of those born in the area will live elsewhere for at least some part of their lives.

Life expectancy at birth is also not a guide to the remaining expectancy of life at any given age. For example, if female life expectancy was 80 years for a particular area, life expectancy of women aged 75 years in that area would exceed 5 years. This reflects the fact that survival from a particular age depends only on the mortality rates beyond that age, whereas survival from birth is based on mortality rates at every age.

### Method of calculation

Abridged life tables were constructed using standard methods.<sup>4,5</sup> Separate tables were constructed for males and females. The tables were created using annual mid-year population estimates and deaths registered in each year. All figures presented here are for life expectancy at birth. A detailed description of the standard methods and notation associated with the calculation of life expectancy can be found on the Government Actuary's Department website - <http://www.gad.gov.uk>.

Life expectancies for the United Kingdom and its constituent countries are calculated annually by the Government Actuary's Department (GAD) using complete life tables. Because of the difference between complete (single year of age) and abridged (grouped years) life tables, the national figures presented here may differ very slightly from those published by GAD and reported in Table 5.1 of Health Statistics Quarterly.

### Further information

If you require additional information on the data presented here please contact:

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### References

- <sup>1</sup> Griffiths C and Fitzpatrick J (2001) Geographic inequalities in life expectancy in the United Kingdom, 1995-97. *Health Statistics Quarterly* 9, pp 16-27.
- <sup>2</sup> Office for National Statistics (2001) Life expectancy at birth by health and local authorities in the United Kingdom, 1997-99. *Health Statistics Quarterly* 11, pp 78-85.
- <sup>3</sup> Office for National Statistics (2002) Life expectancy at birth by health and local authorities in the United Kingdom, 1998 to 2000. *Health Statistics Quarterly* 13, pp 83-90.
- <sup>4</sup> Newell C (1994) *Methods and Models in Demography*. John Wiley & Sons: Chichester.
- <sup>5</sup> Shyrock HS and Siegel JS (1976) *The Methods and Materials of Demography* (abridged edition). Academic Press: New York.