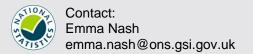Office for National Statistics

Statistical bulletin

Health Expectancies at Birth and at Age 65 in the United Kingdom: 2008 to 2010

The proportion of life spent in good health or free from a limiting illness or disability in the UK and its constituent countries.

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1. Main points

- In the UK, males and females can expect to spend more than 80 per cent of their lives in very good or good general health from birth, falling to around 57 per cent at age 65.

- Males and females in England can expect to spend the longest periods in very good or good general health and free from a limiting persistent illness or disability. The shortest periods are in Scotland and Northern Ireland.

- The proportion of life spent in very good or good general health is increasing in England and Wales but, on the whole, falling in Scotland and Northern Ireland.

- Males are spending a greater proportion of their lives in favourable health compared with females. However, in recent years this gap has narrowed as the health of females has improved more rapidly than for males.

2. Summary

Health Expectancies add a dimension of quality of life to estimates of Life Expectancy (LE), providing a summary population level indicator of lifetime spent in favourable and unfavourable health states. Such an indicator has use to inform policy, planning and research in both public and private sectors in areas such as health improvement monitoring, health care planning, population change and pensions.

This bulletin presents estimates for two types of Health Expectancy; Healthy Life Expectancy (HLE); life spent in very good or good general health and Disability-Free Life Expectancy (DFLE); life spent free from a limiting persistent illness and disability.

Figures are presented at birth and at age 65 for males and females in the United Kingdom (UK) and constituent countries in 2008–10 and this period is compared with 2005–07. A downloadable dataset containing figures for the UK and constituent countries by sex and five-year age band dating back to 2000-02 are available in the data section of the ONS website. This dataset is available in other formats upon request.

Video podcast summaries introducing national and sub-national health expectancies using audio commentary and graphical animations are available on the ONS website.

3. What are health expectancies?

As life expectancy continues to increase in the UK, it is important to ask whether these additional years of life are being spent in favourable health or in prolonged poor health and dependency. Health expectancies help us to address this question by adding a dimension of quality of life to estimates of life expectancy.

They are estimates of the average number of years a person would live in a given health state if he/she experienced the specified population's particular age-specific mortality and health status for that time period throughout the rest of his/her life.

The figures reflect the mortality and health status of the entire specified population in each time period rather than those born in each area. They are not, therefore, the number of years that a person will actually expect to live in the various health states. The death rates and health status rates of the specified population are likely to change in the future and some of those in the specified population may live elsewhere for part of their lives.

There are as many health expectancies as there are measures or concepts of health. The Office for National Statistics (ONS) routinely publishes two types of health expectancy estimates; HLE, defined as the number of years an individual can expect to spend in very good or good general health, and DFLE, defined as the number of years an individual can expect to spend free from a limiting persistent illness or disability.

These estimates are, in part, subjective and based upon the following survey questions.

For HLE, the question used to define very good or good general health is:

- 'How is your health in general? Is it…' – Very good, Good, Fair, Bad or Very bad?

For DFLE, the questions used to define the existence of a limiting persistent illness or disability are:

- 'Do you have any long-standing illness, disability or infirmity- by long-standing I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time?' (Yes/No)

- If 'Yes' the respondent is then asked: 'Does this illness or disability (Do any of these illnesses or disabilities) limit your activities in any way?' (Yes/No)

Only if a respondent answered 'Yes' to both of these questions were they classified as having a limiting persistent illness or disability.

The subjective nature of these measures means that they are influenced by the way individuals perceive their health. Self-reports of general health and limiting illness are influenced by an individual's expectations with clear differences observed across socio-demographic factors such as age, sex, socioeconomic position and area deprivation.

However, despite these differences in expectations, each measure correlates well with health service use and are strong predictors of life expectancy (Weinberger et al., 1986; Idler and Benyamini, 1997; Lee, 2000; DeSalvo et al, 2006; Pietilainen et al., 2011, WHO 2011; Bopp et al, 2012; Ng et al, 2012).

4. Uses

Health expectancies are important outcome measures that can be used to identify and monitor health inequality; for example, to support health needs assessment by identifying populations most in need of services and using this information to target and monitor health care resource allocation.

They are also useful guides in the assessment of healthy ageing, by providing intelligence on the size of the population likely to require services associated with dependency, and those able to continue to work beyond the current state pension age.

HLE and DFLE are important metrics supporting policy development in the Department of Health (DH), the Department for Work and Pensions (DWP) and the Department of the Environment, Food and Rural Affairs (DEFRA).

The Marmot Review (Marmot 2010) used DFLE to illustrate the substantial inequality in health that exists between small geographical areas in England. These inequalities have significant social and economic costs in terms of future revenue loss and potentially avoidable health and social care expenditure.

5. Comparisons

Changes in health expectancies over time are assessed by comparing non-overlapping time periods, for example estimates for 2008-10 can be compared with those from 2005-07 or earlier. For HLE, 2008-10 represents the first period in which a comparison can be made since this measure changed in 2005-07. Further information about this change is available (Smith and White, 2009).

Previously, estimates for Northern Ireland were derived from the Continuous Household Survey (CHS). In 2010, the Department of Health, Social Services and Public Safety Northern Ireland (DHSSPSNI) began an annual health survey, the Health Survey Northern Ireland (HSNI), and stopped publishing health related statistics using the CHS. For this reason ONS are adopting the HSNI to derive estimates for periods including 2010 onwards.

This will result in a slight decline in the prevalence of very good and good general health and a slight increase in the prevalence of limiting persistent illness or disability compared to what might be expected from the CHS.

This arises because self-reports of health status are to some extent lower in health surveys compared to general household surveys (Smith and White, 2009). The full impact of this change in survey source will be apparent in the period 2010-12 when health data for Northern Ireland for all years in the period will be derived from the HSNI.

Significant differences over time and/or across countries/genders are assigned on the basis of non-overlapping 95 per cent confidence intervals (CI). These figures represent the accuracy of each estimate by providing a range in which the true value is likely to lie.

6. Main findings

As life expectancy continues to increase in the UK, it is important to understand whether our increasing longevity is accompanied by longer periods in favourable health states indicating a compression of morbidity or longer periods in unfavourable health states indicating an expansion of morbidity.

This question has important implications for future healthcare resource need, fitness for work in the face of planned state pension age increases, and the relative impacts of population health on the balance between revenues and benefits.

The figures presented in this bulletin suggest different scenarios for the constituent countries of the UK. In England and in Wales, the period 2005-07 to 2008-10 broadly reflected a period of compression of morbidity, with people spending longer periods of their longer lives in very good or good health and free from a limiting persistent illness or disability.

For Scotland and Northern Ireland however, the picture was generally one of expanding morbidity between 2005-07 and 2008-10, particularly for males.

These findings indicate that Scotland and Northern Ireland may face proportionally greater future demands on health services than England and Wales due to the well established link between self-rated health and subsequent mortality and health service use (Weinberger et al., 1986, Idler and Benyamini, 1997; Lee, 2000; DeSalvo et al, 2006; Pietilainen et al., 2011; WHO 2011; Bopp et al, 2012; Ng et al, 2012).

Results also show that females have higher LE and HLE/DFLE than males: this inequality can be explained by a number of factors, for example higher rates of obesity, alcohol consumption and smoking amongst men (UKHS 2010) are all statistically associated with increased risk of mortality and morbidity.

There may also be genetic factors contributing, for example research suggests that mutations in mitochondrial DNA may contribute towards ageing effects in males but not females (Camus et al., 2012).

LE for males has increased at a slightly higher rate than for females in recent years causing an overall narrowing of the gender gap. In part this may be due to changes in lifestyle, such as more rapid declines in rates of alcohol consumption and smoking among males compared with females (General lifestyle survey 2010).

There may also be reductions in the health risks associated with occupations traditionally undertaken by males such as the coal and steel industries (Coggan, D et al.,2009). The reduced gender inequality in LE however, has not been accompanied by a similar narrowing of the gap in HLE and DFLE. It is possible that this apparent contradiction is due to differences in the way that males and females rate their physical and mental health, particularly at different ages (Spiers et al., 2003, Singh-Manoux et al., 2008, Nishi et al., 2012).

Further research looking at the relationship between self-reported health and more objective measures of morbidity and mortality may shed further light on the complex relationship between gender and health.

These findings also reflect differences in the UK labour market, where the percentage of older workers is greater in England and Wales than in Scotland and Northern Ireland (Older workers in the labour market, ONS 2012).

The relationship between health and employment is complex; poor health reduces the pool of the available workforce and unemployment in and of itself, particularly over a prolonged period of time, can lead to poor health (Riva and Curtis 2012). Regional and country differences in the types of work available also influence the ability to work at older ages.

Measuring National Well-being

The Measuring National Well-being Programme was launched in November 2010 with the aim of providing a trusted set of National Statistics to measure the well-being of the UK. During the national debate which followed the launch, respondents rated health as very important to their individual well-being. Consequently, 'Health' is included as one indicator domain in the set of measures used to assess national well-being.

HLE is currently used as a headline measure in the 'Health' domain because of its summary components of both mortality and health status within the population. In the recent Measuring National Well-being: Health publication, subjective well-being was shown to be related to measures of self-reported general health and limiting persistent illness.

For example, those with self-reported bad or very bad health were about three times more likely to report a low or very low level of satisfaction with their lives overall than those with self-reported very good or good general health.

7. Results

Healthy life expectancy at birth

In 2008-10, HLE for males at birth in the UK was 63.5 years, equivalent to more than 81 per cent of total LE (78.1 years) spent in very good or good general health. For UK females, HLE at birth was more than two years higher at 65.7 years, equivalent to 80 per cent of total LE (82.1 years), (Table 1).

Table 1: Life expectancy (LE) and healthy life expectancy (HLE)[1] at birth: by country and sex, 2008–10

United Kingdom

Years

	LE	HLE[1]	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	HLE[1] as a proportion of LE (%)

Males

United Kingdom	78.0 63.5	63.1	64.0	81.4
Great Britain	78.1 63.9	63.3	64.4	81.8
England	78.4 64.4	63.7	65.0	82.1
Wales	77.5 63.0	60.5	65.5	81.3
Scotland[2]	75.8 59.8	58.0	61.6	79.0
Northern Ireland[2]	77.0 59.2	58.4	60.0	76.9

Females

United Kingdom	82.1 65.7	65.3	66.2	80.0
Great Britain	82.1 66.1	65.5	66.7	80.4
England	82.4 66.4	65.7	67.0	80.6
Wales[2]	81.7 63.0	60.3	65.7	77.1
Scotland	80.3 64.1	62.2	65.9	79.7
Northern Ireland[2]	81.4 61.9	61.2	62.6	76.0

Source: Office for National Statistics

Notes:

1. HLE based on a general health question with five response categories. Replaced the 3-category response general health question in 2006–08.

2. HLE significantly different from England at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

Across the UK, HLE at birth for males was 5.2 years higher in England (64.4 years) than in Northern Ireland (59.2 years). For females, the difference between England (66.4 years) and Northern Ireland (61.9 years) was slightly less at 4.5 years.

On the whole, females have longer LE and HLE than males. However, males tend to spend a greater proportion of their lives in very good or good general health because the gap between LE and HLE is narrower compared with females.

The greatest gender gap in HLE was in Scotland where more than 4 years separates males and females. Unlike any other UK constituent country, the proportion of life spent in very good or good general health in Scotland was actually higher for females (79.7 per cent) than for males (79.0 per cent). Another notable result in 2008-10 was that HLE in Wales was identical for males and females at 63.0 years.

Healthy life expectancy at age 65

Males at age 65 in the UK could expect to live for a further 10.1 years in very good or good general health; equivalent to 56.8 per cent of their remaining lives. By contrast females in the UK at age 65 could expect to live for a further 11.6 years in very good or good general health; also equivalent to 56.8 per cent of their remaining lives (Table 2).

Table 2: Life expectancy (LE) and healthy life expectancy (HLE)1 at age 65: by country and sex, 2008-10

United Kingdom

	Years			
	LE HLE[1]	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	HLE[1] as a proportion of LE (%)
Males				
United Kingdom	17.8 10.1	9.8	10.4	56.8
Great Britain	17.9 10.2	9.8	10.6	56.9
England	18.0 10.3	9.9	10.8	57.4
Wales	17.5 10.3	8.5	12.0	58.7
Scotland[2]	16.6 8.6	7.4	9.8	51.9
Northern Ireland	17.3 9.5	9.0	10.0	55.1
Females				
United Kingdom	20.4 11.6	11.3	11.9	56.8
Great Britain	20.5 11.7	11.2	12.1	56.9
England	20.6 11.8	11.4	12.3	57.4
Wales	20.2 10.0	8.2	11.9	49.7
Scotland	19.2 10.8	9.4	12.1	56.0
Northern Ireland[2]	20.1 10.8	10.3	11.3	53.7

Source: Office for National Statistics

Notes:

1. HLE based on a general health question with five response categories. Replaced the 3-category response general health question in 2006–08.

2. HLE significantly different from England at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

For males, HLE at age 65, was significantly higher in England (10.3 years; 57.4 per cent of LE) than in Scotland (8.6 years; 51.9 per cent of LE). For females, HLE at age 65 was significantly higher in England (11.8 years; 57.4 per cent of LE) than in Northern Ireland (10.8 years; 53.7 per cent of LE).

At age 65, as at birth, females in Scotland could expect to spend a greater proportion of their lives in very good or good general health (56.0 per cent) than males (51.9 per cent).

Disability-free life expectancy at birth

DFLE at birth for males in the UK was 63.9 years (81.9 per cent of LE) in 2008-10. For females, DFLE was more than a year longer at 65.0 years (79.2 per cent of LE), (Table 3).

Table 3: Life expectancy (LE) and disability-free life expectancy (DFLE) at birth: by country and sex, 2008–10

United Kingdom

	Years			
	LE DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	DFLE as a proportion of LE (%)

Males

	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	DFLE as a proportion of LE (%)
United Kingdom	78.1	63.9	63.5	64.3	81.9
Great Britain	78.1	64.3	63.7	64.8	82.3
England	78.4	64.8	64.2	65.5	82.7
Wales	77.5	63.6	61.2	66.1	82.1
Scotland[1]	75.8	59.3	57.4	61.2	78.3
Northern Ireland[1]	77.0	60.2	59.5	60.8	78.2
Females					
United Kingdom	82.1	65.0	64.6	65.5	79.2
Great Britain	82.1	65.4	64.8	66.0	79.6
England	82.4	65.5	64.8	66.1	79.5
Wales	81.7	64.2	61.3	67.0	78.6
Scotland	80.3	64.5	62.6	66.4	80.3
Northern Ireland[1]	81.4	61.3	60.7	62.0	75.3

Source: Office for National Statistics

Notes:

1. DFLE significantly different from England at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

Estimates of DFLE for males were significantly higher in England (64.8 years) than in Scotland (59.3 years) and Northern Ireland (60.2 years). For females, DFLE was significantly higher in England (65.5 years) than in Northern Ireland (61.3 years).

As with HLE, the greatest gender gap in DFLE was in Scotland with more than 5 years separating males and females. Again, the proportion of life spent in this favourable health state in Scotland was higher for females (80.3 per cent) than for males (78.3 per cent). In addition, the proportion of life spent free from a limiting persistent illness or disability was higher for females in Scotland than for females in any other UK country.

Disability-free life expectancy at age 65

In 2008-10, males at age 65 in the UK could expect to live 10.4 years free from a limiting chronic illness or disability; equivalent to 58.3 per cent of their remaining lives. For females, DFLE at age 65 was 11.2 years; equivalent to 54.6 per cent of their remaining lives free from a limiting persistent illness or disability (Table 4).

Table 4: Life expectancy (LE) and disability-free life expectancy (DFLE) at age 65: by country and sex, 2008–10

United Kingdom

Years

	LE	DFLE	Lower 95 per cent confidence interval	Upper 95 per cent confidence interval	DFLE as a proportion of LE (%)
Males					
United Kingdom	17.8	10.4	10.1	10.7	58.3

Great Britain	17.9	10.5	10.1	10.9	58.8
England	18.0	10.7	10.2	11.1	59.3
Wales	17.5	10.3	8.6	12.0	58.9
Scotland[1]	16.6	9.0	7.8	10.2	54.2
Northern Ireland[1]	17.3	9.2	8.8	9.7	53.3
Females					
United Kingdom	20.4	11.2	10.8	11.5	54.6
Great Britain	20.5	11.3	10.9	11.7	55.3
England	20.6	11.3	10.9	11.8	54.8
Wales	20.2	11.3	9.2	13.3	56.0
Scotland	19.2	11.1	9.8	12.3	57.7
Northern Ireland[1]	20.1	9.4	9.0	9.9	46.9

Source: Office for National Statistics

Notes:

1. DFLE significantly different from England at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

For males at age 65, DFLE was significantly higher in England (10.7 years, 59.3 per cent of remaining life) than in Scotland (9.0 years, 54.2 per cent of remaining life) and Northern Ireland (9.2 years, 53.3 per cent of remaining life). For females at age 65 DFLE was significantly higher in England (11.3 years, 54.8 per cent of remaining life) than in Northern Ireland (9.4 years, 46.9 per cent of remaining life).

Trends in HLE, 2005-07 to 2008-10

2008-10 represents the first period for which there are non-overlapping data for HLE as measured according to the EU harmonised general health question, introduced in 2005.

The period 2005-07 to 2008-10 saw significant increases of between 2.1 and 3.5 years in HLE for males and females at birth in the UK, Great Britain and England. This measure also increased by 3.8 years for males and 0.7 years for females in Wales and by one year for females in Scotland. By contrast HLE for males in Northern Ireland fell by 1.5 years, a significant decline over the period.

HLE also fell for females in Northern Ireland (0.6 years) and for males in Scotland (1.4 years). These changes took place against a backdrop of relatively modest increases in LE of up to one year across the UK. Because increases in LE were lower than HLE in those countries that saw an increase in this measure, the proportion of life spent in very good or good health increased, which suggests health improvement.

Males and females in England and Wales and females in Scotland could therefore expect to spend longer periods of their longer lives in very good or good health in 2008-10 compared to 2005-07 (Table 5).

Table 5: Life expectancy (LE) and healthy life expectancy (HLE)1 at birth: by country and sex, 2005–07 to 2008–10

United Kingdom

Years

	2005-07			2008-10		
	LE	HLE[1]	HLE[1] as a proportion of LE (%)	LE	HLE[1]	HLE[1] as a proportion of LE (%)
Males						
United Kingdom[2]	77.2	61.4	79.6	78.0	63.5	81.4
Great Britain[2]	77.2	61.5	79.6	78.1	63.9	81.8
England[2]	77.5	61.6	79.5	78.4	64.4	82.1
Wales	76.7	59.2	77.2	77.5	63.0	81.3
Scotland	74.8	61.2	81.9	75.8	59.8	79.0
Northern Ireland[2]	76.2	60.7	79.7	77.0	59.2	76.9
Females						
United Kingdom[2]	81.5	62.9	77.2	82.1	65.7	80.0
Great Britain[2]	81.5	62.9	77.2	82.1	66.1	80.4
England[2]	81.7	62.9	77.0	82.4	66.4	80.6
Wales	81.1	62.3	76.9	81.7	63.0	77.1
Scotland	79.7	63.1	79.1	80.3	64.1	79.7
Northern Ireland	81.2	62.5	76.9	81.4	61.9	76.0

Source: Office for National Statistics

Notes:

1. HLE based on a general health question with five response categories. Replaced the 3-category response general health question in 2006–08.

2. Significant difference in HLE between 2005-07 and 2008-10 at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

With the exception of Wales, HLE either increased more or declined less severely for females than for males between 2005-07 and 2008-10. The reverse was true for LE where increases were greater for males than for females.

This means that, in recent years, although the gap in LE between males and females has narrowed, the gender inequality in HLE, which has historically favoured females, has actually widened over much of the UK.

At age 65 increases in HLE were less than increases in LE for males across the UK and for females in constituent countries other than England. HLE fell for males and females in Scotland and for females in Northern Ireland between 2005-07 and 2008-10.

In terms of the proportion of life spent in very good or good health, the trend for Scotland was particularly striking with a decline of more than 4 percentage points for females and more than 10 percentage points for males.

Table 6: Life expectancy (LE) and healthy life expectancy (HLE)1 at age 65: by country and sex, 2005–07 to 2008–10

United Kingdom

						Years
	2005-07			2008-10		
	LE	HLE[1]	HLE[1] as a proportion of LE (%)	LE	HLE[1]	HLE[1] as a proportion of LE (%)
Males						

	2005-07			2008-10		
	LE	HLE	HLE as a proportion of LE (%)	LE	HLE	HLE as a proportion of LE (%)
United Kingdom	17.2	9.9	57.5	17.8	10.1	56.8
Great Britain	17.2	9.9	57.5	17.9	10.2	56.9
England	17.3	9.9	57.1	18.0	10.3	57.4
Wales	16.9	9.8	57.9	17.5	10.3	58.7
Scotland	16.0	9.9	62.2	16.6	8.6	51.9
Northern Ireland	16.8	9.6	57.1	17.3	9.5	55.1
Females						
United Kingdom[2]	19.9	10.9	55.0	20.4	11.6	56.8
Great Britain	19.9	11.0	55.1	20.5	11.7	56.9
England[2]	20.1	11.0	54.8	20.6	11.8	57.4
Wales	19.6	9.9	50.6	20.1	10.0	49.7
Scotland	18.7	11.3	60.2	19.2	10.8	56.0
Northern Ireland	19.7	10.7	54.4	20.1	10.8	53.7

Source: Office for National Statistics

Notes:

1. HLE based on a general health question with five response categories. Replaced the 3-category response general health question in 2006–08.

2. Significant difference in HLE between 2005-07 and 2008-10 at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

HLE at age 65 increased significantly for females in the UK and England between 2005-07 and 2008-10. In England HLE increased by 0.8 years; from 11.0 to 11.8 years. Taking into account LE, the proportion of remaining life spent in very good or good general health also increased for females in England from 54.8 to 57.4 per cent.

Trends in DFLE, 2005-07 to 2008-10

Table 7: Life expectancy (LE) and disability-free life expectancy (DFLE) at birth: by country and sex, 2005–07 to 2008–10

United Kingdom

Years

	2005-07			2008-10		
	LE	DFLE	DFLE as a proportion of LE (%)	LE	DFLE	DFLE as a proportion of LE (%)
Males						
United Kingdom[1]	77.2	62.5	81.0	78.0	63.9	81.9
Great Britain[1]	77.2	62.6	81.1	78.1	64.3	82.3
England[1]	77.5	62.9	81.2	78.4	64.8	82.7
Wales	76.7	59.3	77.3	77.5	63.6	82.1
Scotland	74.8	61.7	82.5	75.8	59.3	78.3
Northern Ireland	76.2	60.1	79.0	77.0	60.2	78.2
Females						
United Kingdom[1]	81.5	63.7	78.2	82.1	65.0	79.2

Great Britain[1]	81.5	63.8		78.4	82.1	65.4	79.6
England[1]	81.7	64.0		78.3	82.4	65.5	79.5
Wales	81.1	63.1		77.8	81.7	64.2	78.6
Scotland	79.7	63.2		79.2	80.3	64.5	80.3
Northern Ireland	81.2	61.1		75.3	81.4	61.3	75.4

Source: Office for National Statistics

Notes:

1. Significant difference in DFLE between 2005-07 and 2008-10 at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

Table 8: Life expectancy (LE) and disability-free life expectancy (DFLE) at age 65: by country and sex, 2005–07 to 2008–10

United Kingdom

Years

	2005-07			2008-10		
	LE	DFLE	DFLE as a proportion of LE (%)	LE	DFLE	DFLE as a proportion of LE (%)
Males						
United Kingdom	17.2	10.0	58.1	17.8	10.4	58.3
Great Britain	17.2	10.0	58.4	17.9	10.5	58.7
England	17.3	10.2	58.9	18.0	10.7	59.3
Wales	16.9	8.7	51.5	17.5	10.3	58.9
Scotland	16.0	9.4	58.7	16.6	9.0	54.0
Northern Ireland	16.8	8.9	52.9	17.3	9.2	53.5
Females						
United Kingdom[1]	19.9	10.5	53.0	20.4	11.2	54.6
Great Britain	19.9	10.6	53.4	20.5	11.3	55.1
England	20.1	10.7	53.3	20.6	11.3	54.9
Wales	19.6	9.9	50.5	20.1	11.3	56.0
Scotland	18.7	10.6	56.6	19.2	11.1	57.7
Northern Ireland	19.7	9.1	46.1	20.1	9.4	47.0

Source: Office for National Statistics

Notes:

1. Significant difference in DFLE between 2005-07 and 2008-10 at the 95% level. Significant differences are assigned on the basis of non-overlapping 95% confidence intervals at the second decimal place.

Results on the Office for National Statistics website

National health expectancies for Great Britain and England since 1980-82 and for the UK and constituent countries since 2000-02 are available on the ONS website. Reference tables for 2000-02 and onwards, including the data in this bulletin, now include pivot tables with data for all ages, in five year age bands from 0 to 4 years of age up-to 85 years of age and above.

Also included is a template spreadsheet with instructions on how to calculate HLE and DFLE. Data reference tables for Great Britain and England between 1980-82 and 2000-2002 provide data only for those at birth and at age 65.

Analyses of health expectancies at sub-national level, including small geographical areas, Registrar General's Social Classification and clusters of deprivation, based on Census 2001 data are also available on the ONS website. ONS has recently started publishing annual, intercensal analyses of DFLE by English region and local authority district and by clusters of area deprivation.

Data reference tables are provided free of charge as Excel workbooks. Alternative data formats, such as .CSV files are available on request to hle@ons.gov.uk.

In addition, ONS has published a template spreadsheet to create HLE that enables users to apply the method, for example, to particular local areas.

8. Methods

Calculation

ONS produces two measures of health expectancy: healthy life expectancy (HLE), defined as expected years of life in very good or good general health; and disability-free life expectancy (DFLE), defined as expected years of life free from a limiting persistent illness or disability.

UK health expectancies are calculated using the Sullivan method incorporating national period life expectancies (Jagger, 1999). Briefly, the prevalence rates of self-reported good/not good general health or with/without a limiting persistent illness or disability by country, sex and five-year age band are calculated from the cross-sectional sample of the General Lifestyle Survey (GLF) and the Northern Ireland Continuous Household Survey (CHS) for 2008-09 data and the Health Survey Northern Ireland (HSNI) for 2010 data, aggregated over three years.

These data are combined with mortality data from interim life tables, national mid-year population estimates and an estimate of the health status of residents of medical and care communal establishments based on Census 2001 data. All figures are based on three-year rolling datasets to ensure sufficiently large sample sizes for country comparisons.

Figures are published along with 95 per cent CI to allow the user to identify significant differences between populations. Statistical significance is assigned on the basis of non-overlapping CI.

Further information regarding the methodology used to calculate UK health expectancies are available on the ONS website.

9. Comparability

Health expectancies are indicators of health status that take into account differences in the age structures of populations. Results are comparable by age, sex and between specified populations. Estimates of DFLE for Great Britain and England since 1981 and for the UK since 2000-02 are broadly comparable.

Estimates of HLE for Great Britain and England between 1981 and 2005-07 and for the UK between 2000-02 and 2005-07 are also broadly comparable. From 2005-07 HLE was calculated using a European Union (EU) harmonised general health question to improve comparability across EU member states.

This is the first year that non-overlapping time periods (2005-07 and 2008-10) exist to compare estimates of HLE calculated using this new method. Estimates of HLE from 2005-07 onwards are not comparable with earlier figures. A time series of synthetic HLE estimates for the UK between 2000-02 and 2004-06 based on the EU harmonised general health question is included in the results on the ONS website.

Health expectancies for Wales and Scotland are also produced by the public health observatories in Wales and Scotland. Although similar, these data are not directly comparable with ONS figures due to differences in survey source and exclusion of the communal establishment population.

Health expectancies for Wales based on the Welsh Health Survey can be found on the Public Health Wales Observatory website, accessed 21 August 2012.

Health expectancies for Scotland can be found on the Scottish Public Health Observatory website, accessed 21 August 2012.

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11. Background notes

1. Since 2006-08 estimates of HLE are exclusively based on the general health question used in the Minimum European Health Module of the European Union Statistics on Income and Living Conditions (EU-SILC).

2. From 2004-06, the cross-sectional survey sample for Great Britain was reduced compared to previous reporting periods due to a change in survey design. From thereon the precision of estimates for Great Britain, England, Wales and Scotland was reduced, making it more difficult to detect significant differences between countries over time. The reduced sample may also have implications for the accuracy of these estimates; however, their broad agreement with historical estimates suggests accuracy has not been adversely affected by reduced available sample. Figures for Northern Ireland remain unaffected.

3. Because the GLF, CHS and the HSNI do not include residents of communal establishments, such as nursing homes, the prevalence of health states in this population is based on data from the 2001 census. The proportion of the population in communal establishments is adjusted to match current aggregated mid-year population estimates. It should also be noted that estimates of good general health for the communal establishment population remain based upon the original 3-point general health question. This is unlikely to have an undue influence on estimates of HLE for two reasons; partly because this population is proportionately very small at younger ages whose health states are predominately favourable, and partly because the larger elderly population resident in communal establishments generally report unfavourable health states. The communal establishment data will be updated with prevalence rates calculated from the 2011 Census based upon the EU general health question as soon as this data becomes available.

4. From 2008, the GLF began to include proxy responses for adults; this subset of the survey population represents less than 10 per cent of the total sample for Great Britain and is included in these analyses.

5. A Quality Methodology Information (165.5 Kb Pdf) report for ONS health expectancies is available.

   Quality Methodology Information reports are overview notes which pull together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output.

6. The UK Statistics Authority has assessed ONS health expectancy outputs against the Code of Practice for Official Statistics. The report is number 236.

7. These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.

8. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk.