end child poverty

Health Consequences of Poverty for Children

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By Professor Nick Spencer published by End Child Poverty with the support of GMB

Forward

Introduction

Poverty and social inequalities in childhood have profound effects on the health of children, and their impact on health continues to reverberate throughout the life course into late adulthood. Globally and historically, poverty has been the major determinant of child and adult health[1] and, even in rich nations such as the UK, it remains a major cause of ill health with huge public health consequences.[2] The rapidly growing and developing fetus[3] and child[4] seem to be particularly vulnerable to the adverse effects of poverty providing a further powerful argument for policy initiatives designed to protect children from its worst effects.[5]

Here, I summarise the physical, emotional and psychological health consequences of poverty for children. Maternal and child health are intimately linked and, consistent with the inter-generational approach advocated by the Acheson Report,[6] I start with a brief review of the effects of poverty and low socio-economic status on maternal health – particularly as it affects readiness for pregnancy and fetal well-being. Birthweight has major consequences for survival in early infancy, health throughout childhood and into adult life and the impact of poverty on this is considered next. Death,disability and illness in infancy and childhood, closely linked to birthweight and poverty, are discussed before examining the consequences of poverty for the emotional and psychological health and wellbeing of children. Poverty and material deprivation in rich nations appear to have a negative effect on parenting, leading among other things to child abuse and neglect. The links between child poverty, parenting and child protection are reviewed. Finally, the links between poverty, educational attainment and children's health are discussed.

In addition to the direct consequences of poverty on children's health, two related themes run through this paper. Children from minority ethnic groups living in rich nations suffer double jeopardy[7] in that they are more likely to live in poverty[8] and are likely to suffer discrimination as a result of racism.[9] Throughout this paper, attention is given to these dual effects and how they impact on child health. Although living in poverty has the greatest effect on the health of children and adults, those with incomes above the poverty level have health outcomes that are worse than the highest income groups.

Many child and adult health status measures, such as death rates and rates of acute and chronic illness, get steadily worse as you pass from the highest to the lowest socio-economic status groups.[10] These so-called 'social gradients' have important implications for health and social policy interventions aimed at promoting child and adult health. For this reason, the existence and role of social gradients in child health will be emphasised throughout the paper.

Poverty and Maternal Health

The health of the mother has a profound effect on the health of her children. This effect is most noticeable during pregnancy but persists throughout the child's life. I concentrate here on the impact of poverty and low income on the relationship between maternal health in pregnancy and during the early years of her child's life and child health.

Poverty in childhood exerts its effect throughout the life course and can be transmitted across generations. Inter-generational transmission occurs through maternal health and health-related behaviour before and during pregnancy. Low birthweight of the mother herself, influenced by the socio-economic status of her family of origin, has a direct effect[11] on the birthweight of her child. Short stature[12] and a tendency to higher blood pressure[13] also have an indirect effect.

Maternal height is one of the most important determinants of infant birthweight, itself the most important determinant of infant mortality (see below). Apart from the genetic influences on maternal height, poverty and low socio-economic status of the mother's family of origin have a powerful effect through early childhood nutrition.[14] This is shown in Table 1 which is based on an analysis of data from the Millenium Cohort Study data.[15] The data shows the height of pregnant women decreases from the most privileged social group (SEC1) through less privileged groups to the most disadvantaged group (workless households).

Women of South Asian origin in the UK are shorter than those of European origin and poor South Asian women are the shortest. Short stature is particularly noted among women from Pakistan and Bangladesh, possibly because these areas are among the poorest in the Indian sub-continent and Pakistani and Bangladeshi households are among the poorest in the UK.[17]

There is increasing interest in the possible role of psychological ill health[18] and chronic stress[19] in adverse pregnancy outcomes such as low birthweight and pre-term birth (less than 37 weeks' gestation). Poverty and low socio-economic status are associated with poor psychological health in women,[20] and psychological ill health and stress have been suggested as one of the pathways by which social disparities in pregnancy outcome arise.[21]

Once pregnancy is established, factors such as weight gain during pregnancy, micronutrient intake and smoking have an effect on pregnancy outcome. Poor women tend to gain less weight in pregnancy, have lower micronutrient intakes, suffer genital infections and are more likely to smoke and smoke more heavily.[22] Smoking in pregnancy has been linked to poor maternal psychological health[23] and increased levels of stress.[24]

Summary

- The effects of poverty are passed across generations through pregnancy.
- Women from poor families are more likely to be short, be in poorer health and have significant psychological problems when they come to pregnancy – all of which are important determinants of pregnancy outcome.
- During pregnancy poorer women are more likely to gain less weight, to have genital infections and to smoke.

Table 1 Maternal height and household socio-economic classification[16]

Socio-economic classification (SEC)	Maternal height below 155cms	
	Number	%
SEC1 (No.= 6155)	1199	19.5
SEC2 (No. = 1670)	393	23.5
SEC3 (No.= 3,224)	306	26.6
SEC4 (No. = 1511)	396	26.2
SEC5 (No. = 3767)	1121	29.8
Workless (No. = 2067)	681	32.9

Source: N Spencer unpublished analysis of UK Millenium cohort data, 2008

Poverty, Birthweight and Perinatal Health

Studies have consistently shown that birthweight decreases steadily with decreasing social status.[25] Figure 1 shows this decrease in birthweight between the most privileged and the most deprived socio-economic groups among babies born in 2000 enrolled in the UK Millenium Cohort Study. Mothers living in the most privileged socio-economic group had an average birthweight 200gm heavier than those living in the most disadvantages households (workless households).

Similar differences between privileged and deprived areas have been reported from similarly designed studies in the more prosperous area of West Sussex.[26]

A difference of 200gm in birthweight between individual children has little clinical significance but it has huge implications for the health of the child population as a whole.[27] If all births in the UK in 2000 had had the same birthweight distribution as the highest social group, there would have been 34 per cent fewer low birthweight (below 2.5kg) births.

Because of the close association of birthweight with infant mortality, a reduction in mean birthweight of the magnitude of 200 gm is associated with higher rates of perinatal death (stillbirths and deaths in the first week of life). Perinatal mortality rates per 1,000 births in England and Wales by the ONS socio-economic classification are shown in Table 2.

The table shows a tendency for perinatal deaths to increase with decreasing socio-economic status. Those classified as 'other' include the poorest groups in society and they have the highest rates of perinatal death. The social gradient in perinatal deaths as a result of all causes is also seen for perinatal deaths as a result of specific causes.[28]

The ratios of most to least deprived fifths of the births for specific causes were: 1.98 for congenital anomalies (abnormalities occurring before birth such as spina bifida) ; antepartum events (obstetric problems occurring during the pregnancy e.g. bleeding) 1.81; intrapartum events (problems arising during the labour and delivery) 1.48; immaturity (infants born too early) 1.92.[29]

Table 2: Perinatal mortality rates per 1,000 births (within & outside marriage) by socio-economic class (NS-SEC) 2006, England and Wales

NS-SEC	Perinatal mortality '06 (deaths/1000 births) Inside marriage	Perinatal mortality '06 (deaths/1000 births) Outside marriage
1.1 Large employers & higher managerial	4.7	7.4
1.2 Higher professional	6.5	6.1
2. Lower managerial & professional	5.6	7.0
3. Intermediate	8.2	9.1
4. Small employers & own-account workers	6.4	6.3
5. Lower supervisory & technical	7.3	7.3
6. Semi-routine	11.7	9.5
7. Routine	9.7	9.7
Other	11.3	12.5

Source: Office of National Statistics (ONS). *Health Statistics Quarterly*, Winter 2007

Poverty, Birthweight and Perinatal Health

The accepted World Health Organisation definition of low birthweight is births that are under 2.5kg. Low birthweight has two major components: pre-term birth (<36 weeks gestation) and intra-uterine growth retardation (birth weight in the lowest ten per cent for gestational age). The latter is the most important component in less developed countries and the former in developed countries. Both demonstrate social gradients similar to that for mean birthweight (see Figure 1).

Babies born before 32 weeks gestation (very pre-term) have very high mortality rates and are most likely to require neonatal intensive care. In a study of more than half a million births in the former Trent health region of England in the ten years from January 1994 to December 2003, the rate of very pre-term birth was 16.4 per 1000 births in the most deprived tenth compared with 8.5 per 1000 births in the least deprived tenth.[30] Thus, infants living in poor areas were twice as likely to be born very early. Had all infants had the same risk of very pre-term birth as the most privileged ten per cent, the overall rate of very pre-term birth in the former Trent health region would have been reduced by 35% (2513 births).

Intra-uterine growth retardation also shows a strong association with social class, with a risk for social class V of 1.67 compared with social class I.[31]

The result of these gradients is that babies of poor mothers and those from low social classes are much more likely to be born early or small, and to be stillborn or die in early infancy. Pre-term infants, especially those born before 32 weeks' gestation, suffer major respiratory and other problems associated with their prematurity. Poor infants are more likely to experience these problems[32] that often entail long periods of hospital admission, putting additional strain on already stressed families.

Figure 1 Mean birth weight by household socio-economic classification (SEC), UK births 2000

Source: N Spencer, unpublished analysis of the Millenium Cohort Study data, 2008

Summary

- There is a finely graded stepwise decrease in birthweight from the highest to the lowest social groups.
- Poor infants are more likely to be born small and/or early
- Birthweight and gestational age are the main determinant of perinatal survival and there is a consistent social gradient in perinatal mortality.

Poverty and Mortality in Infancy and Childhood

Poor infants surviving beyond the first week of life continue to be at greater risk of death throughout infancy and childhood. This increased risk results from increased exposure to a range of risk factors for infant and childhood death.

For example, risk of sudden unexpected infant death is increased by maternal smoking and maternal depression – both higher in poor households; risk of death due to injury is increased among poor children as they are more likely to live in unsafe housing, play in unsafe areas and live closer to main roads.

Sudden unexpected death in infancy has decreased in recent years partly in response to the 'Back to Sleep' campaign, advising mothers to sleep their babies on their backs, but the social gradient has increased.[33]

Table 3 shows the relationship between household income and sudden unexpected death in infancy based on the Confidential Enquiry into Stillbirths and Deaths in Infancy.[34] More recent data from the Avon region of the UK indicates that, against a background of falling rates of death, the social gradient has increased with the proportion in deprived families rising from 47% in 1984 to 74% in 2003.[35]

A finely graded increase in deaths associated with decreasing income is shown so that infants in the poorest families have an almost 10 times greater chance of dying suddenly in infancy than those in the highest income group. In a systematic review of the relationship of socio-economic status to sudden unexpected death in infancy, 39 out of 40 studies over a 30-year period demonstrated a similar social gradient to that shown in Table 3.[36] The infants of mothers born in Bangladesh are much less likely than those of European origin to die suddenly in infancy and this has been attributed to cultural practices associated with an adult always being with the infant.[37]

Table 3: The risk of sudden unexpected death in infancy by weekly family income

Weekly family income	Ratio of sudden infant deaths in lower income groups compared with weekly income >£200
Below £60	9.5:1
£60 - £100	4.5:1
£100 - £200	2.8:1
Above £200	1.00 (reference group)

Source: P Fleming, P Blair, C Bacon and J Berry, *Sudden Unexpected Deaths in Infancy: the CESDI SUDI studies 1993-1996*, London: The Stationery Office, 2000

Poverty and Mortality in Infancy and Childhood

Infant mortality rates are regarded as sensitive markers of the state of a country's or region's health. In 2003, the South East region of England had an infant mortality rate of 4.0 per1,000 live births compared with 6.8 for the West Midlands region, reflecting differences in socio-economic status and the ethnic composition of their populations. As with perinatal mortality, infant mortality has fallen steadily over the last decade but the social gradient has persisted and become wider (see Figure 2).

Death beyond the first year of life is rare in developed countries although it continues to be a common occurrence in less developed countries particularly among the poor. However, poor children remain at higher risk of death throughout childhood and into adolescence.[38] Of children born in Oxfordshire and West Berkshire in 1988, those in the lowest social group had a 40% increased riskof dying in the first ten years of life compared to those in the highest group.[39]

The exclusion of households unclassified in the Registrar General's social classification, such as those headed by single mothers, used in official statistics for England and Wales until recently, has resulted in an under-estimation of the extent of social disparities in childhood deaths.[40] Compared with the social class I children, social class V children were twice as likely to die in childhood. However, children of 'economically inactive' single mothers, excluded from the official statistics on social class had an even higher death rate and were three times more likely to die in childhood compared with social class I children.

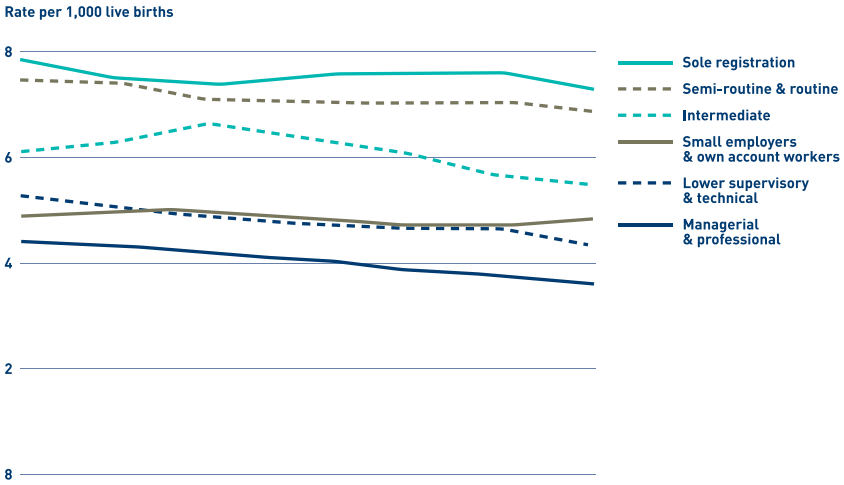
Against a background of falling deaths from injury and poisoning in England and Wales, death rates from all external causes in 2001 for children of parents classified as never having worked or long term unemployed were 13 times higher than those for children of parents in higher managerial/professional occupations.[41]

For some specific causes of injury death, the differences are even greater; pedestrian deaths are 20 times higher, deaths as cyclists 27 times higher and deaths due to fires 38 times higher. The injury mortality gap between this group of poor children and their peers has widened greatly in the last 20 years.

Summary

- There is a strong social gradient in sudden unexpected death in infancy that has become more marked since the 'Back to Sleep' campaign.
- Infants in the lowest income families have a nine-fold increased risk of sudden unexpected death in infancy compared with those with a higher weekly income.
- The exclusion of 'economically inactive' single mothers from the official statistics under-estimates the social gradient in childhood mortality.
- Death rates from injury and poisoning have fallen in all social groups except the poorest and these children are 13 times more likely to die from injury than the most privileged children.

Figure 2: Infant mortality rates by Socio-economic group, England & Wales, 1994-'96 to 2000-'02



Source: ONS. Focus on Social Inequalities, 2004. The Stationery Office, London

Poverty, Disability and Physical Health

Although the social gradients in perinatal, infant and childhood deaths are steep, these events are relatively rare, even in the most deprived groups of children in the UK. However, physical disability and ill health are more common. And poor children have increased rates of disability and ill health.

Cerebral palsy is the most common childhood physical disability. Data from West Sussex collected routinely over a 15-year period between 1980 and 1995 shows a social gradient for all types of cerebral palsy with children in the most deprived groups twice as likely to suffer cerebral palsy as those in the most privileged group.[42] In this study, 30% of cerebral palsy was attributable to social inequality. Although low birth weight and preterm birth explain some of the association of cerebral palsy with social deprivation, there are additional factors such as the mother's nutritional status and general health that may explain some of the difference between social groups.

Developmental delay in early childhood, particularly delay in speech and language, is associated with social disadvantage. Among children born between 1982 and 1996 in the former West Sussex Health Region, speech and language disorders showed an increasing trend with increasing deprivation.[43] Moderate learning difficulties show a similar gradient.[44]

There are sharp differences in the prevalence of childhood disability (all causes) according to the socio-economic status of the household, with working class children having a higher risk of being disabled than their better-off peers.[45] Based on the Disability Discrimination Act definition of disability (a physical or mental impairment which has a substantial and long term effect on ability to carry out normal daily activities), children 0-18 years with disability have much poorer living circumstances than non-disabled children.[46]

Poor children (those in the lowest fifth for household income) aged 2-15 years in the Health of Young People 1995-1997 Survey (part of the Health for England Survey) were more likely to be reported to have poor or fair general health compared with children in the highest income group.[47] Pakistani and Bangladeshi children, although less likely to report long-standing illness than the general population, were more likely to report poor or fair health.[48]

Iron deficiency anaemia is more prevalent among materially disadvantaged children and those of Indian sub-continental origin.[49] Iron deficiency has been associated with delayed psychomotor development and increased susceptibility to infection.[50] Asthma, initially not thought to be more common among poor children, is twice as likely to be reported by mothers of poor children at the age of three years in the Millenium Cohort Study which follows more than 18,000 children born in the UK in 2000.[51] This association is not due to higher levels of smoking among mothers of poor children and is more marked among those children who were living in poor households at both 9 months and 3 years of age.

A range of other chronic conditions such as chronic otitis media with transient hearing loss (long-standing infection of the middle ear causing deafness)[52] and dental caries (tooth decay) and untreated orthodontic problems[53] have an increased prevalence among poor children.

Poverty, Disability and Physical Health

Poor children do not only have a higher prevalence of chronic conditions but the impact of chronic illnesses on their lives appears to be greater. Asthma severity is greater among children from lower socio-economic status homes and even conditions, such as insulin dependent diabetes mellitus, that do not show a social gradient are associated with more hospital admissions among poor children.[54]

There is a higher incidence of acute illnesses among poor children. Acute infections generally are higher in lower social groups.[55] Duration of poverty in the early years is also increased risk of acute illness.[56] Pneumonia, a serious acute respiratory infection, by the age of five years among children in the 1970 British Birth Cohort demonstrated a social gradient with social class V children having an incidence rate two and a half times that of social class I children.[57] Bronchiolitis, a viral infection of the lower respiratory tract affecting infants and one of the most common reasons for hospital admission, also has a higher incidence among more deprived groups.[58] Tubercular infection among children is on the increase, particularly among ethnic minority children,[59] and, as in the past, the association of TB with poverty is strong.

Poor children are at greater risk of hospital admission for any reason and are more likely to experience multiple admissions before the age of three years.[60] It has been suggested that hospital admission may reflect professional perceptions rather than increased ill health, but the association with deprivation persisted in a study of hospital admission for bronchiolitis when only those children requiring active medical attention were included.[61]

Growth in height, although not in itself an illness, is an important marker of health status and has significant implications for adult health. Adult height appears to be partly determined by growth in early childhood.[62] Among children in the 1958 British Birth Cohort, social class differences in height were already established by seven years of age.[63] A social gradient of approximately 5cm in height attained at 10 years of age between those children living in the most and least deprived areas was reported in Northumberland[64] and a gradient of 2cm between social classes I and V in a national sample at 5–7 years of age.[65] The social patterning of height at age 9-10 years is confirmed in more recent data from the Avon Longitudinal Study of Parents and Children.[66]

Summary

- Cerebral palsy, the most common physical disability affecting children, shows a finely-graded increase with increasing social disadvantage.
- Non-specific chronic and limiting long-standing illness shows a similar gradient and longer periods spent living in poverty are associated with increasing risk.
- Specific chronic illnesses, such as iron deficiency anaemia and asthma, have been shown to be associated with lower socio-economic class and ethnic minority status.
- The impact on children's lives of chronic illnesses, such as asthma and diabetes, seems to be greater among poor children.
- Acute illnesses are more likely to affect poor children and they are more likely to experience hospital admission.
- Growth in childhood shows a finely-graded increase with increasing social advantage.

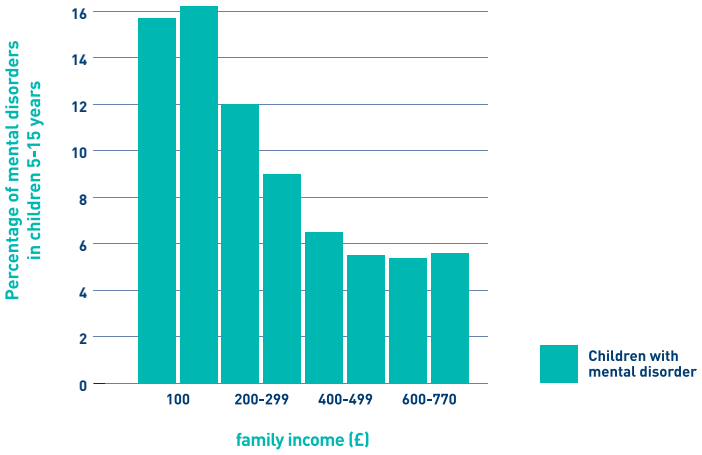
Poverty and the Mental Health of Children and Young People

Mental health problems in childhood are recognised as the major cause of functional disability at all ages of childhood.[67] Poor children are more likely to suffer behavioural and emotional problems throughout childhood.

Figure 3 shows the proportion of children aged 5–15 years with mental disorders by family income group in a Department of Health survey of the mental health of children and young people in Great Britain.[68]

The gradient is particularly striking for boys where there is a three-fold increase in behavioural problems among those in the poorest compared with the richest income groups. Based on the findings of this study, if all children had the same risk of mental disorder as the highest income groups, then there would be 40.6 per cent fewer mental disorders, 59.3 per cent fewer conduct disorders (anti-social behaviours), 53.7 per cent fewer hyperkinetic disorders (ADHD) and 34.4 per cent fewer emotional disorders. Similar gradients have been demonstrated in Canadian[69] and Swedish[70] studies. Social differences in behavioural problems emerge early in childhood and are well established by the age of three years.[71]

Figure 3: Mental disorders in children aged 5–15 years by weekly household income



Source: H Meltzer *et al The Mental Health of Children and Adolescents in Great Britain*, The Stationery Office, 2000

Conduct disorders are most strongly socially patterned, but psychiatrically diagnosed conditions such as attention deficit hyperactivity disorder (ADHD) also show an association with deprivation. Similar findings have been reported in the USA.[72] Enuresis (bed wetting), one of the most common behavioural and developmental problems of childhood, is more common among children from poorer homes.[73]

Among older children and adolescents the social gradient in mental health problems, particularly conduct disorders, remains strong. One of the most distressing consequences of mental health in young people is suicide. Suicides are most common among males and it is among young males that the social gradient is most marked.[74]

Self-harming behaviour is remarkably common even among children aged 5–10 years: 1.3 per cent are reported to have attempted to harm, hurt or kill themselves.[75] A social gradient is reported among 5–10-year-olds with 2.6 per cent of social class V children harming themselves compared with 0.9 per cent of social class I children. The social gradient is less marked among young people aged 10–15 years.

Poverty and the Mental Health of Children and Young People

Parenting is the common factor by which many child mental health problems are thought to be mediated.[76] Parenting is not some innate quality but is strongly influenced by social circumstances. Socio-economic disadvantage, acting through increased marital conflict, poorer material environments and higher levels of parental mental health, and chronic stress, adversely affects child rearing.[77] The factors such as debt[78] and maternal depression[79] that impair parenting are themselves socially patterned. A Canadian study reported that 22 per cent of children in the lowest income group lived with a depressed parent and 12.5 per cent with a chronically stressed parent compared with 6 per cent and 3.5 per cent among children in the highest income group.[80]

Marital conflict and dissension within families is associated with poorer mental health among children and into adulthood and is increased among families with economic difficulties.[81] These families are more vulnerable to marital breakdown and divorce resulting in many children being brought up in lone-parent families.[82] Lone parent-families are heavily represented among those in poverty.[83] Teenage parenthood is closely associated with lone parenthood and girls in social class V households are 10 times more likely to become teenage mothers than those in social class I households.[84]

Child abuse and neglect lie at the extreme end of the effects of parenting failure. It has been suggested that the social patterning of child abuse and neglect reflects the greater surveillance of poor families. However, there is powerful evidence to suggest that the social patterning of child abuse and neglect is related to the effects of social circumstances on parents and their ability to parent effectively.[85] Poor children were more likely to be on the child protection register than more privileged children in two UK studies.[86 87]

Poor children are also much more likely to be taken into care with all its major implications for child mental health. It is estimated that a child in a lone-parent family receiving state benefit with four or more children and living in private rented, overcrowded accommodation has a 1 in 10 chance of admission to care compared with a 1 in 7,000 chance for a child in a family with none of these adverse factors.[88]

Summary

- There is finely graded increase in childhood behavioural and emotional problems with increasing social disadvantage.
- The prevalence of specific conditions, such as ADHD and bed wetting, is higher in poor children.
- Suicide among boys is strongly socially patterned. Self-harming behaviour in younger children is socially patterned.
- Parenting, a major mediating factor in child mental health, is strongly affected by adverse social conditions and specific factors such as debt and depression are more common among poor parents.
- Child abuse and neglect appear to be more common among poor families, possibly related to the adverse effects of poverty on child rearing.

Poverty and Health-Related Behaviour in Childhood and Adolescence

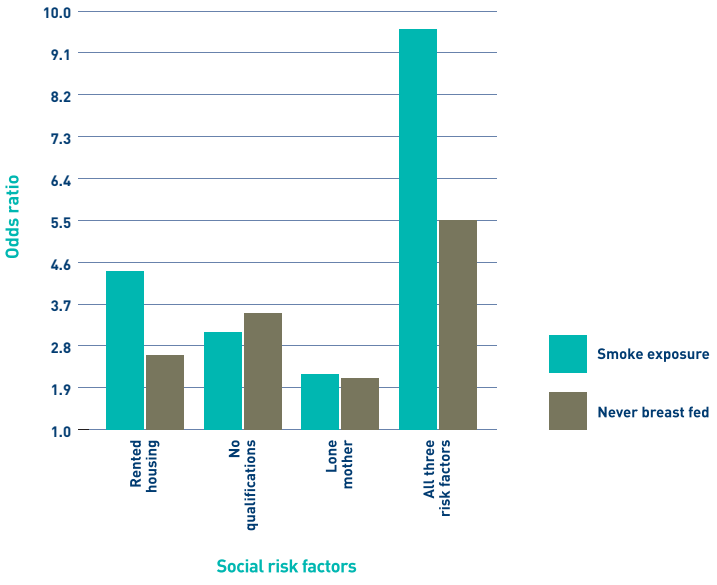
Social patterning of behaviour known to have an influence on the health of children and young people starts at birth with the rate of breastfeeding decreasing with increasing social disadvantage[89] and the risk of passive smoke exposure increasing with increasing social disadvantage.[90]

Ninety-one per cent of social class I women breastfeed compared with 57 per cent of social class V women and 54 per cent of women with no partner who were not classifiable by the Registrar General's social class. However, unclassified women who have started breastfeeding are more likely to be still breastfeeding at six months than all other groups except those in the higher occupational group. In a representative sample of smoking households in the West Midlands with infants aged two-three months, household cigarette consumption and infant tobacco smoke exposure increased with decreasing household income.[91]

Social risk factors tend to cluster together. The effect of clustering of adverse social risk factors on feeding method and smoking in infant households is shown in Figure 4.[92] The risk of smoke exposure and never breastfeeding increases greatly when all three social risk factors are combined.

Nutritional inequalities related to poverty occur throughout childhood. Intakes of vitamins, minerals and dietary fibre and consumption of vegetables and fruit are much lower and consumption of white bread, processed meat and sugar are higher in poorer households compared to those that are more affluent.[93]

Figure 4: Risk of smoke exposure and never breast feeding by social factors



Source: Spencer NJ and Coe C. Unpublished data from the Coventry Cohort Study

Poverty and Health-Related Behaviour in Childhood and Adolescence

Among young people, behaviour that will influence their health in adulthood becomes established and these show social patterning. Thirteen per cent of boys and 14 per cent of girls are regular smokers (at least one cigarette a week) by the age of 15 years and levels are higher among young people in social class V compared with social class I households.[94] Heavier smoking is also more common among 15–year-olds from lower social class groups.[95] Based on the same study of young people in Glasgow, although alcohol consumption varied little by social class, frequency of being drunk increased with increasing disadvantage.

Overall illegal drug usage among young people shows little social gradient but more hazardous drug usage, such as intravenous injecting, is associated with social disadvantage and high levels of unemployment.[96]

Teenage parenthood is frequently characterised as a health hazard but evidence suggests that poverty associated with being a teenage parent accounts for the differences in health outcomes for the parents and their children.[97] The UK has the one of the highest rates of teenage births in the rich OECD nations[98] and rates are highest in those countries with high levels of educational inequality.[99]

Summary

- Breastfeeding is strongly socially patterned.
- Socially disadvantaged infants, children and young people are much more likely to be exposed to high levels of cigarette smoke than more privileged children.
- Children and young people's consumption of healthy foods decreases and unhealthy foods increases from social class I to social class V.
- Regular smoking is more common in young people in social class V compared with those in social class I and lower social class young people are likely to be heavier smokers.
- Alcohol consumption and illegal drug use show little social gradient but heavier drinking is more common among disadvantaged young people and more hazardous drug use is linked to poverty and unemployment.
- Teenage parenthood is strongly socially patterned.

Poverty, Educational Attainment and Children's Health

The educational attainment of a child's parents, particularly the mother, is recognised as one of the most powerful predictors of child health in both developed and developing countries.[100] Education appears to strengthen practices and behaviour conducive to child health. Access to education in many countries, including the UK,[101] is influenced by family income.

Children living in poor areas have much lower levels of educational attainment[102] and earlier research indicates that low educational attainment is already established at age seven.[103] By the age of 23 years educational attainment retains its association with social class at birth (see Table 4).[104]

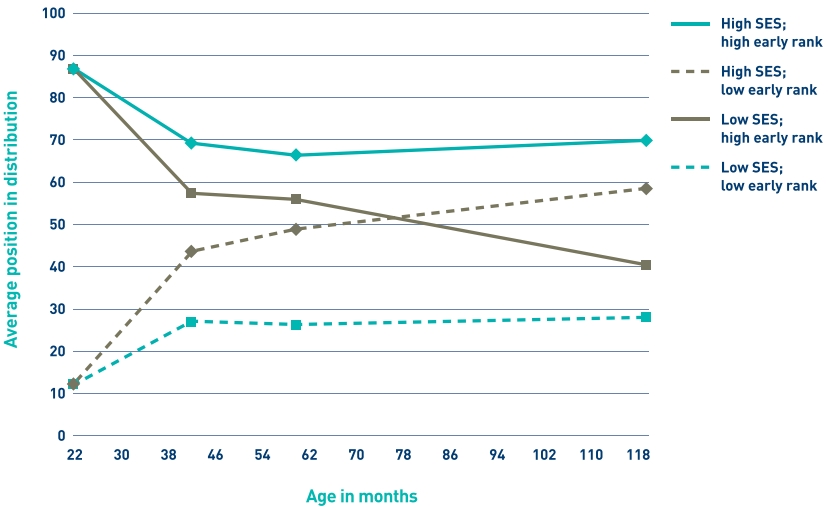
The now familiar social gradient is striking for both sexes. Part of this effect is likely to relate to limited educational opportunities and different attitudes to education among social classes. However, part of the effect is likely to be explained by the effect of poverty on cognitive ability. There is now good evidence that poor social circumstances have a detrimental effect on children's cognitive ability with the result that the gap between children from poor compared with rich homes increases as they go through school with those in the deepest poverty falling furthest behind.[105] In the UK, children from low socioeconomic backgrounds who score in the top fifth on cognitive testing at 22 months tend to move down to the bottom two fifths by the age of 118 months and are overtaken by the children from high socioeconomic backgrounds who score in the bottom fifth at 22months (see Figure 5)

Table 4: Social class at birth and no qualifications at age 23 years

Social class at birth	% males with no qualifications at age 23 years	% females with no qualifications at age 23 years
Social classes I and II	5.2	3.7
Social class III (Non-manual)	10.0	7.6
Social class III (Manual)	14.7	15.6
Social classes IV and V	27.9	25.6

Source: C Power and C Hertzman, 'Health, Well-being and Coping Skills, in D P Keating and C Hertzman (eds) *Developmental Health and the Wealth of Nations*, The Guilford Press, 1999, p45

Figure 5: Average rank score by socioeconomic status (SES) of parents and early rank position on cognitive testing



Source: Feinstein L. Inequality in the early cognitive development of British children in the 1970 cohort. *Economica* 2003;70:73-98

Summary

- Educational attainment in early childhood and into adulthood shows a finely graded increase with increasing social class.
- UK studies show social circumstances in early childhood have a more persistent influence on attainment than early cognitive test scores.

Conclusion

Poverty and low socio-economic status have a profound effect on child health. Infants of poor women are at a disadvantage before they are born and are more likely to be stillborn or born too early or too small. They are more likely to die within the first week of life and in infancy.

If they survive the first year of life, they are at increased risk of dying throughout childhood and adolescence. Poor children are more likely to suffer disability and chronic illness and more likely to be admitted to hospital during childhood. They are also more susceptible to acute illnesses. Poor children are more likely to experience mental health problems and to suffer the consequences of parenting failure associated with chronic stress, debt and depression induced by economic disadvantage. Education can act as a buffer against physical and mental illness in childhood but poor children's educational chances are also adversely influenced by their social circumstances.

Children from minority ethnic communities are at increased risk both of poverty and some, but not all, of the adverse health outcomes associated with it. This is likely to result from the double jeopardy associated with poverty and the additional experience of racism.

Many of the adverse health outcomes discussed increase in a finely graded stepwise fashion with increasing social and material disadvantage. These gradients suggest that the effects of social circumstances on children's health are not confined to the poorest groups in society but are patterned by social factors across the spectrum. Social factors have a profound effect on child health and improvements in child health are likely to require active intervention at the social and economic policy level.

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