

## 4. WIDER SOCIAL DETERMINANTS OF HEALTH

### 4.1 Affluence and deprivation

This section outlines the distribution of deprivation within Buckinghamshire as measured by the Index of Multiple Deprivation, and changes between 2010 and 2015.

#### 4.1.1 *The impact of deprivation*

Affluence and deprivation are inextricably linked with people's health experience and with many health outcomes. Both absolute deprivation (for example linked to low income) and relative deprivation (for example linked to income inequalities) are recognised to be important determinants of health in a population; almost all causes of ill-health and premature mortality are worse in more deprived groups. Worse health is also associated with wider inequalities<sup>1</sup>. This affects a population's needs for many types of preventative, treatment and care services.

#### 4.1.2 *Measuring Deprivation*

Nationally, the English Indices of Multiple Deprivation (IMD) are used to understand relative levels of deprivation in the population. The IMD was first developed in 2007 and has been updated in 2010 and 2015<sup>2</sup>. Deprivation is measured at the level of lower layer super output areas (LL-SOA) each of which covers a population of 1,000 to 3,000 in around 400 to 1,200 households. The scores for LL-SOAs can be combined to give a relative measure of deprivation in a larger geographical area, for example at ward or Local Authority level. Areas with similar deprivation scores can also be grouped to look at other indicators, for example to compare mortality in the most deprived and least deprived areas. The relative deprivation of a small area in Buckinghamshire can be compared to other areas, for example to the country as a whole, or to the rest of the county.

The IMD is made up of seven domains or dimensions of deprivation for which scores and ranks can be calculated to show relative levels of deprivation for each of these dimensions. The domain scores can be combined to give an overall deprivation score and rank for each LL-SOA area, with different domain scores having different weights in the overall score (Box 4.1). This also makes clear that deprivation is linked to multiple factors encompassing economic, health and living circumstances and life chances.

**Box 1: Domains of deprivation (showing the proportion each contributes to the overall deprivation score), Indices of Multiple Deprivation 2015**

Income Deprivation (22.5%)	Employment Deprivation (22.5%)
Health Deprivation and Disability (13.5%)	Crime (9.3%)
Barriers to Housing and Services (9.3%)	Living Environment Deprivation (9.3%)
Education, Skills and Training Deprivation (13.5%)	

Source: DCLG

*4.1.3 Information about Deprivation in Buckinghamshire*

Figure 1 shows a map of Buckinghamshire LL-SOAs by their IMD rank within Buckinghamshire, meaning the levels of deprivation are mapped to show the variation within the county. The LL-SOAs are ranked into five groups or quintiles, Deprivation Quintile (DQ) one being the least deprived fifth of LL-SOAs in Buckinghamshire, and DQ5 being the most deprived fifth of LL-SOAs. Higher levels of deprivation are concentrated in Aylesbury, High Wycombe, Iver, Chesham, and Denham. Some more rural areas also have relatively high levels of deprivation, which is likely to be influenced by barriers to housing and services. Most of the areas with lowest levels of deprivation are in Chiltern or Wycombe Districts.

Some key findings within Buckinghamshire are:

- Aylesbury Vale District overall has higher levels of deprivation than the other three Districts in Buckinghamshire;
- Southcourt ward in Aylesbury has the highest level of deprivation compared to other wards in Buckinghamshire and is within the 20% most deprived wards in the country;
- For the Education, Skills and Training Deprivation Domain, Southcourt and Quarrendon in Aylesbury and Oakridge and Castlefield in High Wycombe have the highest levels of deprivation compared to other wards in Buckinghamshire.

Comparing Buckinghamshire with the rest of the country:

- Overall Buckinghamshire is the least deprived Local Enterprise Partnership (LEP), the 2<sup>nd</sup> least deprived county council, and the 5<sup>th</sup> least deprived Local Authority overall out of 152 Local Authorities in England;
- The average IMD score for Buckinghamshire as a whole was 9.8 in 2015, compared with an England average of 23, and a range for upper tier Local Authorities from 5.6 in Wokingham to 41.9 in Blackpool;
- The average IMD scores in Buckinghamshire at District Council level were 6.7 in Chiltern, 9.3 in South Bucks, 10.1 in Wycombe and 11.1 in Aylesbury Vale;

- Across Buckinghamshire, 86% of LL-SOAs are within the least deprived half of England LL-SOAs (i.e. less deprived than the median level for England), ranging from 96% of LL-SOAs in Chiltern and 95% in South Bucks below the median, to 81% in both Aylesbury Vale and Wycombe;
- Buckinghamshire has no LL-SOAs in the most deprived decile (tenth) of LL-SOAs nationally, but has 3 LL-SOAs in the second most deprived decile, all of which are in Aylesbury Vale, one each in Gatehouse, Quarrendon and Southcourt wards.

In addition to relative deprivation levels in the population, the IMD also allows comparisons of changes in deprivation levels over time (Figure 2). Some notable changes between 2010 and 2015 (which was mainly based on data from 2012/13) were:

- The average IMD score for Buckinghamshire reduced from 10.2 in 2010 to 9.8 in 2015;
- Levels of deprivation in Buckinghamshire reduced relative to other upper tier Local Authorities; Buckinghamshire's rank improved from 8<sup>th</sup> least deprived in 2010 to 5<sup>th</sup> least deprived in 2015 out of 152 Local Authorities in England;
- Deprivation levels in the county can be studied in the local context as well as National context to understand variation and changes. With regard to the local context of in-county variation in deprivation, the number of LL-SOAs in DQ4 & 5 reduced to 24 in 2015, compared to 36 in 2010;
- Around two-thirds of LL-SOAs stayed in the same DQ within Buckinghamshire between 2010 and 2015; 56 moved to a more deprived DQ, over half of which were in Aylesbury Vale, and 51 moved to a less deprived DQ;
- The following wards include LL-SOAs which have moved from DQ4 to DQ5 between the 2010 and 2015 IMDs; Grendon Underwood, Oakfield, Tingewick, Iver Heath, Iver Village and Richings Park, Stoke Poges, Wexham and Iver West, Marlow South East, Terriers and Amersham Hill;
- The following wards have LL-SOAs which have moved from DQ5 to DQ4 between the 2010 and 2015 IMDs; Chalfont Common, St Mary's and Waterside, Denham South, Abbey, Bourne End-cum-Hedsor, Disraeli, and Totteridge.

Figure 1: Map showing deprivation quintile of LL-SOAs in Buckinghamshire compared with the rest of the county, Index of Multiple Deprivation 2015.

*Buckinghamshire County, showing LSOA11 IMD2015 quintiles*

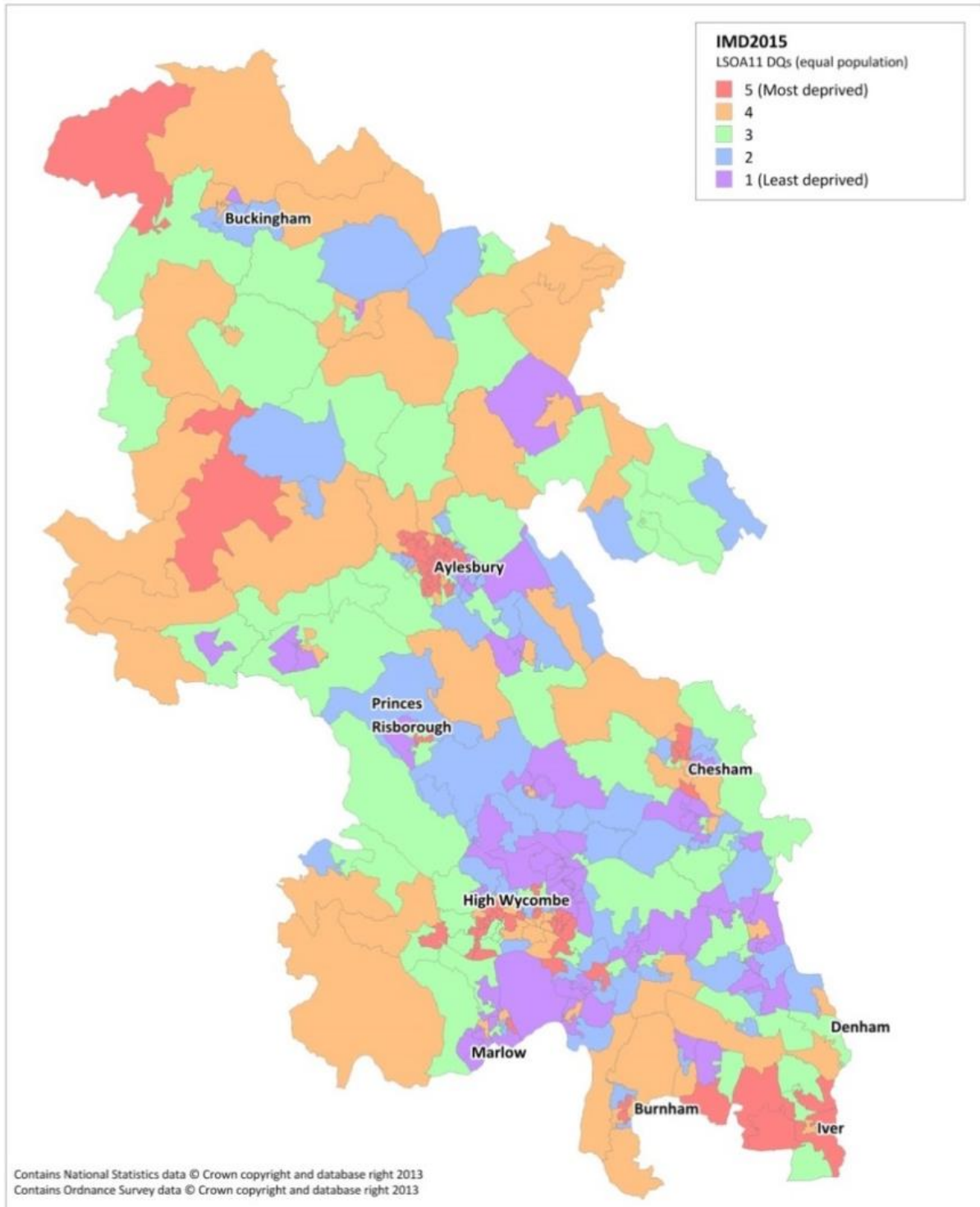
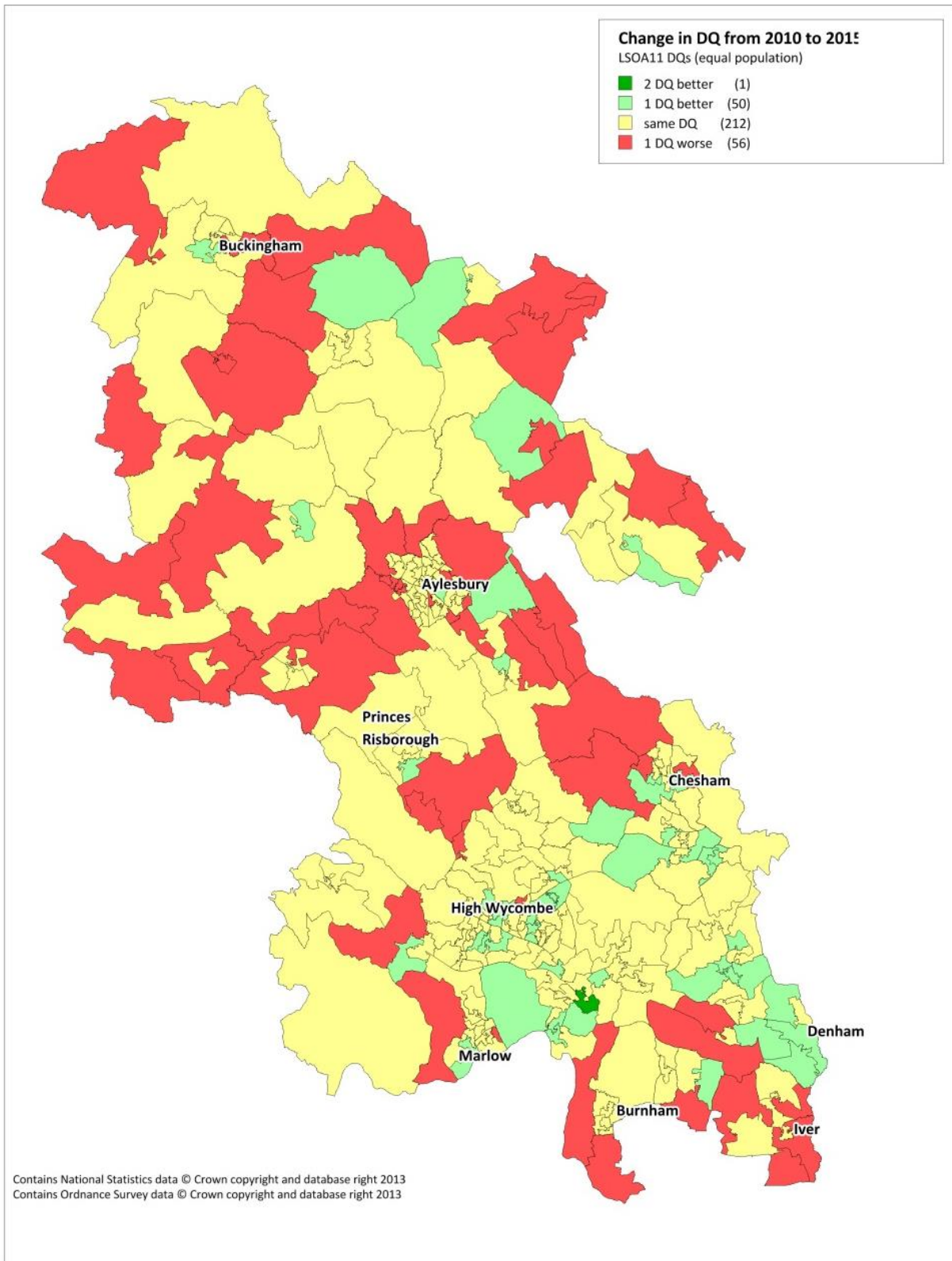


Figure 2: Changes in deprivation levels at LL-SOA level in Buckinghamshire as seen in the IMD 2015 compared to IMD 2010.

*Buckinghamshire County, showing change between IMD2010 and IMD2015*



#### 4.1.4 Conclusion

Higher levels of deprivation in the population are generally associated with worse health and life opportunities. The English Indices of Deprivation (IMD) are an important measure to understand geographic variations and inequalities in a wide range of factors affecting the population, and to make comparisons within Buckinghamshire and with other areas.

Buckinghamshire overall has relatively low levels of deprivation as measured by the IMD compared to the country as a whole, ranking 5<sup>th</sup> least deprived out of 152 Local Authorities nationally. Buckinghamshire's national rank also improved between 2010 and 2015, indicating improvements in the overall levels of deprivation in the county.

However there are significant inequalities in levels of deprivation within the county, with pockets of deprivation in all District Council areas, and some areas in Aylesbury Vale ranking among the most deprived fifth of areas in the country. Levels of deprivation also deteriorated between 2010 and 2015 in more areas in Aylesbury Vale District than in other areas of the county. Given the clear links between deprivation and worse outcomes, there should be a focus on tackling these inequalities within the county.

#### References

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<sup>1</sup> Marmot M et al (2010). *Fair Society, Healthy Lives*, London: The Marmot Review

<sup>2</sup> DCLG (2015) English Indices of Deprivation 2015

<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015> (accessed 22 January 2016)