

# **Index of Multiple Deprivation 2015 in Dudley**

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#### Introduction

The Index of Multiple Deprivation (IMD) 2015 is the official measure of relative deprivation for small areas in England. The IMD ranks every small area in England from 1 (most deprived) to 32,844 (least deprived) (Department for Communities and Local Government, 2015).

The small areas used to calculate IMD are called Lower-layer Super Output Areas (LSOAs) of which there are 32,844 in England. They are designed to be of a similar population size with an average of 1500 residents each and are a standard way of dividing up the country.

The purpose of the Indices of Deprivation is to measure as accurately as possible the relative distribution of deprivation at a small area level, but this comes at the expense of backward compatibility. The versions of the indices should not be construed as a time-series; they provide the best measure of relative deprivation at the time.

The Indices of Deprivation can be used for (DCLG, 2015):

- ☑ Comparing small areas across England
- ☑ Identifying the most deprived small areas
- ☑ Exploring the domains (or types) of deprivation
- ☑ Comparing larger areas e.g. local authorities
- ☑ Looking at changes in relative deprivation between versions (i.e. changes in ranks)

The Indices of Deprivation cannot be used for (DCLG, 2015):

- Quantifying how deprived a small area is
- ☑ Identifying deprived people
- Saying how affluent a place is
- Comparing with small areas in other UK countries
- Measuring real change in deprivation over time

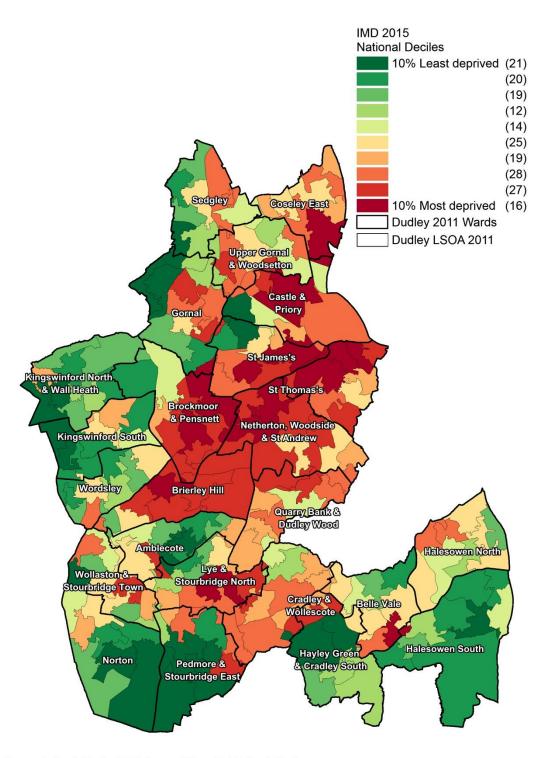
## **Deprivation in Dudley by Lower Super Output Area**

In Dudley there are 201 LSOAs, of these, 16 are amongst the 10% most deprived LSOAs in England (Table A, Figure 1).

Table A: Number of Lower-layer Super Output Areas (LSOAs) within Dudley that fall within each Index of Multiple Deprivation (IMD) Decile, IMD 2015

Index of Multiple Deprivation (IMD) Deciles	Number of LSOAs
1 (Most deprived 10% nationally)	16
2	27
3	28
4	19
5	25
6	14
7	12
8	19
9	20
10 (Least deprived 10% nationally)	21
Total	201

Figure 1: Map of Dudley showing the 2015 Index of Multiple Deprivation by LSOA 2011



IMD 2015 is based on seven different domains of deprivation and are combined together to form an overall relative measure of deprivation using the following weights:

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

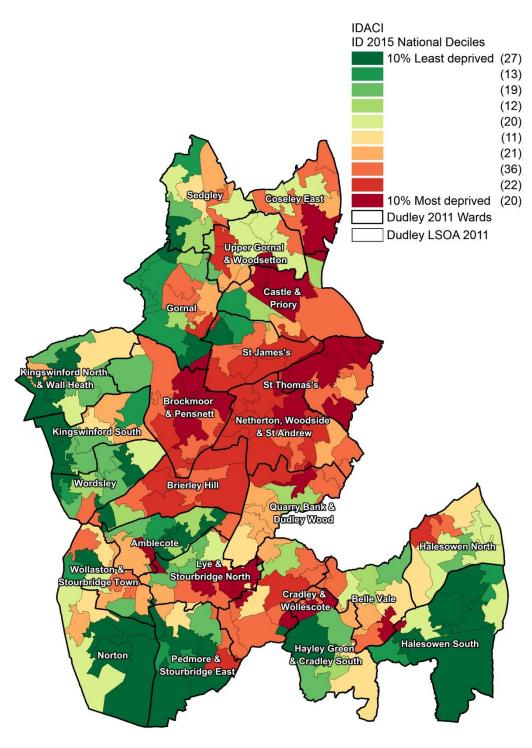
In addition to the seven domain-level indices there are two supplementary indices: the Income Deprivation Affecting Children Index and the Income Deprivation Affecting Older People Index.

The Income Deprivation Affecting Children Index (IDACI) measures the proportion of all children aged 0 to 15 living in income deprived families. The word family, in this instance, is defined as a 'benefit unit'; any partner and any dependent children (those for whom Child Benefit is received). There are 20 LSOAs in Dudley that fall within the 10% most deprived areas in England when ranked on the IDACI (Table B, Figure 2).

Table B: Number of Lower-layer Super Output Areas (LSOAs) within Dudley that fall within each Income Deprivation Affecting Children Index (IDACI) Decile, IMD 2015

Income Deprivation Affecting Children Index (IDACI) Deciles	Number of LSOAs
1 (Most deprived 10% nationally)	20
2	22
3	36
4	21
5	11
6	20
7	12
8	19
9	13
10 (Least deprived 10% nationally)	27
Total	201

Figure 2: Map of Dudley showing the 2015 Income Deprivation Affecting Children Index (IDACI) by LSOA 2011



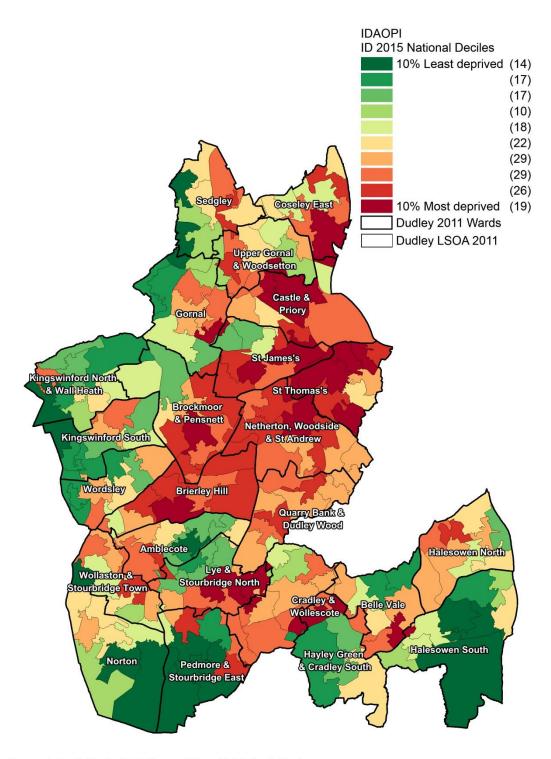
The Income Deprivation Affecting Older People Index (IDAOPI) measures the proportion of all those aged 60 or over who experience income deprivation. There are 19 LSOAs within Dudley that are ranked within the 10% most deprived nationally for Income Deprivation Affecting Older People (Table C, Figure 3).

Table C: Number of Lower-layer Super Output Areas (LSOAs) within Dudley that fall within each Income Deprivation Affecting Older People Index (IDACI) Decile, IMD 2015

Income Deprivation Affecting Older People (IDAOPI) Deciles	Number of LSOAs
1 (10% Most Deprived Nationally)	19
2	26
3	29
4	29
5	22
6	18
7	10
8	17
9	17
10 (10% Least Deprived Nationally)	14
Total	201

Maps for each of the seven domains that make up the overall index of multiple deprivation can be found in appendix 1.

Figure 3: Map of Dudley showing the Income Deprivation Affecting Older People Index (IDAOPI) by LSOA 2011



Summary measures of deprivation are also available for higher level geographies such as local authority districts, upper tier local authorities, local enterprise partnerships and clinical commissioning groups.

## **Deprivation by Local Authorities in the West Midlands**

Dudley MBC ranks 118<sup>th</sup> out of the 326 local authorities in England, 1 being the most deprived (Table D) when ranked on the IMD 2015 average rank measure. In the West Midlands there are 8 local authorities ranked higher for deprivation ahead of Dudley, with Birmingham being the most deprived. Dudley has moved 5 places from being ranked 113<sup>th</sup> out of 326 local authorities in IMD 2010.

Table D: Deprivation in the West Midlands: Local authorities ranked on the average IMD ranking, changes in rank since 2010

Local Authority	National Rank 2015	National Rank 2010	Relative change in rank since IMD 2010			
Birmingham	11	13	<b>1</b> 2			
Sandwell	12	9	<b>↓</b> 3			
Stoke-on-Trent	18	18	- 0			
Wolverhampton	19	20	<b>1</b>			
Walsall	41	35	<b>↓</b> 6			
Coventry	60	53	<b>↓</b> 7			
Telford and Wrekin	97	105	↑ 8			
Nuneaton and Bedworth	110	115	<b>↑</b> 5			
Dudley	118	113	<b>↓</b> 5			
Wyre Forest	123	128	<b>↑</b> 5			
Herefordshire, County of	126	145	<b>↑</b> 19			
Cannock Chase	128	123	<b>↓</b> 5			
Redditch	136	131	<b>↓</b> 5			
Tamworth	144	140	↓ 4			
Worcester	159	156	<b>↓</b> 3			
Newcastle-under-Lyme	161	152	<b>↓</b> 9			
East Staffordshire	163	160	<b>↓</b> 3			
Shropshire	175	166	<b>↓</b> 9			
North Warwickshire	179	172	<b>↓</b> 7			
Malvern Hills	188	223	↑ 35			
Wychavon	191	226	↑ 35			
Staffordshire Moorlands	203	181	<b>↓</b> 22			
Solihull	216	212	↓ 4			
Stafford	243	239	<b>↓</b> 4			
Rugby	244	225	<b>↓</b> 19			
Lichfield	252	237	<b>↓</b> 15			
South Staffordshire	253	247	<b>↓</b> 6			
Stratford-on-Avon	263	271	↑ 8			
Warwick	269	260	<b>↓</b> 9			
Bromsgrove	282	280	<b>↓</b> 2			
Ranked out of a	a total of 326 L	ocal Authorities	s in England			
↑ LA has moved up the rankings, closer to position 1 – Most deprived						
↓ LA has moved down to	he rankings, fu	rther from the r	most deprived LA			

Dudley MBC is ranked 101 out of 326 when ranked on the proportion of LSOAs within the most deprived 10% nationally (Table E). This is an improvement on IMD 2010 when Dudley was ranked as the 93<sup>rd</sup> most deprived local authority nationally. Although Dudley improved by 8 places in the rankings, the percentage point improvement from IMD 2010 is only -1.00, i.e. the proportion of LSOAs in the most deprived 10% nationally has gone from 8.96% in IMD 2010 to 7.96% in IMD 2015.

Table E: Deprivation in the West Midlands: local authorities ranked on the proportion of neighbourhoods in the most deprived 10% nationally, IMD 2015 and 2010

Local Authority	National Rank 2015	National Rank 2010	Percentage point change from IMD 2010	Relative change in rank since IMD 2010		
Birmingham	6	8	0.432	<b>^</b>	2	
Stoke-on-Trent	13	15	-1.060	<b>^</b>	2	
Wolverhampton	21	21	-1.265	-1.265 -		
Sandwell	28	17	-7.901	<b>V</b>	11	
Walsall	39	29	-3.900	<b>+</b>	10	
Coventry	46	45	0.694	<b>+</b>	1	
Telford and Wrekin	65	63	0.927	<b>+</b>	2	
Solihull	77	72	0.662	<b>+</b>	5	
Dudley	101	93	-0.995	<b>+</b>	8	
Worcester	102	87	-1.896	<b>+</b>	15	
Tamworth	105	160	5.840	<b>^</b>	55	
Wyre Forest	106	147	4.613	<b>^</b>	41	
Nuneaton and Bedworth	110	75	-3.566	<b>\rightarrow</b>	35	
Redditch	114	110	-0.003	<b>Y</b>	4	
Newcastle-under-Lyme	148	139	0.046	<b>+</b>	9	
Cannock Chase	152	166	1.663	<b>^</b>	14	
North Warwickshire	160	185	2.630	<b></b>	25	
Malvern Hills	168	157	-0.002	<b>\</b>	11	
East Staffordshire	183	121	-4.324	<b>+</b>	62	
Wychavon	185	185	1.280	-	0	
Warwick	187	185	1.160	<b>\</b>	2	
Herefordshire, County of	193	178	-0.02	<b>+</b>	15	
Shropshire	198	183	-0.01	<b>+</b>	15	
Lichfield	200	185	0	<b>V</b>	15	
South Staffordshire	200	185	0	<b>+</b>	15	
Stafford	200	185	0	<b>+</b>	15	
Staffordshire Moorlands	200	185	0	<b>+</b>	15	
Stratford-on-Avon	200	185	0	<b>+</b>	15	
Bromsgrove	200	185	0	<b>+</b>	15	
Rugby	200	185	0	0 4		
Ranked o	ut of a total of	of 326 Local	Authorities in Engl	and		
↑ LA has moved u	p the ranking	gs, closer to	position 1 – Most of	deprived		
↓ LA has moved d	own the ranl	kings, furthe	r from the most dep	orived LA		

Please note: Any change in rank position represents relative change only. It is possible that a district may have become less deprived in real terms since the previous index, but more deprived relative to all other districts, or vice versa. Furthermore, a change in rank, even of several places, may not represent a large increase or decrease in the levels of deprivation.

Lichfield, South Staffordshire, Stafford, Staffordshire Moorlands, Stratford-on-Avon, Bromsgrove and Rugby local authorities do not have any LSOAs within the 10% most deprived nationally in either IMD 2010 or IMD 2015 (Table E). Although the proportions have not changed in these local authorities, the overall ranking has dropped 15 places. This is due to another 15 local authorities going from having no LSOAs in the 10% most deprived in IMD 2010 to having at least 1 LSOA in the 10% most deprived nationally in IMD 2015.

#### **Deprivation by Clinical Commissioning Groups**

There are 5 Clinical Commissioning Groups (CCGs) within the Birmingham, Black Country and Solihull Area Team (BBSOL) that are more deprived than Dudley (Table F). Out of the ten most similar CCGs to Dudley (NHS England, 2013) there are only 2 that are more deprived than Dudley CCG (Table F).

Table F: National IMD 2015 rank of Clinical Commissioning Groups (CCGs) within Birmingham, Black Country and Solihull Area Team and ten CCGs most similar to Dudley (shown in green)

CCG	National Rank
NHS Sandwell and West Birmingham	5
NHS Birmingham South and Central	13
NHS Birmingham CrossCity	16
NHS Wolverhampton	20
NHS Walsall	40
NHS Mansfield and Ashfield	53
NHS Wigan borough	83
NHS Dudley	92
NHS Erewash	98
NHS North Tyneside	108
NHS Havering	125
NHS Nottingham and East	131
NHS Stockport	137
NHS Solihull*	163
NHS South East Staffs and Seisdon Peninsular	164
NHS Trafford	170
Ranked out of a total of 209 CCGs in I	England

<sup>\*</sup>Solihull CCG is both within West Midlands and considered one of the 10 most similar CCGs to Dudley.

#### **Ward Level Deprivation in Dudley**

Ward level deprivation summaries have not been produced by the department of communities and local government (DCLG). LSOAs have the advantage of having approximately even population size however wards vary widely in size making comparisons across different ward areas difficult. In Dudley the LSOAs are not coterminous with ward boundaries so therefore ward level deprivation scores need to be approximated. Summary scores for the 2011 wards have been calculated, taking into account the proportion of each LSOA in each ward (Table G). The proportion of each LSOA that fall within each ward has been taken from the UK Data Service's GeoConvert website. This approximation can have a big impact on the accuracy of the resulting deprivation scores, particularly when used on areas as small as wards, therefore results should be interpreted with caution.

Just one ward is within the 10% most deprived nationally, 15 out of the 24 wards are amongst the 50% most deprived nationally. No wards within Dudley are amongst the 50% most deprived for the Barriers to Housing and Services domain (Table G).

Table G: Ranking of Dudley 2011 wards, Index of Multiple Deprivation (IMD) 2015

Ward Name	IMD 2015 National Rank 1 = Most deprived, 7678 = Least deprived	IMD 2015	Income	Employment	Education, Skills & Training	Health & Disability	Crime	Barriers to Housing and Services	Living Environment
Amblecote	4652								
Belle Vale	2142								
Brierley Hill	958								
Brockmoor and Pensnett	868								
Castle and Priory	884								
Coseley East	1476								
Cradley and Wollescote	2305								
Gornal	2697								
Halesowen North	2690								
Halesowen South	6199								
Hayley Green and Cradley South	4151								
Kingswinford North and Wall Heath	5975								
Kingswinford South	5417								
Lye and Stourbridge North	2694								
Netherton, Woodside and St Andrews	981								
Norton	5534								
Pedmore and Stourbridge East	5339								
Quarry Bank and Dudley Wood	1756								
St James's	1432								
St Thomas's	394								
Sedgley	3669								
Upper Gornal and Woodsetton	2070								
Wollaston and Stourbridge Town	3432								
Wordsley	5177								
Number of Wards in Dudley in the 10% most deprived wards nationally		1	3	2	4	0	0	0	0
Among the 10% most deprived wards nationally								<u> </u>	
Among the 10-50% most deprived wards nationally									
Among the 50% least deprived wards nationally									

Produced by Lucie Rowson, Public Health Intelligence

## **Appendices**

## **Appendix 1**

Figure 4: Map of Dudley showing the Income domain by LSOA 2011, ID 2015

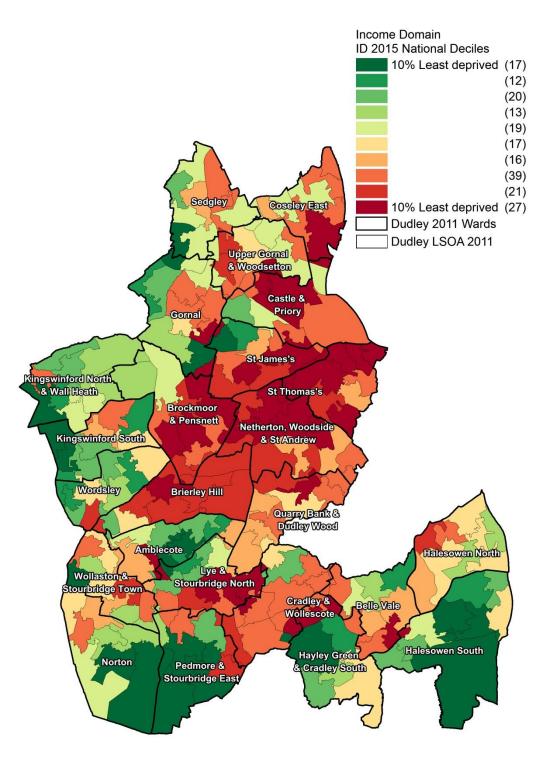


Figure 5: Map of Dudley showing the Employment domain by LSOA 2011, ID 2015

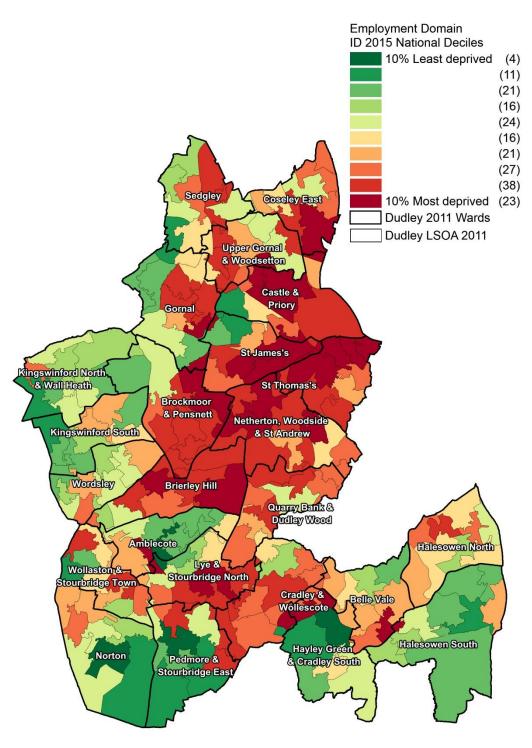


Figure 6: Map of Dudley showing the Education domain by LSOA 2011, ID 2015

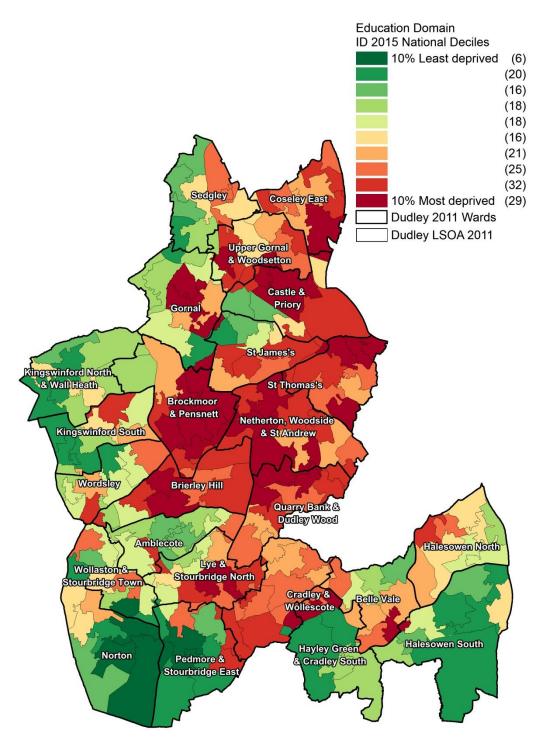


Figure 7: Map of Dudley showing the Living Environment domain by LSOA 2011, ID 2015

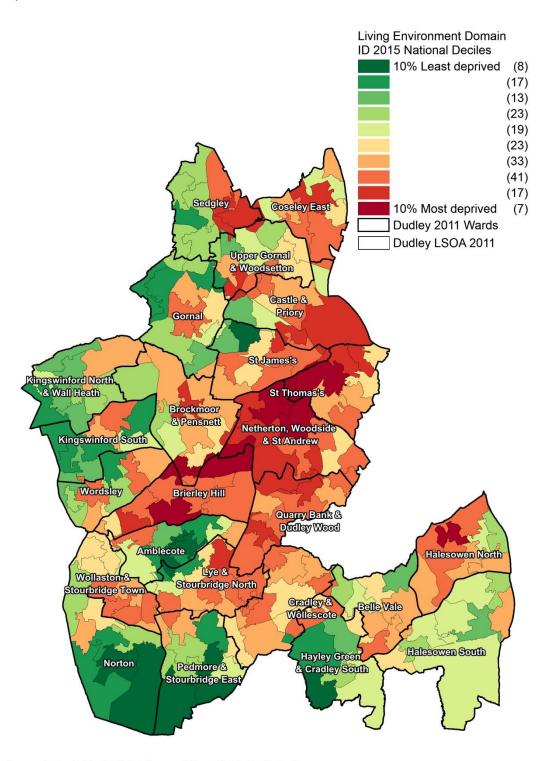


Figure 8: Map of Dudley showing the Barriers to Housing domain by LSOA 2011, ID 2015

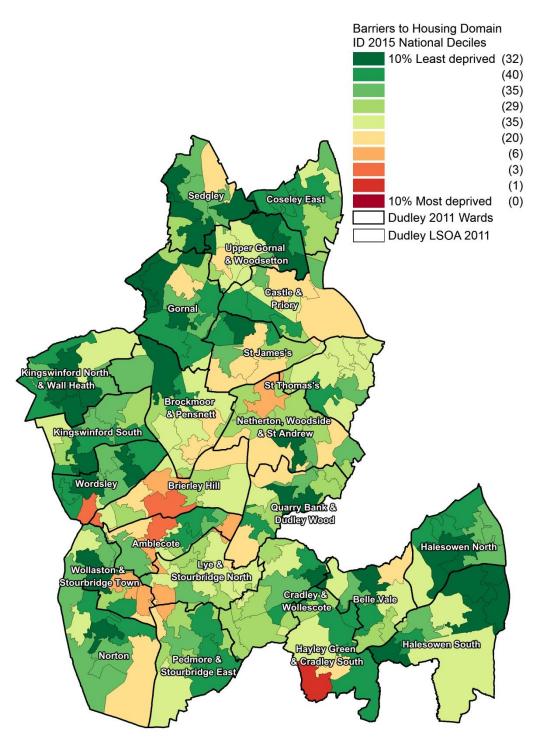


Figure 9: Map of Dudley showing the Crime domain by LSOA 2011, ID 2015

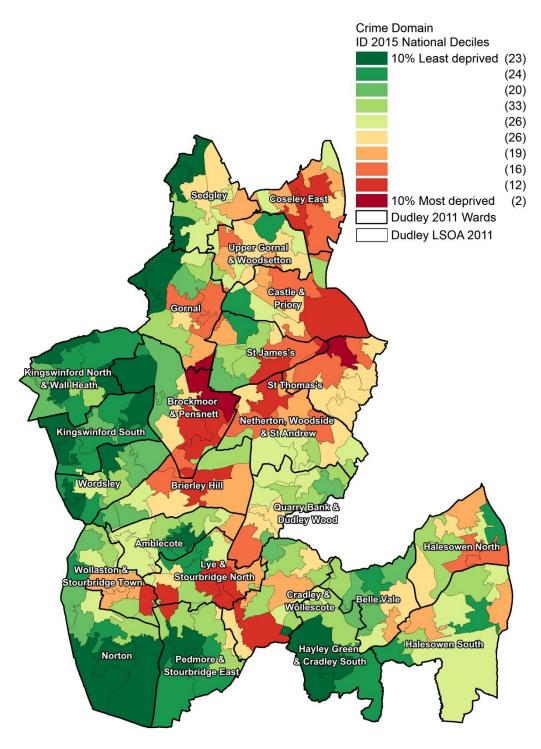
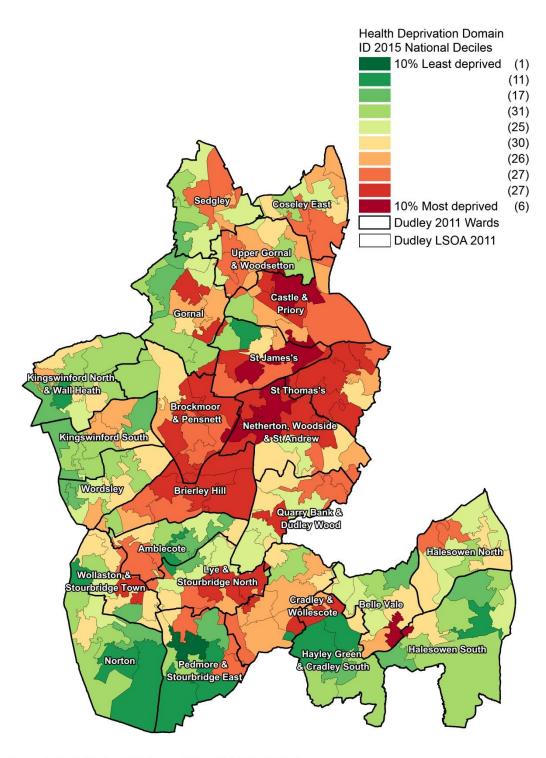


Figure 10: Map of Dudley showing the Health Deprivation and Disability domain by LSOA 2011, ID 2015



### **Bibliography**

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