Understanding the changes in Kirklees IMD rank (2010 to 2015)

Key messages

- Index of Multiple Deprivation (IMD) calculations show Kirklees to be less deprived in the 2015 release compared to 2010, relative to other local authorities in England. This relative change does not necessarily mean that actual levels of deprivation have improved.
- More than a quarter of the Kirklees population still live in areas of high deprivation (within the most deprived quintile across the country). Deprivation follows the national pattern of being primarily concentrated in urban areas.
- For Kirklees, relative deprivation rank has improved in the ‘income’, ‘education’, ‘skills & training’, ‘crime’, and ‘living environment’ IMD domains.
- Relative deprivation rank has worsened in the ‘employment’, ‘health & disability’, and ‘barriers to housing & services’ IMD domains. It is possible that absolute measures have improved in these domains over this period, but may not have improved in Kirklees as much as in other districts.
- IMD is a relative measure and cannot be used to demonstrate absolute changes in deprivation over time. Due to differences in calculation methodology between 2010 and 2015, deprivation scores in the individual domains cannot be directly compared.
- Inequalities exist across all deprivation deciles; it is important that locally gathered intelligence is used to inform strategic planning and reduce inequalities associated with factors such as ethnicity, sex and age.

The recent publication of the 2015 Index of Multiple Deprivation (IMD) figures by the Department for Communities and Local Government prompted the question of to what extent deprivation has changed in Kirklees since the 2010 IMD release. While it is difficult to directly correlate changes in IMD rank (the position of Kirklees in a list of all local authorities, ordered from most deprived to least deprived) with actual differences in experienced deprivation, this summary attempts to unpick some of the key factors potentially contributing to these changes.

What is IMD?

The Index of Multiple Deprivation (IMD) measures relative deprivation, ranking areas relative to others in England. IMD ranks are generated from scores which summarise deprivation using 37 indicators across seven domains. The scores in themselves are not meaningful absolute measures of deprivation.

An updated release of the IMD (September 2015) showed Kirklees overall to be less deprived relative to other local authorities compared with the previous IMD release (2010). However, this does not necessarily mean that levels of deprivation have reduced in Kirklees. Official IMD guidance suggests it is not possible to use the indices to measure changes in the level of deprivation in places over time. Differences between 2010 and 2015 may be due to changes in

---

1 A detailed report on these differences (including how the IMD is calculated) can be found here: [http://observatory.kirklees.gov.uk/resource/view?resourceId=4510](http://observatory.kirklees.gov.uk/resource/view?resourceId=4510)

calculation methodology and may be directly influenced by factors such as changes to benefits eligibility criteria.

IMD scores are initially calculated at Lower-layer Super Output Area (LSOA) level. Reported district level measures may be calculated as averages of these LSOA scores or ranks, and these averages ranked across all 326 local authorities in England. Changes in West Yorkshire district ranks are shown in Table 1; using the ‘rank of average scores’ method, Kirklees is now the least deprived district in West Yorkshire. Despite changes in ranks between 2010 and 2015 most West Yorkshire districts remain within the same deprivation quintile when comparing ranks nationally.

<table>
<thead>
<tr>
<th>Rank of average scores</th>
<th>Difference in rank (2010 to 2015)</th>
<th>Deprivation quintile (national)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 2010</td>
<td>IMD 2015</td>
<td>IMD 2010</td>
</tr>
<tr>
<td>Bradford</td>
<td>26</td>
<td>19</td>
</tr>
<tr>
<td>Calderdale</td>
<td>105</td>
<td>89</td>
</tr>
<tr>
<td>Kirklees</td>
<td>77</td>
<td>94</td>
</tr>
<tr>
<td>Leeds</td>
<td>68</td>
<td>70</td>
</tr>
<tr>
<td>Wakefield</td>
<td>67</td>
<td>65</td>
</tr>
</tbody>
</table>

The local picture
Summarising smaller geographical information at Kirklees level removes the variation in deprivation seen across the region. Despite IMD 2015 showing a relative improvement in deprivation for Kirklees, not all areas of Kirklees have improved and there are still areas of high deprivation (Figure 1). Of the 259 Kirklees LSOAs in 2015, 65 are in the most deprived quintile nationally. This equates to more than a quarter (27%) of the population of Kirklees. Kirklees mirrors the national and regional trends for deprivation to be concentrated in urban areas.

3 LSOAs are geographical areas of variable size, containing populations of around 1,500 people; there were 260 Kirklees LSOAs in 2010 and 259 LSOAs in 2015
4 A quintile is a grouping containing 20% of the total ranked dataset; the most deprived quintile at district level contains the 20% of districts (65 out of 326) with the lowest IMD rank scores
Public Health Intelligence: Improving outcomes through intelligence and insight

IMD domains
Using the rank of the average of the LSOA scores, relative performance (2010 vs 2015) can be compared at district level for each IMD domain. For Kirklees the relative deprivation rank has improved in the following domains: income; education, skills and training; crime; living environment. Relative deprivation rank has worsened in the following domains: employment; health and disability; barriers to housing and services (Table 2). Domain weightings, the proportional contribution of each domain to the overall score, are also shown.

Table 2: Ranks of the average scores for Kirklees by IMD domain

<table>
<thead>
<tr>
<th>Kirklees</th>
<th>IMD weighting</th>
<th>Rank (1 is most deprived)</th>
<th>IMD 2010</th>
<th>IMD 2015</th>
<th>2015 better/ worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>22.5%</td>
<td>63</td>
<td>98</td>
<td>2015</td>
<td>better</td>
</tr>
<tr>
<td>Employment</td>
<td>22.5%</td>
<td>102</td>
<td>82</td>
<td>2015</td>
<td>worse</td>
</tr>
<tr>
<td>Health and disability</td>
<td>13.6%</td>
<td>116</td>
<td>108</td>
<td>2015</td>
<td>worse</td>
</tr>
<tr>
<td>Education, skills and training</td>
<td>13.5%</td>
<td>90</td>
<td>108</td>
<td>2015</td>
<td>better</td>
</tr>
<tr>
<td>Barriers to housing and services</td>
<td>9.3%</td>
<td>225</td>
<td>200</td>
<td>2015</td>
<td>worse</td>
</tr>
<tr>
<td>Crime</td>
<td>9.3%</td>
<td>45</td>
<td>101</td>
<td>2015</td>
<td>better</td>
</tr>
<tr>
<td>Living environment</td>
<td>9.3%</td>
<td>26</td>
<td>50</td>
<td>2015</td>
<td>better</td>
</tr>
</tbody>
</table>

To further understand the distribution of LSOAs and the extent of the changes between 2010 and 2015, Table 3 shows the number of LSOAs in 2015 in each deprivation quintile and domain (along with the change in this number since 2010).

---

5 The seven domains are not equally weighted. A 22.5% weighting for the Income domain means that the score for this domain represents 22.5% of the overall IMD score.
Table 3: Count of LSOAs in each domain and quintile in IMD 2015, including difference to 2010

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Overall</th>
<th>Income</th>
<th>Children</th>
<th>Income</th>
<th>Older</th>
<th>Employment</th>
<th>Education</th>
<th>Health</th>
<th>Crime</th>
<th>Barriers</th>
<th>Living Env</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least deprived</td>
<td>+29 (+3)</td>
<td>+26 (+10)</td>
<td>+44 (+7)</td>
<td>+38 (+4)</td>
<td>+20 (+9)</td>
<td>+43 (+12)</td>
<td>+12 (+3)</td>
<td>+15 (+8)</td>
<td>+32 (+7)</td>
<td>+1 (+6)</td>
<td></td>
</tr>
<tr>
<td>Most deprived</td>
<td>+65 (+8)</td>
<td>+38 (+5)</td>
<td>+57 (+5)</td>
<td>+60 (+4)</td>
<td>+69 (+9)</td>
<td>+67 (+5)</td>
<td>+58 (+11)</td>
<td>+33 (+6)</td>
<td>+8 (+2)</td>
<td>+80 (+52)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 represents this information graphically. Bars to the right of zero (positive numbers) indicate more LSOAs in that quintile/domain in 2015; bars to the left of zero (negative numbers) indicate fewer LSOAs. Bars extending into the top right quadrant for each domain represent increased numbers of LSOAs in the least deprived quintiles (i.e. an improvement in relative deprivation), and bars extending into the bottom left quadrant represent increased numbers in the most deprived quintiles (a worsening of relative deprivation).

The example below may aid interpretation. For IMD 2015 overall, it shows 8 fewer Kirklees LSOAs in the most deprived quintile, 3 fewer LSOAs in the second most deprived quintile, 5 and 8 more LSOAs in the third and fourth most deprived quintiles, respectively, and 3 fewer LSOAs in the least deprived quintile.

The ‘living environment’ and ‘crime’ domains show the largest positive differences (fewer LSOAs in the most deprived quintile and more LSOAs in other quintiles). The ‘barriers to housing and services’ domain shows the largest negative difference.
Figure 2: Difference in number of LSOAs by IMD quintile and domain between 2010 and 2015. Numbers less than zero indicate fewer LSOAs in that quintile/domain – see text for a more detailed explanation. Note, there were 259 LSOAs in 2015 but 260 in 2010, so there is a net difference of -1 across all quintiles. Weightings of each domain towards the overall IMD score are shown in brackets beneath each domain name.
Further details regarding the three domains ranked worse in 2015 than 2010\textsuperscript{6} (identified in Table 2) are provided below. It is possible that absolute measures have improved in these domains over this period, in which case they may not have improved in Kirklees as much as in other districts (leading to a potential worsening in rank despite an improved performance).

**Employment**

*Measures:* Claimants of Jobseeker’s Allowance, Employment and Support Allowance, Incapacity Benefit, Severe Disablement Allowance, Carer’s Allowance.

*Notes:*  
- The percentage of income support claimants in Kirklees halved between 2010 and 2014, although there have been changes in the rules around income support.
- The proportion of benefit claimants on incapacity benefits was very similar between 2010 and 2014.
- Carer’s allowance was not considered in the 2010 IMD calculations.

**Health and disability**

*Measures:* Years of potential life lost, comparative illness and disability ratio (including measures relating to people on various disability allowances and Incapacity Benefit), acute morbidity (emergency hospital admissions), mood and anxiety disorders (combining hospital, mortality and health benefits data).

*Notes:*  
- Life expectancy and healthy life expectancy are increasing in Kirklees, and the number of years of potential life lost is decreasing. Maps indicate a correlation between reduced healthy life expectancy and areas of increased deprivation (see Figure 3 in Appendix).
- Rates of emergency admissions in Kirklees increased slightly between 2008/09 and 2012/13, contrary to a small drop in emergency admission rates nationally. Suicide rates in Kirklees in 2012-14 were similar to those in 2008-10, and levels of self-reported depression, anxiety or other nervous illness in adults in 2012 were similar to those in 2008 (data from local population surveys). The percentage of disability living allowance claimants was similar in 2010 and 2014.
- The Kirklees Joint Strategic Assessment is currently being updated and will provide further details on health-related issues within Kirklees. The CLiK population survey (to be carried out in 2016) will also provide a wealth of health-related intelligence to inform strategic planning across the district.

**Barriers to housing and services**

*Measures:* Road distance to a GP surgery, a general store/supermarket, a primary school, and a post office, household overcrowding, homelessness, and housing affordability.

*Notes:*  
- Median house price (paid) has remained consistent between 2009 and 2014. According to the 2015 Strategic Housing Market Assessment\textsuperscript{7}, Kirklees is one of the more affordable districts in the region. The proportion of overcrowded households increased slightly between 2008 and 2012 (data from local population surveys).

\textsuperscript{6} The IMD 2015 calculations primarily use data from 2012/13, so IMD 2015 does not necessarily reflect the current situation in Kirklees.

\textsuperscript{7} https://www.kirklees.gov.uk/business/planningPolicy/pdf/strategicHousingMarketAssessment.pdf
• Using the number of households in temporary accommodation and the number of homeless acceptances as a guide, levels of homelessness in Kirklees were unchanged between 2010/11 and 2013/14.

• Geographical barriers (based on road distances to a GP surgery, a primary school and a post office) have not changed substantially between 2010 and 2015.

Conclusions

IMD is not a perfect measure of deprivation. It is a relative measure expressed in financial or quality of life terms, but it doesn’t take account of, for example, those minority groups that experience reduced access to services or opportunities due to cultural differences. Other factors such as changes to the benefits system may affect individuals in real terms but may not influence relative deprivation rankings (since the changes could affect all regions across the country). While the overall IMD ranking may be broadly comparable between 2010 and 2015, changes in methodology make it more difficult to directly compare individual domains.

Although Kirklees has some of the most deprived areas in the country, inequalities exist across all deprivation deciles. It should also be noted that not all deprived people live in deprived areas, and not all people living in deprived areas are deprived. It is essential that a range of indicators (such as those used to inform the Joint Health and Wellbeing Strategy and the Economic Strategy) continue to be monitored across the region (within, for example, the framework of the Kirklees Joint Strategic Assessment\(^8\)) and locally gathered intelligence is used to inform strategic planning and reduce inequalities associated with factors such as ethnicity, sex and age (at neighbourhood and district levels as appropriate). This will ensure that a broad overview of inequalities is maintained; the work of New Council will be fundamental in addressing such inequalities.

Beyond the framework of the IMD, the Institute of Health Equity has published the Marmot Indicators\(^9\), providing a Kirklees level overview of a range of inequality and deprivation indicators. Trends across all local authorities, including slope index of inequality charts, are also available\(^10\).

---

\(^8\) The Kirklees Joint Strategic Assessment is currently being updated; the previous version is available here: http://www.kirklees.gov.uk/you-kmc/partners/other/jsna.aspx


Appendix

Healthy Life Expectancy in Kirklees

Female

Male

Figure 3: Maps of healthy life expectancy at birth (2009-13) in Kirklees (MSOA level)

Public Health Intelligence: Improving outcomes through intelligence and insight