



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

Single country quantitative study report: Scotland

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Summary of key findings

This report is about the connection between social inequality and child welfare interventions. We analysed routine administrative data from 10 Scottish Local Authorities for all children on the child protection register and 'looked after' on 31 July 2015. These are the key findings:

- There is a clear social gradient in the rates of children on the child protection register and looked after by Local Authorities - rates of intervention increase with increasing levels of local area deprivation.
- Children from the most deprived neighbourhoods in our sample were around 20 times more likely to be subject to child welfare interventions in the form of child protection registration or becoming looked after, than those in the least deprived neighbourhoods. This relationship remained consistent even when excluding those looked after at home or with friends and relatives.
- 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.
- The patterns of relationship between age and child welfare intervention rates are different for children on the child protection register and those looked after, although the social gradient remains for all. The youngest age group (0-4 years) have the highest rates on the child protection register at every level of deprivation. Rates decrease with increasing age. For children looked after, across all levels of deprivation the age group with the highest rates are 10-15 year-olds. Rates decrease below this age.
- For those recorded as White, there is a clear social gradient in child welfare intervention rates. However, due to small numbers of ethnic minorities in the Scottish sample we have not been able to establish whether the relationship between deprivation and child welfare intervention rates is the same or different for other ethnic categories.
- For abuse concerns identified at most recent child protection case conference, for all with the exception of two (where numbers were too small – 'child placing themselves at risk' and 'child exploitation'), there was a clear social gradient. However, the social gradient was smaller for sexual abuse concerns than for other categories of abuse.
- For all legal reason categories, the highest proportion of looked after children were from the most deprived quintile. For those subject to compulsory supervision orders and 'other' legal reasons (including permanence orders without authority to adopt), a relatively linear, positive pattern is observed in the step by step change in proportion by deprivation. For child protection measures, adoption, voluntary accommodation and youth justice, this pattern is not clearly observed.

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- Similar to findings in England, evidence was found to support the presence of the Inverse Intervention Law – where despite the finding that more deprived Local Authorities have higher child welfare intervention rates overall, a general trend was found for intervention rates within small areas of similar deprivation across all Local Authorities to be higher when they are contained within Local Authorities of lower deprivation. Support for the Inverse Intervention Law was found for rates of all types of child welfare intervention – child protection registrations, all looked after children and looked after children not placed at home or with friends or relatives. However, in Scotland, this pattern is not observed for small areas in the most and least deprived deciles for all looked after children and looked after children not placed at home or with friends or relatives. This is despite the statistically significant trend across deciles in general.
- Local Authorities in Scotland which are more deprived overall, spent more on Children and Families' Services.

Note to readers

Although this report is structured in the same way as those we have produced for England, Northern Ireland, 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. For example, no child in Northern Ireland lives in a neighbourhood amongst the least deprived 10% in the UK. So each report should be viewed for the information it contains about children's services *within* each country **not** *between* the countries.

1. Introduction

Children's services across the UK face crises of demand and confidence. Despite a slight decrease in the number of looked after children following a peak in 2012, the number of children in Scotland in out of home care continues to rise. Episodes of care longer than five years have doubled since 2008, whilst numbers of children on the child protection register have risen by 34% between 2000 and 2015 (Scottish Government, 2016a). This has come as austerity policies have constrained local authority budgets and placed sustained pressure on family finances. The Scottish Government has introduced a range of mitigation measures including providing funds to Local Authorities to offset the impact of the 'bedroom tax'¹ and in 2011 introduced a Child Poverty Strategy for Scotland, updated in 2014, for which an annual report is produced (Scottish Government, 2016b). These and other strategies appear to have had some impact in that levels of relative poverty are not as bad as for the rest of the UK and the figure for child poverty is 6% better than for the rest of the UK. Nonetheless, poverty affects 22% of children which is still far too high (Eisenstadt, 2016).

Across the UK successive scandals affecting current and non-recent cases of systemic abuse have added to demands on services. 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 in care or whose names are on the child protection register (on child protection plans) 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.

¹ <http://www.gov.scot/Topics/People/fairerscotland>

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What follows is a report specifically about Scotland, using the Scottish Index of Multiple Deprivation (SIMD12). The SIMD12 produced by the Scottish Government, calculates levels of deprivation based on small areas within Scotland which contain around 500-1000 residents (2001 data zones). Scores for deprivation are calculated across multiple domains, which are combined, ranked and divided into deciles and quintiles. Throughout this report, deciles and quintiles will be referred to as deprivation levels, where the higher the decile/quintile the more deprived an area is considered to be i.e. for deciles 10=10% most deprived data zones in Scotland and quintiles 5=20% most deprived data zones in Scotland. The report covers patterns of child welfare intervention by gender, age, ethnicity, reason for intervention and legal status, all analysed by these levels of deprivation. Where small numbers may exist, quintiles will be presented in the place of deciles. It also includes consideration of the Inverse Intervention Law identified in the Midlands by Bywaters et al. (2015).

1.1 Research methods

Ten Local Authorities (LAs) in Scotland took part in the study, making up approximately 53% of the child population (0-17) living in Scotland (based on the 2014 mid-year small area population estimates). The LAs provided us with their anonymised Child Protection and Looked After Children annual returns for the year 2014-15. LAs were asked to include the postcode or data zone of origin address (i.e. not where placed if a looked after child) for all individuals in the data. The ten LAs contained 3433 (52.8%) of the 6505 2001 Data Zones in Scotland. The final sample was made up of n=1531 individuals on the child protection register and n=8418 individuals 'looked after', as of July 31st 2015. Of those looked after, n=4063 of these were not placed at home or with friends or relatives. Those unborn or aged 18+ were excluded from the study, as were individuals whose data zone of origin was missing, were not in Scotland or the LA providing the data, or when the address was known to be a placement address if placed away from home. The sample as compared to the published figures is shown below in Table 1.1. As there was some discrepancy in published numbers and those included in our sample, an adjustment was made to scale up the data accordingly (i.e. dividing rates by Scotland wide adjustment factors).

Table 1.1 Sample as percentage of the population

At 31.07.15	Population 0-17	Children on Child Protection Register	Looked after Children
Scotland - Published Data	1032698	2799 ¹	15,404
Sample - Published Data	548020	1593 ¹	9285
Sample - Cleaned Data		1531	8418
Sample as % of Scotland - published	53.10%	56.90%	60.30%
Sample as % of Scotland -cleaned		54.70%	54.60%
Cleaned data as % of published	Adjustment factor	96.10%	90.70%

Note. ¹One LA gave us details for children on the child protection register as of the 31.07.14. The published figures for children on child protection plans in this table are adjusted according so will differ from those published on the 31.07.15.

Figure 1.2 Distribution of child population by deprivation

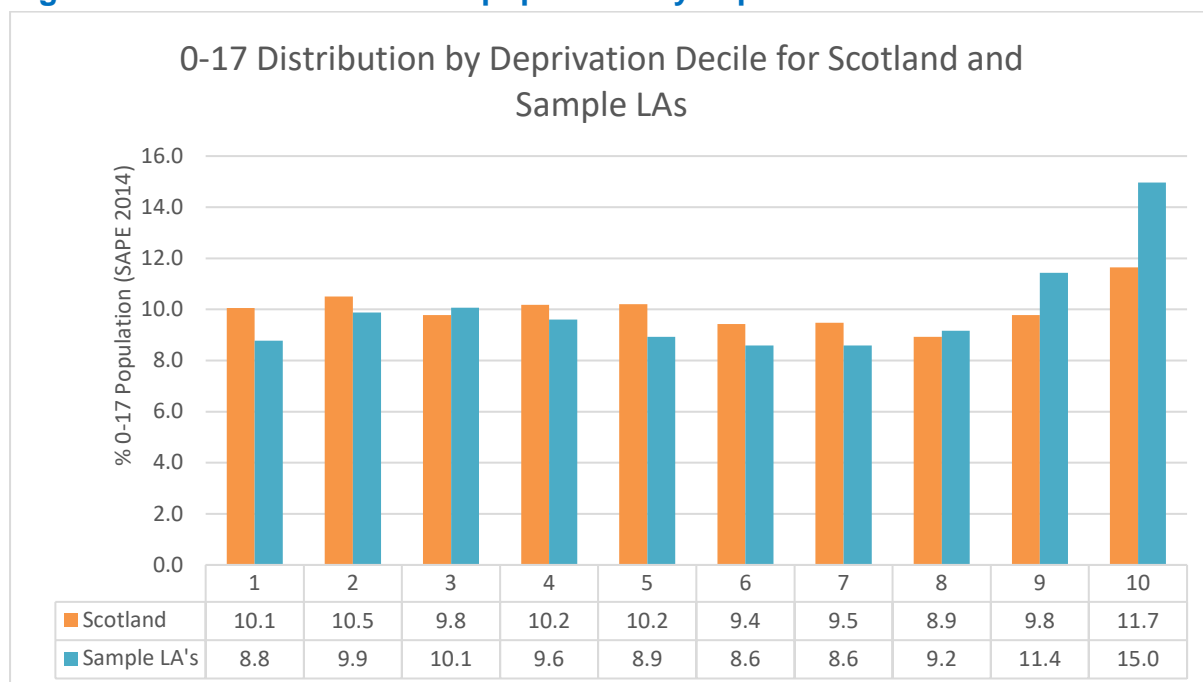


Figure 1.2 shows how children are distributed between deciles Scotland wide and compared to the study sample. In Scotland, children are fairly evenly distributed across all deciles, with

a slight over-representation in the most deprived decile (decile 10). In our sample, when compared to Scotland as a whole, children are over-represented in deciles 9 and 10 and under-represented in all other deciles - bar decile 3. This suggests the study sample is slightly skewed towards representation of children from areas of higher deprivation than the Scotland average.

Figure 1.3 Distribution of child population by deprivation and ethnic category

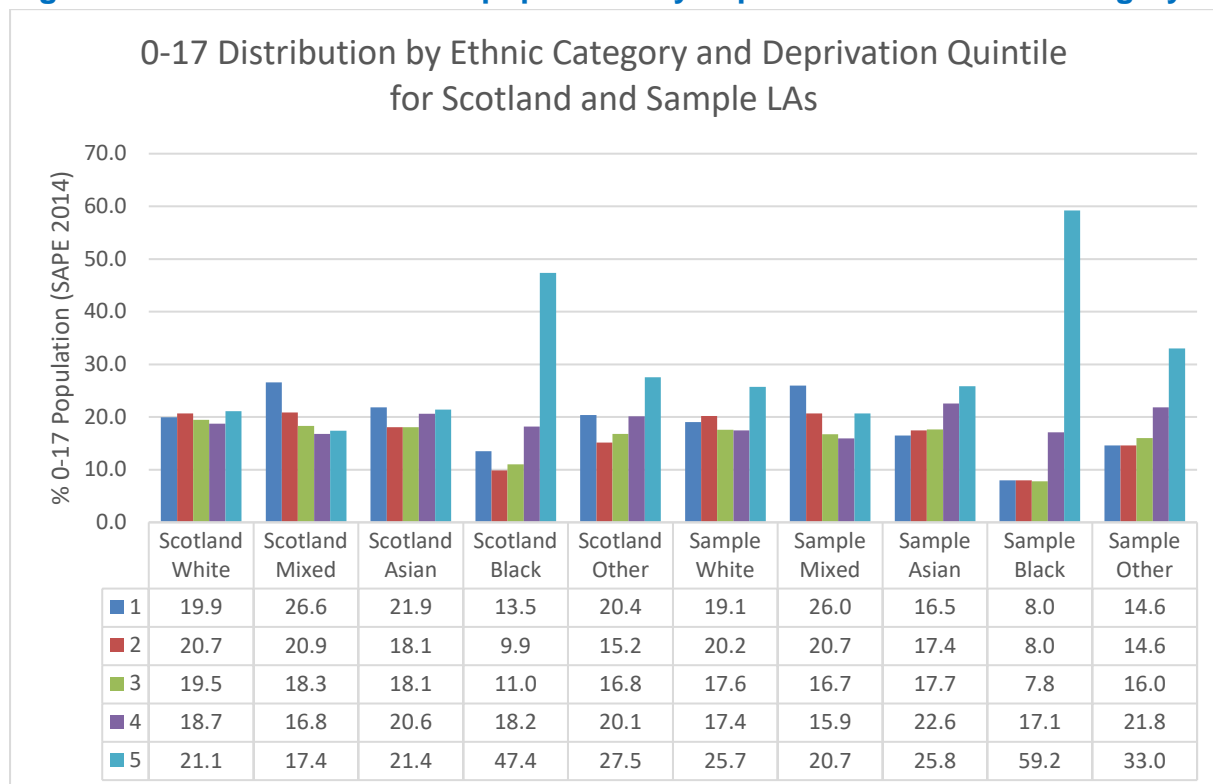


Figure 1.3 of the distribution of children by ethnic category shows very clearly how much more likely children in the Black ethnic category are to live in the most deprived neighbourhoods. This is seen for both the Scotland wide and study sample distributions. In the Scotland wide distribution children in the White and Other ethnic categories have a slightly higher representation in the most deprived quintile, whilst children in the Mixed and Asian ethnic categories are represented most in the least deprived quintiles. Similar trends are seen in the study sample for those in the White, Black and Other ethnic categories, but to a greater degree; again reflecting the slight skew towards representation of children from areas of higher deprivation than the Scotland average. Children in the Asian ethnic category are represented more in the most deprived quintile, which is contrary to the Scotland wide distribution. This suggests the study has a slight skew towards representation of the more deprived children from the Asian category than those in the rest of Scotland.

Figure 1.4 Distribution of child population by deprivation and age group

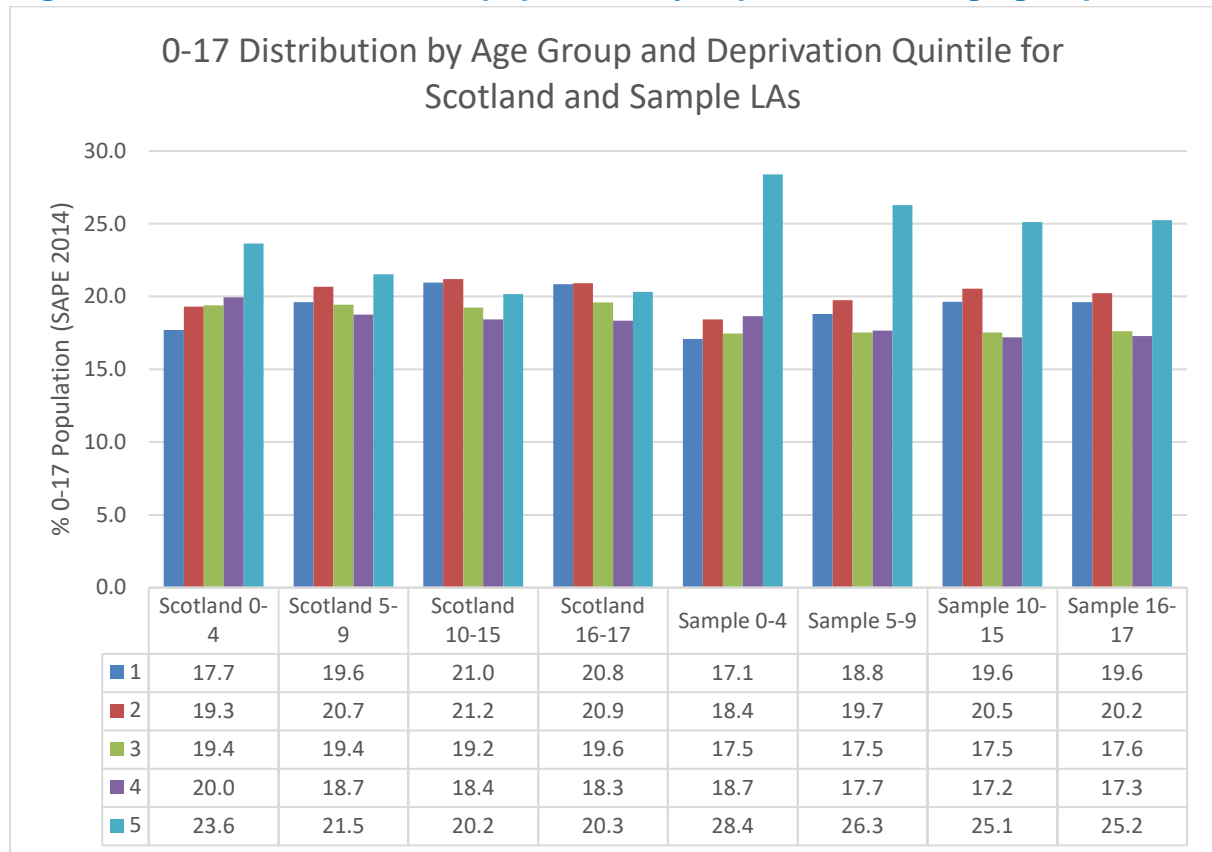
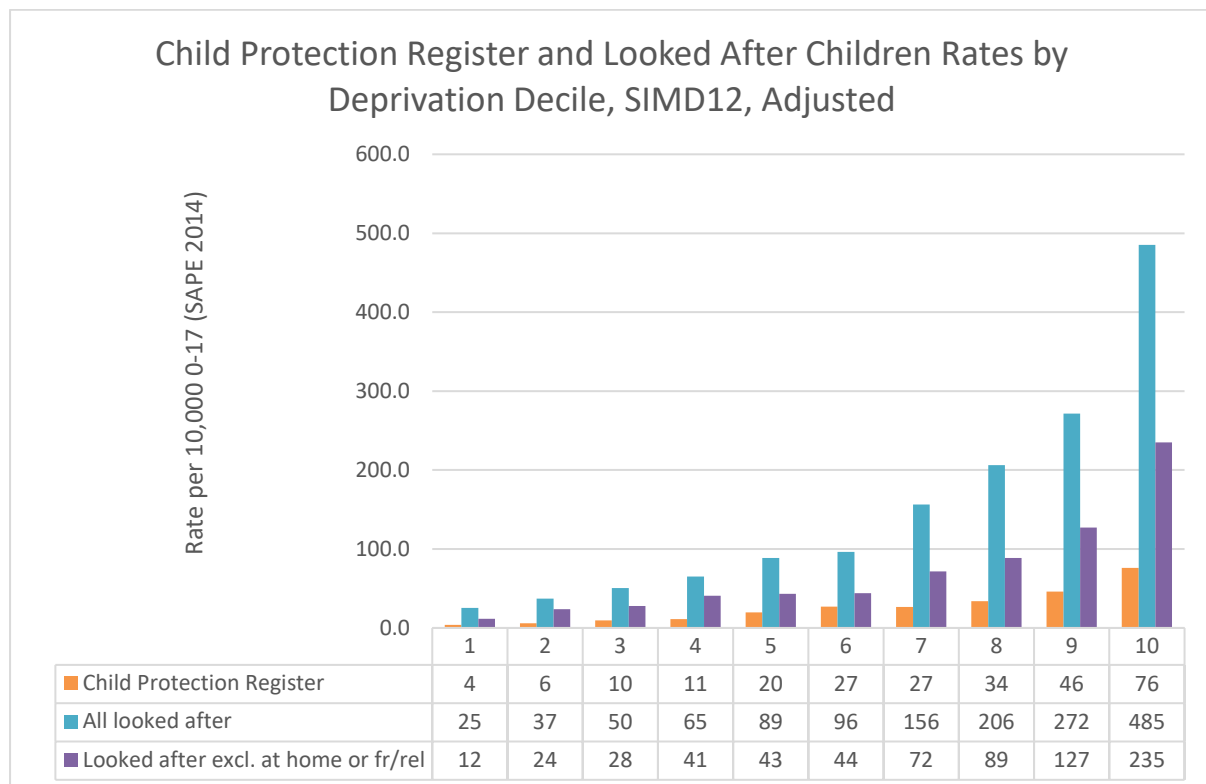


Figure 1.4 shows how younger children in Scotland are over-represented in the higher deprivation quintiles compared to other age groups, but under-represented in the low deprivation quintiles. This trend does not hold for the sample population due to the over-representation of children from areas of higher deprivation overall – children in all age groups are consistently over-represented in the most deprived quintile.

2. Area-Level Deprivation

Using 2001 data zones, a measure of area deprivation (Scottish Index of Multiple Deprivation – SIMD12) was matched to individuals in the data. The sum of children on the child protection register or looked after in each decile or quintile was calculated to compare the rates per 10,000 of the 0-17 child population. In Scotland, children may be recorded as looked after and on the child protection register at the same time. In these cases, children were counted separately for each. Rates are adjusted for missing data using the factors specified in Table 1.1. Results of the study in this report will be shown for individuals on the child protection register, all children looked after and for looked after children not placed at home or with friends or relatives. Figure 2.1 below shows the rates by deprivation decile for children on the child protection register, all looked after children and looked after children not placed at home or with friends or relatives (fr/rel).

Figure 2.1 Rates by deprivation for child protection register, all looked after children and looked after children not placed at home or with friends or relatives



According to Figure 2.1 rates of looked after children are higher than rates of children on the child protection register for all deprivation deciles. Importantly, Figure 2.1 illustrates that for all three categories of intervention, there appears to be a positive linear relationship between rates and deprivation deciles i.e. intervention rates and deprivation increase together on a

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step by step gradient. To confirm the significance of the relationship between rates of intervention and deprivation, Spearman's Rank (r_s) correlation tests were used. A positive and statistically significant correlation between rates and deprivation decile was found for all three intervention types – child protection ($r_s = .99$, $p < .001$), all looked after children ($r_s = 1.00$, $p < .001$) and looked after children not placed at home or with friends or relatives ($r_s = 1.00$, $p < .001$). For looked after children not placed at home or with friends or relatives, rates are 20 times higher for individuals from the 10% most deprived neighbourhoods compared to those from the 10% least deprived neighbourhoods. Figures are similar also for all looked after and child protection interventions, where rates are 19 times higher for all looked after children rates and 18.5 times higher rates for those on the child protection register.

3. Gender

Rates for all three intervention types were calculated individually for males and females. Figures 3.1 to 3.3 show graphical representations of the relationship between intervention rates and deprivation for both genders. To determine whether the relationship between intervention rates and deprivation differed by gender, a univariate analysis of variance (ANOVA) was used to test the main effects of gender and deprivation on intervention rates. An interaction term was used to test whether any effect of gender on intervention rates varied across individual deciles. A logarithmic transformation was used on rates to improve linearity.

Figure 3.1 Child protection register rates by gender and deprivation

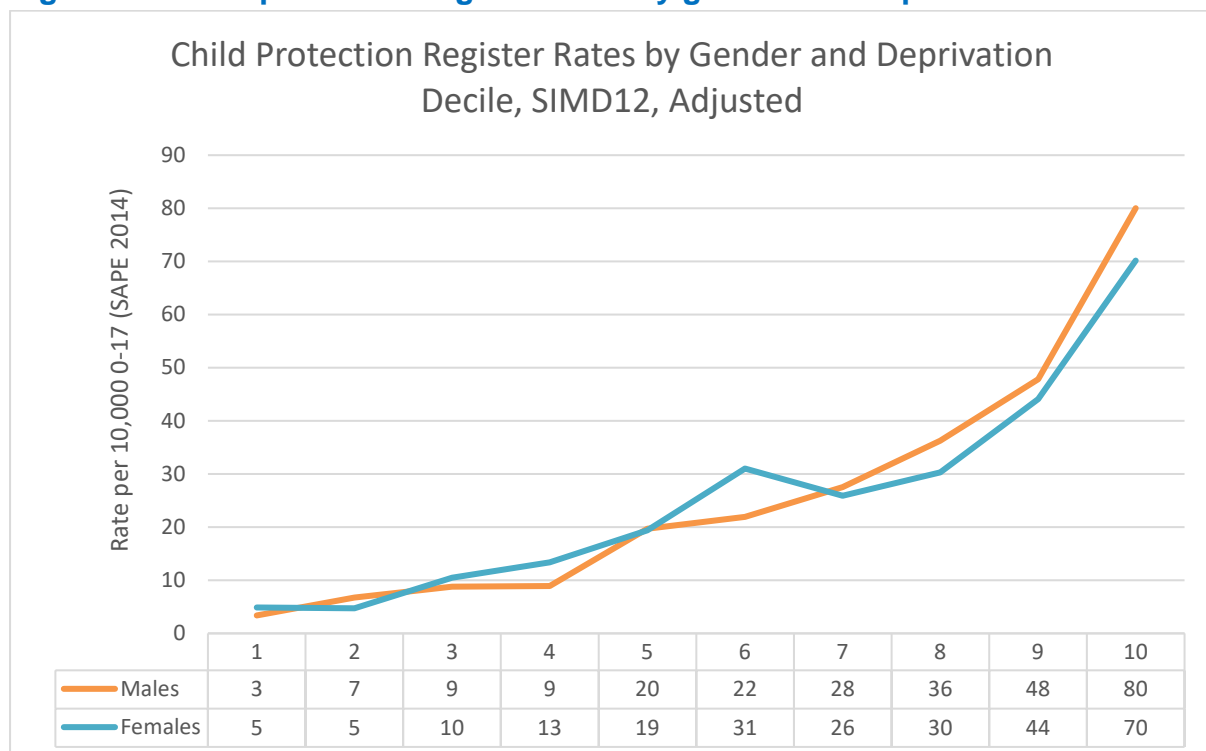


Figure 3.1 shows that for both males and females subject to child protection intervention, rates increase by deprivation decile. This is supported by the results of the univariate ANOVA i.e. there was a significant main effect of deprivation decile ($F(1,16) = 373.50, p < .001$) on rates which did not vary by gender ($F(1,16) = 0.26, p = .621$). The non-significant interaction term ($F(1,16) = 1.03, p = .325$) shows that this remained consistent across all deciles.

Figure 3.2 All looked after children rates by gender and deprivation

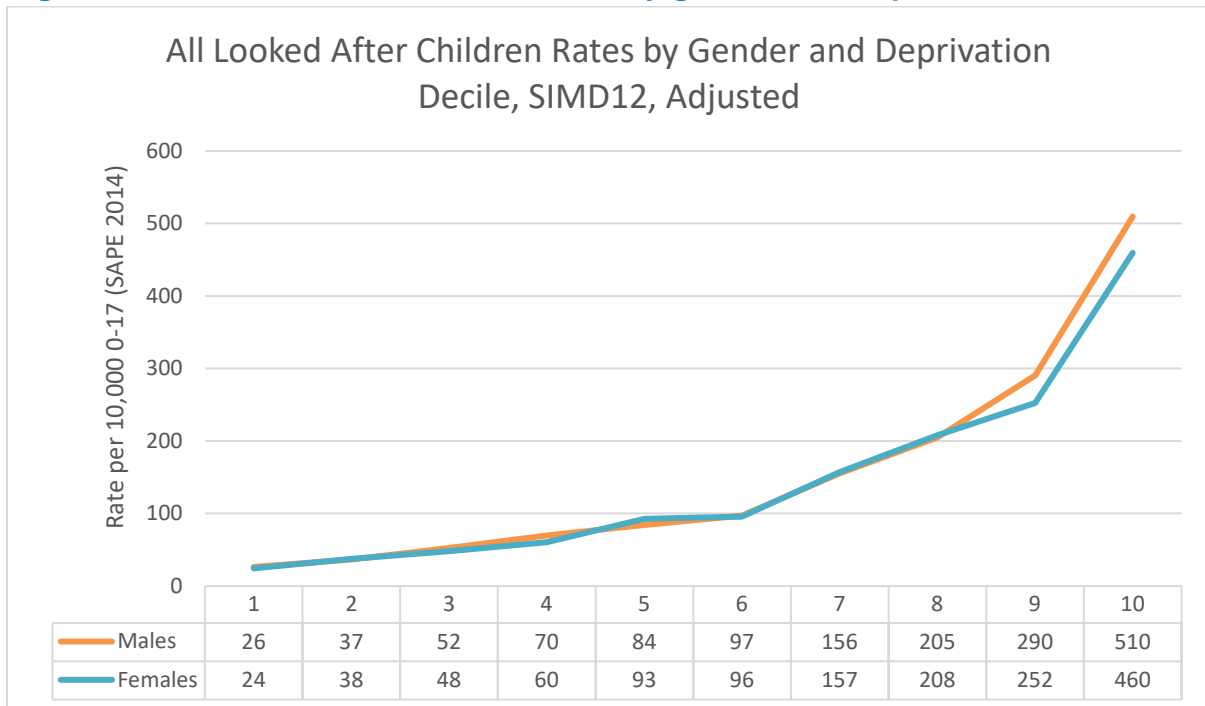


Figure 3.2 shows that for both males and females looked after, rates increase by deprivation decile. This is supported by the results of the univariate ANOVA i.e. there was a significant main effect of deprivation decile ($F(1,16) = 1107.92, p < .001$) on rates which did not vary by gender ($F(1,16) = 0.63, p = .437$). The non-significant interaction term ($F(1,16) = 0.03, p = .863$) shows that this remained consistent across all deciles.

Figure 3.3 Looked after children not placed at home or with friends or relatives rates by gender and deprivation

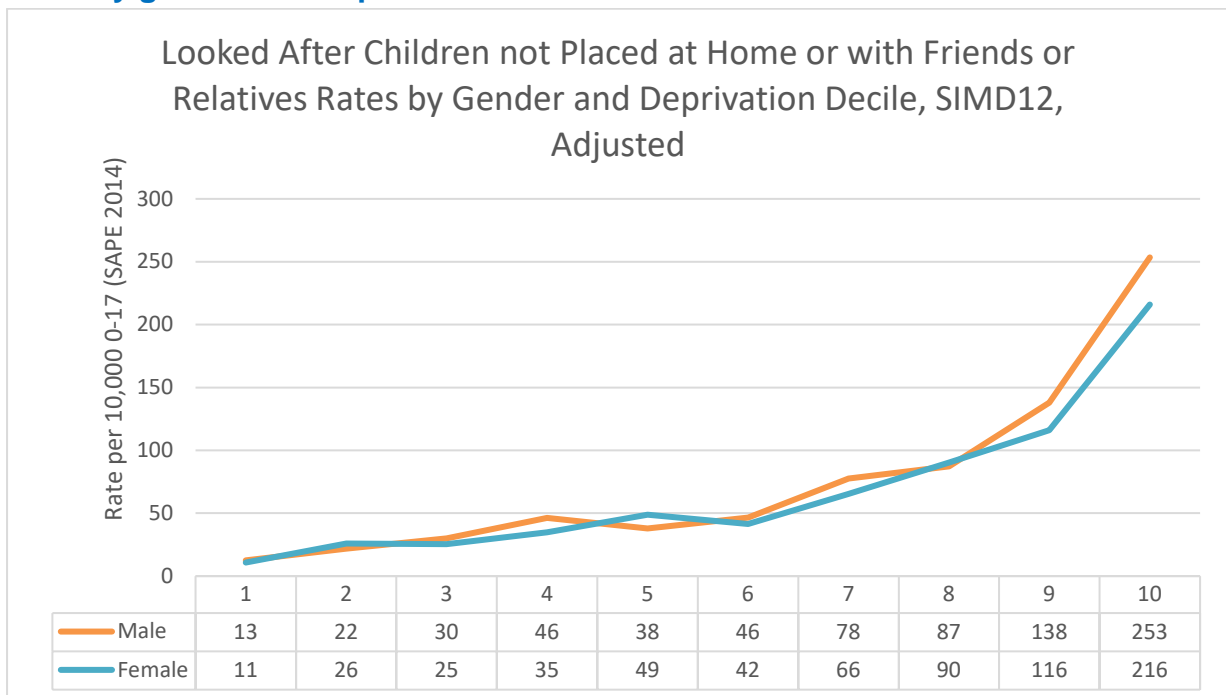


Figure 3.3 shows that for both males and females looked after not placed at home or with friends and relatives, rates increase by deprivation decile. This is supported by the results of the univariate ANOVA i.e. there was a significant main effect of deprivation decile ($F(1,16) = 268.92, p < .001$) on rates which did not vary by gender ($F(1,16) = 0.57, p = .460$). The non-significant interaction term ($F(1,16) = 0.07, p = .789$) shows that this remained consistent across all deciles.

4. Age

Rates for all three intervention types were calculated individually by age bands 0-4 years, 5-9 years, 10-15 years and 16-17 years. Figures 4.1 to 4.3 show graphical representations of the relationship between intervention rates and deprivation for all age bands.

Figure 4.1 Child protection register rates by age band and deprivation

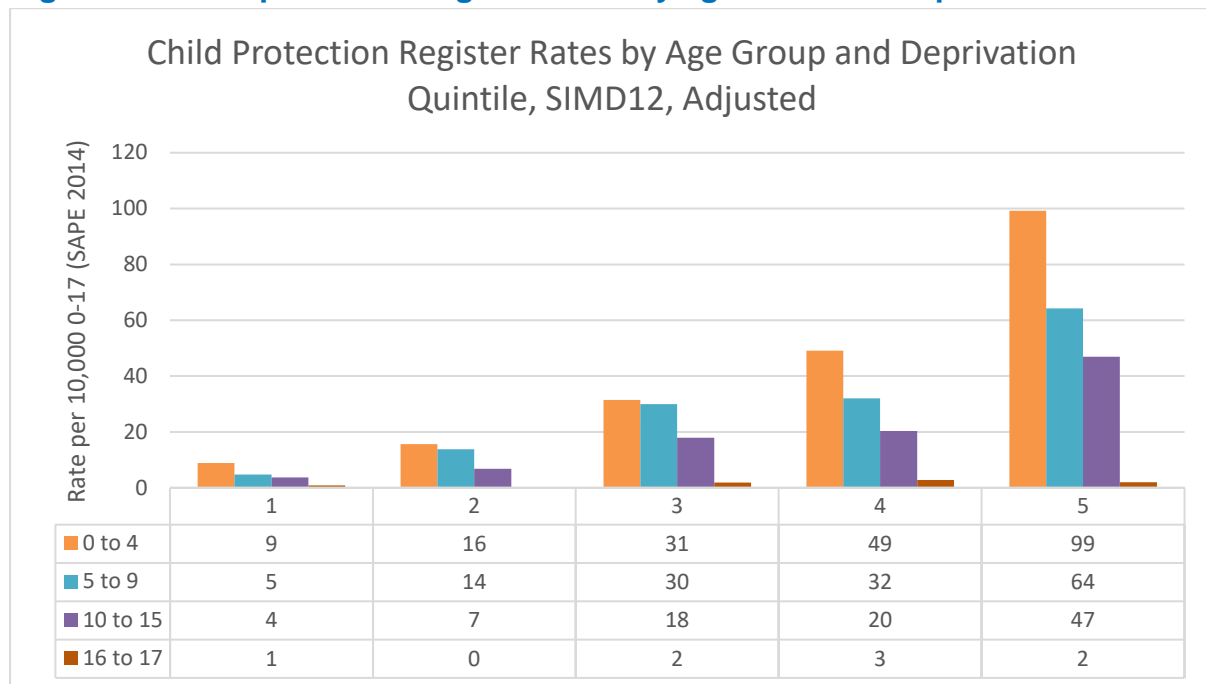


Figure 4.1 shows that the highest frequency of child protection interventions are for the youngest age band (0-4 years). Rates decrease as age increases. For individual age bands, it can be seen that as deprivation increases, so do the rates of intervention. The only age band where this pattern is not evident is for the 16-17 year olds. This is most likely due to the very small numbers of individual's subject to child protection registration at this age (less than 10 in our sample). For all other age bands, a fairly linear gradient is observed, with a slightly sharper step increase in rates between the most deprived quintiles – 4 and 5.

Figure 4.2 All looked after children rates by age band and deprivation

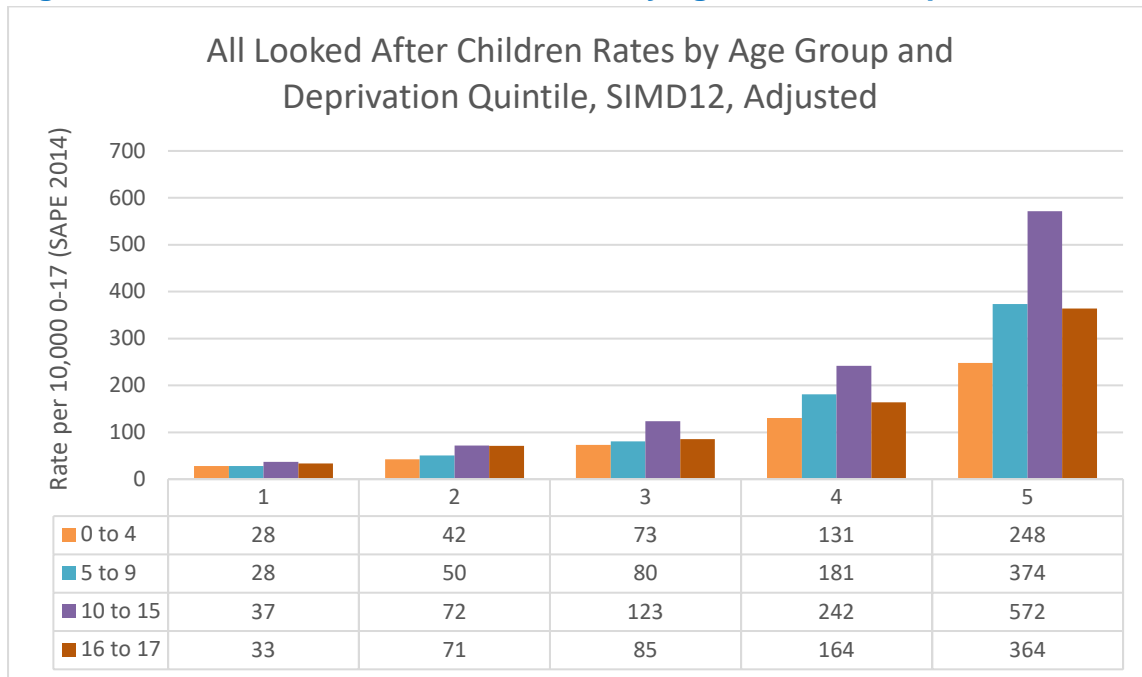
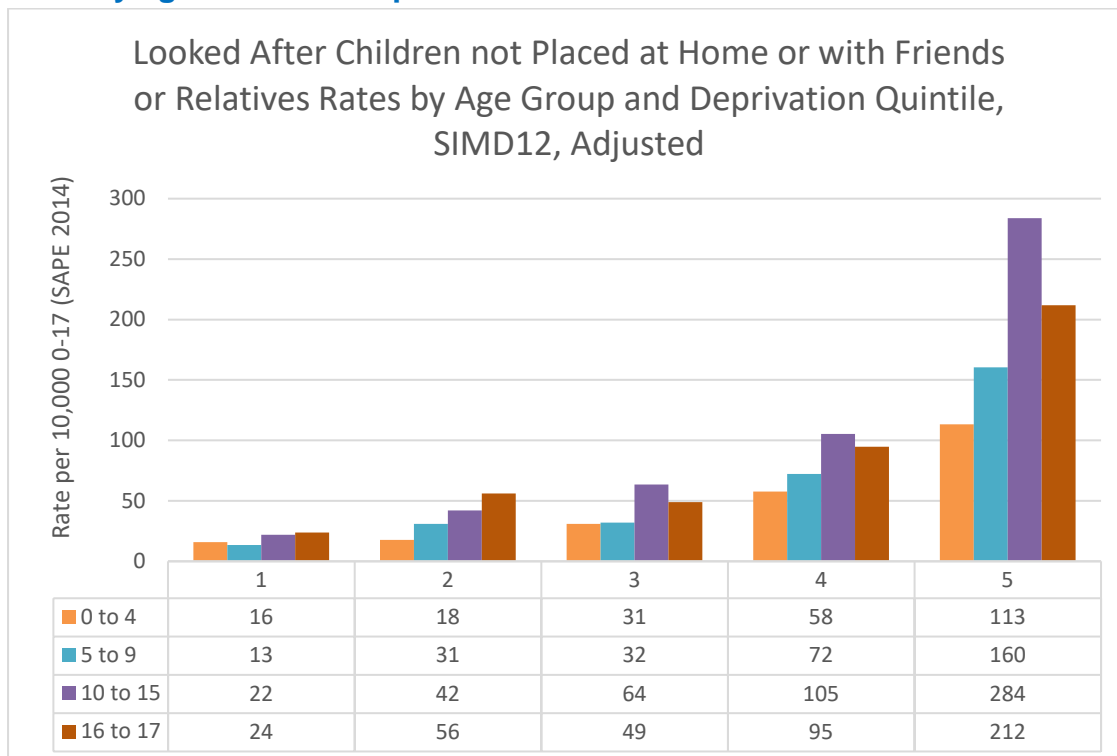


Figure 4.2 shows that the highest frequency of looked after interventions are for the 10-15 age band. For each age band it can be seen that as deprivation increases, so do the rates of intervention. For all age bands a fairly linear gradient is observed, with a slightly sharper step increase in rates between the most deprived quintiles – 4 and 5.

Figure 4.3 Looked after children not placed at home or with friends or relatives rates by age band and deprivation



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Figure 4.3 shows that the highest frequency of looked after interventions excluding those at home or with friends or relatives are for the 10-15 age band for deprivation quintiles 3 and above. For the least deprived quintiles, it is 16-17 year olds who have the highest intervention rates. For each age band it can be seen that as deprivation increases, so do the rates of intervention. For all age bands a fairly linear gradient is observed, with a slightly sharper step increase in rates between the most deprived quintiles – 4 and 5.

5. Ethnicity

Rates for all three intervention types were calculated individually for the ethnic categories White, Mixed, Asian, Black and Other². Tables 5.1 to 5.3 show the intervention rates by deprivation quintile for all ethnic categories.

Table 5.1 Child protection register rates by ethnic category and deprivation

	1	2	3	4	5	Total
White	4	9	20	27	55	25
Mixed	9	44	95	29	143	61
Asian	3	6	30	21	22	17
Black	23	0	46	32	31	29
Other	32	161	323	86	199	164

Table 5.1 shows that overall, the highest child protection registration rates are for those in the Other category, whilst the lowest rates are those in the Asian category. Patterns within ethnic categories by deprivation are less clear. For the White category there does appear to be a fairly positive and linear relationship between deprivation and rates i.e. rates increase with increasing deprivation. Rates in the Mixed category are highest for the most deprived quintile, but a clear linear pattern is not apparent i.e. a consistent step by step increase in rates by deprivation quintile is not observed. For the Asian and Other category, rates are highest in the middle quintile – quintile 3. Here again there is no clear step by step increase in rates by deprivation, although the lowest rates do occur in the least deprived quintile. For the Black category the rates appear fairly evenly distributed across the quintiles, with the exception of quintile 2 where there were no observations. However, it should be noted here that approximately 95% of the population sampled (and the sample itself) were classed as White. This means caution should be exercised when interpreting these results, where numbers in all other ethnic categories were often very low.

² According to ScotXed guidance notes, the ethnic category for ‘other’ includes those identified as Arab or other ethnic groups not identifying with options listed. Further details are available from the Children Looked After Survey (<http://www.gov.scot/Topics/Statistics/ScotXed/ChildrenandYoungPeople/LookedAfterChildren>) and Child Protection (<http://www.gov.scot/Topics/Statistics/ScotXed/ChildrenandYoungPeople/ChildProtection>) data guidance documents. Those where ethnic category was marked as not known or missing were excluded from ethnic category analyses.

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Table 5.2 All looked after children rates by ethnic category and deprivation

	1	2	3	4	5	Total
White	30	57	92	191	415	173
Mixed	83	139	274	453	1129	402
Asian	47	10	22	25	79	39
Black	0	48	123	123	178	140
Other	68	239	218	343	528	329

Table 5.2 shows that overall, the highest looked after children rates are for those in the Mixed category, whilst the lowest rates are those in the Asian category. Patterns within ethnic categories by deprivation are less clear, but for all ethnic categories, the highest intervention rates were for those in the most deprived quintile. For the White and Mixed categories there does appear to be a fairly linear and positive relationship between deprivation and rates i.e. rates increase with increasing deprivation. Rates in the Black category follow a similar pattern with the exception of rates between quintiles 3 and 4 where they remain the same. Rates in the Asian category follow a linear pattern with the exception of quintile 1. Rates in the Other category follow a broadly linear pattern of increased rates by deprivation, with the exception of quintile 3 where rates are slightly lower than quintile 2, but increase again for quintile 4. However, low numbers here again in ethnic minority cells mean caution should be exercised when interpreting these results.

Table 5.3 Looked after children not placed at home or with friends or relatives rates by ethnic category and deprivation

	1	2	3	4	5	Total
White	17	34	45	85	198	84
Mixed	37	58	115	242	593	202
Asian	17	6	6	17	66	26
Black	0	24	98	67	159	115
Other	68	137	156	183	392	224

Table 5.3 shows that overall, the highest rates for looked after children not placed at home or with friends or relatives are for those in the Other category, whilst the lowest rates are those in the Asian category. Patterns within ethnic categories by deprivation are less clear, but for all ethnic categories, the highest intervention rates were for those in the most deprived quintile. For the White, Mixed and Other categories there does appear to be a fairly linear and positive relationship between deprivation and rates i.e. rates increase with increasing deprivation. Rates in the Black category follow a similar pattern with the exception of higher rates in quintile

3 than quintile 4. Rates in the Asian category are rather unclear and do not seem to follow an obvious linear pattern. Rates in the Other category follow a broadly linear pattern of increased rates by deprivation, with the exception of quintile 3 where rates are slightly lower than quintile 2, but increase again for quintile 4. However, low numbers here again in ethnic minority cells mean caution should be exercised when interpreting these results.

6. Reason for Intervention

In Scotland, multiple abuse concerns can be recorded for each individual during a child protection case conference. For the purposes of this analysis individuals were either coded as having or not having each abuse concern recorded. The sum of individuals for each abuse concern was calculated for deprivation quintiles and are presented below in Figures 6.1 as rates per 10,000 of the 0-17 child population (mid-year estimates 2014), and in Figure 6.2 as a proportional spread over deprivation quintiles for each abuse concern. One LA was excluded from this analysis due to incomplete data on abuse concern.

Figure 6.1 Child protection register rates by abuse category and deprivation

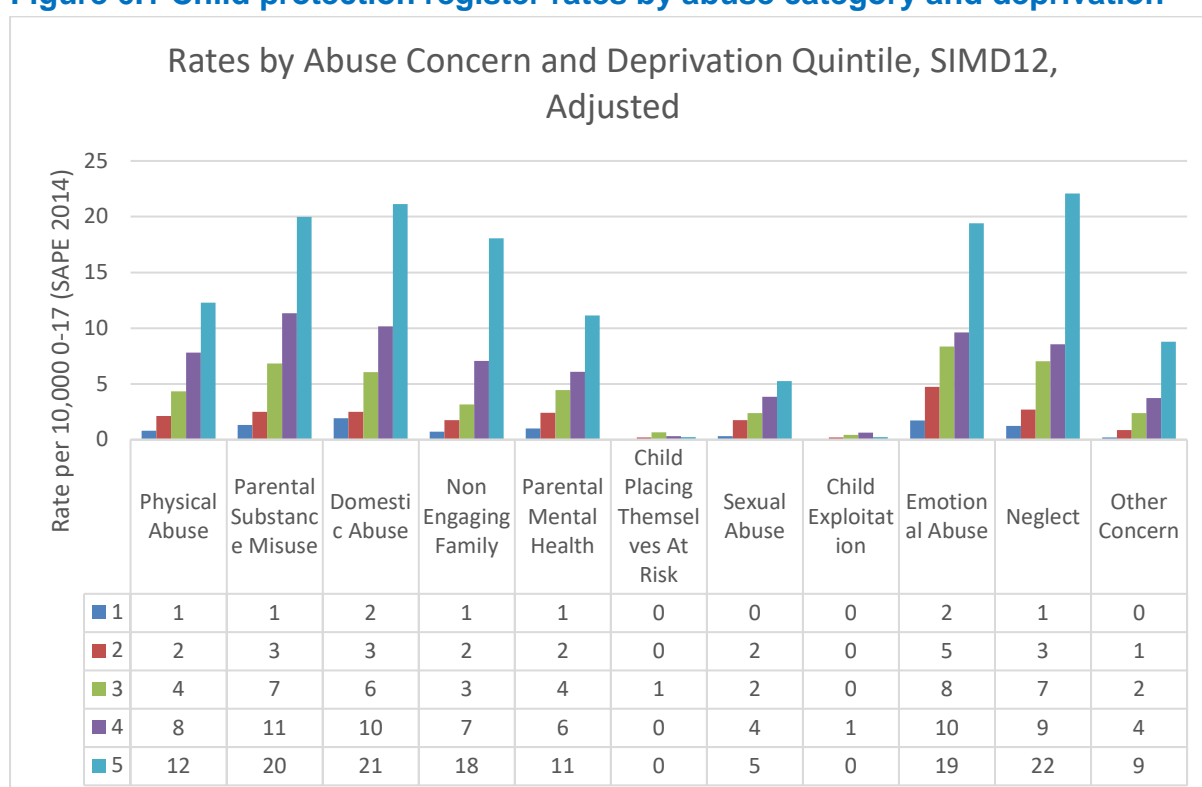


Figure 6.1 shows that rates are highest in the most deprived quintile for all abuse concerns except two (child placing themselves at risk and child exploitation). For these two categories, the number of occurrences in our sample was very low and should be interpreted with extreme caution. For the remaining categories a linear and positive relationship was observed between deprivation and individual abuse concern rates. For all abuse concerns with the exception of sexual abuse, there is a relatively sharp increase in rates between quintiles 4 and 5. For sexual abuse the social gradient is present, but to a lesser degree.

Figure 6.2 Child protection register proportions by abuse category and deprivation

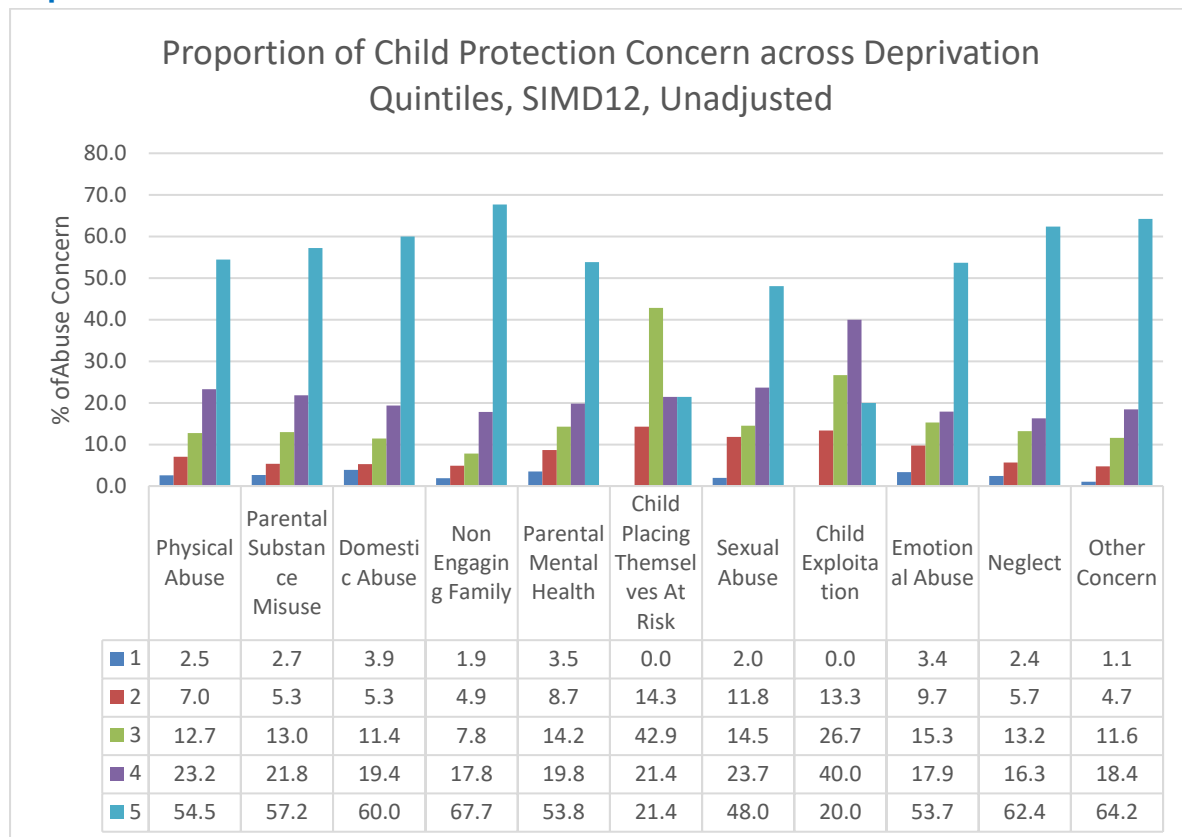


Figure 6.2 shows for each abuse concern the proportion of individuals by deprivation quintile. For all abuse concerns, with the exception of three (child placing themselves at risk; sexual abuse; child exploitation), over 50% of individuals with that concern recorded were from the most deprived quintile. For all abuse concerns with the exception of the two with which small numbers posed a big issue (child placing themselves at risk and child exploitation), there appears to be a step by step increase in the proportion of individuals and increasing deprivation quintile – particularly in the step increase between quintiles 4 and 5.

7. Legal Status

When a child becomes looked after, a legal reason is recorded and updated accordingly throughout their time as a looked after child. For the purposes of this study the last open legal reason was used (current as of 31st July 2015). These were recoded into six legal reason categories (see Appendix for category explanations):

- Emergency child protection measures
- Adoption measures
- Voluntary accommodation
- Youth justice measures
- Compulsory supervision order (CSO)
- Other – including permanence orders without authority to adopt

The sum of individuals for each legal reason category was calculated for deprivation quintiles, and are presented below in Figures 7.1 (all looked after) and 7.2 (looked after excluding at home or with friends or relatives) as a proportional spread over deprivation quintiles.

Figure 7.1 All looked after children proportions by legal reason and deprivation

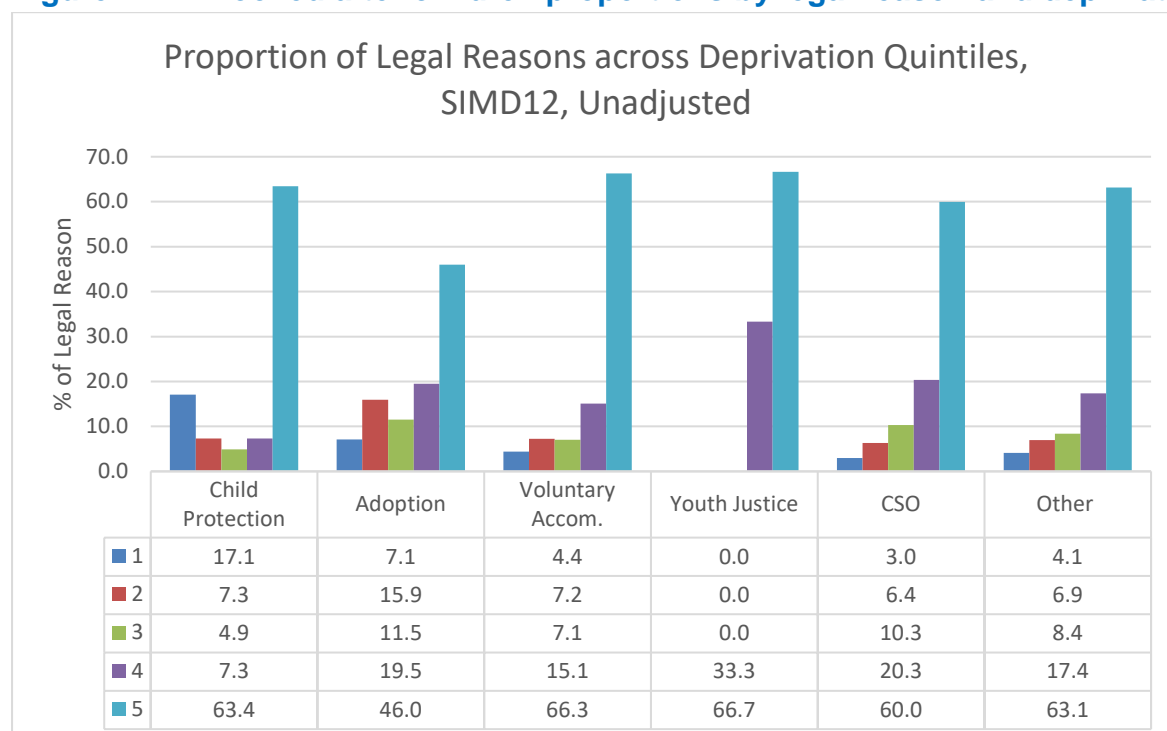


Figure 7.1 shows that for all legal reason categories, the highest proportion of looked after individuals are from the most deprived quintile. For all legal reason categories except those subject to adoption measures, over 60% of individuals are from the most deprived quintile. For those subject to compulsory supervision orders (CSO) and ‘other’ measures, a relatively linear, positive pattern is observed in the step by step change in proportion by deprivation. For 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.

emergency child protection measures, adoption, voluntary accommodation and youth justice, this pattern is not clearly observed.

Figure 7.2 Looked after children not placed at home or with friends or relatives proportion by legal reason and deprivation

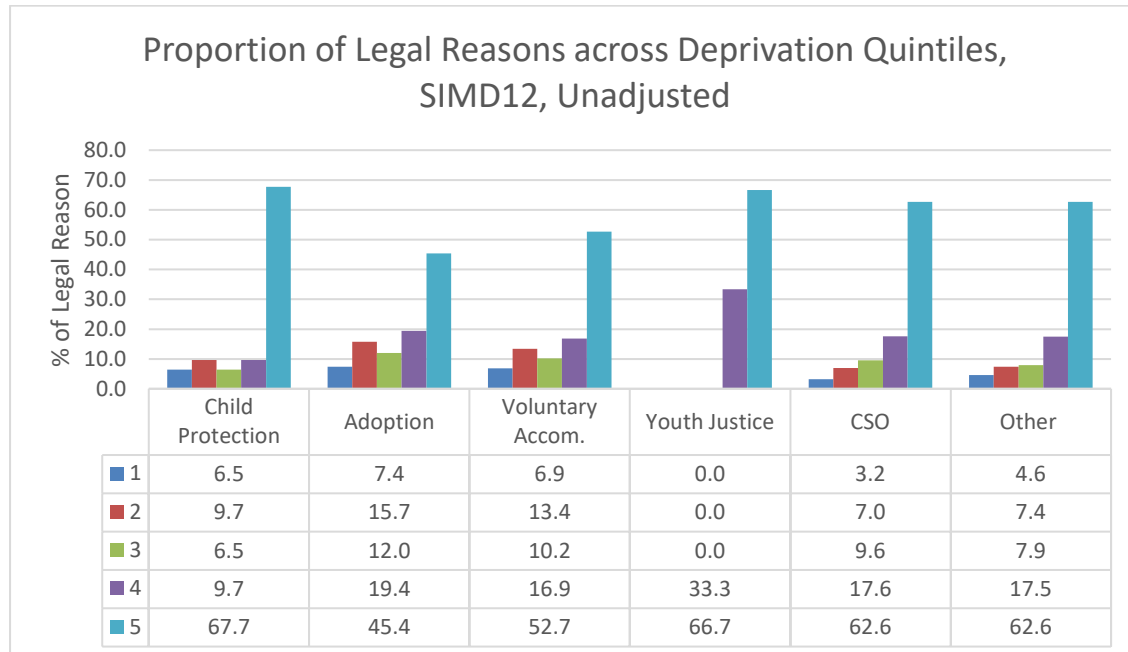
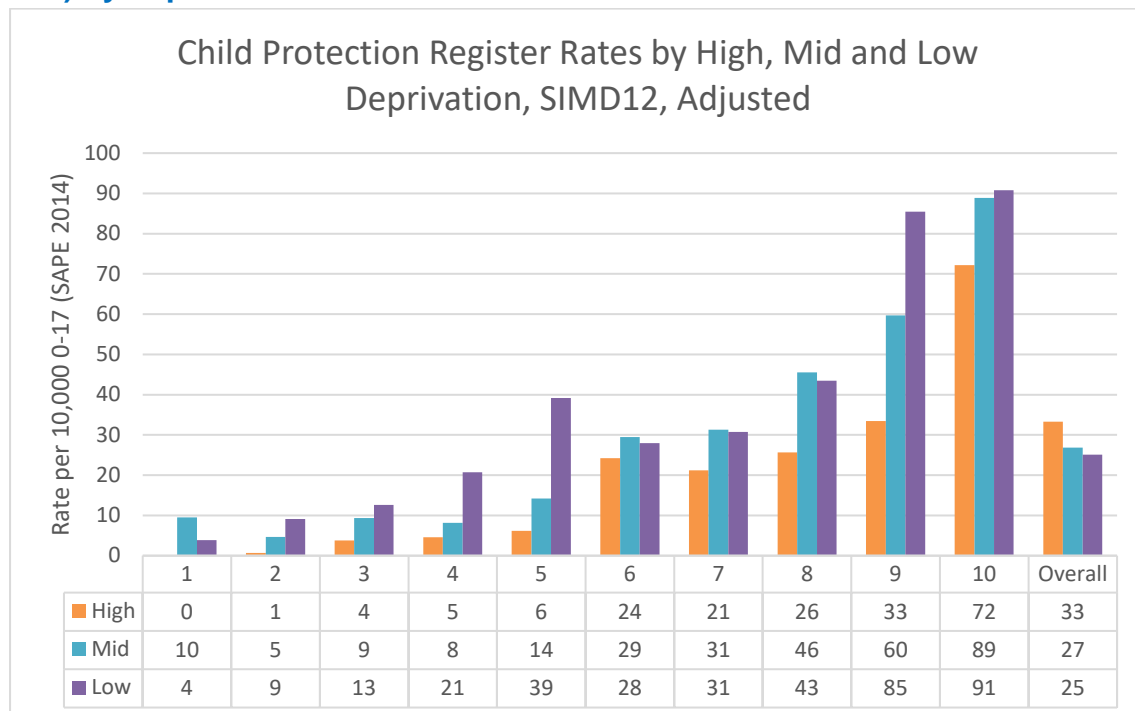


Figure 7.2 shows that for all legal reason categories, the highest proportion of looked after children (excluding those at home or with friends or relatives) are from the most deprived quintile. For all legal reason categories except those subject to adoption measures, over 60% of individuals are from the most deprived quintile. For those subject to compulsory supervision orders and ‘other’ measures, a relatively linear, positive pattern is observed in the step by step change in proportion by deprivation. For emergency child protection measures, adoption, voluntary accommodation and youth justice, this pattern is not clearly observed.

8. Inverse Intervention Law

A pilot study by Bywaters et al (2016) found that although intervention rates were higher overall in more deprived Local Authorities, when rates of similarly deprived areas were compared at the small area level *within* LAs, the small areas within less deprived LAs had higher rates of intervention than the small areas of matched deprivation levels which resided within more deprived LAs. This was termed the Inverse Intervention Law (IIL). To explore the IIL in the current study, LAs were ranked according to their overall population weighted average SIMD12 scores³ and then divided into bands of high, middle (mid) and low deprivation. Rates by deprivation decile were then compared for the three bands of LAs. Graphical representations of these are shown in Figures 8.1 to 8.3. To test for the presence of the IIL statistically, linear regression analysis was used to explore the relative effects of small area (data zone) and large area (LA) deprivation decile on intervention rates. A logarithmic (+1) transformation was used on rates to improve linearity.

Figure 8.1 Child protection register rates for LA deprivation bands (high, mid, low) by deprivation decile.



³ The Scottish Government does not normally advise the aggregation of SIMD scores above the level of the small area at which they were produced (data zone). However, for the purposes of this study the methodology used by the Department for Communities and Local Government for higher level summaries of the England IMD was applied. This methodology was published in the English Indices of Deprivation 2015 Technical Report available at <https://www.gov.uk/government/publications/english-indices-of-deprivation-2015-technical-report>

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Figure 8.1 shows that overall, child protection registration rates are higher in the high deprivation LAs and lowest in the low deprivation LAs. However, as can be seen from examination of the patterns within individual deciles, this effect disappears once smaller areas of similar deprivation level are compared i.e. for most deprivation deciles, the small areas within high deprivation LAs, now have lower rates of intervention than the small areas within low deprivation LAs. This pattern was confirmed by the use of regression analysis, which showed that while small area (data zone) deprivation was associated with a rate increase (beta = .38, $p < .001$), large area deprivation was associated with a rate decrease, acting to moderate (reduce) the effect of small area deprivation (beta = -.12, $p < .001$). The regression analysis also showed that around 12% of the variance in child protection register intervention rates was due to the combination of data zone and LA deprivation deciles.

Figure 8.2 All looked after children rates for LA deprivation bands (high, mid, low) by deprivation decile.

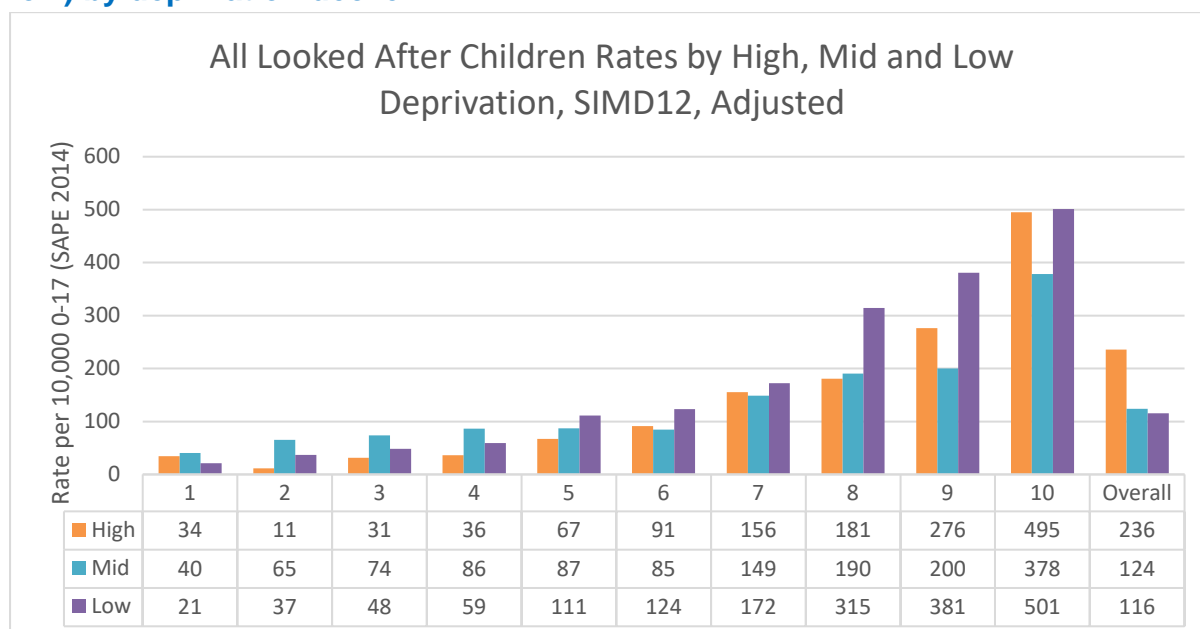
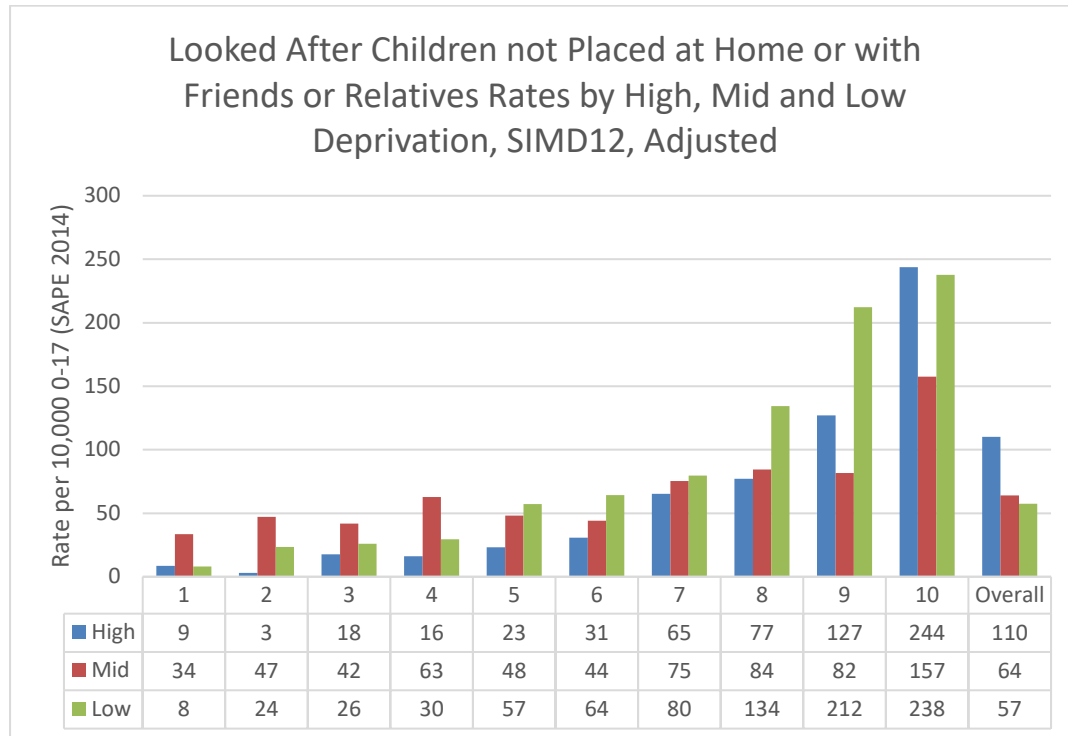


Figure 8.2 shows that overall, looked after children rates are higher in the high deprivation LAs and lowest in the low deprivation LAs. However, similar to the child protection registration figures, this effect is reduced once smaller areas within these bands of similar deprivation level are compared i.e. within most deprivation deciles (with the exception of the least deprived and the most deprived deciles), the small areas within high deprivation LAs have lower rates than the small areas within low deprivation LAs. This pattern was confirmed by the use of regression analysis, which showed that while small area (data zone) deprivation was associated with a rate increase (beta = .60, $p < .001$), large area deprivation on the level of LA was associated with a rate decrease, therefore acting to moderate the effect of small area deprivation (beta = -.06, $p < .001$). The regression analysis also showed that around 32% of

the variance in looked after children rates was due to the combination of data zone and LA deprivation deciles.

Figure 8.3 Looked after children not placed at home or with friends or relatives rates for LA deprivation bands (high, mid, low) by deprivation decile.



As with child protection registration and all looked after children rates, Figure 8.3 shows that overall, looked after children rates excluding those at home or with friends or relatives are higher in the high deprivation LAs and lowest in the low deprivation LAs. This effect again disappears once smaller areas within these bands of similar deprivation level are compared i.e. within most deprivation deciles (excluding in deciles 1 and 10), small areas within the high deprivation LAs have lower rates than the small areas within low deprivation LAs. This pattern was confirmed by the use of regression analysis, which showed that while small area (data zone) deprivation was associated with a rate increase (beta = .48, $p < .001$), large area deprivation on the level of LA was associated with a rate decrease, therefore acting to moderate the effect of small area deprivation (beta = -.06, $p < .001$). The regression analysis also showed that around 21% of the variance in looked after children (excluding those at home or with friends or relatives) rates was due to the combination of data zone and LA deprivation deciles.

9. Spend

Expenditure data on Children and Families' Services was calculated per capita (using 0-17 mid-year population estimates) for Scotland overall and for LAs included in the study sample. Data was obtained from the Local Government Finance Returns 2014-15 on the Scottish Government website. Calculations used gross expenditure figures adjusted for inflation using the 2014-15 GDP deflator. LAs were ranked according to population weighted average SIMD12 scores and divided into bands of high, middle (mid) and low deprivation. Expenditure and all looked after children rates for the deprivation bands are shown below in Figures 9.1 (sample LAs) and Figure 9.2 (all Scotland LAs). The Scotland wide per capita spend on Children and Families' Services for 2014-15 was calculated as **£878.85 per child** (0-17 years).

Figure 9.1 Children and families' services gross spend per child (0-17) for LA deprivation bands (high, mid, low) in the study sample.

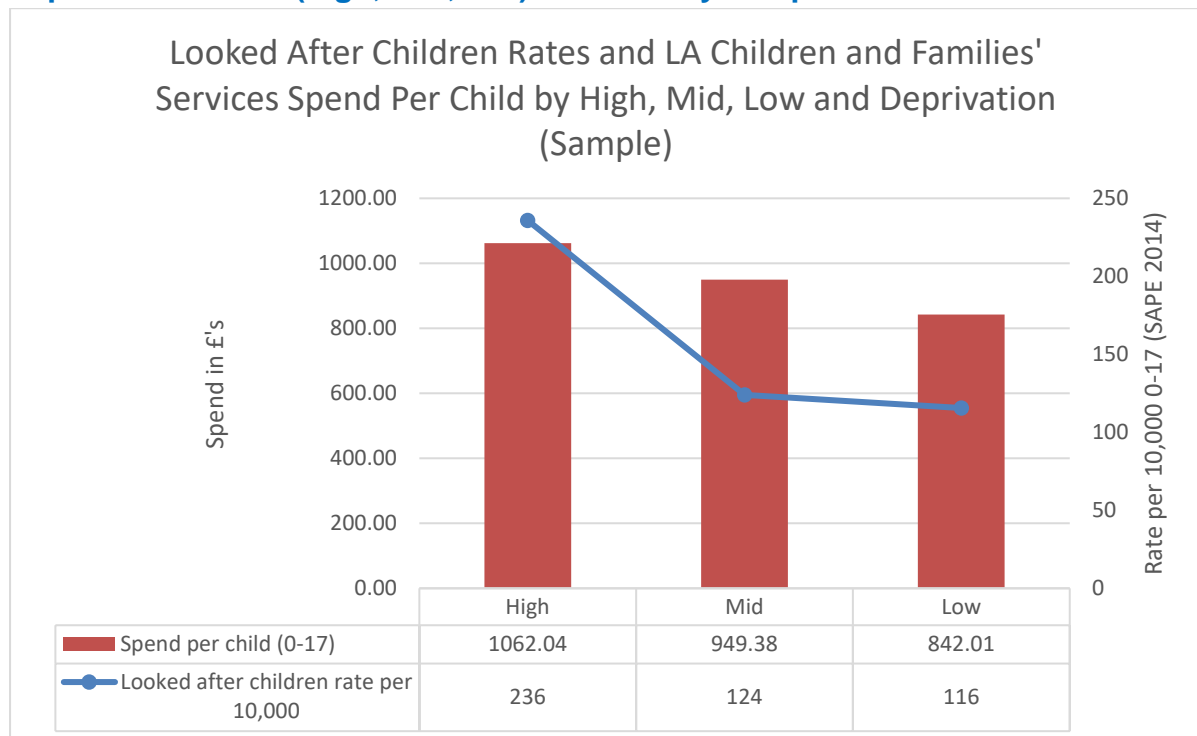
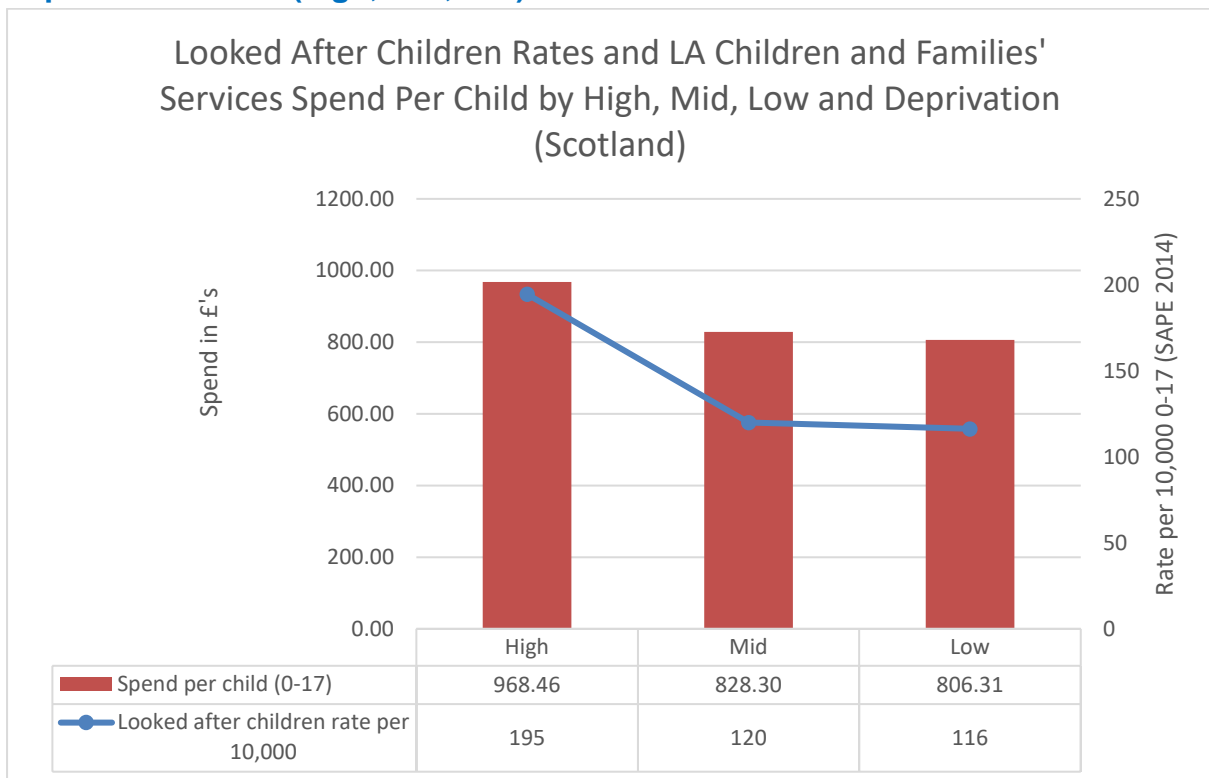


Figure 9.1 shows that Children and Families' Services spend per child aged 0-17 years is the highest for the high deprivation band of LAs in our study sample. Spend per child decreases with each step down in deprivation (along with looked after children intervention rates).

Figure 9.2 Children and families' services gross spend per child (0-17) for LA deprivation bands (high, mid, low) across Scotland.



As with the sample LAs, Figure 9.2 shows that Children and Families' Services spend per child aged 0-17 years is the highest for the high deprivation band of all LAs in Scotland. Spend per child decreases with each step down in deprivation (along with looked after children intervention rates), although this step down from mid to low deprivation is to a lesser degree.

10. Discussion and conclusion

As can be seen from this report, children from the 10% most deprived neighbourhoods (data zones) in our sample were around 20 times more likely to be subject to child welfare interventions in the form of child protection registration or becoming 'looked after', than those in the 10% of least deprived neighbourhoods. This relationship remained consistent even when excluding those looked after at home or with friends and relatives.

Evidence to show differences by identity were lacking. For example, no significant difference was found between males and females i.e. males and females were affected by deprivation in a similar way (higher deprivation = higher rates of intervention). This relationship was consistent across all age groups, with the exception of child protection register rates for 16-17 year olds. However, this is most likely due to the very small numbers of 16-17 year olds receiving child protection registration interventions in our sample (less than 10). In Scotland, the age of maturity is 16, and for the purposes of the Children's Hearing system a child is considered as someone under 16, unless their case is already under active consideration or they are on a compulsory supervision order, in which case they can be subject to protective provisions up to the age of 18. In the Scottish Guidance for child protection practice a child is defined as someone up to the age of 18 (Scottish Government, 2014). There is also legislation for the protection of adults – The Adult Support and Protection (Scotland) Act 2007 in which an adult is defined as someone over 16. In practice there is variation across the country in approaches to the protection of 16 – 18 year olds and the guidance acknowledges that 'Young people aged between 16 and 18 are potentially vulnerable to falling "between the gaps"' (Scottish Government, 2014, p.9).

Whilst the picture for ethnicity was unclear due to the small numbers in our sample and in Scotland as a whole, for the largest ethnic category (White), the social gradient with increasing rates by deprivation was clear. For all other ethnic categories, it was difficult to see this whether this pattern was not present or just affected by the small cell numbers.

Considering deprivation at LA level shows that whilst higher deprivation on the small area level is associated with higher rates of intervention, this effect is moderated to some degree by overall LA deprivation i.e. *lower* overall deprivation on the level of LA is associated with higher rates once small area deprivation is controlled. This is a demonstration of the Inverse Intervention Law. However, despite this statistically significant trend across deciles overall, descriptive analysis of small areas within individual deciles appear to show that this pattern is not observed in the most and least deprived deciles for looked after children. This

demonstrates how although the IIL found in the pilot study in England was also found in this data from Scotland, this is observed in a slightly modified way.

In the English part of this study, analysis of LA expenditure data suggested that these systematic variations (IIL) may be related to the level of resources that more affluent authorities have to spend on children's services. However, in Scotland it was not possible to gather sufficient and comparable data about what resources are allocated specifically to services for looked after children and preventative family support. This lack of available information makes it very difficult, in Scotland, to assess the extent to which LA resourcing affects a child's chances of experiencing a child welfare intervention.

The unique way in which abuse category is recorded in Scotland offered some interesting insights into patterns of associations with deprivation. The 'concerns' which can be noted include fields akin to the traditional 'categories of abuse' as well as a set of parent-related factors. This includes the set of factors that tend to be colloquially referred to as the 'toxic trio': domestic abuse, parental mental health and substance misuse. There was a very clear social gradient for each of these three factors as well as for the rates of maltreatment (excluding sexual abuse for which there was a less marked gradient). The 'toxic trio' tend to be described as causal factors of maltreatment, but there is a marked absence of analysis of the extent to which these factors are, themselves, associated with deprivation as evidenced so clearly in this data from Scotland.

The UK comparison showed that Scotland has lower rates of children on the child protection register: overall Scottish children have a 40% less chance of being on the child protection register than in England. Conversely, there appear to be much higher rates of children who are looked after in Scotland. When we compared rates for children who were being looked after in care and were not placed with family, friends or relatives a child living in Scotland appeared to have 57% more chance of being looked after than in England. However, in England there are higher rates of adoption from care. Also, in Scotland, children subject to Permanence Orders are counted in our statistics, whereas in England children on the nearest legal equivalent, Special Guardianship Orders, are not. Therefore, it could be that the difference is due to the cumulative effect of both different approaches to adoption and different ways of recording children on other legislative orders. The fact that we cannot, with confidence, account for the apparent differences across the UK means that it is very difficult for Scotland to gauge where it stands in comparison with other similar places.

There are a range of poverty reduction initiatives in Scotland such as the income maximisation programme⁴ the Fairer Scotland Plan⁵, The Child Poverty Strategy⁶ and a Child Poverty Bill⁷. It is to be hoped that these anti-poverty initiatives in Scotland will eventually impact on levels of child welfare interventions. However, it is notable that the Child Poverty Strategy makes no mention of child protection or children being looked after away from home as linked with poverty, not does the Child Poverty Measurement Framework for Scotland⁸ include reduction in child maltreatment as one its metrics.

In conclusion, the analysis of the data in Scotland confirmed the association of child welfare interventions with poverty as identified across the UK. It also revealed some distinct patterns of child welfare interventions in Scotland and confirmed the value of cross-country comparisons of this type.

⁴ <http://www.gov.scot/Topics/People/Young-People/early-years/stories/clusters/income-maximisation>

⁵ <https://fairer.scot/>

⁶ <http://www.gov.scot/Resource/0044/00445863.pdf>

⁷ <http://www.parliament.scot/parliamentarybusiness/Bills/103404.aspx>

⁸ <http://www.gov.scot/Topics/People/fairerscotland/tacklingpovertyinscotland/CP/MeasureFW>

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Appendix

Legal reason category coding

Emergency Child Protection Measures	Child Protection Measure	S.55-56 S.35-36 S.37-54	Children's Hearings (Scotland) Act 2011 Child Assessment Orders (7 days) Child Protection Orders (8 days) Emergency Protection where CP order not available
Adoption Measures	Freed for Adoption	S.18 S.25 S.26	Adoption (Scotland) Act 1978 Freeing order Adoption and Children (Scotland) Act 2007 Return of child to the local authority
	Permanence order with authority to place for adoption	S.83	Adoption and Children (Scotland) Act 2007 Order granting authority for adoption: conditions
Voluntary Accommodation	Accommodated Under Section 25	S.25	Children (Scotland) Act 1995 Care Duty of Local Authorities (including respite)
Youth Justice Measures	Criminal Court Provision	S.205(2) S.208 S.216(7) S.44(1) S.43(4) S.51	Criminal Procedure (Scotland) Act 1995 Detention following a conviction for murder Detention of children convicted of an indictment Failure to pay a fine, maximum detention one month Detention in residential accommodation Detention of child (unruly certificate) Detention of child by the Court (inc. unruly certificate)
Compulsory Supervision Order	Compulsory supervision order at home	S.83 S.73(9)	Children's Hearings (Scotland) Act 2011 Compulsory Supervision Order Children (Scotland) Act 1995 Change in requirement condition imposed by Review Hearing
	Compulsory supervision away from home (excluding Residential Establishment)	S.83 S.72(1) S.73(9)	Children's Hearings (Scotland) Act 2011 Compulsory Supervision Order with conditions of residence Children (Scotland) Act 1995 Transfer of child subject to Supervision Requirement Change in requirement condition imposed by Review Hearing
	Compulsory supervision away from home (in a Residential Establishment but excluding Secure)	S.83 S.72(1) S.73(9)	Children's Hearings (Scotland) Act 2011 Compulsory Supervision Order with conditions of residence Children (Scotland) Act 1995

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			Transfer of child subject to Supervision Requirement Change in requirement condition imposed by Review Hearing
	Compulsory supervision away from home with a Secure Condition	S.82(2)e S.73(9) S.75 Powers Secure ACC. Regs 6 & 7	Children's Hearings (Scotland) Act 2011 Compulsory Supervision Order with conditions of residence in Secure Accommodation Children (Scotland) Act 1995 Change in requirement condition imposed by Review Hearing Placement of children in Secure Accommodation Secure Accommodation (Scotland) Regulations 1996 Placement of Children in Secure accommodation
	Interim compulsory supervision order	S.45(4) & (5) S.63(5) S.66 S.67 S.68 S.69	Children's Hearings (Scotland) Act 2011- renamed from 'Warrant' Children (Scotland) Act 1995 Hearing warrants (7 days) Children detained by the police Children detained under hearing warrant (21 days) Extension of hearing warrant (further 21 days) Warrant to hold child whilst grounds established (14 days) Warrant to hold child for further investigation (21 days)
Other	Parental Responsibilities Order	S.86	Children (Scotland) Act 1995 Parental responsibilities order Note: this code is historical and is not a viable code for incoming children.
	Permanence order	S.80	Adoption and Children (Scotland) Act 2007 Permanence orders
	Other Legal Reason	e.g. Any statute from England & Wales or Northern Ireland	Other