Health Inequalities in Children and Young People in Cumbria

Policy and Evidence Review

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Background

Working in Cumbria, an area of exceptional natural beauty, one can be led to believe that children and young people are receiving an idyllic and healthy start to life. While this may be true for some, there are several geographical areas where this is far from the case. Children in these areas are significantly more likely to suffer from poorer health outcomes than those in other parts of Cumbria, and while this is well known anecdotally, this report aims to bring together the evidence required to support the assertions of those working with children in this area.

Children living in deprivation often struggle to have their health needs met and this can have a significant impact on their day to day lives. For example, children who do not attend for regular dental care can not only suffer from the pain of dental decay, causing problems with concentration at school and so on, but their social interaction can also be affected due to issues of bad breath or visually poor dental hygiene.

As practitioners working with children and young people, we see the impact of health inequalities on a day to day basis. All children deserve the opportunity to lead healthy and fulfilling lives and identifying health inequalities in the first step to achieving this.

Introduction

The aim of this report is to explore data from multiple sources and provide an analytical discussion of those findings. It will focus on the health, wellbeing and inequalities of children and young people in Cumbria.

Inequalities in social determinants of health are not inevitable, and are therefore considered avoidable and unjust (Marmot, 2010). Throughout the health system, inequalities exist from determinants to outcomes, and include inequalities in socio-economic and environmental factors, including: income, employment, housing, occupation and education, lifestyle and health behaviours.

The most recent Joint Strategic Needs Analysis for Cumbria (Taylor, 2015) highlights the unique geographical challenges presented by Cumbria's rurality and socio economic disparity. For example, Cumbria has 29 communities that are ranked amongst the most deprived in the country and life expectancy is 16.4 years lower for men and 14.6 years lower for women than those living in the most affluent communities in the county (Taylor, 2015). Statistics and findings for small, localised pockets of deprivation in rural areas are noted to often be lost in the average for the wider area (Curtis, 2004), therefore it is imperative that the needs of these smaller, more deprived areas are highlighted and acted upon.

Method and Limitations

For the purposes of comparison, statistics from one of the most deprived and one of the least deprived electoral wards in the county will be used to demonstrate any potential disparity. The findings will also be compared to whole county and national statistics.

Barrow Central ward is in the 1st decile of the national Indices of Multiple Deprivation (IMD). This means that it is in the top 10% of most deprived areas in England. Conversely, Windermere ward sits

between the 7th and 9th decile, depending which measure of deprivation is being assessed (Cumbria Observatory, 2019 A).

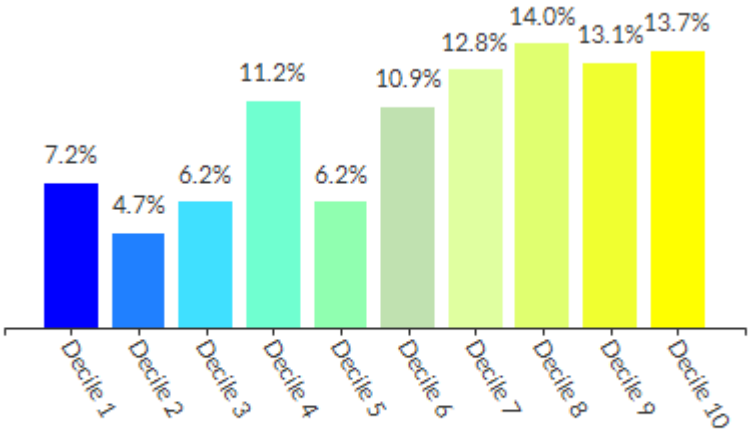
Limitations

The data used within the report will be the most up to date available, however this means that the data may originate from different sources. For example, the most up to date information from the national census is currently from 2011. This also brings the added limitation that this information is now somewhat dated and may not accurately represent the current status of the geographical area being scrutinised.

It should also be noted that there are inherent limitations within the classification and construction of the Indices of Multiple Deprivation themselves. According to Clelland and Hill (2019), the inclusion of which indicators are included in the IMD, such as crime, housing and so on, are somewhat pragmatic and potentially subject to value judgements. Similarly, the weighting of individual indicators may be viewed as essentially arbitrary and subjective, which may leave the results open to challenge.

Analysis

The percentage of the population aged 0-17 within Cumbria is 19%, broadly reflective of the national average of 21%. In Barrow Central this rises slightly to 23% and in Windermere it is 17% (Cumbria Observatory, 2019 B). The diagram below denotes the percentage of children across the county living in each decile, with decile 1 being the most deprived 10% of areas in England.



Date: 2019 Source: DCLG

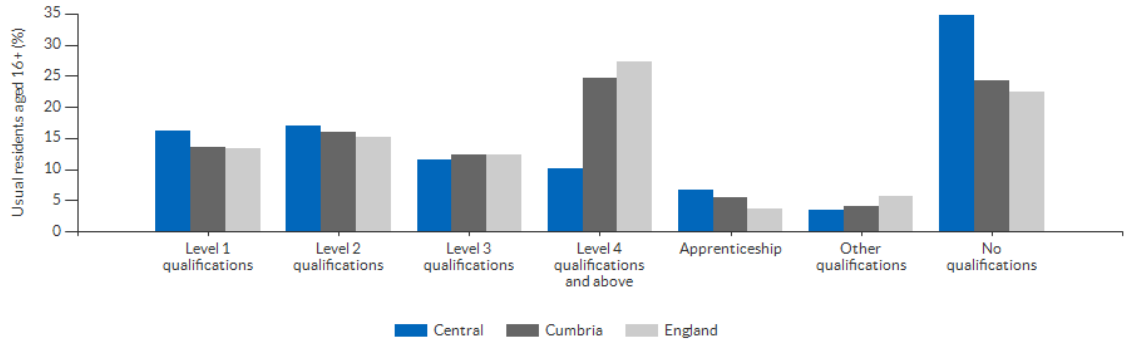
As previously identified, Barrow Central ward is classified as being in Decile 1, with Windermere sitting between deciles 7 and 9.

Education

McCartney et al (2017) note that educational attainment and deprivation are linked and are indicative of overall mortality and morbidity. While children and full time students aged 16-17 (in

education) are reflective of the national average (2.5% Cumbria, 2.7% nationally), the gap widens considerably after the age of 18 (2.4% Cumbria, 5.5% nationally). This may account for the percentage of the adult population having degree level education or above being 25% compared to the 33.1% national average.

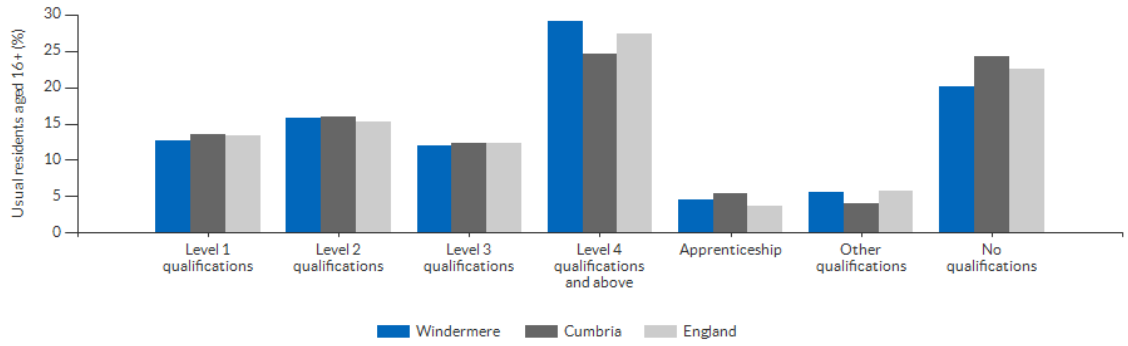
However, when we look at highest levels of academic attainment, Barrow Central has a much lower level of residents achieving qualifications at level 4 and above when compared to the Cumbria and national averages (10%, compared to 24% and 27% respectively).



Source: ONS Census 2011

In comparison, Windermere has 29.2% of it's residents attaining qualifications at level 4 and above.

According to the Cumbria Observatory, this data was sourced from the national census of 2011, the most recent available. It will be useful to compare this to the most recently collected data from 2021 when this is published, in order to see if the gap has narrowed or widened in the intervening years.



Source: ONS Census 2011

This is a clear reflection of McCartney et al's (2017) findings regarding the link between deprivation and educational attainment.

From reviewing this data, there is also a clear correlation between deprivation and the number of adults in the community with no educational qualifications at all. The national average is 22.5%, with Cumbria falling slightly higher at 24.4%. There is a stark difference between these statistics and the data for Barrow Central which is 35%. Windermere fares somewhat better at 20%.

Data relating to levels of attainment at Reception class level (ages 4-5) are also reflective of the link between deprivation and poor educational attainment. Cumbria Observatory (2021) identify that 68% of children in Barrow achieve a "good" level of development, compared to 75% of those in South Lakeland (narrower data sets relating to electoral wards are not available). A discussion of "good development" and how it is measured is available here- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/190639/DFE-RR291.pdf .

Health

The Cumbria Observatory notes that overall, the county compares favourably to the national average for health outcomes in children (Cumbria Observatory, 2020). While there are no statistics available at electoral ward level, it is interesting to see the disparities in health data at district level within the county. Barrow Central sits within the wider district of Barrow and Windermere is in the district of South Lakeland.

Infant mortality is measured as deaths in infants under the age of one, per 1000 live births. The national average is 3.9, as is the average for Cumbria as a whole. For the district of Barrow this rises to 4.8 and for South Lakeland the number is 2.1 (Public Health England, 2021). This shows a clear link between deprivation and infant mortality, reflective of the findings of a recent review by Thompson et al (2021).

Low birth weight is also identified as a potential result of deprivation (Thompson et al, 2021) and the data from the Cumbria Observatory (2018) supports this. While Cumbria has a rate of 2.1% of babies born with a low birth weight (this is classed as less than 2.5kg by the Office for National Statistics, 2020), compared to the national average of 2.9%, This rises slightly in Barrow to just over 3% and is just over 1% in Windermere.

Lee-Barber et al (2019) note that dental decay and the need for extraction is the leading reason for hospital admission in children aged 5-9 years and that the prevalence of dental decay is strongly associated with deprivation. The number of children aged 5 who are free from obvious dental decay is recorded as 75.2% nationally and 67.8% for Cumbria. The results for Barrow are significantly worse than the national and county average at 58.%. South Lakeland is above the national and county average at 78.4%. Broomhead et al (2020) caution that irrespective of the financial burden of admitting children to hospital for dental extractions, dental general anaesthetics put children at unnecessary risk (around 1:400,000 risk of life threatening problems during anaesthesia and procedure), which in the majority of cases is entirely avoidable.

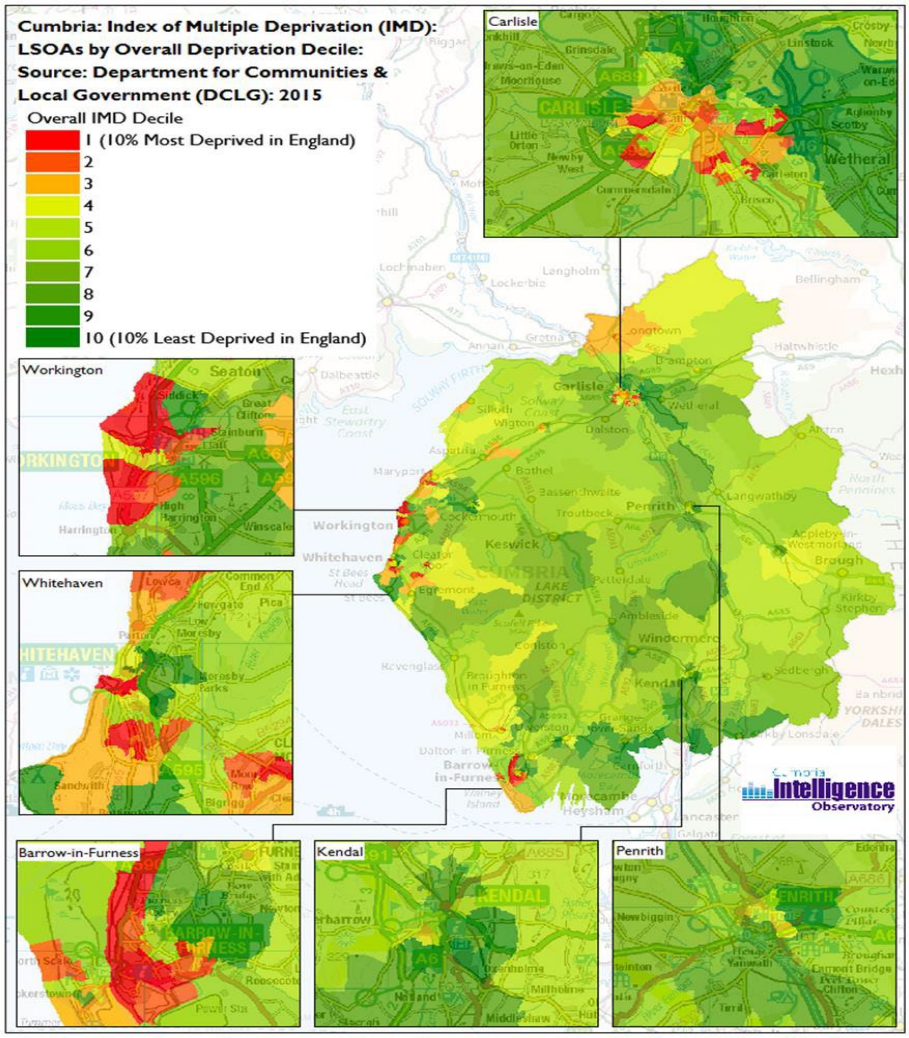
Overweight and Obesity is noted as one of the greatest health challenges facing the United Kingdom, as identified by the Department of Health (2020). One in three children are identified as being overweight or obese by the time they leave primary school aged 11. Little and Nestel (2017) demonstrate a clear link between overweight/obesity and deprivation. Cumbria Observatory (2018) statistics state that the exact percentage of children leaving primary school who are overweight or obese in Cumbria is 34.2%. In Barrow this figure rises to 38.6 % and in Windermere it is 30.3 %. These findings would support Little and Nestel's (2017) link between overweight/ obesity and deprivation.

Psychological well being is noted by Jonsson et al (2020) as being an integral measure of public health. They further note that mental ill health is a leading cause of ill health globally and that the onset of mental health disorders, for example depression and self harm, usually begin at an early age and persist well into adulthood in many cases. Jonsson et al (2020) and Noonan (2019) both agree that the impact of deprivation has a clear link to poorer mental health outcomes in children and young people. The number of 5-18 year olds with a mental health disorder in Cumbria is noted to be 9.4% overall, very slightly less than the national average of 9.2% (Cumbria Observatory, 2018), although this data originates from 2015. This rises in the Barrow area to 10% and is slightly lower in South Lakeland at 8.5%. Deighton (2019) argues that more recent studies suggest the national number may now be nearer 12.5%. This would correlate with Marmot's (2020) assertion that the number of children living in poverty has increased since his original report was published in 2010.

The number of young people who are admitted to hospital for alcohol related conditions is measured per 10,000 of the population (Cumbria Observatory, 2018). Statistics from the period between 2014/15-2016/17 identify that this figure is 34.2 nationally and 52.4 for Cumbria as a whole. For Barrow this figure jumps considerably to 96.5. In South Lakeland, this figure is 60.3, higher than both the national and county average, a surprising finding considering its relative affluence. Patton et al (2013) highlight the inherent dangers of alcohol use in young people of the longer term, such as addiction, damage to the developing brain and potential for physiological damage such as liver disease. The use of alcohol also lowers inhibitions and in young people who may not have the skills to mitigate this, they are at greater risk of abuse and exploitation.

Economy and Employment

The Marmot Review (2010) identified that poverty in childhood leads to premature mortality and poorer health outcomes in adulthood. The Child Poverty Act (2010) states that child poverty is defined as households with children that earn less than 60% of the mean national income. The Cumbria Observatory (2018) notes that 12.7% of children in Cumbria are living in poverty, less than the national average of 16.6%. However, once again there is a large disparity between the most and least deprived areas in the county with Barrow having 18% of children living in poverty compared to South Lakeland with just 6.8%. Cumbria Observatory further notes that Barrow Central ward has the highest percentage of children living in poverty in the county at 41.8%, more than twice the national average. Although Cumbria has a lower percentage of children living in poverty overall when compared to the national average, there are six wards in the county that are among the worst 10% across the country, and three of those wards are in Barrow.



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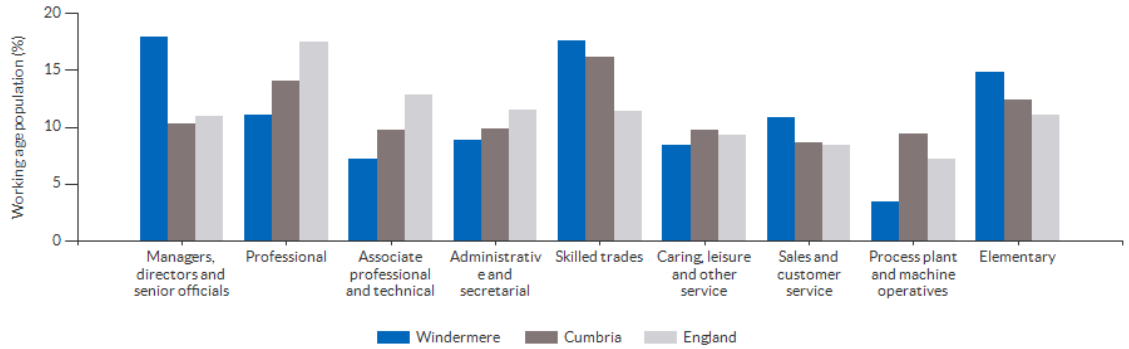
The above map of Cumbria (Cumbria Observatory, 2018), offers a visual representation of the level of deprivation across the county. While the majority of the geographical area sits in the top 50% of least deprived areas in the country, there are three clear pockets of high deprivation where many people are living in the top 10% of the most deprived areas nationally. These areas are among the most densely populated in the county, namely Barrow (as previously identified), West Cumbria and the county capital, Carlisle.

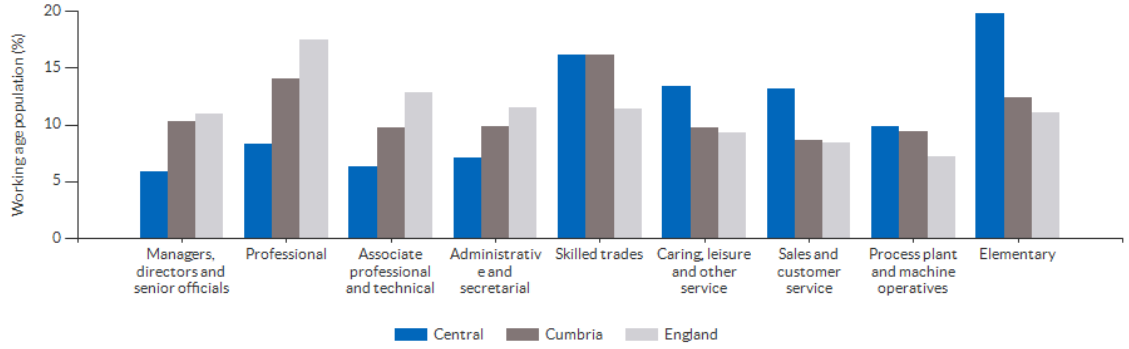
It has been identified by Silva et al (2017) that unemployment has long been associated with deprivation and negative health outcomes, including both physical and mental health. The Cumbria Observatory (2019) identifies that employment deprivation measures the proportion of the working age population in an area that are involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability or caring responsibilities. All of Barrow Central falls into decile 1, whereas Windermere falls primarily in decile 7. The number of economically inactive adults in Barrow Central ward is 41%, compared to 28% in Windermere. When these statistics are broken down further into occupation type, it becomes apparent that there is a much higher proportion of the population employed in management positions and skilled trades in Windermere, not only compared to Barrow Central, but when compared to Cumbria and England as a whole.

Occupation groups



Source: ONS Census 2011

Occupation groups



Source: ONS Census 2011

While Naidoo and Wills (2016) identify that working is good for one's health generally, they caution that the relationship between employment and health can be complex. While working provides an income, sense of self-worth and effective social networks, there are also potentially detrimental aspects of the working environment that can harm health. These can include hazards, repetitive tasks, workplace stress and a lack of autonomy (Marmot, 2010). While there is evidence to suggest that low skilled workers are more likely to report poorer health, limited physical functioning and greater long term sickness absence, those in managerial and professional occupations are more likely to experience symptoms of stress and burnout (Hamig and Bauer, 2013).

Discussion

From the evidence presented above, it is clear that while Cumbria generally compares favourably to the country as a whole in terms of health outcomes for children and young people, there are several geographical areas where this is not the case. As noted in previous chapters, there are three specific areas where deprivation is amongst the top 10% of the country (Barrow, Carlisle and West Cumbria) and health outcomes for children and young people in these areas are considerably poorer than their counterparts in more affluent areas.

The Black Report (1980) into health inequalities identified that those from lower socio economic backgrounds were more like to suffer poorer health outcomes and higher rates of mortality, yet in the intervening years little progress appears to have been made in addressing this. Indeed, Marmot (2020) has noted that in the 10 years since his publication "Healthy Lives, Fair Society" (Marmot, 2010) where he outlined 6 key areas that needed to be addressed in order to tackle health inequalities, the health gap has widened between the wealthy and more deprived geographical areas, with a clear north/south divide.

In terms of the day to day experience of children and young people in the most deprived areas of Cumbria, it is apparent that they can expect notably poorer health outcomes than their more affluent contemporaries. They are more likely to be born with a low birth weight, to die before they reach their first birthday, be overweight or obese, suffer poorer mental health and to participate in risk taking activities (Marmot, 2010).

While the causes of health inequalities are complex, there has been some acknowledgement of need. Interventions to address these need to be delivered at population and community level and will take time to deliver any appreciable impact (Public Health England, 2017). Marmot (2010) advised that intervention should start at the beginning of the life course, giving every child the best start in life. This includes ensuring the provision of high quality maternity services and early years education as well as increasing government expenditure on parental and family support from pre conception through to the teenage years.

According to the King's Fund (2021), in practice, net expenditure on public health services has decreased by 13% on a like for like basis over the past seven years, including within children's services. Despite government and parliamentary acknowledgement (Local Government Association, 2019) that health visitors play a key role in ensuring that children get the best possible start in life, numbers of health visitors in post nationally have seen a decline since 2015. This is in spite of the call to action to increase health visiting numbers in 2010 under the coalition government. While exact figures for the number of health visitors in post throughout Cumbria are not available, anecdotal evidence from families and professionals suggest that children and families are receiving less support now than they have in the past. A report published in the Nursing Times by Stephenson (2016) identified plans by Cumbria County Council to implement radical changes to children's public health provision in order to streamline services and reduce costs. This has resulted in the decommissioning of the school nursing service across the county and a reduction in the number of health visitors. This contradicts Marmots (2010) recommendations to tackle health inequalities and may well be contributing to the widening gap in health outcomes between the most deprived and most affluent communities in Cumbria.

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