

Expert Report for the UK Covid-19 Public Inquiry

Module 2: Child health inequalities

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Author statement

I confirm that this is my own work and that the facts stated in the report are within my own knowledge. I understand my duty to provide independent evidence and have complied with that duty. I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

David Taylor-Robinson

21st September 2023

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Understanding social inequalities in child health in the UK pre-pandemic

Why are health inequalities impacting children important?

1. Social inequities in health are systematic differences in health status between different socioeconomic groups that are socially produced (and therefore modifiable) and unfair (Pearce et al., 2019; Whitehead et al., 2006). Presently, both in the UK and globally, inequalities related to childhood socioeconomic circumstances are evident in nearly every facet of children's physical and psychological well-being (WHO Commission on Social Determinants of Health, 2008): children living in more socioeconomically disadvantaged circumstances experience worse health than their more advantaged peers (Pickett and Taylor-Robinson, 2021).
2. Investing in policies and practices that enhance child health and wellbeing is of the utmost importance for ensuring healthy, productive and fulfilled lives for future generations. Health inequalities emerge early, influence birth outcomes and early child development, and persist throughout childhood, into adolescence, adulthood, and from one generation to the next (Pearce et al., 2019). Child health inequalities determine the development of inequities in later life, as early inequalities in child health and development strongly influence health and other outcomes that are important for adult health, such as education, employment and relationships.

Understanding the causes of health inequalities

3. Population health and health inequalities are strongly influenced by the social determinants of health (SDH) - the “conditions in which people are born, grow, live, work, and age” (Marmot et al., 2010, p. 16). In most settings, inequalities in children’s health in the UK are caused by differences in exposure to important determinants such as poverty and the resources needed for health; differences in exposure to health-damaging environments; and differences in opportunities to enjoy protective conditions that help promote and maintain good health – especially the conditions that give children the best possible start in life.
4. Children from disadvantaged backgrounds are more likely to experience biological, familial and social adversity prenatally and across childhood – including exposure to smoking in pregnancy, parental mental health problems, household dysfunction and violence.(Straatmann et al., 2019a; Walsh et al., 2019a). There is strong evidence that childhood adversity can interrupt children’s healthy development. This can result in disturbances to child development, especially in terms of brain structure, reactions to stress, and metabolic balance over the lifecourse thereby influencing the susceptibility to various chronic illnesses in adulthood.(Lai et al., 2019; Pearce et al., 2019; S. Wickham et al., 2016)

Inequalities in child health in the UK

5. In the five years pre-pandemic there was widespread concern about deteriorating child health in the UK (Taylor-Robinson D et al., 2019a; Viner et al., 2017). Following a period of improvement as a result of the English Health Inequalities Strategy (Barr et al., 2017, 2014; Robinson et al., 2019; Taylor-Robinson and Bennett, 2020), inequalities in life expectancy at birth and child mortality were once again increasing. Moreover, inequalities in contemporary

childhood epidemics, such as mental health issues and obesity, were on the rise (Collishaw et al., 2019; Davies, 2019; Straatmann et al., 2019b). Infant mortality was rising, particularly in poor areas of the UK (Taylor-Robinson D et al., 2019b).

6. This report sets out what was known about inequalities in key aspects of children's lives at the onset of the pandemic, with a focus on pre-existing socioeconomic inequalities in aspects of health and education that we know have been exacerbated by the pandemic. We address key aspects of early childhood, mental and physical health, and cover inequalities in educational outcomes and economic prospects, and vulnerable groups such as children at risk of entering the care system.

Child poverty

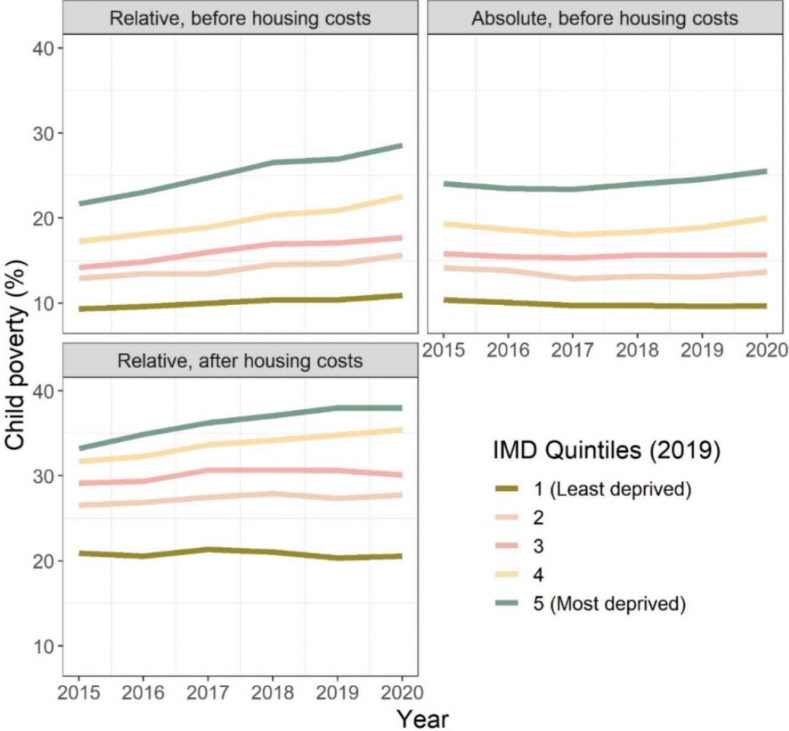
Relevance of the issue

- 7. Child poverty is a disaster for child health (Taylor-Robinson D et al., 2019a; The Lancet, 2019, 2017). It increases children’s exposure and vulnerability to health harms, and increases the likelihood that children will experience worse outcomes for a given level of exposure (Diderichsen et al., 2001). It contributes to a host of adverse developmental, health, educational and longer-term social outcomes (Sophie Wickham et al., 2016).

Socioeconomic inequalities

- 8. Relative poverty increased in the UK in the years leading up to the pandemic, reversing several years of declining trends (Bradshaw et al., 2021). In 2019/20, on the eve of the pandemic, 4.3 million children, or 31% of all children in the UK, were living in relative poverty (in households below 60% of the median income) after housing costs (Department for Work and Pensions, 2023). Progress in reducing absolute poverty (children in households below 60% of the 2010/11 median income, held constant in real terms) had also stalled prior to the pandemic (Bradshaw et al., 2021). Between 2017 and 2020, by any measure, children in the most deprived parts of England were moving into poverty (Figure 1) (Department for Work and Pensions, 2022). Comparable analyses of trends by local deprivation have not yet been undertaken for Wales, Scotland and Northern Ireland. Rising relative poverty rates, and high absolute child poverty rates, contributed to worsening child health and wellbeing in the lead-up to the pandemic, increasing children’s vulnerability to the negative health impacts of the pandemic, and decreasing their resilience to financial shocks.

Figure 1: Percentage of children living in low-income families in England.



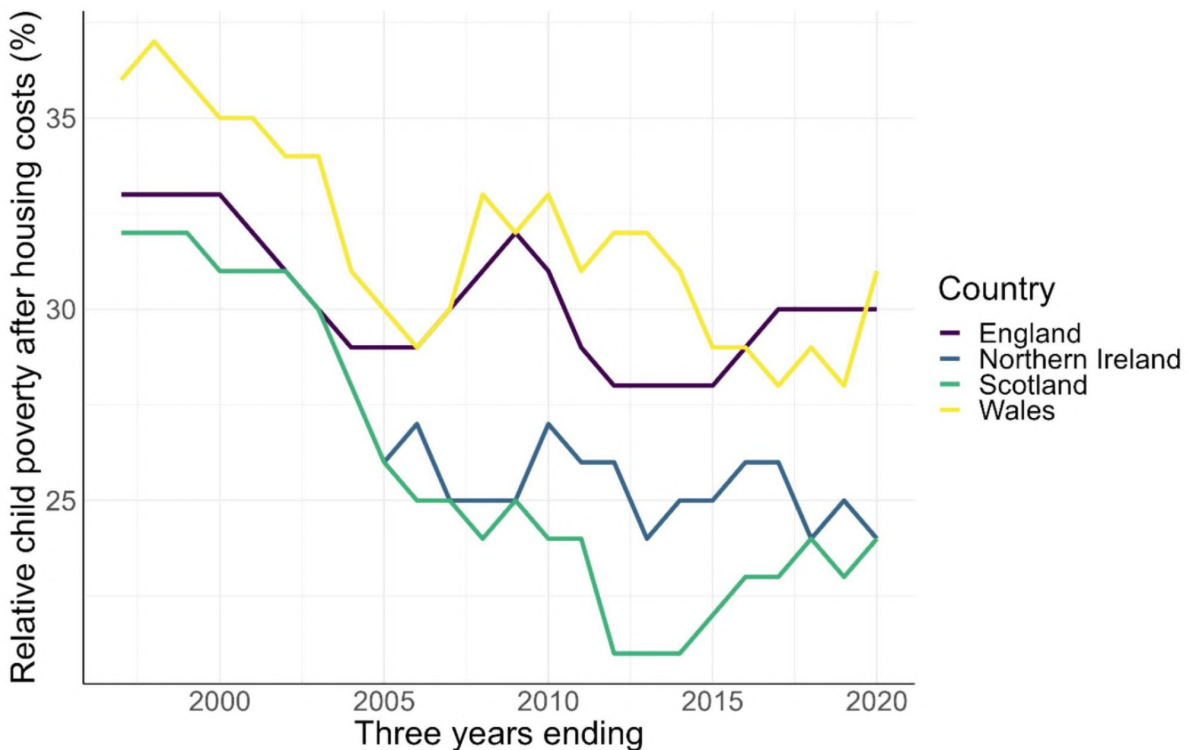
Source: Department for Work and Pensions, 2022

9. Other indicators of child poverty suggest deteriorating conditions for children and families. An analysis by Shelter estimated that, in 2019, in Great Britain, a child lost their home every eight minutes, equivalent to 183 children every day. Between 2014 and 2019, there was a 51% rise in the number of homeless children in temporary accommodation in England, and a 64% rise in Scotland. In Wales, between 2015 and 2019, there was a smaller but still substantial rise of 28%. A year before the pandemic struck, an estimated 135,000 children were living in formal temporary accommodation (Reynolds and Dzalto, 2019). The shortage of temporary housing meant that many children were living in unsuitable, poor quality or overcrowded housing, or in accommodation far from their schools and communities. These ‘temporary’ circumstances may last months or years (Children’s Commissioner for England, 2019). Living in temporary accommodation can lead to children experiencing social isolation, poor mental and physical health, disruptions to their education, and exposure to unsafe social environments, with consequences for play and development (Children’s Commissioner for England, 2019). This can increase lifelong inequalities in children’s life chances (Shelter, 2006).

Regional differences

10. Child poverty rates differed by country and region. In 2017/18-2019/20, on the eve of the pandemic, relative rates after housing costs were highest in Wales and England, at 31% and 30% respectively. They were lower in Northern Ireland and in Scotland at 24%. Figure 2 shows pre-pandemic trends in child poverty by country (Department for Work and Pensions, 2023). Although trends differ by country, the figure illustrates stalled and reversed progress in addressing child poverty.

Figure 2. Trends in relative child poverty after housing costs, by country, 1997-2020.



Source: Department for Work and Pensions, 2022

11. England's rise in child poverty largely occurred in Northern regions and in the West Midlands (Department for Work and Pensions, 2023). Local authority-level data published in 2020 show that, of the 20 local authorities with greatest increases in child poverty rates, 18 were in Northern Regions, 12 in the North East (Hirsch and Stone, 2020). Newcastle upon Tyne saw a 13 percentage point increase in relative poverty after housing costs between 2014/15 and 2019/20, to 41% (Hirsch and Stone, 2020). Overall poverty rates remain highest in London due to high housing costs (Department for Work and Pensions, 2023).

By family structure

12. The likelihood of a child living in poverty in the UK differs according to some key characteristics of the household. In 2019/20, 49% of children in lone parent families were living in relative poverty after housing costs, an increase over previous years (Department for Work and Pensions, 2023). Poverty affecting lone parent families contributes to gender inequalities, as the majority of lone parents are women (Office for National Statistics, 2023a). Larger families were also disproportionately and increasingly likely to be living in poverty. In 2019/20, 47% of children living in a household with three or more children were below the poverty line (Department for Work and Pensions, 2023).

Other dimensions of poverty

Food poverty

13. In 2018, across England, Northern Ireland and Wales, an estimated 30% of households with children were food insecure compared to only 16% of households without children (Fuller et al., 2019). Scotland uses a different survey, and different measures of food insecurity, but the same pre-pandemic patterns were evident. Single parent households were at particularly high risk. In 2017/18, an estimated 25% of lone parents worried about running out of food, 13% ran out of food, and 21% ate less because of a lack of money or resources. For all adults, on average, estimates were 9%, 7% and 4% respectively (Cheong et al., 2020b).
14. Between 2018/19 and 2019/20, there was a 49% increase in the number of children supported by a food bank in the Trussell Trust network in the UK (Bramley et al., 2021). Over 300,000 food parcels were delivered between April and September 2019, compared to just over 200,000 in the same period two years prior. Lone parent families and families with three or more children were substantially over-represented in households using food banks (Bramley et al., 2021).

Fuel poverty

15. Fuel poverty relates to households in homes that cannot meet their energy needs at a reasonable cost (Office for National Statistics, 2023b). In 2019/20, an estimated 19% of households had fuel costs exceeding 10% of net income (Bradshaw and Keung, 2022). There are differences in the way that the different countries of the UK define and measure fuel poverty, rendering cross-country comparisons challenging. Definitions also change over time. For example, in England, since 2021, the definition has been constrained to households in homes with poor energy efficiency ratings. This greater emphasis on thermal efficiency more clearly differentiates income and fuel poverty, but does not capture those who cannot afford to heat energy-efficient homes due to low income or high fuel costs. Nevertheless, comparative work indicates that overall pre-pandemic fuel poverty rates were highest in Northern Ireland, followed by Scotland, Wales and England (Bowen, 2022).

16. Families with children are particularly vulnerable to changes in home heating needs (Walker et al., 2016). Fuel poverty data disaggregated by presence of a child in the household are more readily available for England and Scotland. In 2019, an estimated 13% of households in England were fuel poor. Of these, 40% had one or more dependent children. This is equivalent to around 19% of all households with children (Department for Business Energy & Industrial Strategy, 2021). When considering households by family composition, single parent were most likely to be in fuel poverty pre-pandemic – in 2019, 28% were fuel poor (Department for Business Energy & Industrial Strategy, 2021). In Scotland, in 2019, an estimated 16% of households living in fuel poverty were families with children (Scottish Government, 2020a).

Digital poverty

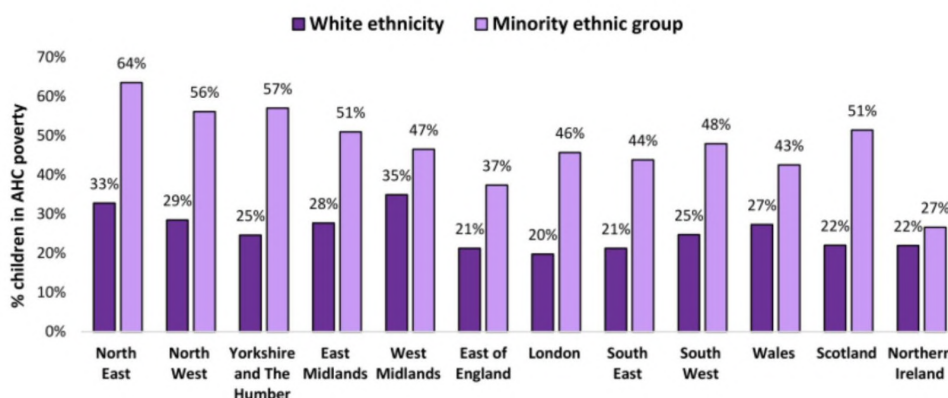
17. The progressive 'digitisation' of public services means that seamless digital access is necessary for full participation in society (British Academy, 2022). Digital poverty may be defined as the inability to "interact with the online world fully, when, where, and how an individual needs to" (Allmann, 2022, p. 9). It leads to children falling behind in their education, and can prevent parents from being able to fully support their children (Zhang and Livingstone, 2019). Survey data from the UK's Office of Communications indicate that in early 2020, when the pandemic hit, between 1.1 and 1.8 million children in the UK had no home access to a laptop, desktop or tablet. Around 21% of children from the most deprived quarter of households had no access to these devices, compared to 9% from the least deprived (Ofcom, 2020). An estimated 6% of children from the most deprived households had no access to the internet at home, and 9% had access only via a phone's mobile network, compared to 1% and 3% for children from the least deprived households, respectively (Ofcom, 2020). Inequalities in opportunities to build digital skills and access support to address technical issues, also contribute to the digital divide (Eynon and Geniets, 2016; Wilkin et al., 2017).

Other axes of inequality

Ethnicity

18. There are major, longstanding ethnic inequalities in child poverty. Based on data between 2017 to 2020, children with a White or Indian head of household were the least likely to be living in relative poverty after housing costs (26%). In contrast, the majority of children living with a Bangladeshi (68%) or Pakistani (53%) head of household were living in poverty (Department for Work and Pensions, 2021, tbl. 4.5db). There were also higher proportions of children below the poverty line with a head of household from 'any other Asian background' (51%), of 'Other ethnic group' (51%), 'Black/ African/ Caribbean/ Black British (48%), and 'Mixed/ Multiple ethnic groups' (44%) (Department for Work and Pensions, 2021, tbl. 4.5db) Figure 3 illustrates relatively smaller ethnic differences in poverty rates within Wales and Northern Ireland, with much larger differences observed in Scotland and the north of England (Stone, 2023).

Figure 3. Estimated child poverty rate after housing costs, by ethnicity, in UK regions and countries (Stone, 2023).



Source: Households Below Average Income, 2018-22

Children in households with no recourse to public funds in the UK

19. Under the No Recourse to Public Funds rule, temporary migrants who are in the UK without immigration permission or seeking asylum are ineligible for social security benefits, tax benefits and housing assistance. Many non-UK nationals granted permission to stay in the UK, such as people on work, student or family visas, are also subject to a 'no recourse to public funds' (NRPF) condition (House of Commons, 2022). At the end of 2019, around 175,000 children lived in families with NRPF visa conditions (The Migration Observatory, 2020), but there is no definitive information on the numbers who are vulnerable or destitute (The Children's Society, 2020). There is difficulty assessing the number of children and families affected by NRPF within the devolved nations as the Home Office does not disaggregate numbers by nation.
20. Families with NRPF who are struggling financially face significant challenges related to poverty, and are unable to fall back on a safety net (House of Commons, 2022). Children can spend significant periods living in households without access to public funds on a typical 10-year immigration route to permanent settled status. Children may live in insecure and inadequate housing, in overcrowded or poorly heated conditions, and experience risk of destitution. Children in households with NRPF have no access to free school meals, and only some families were made eligible due to the pandemic. Without a safety net, parents can be forced to continue living in precarious and unsafe situations, leading to highly complex issues surrounding safeguarding of children (Jolly and Gupta, 2022). Many asylum seekers, including children, often come to the UK to escape violence and abuse, and are especially vulnerable to poor mental health (Hodes and Vostanis, 2019).

Disability

21. In 2019/20, 37% of children living in a household where someone was disabled were living in poverty. This is compared to 27% for children in households where there were no disabilities (Department for Work and Pensions, 2021, tbl. 4.5db). Child poverty rates were particularly high when the family member with a disability was an adult (38%) (Department for Work and Pensions, 2021, tbl. 4.5db), and these figures do not account for the higher living costs that many disabled people face as a consequence of their disability (Joseph Rowntree Foundation, 2020). Adults with disabilities face challenges from poor access to higher

education and good employment, to inadequate benefits levels and higher living costs, and these have knock-on effects on the children in the household.

Young carers

22. Young carers are young people who provide care, assistance or support to another family member, who assume a level of responsibility that would not usually be expected of a child (Leu and Becker, 2017). A range of adverse educational, health and wellbeing outcomes are associated with being a young carer. In 2013/14-2015/16, using multiple definitions of poverty, carers aged 5 to 19 were more likely to be living in poverty than other children. They also experienced a greater rise in poverty over the several years prior (Vizard et al., 2019).

Being LGBTQ+

23. Due to challenges with measurement and data, we have a poor understanding of the experiences of children and young people who are LGBTQ+ or have LGBTQ+ parents in the UK. However, evidence from the US and Canada consistently demonstrate LGBT young people's greater exposure to risk factors for homelessness, and the greater prevalence of homelessness among LGBT young people, often due to family rejection or heightened family conflict when young people come out (McCarthy and Parr, 2022). There is an urgent need for UK research into the experiences of young people according to their multifaceted identities, and the role of stigma, discrimination, and harassment in shaping young people and their families' material circumstances and health outcomes (Uhrig, 2014).

Explaining inequalities

24. Cuts to welfare benefits in response to the 2008 recession disproportionately affected families with children and 'systematically de-linked' benefit entitlement from families' living costs. Larger families, families with young children, and families where someone is disabled were most affected – all were groups that saw a greater rise in child poverty pre-pandemic (Tucker, 2017).
25. Prior to the pandemic, in-work poverty had risen. This was seen in particular among lone parents working full-time and couples where at least one parent was working part-time, and among some ethnic minority groups, such as Bangladeshi workers, who were more likely to be the lowest paid workers regardless of sector. Falling benefit incomes and rising housing costs contributed to this trend. In 2019/20, seven in ten children in poverty were in a working family (Joseph Rowntree Foundation, 2020). Meanwhile, sanctions intended to incentivise compliance with benefits requirements have been shown to decrease entry into higher paid work, with entry into any work largely unaffected (Department for Work & Pensions, 2023). The strategy of trying to push parents into any work has not benefited children.

Implications for pandemic response

26. Child poverty was increasing in the lead-up to the pandemic, particularly for children of lone parents, in families with multiple children, in families with someone with a disability, and in some ethnic minority households. This contributed to widening socioeconomic and ethnic inequalities in child health and wellbeing, systematically structuring children's increased vulnerability to the effects of the pandemic. Policies affecting the social security system, and policy shocks or events affecting children's exposure to health harms, the labour market, and the cost of living – the cost of housing, energy, food, childcare – the essentials – were likely to disproportionately affect the health, wellbeing and life chances of children at the sharp end

of overlapping socioeconomic and structural inequality. Given the important role that schools play in supporting children experiencing food insecurity, major disruptions to schools were also likely to heap additional burdens on already overburdened families.

Pregnancy outcomes

Relevance of the issue

27. Experiences during pregnancy and the early years are important for children’s physical and mental health and influence children’s learning and development. Having a healthy pregnancy is key to improving health across the lifecourse and preventing deaths and disability in childhood. Stark ethnic inequalities in pregnancy outcomes are evident in the UK and other settings, and these intersect with socioeconomic inequalities. A recent analysis showed that socioeconomic and ethnic inequalities were responsible for a substantial proportion of stillbirths, preterm births, and births with foetal growth restriction in England (Jardine et al., 2021). A review of inequalities in the full range of pregnancy related outcomes is beyond the scope of this report, so we focus here on pregnancy outcomes that are recognised population health indicators such as infant mortality and low birthweight.

Infant mortality

Socioeconomic inequalities

28. There are clear inequalities in infant mortality rates, defined as the total number of deaths per 1,000 live births in the first year of life (Figure 4). In 2016, England’s infant mortality rate was 2.6 per 1,000 live births in the least deprived areas compared to 5.9 in the most deprived areas (Office for National Statistics, 2018). The trend was not as clear for Wales, due to the small number of deaths, but infant mortality was clearly highest in the most deprived areas, at 4.7 deaths per 1,000 live births (Office for National Statistics, 2018).

Figure 4. Infant mortality rate by Index of Multiple Deprivation decile (1 being most deprived) in England and Wales, 2016.



Source: Office for National Statistics, 2018

29. As in England, inequalities in infant mortality were evident for Scotland and Northern Ireland pre-pandemic - 1.9 and 4.0 deaths per 1,000 in the least deprived areas compared to 4.8 and 5.1 per 1,000 in the most deprived respectively (Acheson R and Laverty C, 2023; The Health Foundation, 2022). In both England and Scotland inequalities in infant mortality were

narrowing to around 2013, then widening pre-pandemic (Taylor-Robinson D et al., 2019b; The Health Foundation, 2022). The trend was not as clear for Wales, due to small numbers of deaths, but infant mortality was clearly highest in the most deprived areas, at 4.7 deaths per 1,000 live births (Office for National Statistics, 2018).

Ethnic inequalities

30. In England and Wales in 2019, infant mortality was highest for babies from Black Caribbean ethnic groups (7.8 per 1,000 live births), than for those of 'Any other Black background' (6.9 per 1,000), followed by those from Pakistani (6.7 per 1,000), Black African (5.9 per 1,000), Bangladeshi (5.2 per 1,000), 'Any other Asian', which includes Chinese (4.9 per 1,000), Indian (4.3 per 1,000), 'Mixed/multiple' ethnic groups (3.5 per 1,000), 'Any other', a category that includes people defined as Arab (3.9 per 1,000) and White British ethnic groups (3.0 per 1,000) (Office for National Statistics, 2021).

Stillbirth

Socioeconomic inequalities

31. Stillbirths are defined in the UK as infants delivered at or after 24+ weeks' gestation, who do not breathe or show any other signs of life (Harpur et al., 2021). Latest pre-pandemic data for England show significant inequalities in rates of stillbirth by neighbourhood level deprivation. The rate of stillbirths was higher in more deprived areas with the rate in the most deprived areas nearly double that of the least deprived. Inequalities in stillbirth were increasing in England pre-pandemic (Office for Health Improvement and Disparities, 2021).
32. Similar findings were reported in Wales where the stillbirth rate was a third higher in the most deprived areas when compared to the least. This gap was also reported to be widening between 2020 and 2021 (Office for National Statistics, 2023c).
33. There were persistent inequalities in stillbirth rates in Scotland, based on neighbourhood-level deprivation prior to the pandemic. Increasing levels of disadvantage were clearly associated with an increased rate of stillbirth between 2000-2018, even though inequalities were narrowing in the period before the pandemic (Harpur et al., 2021).

Ethnic inequalities

34. Stillbirth rates vary by ethnicity and are higher for women from Black, Black/British, Asian, and Asian/British ethnic groups in the decade pre-pandemic. There are also clear intersections between socioeconomic disadvantage and ethnicity. For Asian, Mixed or Multiple ethnic groups, 'Any other ethnic group', and White ethnic groups, the stillbirth rate is higher in more deprived areas compared to less deprived areas. However, for the Black ethnic group, the stillbirth rate is similar across most levels of deprivation. Similar trends can be seen in infant mortality rates (Office for National Statistics, 2021). A greater proportion of babies of Bangladeshi (41.7%), Black African (39.2%), other Black (38.8%) and Black Caribbean (37.3%) ethnicity were born to mothers living in the most deprived quintile, and these babies were at a much higher risk of being stillborn (Matthews et al., 2021).

Low birthweight

Socioeconomic inequalities

35. Low birthweight (LBW) is a risk factor for infant mortality and a marker for future poor child health and development (Reichman, 2005). There were persistent inequalities in England pre-pandemic with around double the percentage of low birthweight babies born in the most deprived decile of neighbourhood deprivation compared to the least (Office for Health Improvements and Disparities, 2023a).

Ethnic inequalities

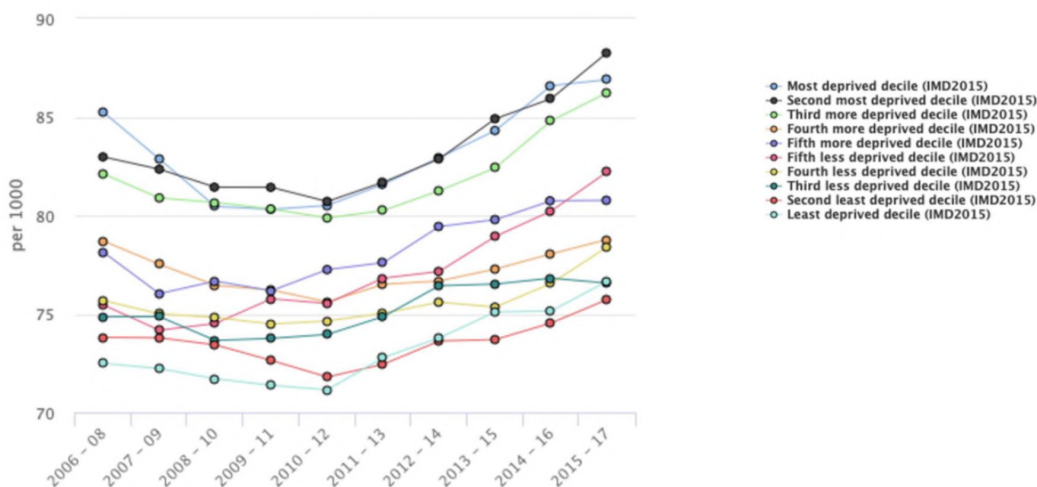
36. Between 2015 and 2019, there were around 1.4 times more low-weight births in more ethnically diverse and deprived neighbourhoods (8.4%) when compared to less deprived neighbourhoods with lower ethnic diversity (5.8%) (Pickett et al., 2021). Notably, even in neighbourhoods with similar levels of deprivation, low weight births were 12% higher in the most ethnically diverse neighbourhoods compared to the least ethnically diverse neighbourhoods (Pickett et al., 2021).

Preterm birth

Socioeconomic inequalities

37. Preterm birth (PTB), birth before 37 weeks of gestation, is the leading cause of death across the world for children under the age of 5 (Blencowe et al., 2013; Klumper et al., 2022). Pre-pandemic data for England show rising PTB, and a persistent social gradient whereby the risk of PTB increases with area level deprivation (Figure 5) (Office for Health Improvement and Disparities, 2023).

Figure 5. Preterm birth in England, by Index of Multiple Deprivation (IMD) decile.



Source: Office for Health Improvement and Disparities, 2023

Ethnic inequalities

38. Women from ethnic minority groups are at higher risk of preterm birth compared to the White population (Datta-Nemdharry et al., 2012; Office for National Statistics, 2023c; Puthussery,

2016). In 2016, the highest percentage of preterm birth occurred for babies who were from Black Caribbean ethnic groups (10.4% of live births). The lowest percentage was for babies who were identified by mothers as White Other (6.6% of live births) (Office for National Statistics, 2017). Socioeconomic status and ethnicity intersect to influence risk of PTB, but social disadvantage on its own cannot explain all of the ethnic inequalities in preterm birth in the UK (Aveyard et al., 2002).

Explaining inequalities

39. Socioeconomic inequalities in pregnancy outcomes disproportionately affect women's health and the life chances of their children. Poverty, social disadvantage and structural racism could potentially contribute to unfavourable pregnancy outcomes through interconnected factors like inadequate nutrition, uncertain housing conditions, financial strain, exposure to stress, adversity and domestic violence (Callaghan et al., 2018), and broader societal influences on health. These links might be influenced by mental health and health-related behaviours. For example, mothers facing economic challenges are more likely to smoke during pregnancy. The main risk factors for adverse birth outcomes are highly socially patterned. These include maternal smoking, maternal mental health, maternal physical health (including BMI), healthcare access, and working and environmental conditions (McHale et al., 2022). However, a large residual direct effect of socioeconomic status on pregnancy outcomes remained evident in most studies.
40. Stress may be an important mediator of ethnic inequalities in pregnancy outcomes. Ethnic minority populations are more likely to live in poor housing, have low-levels of employment despite higher qualifications and not experience strong neighbourhood cohesion (Joseph Rowntree Foundation, 2014; Nazroo, 2003). These structural socioeconomic circumstances can lead to high levels of stress as well as microaggressions in the form of interpersonal racism. These lead to somatisation of stress in the form of cardiometabolic conditions such as raised BMI (Paradies et al., 2015). Moreover, migrant women experience higher levels of stress during pregnancy and childbirth (Fair et al., 2020). This stress often occurs because of immigration rules which can cause family separation and leave these mothers alone. The lack of social support that occurs amongst migrant women has been found to increase the risk of poor birth outcomes (Oakley et al., 1996). Finally, the quality of care received by ethnic minority women during the antenatal and postnatal periods has been questioned for decades (Jomeen and Redshaw, 2013). Many studies have reported dissatisfaction, poor communication and discriminatory treatment amongst ethnic minority women from both advantaged and disadvantaged communities and those with a Muslim faith (John et al., 2021; MacLellan et al., 2022).

Implications for pandemic response

41. Large inequalities in pregnancy outcomes were evident prior to the pandemic, including a rising infant mortality rate which disproportionately affected the poorest and most ethnically diverse areas of country. Research which sought to explain both the socioeconomic and ethnic discrepancies in pregnancy outcomes pointed to differences in rates of maternal smoking, maternal mental and physical health, maternal lifestyle, healthcare quality and working and environmental conditions. The impacts of Covid-19 worsened pre-existing inequalities in birth outcomes through impacts on the wider determinants of health and the major drivers of pre-existing inequalities. For example, women experienced limited healthcare access, disruption to routine maternal care such as less frequent scans

(Karavadra et al., 2020), rising poverty, increased stress, disrupted social support and increased risk of domestic violence (Office for National Statistics, 2020a) were likely to impact birth outcomes, particularly for the most vulnerable groups, potentially increasing inequalities.

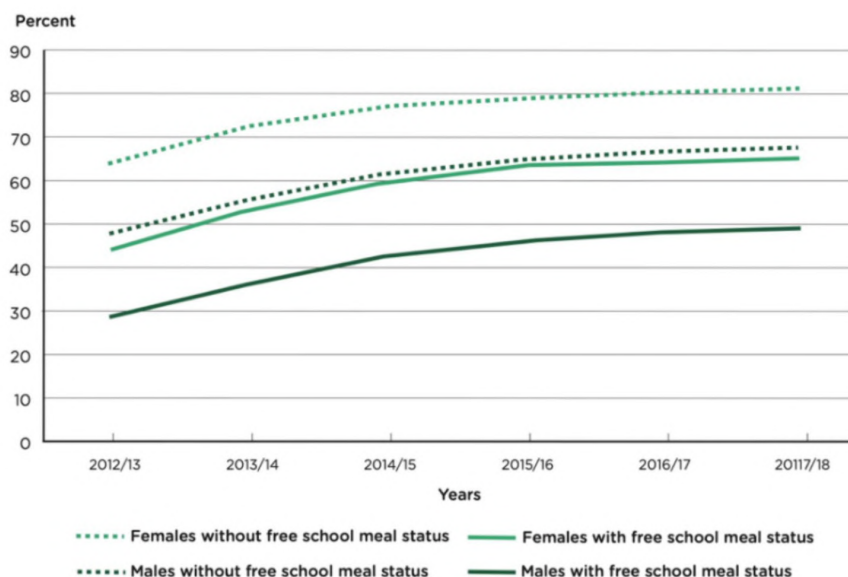
Early childhood development

42. Positive early childhood development forms the foundation for optimum health and social outcomes throughout the life course (Marmot et al., 2020a), influencing wellbeing, literacy and numeracy, obesity, mental health, heart disease, involvement with the criminal justice system and economic productivity (Black et al., 2021). Inequalities in early child development shape subsequent health and social inequalities across the lifecourse.

Socioeconomic inequalities

43. Whether socioeconomic inequalities are measured based on a pupil's eligibility for free school meals, income or neighbourhood deprivation, there were persistent inequalities in early childhood development in Great Britain.
44. Figure 6 shows that in England, girls had higher levels of school readiness than boys. Children eligible for free school meals were considerably less likely to reach a good level of development than their peers of the same sex (Marmot et al., 2020a). The average gap in percentage achieving school readiness by free school meal eligibility remained fairly consistent between 2013 and 2018 at around 15 percentage points, in the years leading up to the pandemic (Marmot et al., 2020a). Although there is no later data for Wales, in 2014, the gap by free school meals eligibility in school readiness is similar to England, even after accounting for assessment language.

Figure 6. Percentage of children achieving a good level of development at the end of Reception, by eligibility for free school meals and sex, England, 2012-18.

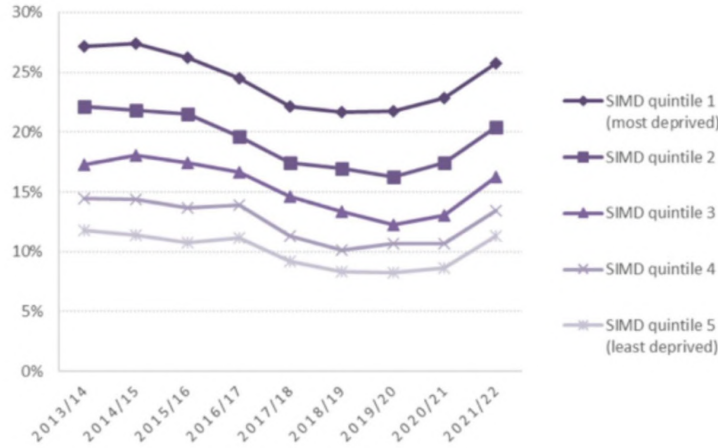


Source: Marmot et al., 2020

45. In Scotland, there was a clear gradient of developmental concerns by neighbourhood deprivation for children aged 2.5 years in 2019/20 (Figure 7) (Public Health Scotland, 2023). Data on developmental reviews at 4-5 years was available for the first time in 2017/2018 with low rates of uptake pre-pandemic, but acceptable uptake rates since 2020. These data are more comparable to school readiness data for the other UK nations collected after preschool, and demonstrate the same pattern of increasing developmental concerns with increasing

levels of deprivation seen at age 2.5 years, and this trend continued to be reflected in more reliable data since the pandemic (Public Health Scotland, n.d.).

Figure 7. Percentage of children with any developmental concern recorded at 27-30 month review by Scottish Index of Multiple Deprivation (SIMD) quintile, Scotland, 2013/14 to 2021/22. Low SIMD quintiles correspond to higher levels of deprivation.



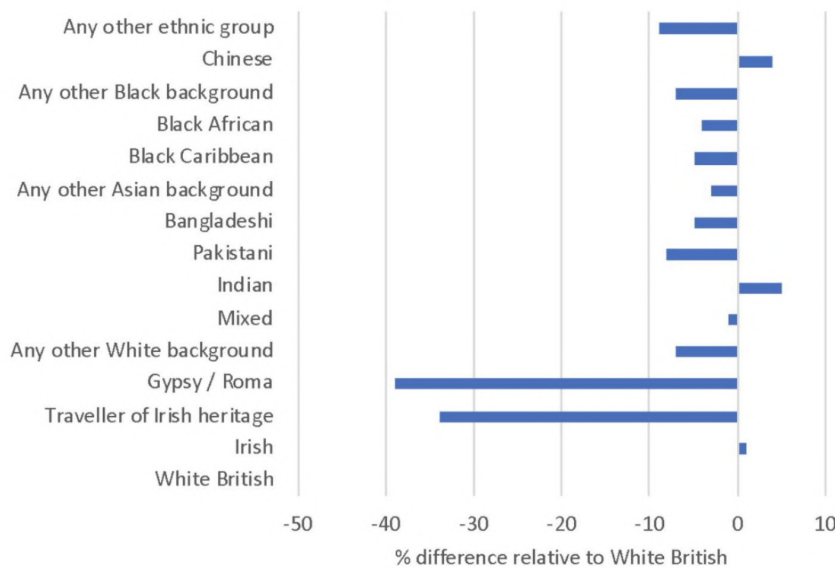
Source: Public Health Scotland, 2023

46. National statistics on early childhood development in Northern Ireland are not routinely available (Save the Children, 2017). Experimental statistics to measure early developmental concerns are being trialled but are not publicly available.

Ethnic inequalities

47. Compared to children of White British ethnicity, a greater proportion of children from Indian and Chinese ethnicity were achieving school readiness. Children of Irish ethnicity and Mixed ethnicity performed similarly. The ethnic groups performing relatively worse than White British children were children of Black African, Black Caribbean ethnicity, Any Other Black Background, Bangladeshi, Pakistani ethnicity, Any Other Asian Background and Any Other White background, with Gypsy/Roma and Traveller of Irish Heritage ethnicity performing significantly worse (Figure 8) (Department for Education, 2019a).

Figure 8. Ethnic inequalities in school readiness based on the Early Years Foundation Stage Profile 2019.



Source: Department for Education, 2019

48. Scottish data on developmental concerns by broad ethnic groups show a similar pattern with children of Asian ethnicity and Black ethnicity showing consistently higher levels of developmental concerns at age 2.5 years compared to Mixed, Polish and White ethnic groups. The gap in developmental concerns by worst and best performing ethnic groups was decreasing from 2013 and was narrowest in 2017. The gap was stable the two years before the pandemic, but the latest data after the pandemic show the gap widening once again (Public Health Scotland, n.d.).
49. Ethnicity intersects with socioeconomic deprivation to impact outcomes. Areas with larger proportions of ethnic minority groups achieve lower levels of school readiness, and this effect is amplified in poorer areas. The reverse is true, poorer areas achieve lower levels of school readiness and particularly so for areas with larger proportions of ethnic minority groups.

Gender inequalities

50. There is consistent evidence showing that girls perform better than boys on cognitive and developmental assessments in the early years. In England, up to 2019, the percentage point difference in girls and boys achieving school readiness was 12.9%. This gap was decreasing over the 5 years before the pandemic, as a result of girls' development reaching a plateau. In Scotland, developmental data on children aged 2.5 years shows that the gender gap was stable in the 3 years leading up to the pandemic, with boys around twice as likely than girls to have recorded developmental concerns. (NHS National Services Scotland, 2018; Public Health Scotland, 2021, 2020)

Children with special education needs (SEN)

51. Special educational needs include learning difficulties, sensory impairments, language, socioemotional and behavioural difficulties, autism and other physical disabilities. Having special education needs impact school readiness - only 25% of children were achieving school readiness in England in 2019, 50 percentage points behind children without SEN

(Department for Education, 2019a). There is no routinely available data on developmental concerns, or school readiness broken down by special education needs for Wales or Northern Ireland.

52. Inequality in early childhood development is measured in Scotland in terms of developmental concerns, which impacts on whether the child requires special education needs. Due to this overlap and relationship between developmental concerns and SEN in the early years, it is not meaningful to consider inequalities in developmental concerns for children with SEN. Furthermore, children with SEN likely fall behind on school readiness due to developmental needs – identifying these early, accessing diagnoses and interventions, alongside adequate support for families and within school is crucial for children to thrive. This highlights the importance of, and gaps pre-pandemic in monitoring developmental needs in the early years in England, Wales and Northern Ireland, where the focus has been on academic performance in the early years. England and Northern Ireland have started piloting these measures of development at around age 2, with experimental statistics available for England since 2016/2017, but not publicly available for Northern Ireland.

Explaining inequalities

53. Early childhood development is a complex process, influenced by biological factors before children are born, birth outcomes, as well as sensitive to inequalities in wider social determinants that shape the postnatal environment in which children learn and develop (Camacho et al., 2019). There are many pathways impacting development in early childhood, which socioeconomic factors such as income and ethnicity influence (Cattan et al., 2022; Dearden and Sibieta, 2017). The main pathways are:
 - 53.1. The home-learning environment, which is shaped by maternal education and vocabulary, languages spoken at home, and parenting practices such as reading at home;
 - 53.2. The socioemotional environment, which is shaped in particular by maternal psychological distress, household dysfunction and parent-child relationships;
 - 53.3. The physical environment, which is shaped by material factors such as housing conditions and neighbourhood quality.

Implications for pandemic response

54. Any systemic shock to the wider determinants of early child development will likely impact inequalities in children's early development. Alongside the home environment, attending good quality nurseries and preschool has positive benefits on children's cognitive, academic and socioemotional outcomes (Green et al., 2021; Melhuish and Gardiner, 2021), and uptake of childcare, especially centre-based care, is a leveller of early childhood inequalities (Green et al., 2021). A key consequence of the pandemic was the interruption to early years provision, leading to children spending more time at home, that were further influenced by parental work conditions (Office for National Statistics, 2020b). Considering the pathways outlined above and that children were exposed to different learning opportunities and socioemotional environments at home, the damaging impact of the pandemic on inequalities in children's early development could have been anticipated. Children were unequally exposed to, and learning and development impacted parental psychosocial stress, financial

stress, worklessness, and in severe conditions, household dysfunction (Hefferon et al., 2021).

55. Children have a right to play, and outdoor play promotes physical activity, cognitive, social and emotional learning through as rich interaction with the physical and social environment. The effects of the pandemic on missed play opportunities, especially outdoor play opportunities can be anticipated to have unequal effects, with unequal access to gardens and neighbourhood green spaces (Hobbs and Bernard, 2021). These opportunities in the early years cannot be recovered, and the current UK school system makes it difficult to address lost opportunities, and promote right to play once children start attending primary school, where the focus is on learning the curriculum and continuous assessments in preparation for adult life (Ang, 2014; Faulkner and Coates, 2013).
56. On top of unequal consequences of the pandemic on factors that promote child development, the pandemic also led to unequal exposure to early childhood environments that were detrimental to children's development. Abuse and neglect can seriously harm children's development. Neglected children experience greater emotional and behavioural difficulties by preschool, poorer language and cognitive skills, as well as overall developmental delays (Naughton et al., 2013; Royal College of Paediatrics and Child Health, 2022). Child maltreatment occurs in families overloaded by stress (Romanou and Belton, 2020). Poverty, poor living conditions and social isolation are all risk factors for neglect (Wilkinson and Bowyer, 2017) – which some families were more vulnerable to during the pandemic, worsened by loss of support from essential services.
57. During the Covid-19 lockdown (April to September 2020), there was an increase from 2019 numbers in serious incidents involving child death or serious harm where abuse or neglect is known or suspected (31% increase amongst children under one, and 50% increase amongst children aged one to five), suggesting that more children were exposed to abuse and neglect (Rehill and Oppenheim, 2021). Disruption to services such as health visiting, and face-to-face GP appointments, and lack of contact with early years professionals at schools, meant that safeguarding concerns not linked to serious incidents were not easily identified and referred on (Rehill and Oppenheim, 2021).

Child and adolescent mental health

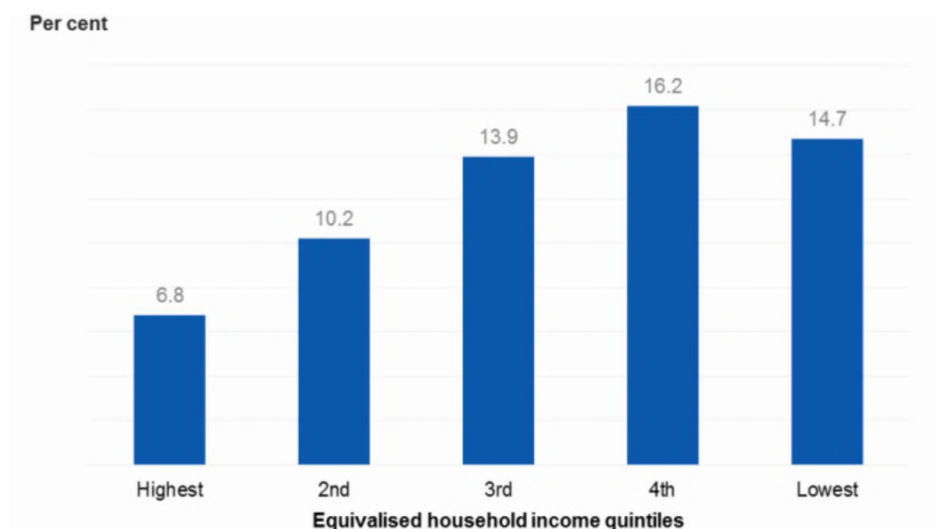
Relevance of the issue

58. Mental health problems in children and adolescents are the leading cause of childhood disability globally (Erskine et al., 2017). Poor mental health constitutes a substantial disease burden and drives further health and social inequalities in adulthood, including higher rates of physical health conditions, unemployment, homelessness, and poverty (Public Health England, 2018a). Risk for mental health problems are unequally distributed across society and social determinants act at various stages from birth to influence mental health across the lifecourse (World Health Organisation, 2014). In the UK there is growing concern over the rising prevalence of mental health problems in children and young people (Collishaw and Sellers, 2020). One in eight young people experience mental health problems in England in 2017. The prevalence of mental health disorders in 5-15 year olds has risen from 9.7% in 1999, to 10.1% in 2004, and to 11.2% in 2017, attributed to the rise in emotional disorders (NHS Digital, 2018a).
59. The prevalence and nature of mental health problems varies with age and gender. Behavioural difficulties tend to present earlier in childhood (NHS Digital, 2018a), while most emotional difficulties emerge later within adolescence (Kessler et al., 2007; World Health Organisation, 2021). In addition, the distribution of many mental health disorders is not equally spread within each country's population and there are key differences between groups based on socioeconomic circumstances, ethnicity, gender, disability, sexual orientation and needs (Barr et al., 2015; Cheong et al., 2020a).

Socioeconomic inequalities

60. In 2017, children and young people in England who were living in the lowest income quintile were twice as likely as those living in the highest income quintile to have a mental health diagnosis (Figure 9). This pattern was evident in both boys and girls (NHS Digital, 2018a).

Figure 9. Proportion of children (5- to 19-year-olds) with any mental disorder, by equalised household income, 2017, England.



Source: NHS Digital, 2018

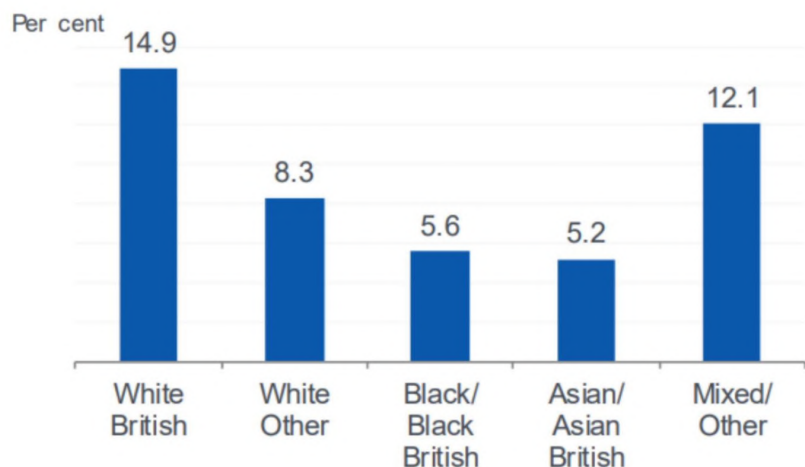
61. In 2016, the number of children aged 4 to 14 years in the lowest income households in Scotland were four times as likely to have lower socio-emotional development compared with those in the highest income households (equivalised income quintiles) households (13% compared to 3%) (Cheong et al., 2020a).
62. There are limited data on the prevalence of mental health problems in children and young people in Wales. This is mainly due to a lack of nation-wide survey data on mental health. However, in school survey data pre-pandemic those from less affluent families were most likely to report poor mental health (Hewitt et al., 2019).
63. Pre-pandemic there was limited robust epidemiological research on the prevalence of poor mental health of under 18-year-olds in Northern Ireland. This is due to an absence of a high-quality data recording system which is used consistently in each of Northern Ireland's five Health and Social Care Trusts (Office for Statistics Regulation, 2021). However, in 2020 the Youth Wellbeing Survey was published which provided the first reliable estimates for the prevalence of different mental health problems in children and adolescence. This survey found significant socioeconomic differences in various domains socio-emotional development, rates of emotional symptoms, hyperactivity, conduct and peer problems – poorer outcomes were all significantly higher in those living in the most deprived areas compared to the least deprived (Bunting et al., 2020).

Other axes of inequalities

Ethnicity

64. Prior to the pandemic, White British 5- to 19-year-olds were most likely to have a probable mental disorder, followed by children from Mixed/Other ethnic groups. Children from White British ethnic groups were three times more likely (14.9%) than children from Black/Black British (5.6%) or Asian/Asian British (5.2%) ethnic groups to have a probable mental disorder (Figure 10) (NHS Digital, 2018a).

Figure 10. Proportion of children (5- to 19-year-olds) with any mental disorder, by ethnic group, England, 2017.



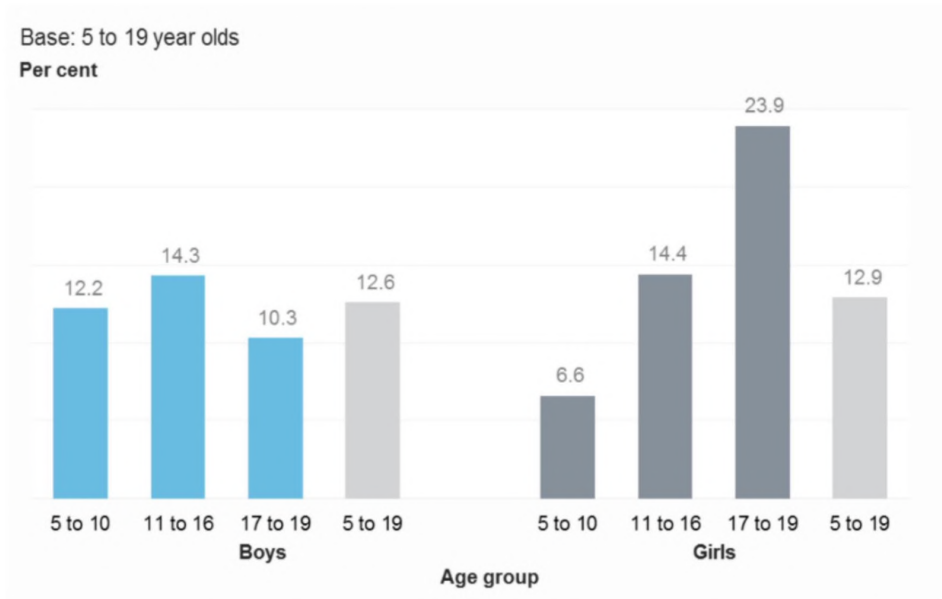
Source: NHS Digital, 2018

65. Ethnic differences in mental health outcomes varied by child age and sex pre-pandemic. Significant differences were found in the Millennium Cohort Study in internalising and externalising problems between children from ethnic minority groups and children from White ethnic groups, particularly in early childhood (Bains and Gutman, 2021). Almost all children from minority ethnic groups, apart from Indian children, experienced worse internalising difficulties compared to children from White ethnic groups in preschool, but this disadvantage persists into adolescence only for Pakistani and Bangladeshi children (Bains and Gutman, 2021). Externalising difficulties show a downward trend over childhood for all ethnic groups, with Black Caribbean children consistently showing the highest levels of difficulties, followed by White and Pakistani.

Gender

66. Rates of mental health disorders in 11- to 16-year-olds were similar across genders in 2017 (boys 14.3% versus girls 14.4%). However, 17- to 19-year-old girls were over twice as likely to have a mental disorder than boys (23.9% and 10.3% respectively). There were differing trends by gender in emotional disorders, which were more common in girls, and rose sharply for girls over adolescence, versus behavioural disorders, which were more common in boys (Figure 11) (NHS Digital, 2018a). There were marked increases in self-harm between ages 14 and 17 for both girls and boys. Rates of attempted suicide, self-harm, and distress increased for girls (Patalay and Fitzsimons, 2020).

Figure 11. Prevalence of any disorder, by sex and age group.



Source: NHS Digital, 2018

Young Carers

67. Rates of poor mental health are higher for those children who are young carers compared to non-carer children. In the 2015 Young Carers survey of over 5000 carers, 55% reported suffering with depression, 84% reported feeling stressed and 78% experienced high levels of anxiety (Carers UK, 2015). These numbers have increased since the Carers UK previous survey in 2014. It is also important to note that young carers in the UK are 1.5 times more likely to be from Black, Asian or minority ethnic backgrounds and 1.5 times more likely to have a disability or a special educational need (Department for Children, Schools and Families, 2010).

Disability

68. In 2018-19, physically disabled young people (based on self-reported longstanding illness, condition or impairment that causes difficulty with day-to-day activities) reported almost twice the average anxiety rating compared to non-disabled young people in the 16 to 21 years age-group (Office for National Statistics, 2019).

Long-term physical health conditions

69. In 2017, pre-pandemic, the English nationwide survey of the mental health of children and young people identified that limiting long term illness and mental disorders were highly comorbid— amongst those 11 to 19 year olds with a mental disorder, around a quarter (25.9%) also had a limiting long-term illness (NHS Digital, 2018b). A similar trend of greater mental health needs in children with long term conditions is likely the case in Wales and Scotland, based on 1999 and 2004 survey which included Wales and Scotland as well as England, and findings that the rates of comorbid physical and mental health problems were stable between the 1999, 2004 and 2017 surveys (Panagi et al., 2022).

Being LGBTQ+

70. Sexual minority young people experienced higher prevalence of poor mental health related outcomes in 2017. Sexual minority adolescents were more likely to experience high depressive symptoms, self-harm, lower life satisfaction, lower self-esteem, bullying and victimisation. They also had more co-occurring poor mental health outcomes compared with heterosexual adolescents and more total cumulative difficulties (Amos et al., 2020).
71. Sexual minority young people in the UK were particularly vulnerable to high mental health difficulties, with over half (55.8%) of LGB+ young people reported self-harming in the last year, compared to 20.5% among those who identify as mainly heterosexual. Among LGBTQ+ young people, 21.7% reported having attempted suicide, compared to 5.8% among heterosexual young people (Jadva et al., 2021).

Special educational needs

72. Children with recognised SEN were four to five times more likely to have any mental disorder compared to those without. Mental disorders responsible for the SEN explained much of the association (NHS Digital, 2018a).

Explaining inequalities

73. Mental health is influenced by a complex interplay of genetic, biological, social, environmental risks and protective factors that influence children's development. There is overwhelming evidence of a link between poverty and poor mental health (Adjei et al., 2022; Boardman et al., 2015; Wickham et al., 2017). Poverty may affect child mental health by increasing children's exposure to mental health-harming biological, familial and social adversity prenatally and across childhood – including exposure to smoking in pregnancy, parental mental health problems, household dysfunction and violence (Straatmann et al., 2019b; Walsh et al., 2019b).
74. Income inequalities explain a large proportion of ethnic differences in mental health outcomes (Bains and Gutman, 2021). Higher rates of conduct problems in Black Caribbean children may also be explained by experiences of racism at school (Blakey et al., 2021), while persistent inequalities in internalising difficulties during school age for Pakistani and Bangladeshi children relative to other children may be linked to negative school experiences of children of Islamic faith in these ethnic groups (Bains and Gutman, 2021).
75. There were wide pre-pandemic variations in per person spend and access to Child and Adolescent Mental Health Services (CAMHS) across areas in England (Rocks et al., 2019; Rutherford and Taylor-Robinson, 2017). The Children's Commissioner for England reported that just over 3% of children were referred to CAMHS, much lower than the estimated prevalence of mental health problems impacting children. Children from lower socioeconomic status backgrounds may be less likely to access services in a timely manner compared to those whose families can afford to pay for private healthcare and can better navigate the system (ESRI et al., 2020). Young people from ethnic minority backgrounds are more likely to come into contact with mental health services when severely in need (for example through social care/youth justice), as opposed to through voluntary routes in primary care, and this was only partially explained by ethnic minority young people being more likely to live in high deprivation areas (Edbrooke-Childs and Patalay, 2019).

Implications for pandemic response

76. Pre-pandemic, child mental health was already in crisis (Gunnell et al., 2018), with evidence of rising prevalence of mental health problems for UK children (NHS Digital, 2018a), increasing inequalities (Fairchild, 2019), and unsustainable pressures on services (Children's Commissioner for England, 2020). Any systematic shock to the social determinants of child mental health, particularly shocks that lead to rising poverty and family stress, and impact risk factors such as access to social networks, exposure to bullying and protective services in the early years and in school, were likely to influence inequalities in child mental health.

Oral health

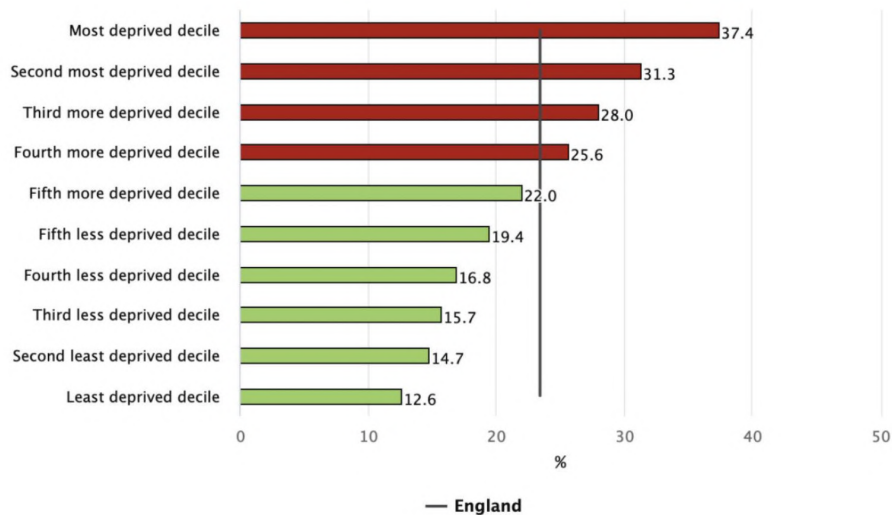
Relevance of the issue

77. Oral health is crucial for overall well-being and good health over the lifecourse, affecting eating, sleeping, social interactions, school attendance and attainment, and overall quality of life (Peres et al., 2019). Tooth decay remains a leading cause of hospital admissions among young children (Davies, 2019). There is evidence of higher disease levels in Scotland, Northern Ireland, and Wales than in England. (Health and Social Care Information Centre, 2015a; ISD Scotland, 2014).

Socioeconomic inequalities

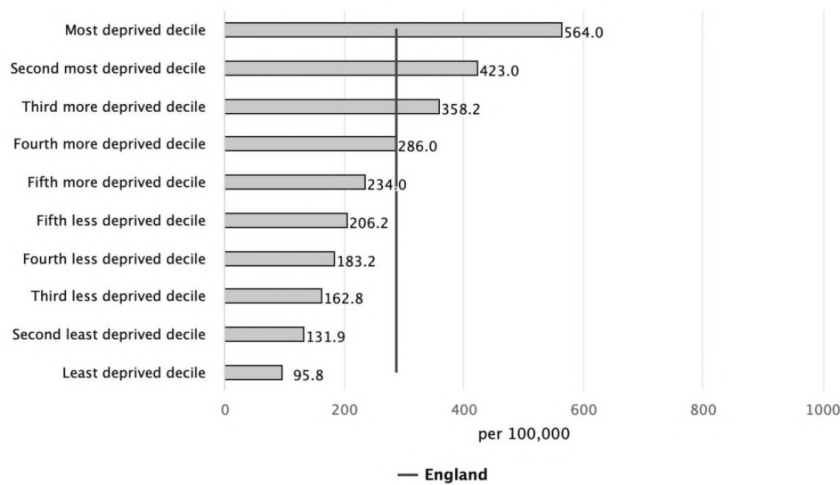
78. There is longstanding evidence of oral health inequalities in children by family socioeconomic status, area-based deprivation measures, and geography (Jones et al., 2017; Ravaghi et al., 2016). Figure 12 illustrates the social gradient in the percentage of 5-year olds with visually obvious dental decay, in England, in 2018/19 (Office for Health Improvements and Disparities, 2023b). Figure 13 shows an even steeper social gradient in rates of hospital admissions for dental caries in children aged 5 and under, in 2018/19-2019/20 (Office for Health Improvements and Disparities, 2023c).

Figure 12. Percentage of 5-year olds with visually obvious dental decay, by deprivation decile, England, 2018/19.



Source: Office for Health Improvements and Disparities, 2023

Figure 13. Rate of hospital admission for dental caries in children aged 5 and under, by deprivation decile, England, 2017/18-2019/20.



Source: Office for Health Improvements and Disparities, 2023

Regional differences

79. Inequalities in tooth decay differ across the nations of the UK. In Wales, in 2013, the prevalence of ‘any severe or extensive decay’ among five-year-olds in the most deprived quintile of neighbourhoods was 30%, compared to 9% for those in the least deprived. Inequalities were slightly wider in Northern Ireland in the same year, with a prevalence of 38% and 10% in the most and least deprived quintiles, respectively (Health and Social Care Information Centre, 2015b). In England, in 2014, the figures were 18% and 4%. Inequalities were much wider in Scotland in the same year, with 47% of five-year-old children in the most deprived quintile having ‘obvious tooth decay’, compared with 17% of those in the least deprived (ISD Scotland, 2014). The negative impacts of poor oral health on children’s daily lives (eg toothache, difficulty eating, sleeping) were more than twice as common in children eligible for free school meals, than those not eligible (Ravaghi et al., 2016).

Ethnic inequality

80. In England, in 2017, children from White ethnic backgrounds had a lower prevalence and severity of tooth decay at age five than children from any other ethnic group (Public Health England, 2017). Children from Eastern European and Chinese ethnic groups in particular had more than three times higher decay severity compared to White children, and 45% of five-year-olds from a Pakistani ethnic background had obvious experience of tooth decay, compared to 21% of White children (Public Health England, 2017).

Implications for pandemic response

81. The pandemic's disruption to dental services, education and children’s diets had foreseeable consequences. The disruption could have been expected to deepen pre-existing inequalities in child dental health in the UK.

Child obesity

Relevance of the issue

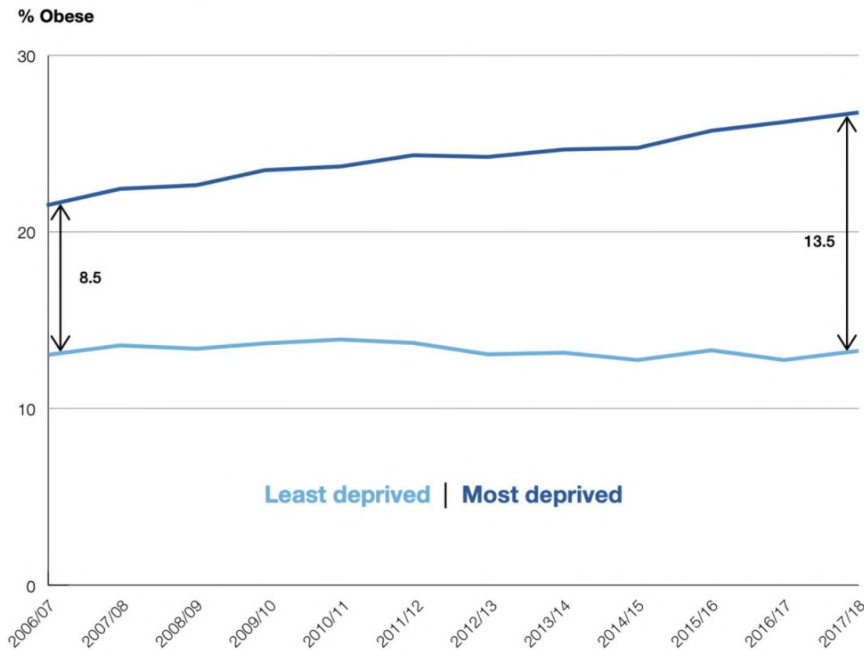
82. Children who are obese face higher risks of both physical and psychological health issues that can continue into their adult lives. Obesity in adulthood increases the risk of type 2 diabetes, cardiovascular diseases, and premature mortality. This can lead to prolonged periods of poor health and a shorter lifespan compared to those who maintain a healthy weight. In 2019, the UK government called childhood obesity “one of the biggest health challenges this country faces” (GOV.UK, 2019, p. 4). Before the pandemic, there were marked inequalities in childhood obesity across the UK, with higher prevalence in poor areas. Recent data suggest that this situation has worsened considerably during the pandemic (NHS Digital, 2022). All the UK nations collect high quality data on child weight and height, generally measured at the start and end of primary school. Obesity prevalence in children aged 4-5 years was similar across the UK nations in 2017/18, showing obesity prevalence at 9.5% in England, 10.1% in Scotland, 12.4% in Wales and 10.7% in Northern Ireland.

Socioeconomic inequalities

England

83. A 2019 report by the Chief Medical Officer for England outlined the strong association of childhood obesity with socioeconomic deprivation (Davies, 2019). Obesity prevalence doubled between child age five and ten years, to 2017/18. There was also a clear social gradient, with obesity increasing in a stepwise fashion with increasing deprivation quintile of the neighbourhood of the school attended. In 2017/18, both reception age and 10- to 11-year-old children attending school in the most deprived neighbourhoods of England were more than twice as likely to be living with obesity as those attending school in the least deprived neighbourhoods.
84. National data available prior to the pandemic showed that inequalities in obesity, excess weight, and severe obesity were all widening across all age and sex groups, due to differential trends in obesity by deprivation – with either the largest increases seen in the most deprived areas or largest decreases seen in the least deprived areas (NHS Digital, 2020). Figure 14 illustrates the rising inequalities in obesity for 10- to 11-year-old children.

Figure 14. Obesity gap for 10- to 11-year-old children in England, by deprivation decile of school attended, 2006/7 to 2017/18.



Source: Davies, 2019

Scotland

85. As in England, there were significant and increasing socioeconomic inequalities in obesity among 4- to 5-year-old children in Scotland. However, in this case the prevalence of obesity among the most deprived children increased, while obesity among the least deprived decreased. By 2018/2019, children living in the most deprived fifth of areas were twice as likely to be at risk of obesity, with an absolute gap of 7.2 percentage points (The Health Foundation, 2022).

Wales

86. In 2017/18 the gap in the obesity prevalence between children living in the most and the least deprived areas of Wales was 6 percentage points for children aged 4- to 5-years. This was a slight fall from the preceding year, but greater than during the preceding three years (Public Health Wales, 2019).

Northern Ireland

87. In 2017/18, in Northern Ireland, as in the other countries of the UK, the prevalence of obesity increased as the level of deprivation increased, with evidence of increasing inequalities pre-pandemic (Public Health Agency, 2019). Amongst 11- to 12-years old children living in the most deprived areas of the country, 12.9% were measured as obese, compared to 8.5% of children from the least deprived areas (Public Health Agency, 2019).

Other axes of inequalities

Ethnicity

88. Obesity prevalence varied by ethnicity. In 2018/19, in England, it was highest for Black children, both in reception and Year 6 (15% and 30%, respectively) (NHS Digital, 2019). In

contrast, the prevalence for White children was 9% and 18% respectively. Black children aged 4 to 5 years also had the highest obesity prevalence in Wales in 2013-18 at 16%, compared to 12% for children from White, Asian and Mixed ethnic groups (Public Health Wales, 2019). Data for Scotland and Northern Ireland stratified by ethnic group were not available in the annual monitoring reports.

Gender

89. Prevalence of obesity, severe obesity, and excess weight were similar for boys and girls aged 4 to 5 years in 2019/20. Boys aged 10 to 11 years had a higher prevalence of obesity, severe obesity, and excess weight compared to girls. Pre-pandemic inequalities were increasing for boys and girls of both age groups, particularly for 10- to 11-year-old boys in England (GOV.UK, 2021).

Disability

90. Data from England for the period 2006–2010 showed that boys and girls aged 2 to 15 with a limiting long-term illness were significantly more likely to be obese than those without such an illness – approximately 35% more likely (Public Health England, 2014). Children and young people with disabilities were more likely to experience socioeconomic deprivation, and disabled children from minority ethnic groups were most at risk of socioeconomic deprivation, leading to increased risk of obesity and adverse health outcomes in children with intersecting axes of disadvantage.

Explaining inequalities

91. The causes of childhood obesity are multiple and complex. Increasing obesity is related to changes in environmental factors, particularly the food environment and early life exposures impacting children. The large and growing inequalities in childhood obesity are due to differential exposure to material, psychosocial, and behavioural risks, and to protective factors, by level of disadvantage.
92. Various perinatal risk factors, such as smoking during pregnancy, pre-pregnancy overweight, being born small, or shorter breastfeeding periods, are more common among disadvantaged children (Massion et al., 2016). Financial limitations in low-income families result in reduced access to healthy and affordable foods (Goisis et al., 2016). Moreover, financial stress and food insecurity hampers the ability of parents to provide healthy, nutritious meals for children. Deprived areas tend to have a higher concentration of fast-food outlets and outdoor advertisements for unhealthy foods (Goisis et al., 2016). Additionally, these areas may pose more physical hazards like crime and traffic, limiting opportunities for physical activity such as walking, cycling, and play (Davies, 2019; Goisis et al., 2016; Massion et al., 2016). Cuts to spending on Sure Start children's centres, which aimed to tackle risk factors for childhood obesity in early childhood, have been associated with increased childhood obesity (Mason et al., 2021).

Implications for pandemic response

93. Disadvantaged children are at greater risk of obesity. Any systemic shock to the complex determinants of childhood obesity – to food environments, access to healthy food, opportunities for physical activity, and early life risk factors for obesity – were likely to lead to short and long-term inequalities in obesity. During the pandemic, key factors affecting obesity are likely to have been school closures, financial difficulties in households, disruption of

opportunities for physical activity, higher screen time, and marketing of fast food to children. For children who rely on free school meals, school closures posed a significant obstacle accessing regular and nutritious meals (The Lancet Public Health, 2021).

Long-term physical health conditions

Relevance of the issue

94. In England alone, there are 1.7 million children and young people with long-term conditions such as asthma, diabetes and epilepsy (National Institute for Health and Care Excellence, 2023). Asthma and epilepsy are among the primary causes of emergency hospital admission for children in the UK. Childhood cancers are a leading cause of death among children and young people in the UK, responsible for over one in five deaths in children under 15 (Royal College of Paediatrics and Child Health, 2020a). And the UK performs poorly in the diagnosis, management and outcomes of asthma and childhood cancers compared to other European countries (Shah et al., 2019; Shanmugavadivel et al., 2022). The UK also has high rates of Type 1 diabetes, ranking fifth internationally (Iacobucci, 2013). In addition to experiencing physical health challenges, children with long-term physical conditions are four times more likely to develop mental health problems (Moore et al., 2019). In this section we cover key inequalities in the incidence, management and outcomes of childhood asthma, cancers, epilepsy and diabetes.
95. Our analysis of data from the Millennium Cohort Study highlights inequalities in longstanding illness across the UK nations. Longstanding illness was measured by asking the mother in the interview about any physical or mental health conditions or illnesses in the child lasting or expected to last 12 months or more. For children aged 14 years pre-pandemic, in the lowest income quintile the prevalence of longstanding illness was 23%, 21%, 36% and 16% in England, Wales, Scotland and Northern Ireland respectively. In the highest income quintile, the corresponding figures were 15%, 11.5%, 18.4% and 5.7%.

Asthma

96. Pre-pandemic rates of childhood asthma admissions were decreasing in England, Scotland and Wales (Royal College of Paediatrics and Child Health, 2020b). There was a steep social gradient in hospital admissions for asthma in England and Scotland, prior to the pandemic. Compared to children living in the least deprived neighbourhoods, children living in the most deprived neighbourhoods were 2.5 times more likely to have an emergency hospitalisation for asthma in England in 2015/2016, and 3.3 times more likely in Scotland in 2017/2018 (Royal College of Paediatrics and Child Health, 2020c). National data also identified a socioeconomic gradient in asthma hospital admissions in Wales (Alsallakh et al., 2021). There are no publicly available data on asthma hospital admissions in Northern Ireland. Inequalities in asthma deaths in England (children and adults) were increasing pre-pandemic, driven by increasing deaths in the most deprived group (Office for Health Improvements and Disparities, 2023d).
97. The latest available pre-pandemic data on ethnic inequalities in Scotland showed that compared to those of White ethnicity, South Asian males had higher rates of hospitalisation or death from asthma, and people of Chinese ethnicity had lower rates (Sheikh et al., 2016). In the four-year period immediately before the pandemic, people from ethnic minority groups were more likely to have been hospitalised for asthma than people from White ethnic groups (Busby et al., 2022). In addition, asthma diagnosis tends to be higher for White children (Sinha I, 2023).

Explanation of trends in inequalities

98. Inequalities in asthma and lifelong lung function are the result of the complex interplay of environmental conditions both before and immediately after birth and in the preschool period (Taylor-Robinson et al., 2016). Studies showing socioeconomic differences in wheezing during early life point to the mediating role of early-life risk factors. Maternal smoking, low birthweight, premature birth, not being breast fed, poor housing conditions, poor indoor and outdoor air quality, have all been found to predispose children to asthma, and are more commonly experienced by children growing up in disadvantaged socioeconomic circumstances (Creese et al., 2021). Housing conditions are important for childhood respiratory health. Children in low-income households are disproportionately likely to live in cramped and smaller homes, to be exposed to cold, damp indoor environments, and to be exposed to mould and pest infestations (Creese et al., 2021).
99. Emergency hospital admissions for asthma are largely preventable. These hospitalisations reflect uncontrolled or exacerbated asthma (Sinha I, 2023). This exacerbation can arise due to higher exposure to co-morbidities, environmental triggers, poor self-management linked, and poor access to primary care (Kossarova et al., 2017).

Childhood cancers

Socioeconomic inequalities

100. While the evidence on socioeconomic inequalities in children's risk of developing cancer is mixed and inconclusive, and depends on cancer type (Erdmann et al., 2019a), there are clear socioeconomic inequalities in survival from childhood cancers (Erdmann et al., 2019a). Overall, children from disadvantaged groups were consistently found to have lower survival compared to more advantaged children (Lightfoot et al., 2012a; Njoku et al., 2013; Public Health England, 2018b). There is some evidence that improvements in survival from childhood cancers in the UK throughout the 2010's masked differences by childhood socioeconomic circumstances, and that inequalities widened (Hill et al., 2022).

Other axes of inequality

Geography

101. Cancer mortality rates in children were broadly comparable across the UK nations, but there was some variation by nation and age. In 2017, across age groups, Scotland consistently had the highest cancer mortality rate – though England had a similar mortality rate to Scotland for children under the age of 5 (around 2.8 in 100,000). Mortality rates for children aged 5 to 14 were lowest for England and Northern Ireland in 2017, with Welsh rates only slightly higher. Among young people aged 15 to 19, England had the lowest mortality rates (3.3 in 100,00), following a decline. Rates for Wales and Northern Ireland were closer to Scottish levels (4.3 in 100,000) – though Northern Ireland had declining trends, whereas rates in Scotland and Wales were rising (Royal College of Paediatrics and Child Health, 2020d).

Ethnicity

102. Evidence predominantly from English data showed a higher risk of some cancers among children from ethnic minority backgrounds compared to White children. Overall cancer rates were higher for children of Pakistani and Black African ethnic backgrounds compared to children from White backgrounds (Sayeed et al., 2017).

Gender

103. There are well-established gender differences in childhood cancers, with a higher overall incidence of all cancers, and worse prognosis, in boys than girls (Tevfik Dorak and Karpuzoglu, 2012). There were also gender inequalities in pre-pandemic prevention strategies for adult cancers implemented in childhood. For example, delays in the scientific evidence linking the human papillomavirus (HPV) to cancers affecting men (Daley et al., 2016), meant that the HPV vaccine was only offered to all Year 8 boys from September 2019, the first school year affected by the pandemic – more than a decade after it was offered to girls (GOV.UK, 2023a). This was likely to prolong gender inequalities in vaccine uptake.

Explaining inequalities

104. Unequal exposure in childhood to risk factors for cancer may contribute to inequalities in risk and adult outcomes (Erdmann et al., 2019b; Rod et al., 2023, 2020). Poor nutritional intake, noise and air pollution, degraded local environments, and a lack of green space are associated with higher risk (Marmot et al., 2020b). Experiencing multiple childhood adversities, such as physical, sexual and verbal abuse, domestic violence, parental separation, substance misuse and incarceration – all more common among children living in disadvantaged socioeconomic circumstances – has also been found to be associated with increased cancer risk in adulthood (Hughes et al., 2017). Inequalities in some cancers not commonly associated with childhood, like carcinomas, may be linked to socially patterned health behaviours among children and young people, for example tobacco and alcohol use (World Health Organization, 2022).
105. Unequal access to healthcare services, and unequal utilisation and availability of good quality services, can also lead to inequalities in timely diagnosis, treatment and support (Erdmann et al., 2019b). Evidence suggests that the diverging probability of survival from leukaemia for children from more deprived compared to less deprived neighbourhoods of the UK coincides with the move from hospital to home treatment (Lightfoot et al., 2012b). This indicates that professionals' communication skills, parents' health literacy, ability to cope and capacity to attend appointments, and the quality and stability of the home environment – all linked to family socioeconomic circumstances – may affect children's adherence to treatment, and parents' ability to advocate on behalf of their children (Erdmann et al., 2019b). Deteriorating socioeconomic circumstances in the UK may have activated these pathways to inequalities, contributing to adverse trends.

Epilepsy

106. An estimated 112,000 children and young people experience epilepsy in the UK (Royal College of Paediatrics and Child Health, 2020e). Pre-pandemic admissions for childhood epilepsy were decreasing in England, but increasing in Scotland and Wales. Routine data were not available for Northern Ireland (Royal College of Paediatrics and Child Health, 2020f). Data from 2013 to 2018 show a socioeconomic gradient in epilepsy incidence across all four UK nations (Wigglesworth et al., 2023). Inequalities in England narrowed between 2005 and 2015/16, yet in 2015/2016 children living in the most deprived quintile of neighbourhoods were 58% more likely than those in the least deprived quintile to have an emergency admission for epilepsy (Kossarova et al., 2017). In Scotland, in 2017/18, the figure was 98% (Royal College of Paediatrics and Child Health, 2020e). A social gradient was also evident in Wales using earlier data for the period from 2004 to 2010 (Pickrell et al., 2015). Routine data on emergency hospital admissions for epilepsy in under 19s show that this was consistently

higher in Wales compared to England and Scotland pre-pandemic (Royal College of Paediatrics and Child Health, 2020e). There is no comparable data on epilepsy hospital admissions for Northern Ireland (Royal College of Paediatrics and Child Health, 2020b). Scotland and Northern Ireland do not participate in the Epilepsy12 National Audit Programme, and data availability depends on systems in place within health boards to monitor and report data (Royal College of Paediatrics and Child Health, 2020e)

Explaining inequalities

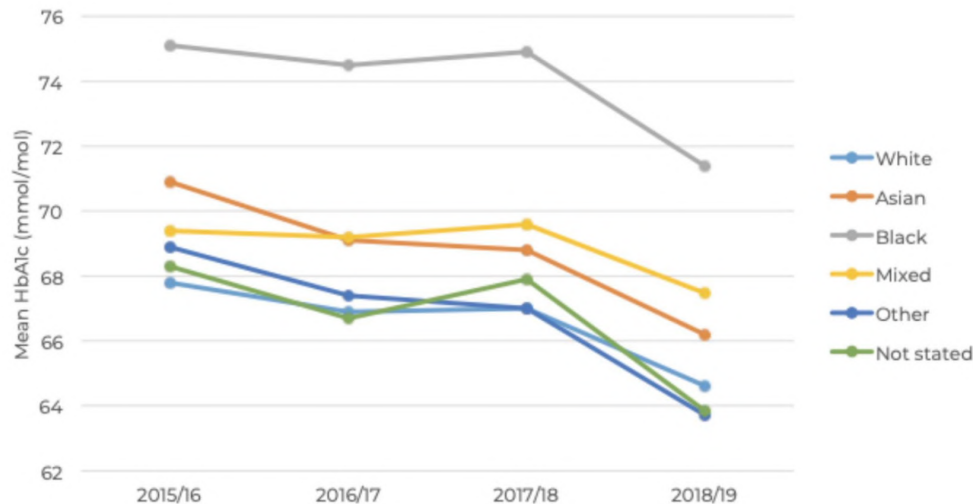
107. Socioeconomic inequalities in epilepsy rates are in part driven by the greater occurrence of factors that cause epilepsy in deprived groups, such as perinatal and physical health risks (Pickrell et al., 2015). Family support with medication and emergency seizure management plans are key components of epilepsy care. The narrowing of the inequality gap in hospital admissions in England has been attributed to improvements in epilepsy care and best practices in these areas, which address socioeconomic inequalities in barriers to successful care, such as poorer health literacy and engagement with healthcare (Kossarova et al., 2017).

Diabetes

108. Type 1 diabetes typically starts in childhood and has strong genetic causes, in contrast to Type 2 diabetes, which is less common, and is linked to obesity in children. An estimated 40,000 children under 18 years of age in the UK have diabetes in 2019, of these 90% are children with Type 1 diabetes (Whicher et al., 2020). In 2019, 36,000 children in England and Wales live with Type 1 or Type 2 diabetes. In 2016, around 3875 children have Type 1 Diabetes in Scotland (Fleming et al., 2019a). In England and Wales annual data on prevalence, treatment and management of diabetes in children is reported routinely in the National Paediatric Diabetes Audit. As this is not the case for Northern Ireland and Scotland, relevant pre-pandemic data are reported where available from research studies.
109. There was a relatively flat deprivation gradient in the incidence of Type 1 diabetes in England, Wales and Scotland pre-pandemic (Catherine et al., 2021; Thomson et al., 2023). In contrast, there were stark inequalities in the incidence of Type 2 diabetes. Of children and young people with Type 2 diabetes, 45% are from the most deprived fifth of neighbourhoods (Catherine et al., 2021). In Scotland, Wales and England, Type 1 diabetes was equally common in all ethnic groups (NHS Digital, 2021; Thomson et al., 2023), while Type 2 diabetes was most common in ethnic minority groups, particularly Asian ethnic groups (RCPCH audits, 2020; Thomson et al., 2023). A UK-wide study of 2015-2016 data replicated the finding that non-white ethnicity is a risk Type 2 diabetes (Candler et al., 2018).
110. Clear inequalities existed in access to treatment and management of childhood diabetes (Barnard-Kelly and Cherňavsky, 2020). Poor treatment and management can in turn lead to acute complications requiring emergency treatment, and long-term health complications (Royal College of Paediatrics and Child Health, 2020e). For Type 1 diabetes, in England, Wales and Scotland, children and young people living in more deprived areas had worse blood sugar control compared to those in less deprived areas, a persistent pattern prior to the pandemic despite improvement in blood sugar control generally (Mair et al., 2019; RCPCH audits, 2020). Greater hospital admission rates were also seen in adolescents and young adults with Type 1 or 2 diabetes from more deprived backgrounds (Kossarova et al., 2017).

111. In 2019, in England and Wales, children and young people from Black ethnic backgrounds had the worst Type 1 diabetes outcomes (for example, long-term measures of diabetes control and microvascular complications) (RCPCH audits, 2020), and children and young people from every other ethnic minority group (Asian, Mixed, Other) had worse outcomes compared to those from a White ethnic background (Figure 15) (Khanolkar et al., 2016). The gap in the use of diabetes technology between children from the most and least deprived quintile of neighbourhoods was widening prior to the pandemic (RCPCH audits, 2021). A similar pattern of ethnic inequalities was seen in Type 2 diabetes (RCPCH audits, 2020).

Figure 15. Mean haemoglobin HbA1c (a measure of blood sugar levels), for children and young people in England and Wales with Type 1 diabetes, by ethnic group, 2015/16 to 2018/19.



Source: RCPCH audits, 2020

Explaining inequalities

112. Socioeconomic inequalities in the incidence of Type 2 diabetes can be attributed to similar factors driving inequalities in obesity, such as unequal exposure to a healthy diet and opportunities for physical activity (Roglic, 2016). Modifiable factors linked to inequalities in healthcare access, use of technology, and self-management, drive inequalities in outcomes (Barnard-Kelly and Cherňavsky, 2020; Peters et al., 2021). Ethnic inequalities in incidence are likely attributable to ethnic and racial differences that proxy genetic susceptibility for Type 2 diabetes, for example, while high Body Mass Index (BMI) leads to risk for diabetes, South Asian, Black and Chinese individuals are at risk of diabetes at a lower BMI, compared to White individuals (Catherine et al., 2021), but poor outcomes are driven by modifiable factors (Khunti, 2022).

Implications for pandemic response

113. Shocks to the social determinants of child health have the potential to increase inequalities in the incidence of socially patterned chronic diseases such as asthma and epilepsy. For example, changes in adverse birth outcomes and environmental exposure to poor housing, indoor allergens, passive smoke and viral infections can influence asthma inequalities, as all these risk factors are more common in disadvantaged children.

114. Disruption to healthcare provision were predictable consequences of pressures on the health system during the pandemic. Any diversion of healthcare resources to acute care can be expected to exacerbate existing inequalities in preventative and ongoing management of long-term conditions as well as access to diagnoses, ongoing care and medications (Creese et al., 2020; Khunti et al., 2022). Successful, holistic management of long-term conditions includes addressing associated mental health, disability support and special education needs, particularly in the context of cancers and epilepsy where these issues commonly co-occur (Fleming et al., 2019b; National Academy of Sciences Engineering and Medicine, 2021). These services were also vulnerable to disruption during the pandemic.

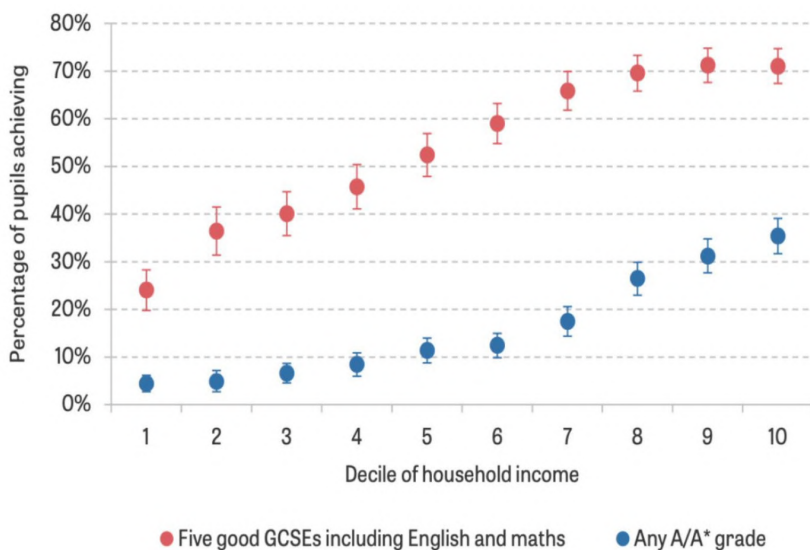
Educational attainment

115. School closures implemented during the Covid-19 pandemic to reduce transmission of the virus led to unprecedented disruption to children's learning and attainment (Hume et al., 2023). Education empowers individuals, improving job prospects, income, and health and wellbeing (Davies et al., 2023). Its impact on social mobility is inter-generational. Attainment by the end of lower secondary education, typically when children sit GCSE examinations, has strong links with later education and income (Farquharson et al., 2022). Inequalities evolve across different educational stages and employment outcomes.

Socioeconomic inequalities

116. In 2018/19, across England, Wales and Northern Ireland, disadvantaged pupils were falling behind their more advantaged peers in GCSE attainment, with 20 to 30% fewer pupils from disadvantaged backgrounds achieving good GCSE results (Farquharson et al., 2022; GOV.UK, 2023b; Northern Ireland Audit Office, 2021; Welsh Government, 2022a). A similar gap existed in attainment in equivalent National 5 qualifications in Scotland. Poorer attainment was seen not just amongst the most disadvantaged pupils (for example, those eligible for free school meals). Inequalities in attainment existed across the whole socioeconomic spectrum – Figure 16 shows that less affluent students in England achieved lower GCSE attainment in 2019 and this trend was seen across low and high levels of income (Farquharson, McNally and Tahir, 2022).

Figure 16. GCSE attainment by decile of household income measured at age 14 (1=most deprived, 10=least deprived), England.



Source: Farquharson et al., 2022

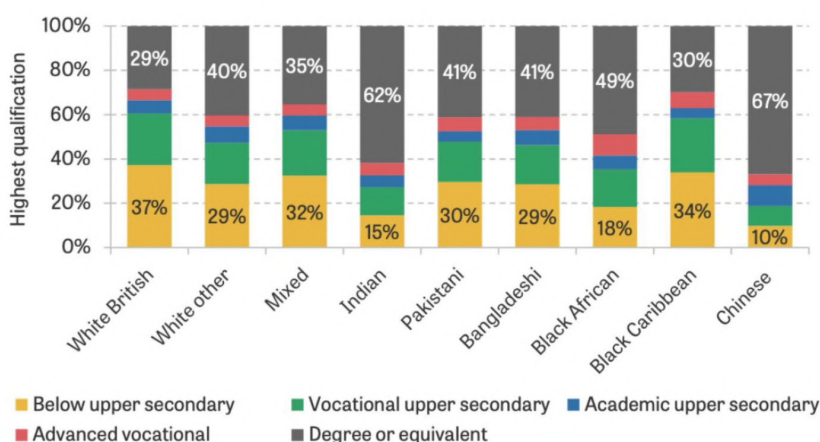
Ethnic inequalities

117. In England, Scotland and Wales, in the 2018/2019 academic year, when broad ethnic groupings were considered (White, Mixed, Asian, Black, Chinese), or White ethnic groups were grouped together and compared to ethnic minority groups as a whole, White pupils

performed worse than other ethnic groups (Farquharson et al., 2022; Scottish Government, 2020b; Welsh Government, 2022b). Differences in attainment widened as children progressed through the education system – increasingly, White pupils were performing relatively worse. In contrast, Northern Ireland showed the opposite trend, with ethnic minority groups performing worse than White students. Although this gap was narrowing and had almost closed by 2016/2017, it widened again in the lead up to the pandemic (Department of Education, n.d.).

118. When narrower ethnic groupings were considered, English data show that children from a range of ethnic backgrounds (Gypsy/Roma, Traveller of Irish Heritage, Black Caribbean, White and Black Caribbean, Other Black Backgrounds, Pakistani, Any Other White Backgrounds and Any Other Ethnic Backgrounds) achieved lower attainment on average, relative to children from White ethnic backgrounds (Hutchinson et al., 2020). The attainment gap was especially large for Gypsy/Roma pupils and pupils of Traveller of Irish Heritage (Hutchinson et al., 2020). These gaps persisted in earlier stages of the education system, and for several ethnic minority groups including Black Caribbean, Gypsy/Roma and Traveller of Irish Heritage, there were widening gaps in attainment as pupils progressed through the education system (Hutchinson et al., 2020).
119. Figure 17 shows that White British and Black Caribbean students had the lowest educational attainment by young adulthood, reflected in lower proportion achieving degree-level qualifications, and highest proportions achieving qualifications below upper secondary. Educational outcomes may not translate into employment outcomes however – people from minority backgrounds were more likely to be unemployed or working in temporary jobs in 2016 (Farquharson et al., 2022).

Figure 17. Distribution of highest qualifications among 26-year-olds in England by ethnicity, 2016



Source: Farquharson et al., 2022

Gender inequalities

120. Similar patterns in the gender gap were seen in educational attainment at GCSE level in all four nations, with girls outperforming boys in achieving good grades (Department for Education, 2020a; Department of Education, n.d.; Scottish Government, 2020b, 2019; Welsh Government, 2019). The gender gap was present at the start of formal education at age 5, and persisted as children progressed through the education system. While girls consistently

performed better in literacy-based subjects, variation in the gender gap in numeracy subjects depended on mode of assessment, with boys outperforming girls in Maths and Science in some contexts outside of school assessments and national examinations (Sizmur et al., 2019; Welsh Government, 2019).

121. More girls than boys went on to achieve two or more A levels and participate in higher education. However, despite generally comparable performance in numeric subjects at school, fewer girls studied numeric (for example Science, Technology, Engineering, and Mathematics) subjects at university in 2019 (Farquharson et al., 2022). Smaller proportions of high-performing girls expected to work in engineering or science professions than high-performing boys (OECD, 2018). The gender pay gap, which favours boys, is in part linked to the lower likelihood of girls studying and working in STEM professions, which yield higher earnings (Farquharson et al., 2022).

Intersection of gender, ethnicity and socioeconomic status

122. The gender gap favours girls, across all ethnic groups (Department for Education, 2020b). Amongst all pupils there was a 7.4 percentage point difference in achieving good GCSEs in England. The gender gap was largest in Black ethnic children, a 10.8 percentage point difference, and smallest in Chinese and Asian children at around 5 percentage point difference. The general picture of higher rates of ethnic minority groups achieving better levels of attainment at age 16 is true for peers of the same socioeconomic status and sex, based on an analysis of 2015 GCSE data (Strand, 2021).
123. Notable exceptions were Black Caribbean and Black African boys from high socioeconomic status, who were underachieving relative to the White British boys of the same socioeconomic status (Strand, 2021). Evidence showing that Pakistani girls of high socioeconomic status were underachieving relative to White British girls of high socioeconomic status requires confirmation due to sample size limitations (Strand, 2021).

Special educational needs

124. There was a wide gap in educational attainment by SEN status across the UK (Department for Education, 2020c; Department of Education, 2019; Scottish Government, 2019; Welsh Government, 2022b). Less than a third of children with SEN in England achieved good English and Maths GCSEs, a 44.3 percentage point difference compared to children without identified needs (Department for Education, 2020c).

Children in care

125. Extensive Scottish data shows children in the care of their local authority were more likely to be absent or excluded from school, and have the lowest level of academic attainment (Fleming et al., 2019c). They were more likely to present with special educational needs, neurodevelopmental needs (e.g. attention deficit hyperactivity disorder) and face significant mental health needs including greater risk for self-harm and premature death (Fleming et al., 2019c). Social and emotional behavioural difficulties contribute to poorer educational outcomes; of particular concern are children with attentional difficulties (Wilkinson and Bowyer, 2017).

Explanation of inequalities and implications for pandemic response

126. Inequalities in educational attainment can be traced back to inequalities in the early years environment, and experiences throughout the education system. Inequalities in learning at earlier stages of education continue to impact later attainment (Chzhen et al., 2018; Goodman and Gregg, 2010). During the school years, home environment (including access to books, technology and study space, as well as parental involvement in education), and aspirations and attitudes for education, as well as behavioural difficulties and experience of bullying, all contribute to children's performance at school (Andrew et al., 2020; Goodman and Gregg, 2010). Socioeconomic inequalities in educational outcomes can be attributed to variation in these interconnected factors. When families face food, fuel and housing insecurity, it is difficult to engage children with learning at school or at home. Any systemic shock to the wider determinants of learning across the lifecourse could be expected to affect inequalities in children's attainment.
127. The adultification of Black children in schools, particularly teenage boys, has been highlighted as a potential reason for ethnic inequalities in attainment for underachieving Black children (Strand, 2021). Adultification is when children are perceived as older than they are and not treated with the care and protection that should be afforded to minors (Commission on Young Lives, 2022). Evidence of adultification resulting in negative expectations of Black children and Black children being disproportionately subject to disciplinary actions in schools, received greater attention in the UK post-pandemic (Commission on Young Lives, 2022). However, pre-pandemic evidence shows that children of Black Caribbean heritage were disproportionately represented in alternative provision schools. Child behaviour is one of the main reasons for school exclusions, often because schools have a zero-tolerance approach to behaviour policies (House of Commons, 2018).
128. School closures and shifting to home learning could have been expected to exacerbate socioeconomic inequalities. Importantly, inequalities in access to resources for learning, such as books and computers, and inequalities in parents' capacity to support children with remote learning, all affected children's learning during the lockdowns (Goodman and Gregg, 2010). In addition, parents' confidence to support children with learning and navigate learning resources, and their understanding of subject content was lower in parents of children with free school meal status (UNESCO Centre, 2020).
129. Parents of children with SEN were also more likely to report challenges in meeting the needs of children with SEN in all aspects of home schooling (UNESCO Centre, 2020), which could have been anticipated from the existing support needs faced by children with SEN to engage in traditional modes of learning within the classroom. Indeed, evidence showed that children with SEN or other learning, attentional or behavioural difficulties were less likely to engage well with home learning, due to the inaccessibility of online communication, engaging independently with remote learning material and ongoing mental health needs that worsened – some to crisis point – as a result of essential support services halting during Covid-19 (Ashworth et al., 2023; Ofsted, 2021). Children in care are also likely to face similar issues where neurodevelopmental and SEN needs are present.
130. In addition to providing education, schools play a vital role as sources of safety, structure and food for vulnerable children (UNESCO et al., 2021). Lockdown within home environments, where children may be exposed to household dysfunction and parents' psychological stress, is likely to have contributed to poor learning outcomes for school-aged children. The pressures of coping with home schooling also added to the stress faced by families

especially for low income families, single adult households and parents of children with SEN (Shum et al., 2021). The evidence we provide here identified some groups of children doing better in terms of school performance, but concerns surrounding safeguarding require specific consideration of vulnerability, as exposure to harms were exacerbated by the pandemic and were more difficult to identify when children are not seeing professionals (BBC Children in Need, 2020; Romanou and Belton, 2020)

Children at risk of entering care

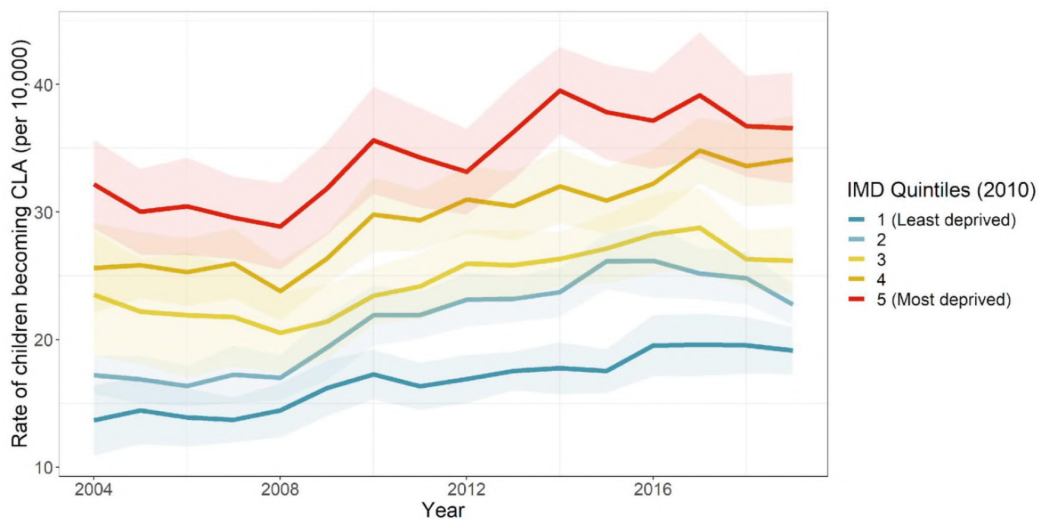
Relevance of the issue

131. Across all countries of the UK there was an increase in children being taken into care in the decade leading up to the pandemic, steeper in Scotland and Wales (Hodges and Bristow, 2019). Although care is intended to be protective, it does not mitigate the impact of childhood adversity. Care experienced people experience worse educational, employment, income, housing, mental and physical health, criminal justice and mortality outcomes, relative to other children (Gypen et al., 2017; Emily T. Murray et al., 2020; E.T. Murray et al., 2020; Sacker et al., 2022).
132. Child maltreatment is underreported (Gilbert et al., 2009). Nevertheless, in England, of the cohort of children born in 2009/10, approximately one in five children were referred to Children's Services before the age of 5 (Bilson and Martin, 2017). In Scotland, for children born in 2012/13, the figure is one in four (Bilson and Macleod, 2023). The majority of referrals come from public services that encounter children and families: police, schools, health and local authority services (Department for Education, 2019b; Information Analysis Directorate, 2018; Scottish Children's Reporter Administration, 2019; Welsh Government, n.d.). Following assessment and investigation, some children's experiences of adversity are deemed severe enough to warrant state intervention, and they are taken into care, in many cases following a court-order (NSPCC, 2023a). The state bears a statutory responsibility for these disadvantaged children, in some cases a parental responsibility.

Socioeconomic inequalities

133. There were large pre-pandemic socioeconomic inequalities in children being taken into care (Bywaters et al., 2017a). In every country of the UK, there was a strong social gradient – a higher rate of children in care for each step increase in the deprivation levels of the neighbourhood where they lived before entering care. Scotland had the steepest gradient. In 2015, children in the most deprived 10% of neighbourhoods were around 20 times more likely to be in care than children in the least deprived 10% (Bywaters et al., 2017b). In Wales, in the same year, they were 16 times more likely to be in care (Bywaters et al., 2017c). In England, they were ten times (Bywaters et al., 2017d), and in Northern Ireland, four times, more likely to be in care (Bywaters et al., 2017e). These inequalities persisted over time. The increase in children entering care in England between 2007 and 2019 was greater in poorer local authorities of the country, relative to previous trends, widening inequalities (Figure 18) (Bennett et al., 2020). We renew calls for the systematic collection of data on the socioeconomic circumstances of parents (Bywaters et al., 2017a), which are key to understanding and addressing these inequalities.

Figure 18. Care entry rates by local authority income deprivation quintile, 2004 to 2019 (CLA=Child Looked After, IMD=Index of Multiple Deprivation).



Source: Bennett et al., 2020

134. Social gradients in children in care varied according to the socioeconomic characteristics of the wider local authority. In England, local authorities with higher levels of income inequality tended to have steeper social gradients (Webb et al., 2020b). There was also evidence of inequalities in the way that Children’s Services intervened in children’s lives, by local authority deprivation. In both England and Scotland, given similarly deprived neighbourhoods, less deprived local authorities had higher intervention rates than more deprived local authorities (Bywaters et al., 2017f, 2015).

Other axes of inequalities

Ethnicity

135. There were large ethnic inequalities in rates of children in care, pre-pandemic. On average, in 2015, care rates for children categorised as Mixed heritage, Black or Other were higher than for children categorised as ‘White’. Children categorised as Asian had the lowest rates (Bywaters et al., 2020). These overall rates were partly explained by the variation in patterns of deprivation affecting children of different ethnicities (Bywaters et al., 2020). When looking only at the most deprived areas of each country, a different pattern emerged. In England, in the most deprived areas, there were higher rates of children in care in the ‘White’ group than in any other. In the most deprived parts of Scotland and Wales, only children in the ‘Mixed’ group experienced higher intervention rates than children in the ‘White’ group.
136. A study in England of care rates at the intersection of deprivation and ethnic category highlighted differences in the social gradient across ethnic groups (Webb et al., 2020a). The gradient was particularly steep for children categorised as ‘White British’, ‘Pakistani’ and ‘Mixed White & Asian’. Whereas there was no evidence of a social gradient for ‘Bangladeshi’, ‘Indian’, ‘Mixed White and Black African’, and ‘Black Other’ populations (Webb et al., 2020a). Children from Mixed Heritage groups were found to “face the sharp edge” of both socioeconomic and ethnic inequality (Webb et al., 2020a, p. 11). A move towards anti-racist and culturally safe child welfare systems is needed to address safeguarding issues linked to racism, bias, stereotyping – including adultification of minoritised children (Davis, 2022) – and lack of trust in services (Curtis et al., 2019; NSPCC, 2023b).

Disability

137. There is strong international evidence that children with disabilities are more likely to experience violence – including physical and sexual violence, emotional abuse and neglect – than their non-disabled peers (Jones et al., 2012). Children with disabilities are more likely to be in care than other children (Hill et al., 2017). In England, children in care are more likely to have special education needs and disabilities than the general population (58% and 17%, respectively) (Berridge et al., 2020). There is a need for accurate and consistent recording of disability, and the needs of children in care with disabilities, to ensure that they are not overlooked (Hill et al., 2017).

Being LGBTQ+

138. No routine data are collected on either gender identity or sexual orientation of children in care. Strategies to support these children in their families and communities, or in care, are lacking (Schofield et al., 2019). This is despite research from the US showing that LGBTQ young people are disproportionately likely to be involved with child welfare systems, experience parental rejection, peer abuse, and child sexual exploitation (Center for the Study of Social Policy, 2017; Rivers and D'Augelli, 2001; Schofield et al., 2019).

Explaining inequalities

139. Child poverty is a contributory causal factor in child abuse and neglect, affecting parents' ability to cope, and their ability to invest in the people, places and things that help children thrive (Bywaters et al., 2022, 2016). The No Recourse to Public Funds rule has been identified as an obstacle to safeguarding children (Jolly and Gupta, 2022). Policies or events that move children into poverty are likely to increase these children's risk of experiencing harm, while increasing inequalities. The rise in child poverty between 2015 and 2020 led to over 10,000 additional children entering care (Bennett et al., 2022).
140. Children may also be more vulnerable to a range of harms because of the socioeconomic circumstances in which they live. In the first social work assessment, the most commonly recorded clusters of 'factors' affecting children's lives are domestic abuse and violence, and complexities around parental mental health (Hood et al., 2023). Poor socioeconomic circumstances heighten vulnerability to domestic abuse (Fahmy et al., 2016), and exacerbate poor parental mental health (Cooper and Stewart, 2021).
141. Local services aiming to support families with children may help combat inequalities, while the withdrawal of support services may increase vulnerability and worsen inequalities. Recent cuts to preventative Children's Services led to more children being assessed as 'in need' (Webb, 2021), and cuts to services for young people contributed to more 16-17 year olds entering care (Bennett et al., 2021).
142. Children may also experience different consequences of interactions with child welfare services, based on local socioeconomic context. In England, higher spend on prevention and lower deprivation were associated with better quality Children's Services, as judged by Ofsted (Webb et al., 2022). Resources relative to need may also affect thresholds for intervention. In more deprived areas, services may be inclined to ration care (Bywaters et al., 2015). Given similar circumstances, less deprived local authorities may be more ready to devote resources to placing a child in care.

143. Another explanation for differences in patterns of intervention may be the greater visibility, in less deprived areas, of children in poverty. These children may be more likely to come to the attention to services where poverty is not the norm. Conversely, deepening poverty in deprived areas may lead to the normalisation of children's adversity, and underreporting (Bywaters et al., 2015).
144. The unequal consequences of contact with services may be particularly marked during times of policy change or upheaval. In the two years following Peter Connelly's death, there was a 42% increase in rates of children in care in the most deprived neighbourhoods, while rates in the least deprived neighbourhoods fell or remained the same (Elliott, 2020). Non-financial shocks to child welfare systems are likely to fall disproportionately on those living in disadvantaged socioeconomic circumstances.

Implications for pandemic response

145. Many children experience adversity, abuse, neglect and exploitation, often within their family home, but also beyond it, in the community (Firmin, 2018). Disruptions that confine children to the home with family members, particularly under conditions of deepening socioeconomic disadvantage, may increase some children's exposure to pre-existing or heightened risks, including parental mental ill health, and experiencing or witnessing domestic abuse and violence. This may have been expected to increase inequalities by extending and intensifying the need for family support services, and in some cases acute intervention to address risk of significant harm.
146. At the same time, any major disruptions to the services that support families and safeguard children – that look out for them, their health, education and wellbeing, that offer services, support and guidance, and that make rulings about where they will live and with whom – can increase the risk that harm goes unnoticed or unaddressed, or that children are left in limbo, at a cost to their health and wellbeing. It may also increase risk-averse practice due to anxiety about potential hidden harm.
147. The harmful consequences of major shocks are never evenly distributed. Prior to the pandemic, there were known, wide, and in some cases widening inequalities in children in contact with child welfare services. Research into the drivers of these inequalities pointed to policies affecting children's exposure to adverse socioeconomic circumstances and local services catering to their needs (Bennett et al., 2021; Webb, 2021; Webb et al., 2022; Webb and Bywaters, 2018). Policy shocks and events affecting the child welfare system, and placing pressure on the workforce, were known to disproportionately affect inequalities in children's risk of experiencing harm (Elliott, 2020; Schenck-Fontaine and Gassman-Pines, 2020).

Conclusions and missed opportunities

148. Decision-making during the Covid-19 pandemic was undoubtedly highly complex. While children were, by and large, not considered a vulnerable group in terms of susceptibility to the virus itself, children were susceptible to the wider impact of disruption to the broader determinants of health. Children are especially vulnerable to changes in living conditions, family income, parental employment, education and access to health and social care services. Children's health and wellbeing should have been considered in strategies to contain or delay the spread of the virus.
149. Here we outline our evidence-based summary of how inequalities in child health were evolving pre-pandemic, and the likely impact of the pandemic. We highlight evidence that should have informed decision-making early in the crisis, and that can still inform efforts to mitigate the long-term impacts of the Covid-19 pandemic on children.

Child health was already under threat pre-pandemic

150. Following a period of improvement in the prior decade, the several years leading up to the pandemic were characterised by deteriorating mental health, and worrying child health indicators, such as stalling life expectancy at birth and increasing infant mortality rates. Significantly, these adverse trends coincided with escalating child poverty and the simultaneous rollback of public services, felt most acutely in the country's most deprived areas.
151. Responding to shocks like pandemics requires a comprehensive strategy that addresses the needs of children and young people. Pre-pandemic evidence on how to reverse widening child health inequalities should have factored into decision-making in the early months and years of the pandemic.
152. The unequal impacts of the pandemic on children could have been anticipated and mitigated, through consideration of the mechanisms that lead to children's differential exposure, vulnerability and consequences to health risks and protective factors, based on their socioeconomic circumstances, and other facets of their identity.

Consideration of child poverty

153. Pre-existing exposure to poverty and adversity likely increased children's vulnerability to pandemic effects, via their pervasive impact on the circumstances in which children grow, live and learn. Poverty is multidimensional. Policies across multiple sectors were needed to protect families from income poverty, food, fuel and digital poverty. For example, outside of lockdown, schools were a key source of support for children's nutrition. Government policies played an important role in buffering families from financial stress during the pandemic, and it was crucial that these policies reached all vulnerable groups, to prevent children being left behind.

Consideration of the home environment

154. Multiple systems work together to enable children to learn and develop well at home, including schools, families and employers – working conditions meaningfully impact families. Strong policy would have supported these systems to meet child-specific needs holistically,

addressing learning needs, mental health and development. Policies should also have targeted broader factors influencing outcomes, including the material environment (such as digital access, and a rich environment in which young children can learn through play), and factors that influence the psychosocial environment (such as parental mental health and family stress).

Consideration of essential health, social care and educational services

155. Decisions affecting the running of essential services should have considered how disruptions would affect the needs of children, for example, the physical health needs of children with long-term conditions, and mental health and learning needs. The vital importance of routine services should have factored into decision making. These services can be lifelines, mitigating the adverse effects of social distancing measures on the mental health, well-being, and safety of children. This is especially critical for children in households experiencing heightened stress, adversity, and isolation.
156. Disruption to early years, health, education and child safeguarding services could be expected to increase inequalities in child health. School closures in particular were likely to disrupt vital support structures and increase food insecurity, especially for children in vulnerable circumstances.

General considerations

157. In addressing the health and social challenges arising from crises, we should adhere to established principles designed in harmony with the needs and best interests of children and young people. These principles align with the United Nations Convention on the Rights of the Child. Moreover, to ensure a holistic and effective policy response, it is important to listen to what children and young people have said about what they want from their childhoods, and where possible to incorporate their voices into decision-making processes.
158. Long-term recovery planning must prioritise children. Crucially, the learnings from past coordinated efforts, like the English Health Inequalities strategy, offer guidance. This comprehensive strategy tackled drivers of health inequalities, especially child poverty. Its broad spectrum of interventions ranged from prioritising funding based on need, strengthening social support for families, and supporting early child development through children's centres.
159. Promotion of health equity in childhood is imperative not just for moral reasons but for the long-term good of society and for economic growth. Comprehensive steps towards achieving this have been outlined in successive health inequality reports. Successful strategies will likely involve coordinated efforts across public health, welfare, and education to bolster family income, improve birth outcomes and early childhood development, support parental health, and reduce the development of early inequalities in childhood health and education.

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