

Article

2011 Census analysis: Disability-free Life Expectancy at Birth and at Ages 50 and 65 by Clinical Commissioning Groups, England

Using 2011 Census data, this analysis is the first to calculate disability-free life expectancy (DFLE) by the newly established NHS clinical commissioning groups (CCGs). DFLE indicates the number of years an individual might expect to spend free from a limiting disability or health problem in his or her lifetime. Results show that females and those living in the north of England spend more of their life with a disability, compared with males and those living in the south of England.



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1. Key points

- Females spend more of their life with a disability compared with males, showing gender inequality in disability-free life expectancy (DFLE) across England.
- Generally people living in Clinical Commissioning Groups (CCGs) in the North of England live more years with a disability compared to those in CCGs in the South.
- Differences in DFLE are not solely confined to the North-South divide; males and females living in NHS Tower Hamlets at age 50 have a lower DFLE (an 8.1 and 9.2 difference in years, respectively) than those nearby in NHS Richmond.
- The CCG with the largest difference between males and females in the proportion of life spent disability free is NHS Bradford City; 6.4 percentage points at birth, and 9.6 at age 50.
- At age 65 London based CCGs NHS Brent and NHS Harrow have the largest difference between males and females in the proportion of life spent disability free (8.7 percentage points).

2. Summary

Disability-free life expectancy (DFLE) estimates provide an insight into the population's functional health by indicating the number of years an individual might expect to spend free from a limiting disability or health problem in his or her lifetime. Using 2011 Census data, this analysis is the first to calculate DFLE by the newly established NHS Clinical Commissioning Groups. DFLE estimates are useful for those who plan and provide health and social care, nationally as well as locally.

3. Background

What is disability-free life expectancy?

As life expectancy (LE) increases across the UK ([ONS, 2013a](#)) it is important to monitor the quality of life of the nation by estimating whether the extra years lived are spent in favourable or unfavourable health states. Disability-free life expectancy (DFLE) is one of two¹ health expectancy estimates published by the Office for National Statistics (ONS). These estimates provide insights into the population's functional health by indicating the number of years an individual might expect to spend free from a persistent limiting disability or health problem in his or her lifetime.

This analysis uses question 23 (see Box 1) from the [2011 Census](#) to measure disability; where respondents indicated whether their day-to-day activities were limited by a disability or health problem. In this reported analysis, individuals who responded that their daily activities were 'limited a little' or 'limited a lot' were grouped as those in the population who have a disability².

DFLE figures are not to be interpreted as the numbers of years that a person will actually live free from a disability when they live in a certain area. This is because the population, mortality rates and disability rates (all used to calculate DFLE) fluctuate from year to year and some people will migrate between areas during their lives.

This analysis uses data³ for the time period 2010-12; therefore the DFLE figures should be interpreted as the number of years the average person at a given age in a specific population might expect to live free from a disability, assuming that the mortality and disability rates are the same as in 2010-12 for their remaining life time.

Box 1: Day-to-day activity limitation question included in the 2011 Census questionnaire

- 23** Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months?
- Include problems related to old age
- Yes, limited a lot
- Yes, limited a little
- No

DFLE provides a snapshot of the health status of the population in 2010-12 and is a useful summary measure in the planning and provision of health and social care, as well as for pensions. Informed decisions are important especially in the context of the UK's ageing population, as the prevalence of health problems and disability increases with age ([OECD, 2013](#); [WHO, 2011](#)).

What are Clinical Commissioning Groups?

This analysis will be the first to estimate DFLE by the Clinical Commissioning Groups (CCGs) in England. From April 2013, the [Health and Social Care Act 2012](#) (DoH, 2012) introduced a new administrative structure for the NHS across England where [211 CCGs](#) replaced Primary Care Organisations. Within each CCG, General Practitioners (GPs) are held responsible for the planning and commissioning of health care services based on what they see their registered populations require. The individual CCGs will make decisions regarding the allocation of NHS funds at local level and set priorities for services including emergency, maternity, hospital, community and mental health services.

Calculating DFLE by CCG will help support planning of health and social care services and policies by identifying inequalities between NHS areas and variations from the national average. These comparisons can highlight the CCGs in which people spend more or less time in their life with disability (ie health inequality) compared with other areas in England. Identifying areas of concern can help give focus to policies aiming to reduce inequalities in health between populations, which is a key objective for [NHS England \(2014\)](#), as well as for [Public Health England](#) and a key point made in the [Marmot Review \(2010\)](#).

Continued measurement of DFLE by CCGs will enable the monitoring of policies and services designed to reduce inequalities in health between administrations. Future estimates of DFLE by CCGs are particularly important in order to understand whether changes in DFLE keep pace with the expected increases in LE, which can be used to inform current debates in policy (eg State Pension Age).

Why look at age 50?

This analysis will be the first by ONS to include DFLE and LE figures at age 50. With the proportion of older workers (age 50+) in the UK labour force increasing, it is becoming a key challenge for the government to ensure that those older people who want to participate in the labour market are able to do so ([DWP, 2013](#); [ONS, 2013b](#)). Although people can work productively with a disability ([ONS, 2013c](#)), it is the favourable outcome (economically and socially) to help keep a person free from disabling health problems for as long as possible. Estimates of DFLE at age 50 by CCG can support policy makers and health and social care professionals to assess relative needs for access to the NHS for effective treatment and management of long-standing health problems. This helps to keep those who wish to work free from the disabling effects of such health problems.

Notes for background

1. ONS also publishes estimates of healthy life expectancy (HLE). For more information please refer to the recently published 2011 Census story regarding [HLE at birth and 65 by CCG](#) (ONS, 2014a) and [HLE at birth by National deciles of Area Deprivation](#) (ONS 2014b)
2. Background information on the legal definition of disability can be found in the [Equality Act 2010](#)
3. [Mid-year population estimates](#) and [death counts](#) for Clinical Commissioning Groups for the period of 2010-12 were aggregated by gender and age and can be found on the [ONS website](#).

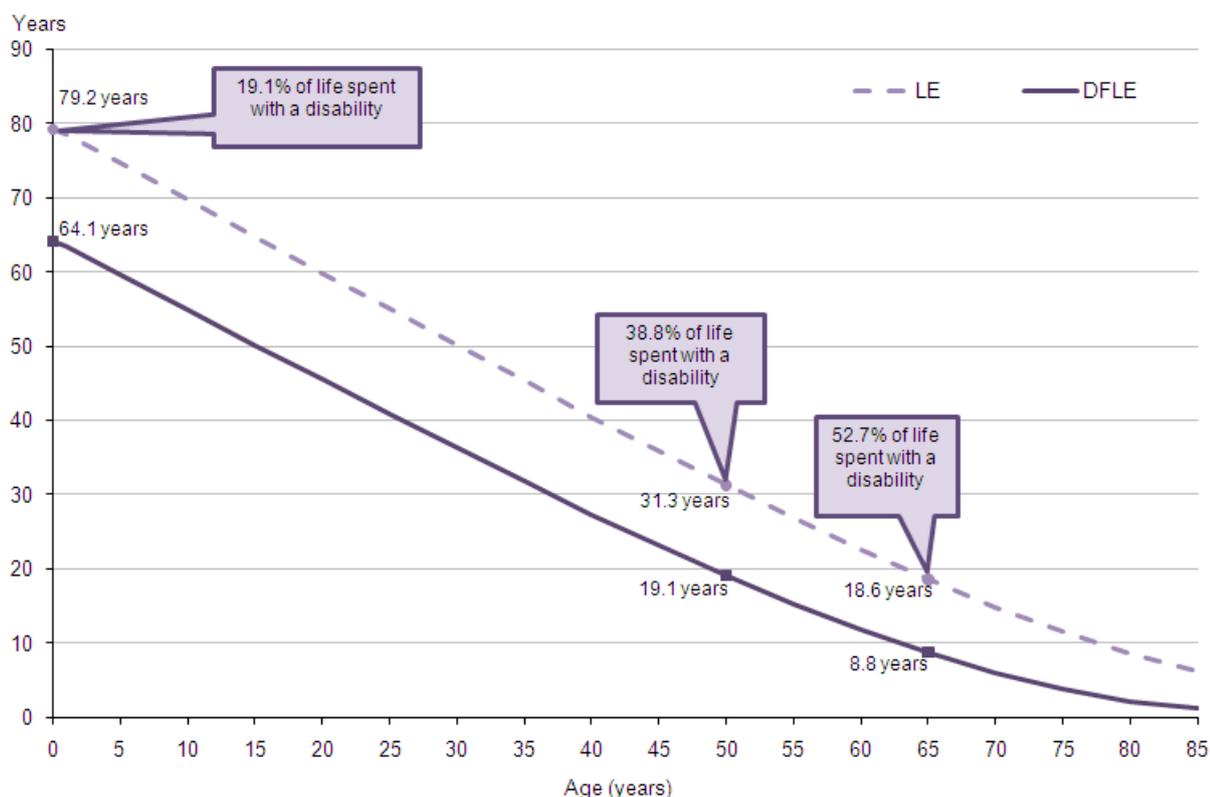
4. Disability-free life expectancy in England

These estimates of DFLE and LE show that on average females are expected to live a longer life than males in England, but will spend a greater proportion¹ (or more years) of their life with a disability. DFLE and LE estimates for England are presented in Figure 1 (males) and Figure 2 (females), for all three age points (birth, age 50, and age 65).

Males at birth living in England can expect to live 80.9% of their life free from disability. Females are estimated to live a comparable 78.4% of their lives free from disability.

Figure 1: Disability-free life expectancy (DFLE) and life expectancy (LE) for males

England, 2010-12



Source: Census - Office for National Statistics

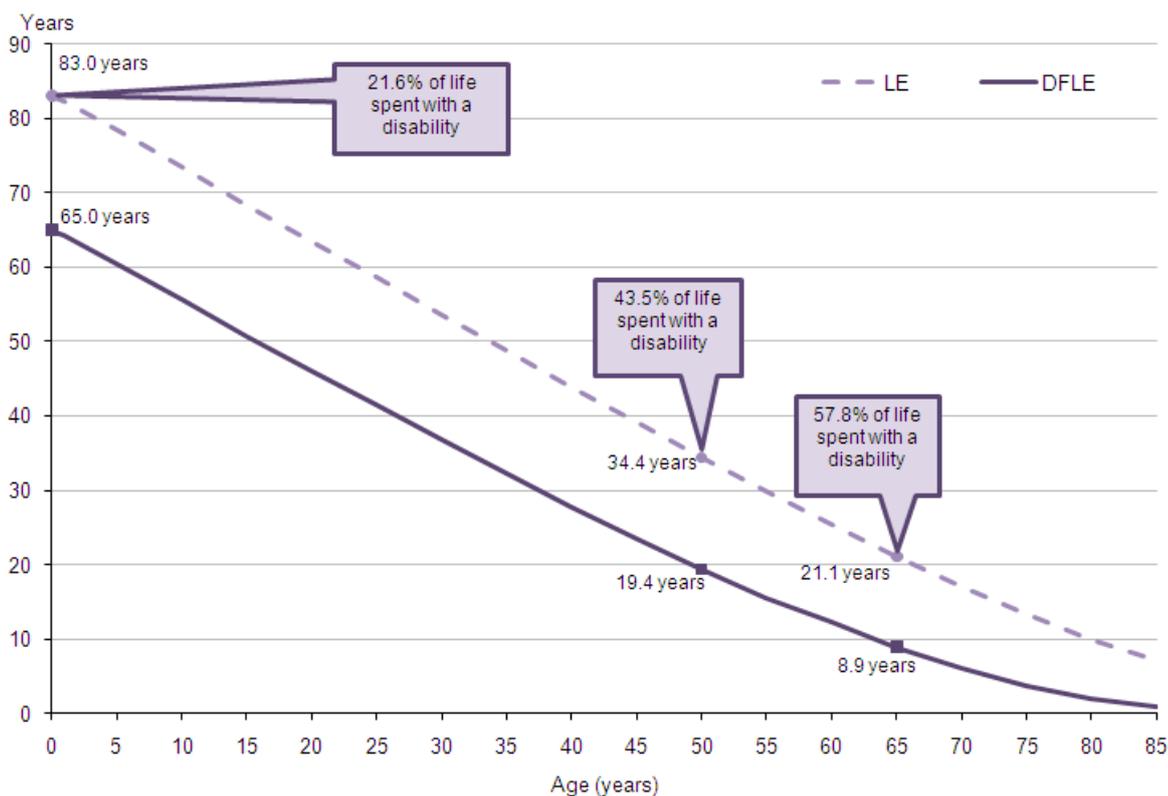
At age 50 males and females living in England are expected to live more than half (61.2% for males, 56.5% for females) of their remaining life free from disability. Whereas at age 65, the proportion of life spent free from disability is less than half for males and females living in England (47.3% and 42.2%, respectively).

The difference between males and females in the proportion of life spent disability free is slightly wider at age 50 and 65 (4.7 and 5.0 percentage points difference, respectively) than at birth (2.6 percentage points difference). As females live longer than males the widening of the gender inequality gap might be partly explained by the prevalence of disabling health problems increasing with age.

A gender difference in health status has been reported across the world (OECD, 2013); a finding that suggests a higher LE does not necessarily relate to a quality of life that is better.

Figure 2: Disability-free life expectancy (DFLE) and life expectancy (LE) for females

England, 2010-12



Source: Census - Office for National Statistics

Notes for disability-free life expectancy in England

1. The proportion of life spent disability free is a relative measure which divides DFLE by LE, and can be expressed as a percentage.

5. Disability-free life expectancy by clinical commissioning groups

An inequality (ie gap) in DFLE between CCGs was found between the North and South of England. Those living in CCGs located in the North are generally expected to live more years of their life with a disability compared with those living in CCGs in the South. Furthermore, people living in the North are expected to live a larger proportion of their lives with a disability as they (on average) have a shorter LE compared to those CCGs in the South. A North-South divide in health status is reported across different indicators and has been connected to areas in the North having higher levels of deprivation compared with the South (eg [ONS 2014b](#); [ONS 2013d](#)); with lower levels of employment, income, and education skills and training.

The North-South divide in DFLE is shown by looking at the top and bottom 10 ranked CCGs for DFLE at birth (Table 1, Table 2), at age 50 (Table 3, Table 4), and at age 65 (Table 5, Table 6) for males and females, respectively. At all three age points the top 10 ranked CCGs for DFLE are mainly located in the prosperous commuter belt to the south and west of London, and in outer south west London itself. Whereas, the bottom 10 ranked CCGs for DFLE are located in the West Midlands, Yorkshire and the Humber, and the North West of England, with the exception of the ethnically diverse east London CCGs of NHS Tower Hamlets (for males at age 50 and age 65, and for females at all three age points) and NHS Newham (for females at age 65).

At birth, age 50 and age 65, males and females living in the top 10 ranked CCGs had a significantly higher DFLE estimate when compared with the DFLE of England. Those living in the top 10 ranked CCGs are expected to live more of their lives' without a disability compared with the average person in England. For instance, those in NHS Surrey Downs from birth (5.8 additional years for males and 5.7 for females), at the age of 50 (4.3 additional years for males, 4.4 years for females), and at the age of 65 (2.8 additional years for males and females) live more years disability free compared with the average male or female in England.

Conversely those living in the bottom 10 ranked CCGs are estimated to live more of their lives with a disability compared with the average person in England. All CCGs in the bottom 10 had a significantly lower DFLE estimate when compared with the DFLE estimate for England. This was found at all three age points. For instance, those in NHS Bradford City from birth (8.5 years difference for males and 10.2 years for females), at the age of 50 (6.4 years difference for males and 7.6 years for females), and at the age of 65 (3.4 years difference for males and 3.9 years for females) live fewer years disability free compared with the average person in England.

DFLE and life expectancy estimates, ranking position and 95% confidence intervals for all 211 CCGs can be found in the reference tables provided for download.

6. Differences in disability-free life expectancy at birth by CCGs

Health inequalities, or differences in DFLE between two CCGs, can be looked at in absolute terms by finding the difference in the number of years spent free from a disability. To add context to these figures the differences between two CCGs in the proportion of life expectancy spent disability free is included. DFLE estimates for the top ranked CCG (1st) will be compared with the bottom ranked CCG (211th) to illustrate the gap in DFLE across CCGs.

Males living in NHS North Manchester have a lower DFLE at birth (15.1 years difference) compared with males in NHS Guildford and Waverley. With a shorter LE, males living in NHS North Manchester from birth are expected to live 10.4 percentage points more of their life with disability (equating to 6.4 more years) compared with males in NHS Guildford and Waverley.

Females living in NHS Bradford City have a lower DFLE at birth (16.0 years difference) compared with females living in NHS Surrey Downs. With a shorter LE, females born living in NHS Bradford City are expected to live 13.4 percentage points more (equating to 9.4 more years) of their life with disability compared with newborns living in NHS Surrey Downs.

Within CCGs, in general a newborn female is expected to live a longer life than a newborn male, yet more of her life will be spent with disability compared with a male in the same CCG. At birth NHS Bradford City was identified as an area with the largest difference in the proportion of life spent disability free between genders, with males living 6.4 percentage points more of their life disability free compared with females.

Table 1: Disability-free life expectancy (DFLE) and life expectancy (LE) for the top and bottom 10 ranked CCGs at birth, males

Years, percentages

CCG	DFLE rank	DFLE	LE	With disability	Proportion of life spent disability free (%)
Top 10					
NHS Guildford and Waverley	1	70.2 *	82.2	12.0	85.4
NHS Surrey Downs	2	69.9 *	81.8	12.0	85.4
NHS Wokingham	3	69.7 *	81.6	11.8	85.5
NHS Richmond	4	69.5 *	81.7	12.1	85.2
NHS Windsor, Ascot and Maidenhead	5	69.3 *	81.2	11.9	85.3
NHS Chiltern	6	69.3 *	81.5	12.2	85.0
NHS Horsham and Mid Sussex	7	69.1 *	81.6	12.4	84.8
NHS Surrey Heath	8	69.1 *	81.0	11.9	85.3
NHS North East Hampshire and Farnham	9	68.7 *	81.2	12.5	84.6
NHS North & West Reading	10	68.5 *	80.7	12.2	84.8
England		64.1	79.2	15.1	80.9
Bottom 10					
NHS Salford	202	58.6 **	76.1	17.4	77.1
NHS Stoke on Trent	203	58.6 **	76.9	18.3	76.2
NHS Barnsley	204	58.6 **	77.8	19.3	75.3
NHS Durham Dales, Easington and Sedgefield	205	58.1 **	77.6	19.4	74.9
NHS Central Manchester	206	57.4 **	75.1	17.7	76.5
NHS Knowsley	207	57.3 **	76.6	19.4	74.7
NHS Liverpool	208	57.2 **	76.1	18.8	75.3
NHS Blackpool	209	56.4 **	74.0	17.5	76.3
NHS Bradford City	210	55.6 **	73.1	17.5	76.1
NHS North Manchester	211	55.1 **	73.5	18.4	75.0

Source: 2011 Census, Office for National Statistics

Table notes.

1. *Significantly higher DFLE compared to the DFLE in England at birth.
2. ** Significantly lower DFLE compared to the DFLE in England at birth.
3. All columns have been calculated using unrounded estimates.

Table 2: Disability-free life expectancy (DFLE) and life expectancy (LE) for the top and bottom 10 ranked CCGs at birth, females

Years, percentages

CCG	DFLE rank	DFLE	LE	With disability	Proportion of life spent disability free (%)
Top 10					
NHS Surrey Downs	1	70.8 *	85.1	14.3	83.1
NHS Richmond	2	70.7 *	85.9	15.3	82.2
NHS Guildford and Waverley	3	70.6 *	85.1	14.6	82.9
NHS Wokingham	4	70.3 *	84.5	14.2	83.1
NHS Surrey Heath	5	70.0 *	84.3	14.4	83.0
NHS Windsor, Ascot and Maidenhead	6	69.9 *	84.8	14.9	82.5
NHS Chiltern	7	69.8 *	84.7	15.0	82.4
NHS Horsham and Mid Sussex	8	69.4 *	84.1	14.7	82.5
NHS North & West Reading	9	69.3 *	84.8	15.5	81.7
NHS North East Hampshire and Farnham	10	69.1 *	84.5	15.4	81.8
England		65.0	83.0	18.0	78.4
Bottom 10					
NHS South Manchester	202	59.7 **	80.4	20.7	74.2
NHS Blackpool	203	59.5 **	80.0	20.4	74.4
NHS Sandwell and West Birmingham	204	59.5 **	81.7	22.2	72.8
NHS Stoke on Trent	205	59.4 **	80.6	21.2	73.7
NHS Tower Hamlets	206	58.9 **	82.0	23.1	71.9
NHS Liverpool	207	58.8 **	80.2	21.4	73.3
NHS Knowsley	208	58.4 **	80.7	22.3	72.4
NHS Central Manchester	209	58.2 **	79.6	21.3	73.2
NHS North Manchester	210	56.6 **	78.6	22.0	72.0
NHS Bradford City	211	54.8 **	78.6	23.8	69.7

Source: 2011 Census, Office for National Statistics

Table notes.

1. *Significantly higher DFLE compared to the DFLE in England at birth.
2. ** Significantly lower DFLE compared to the DFLE in England at birth.
3. All columns have been calculated using unrounded estimates.

7. Static maps of CCGs for DFLE at birth

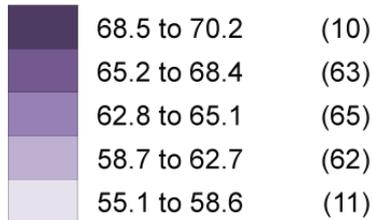
Map 1 illustrates the North/South divide in England for DFLE at birth by the 211 CCGs for males and females; CCGs shaded with the darkest purple represent those areas with the 10 (and 11 for females) highest DFLE estimates, which range from 68.5 to 70.2 years for males and 69.1 to 70.8 years for females. The CCGs shaded with the lightest shade of purple represent those areas with the 10 lowest DFLE estimates which range from 55.1 to 58.6 years for males and 54.8 to 59.7 years for females.

[Interactive maps](#) are also provided showing the two health expectancy estimates (DFLE and HLE) by CCG from birth, at age 50, as well as age 65 for both males and females.

Map 1: Disability-free life expectancy (DFLE) at birth for NHS clinical commissioning groups (CCGs), England, 2010-12

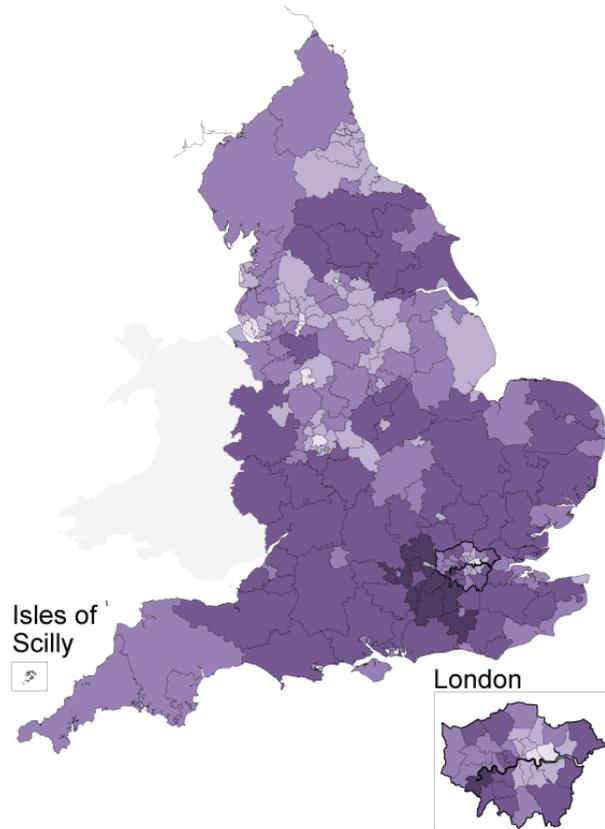
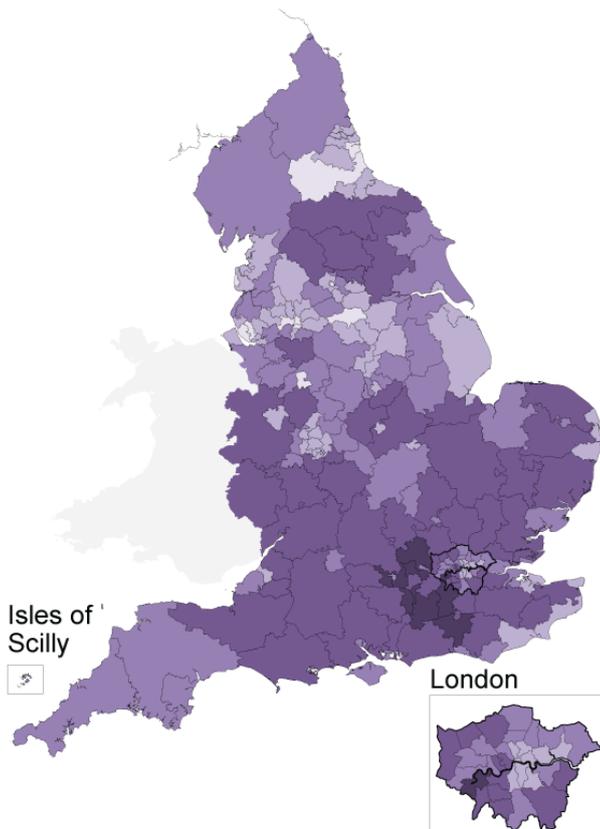
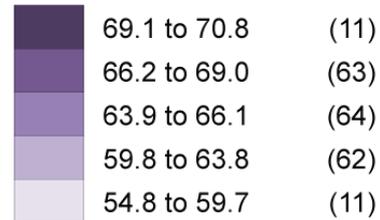
Males

DFLE (years)¹
(Total number of areas = 211)



Females

DFLE (years)¹
(Total number of areas = 211)



¹ Includes all usual residents enumerated in March 2011 within the boundary of the corresponding CCG.

Source: Office for National Statistics

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8. Differences in disability-free life expectancy at age 50 by CCGs

The top and bottom 10 ranked CCGs for DFLE at age 50 illustrate that health inequalities are not only confined to the general North-South divide in England. Illustrating this point, in London those living in NHS Tower Hamlets are not only estimated to live a shorter life but are expected to spend more of their life with a disability compared with a person living in nearby NHS Richmond.

At the age of 50 males in NHS Richmond live an extra 19.1 percentage points (a difference in DFLE of 8.1 years) of their lives disability free compared with a male in NHS Tower Hamlets. Whereas, females at age 50 living in NHS Richmond will live an extra 21.0 percentage points of their longer lives without disability compared with those females living in NHS Tower Hamlets, or an extra 9.2 years disability free.

What might be of particular interest is that all three CCGs responsible for the area of Greater Manchester (NHS South Manchester, NHS North Manchester, and NHS Central Manchester) appear in the bottom ranked CCGs at age 50 for both males and females. This finding might be related to the less favourable health outcomes observed across Manchester on other indicators, such as high levels of cardiovascular disease. More about these health indicators can be found in the local profiles provided by [NHS](#) England.

NHS Bradford City was identified as an area with the largest difference in the proportion of life spent disability free between genders at age 50, with males living 9.6 percentage points more of their life without disability compared with females.

Table 3: Disability-free life expectancy (DFLE) and life expectancy (LE) for the top and bottom 10 ranked CCGs at age 50, males

Years, percentages

CCG	DFLE rank	DFLE	LE	With disability	Proportion of life spent disability free (%)
Top 10					
NHS Guildford and Waverley	1	23.5 *	33.4	9.9	70.3
NHS Surrey Downs	2	23.4 *	33.3	9.8	70.4
NHS Wokingham	3	23.2 *	33.1	9.9	70.0
NHS Horsham and Mid Sussex	4	23.1 *	33.2	10.1	69.5
NHS Chiltern	5	23.0 *	33.3	10.2	69.2
NHS Surrey Heath	6	22.9 *	32.7	9.8	70.0
NHS Richmond	7	22.7 *	32.9	10.2	69.1
NHS Windsor, Ascot and Maidenhead	8	22.6 *	32.7	10.1	69.1
NHS North East Hampshire and Farnham	9	22.5 *	32.8	10.3	68.6
NHS North & West Reading	10	22.5 *	32.5	10.0	69.1
England		19.1	31.3	12.1	61.2
Bottom 10					
NHS South Manchester	202	14.9 **	28.0	13.1	53.2
NHS Barnsley	203	14.7 **	30.2	15.5	48.7
NHS Durham Dales, Easington and Sedgefield	204	14.7 **	30.0	15.3	48.9
NHS Blackpool	205	14.6 **	27.8	13.2	52.5
NHS Tower Hamlets	206	14.6 **	29.2	14.6	49.9
NHS Liverpool	207	14.1 **	28.6	14.4	49.4
NHS Knowsley	208	14.1 **	29.5	15.4	47.8
NHS Central Manchester	209	13.8 **	27.6	13.8	50.0
NHS Bradford City	210	12.7 **	26.8	14.1	47.4
NHS North Manchester	211	12.6 **	26.7	14.1	47.1

Source: 2011 Census, Office for National Statistics

Table notes.

1. *Significantly higher DFLE compared to the DFLE in England at age 50.
2. ** Significantly lower DFLE compared to the DFLE in England at age 50.
3. All columns have been calculated using unrounded estimates.

Table 4: Disability-free life expectancy (DFLE) and life expectancy (LE) for the top and bottom 10 ranked CCGs at age 50, females

Years, percentages

CCG	DFLE rank	DFLE	LE	With disability	Proportion of life spent disability free (%)
Top 10					
NHS Surrey Downs	1	23.8 *	36.2	12.3	65.9
NHS Guildford and Waverley	2	23.7 *	36.2	12.5	65.5
NHS Richmond	3	23.4 *	36.9	13.5	63.4
NHS Wokingham	4	23.2 *	35.5	12.3	65.3
NHS Chiltern	5	23.1 *	36.1	13.0	64.0
NHS Surrey Heath	6	23.1 *	35.3	12.2	65.5
NHS Horsham and Mid Sussex	7	22.9 *	35.3	12.4	64.9
NHS North & West Reading	8	22.8 *	36.2	13.3	63.1
NHS Windsor, Ascot and Maidenhead	9	22.7 *	35.8	13.1	63.5
NHS North East Hampshire and Farnham	10	22.6 *	35.8	13.2	63.2
England		19.4	34.4	15.0	56.5
Bottom 10					
NHS Stoke on Trent	202	15.3 **	32.6	17.3	46.9
NHS South Manchester	203	15.0 **	31.8	16.8	47.3
NHS Sandwell and West Birmingham	204	14.9 **	33.5	18.7	44.3
NHS Newham	205	14.7 **	34.2	19.5	43.0
NHS Liverpool	206	14.6 **	31.9	17.3	45.7
NHS Tower Hamlets	207	14.1 **	33.4	19.2	42.4
NHS Knowsley	208	14.1 **	32.1	18.1	43.8
NHS Central Manchester	209	14.0 **	31.3	17.3	44.6
NHS North Manchester	210	13.1 **	30.7	17.7	42.5
NHS Bradford City	211	11.8 **	31.2	19.4	37.8

Source: 2011 Census, Office for National Statistics

Table notes.

1. *Significantly higher DFLE compared to the DFLE in England at age 50.
2. ** Significantly lower DFLE compared to the DFLE in England at age 50.
3. All columns have been calculated using unrounded estimates.

9. Differences in disability-free life expectancy at age 65 by CCGs

With increases in LE the population of those aged 65 and older is growing. Knowing the DFLE from the age of 65 will be important for the planning of health and care services, especially as the prevalence of disability increases with age and has implications for unpaid care provision, as well as pensions.

Males living in NHS North Manchester have a lower DFLE at age 65 (6.5 years difference) compared with males living in NHS Surrey Downs. With a shorter LE, males at age 65 living in NHS North Manchester are expected to live 24.4 percentage points more (equating to 1.7 more years) of their remaining life with disability compared with those living in NHS Surrey Downs.

At age 65 females living in NHS Bradford City have a lower DFLE (6.7 years difference) compared with females living in NHS Guildford and Waverley. With a shorter LE, females living in NHS Bradford City are expected to live 24.8 percentage points more (equating to 2.6 more years) of their remaining life with disability compared with those living in NHS Guildford and Waverley.

Interestingly NHS Bradford City was not found to be the area with the largest difference in the proportion of life spent disability free between genders, as it was at birth and at age 50; although it still has a difference of 8.1 percentage points between males and females. NHS Harrow and NHS Brent, CCGs in the London area, were jointly identified as areas with the largest difference in the proportion of life spent disability free between genders at age 65, with males living 8.7 percentage points more of their life disability free compared with females.

Table 5: Disability-free life expectancy (DFLE) and life expectancy (LE) for the top and bottom 10 ranked CCGs at age 65, males

Years, percentages

CCG	DFLE rank	DFLE	LE	With disability	Proportion of life spent disability free (%)
Top 10					
NHS Surrey Downs	1	11.6 *	20.1	8.5	57.6
NHS Guildford and Waverley	2	11.6 *	20.2	8.6	57.3
NHS Central London (Westminster)	3	11.4 *	21.0	9.7	54.1
NHS Chiltern	4	11.1 *	20.0	8.9	55.6
NHS Horsham and Mid Sussex	5	11.1 *	19.7	8.7	56.1
NHS Wokingham	6	11.1 *	19.8	8.8	55.8
NHS Surrey Heath	7	11.0 *	19.5	8.5	56.5
NHS Richmond	8	11.0 *	19.7	8.7	55.9
NHS West London	9	11.0 *	20.4	9.4	53.7
NHS North East Hampshire and Farnham	10	10.9 *	19.7	8.8	55.1
England		8.8	18.6	9.8	47.3
Bottom 10					
NHS Mansfield & Ashfield	202	6.2 **	17.3	11.1	36.0
NHS Hardwick	203	6.1 **	17.5	11.4	34.9
NHS Sunderland	204	6.1 **	17.3	11.1	35.5
NHS Barnsley	205	5.9 **	17.6	11.7	33.7
NHS Durham Dales, Easington and Sedgefield	206	5.9 **	17.4	11.6	33.6
NHS Liverpool	207	5.8 **	16.6	10.8	35.1
NHS Central Manchester	208	5.8 **	15.6	9.8	37.2
NHS Knowsley	209	5.6 **	17.2	11.6	32.5
NHS Bradford City	210	5.4 **	15.4	10.0	35.0
NHS North Manchester	211	5.1 **	15.3	10.2	33.2

Source: 2011 Census, Office for National Statistics

Table notes.

1. *Significantly higher DFLE compared to the DFLE in England at age 65.
2. ** Significantly lower DFLE compared to the DFLE in England at age 65.
3. All columns have been calculated using unrounded estimates.
4. NHS West London refers to Kensington & Chelsea, Queens Park, and Paddington.

Table 6: Disability-free life expectancy (DFLE) and life expectancy (LE) for the top and bottom 10 ranked CCGs at age 65, females

Years, percentages

CCG	DFLE rank	DFLE	LE	With disability	Proportion of life spent disability free (%)
Top 10					
NHS Guildford and Waverley	1	11.7	* 22.6	10.9	51.8
NHS Surrey Downs	2	11.7	* 22.4	10.7	52.1
NHS Richmond	3	11.5	* 23.4	11.9	49.2
NHS Chiltern	4	11.2	* 22.5	11.3	49.7
NHS North & West Reading	5	11.1	* 22.6	11.6	48.9
NHS Wokingham	6	11.1	* 21.8	10.7	50.7
NHS Horsham and Mid Sussex	7	11.0	* 21.7	10.7	50.6
NHS North East Hampshire and Farnham	8	11.0	* 22.3	11.3	49.2
NHS High Weald Lewes Havens	9	10.9	* 22.2	11.3	49.2
NHS Surrey Heath	10	10.9	* 21.4	10.5	51.0
England		8.9	21.1	12.2	42.2
Bottom 10					
NHS Sunderland	202	6.5	** 19.3	12.8	33.6
NHS Durham Dales, Easington and Sedgfield	203	6.4	** 19.7	13.3	32.5
NHS Tower Hamlets	204	6.3	** 20.2	13.9	31.3
NHS Sandwell and West Birmingham	205	6.2	** 20.6	14.4	30.2
NHS Liverpool	206	6.2	** 19.2	13.0	32.2
NHS Newham	207	6.1	** 20.8	14.7	29.3
NHS Central Manchester	208	6.0	** 18.6	12.6	32.2
NHS Knowsley	209	5.7	** 19.3	13.7	29.3
NHS North Manchester	210	5.6	** 18.5	12.9	30.5
NHS Bradford City	211	5.0	** 18.5	13.5	27.0

Source: 2011 Census, Office for National Statistics

Table notes.

1. *Significantly higher DFLE compared to the DFLE in England at age 65.
2. ** Significantly lower DFLE compared to the DFLE in England at age 65.
3. All columns have been calculated using unrounded estimates.

10. Method

DFLE estimates were calculated by combining the data collected in the 2011 Census with death counts and mid-year population estimates for the three year period (2010-12). Data were aggregated over three years to ensure a large enough sample size. Furthermore data were grouped by sex and five year age bands (eg 50 to 54, 65 to 69 years old).

These DFLE estimates are calculated using the abridged Sullivan life table method (Jagger et al., 2007). Further information regarding the guide used to calculate UK health expectancies is available on the [ONS website](#).

Results are presented with 95% confidence intervals to aid interpretation. Confidence intervals in this analysis indicate the uncertainty surrounding LE and DFLE estimates and enable more meaningful comparisons between CCGs. When comparing the estimates of two CCGs, non-overlapping confidence intervals are indicative of statistical significance but to confirm this, a test of significance should be carried out. When the statistical significance of an estimate is noted in the text, this is based on a Z-test of the differences ([Jagger et al., 2007](#)). All differences noted in the text have been calculated to more than 1 decimal place.

11. References

DoH (2012) '[Health and Social Care Act 2012](#)'

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Jagger et al. (2007) '[Health Expectancy Calculation by the Sullivan Method: A Practical Guide](#)'

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OECD (2013) '[Health at a Glance 2013](#)'

ONS (2013a) '[Interim Life Tables, England and Wales, 2010-2012](#)'

ONS (2013b) '[National Population Projections, 2012-based Statistical Bulletin](#)'

ONS (2013c) '[Health Gaps by Socio-economic Position of Occupations in England, Wales, English Regions and Local Authorities, 2011](#)'

ONS (2013d) '[Inequality in Disability-Free Life Expectancy by Area Deprivation: England, 2003-06 and 2007-10](#)'

ONS (2014a) '[HLE at birth and age 65: Clinical Commissioning Groups \(CCGs\) 2010-2012](#)'

ONS (2014b) '[Inequality in Healthy Life Expectancy at Birth by National Deciles of Area Deprivation: England, 2009-11](#)'

WHO (2011) '[Global Health and Aging](#)'

12. Background notes

1. Interactive data visualisations developed by ONS are also available to aid interpretation of the results.
2. Figures in this publication may not sum due to rounding.
3. Census day was 27 March 2011.
4. The data in this article is all usual residents.

5. All census population estimates were extensively quality assured, using other national and local sources of information for comparison and review by a series of quality assurance panels. An extensive range of [quality assurance, evaluation and methodology](#) papers were published alongside the first release in July 2012, including a [Quality and Methodology Information](#) (QMI) document. (157.6 Kb Pdf)
6. Future releases from the 2011 Census will include cross tabulations by other census characteristics, and tabulations at other geographies. Further information on future releases is available online in the [2011 Census Prospectus](#) (414.8 Kb Pdf) .
7. ONS has ensured that the data collected meet users' needs via an extensive [2011 Census outputs consultation](#) process in order to ensure that the 2011 Census outputs will be of increased use in the planning of housing, education, health and transport services in future years.
8. The England and Wales census questionnaires asked the same questions with one exception; an additional question on Welsh language was included on the Wales questionnaire.
9. ONS is responsible for carrying out the census in England and Wales. Simultaneous but separate censuses took place in Scotland and Northern Ireland. These were run by the National Records of Scotland (NRS) and the Northern Ireland Statistics and Research Agency (NISRA) respectively.
10. ONS is responsible for the publication of UK statistics (compiling comparable statistics from the UK statistical agencies above) and these are available on the [ONS website](#). These will be compiled as each of the three statistical agencies involved publish the relevant data. The [Northern Ireland census prospectus](#) and the [Scotland census prospectus](#) are available online.
11. A person's place of usual residence is in most cases the address at which they stay the majority of the time. For many people this will be their permanent or family home. If a member of the services did not have a permanent or family address at which they are usually resident, they were recorded as usually resident at their base address.
12. All key terms used in this publication, such as usual resident are explained in the [2011 Census user guide](#).
13. The 2011 Census achieved its overall target response rate of 94% of the usually resident population of England and Wales, and over 80% in all local and unitary authorities. The population estimate for England and Wales of 56.1 million is estimated with 95 % confidence to be accurate to within +/- 85,000 (0.15 %).
14. A list of the names of those given pre-release access to the statistics and written commentary is available in the [pre-release access list](#). The rules and principles which govern pre-release access are features within the Pre-release Access to Official Statistics order 2008.
15. 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