Identifying and Understanding Inequalities in Child Welfare Intervention Rates: Comparative studies in four UK countries.


Document Version:
Publisher's PDF, also known as Version of record

Queen's University Belfast - Research Portal:
Link to publication record in Queen's University Belfast Research Portal

Publisher rights
© The Authors 2017

General rights
Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.
Identifying and Understanding Inequalities in Child Welfare
Intervention Rates: Comparative studies in four UK countries.

Single country quantitative study report: Northern Ireland

Lisa Bunting, Claire McCartan and Gavin Davidson
February 2017
Contents

Summary of Key Findings .................................................................................................. 4
Note to readers .................................................................................................................... 5
1. Introduction..................................................................................................................... 6
   1.1 Research methods ...................................................................................................... 7
Table 1.1 – NI Child Population, SOSCARE and Official Data (2014/15) ......................... 8
Table 1.2 – Comparison of SOSCARE Data with Published Data by Intervention and
   HSCT (2014/15) ............................................................................................................... 9
Figure 1.1 - Distribution of NI Child and Adult Population by Deprivation Decile, 2014 .... 10
Figure 1.2 Distribution of NI Child Population by Age Group and Deprivation Quintile, 2014
   ........................................................................................................................................ 10
   Figure 1.3 Percentage of Child Population by Deprivation Quintile, 4 UK Countries, 2015
   ........................................................................................................................................ 11
2. Area-Level Deprivation ................................................................................................. 12
   NI CPR and LAC rates by deprivation decile ............................................................... 12
   Figure 2.1 – NI CPR and LAC rates by Deprivation Decile at 31st March 2015 ............ 12
3. Gender ........................................................................................................................... 13
   Figure 3.1 NI CPR Rates by Gender and Deprivation Decile at 31st March 2015 ........... 13
   Figure 3.2 NI LAC (all) Rates by Gender and Deprivation Decile at 31st March 2015..... 14
   Figure 3.3 NI LAC (accommodated) Rates by Gender and Deprivation Decile at 31st
   March 2015 .................................................................................................................... 14
4. Age .................................................................................................................................... 15
   Figure 4.1 NI CPR Rates by Age Group and Deprivation Quintile at 31st March 2015 .... 15
   Figure 4.2 NI LAC (all) Rates by Age Group and Deprivation Quintile at 31st March 2015
   ........................................................................................................................................ 16
   Figure 4.3 NI LAC (accommodated) Rates by Age Group and Deprivation Quintile at 31st
   March 2015 ..................................................................................................................... 16
5. Reason for Intervention ................................................................................................. 18
   Figure 5.1 NI CPR Rates by Abuse Type and Deprivation Quintiles at 31st March ...... 18
6. Legal Status ................................................................................................................... 19
   Figure 6.1 NI LAC (all) Rates by Legal Status and Deprivation Quintiles at 31st March
   2015 ............................................................................................................................... 19

This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
Summary of Key Findings

This report is about the connection between social inequality and child welfare interventions. We analysed routinely collected administrative data from the Northern Ireland’s Department of Health (DoH) relating to children on child protection registers and in care (looked after) on 31 March 2015. The data were linked by postcode identifiers to area-level indicators of multiple deprivation. These are the key findings:

- There is a clear social gradient whereby, for every level of deprivation, the rates of children on child protection registers and looked after children increase: children living in the most deprived areas in NI have a 6 times higher rate of being placed on a CPR and a 4 times higher rate of becoming LAC than those in the least deprived areas.
- There is no statistically significant difference between boys and girls in terms of child protection and looked-after children rates at each level of deprivation.
- There are statistically significant differences in CPR and LAC rates between different age groups - after controlling for deprivation, 16-17 year olds are less likely to be on CPRs than other age groups and more likely to be LAC.
- Although deprivation has a significant effect on child welfare interventions the gradient is less steep in NI than other UK nations, despite NI having significantly higher levels of deprivation. There are a number of possible explanations for this:
  - more deprived local authorities receive higher number of referrals but they respond to these differently, screening more out, stepping down statutory plans more quickly and conducting less long term work with families – the fact that NI has the highest referrals rates across the UK may lead to higher thresholds for intervention, reducing CPR rates and the potential association with deprivation.
  - the operation of NI’s integrated health and social care system, together with the presence of a strong community sector and developments in integrating and co-ordinating family support services across the region, may act to ameliorate some of the impact of deprivation by better meeting the support needs of families without recourse to statutory intervention.
Note to readers

Although this report is structured in the same way as those we have produced for England, Scotland and Wales, the data the reports contain cannot be directly compared because each report is based on the Index of Multiple Deprivation for the country in question. These Indices are not identical and the distribution of children across neighbourhoods with different levels of deprivation varies between countries. However, the report does contain some discussion of how NI rates compare with other country rates (based on UK wide indices) and possible reasons for variation.
1. Introduction

Children’s services across the UK face crises of demand and confidence. In Northern Ireland (NI) referral rates to children and family social services have been steadily increasing since 2008. Child protection investigation and registration (CPR) rates have also increased substantially since 2005 and, although these have been reducing since 2011/12, they have remained higher than in England and Scotland (Bunting et al. under review). These increases have taken place in the context of economic austerity which has seen a real terms reduction in English local authority budgets of 27% between 2010/11 and 2014/15, with the most deprived populations suffered disproportionately higher levels of cuts (Hastings et al., 2015). Likewise, Health and Social Care Trusts (HSCTs) in Northern Ireland have been required to make efficiency savings of approximately 3% each year since 2008/09 (BHSCT, 2015). Successive national and regional scandals affecting current and historical cases of systemic abuse have also added to demands on services.

However, such headlines deflect attention from another major issue: very large inequalities in a child’s chances of being on a child protection plan or being ‘looked after’ in state care between and within local authorities, between ethnic groups, and across the four UK countries. Child welfare inequalities occur when children and/or their parents face unequal chances, experiences or outcomes of involvement with child welfare services that are systematically associated with structural social dis/advantage and are unjust and avoidable.

The Child Welfare Inequalities Project (CWIP) set out to study the relationship between area-based inequalities and child welfare intervention rates. By ‘rates’ we mean how many children are looked after (LAC) in care or are on child protection registers/plans (CPR/CPP) per 10,000 child population. This work has been undertaken across the four nations of the UK because an initial pilot study (Bywaters, Brady, Sparks and Bos, 2016) found a strong association between area-based deprivation and child welfare intervention rates in local authorities in the English Midlands. Those authors noted that whereas considerable attention has been paid to inequalities in the health and education fields, in the field of children’s social care, social inequality has become taken for granted.

What follows is a report specifically about Northern Ireland (NI) using the Northern Ireland Index of Multiple Deprivation (NIIMD). The report covers patterns of child welfare intervention
by gender, age, reason for intervention and legal status, all analysed by levels of deprivation. For variables with relatively large numbers, such as CPR/LAC status and gender, the results are presented by deprivation decile i.e. children living in the 10% of areas with the least deprivation (decile 1) up to the 10% of most deprived areas (decile 10). Where numbers within categories are smaller, such as age, reason for intervention and legal status, quintiles are used i.e. children living in the 20% of areas with the least deprivation (quintile 1) up to the 20% of most deprived areas (quintile 5). To facilitate UK comparisons LAC figures are presented as the total rate of children looked after as well as those who are accommodated by the state i.e. excluding those looked after at home or in kinship foster care. The report also includes consideration of the inverse intervention law identified in the Midlands by Bywaters et al. and some findings on variation by HSCT. Ethnicity is not included in the NI analysis as this data is not available by SOA.

1.1 Research methods

In the Northern Ireland element of the project, a full sample of data relating to children in need, on child protection registers and those looked after at 31st March 2015 was accessed via the Honest Broker Service (HBS). The HBS provides access to anonymised ethically approved health and social care data routinely collected by the Department of Health (DoH) and associated Health and Social Care organisations. In this study, the HBS provided access to data recorded on the SOSCARE database, which each HSCT in Northern Ireland uses to record information about referrals and open cases involving social services. This included data relating to each child designated as being in need, those on child protection registers and/or those who were looked after, on 31st March 2015. The HBS also linked the family of origin address at the time of referral to children’s social services with neighbourhood Super Output Area (SOA) to facilitate investigation of the relationship between area-level deprivation and child welfare intervention rates.
Table 1.1 – NI Child Population, SOSCARE and Official Data (2014/15)

<table>
<thead>
<tr>
<th>At 31.3.15</th>
<th>Population 0-17</th>
<th>Children in Need</th>
<th>Children on CPRs</th>
<th>Looked after Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Ireland published data</td>
<td>433,161</td>
<td>23834</td>
<td>1969</td>
<td>2875</td>
</tr>
<tr>
<td>SOSCARE cleaned data</td>
<td>-</td>
<td>22706</td>
<td>1845</td>
<td>2882</td>
</tr>
<tr>
<td>Cleaned data as % of published data</td>
<td>-</td>
<td>95%</td>
<td>94%</td>
<td>100%</td>
</tr>
</tbody>
</table>

As Table 1.1 demonstrates, the final sample of cleaned data closely approximated the official child welfare statistics published by DoH (2015) over the same time period. However, some variations were apparent (Table 1.2): figures for the BHSCT were substantially different with regard to child protection registrations while figures for the BHSCT, SEHSCT and WHSCT were substantially different with regards to looked after children. In our analysis, we focused on the child’s home address at the time of referral in order to identify family of origin deprivation, an approach which differs from published data which focuses on the child’s location at the census date. However, analysis using both these methods showed similar patterns indicating this was not a major source of variation. Discussion with statisticians and senior managers responsible for the official returns highlighted some anomalies in the data collection procedures whereby the family of origin address had erroneously been changed in a minority of cases to reflect the foster carer address rather than the birth family address. It seems likely that this practice, since amended, likely explains much of the variation between the two data sources. Equally, the fact that published data are based on aggregate paper returns, which are more prone to errors in coding, while the SOSCARE sample is based on individual child data, may also contribute to some variation.
Table 1.2 – Comparison of SOSCARE Data with Published Data by Intervention and HSCT (2014/15)

<table>
<thead>
<tr>
<th>HSCT</th>
<th>Children on Child Protection Register</th>
<th>Looked after Children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SOSCARE data</td>
<td>Northern Ireland published</td>
</tr>
<tr>
<td>Belfast</td>
<td>287</td>
<td>382</td>
</tr>
<tr>
<td>Northern</td>
<td>483</td>
<td>505</td>
</tr>
<tr>
<td>South Eastern</td>
<td>385</td>
<td>377</td>
</tr>
<tr>
<td>Western</td>
<td>409</td>
<td>408</td>
</tr>
<tr>
<td>Southern</td>
<td>281</td>
<td>297</td>
</tr>
<tr>
<td>Total</td>
<td>1845</td>
<td>1,969</td>
</tr>
</tbody>
</table>

The NIMDM 2010 provides information on seven ‘domains’ of deprivation and an overall multiple deprivation measure available at Super Output Area (SOA), a small area geography designed specifically for optimal measurement of deprivation using similar size populations. In total Northern Ireland is made up of 890 SOAs with an average population of 2,000 people. Based on the NIMDM 2010 figures and using 2014 mid-year population estimates (NISRA, 2015) Figure 1.1 shows that 20% of the child population in NI lived in the most deprived 20% of areas while 18% lived in the least deprived 20% of areas indicated that 19% of the population lived in areas in the most deprived fifth of Northern Ireland. Figure 1.2 also shows that younger children in NI were somewhat over-represented in the higher deprivation quintiles compared to other age groups, but under-represented in the lower deprivation quintiles.

Although each constituent country of the UK has developed slightly different measures of deprivation it is possible to compare deprivations levels across the UK using adjusted scores based on employment and income deprivation domains (Abel et al., 2016). This highlights

This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
stark differences between UK nations with NI having less than 1% of children living in the least deprived 20% of areas compared to 7% in Wales and 19% in Scotland and England (Figure 1.4).

**Figure 1.1 - Distribution of NI Child and Adult Population by Deprivation Decile, 2014**

![Distribution of Child Population in Total NI Population by Deprivation Decile (%), Mid Year Estimate, 2014](image)

**Figure 1.2 Distribution of NI Child Population by Age Group and Deprivation Quintile, 2014**

![Distribution of Child Population in Northern Ireland, by Age Group and Deprivation Quintile](image)
This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
2. Area-Level Deprivation

NI CPR and LAC rates by deprivation decile

The key finding from the analyses is that the same social gradient between levels of deprivation and child welfare intervention rates identified in the Coventry study was also clearly apparent in Northern Ireland. Figure 2.1 shows that children living in the 10% most deprived areas were 6 times more likely to be placed on children protection registers and four times more likely to become looked after than children living in the 10% most affluent areas. Focusing on children ‘accommodated’ by HSCTs (i.e. excluding those looked after at home or in kinship care) the pattern remains the same, albeit at a slightly lower level, with those in the 10% most deprived areas being 3 times more likely to be accommodated by an HSCT than those in the 10% most affluent areas.

Figure 2.1 shows higher rates of LAC than CPR for all deprivation deciles. Spearman’s Rank correlation tests were used to confirm the linear relationship between rates and deprivation. A positive and significant correlation between rates and deprivation decile was found for all three intervention types: CPR \([rs=.99, \ p=<.001]\), LAC (all) \([rs=.95, \ p=<.001]\) and LAC (accommodated) \([rs=.93, \ p=<.001]\).
3. Gender

Males and female children in NI showed similar increasing CPR, LAC (all) and LAC (accommodated) rates across deprivation deciles. With regard to CPR rates, there was a slight decrease for females in deciles 4-5 and in deciles 9-10 (Figure 3.1). Males and females showed similar increasing LAC (all) rates across deprivation deciles, rising between deciles 1-4, flattening out between deciles 4-7 and increasing between deciles 8-10 (Figure 3.2). Males and females also showed similar increasing LAC (accommodated) rates across deprivation deciles, although there was slightly more variation with rates for females dipping between decile 5 and 6 and remaining lower than males between deciles 8-10 (Figure 3.3).

A two-way between-groups analysis of variance was conducted to explore the impact of gender and deprivation on CPP, LAC (all) and LAC (accommodated) rates. Deprivation had a statistically significant effect on CPR rates (F(1,16) = 330.55, p<0.001), LAC (all) rates (F(1,16) = 190.21, p<0.001) and LAC (accommodated) rates (F(1,16) =116.55, p<0.001). The main effect of gender was not significant for CPR (F(1,16) = .03, p=.87), LAC (all) (F(1,16) = 1.28, p=.27) or LAC (accommodated) (F(1,16) = .63, p=.44). The interaction between gender and IMD decile was also not significant for CPR (F(1,16) = .48, p=.50), LAC (all) (F(1,16) = .20, p=.66) or LAC (accommodated) (F(1,16) = .42, p=.53). A logarithmic transformation was used on rates to improve linearity.

Figure 3.1 NI CPR Rates by Gender and Deprivation Decile at 31st March 2015
This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
4. Age

A graded relationship was evident across all age groups and CPR rates were substantially lower for those living in the 20% least deprived areas compared to those in the 20% most deprived areas (Figure 4.1). Rates were highest for the 5-9 and 10-15 year old age groups in quintile 1, the 5-9 year old age group in quintile 2 and for the 0-4 year old age group across quintiles 3-5. The 16-17 year old age group had the lowest rates across all quintiles.

As with LAC (all), rates for LAC (accommodated) were substantially lower for those children living in the 20% least deprived areas than those in the 20% most deprived areas (Figure 4.3). In contrast with LAC (all), LAC (accommodated) rates were highest for the 0-4 year old age across deciles 3-5 while rates for 16-17 year olds were the lowest across all quintiles 2-3.

Across all age groups, LAC (all) rates were substantially lower for those children living in the 20% least deprived areas than those in the 20% most deprived areas (Figure 4.2). Rates were highest across all quintiles for those aged 16-17 years and lowest for those aged 0-4 years.

Figure 4.1 NI CPR Rates by Age Group and Deprivation Quintile at 31st March 2015

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td>10</td>
<td>32</td>
<td>47</td>
<td>64</td>
<td>108</td>
</tr>
<tr>
<td>5 to 9</td>
<td>18</td>
<td>36</td>
<td>38</td>
<td>55</td>
<td>95</td>
</tr>
<tr>
<td>10 to 15</td>
<td>18</td>
<td>20</td>
<td>32</td>
<td>44</td>
<td>72</td>
</tr>
<tr>
<td>16 to 17</td>
<td>5</td>
<td>11</td>
<td>18</td>
<td>29</td>
<td>33</td>
</tr>
</tbody>
</table>
This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
An analysis of covariance was conducted to explore the impact of age and deprivation on CPR, LAC (all) and LAC (accommodated) rates. A logarithmic transformation was used on rates to improve linearity, and thus focus on proportional rather than absolute change. Deprivation had a statistically significant effect on CPR rates ($F(1,12) = 187.58, \ p<0.001$), LAC (all) rates ($F(1,12) = 139.68, \ p<0.001$) and LAC (accommodated) rates ($F(1,12) = 187.69, \ p<0.001$). Age also had a statistically effect on CPR rates ($F(3,12) = 25.40, \ p<0.001$), LAC (all) rates ($F(3,12) = 18.73, \ p<0.001$) and LAC (accommodated) rates ($F(3,12) = 25.45, \ p<0.001$). The interaction between age and deprivation was not significant for CPR ($F(3,16) = 1.92, \ p=.181$), LAC (all) ($F(3,12) = 1.14, \ p=.372$) or LAC (accommodated) ($F(3,16) = 1.92, \ p=.181$).
5. Reason for Intervention

Registration on CPRs substantially increased across deprivation quintiles in relation to neglect, physical abuse and emotional abuse (Figure 5.1). However, sexual abuse only increased slightly across quintiles.

**Figure 5.1 NI CPR Rates by Abuse Type and Deprivation Quintiles at 31st March 2015**

![CPR Rates (per 10,000 children) by Abuse Type and Deprivation Quintile, NI IMD](chart)

- **Neglect:**
  - Quintile 1: 2
  - Quintile 2: 7
  - Quintile 3: 11
  - Quintile 4: 13
  - Quintile 5: 20
- **Physical Abuse:**
  - Quintile 1: 6
  - Quintile 2: 8
  - Quintile 3: 11
  - Quintile 4: 20
  - Quintile 5: 33
- **Sexual Abuse:**
  - Quintile 1: 1
  - Quintile 2: 2
  - Quintile 3: 4
  - Quintile 4: 4
  - Quintile 5: 5
- **Emotional Abuse:**
  - Quintile 1: 4
  - Quintile 2: 9
  - Quintile 3: 10
  - Quintile 4: 14
  - Quintile 5: 26
6. Legal Status

Children who were taken into care under child protection measures and voluntary arrangements show the same graded relationship with deprivation although the gradient was much less pronounced with regards to voluntary arrangements (Figure 6.1). There was no apparent relationship between deprivation and the use of adoption or youth justice measures, although the rates were so small as to be negligible.

Figure 6.1 NI LAC (all) Rates by Legal Status and Deprivation Quintiles at 31st March 2015

![Graph showing LAC rates by legal status and deprivation quintile.]

Focusing on those children ‘accommodated’ by HSCTs, the same pattern is apparent with those children in the least deprived quintile having much lower rates of becoming looked after under child protection measures or voluntary arrangements than those in the most deprived quintile (Figure 6.2). Again, there was no apparent relationship between deprivation and the use of adoption or youth justice measures, although the rates were so small as to be negligible.
Figure 6.2 NI LAC (accommodated) Rates by Legal Status and Deprivation Quintile at 31st March 2015

![LAC (accommodated) Rates (per 10,000 children) by Legal Status and Deprivation Quintile, NI IMD]

- **Child Protection**: 16, 29, 30, 41, 74
- **Adoption**: 0, 0, 1, 1, 1
- **Voluntary**: 7, 15, 16, 19, 27
- **Youth Justice**: 0, 0, 0, 0, 1

This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit [www.coventry.ac.uk/cwip](http://www.coventry.ac.uk/cwip).
7. Placement Type

LAC (all) rates increased across deprivation quintiles for most placement types although it should be noted that overall numbers within the adoption and other categories were very small (Figure 7.1). Rates were highest for foster care and kinship care as these comprised the bulk of placements used. However, the increase by deprivation was much higher for kinship care, a tenfold increase between quintile 1 to quintile 5, compared to foster care, which had a threefold increase between quintile 1 and 5. Rates for residential care and placement with parents also showed a threefold increase across quintiles.

Figure 7.1 NI LAC (all) rates by placement type and deprivation quintiles at 31st March 2015

<table>
<thead>
<tr>
<th>Placement Type</th>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foster Care</td>
<td>14.5</td>
<td>22.4</td>
<td>21.7</td>
<td>31.0</td>
<td>45.5</td>
</tr>
<tr>
<td>Kinship Care</td>
<td>4.4</td>
<td>13.6</td>
<td>15.1</td>
<td>20.7</td>
<td>43.1</td>
</tr>
<tr>
<td>Adoption</td>
<td>0.4</td>
<td>0.3</td>
<td>0.7</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td>With Parents</td>
<td>6.4</td>
<td>9.3</td>
<td>9.6</td>
<td>11.5</td>
<td>17.2</td>
</tr>
<tr>
<td>Residential/Secure Accom</td>
<td>3.5</td>
<td>5.0</td>
<td>6.4</td>
<td>6.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Other*</td>
<td>0.6</td>
<td>2.5</td>
<td>2.6</td>
<td>3.3</td>
<td>3.9</td>
</tr>
</tbody>
</table>
8. The Inverse Intervention Law and Variation by HSCT

In addition to establishing that those living in the highest areas of deprivation had much higher rates of intervention, the Coventry study also identified the Inverse Intervention Law (ILL): whereby those living in areas of deprivation located within a more affluent local authority had even higher intervention rates than those living in deprived areas within a similarly deprived local authority. While the small number of HSCTs in Northern Ireland meant it was not possible to test for the presence of the ILL it is worth considering how rates varied by HSCT and deprivation.

Although the NIIMD does not calculate deprivation by HSCT levels it is possible to do so using the same methodology as in England. This is based on two summary measures both of which are population-weighted to take account of the fact that SOA population sizes can vary:

- an average population weighted HSCT IMD score – this measure is calculated by averaging the SOA scores in each HSCT – the higher the score the higher the level of deprivation
- an average population weighted HSCT IMD rank – this measure summarises the average level of deprivation across the HSCT based on the ranks of the SOAs in the area – the lower the rank the higher the deprivation.

There is no one ‘ideal’ measure of deprivation and each measure has its own strengths. The main difference between the average score and average rank measure is that more deprived SOAs tend to have more ‘extreme’ scores than ranks; highly polarised areas will therefore tend to score higher on the average score measure than on the average rank. While the ordering changes depending on the measure used, the BHSCT and the WHSCT emerge as the most deprived HSCTs in NI (Table 8.1). This is followed by the SHSCT and the NHSCT with the SEHSCT being the least deprived HSCT across both summary measures.

All HSCTs showed an increased CPR rate across deprivation quintiles (Figure 8.1). The SHSCT had the highest CPR rates in the most deprived 20% areas, followed by the SEHSCT and the NHSCT while the two HSCT with the highest deprivation scores and rankings in NI, the WHSCT and BHSCT, had the lowest rates. Indeed, there was huge variation between the high and low deprivation HSCTS with CPR rates in the most deprived quintile in the SHSCT being twice as high as those in the BHSCT (121 per 10,000 Vs 66 per 10,000).
Table 8.1 HSCT Deprivation Scores and Ranks, 2014

<table>
<thead>
<tr>
<th>HSCT</th>
<th>Average Pop Weighted HSCT IMD Score (highest = most)</th>
<th>Average Pop Weighted HSCT IMD Rank (lowest = most)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHSCT</td>
<td>28.80</td>
<td>327.61</td>
</tr>
<tr>
<td>BHSCT</td>
<td>26.76</td>
<td>391.95</td>
</tr>
<tr>
<td>SHSCT</td>
<td>20.31</td>
<td>426.75</td>
</tr>
<tr>
<td>NHSCT</td>
<td>16.97</td>
<td>501.64</td>
</tr>
<tr>
<td>SEHSCT</td>
<td>15.79</td>
<td>551.00</td>
</tr>
</tbody>
</table>

Figure 8.1 NI CPR Rates by HSCT and Deprivation Quintile at 31st March 2015

As with CPR rates, all HSCTs showed an increased LAC (all) rate across deprivation quintiles (Figure 8.2). The SEHSCT had the highest LAC (all) rates in the most deprived 20% areas, followed by the SHSCT, the WHSCT, the BHSCT and then the NHSCT. Although the most deprived HSCTs, the BHSCT and WHSCT, did not have the lowest LAC (all) rates in the most...
deprived quintile, they were lower than other less deprived HSCTs. The same pattern was also apparent for LAC (accommodated) rates (Figure 8.3).

**Figure 8.2 NI LAC (all) Rates by HSCT and Deprivation Quintile at 31st March 2015**

![Graph showing LAC (all) Rates by HSCT and Deprivation Quintile, NI IMD]

**Figure 8.3 NI LAC (accommodated) Intervention Rates by HSCT and Deprivation Quintile at 31st March 2015**

![Graph showing LAC (accommodated) Rates by HSCT and Deprivation Quintile, NI IMD]
9. Spend

Each HSCT makes an annual financial return outlining the actual spend in the previous tax year according to nine Programmes of Care (PoC):

- Acute Services (PoC1)
- Maternity and Child Health (PoC2)
- Family and Child Care (PoC3)
- Elderly Care (PoC4)
- Mental Health (PoC5)
- Learning Disability (PoC6)
- Physical and Sensory Disability (PoC7) which are allocated to Elderly Care;
- Health Promotion and Disease Prevention (PoC8)
- Primary Health and Adult Community (PoC9)

The Family and Child Care PoC3 includes activity and resources relating to social services support of family and children, including children in care, child protection, family centres, women’s shelters and also community contacts by health professionals where the primary reason is family or childcare related. Although it does not include spend related to children’s services, e.g. children’s mental health, it is a key indicator of expenditure related to the child protection system. In 2014/15 the total spend across this PoC was £216,450,542, amounting to expenditure of £500 per child in Northern Ireland (Figure 9.1). The BHSCT and the WHSCT, the two most deprived HSCTS, have the highest spend per child, closely followed by the SEHSCT and the NHSCT and SHSCT. The SEHSCT expenditure includes £6,768,182 in funding for the provision of regional secure accommodation services - excluding this figure reduces the spend per child in this HSCT area to £452, which is closer to the NHSCT and SHSCT spend in the same year, although still higher. Although spend per child in the BHSCT is also likely to be inflated by spending on regional services it is not possible to disaggregate this figure further.
Figure 9.1 NI and HSCT spend per child 2014/15

<table>
<thead>
<tr>
<th>Trust</th>
<th>Spend per Child 2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfast HSC Trust</td>
<td>665</td>
</tr>
<tr>
<td>Northern HSC Trust</td>
<td>410</td>
</tr>
<tr>
<td>Southern HSC Trust</td>
<td>395</td>
</tr>
<tr>
<td>South Eastern HSC Trust</td>
<td>536</td>
</tr>
<tr>
<td>Western HSC Trust</td>
<td>554</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>500</td>
</tr>
</tbody>
</table>
10. Discussion and conclusion

The Child Welfare Inequalities Project (CWIP) set out to study the relationship between area-based inequalities and child welfare intervention rates. Linking child welfare data with area level deprivation data shows that the same statistically significant social gradient identified in the Coventry study exists across the UK, including Northern Ireland. The key finding from our analysis is that children living in the most deprived areas in NI have a 6 times higher rate of being placed on a CPR and a 4 times higher rate of becoming LAC than those in the least deprived areas. This increase in rates appears to impact males and female similarly, although 0-4 year olds in the most deprived areas have even higher rates of being placed on CPRs than other age groups; for LAC it is the 16-17 year old age groups in the most deprived areas which show the highest rates. Registration on CPRs also substantially increased across deprivation quintiles in relation to neglect, physical abuse and emotional abuse while sexual abuse showed little change. The legal status and placement type for those in care showed the same increase in rates as deprivation increased – this was particularly the case for those who were placed under child protection measures and those placed in in kinship foster care.

Although deprivation has a significant effect on child welfare interventions the gradient is less steep in NI than other UK nations, despite NI having significantly higher levels of deprivation. While it is not possible to quantify the reasons for this, there are a number of potential explanations. Longitudinal analysis of English child welfare data (Hood’s, 2016) suggests that not only do more deprived local authorities receive higher number of referrals but they respond to these referrals differently, screening more out, stepping down statutory plans more quickly and conducting less longer term work with families. Recent inclusion of assessment data within official statistics also suggests that a greater proportion of cases are screened out in NI compared to other UK countries (Bunting et al., under review). It may be that, in order to respond to these very high referrals, the NI system operates a higher threshold for intervention than other nations, reducing CPR rates and the potential association with deprivation. Secondly, it may be that the operation of NI’s integrated health and social care system, coupled with developments in integrating family support services (hubs) at a local level across the region, has ameliorated some of the impact of deprivation (SCIE, 2016). Northern Ireland benefits from the widespread availability of social and community services which, supported by long-term funding from European Union (EU) institutions, remain a significant player in social welfare provision (Das, O’Neill and Pinkerton, 2015). A key element of family support hubs involves engagement with community organisations, to identify need, and provide a co-

This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.
ordinated response to enhance service provision with local populations of children and families. Indeed, discussions with key policy makers, service providers and child and family social work practitioners, conducted as part of the CWIP project, consistently highlighted the importance and benefits of having this integrated approach.

Another explanation for the reduced gradient evident in NI may involve the operation of the Inverse Intervention Law (ILL) – whereby child welfare interventions in more affluent local authorities are even more strongly associated with deprivation than in less affluent areas. Although it is not possible to statistically test for the presence of the ILL in NI, descriptive analysis suggests that this may play a role with the most deprived HSCTs having lower CPR rates than less deprived HSCTs. Findings are more mixed in relation to LAC rates, although the more deprived HSCTs tend to have somewhat lower LAC rates. Developing this further, one might argue that NI is itself an example of the ILL in that, being the most deprived nation within the UK, it produces the same graded relationship between child welfare intervention rates and deprivation, but at a lower level than less deprived nations. In keeping with Hood’s (2016) analysis, more deprived HSCTs in NI tended to have higher levels of overall expenditure. However, it not possible to further disaggregate this data to identify spend on family support services, statutory interventions and services for looked after children.
References


The authors would like to acknowledge the help provided by the staff of the Honest Broker Service (HBS) within the Business Services Organisation Northern Ireland (BSO). The HBS is funded by the BSO and the Department of Health for Northern Ireland (DoH). The authors alone are responsible for the interpretation of the data and any views or opinions presented are solely those of the author and do not necessarily represent those of the BSO.

This study: Identifying and understanding inequalities in child welfare interventions: comparative studies in four UK countries was funded by The Nuffield Foundation. For more information please visit www.coventry.ac.uk/cwip.