



## 2011 Census Theme Paper General Health and Disability

Produced by Corporate Research, Borough of Poole,  
February, 2013



### 1. Purpose of this paper

This paper discusses what the 2011 Census tells us about the health of residents of Poole. It is in two parts. The first part discusses general health and the second part discusses limiting long-term illness/disability.

This is very much a top-level paper, using such data as has been released at time of writing. Deeper analyses will be possible when further data releases become available.

Poole's population on Census day was 147,645.

### 2. General Health

Each person was asked to rate their general health (or have it rated on their behalf). Five options were available: "Very Good", "Good", "Fair", "Bad" and "Very Bad". We will not attempt to make comparisons with the corresponding question in the 2001 Census for two reasons. In the first place, the question about general health in 2001 referred to health status in the *previous twelve months* (rather than currently) and, secondly, only three options were available: "Good", "Fairly Good" and "Not good".<sup>1</sup>

#### Key point:

- On Census day, 120,175 (**81.4%**) of people in Poole reported their general health as either "Very good" or "Good"; the corresponding figure for England and Wales was 81.2%.

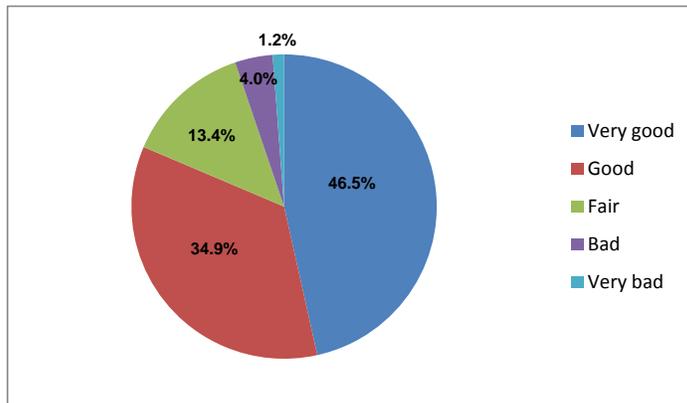
#### Overall responses

The diagram below shows the proportion of residents in Poole reporting in each category.

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<sup>1</sup> By examining studies showing how people who were offered three options responded when offered five, we could simulate the 2001 responses nationally to the 2011 question frame but this is beyond the scope of this paper.

**Figure 1. General Health, Poole**



Source: Census 2011, ONS

### Comparisons across Poole

We now define GOOD (upper case) health as combining ‘Very good’ and ‘good’ in the responses.

Poole has 16 Wards; it also has 93 Lower Super Output Areas (LSOAs) of roughly equal populations.

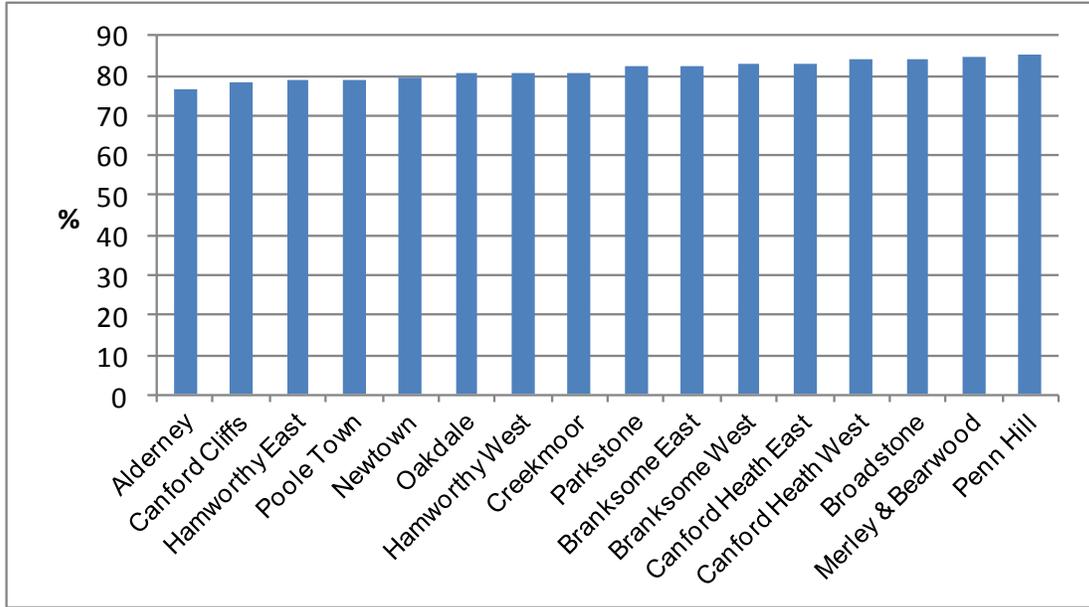
Key points:

- Across the Wards, the proportion reporting GOOD health varies from 76.6% in Alderney to 85.2% in Penn Hill.
- Across the LSOAs the proportion reporting GOOD health varies from 69.0% in an LSOA in the Town Centre to 92.4% in an LSOA in Merley and Bearwood.

The LSOA with the lowest level of GOOD health is a deprived area of the town with an elderly population.

Figure 2 below shows the percentage in each ward reporting that their health is GOOD.

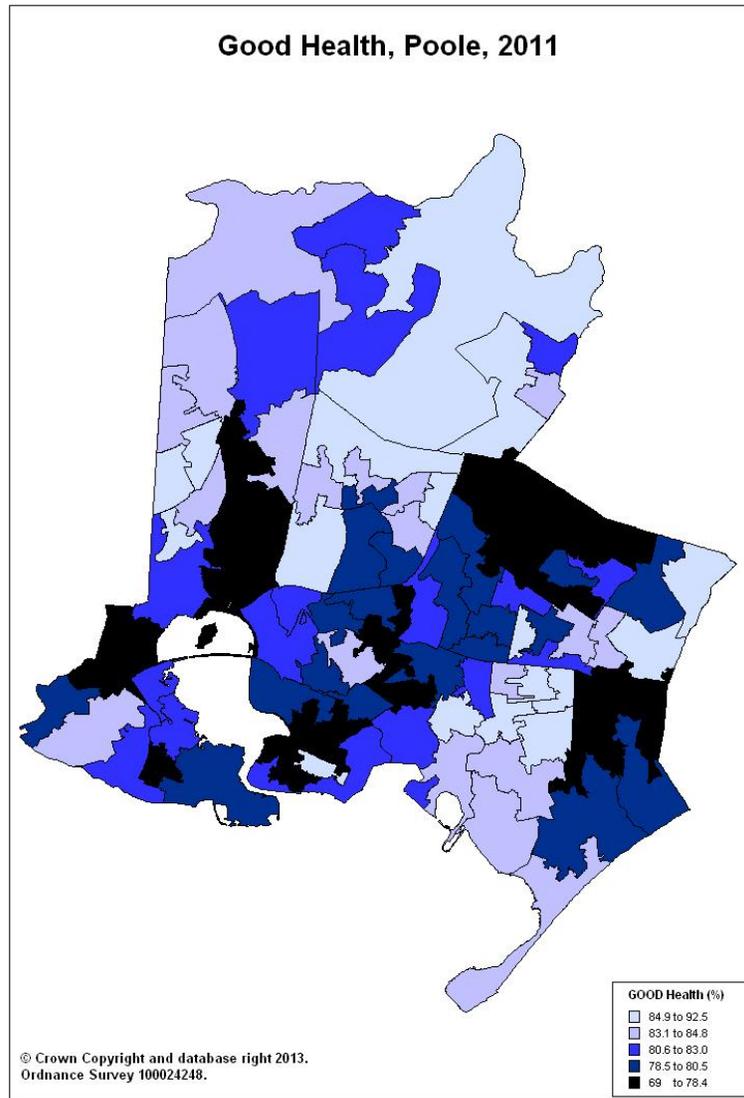
**Figure 2. Percentage reporting GOOD health in each ward**



Source: Census 2011, ONS

Figure 3 below is a thematic map of the proportion of each LSOA reporting GOOD health. (LSOA quintiles are used.)

**Figure 3. Percentage reporting GOOD health, Poole**



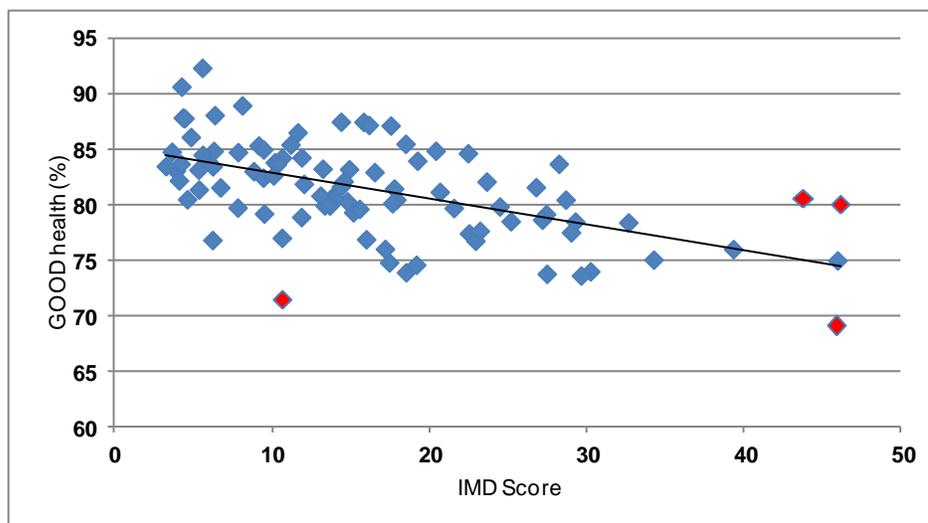
Source: Census, 2011

### **Predictors of response**

Age and deprivation are good predictors of response. In fact, 74% of the variation in the GOOD health scores in the LSOAs can be accounted for by median age and deprivation together, as measured by Index of Multiple Deprivation (IMD) scores. Deprivation has a slightly higher effect than age. See the Technical Appendix for further details, where the regression equation, standardized  $\beta$  coefficients and t-values can be inspected.

The relationship between IMD score and GOOD health is illustrated below. In the scatter plot each point represents an LSOA. It can be seen that low deprivation (IMD) scores tend to be accompanied by high health scores.<sup>2</sup>

**Figure 4. Relationship between General Health and Deprivation**



Source: Census 2011, Indices of Deprivation 2010

The four areas marked in red may be of interest. One shows low deprivation but also a low health score – this is an LSOA in Canford Cliffs with an elderly population. Two show high levels of deprivation but average health scores – these are in Turlin Moor and Bourne Valley and have relatively young populations. The one with both high deprivation *and* poor health is a deprived LSOA in the town centre with an elderly population.

### 3. Disability

Most people suffer periods of temporary illness that do not have a sustained effect on their day to day activities, such as going to work or socialising with friends and family. However, some health problems and disabilities are long-lasting and can reduce a person’s ability to carry out the activities people usually take for granted.

As in 2001, the 2011 Census contained a question on disability/limiting illness. Figure 5 below shows the precise wording of the questions in each case. It can be seen that the latest version excludes the reference to work and allows respondents to state the extent of their limitations; it also includes a 12 month time frame. Unlike the question on general health, in this case we regard the questions as sufficiently similar to make indicative comparisons with 2001.

<sup>2</sup> Poole now has 93 LSOAs. Formerly it had 91, to which IMD scores were assigned. Under the revised geography, two of these LSOAs were each split into two. The four new LSOAs have inherited the IMD scores of their source LSOAs. We have reservations about doing this but it is consistent with ONS methodology.

**Figure 5. Limiting long term illness questions**

**2001 Census**

Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do?

Include problems which are due to old age

Yes  No

**2011 Census**

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 which are due to old age

Yes, limited a lot  Yes, limited a little  No

Source: ONS

It is of interest to note that in England and Wales 10 million people were limited in daily activities because of a health problem or disability. Approximately the same number is given as an estimate by DWP of the number of disabled people in England and Wales, based on the Family Resources Survey. Thus, the Census question may be regarded as a good proxy for the prevalence of disability.

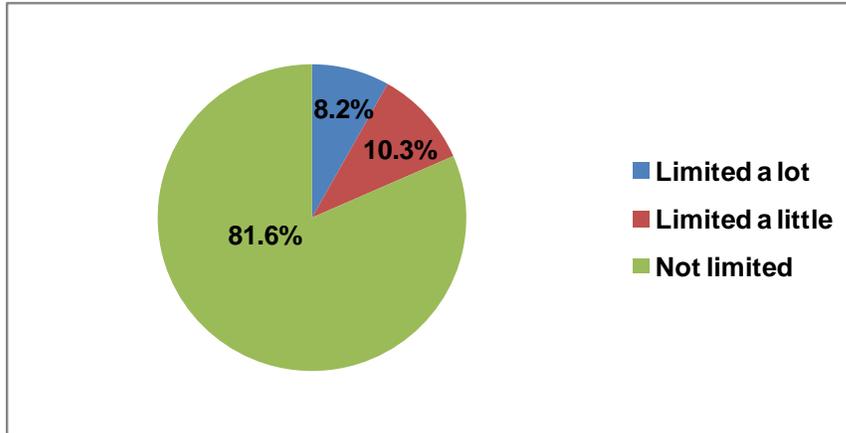
Key points:

- On Census day, **27,208** (18.4%) of residents in Poole were limited in daily activities because of a health problem or disability. For England and Wales 17.9% were in this position.
- The corresponding percentages in 2001 were 18.5% in Poole and 18.2% for England and Wales.

### Overall responses

The diagram below shows the proportion of residents in Poole reporting in each category.

**Figure 6. Limited in daily activities, Poole**



Source: Census 2011

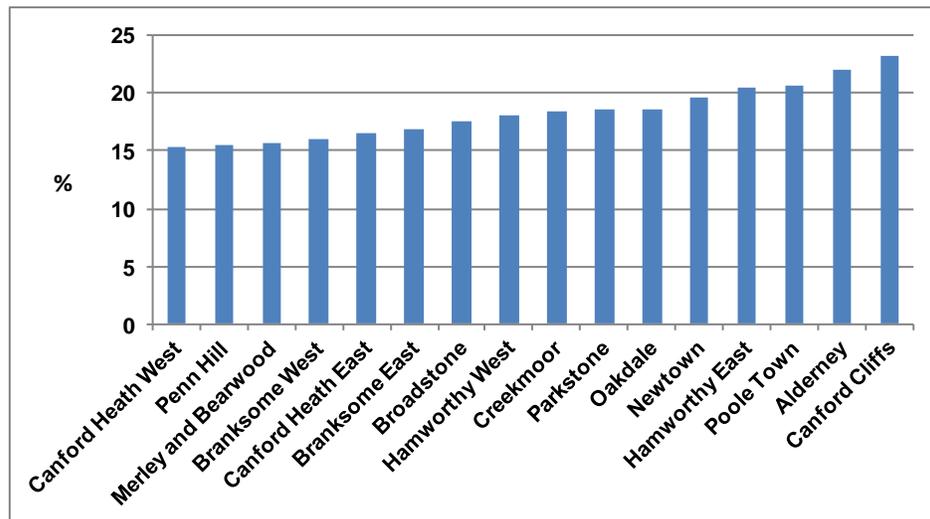
### Comparisons across Poole

Key points:

- Across the Wards, the proportion reporting limitations to daily activities varies from 15.2% in Canford Heath West to 23.2% in Canford Cliffs.
- Across the LSOAs, the proportion reporting limitations to daily activities varies from 9.1% for an LSOA in Merley & Bearwood to 32.9% for an LSOA in Canford Cliffs. The LSOA with the lowest level of limiting illness also has the highest level of GOOD health.

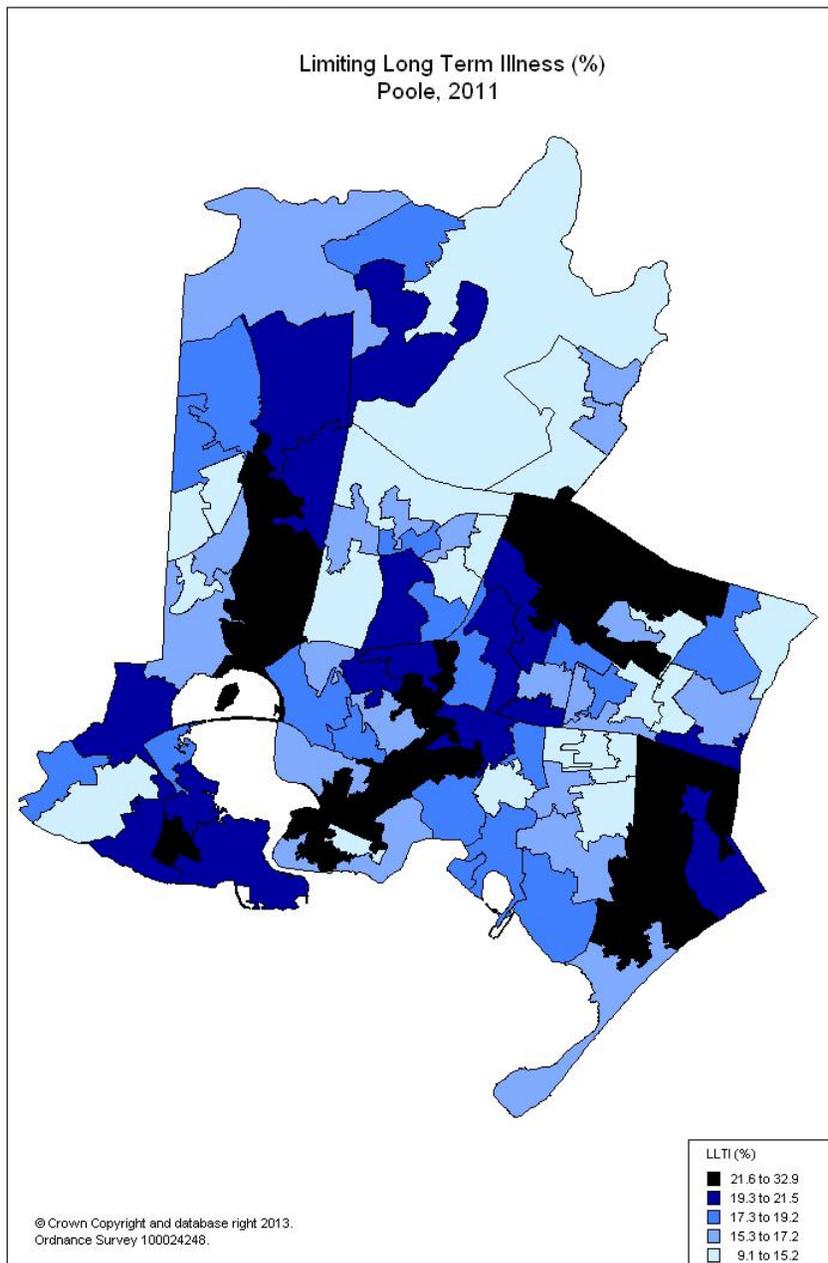
Figure 7 below shows the percentage in each ward reporting limitations to daily activities.

**Figure 7. Percentage reporting limitations to daily activities due to illness/disability**



Source: Census 2011

**Figure 8. Percentage reporting limitations to daily activities due to illness/disability**



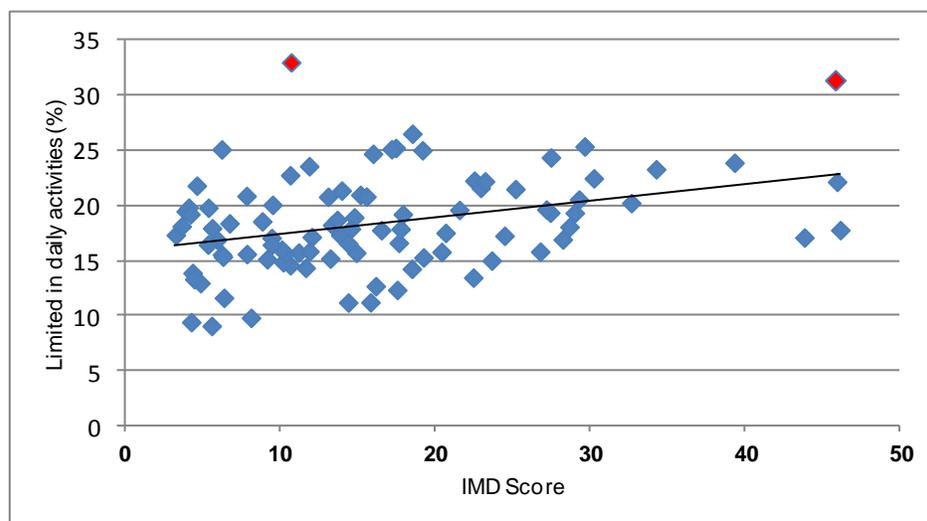
Source: Census 2011

## Predictors of response

As for GOOD health, age and deprivation are good predictors of response. For brevity we will label the variable showing the proportion reporting a limiting long-term illness/disability as LLTI. Again, 74% of the variation in the LLTI scores in the LSOAs can be accounted for by median age and IMD score. In this case age has a slightly higher effect than IMD. See the Technical Appendix for further details, where the regression equation, standardized  $\beta$  coefficients and t-values can be inspected.

The relationship between IMD score and LLTI is illustrated below. In the scatter plot each point represents an LSOA.

**Figure 9. Relationship between a limiting illness and Deprivation**



Source: Census 2011, Indices of Deprivation 2010

The areas marked in red may be of interest. The one with both high levels of LLTI and deprivation (in Poole Town) is also the one with the lowest level of GOOD health. It has an elderly population. The one with the highest level of limited activity (in Canford Cliffs) also has an elderly population but a relatively low deprivation score. The age effect is particularly pronounced here – indeed, the median age for residents of this LSOA is 70, the highest in Poole.

## 4. Further Information

Further information, including commentaries on national findings can be found on [this page](#) of the at National Statistics web pages. Readers wishing to download or view data should select the **Topics** option on [this page](#) at Neighbourhood Statistics.

## Technical Appendix

### Relationship between GOOD health, age and deprivation

Performing simple multiple regression with GOOD health as the dependent variable and IMD and Median Age as independent variables produces the following output.

$R^2 = 0.739$

#### Regression parameters

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	107.383	1.884		56.989	.000
IMD	-.396	.026	<b>-.952</b>	<b>-15.181</b>	.000
Median Age	-.455	.038	<b>-.757</b>	<b>-12.067</b>	.000

### Relationship between LLTI, age and deprivation

$R^2 = 0.735$

#### Regression parameters

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-11.008	1.926		-5.716	.000
IMD	.348	.027	<b>.824</b>	<b>13.032</b>	.000
Median Age	.554	.039	<b>.908</b>	<b>14.365</b>	.000

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