national STATISTICS

The health of children and young people

Chapter 8

Social inequalities

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Introduction

From the late 1970s onwards income inequality and poverty rose very sharply in Britain. Families with children were particularly affected and increasing numbers of children grew up in poverty.[1] At the same time, there was substantial evidence of inequalities in health in the population in general and among babies and children in particular.[2–9] From the late 1990s onwards, the government introduced policies aimed at reducing child poverty and inequalities in health. [10–18] By 2003, there were signs of a decrease in child poverty, according to some markers.[19–22]

This chapter provides an overview of social inequalities in the health of babies and children from 1991 to 2000 and of factors associated with these, updating the information given in earlier publications.[6–9, 23, 24] Inequalities in mortality are described and discussed in Chapter 9. Together they explore the evidence for a widening or narrowing of socio-economic inequalities in health and briefly draw together data about inequalities in some specific health conditions covered in detail in other chapters. Inequalities in mental health are covered within Chapter 12.

After defining the data sources and measures of inequality used, this chapter describes trends in the socio-economic and demographic characteristics of women having children. It sets them in the context of longer term trends and adds further detail to some of the information given in Chapter 1. In doing so, it sets the scene for describing inequalities in the outcome of pregnancy, health and illness and health-related behaviour and, where possible, trends in inequalities over the decade.

Definitions and data sources

Data sources

Most of the data available about the inequalities in the health of children come from surveys and vital registration as information about socio-economic data is recorded in only a few of the datasets which relate to the use of health services. The General Household Survey monitored self-reported ill health and the use of health services throughout the decade, except in 1997 and 1999, when the survey was suspended.[25] From 1991 onwards, the Health Survey for England collected more detailed data on health but its focus shifted from year to year. As a result, in most years, the numbers of children in the sample are relatively small. For this reason most of the data in this chapter come from two special reports. One focused on the health of children and young people in the three years 1995–1997[26] after an enhanced sample of children was taken in 1997. Another focused on the health of minority ethnic groups, based on an enhanced sample taken in 1999.[27] A further enhanced sample of children was surveyed in 2002, beyond the time frame of this chapter.[28]

Children under the age of two were not included in the Health Survey until 2002 and even when they were, the numbers were small.[28] A limited amount of information about inequalities in the health of babies in the first year of life and their mothers can be derived from the five-yearly infant feeding surveys.[29–30] Most of the data about babies are therefore derived from birth and death registration.[31, 32] These records contain no information explicitly about health, but birth registration data include information about birthweight which has many associations with the babies' immediate and long term health. Data are also recorded about parents' socio-economic position. A limited amount of data have also

been derived from the ONS Longitudinal Study, a linked one per cent sample of the population. This brings together information about events to people born on one of four selected days in any year. In this dataset, information about babies can be related to their mothers' socio-economic circumstances as recorded in the population censuses.[33]

Although some data about mental health are recorded in the Health Survey for England, much more detailed data were compiled in a series of surveys of psychiatric morbidity, one of which focused explicitly on children.[34]

Measuring inequality

Monitoring associations between the changes in child poverty and income inequality described in Chapter 1 and inequalities in health is far from straightforward. Many datasets relating to health contain no income data. Even where they do, this may not be directly comparable with the ways in which income is recorded in surveys designed to monitor income inequality and poverty. This reflects the lack of consensus about whether relative or absolute poverty is being measured and whether individual or household incomes are being measured.[19] In an attempt to resolve these issues, the Department for Work and Pensions undertook a consultation in 2002.[35] It then announced in 2003 that it would adopt a 'tiered approach' and develop a new measure of child poverty based on absolute low income, relative low income and a combination of material deprivation and low income.[36]

Meanwhile, most classifications used in analyses of health inequalities are based on the socio-demographic characteristics of individuals. This chapter is based on those in use in the 1990s. In many cases, there have been major changes from 2001 onwards.

Social class and socio-economic group

The best known of these classifications is the Registrar General's Social classes, first derived for use in 1911 and taking essentially the same form from 1921 until 2000. From 1991 to 2000, the Standard Occupational Classification for the 1991 census was used to derive people's social class from their occupation and employment status.[37] The armed forces and people who could not be classified formed three residual groups, which were usually combined in published analyses. This aggregated group is far from homogenous, but small numbers make it impractical to consider more refined groups. In some analyses, the classes are aggregated into non-manual classes, Social Classes I, II, IIIN and the manual classes, Social Classes IIIM, IV, V.

In the General Household Survey and some other surveys, a different classification of occupations into socio-economic groups, was used up to 2000.[25] In this chapter, the socio-economic groups are aggregated into non-manual and manual groups, because of the relatively small numbers of children surveyed. In 2001, these two classifications were replaced by a new classification, the National Statistics Socio-economic Classification (NS-SEC).[38–40]

When classifying children by social class, decisions have to be made about which parent's occupational information should be collected and used, at least in those cases where a choice is available. In most official surveys undertaken up to 2000, the socio-economic group used in tabulations and analyses was that of the 'head of household', defined as the member of the household responsible for the accommodation or the husband of that

person or, if responsibility was shared between members of the same sex, the older of the two.[41] From 2000 onwards, this was replaced by the 'household reference person', defined as the member of the household responsible for accommodation, or if responsibility was joint, the person with the highest income and where this involved two people with equal incomes, the older of the two.[42] The NS-SEC was used from 2001 onwards.[43]

For analyses of vital registration data, the availability of data is constrained by registration laws. All births, whether live or stillbirths, must be registered by the parents or another suitable informant. Births outside marriage can be registered either jointly by both parents, usually referred to as a 'joint registration' or by the mother alone, known as a 'sole registration'. Births inside marriage or jointly registered by both parents outside marriage are grouped together in some analyses in this chapter and described as 'couple registrations'.

Traditionally the father's occupation was recorded because it reflected the view that a married woman's socio-economic standing was determined by her husband's occupation.[44,45] Women were also much less likely to be in the formal workforce[46] and may have changed their occupational status around the time of childbirth.[47] Therefore, before 1986, only the father's occupation was recorded at registrations within marriage and joint registrations outside marriage and the mother's occupation was recorded only at sole registrations. Since 1986, all mothers have been asked their occupations at birth registration, but it remains unstated for the majority of births. This means that any analyses by mother's social class are difficult to interpret.[9, 39, 44, 45] As a result, most social class analyses of the health of babies and children use the father's occupation and exclude sole registrations from the analyses.

Although information about parents' occupations is sought for all birth registrations, only 10 per cent of live birth records have occupation coded by ONS. This means that any analyses relating to social class at birth are based on only 10 per cent of live born babies. All other data items recorded at birth registration are fully coded.

Ethnic origin and country of birth

The classification of ethnic origin devised for the 1991 census was introduced into other systems during the 1990s. The 1991 census was the first in which a question on ethnic origin was asked in England, Wales and Scotland.[48] The design of the question and its form was revised for the 2001 census and further revisions have been subsequently undertaken to incorporate the concept of national identity.[49]

At birth registration, the parents' countries of birth, but not their ethnic origins, are recorded. For many years, this was used as an increasingly unsatisfactory indicator of ethnic origin. With increasing interest in possible differences between the health of children born to second generation parents and those of new migrants, it is now recognised that the information has value in its own right as a measure of migration status, particularly when used in conjunction with ethnic origin. However, none of the data available for this chapter are based on analyses using these two items in combination.

Parents' level of education

In some countries, such as the United States, parents' levels of education, usually the mother's are frequently used as socio-economic indicators in analyses of babies' and

children's health. There is no consensus as to how this information should be recorded or whether it should relate to the person's age on leaving full time education or the level of education attained. The Infant Feeding Surveys record the mother's age on leaving full time education,[29, 30] while the main purpose of the education question in the population census is to ascertain how many people have higher qualifications.

Classifications of geographical areas

From 1960s onwards, techniques have been developed for grouping together small areas, such as electoral wards, which have similar characteristics. These either use cluster analysis or aggregate variables based on factors such as low owner occupancy, high proportions of manual workers and high unemployment to derive scores or 'deprivation indices'. Three indices, the Jarman index,[50–51] the Townsend index[52] and the 'Depcat' or 'Carstairs index'[53] were developed in the early 1990s, using data from the 1991 census. Towards the end of the 1990s, indices drawing on a much wider range of data were constructed in each of the four countries of the UK. The analyses presented in this chapter are for England and use the Indices of Deprivation 2000.[54]

Socio-demographic inequalities in births

Trends in social class and registration status

The proportion of live births which were sole registrations rose from 4.6 per cent in 1975 to 7.8 per cent in 1988, but there was little change between 1991 and 2000. In 2000, sole registrations accounted for 7.6 per cent of all live births (Table 8.1). Despite this, the trend towards birth outside marriage continued. The percentage of births which were jointly registered outside marriage reached 32.7 in 2000, having risen from 4.2 per cent in 1975 to 22.5 in 1991.[24, 31] Parents who gave the same address at birth registration accounted for most of this rise.

For couple registrations, there was an increase in the proportion of live births to fathers in non-manual occupations, from 37.4 per cent in 1991 to 42.8 per cent in 2000 (Table 8.1). Over the same period, there was a corresponding decrease in the proportion born to fathers in manual occupations. A more detailed analysis of individual social classes showed that the relative increase in births in the non-manual group was due to an increase in births to fathers in Social Classes I and II and a decrease in Social Class IIIM. In 1991, the proportion of live births with fathers in Social Classes I and II, rose by 19 per cent from 28.6 per cent in 1991 to 34.0 per cent in 2000. A decrease of 19 per cent, from 32.7 per cent in 1991 to 26.5 per cent in 2000, was seen in Social Class IIIM. Interpreting the increasing proportion of births to men in non-manual occupations is not straightforward. It could reflect changes in fertility, but it may also reflect changes in occupations, such as the expansion in the computing and related occupations and the decline in manufacturing and other related industries.

Among mothers of sole-registered births, about a third had occupations which could be coded to a social class (Table 8.2). This proportion increased marginally between 1991 and 2000, mainly in Social Class II. The remainder fell into the 'other' category of social class, either because they gave insufficient information about their employment, or they gave no occupation possibly because they were not in regular paid employment. As shown later, this group of mothers is relatively young, which may explain why so few of them had an occupation stated.

Mothers' countries of birth

When a baby's birth is registered, both parents' places of birth are recorded, unless it is a sole registration, in which case only the mother's place of birth is recorded. For this reason, most analyses are based on the mothers' countries of birth (Table 8.3). The percentage of babies with mothers born outside the UK, which had risen during the 1970s and declined during the 1980s, increased during the 1990s from 11.7 per cent in 1991 to 15.5 per cent in 2000.

As in the previous decade, the numbers of live births to women born in the Caribbean Commonwealth and India continued to fall and the numbers to women born in Bangladesh, continued to rise. The numbers to women born in Pakistan, which had fallen during the 1980s, rose during the 1990s. The number of births to women born in East Africa, many of whom are likely to be of South Asian origin, declined, while numbers to women born in other parts of Africa rose. A new feature in the 1990s was the rising numbers of births to women born in European countries outside the European Union, notably countries in Eastern Europe and the former Soviet Union.

It was not routine practice to record ethnic group in official NHS systems at the beginning of the 1990s. Where it was recorded, a wide range of classifications was used so there are no data on trends in births by parents' ethnic group.

Mothers' ages

Between 1991 and 2000, the proportion of births to women aged 20 to 24 and 25 to 29 fell, but the proportion in the 20 to 24 age group did not change between 1998 and 2000 (Table 8.4). There was some increase in the proportion of births to women aged 30 to 34 and the proportion of births to women aged 35 and over almost doubled. The proportion of live births to teenage mothers reached a low point in 1994, but increased again from 1995 to 2000, when it was slightly higher than in 1991. These patterns can be seen among sole registrations, where there are far higher proportions of mothers in the younger age groups.

The age distributions of mothers of sole and couple-registered births varied (Table 8.4). In 2000, over 25 per cent of sole-registered births were to teenage mothers compared with six per cent of couple-registered births. Over half of sole-registered births were to mothers under 25 compared with less than one quarter of couple-registered births. In contrast, over 17 per cent of couple-registered births were to mothers aged 35 and older compared with less than 10 per cent of sole-registered births.

In summary, the increasing proportion of births to teenage and older mothers is evident for both couple and sole registrations, although the changes over time in the distribution of mothers' ages were more marked for couple registrations. These patterns reflect both changes in the numbers of women in each age group in the population and the trends towards older ages at childbirth referred to in Chapter 1. As shown in Chapter 9, the increasing proportion of births to teenage and older mothers is important since rates of infant mortality and low birthweight are particularly high among these age groups.

Within couple registrations, it is clear that the age distribution of mothers varies considerably according to the social class of their husband or partner. Fathers in non-manual classes tend to have older partners than manual classes (Table 8.5). In 2000, under one per cent of births

to women with partners in Social Class I were to teenage mothers, compared with 15 per cent of births to teenage mothers with partners in Social Class V. At the other end of the age spectrum, over a quarter of mothers with partners in Social Class I were aged 35 or over, compared with just over a tenth of those with partners in Social Class V.

There were social class differences in the considerable rise in the age at childbirth from 1991 to 2000. The mean age of mothers at live birth increased between 1991 and 2000, regardless of the social class of the woman's partner, but the increase was greater for women with husbands or partners in non-manual occupations.

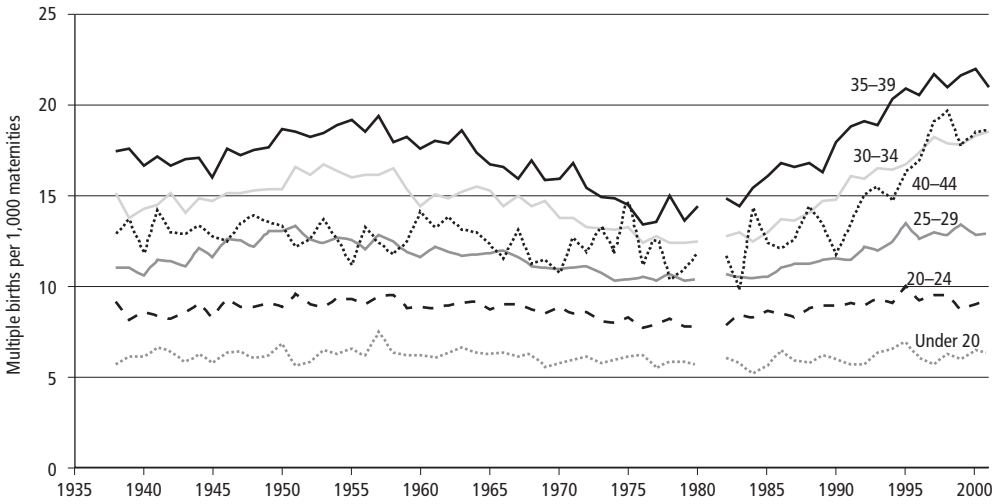
Multiple births

The proportion of maternities involving twins, triplets or more has been rising steadily since the mid-1970s (Figure 8.1). The rise has been restricted to pregnancies among women aged 25 or over, although the increase in maternities to women aged 25 to 29 was relatively small compared to that among women aged 30 or over. These trends continued during the 1990s and were particularly marked among women aged 40 to 44, and among the very small numbers of maternities to women aged 45 and over, among whom the increase was too large to show on the graph. The rising age at childbirth will have contributed to the overall increase, but ovarian stimulation and assisted conception are likely to account for most of the rises observed within each age group. Unfortunately, as in other European countries, the inadequacies of data available on ovarian stimulation and assisted conception make it impossible to assess their contribution to the increases observed.[9, 55, 56]

Figure 8.1

Multiple birth rates by mother's age group, 1938–2001

England and Wales



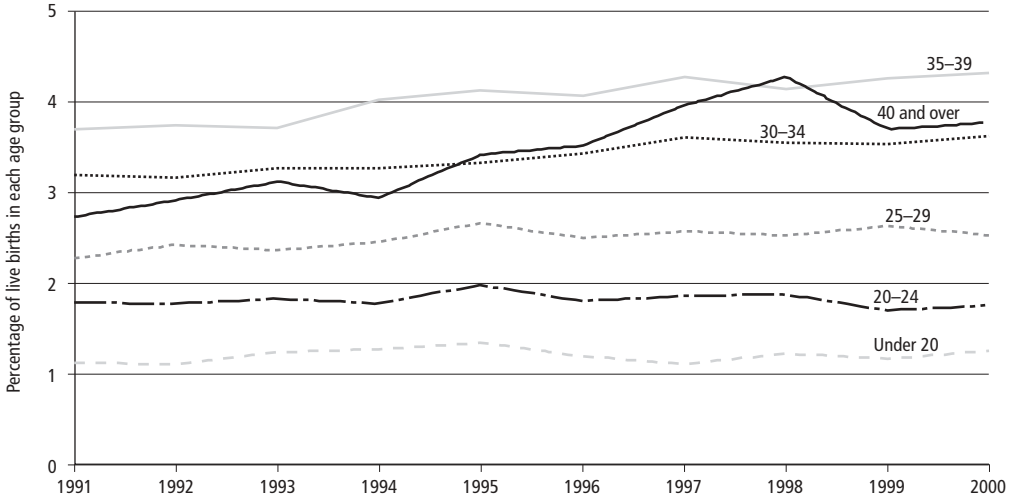
Sources: ONS Birth Statistics, Historical Series and Series FM1

The impact of these changes can be shown in terms of the percentages of live births during the 1990s who were from multiple births (Figure 8.2). This shows that by 2000, around four per cent of live births to women aged 35 to 39 years and 40 years and over, respectively, were from multiple births compared to just over one per cent of live births to teenagers.

Figure 8.2

Percentage of live births that were multiple births by mother's age group, 1991–2000

England and Wales



Source: Unpublished analysis of ONS Birth statistics

Social inequalities in birthweight and gestational age

Babies' birthweights and gestational ages are key indicators of the outcome of pregnancy, even though there can be considerable differences between the health and well-being of babies born at the same stage of pregnancy. Babies born with a low birthweight as a result of being born too soon or too small and also the largest babies are at greatest risk of having immediate and long-term health problems. As shown in Chapter 9, the smallest babies are the most likely to die in the first weeks and months of life. They are also the most likely to have health problems in childhood, adolescence and as adults,[57–62] although high birthweight may also have negative health consequences.[63, 64] This is why more attention has been given to the extremes of the birthweight distribution than to mean birthweights.

The World Health Organisation (WHO) defines birthweight as 'the first weight of the fetus or newborn obtained after birth' and low birthweight as a weight of less than 2,500g.[65] According to WHO criteria, only babies weighing at least 500g and born after at least 22 completed weeks of gestation should not be included in perinatal mortality statistics, but it is not made clear whether one or both criteria should be satisfied.[65] As gestational age is not recorded at birth registration in England and Wales, all non-missing birthweights were included in the analyses presented in this chapter and Chapter 9. This includes birthweights of less than 500g and 5,500g and over, which are mostly thought to represent errors in measurement or recording. They form only a tiny proportion of live births and the tabulations are almost unchanged when birthweights of under 500g and 5,500g and over are excluded.

Trends in low birthweight from 1989 to 1994 should be interpreted with care, as changes within the Office for Population Census and Surveys, now known as the Office for National Statistics, procedures for obtaining missing birthweight data were dropped and up to four per cent of birthweights of babies born in these years are missing. The procedures were reinstated in 1995 and the percentage of missing birthweights dropped to 0.35 per cent.[9]

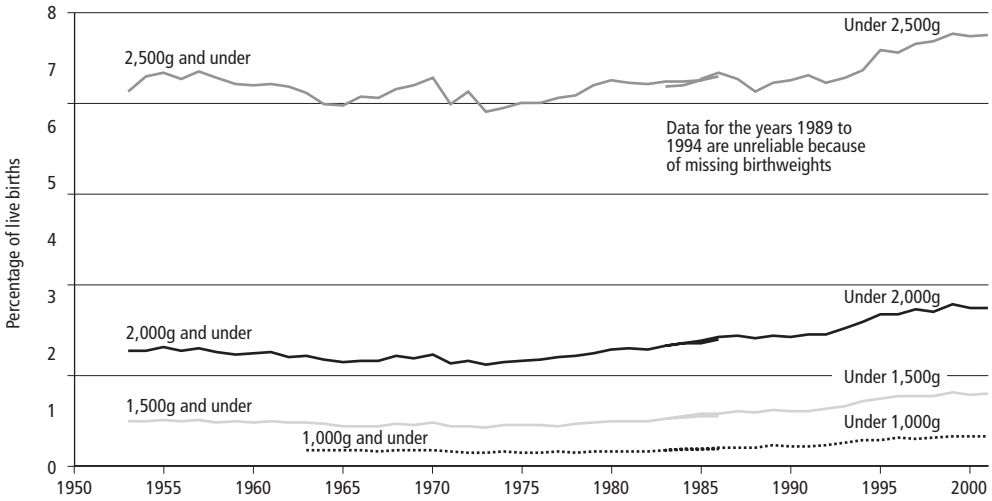
For operational reasons, data from some specific parts of the country were particularly likely to be missing between 1989 and 1994. Birthweight was more likely to be missing for babies with younger mothers and fathers in manual social classes or where the birth was multiple.

As a result, there was a dip in the reported incidence of low birthweight during these years (Figure 8.3). This means that any analyses restricted to the 1990s may exaggerate the rise in the percentage of low birthweight during the decade, although there was a marked rise from 1996 to 1999, in line with longer term trends. Data about low birthweight from 1953 to the mid 1980s were collected via summaries known as LHS 27/1 returns received from local authorities and health authorities. These were derived from birth notification data, using the earlier definition of low birthweight as being 2,500g and under.

Figure 8.3

Incidence of low birthweight, 1953–2001

England and Wales



Sources: LHS 27/1 low birthweight returns and ONS Mortality statistics
Birth counts, Tables A3.4.1 and A3.4.2

Birthweight and father's social class

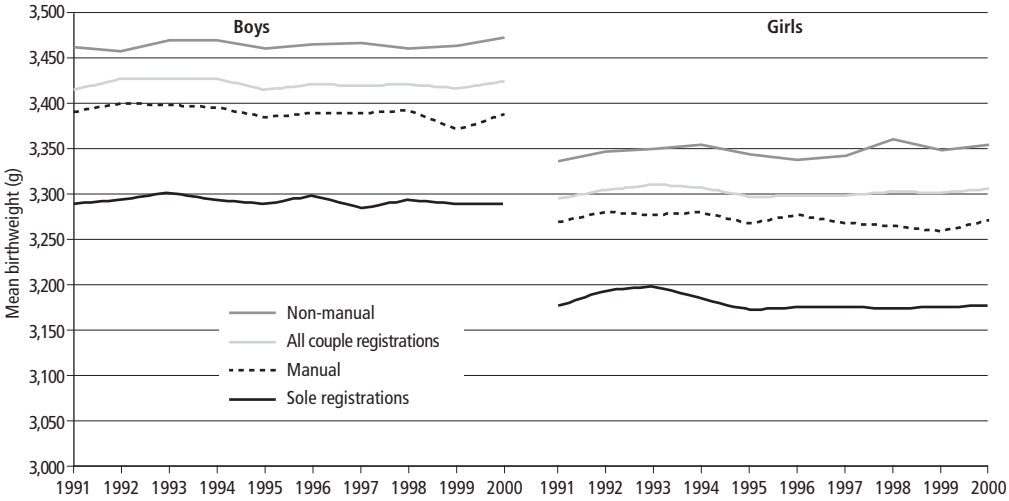
To avoid biases, multiple births were excluded from the analyses of mean birthweight by father's social class (Figure 8.4). This shows that, on average, boys are heavier than girls. Within each sex, babies with fathers in non-manual occupations were heavier than those in manual occupations. These were in turn heavier than babies registered by the mother on her own. There were no consistent changes in mean birthweight during the period 1991 to 2000 in any of the social classes.

Basing conclusions only on the mean ignores changes in the tails of the birthweight distributions, notably the longer term increase in incidence of low birthweight shown in Figure 8.3. An analysis of data for England and Wales from 1993 to 2000, showed an increasing incidence of low birthweight among all live births and also among singletons alone, although it did not say what account was taken of the missing birthweights in 1993 and 1994.[66] It showed that the inequalities between the incidence of low birthweight among babies with fathers in non-manual and those with fathers in manual occupations persisted over this time period, as did the differences between sole and couple registrations. The

Figure 8.4

Mean birthweight of singleton births by sex and father's social class, 1991–2000

England and Wales



Source: Unpublished analysis of ONS statistics

incidence of low birthweight was highest among sole registrations. It was higher among babies with fathers in manual occupations than among those with fathers in non-manual occupations.

Ethnic group and country of birth

Although parents' ethnic groups are not recorded at birth registration, mothers' ethnic groups are recorded in the Hospital Episode Statistics for England.[67] As this item is often missing and there are questions about its reliability, ethnic groups were combined in Table 8.6. This shows marked differences in the birthweight distributions of babies born to mothers classified as Asian, Black and White, with the Asian babies being the lightest and the White babies being the heaviest.

Inequalities in mean birthweight were studied using special analyses by ethnic group using data from the ONS Longitudinal Study.[68] For these analyses, ethnic group was taken to be that of the mother recorded at the 1991 census and any birthweight less than 100g were excluded, as it was assumed to be an error.

Table 8.7 shows that over 90 per cent of all births from 1991 to 1998 to women in the Longitudinal Study were to White women, two per cent were to Black women, six per cent to Asian women and one per cent to women from other ethnic backgrounds. In each year, the mean birthweight was highest for babies born to White mothers. There was little difference between the mean birthweights of babies with mothers of Black and Asian backgrounds. The mean birthweight remained stable over the eight-year period for all ethnic groups except those in the 'other' category. In this group, the mean birthweight appeared to decrease substantially, although the number of births was small. Further investigation would be required to explain this using finer categories of ethnic group and a larger sample size.

Similar patterns can be seen in Table 8.8, which shows low birthweights of live births in 2000 tabulated by the mother's country of birth. This shows that the percentage of low

birthweights is much higher among women born in the Caribbean Commonwealth, India, Pakistan, Bangladesh and Africa (excluding Southern Africa) than among women born in the UK, Ireland, or Western Europe. Among women born in the 'Rest of Africa', which in practice means West Africa, the incidence of very low birthweights, that is weights under 1,500g, was particularly high. The same was true to a lesser extent of babies whose mothers were born in the Caribbean Commonwealth.

Birthweight and mothers' ages

The incidence of low birthweight in babies born to mothers of all ages, except those aged 35 to 39 years, rose over the decade (Table 8.9). The increases were most marked among babies born to women in their twenties. They continued after 1995, so were not simply an artefact of the missing birthweights in the early part of the decade. As in previous decades, the incidence of low birthweight was highest among babies born to mothers in their teens or their forties and lowest for those born to mothers aged 25 to 34 years.

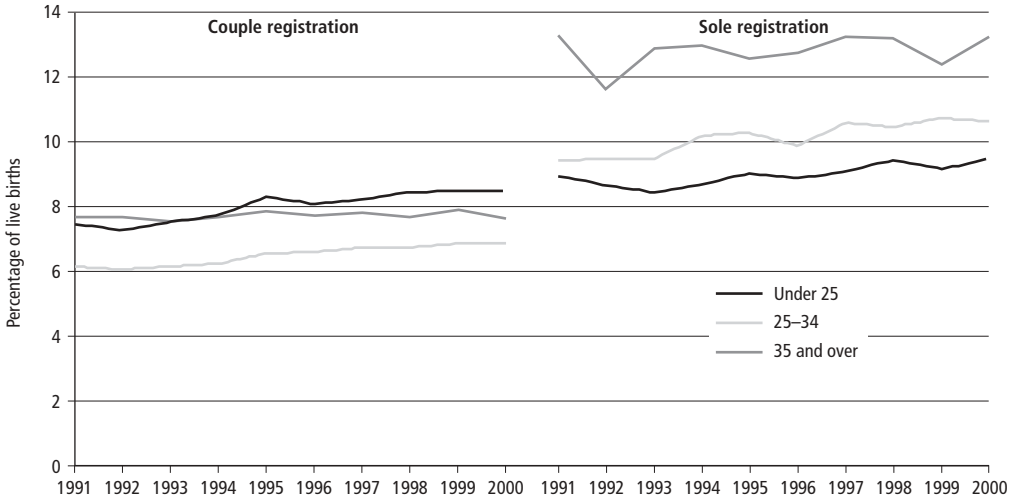
Although the proportions of babies weighing 4,000g or more increased during the 1980s in England and Wales and also in Scotland, they levelled off during the 1990s.[24, 69, 70]

Wider age bands were used when looking at couple and sole registrations separately (Figure 8.5), due to the smaller number of births in each category of sole registrations. The relationship between the incidence of low birthweight and mothers' ages was different for sole registrations. In each age group, the incidence of low birthweight was higher for sole registrations than for couple registrations, but the differences were relatively small for

Figure 8.5

Percentage of live births with birthweights under 2,500g by age of mother and registration status, 1991–2000

England and Wales



Source: Unpublished analysis of ONS statistics

women aged under 25. The gap was widest for babies born to women aged 35 and over. A possible explanation for this is that mothers who register the birth alone have greater levels of deprivation in the older age groups compared with couples.

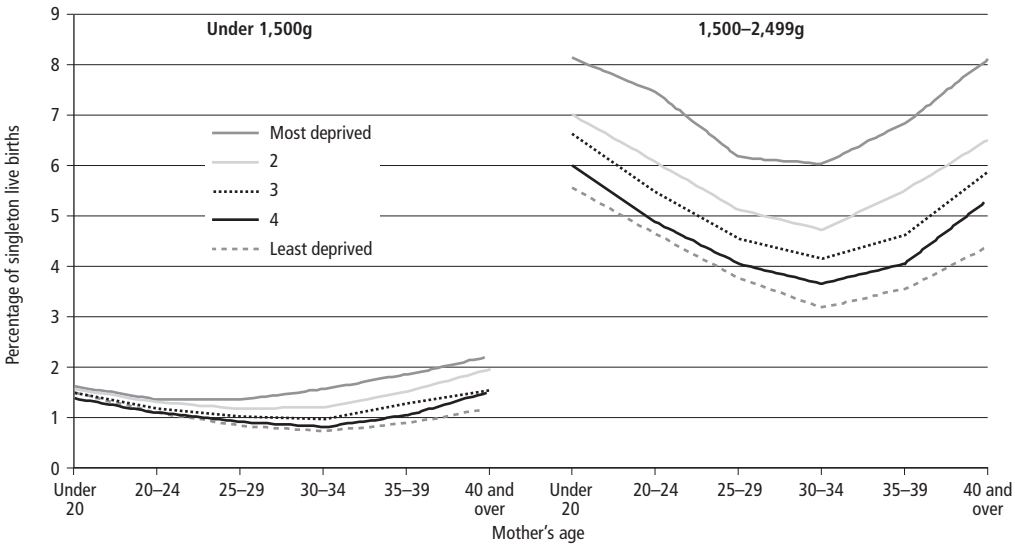
Area variations in low birthweight

The percentage of low birthweights in the five-year period from 1996 to 2000 was tabulated by the Indices of Deprivation 2000 developed at the end of the 1990s for classifying electoral wards and other areas. Like the earlier analyses published by the Office for National Statistics (ONS) and others,[71–73] Figures 8.6 and 8.8 show higher percentages of singleton low birthweights in most deprived areas.

Figure 8.6

Percentage of low birthweight among singleton live births by mother's age and deprivation quintile, 1996–2000

England and Wales



Source: Unpublished analysis of ONS statistics

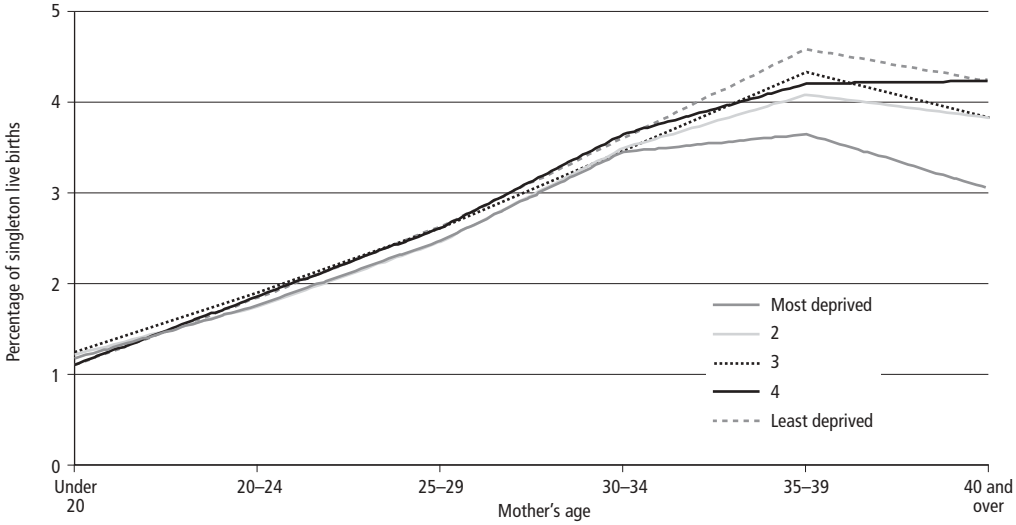
Figure 8.6 shows the percentages of births with birthweights under 1,500g and from 1,500 to 2,499g by mother's age for each deprivation category. For birthweights under 1,500g, there is little difference between the percentages in each population quintile for younger women, but much wider gaps for older women. The percentage of all live births which were multiple shows some similarity in pattern to that for births under 1,500g, although differences between the quintiles are apparent only for women aged 35 years and over (Figure 8.7). This could be associated with differences in access to ovarian stimulation and assisted conception, as the extent to which it was available under the NHS varied widely. In contrast, the percentages of singleton babies weighing 1,500–2,499g shown in Figure 8.6 vary by quintile for women of all ages, but the differences within each quintile show a common overall pattern.

Aggregated analyses which compare areas but ignore differences between people within areas of each type can mask differences between categories of people living within similar areas. An earlier analysis using the Carstairs score showed that within each of the categories, the percentage of low birthweight babies varied according to the social class of father in the usual way.[73] Figure 8.8 shows differences by registration status within each population quintile in the percentage of low birthweight singleton births. Joint registrations are subdivided into those where the parents give different addresses, which show greater affinity with sole registrations and those where the parents give the same address, which are closer to babies born within marriage.

Figure 8.7

Percentage of live births which were multiple by mother's age and deprivation quintile, 1996–2000

England and Wales

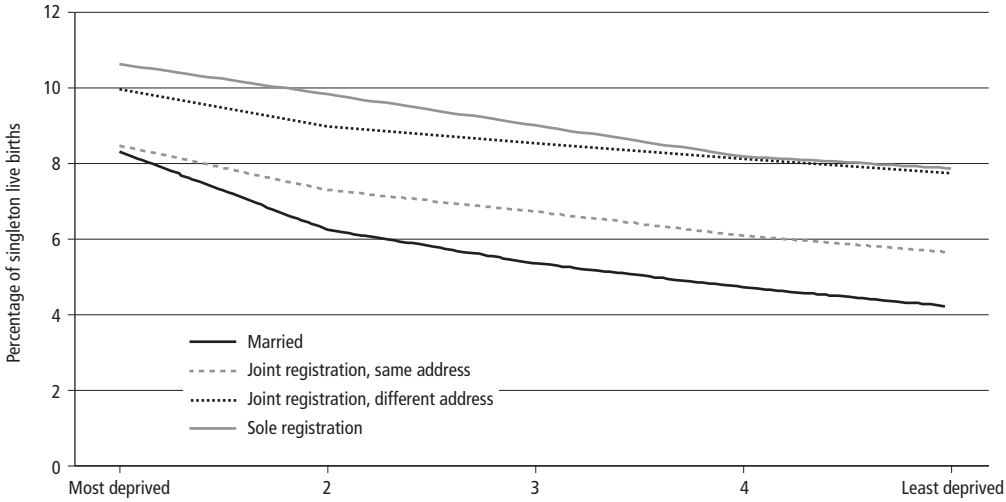


Source: Unpublished analysis of ONS statistics

Figure 8.8

Percentage of low birthweight among singleton live births by registration status and deprivation quintile, 1996–2000

England and Wales



Source: Unpublished analysis of ONS statistics

Evidence of poorer birth outcomes for women in areas of greater deprivation has been found in local studies within England and Wales using other area indices. For example, inequalities in low birthweight by both parental social class and by area score were seen in the West Midlands.[74, 75] An examination of trends from 1985 to 1994 in Sheffield showed persistent differences across the spectrum of area scores.[76] Differences in the incidence of low birthweight have been found in a number of other countries using various indicators of social position, including education, income and area deprivation.

Despite the higher incidence of low birthweight in the more deprived quintiles, many adverse outcomes occur outside these areas (Table 8.10). Between 1996 and 2000, nearly a quarter of all live births in England were to residents of the most deprived quintile, along with nearly a third of singleton low birthweights. Around 14 per cent of low birthweights were born to residents of the least deprived quintile.

Taken together, these data show considerable inequalities between the outcome of births to residents of different areas. They cannot, however be used as a proxy measure of the inequalities between the outcomes of births to individuals in different socio-economic groups, as these differences represent another distinct dimension of inequality.

Inequalities in the health of children and young people

General health

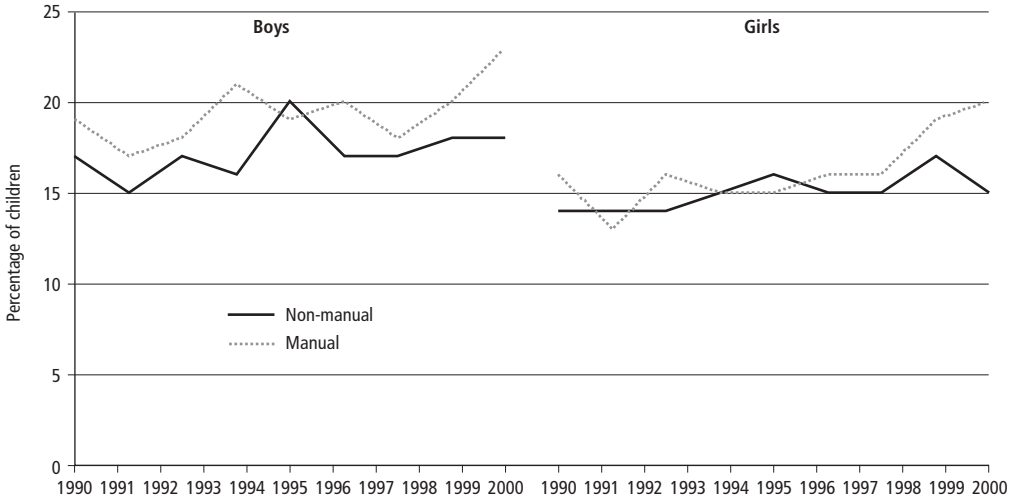
A general picture of trends in inequalities in the health of children can be derived from the General Household Survey (GHS). Informants, or in the case of children their parents, were asked if they have a longstanding illness, disability or infirmity and, if so, whether it limited their activities in any way.[25] As Figures 8.9 and 8.10 show, the percentage of children with longstanding illness and limiting longstanding illness rose marginally during the decade and was higher in boys than girls. Although differences were small, in most but not all years there was a tendency towards a higher proportion of children in manual households having a longstanding illness. This confirms data presented in the *Inequalities in health* decennial supplement in the mid 1990s, which showed similar socio-economic differences and an overall rise between 1985 and 1995.[8]

The differences were markedly wider in 2000. This could be a consequence of the change from basing the household social class on the occupation of the 'head of household' to that of the 'household reference person', who is more likely to be a woman and in a non-manual occupation.[41]

Figure 8.9

Longstanding illness reported by children aged 0 to 15 years or their parents, 1990–2000

Great Britain

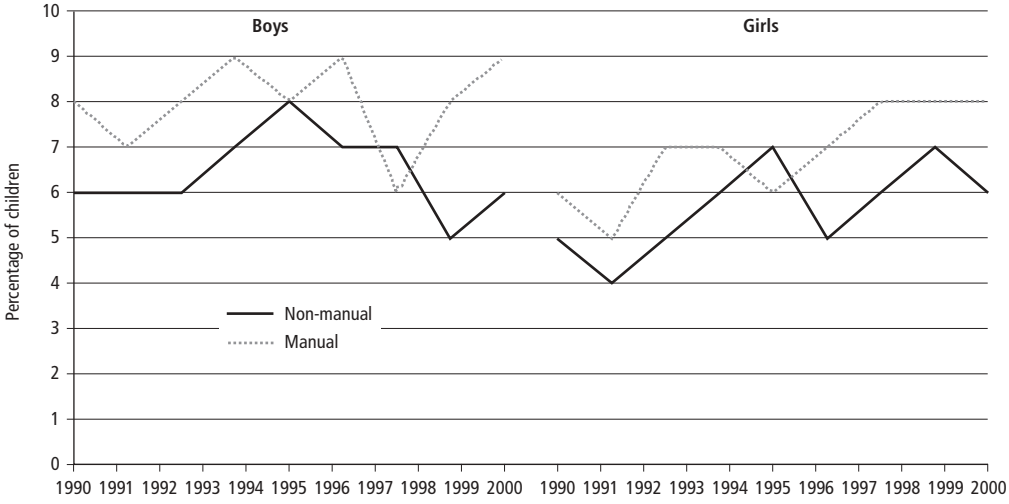


Source: General Household Survey

Figure 8.10

Limiting longstanding illness reported by children aged 0 to 15 years or their parents, 1990–2000

Great Britain



Source: General Household Survey

Similar questions are asked in the Health Survey for England. Table 8.15 shows cross-sectional differences among children aged 2 to 15 years in 1999 by sex and ethnic group. This shows wide variations and differences between boys and girls within some, but not all ethnic groups. In general, a lower proportion of children from Indian, Pakistani, Bangladeshi and Chinese groups had a longstanding illness than children in the general population.[27]

The GHS records short term or acute illness by asking informants if they had to cut down on their normal activities in the preceding 14 days because of an injury or illness. As Table 8.12 shows, there were no clear differences between boys and girls or between non-manual and manual households, nor were there any noticeable differences during the decade. In contrast, in Table 8.13 data from the Health Survey for England show that Bangladeshi and Chinese boys and Indian, Pakistani, Bangladeshi and Chinese girls were less likely than other groups or the general population to report acute sickness.[27]

Specific aspects of health

Cross-sectional data about inequalities in the late 1990s can be found in the special reports on *The health of young people, '95-97*, and *The health of minority ethnic groups '99*.[26, 27] Both are based on data from the Health Survey for England.

Height adjusted systolic blood pressure rises as children grow older (Table 8.14). From the teenage years onwards, the average for boys exceeds that for girls, but no social class differences can be observed. Although not shown here, differences were observed between minority ethnic groups. After adjustment for age and height of children aged 5 to 15 years, rates for Pakistani and Irish boys and Black-Caribbean girls were found to be higher than those of boys and girls in the general population.[27]

Turning to respiratory conditions, no clear pattern of social class differences could be seen

in wheezing, especially for younger children. For young men aged 16 to 24 years, wheezing appeared to be slightly more common in the manual classes (Table 8.14).[26] Much more marked differences can be seen between minority ethnic groups (Table 8.15). Wheezing was less common to a variable extent among boys and girls from Indian, Pakistani, Bangladeshi and Chinese groups than in the general population.[27] Doctor-diagnosed asthma was much more common among Black-Caribbeans than among most other groups, apart from Irish young people. It was less common than average among Indian, Pakistani, Bangladeshi and Chinese boys and girls. More detailed information on asthma can be found in Chapter 7, Asthma and Allergic Diseases.

The report for 1995 to 1997 and special analyses of Health Survey for England data for 1998 found no social class differences in the mean body mass indices of boys and girls.[26, 77] In contrast, the mean body mass indices were high among Afro-Caribbean boys and girls and among Indian boys but low among Bangladeshi boys.[27]

A more detailed analysis of the data for 1999 adapted conventional measures of overweight and obesity to analyse body mass indices for children.[78] It found no social class differences in either boys or girls. On the other hand, Indian and Pakistani boys were more likely to be overweight than boys in the general population and Afro-Caribbean and Pakistani girls were more likely to be obese than girls in the general population. This has implications for their health in the longer term. Additional information on overweight and obesity can be found in Chapter 3: Diet, Nutrition, Dental Health and Exercise.

Use of health services

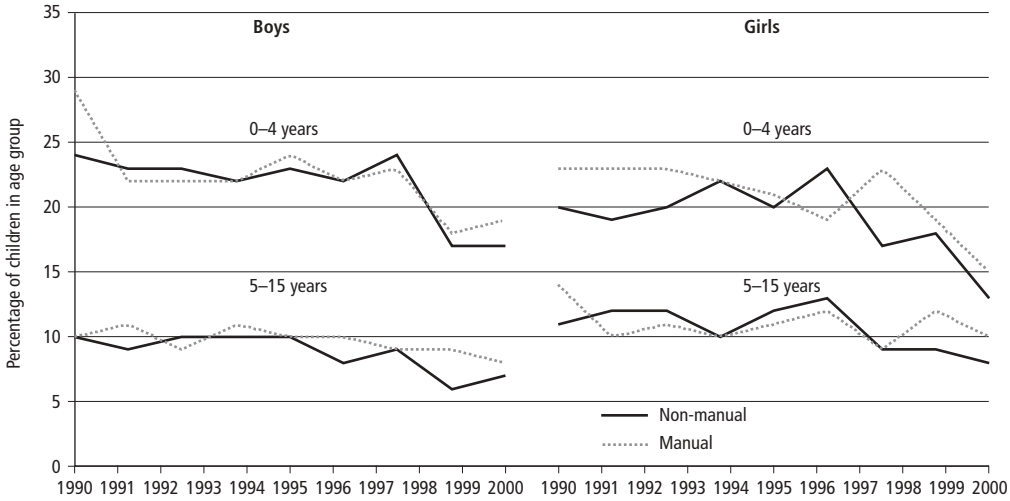
Contact with a doctor during the two weeks before interview

The percentage of children in any age, sex or social group who had consulted a GP declined during the decade. Overall children in manual households were more likely to consult than those in non-manual households (Figure 8.11), although differences were less marked

Figure 8.11

Doctor consultations in the previous 14 days reported by children aged 0 to 4 years and 5 to 15 years or their parents

Great Britain



Source: General Household Survey

among older children. In the 0 to 4 age group, boys were more likely to consult than girls and the reverse was true among children aged 5 to 15 years.

The Health Survey for England found that Indian and Pakistani boys and Indian girls were more likely than other minority ethnic groups to consult a GP and Irish boys were less likely than other minority ethnic groups to do so (Table 8.16). Indian, Pakistani, Bangladeshi and Chinese boys and girls were less likely than others to have attended an outpatient department and Indians and Pakistanis were less likely to have taken one or more prescribed medicines.[27]

These inequalities should be interpreted in the light of fuller information on the provision and use of health services which can be found in Chapter 2.

Health-related behaviour

Breast-feeding

There are wide socio-demographic differences in the extent to which women breastfed immediately after birth, with much higher proportions among women with partners in non-manual occupations, compared with those in manual occupations (Table 8.17). Although there were increases in all social groups between 1995 and 2000, the inequalities persisted.[2, 9, 30]

The differences between ethnic groups were even wider in 2000 (Table 8.18), with 95 per cent of Black women breast-feeding initially in 2000, compared with only 67 per cent of White women. Due to small numbers, the Asian groups were aggregated in the *Infant feeding survey*.[30] Data from a special survey of *Infant feeding in asian families* carried out between 1994 and 1996, showed marked differences between Bangladeshis, Indians and Pakistanis (Table 8.19).[79] Bangladeshis were the most likely to initiate breast-feeding and White women the least likely to do so. Table 8.19 also shows how initiation of breast-feeding dropped off in successive pregnancies, especially among White women.

Breast-feeding is associated with better cognitive development in childhood, less childhood obesity, and with lower risk of cardiovascular disease in later life.[80–83] The ethnic differences do not correspond exactly, however. It is difficult to assess the consequences of associations between socio-economic status and breast-feeding as rates are higher among women with higher educational attainment and partners in non-manual groups and their children are likely to enjoy better health for a variety of reasons.

Smoking during pregnancy

Data on women's smoking behaviour before, during and after pregnancy also come from the *Infant feeding surveys*.[28, 29] Despite the reduction in smoking rates from 1985 to 2000 among women with partners in all social classes, wide differences remain. Table 8.20 shows that in 2000, a higher proportion of mothers with partners in manual occupations continued to smoke during pregnancy, compared with those with partners in non-manual occupations. Continued smoking by women during pregnancy is associated with low birthweight and with stillbirth and death during the first year of life,[84–88] but it is unclear to what extent these associations are the direct consequences of the adverse effects of smoking and to what extent they are a reflection of the associations between social class and smoking.

Smoking and drinking alcohol in childhood

Drug-use, smoking and drinking are discussed in detail in Chapter 4, so what follows is restricted to an overview of inequalities in behaviour.

Children from manual households were more likely than others to smoke (Table 8.21).[26] The data covers a wide age range, from the age of eight when the numbers of children smoking are likely to be negligible, to the age of 15 when the percentages smoking are much higher than those shown in Table 8.21, so it is difficult to draw more detailed conclusions. The data shows that girls were slightly more likely than boys to have smoked, a difference which is much more marked among young adults.[89]

Differences between ethnic groups (Table 8.22) are based on a different question, asking whether children had ever smoked.[27] Children from Indian, Pakistani, Bangladeshi and Chinese ethnic groups, particularly girls, were much less likely to report having smoked than the population as a whole. The percentage for the general population was similar among Black-Caribbean children but much higher among the Irish group, particularly among girls.[27]

A similar question was asked about drinking alcohol. Apart from the Irish, Pakistani and Bangladeshi groups, boys were more likely to have ever drunk alcohol than girls (Table 8.23). All minority ethnic groups apart from girls among the Irish group were less likely to have ever drunk alcohol than the general population. After Irish children, children in the Black- Caribbean group were most likely among the minority ethnic groups to have ever drunk alcohol. The Bangladeshi and Pakistani children were the least likely to have ever drunk alcohol.[27]

The question asked in 1997 was similar to that asked about smoking. Children in non-manual households were more likely than those in manual households to have drunk alcohol occasionally. In contrast, although the proportion who were regular or heavy drinkers was very much lower, it was higher among children in manual household than in non-manual households.[26]

Discussion

The process of summarising data from a range of routine sources to compile this chapter has identified questions that need further investigation. Firstly, the socio-demographic changes which have led to a rising age at childbirth but also an increasing proportion of babies with fathers in non-manual occupations may have counteracted each other. Their association with the outcome of pregnancy both in terms of birthweight and in terms of infant mortality, discussed in Chapter 9, requires further investigation.

The use of social class based on the babies' fathers' occupations leads to the exclusion of the most disadvantaged group of babies from analyses by social class. Although mothers' occupations have been recorded at birth registration since 1986, the proportion of mothers for whom it is not recorded remains high, particularly in the groups with the highest mortality.[9, 22, 23, 39] Information about the inequalities between mothers is important, given possible associations between poor health in mothers and their babies and the lower levels of self-rated health in lone parents compared with others.[90, 91]

From 2001 onwards, a new classification, the NS-SEC has been used, so it will not be possible to make direct comparisons between the trends observed here and those for the first decade of the 21st century, although considerable work has been done to reanalyse trends for the 1990s using an approximation to the NS-SEC. The Registrar General's Social classes were specifically designed to detect differentials in the spectrum of occupations undertaken by men. To detect differences between groups of occupations undertaken by women, either alternative classifications or different approaches were needed.[47, 92] It is not yet clear to what extent these problems have been solved in designing the NS-SEC.

The NS-SEC was designed to overcome known problems with the construction of the Registrar General's Social classes, but no alternative classification was formulated for use for people outside paid employment. The level of education is an alternative but a more consistent classification is needed. Even so, there are questions about its value for the youngest mothers who have not finished their formal education and some of whom may return to studying.

Other questions arise when attempting to interpret trends and variations by ethnic group. The 1990s was the first decade during which a classification existed for use at a national level, but it was not universally adopted, especially in the first half of the decade and it had subsequently been modified. Further developments will be needed in the future, not only to respond to criticisms of the classification, but also to respond to changes in the increasingly multicultural population of the UK. There is evidence that some first generation migrants are among the healthiest members of the populations from which they come and they bring cultures which promote healthy behaviour.[93] These cultures will not necessarily persist in the second generation. It is notable that in three small studies of intergenerational differences in birthweights of Asian babies born in England, one found higher birthweights among babies born to second generation mothers and two did not.[94–96] Paradoxically, the data reviewed in this chapter show that the groups which appear most healthy in childhood are not those with the lowest birthweight distributions.

In general, inequalities in health-related behaviour were much more marked than those in health. This is consistent with the findings of a study in the West of Scotland during the 1980s which found few differences in health in childhood by their parents' social classes.[97] This raises questions about the timing of the impact of health behaviour in relation to health at subsequent stages the life course and the changing associations with parents' occupational class during childhood and adolescence.[60, 98]

In contrast to the situation with physical ill health, Chapter 12 shows marked social class differences in mental health in childhood. Chapter 12 does not discuss differences between ethnic groups as the numbers in the sample in the survey of *The mental health of children and adolescents in Great Britain* were too small to assess these.[34] The Health Survey for England used different measures of mental health. The General Health Questionnaire was administered to adolescents aged 13 to 15 years and data from the much larger sample taken in 1999 showed no differences between ethnic groups. Replies from children aged 4 to 15 years to the Strengths and Difficulties Questionnaire suggested that Pakistani boys and girls and Indian and Irish girls were more likely than the population as a whole to have emotional and behavioural problems. However, there are reservations about using both these questionnaires for cross-cultural comparisons.[27]

Conclusions

Inequalities in the health of babies and children during the years from 1991 to 2000 and the patterns of mortality in childhood described in Chapter 9 need to be interpreted in the light of socio-demographic changes taking place during the decade.

Although the percentage of births outside marriage increased during the decade, there was no increase in the proportion of sole registrations registered by the mother alone. Among babies who were born within marriage or jointly registered by both parents, there was an increase in the proportion with fathers in non-manual occupations and a decline in the proportion with fathers in manual occupations. In particular, the proportion with fathers in Social Classes I and II rose and the proportion with fathers in Social Class III-Manual declined.

The percentage of babies with mothers born outside the UK increased slightly during the decade. There were slight increases in the proportions with mothers born in Eastern Europe, Bangladesh, Pakistan and Africa (excluding East Africa) and decreases in the proportions with mothers born in the Caribbean Commonwealth, India and East Africa. There are no data available which are sufficiently detailed to chart trends in the ethnic origin of babies born during the decade.

During the decade, the proportion of babies with mothers in their twenties declined and the proportions with mothers in their thirties and forties increased among couple registrations. Similar trends were seen among the sole registrations, even though the percentages of mothers in the lowest age groups were much higher. Multiple birth rates rose overall, particularly among women in their thirties and forties.

The percentage of low birthweight was lower for babies with fathers in non-manual occupations and their mean birthweight was higher compared with babies with fathers in manual occupations. These differences persisted throughout the decade. Birthweight distributions differed between ethnic groups. Babies with mothers born in the 'New Commonwealth' had higher rates of low birthweight than others and those whose mothers were born in West Africa or the Caribbean Commonwealth were more likely than others to be of very low birthweight. Babies from black and Asian ethnic groups were more likely to be of low birthweight and their mean birthweights were lower.

The reported prevalence of long term illness rose marginally among children aged 0 to 15 years in Great Britain during the decade. In most years, long term illness and limiting long-term illness was more common among children from manual households than in non-manual households. Prevalence of longstanding illness was higher among boys than girls. It was much less common in children from Indian, Pakistani, Bangladeshi and Chinese groups than in the general population in England. No sex or class differences were observed in reported acute sickness and there was no change during the decade. Bangladeshi and Chinese boys and Indian, Pakistani, Bangladeshi and Chinese girls were less likely to report acute sickness than children in the general population.

No social class differences were observed in systolic blood pressure, respiratory symptoms or body mass index, but these differed between ethnic groups. Pakistani and Irish boys and Black Caribbean girls had higher systolic blood pressures, while wheezing and doctor-

reported asthma was much less common among Indian, Pakistani, Bangladeshi and Chinese children than in the population as a whole. Compared with the population as a whole Indian and Pakistani boys were more likely to be overweight and Afro-Caribbean and Pakistani girls were more likely to be obese. The lack of socio-economic differences in patterns of physical health and illness vary markedly from the social inequalities in mental health and illness reported in Chapter 12.

In the late 1990s, children from manual social groups in Great Britain were more likely than those from non-manual groups to consult a general practitioner. Indian and Pakistani boys and Indian girls were more likely to consult a GP compared with other minority ethnic groups and with the general population.

Social class differences in both breast-feeding and smoking during pregnancy persisted through the decade, despite the increase in the initiation of breast-feeding in the late 1990s and the decline in smoking since the 1980s. Children from Indian, Pakistani, and Bangladeshi households were unlikely to have ever smoked.

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Table 8.1 Percentage distribution of live births by father's social class, 1991–2000

England and Wales — Percentages

	Couple registered										
	Non-manual				Manual						
	I	II	IIINM	All	IIIM	IV	V	All	Couple Other	Sole registered	registered
1991	6.5	22.1	8.8	37.4	32.7	12.3	5.5	50.6	4.3	92.3	7.7
1992	6.6	22.2	8.8	37.6	32.3	12.5	5.4	50.2	4.7	92.5	7.5
1993	6.8	22.2	9.3	38.3	30.5	13.4	5.4	49.3	5.0	92.5	7.5
1994	7.0	22.5	9.5	39.0	30.3	13.2	5.4	48.9	4.7	92.6	7.4
1995	7.0	22.8	9.4	39.2	29.7	13.5	5.3	48.4	4.9	92.6	7.4
1996	6.9	23.3	9.5	39.6	29.1	14.1	4.8	48.0	4.7	92.1	7.9
1997	6.8	24.2	9.0	40.0	28.2	14.0	4.9	47.1	4.7	92.1	7.9
1998	7.1	24.9	9.0	41.0	27.6	14.2	4.8	46.6	4.6	92.1	7.9
1999	7.4	26.0	8.9	42.2	26.9	13.6	4.6	45.2	4.9	92.3	7.7
2000	7.6	26.4	8.7	42.8	26.5	13.9	4.5	44.8	4.9	92.4	7.6

Source: Unpublished analysis of ONS Birth statistics

Table 8.2 Percentage distribution of sole-registered live births by mother's social class, 1991–2000

England and Wales — Percentages

	I	II	IIINM	IIIM	IV	V	Other
1991	0.2	5.7	12.2	4.5	8.6	1.6	67.2
1992	0.3	5.9	11.7	4.4	8.3	1.3	68.1
1993	0.3	5.7	12.1	4.2	8.0	1.5	68.1
1994	0.2	6.1	10.3	4.5	8.5	1.2	69.2
1995	0.5	5.7	12.4	4.7	9.5	1.4	65.9
1996	0.4	6.6	11.7	4.4	9.2	1.7	66.0
1997	0.5	6.8	12.0	4.8	10.3	1.7	64.0
1998	0.4	6.7	12.4	5.2	11.0	1.5	62.8
1999	0.5	7.5	12.0	4.6	11.0	1.6	62.9
2000	0.4	7.9	12.1	4.4	9.4	1.4	64.6

Source: Unpublished analysis of ONS Birth statistics

Table 8.3 Numbers and percentage distribution of live births by mother's country of birth, 1991–2000

England and Wales — Numbers and percentages

Mother's Country of birth	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Numbers										
All	699,217	689,656	673,467	664,726	648,138	649,485	643,095	635,901	621,872	604,441
United Kingdom[1]	617,343	607,709	592,056	582,614	566,452	566,352	558,591	549,432	532,852	510,835
All outside United Kingdom	81,839	81,902	81,367	82,100	81,677	83,123	84,497	86,456	89,000	93,588
Irish Republic	6,035	5,675	5,149	5,332	5,167	4,968	4,903	4,673	4,470	4,050
Australia, Canada and New Zealand	3,099	3,066	3,161	3,249	3,051	3,182	3,319	3,393	3,531	3,635
New Commonwealth	49,297	48,816	47,793	48,286	47,486	47,219	46,063	46,023	46,201	47,249
India	8,070	7,694	7,316	7,032	6,684	6,608	6,553	6,513	6,497	6,650
Pakistan	12,638	12,815	13,023	12,779	12,324	12,319	12,571	13,069	13,472	13,561
Bangladesh	5,544	5,532	5,854	6,253	6,783	6,930	7,307	7,424	7,375	7,482
East Africa	6,445	6,237	5,698	5,643	5,128	5,121	4,745	4,498	4,159	3,959
Southern Africa	..	..	..	939	1,010	1,080	1,211	1,437	1,608	1,907
Rest of Africa	5,366	5,639	5,511	6,142	6,438	6,484	6,377	6,135	6,138	6,537
Caribbean	3,459	3,378	3,124	3,074	2,912	2,754	2,627	2,564	2,536	2,681
Far East[2]	3,834	3,855	3,710	3,489	3,311	3,122	1,805	1,682	1,539	1,538
Mediterranean[3]	2,302	2,086	1,994	1,890	1,782	1,580	1,557	1,369	1,268	1,148
Remainder of New Commonwealth	1,639	1,580	1,563	1,045	1,114	1,221	1,310	1,332	1,609	1,786
Other European countries	10,155	10,339	10,713	11,374	11,941	12,837	13,742	14,936	16,480	18,467
United States of America	3,231	3,269	2,932	2,725	2,630	2,578	2,779	2,857	2,780	2,895
Rest of the world	10,022	10,737	11,619	11,134	11,402	12,339	13,691	14,574	15,538	17,292
Not stated	35	45	44	12	9	10	7	13	20	18
Percentages										
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United Kingdom[1]	88.3	88.1	87.9	87.6	87.4	87.2	86.9	86.4	85.7	84.5
All outside United Kingdom	11.7	11.9	12.1	12.4	12.6	12.8	13.1	13.6	14.3	15.5
Irish Republic	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7
Australia, Canada and New Zealand	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
New Commonwealth	7.1	7.1	7.1	7.3	7.3	7.3	7.2	7.2	7.4	7.8
India	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.1
Pakistan	1.8	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.2
Bangladesh	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.2
East Africa	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Southern Africa	..	..	..	0.1	0.2	0.2	0.2	0.2	0.3	0.3
Rest of Africa	0.8	0.8	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.1
Caribbean	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Far East[2]	0.5	0.6	0.6	0.5	0.5	0.5	0.3	0.3	0.2	0.3
Mediterranean[3]	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Remainder of New Commonwealth	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Other European countries	1.5	1.5	1.6	1.7	1.8	2.0	2.1	2.3	2.7	3.0
United States of America	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Rest of the world	1.4	1.6	1.7	1.7	1.8	1.9	2.1	2.3	2.5	2.9

Source: ONS Birth statistics, Series FM1 and Birth counts Table A 5.16.2

Notes:

1. Including Isle of Man and Channel Islands

2. Hong Kong, Malaysia, Singapore and Brunei

3. Cyprus, Gibraltar and Malta

.. Data not available

Table 8.4 Percentage distribution of live births by age of mother, 1991–2000

England and Wales — Percentages

	Under 20	20–24	25–29	30–34	35–39	40 and over
All live births						
1991	7.5	24.8	35.6	23.1	7.7	1.4
1992	6.9	23.7	35.5	24.2	8.2	1.5
1993	6.7	22.6	35.0	25.4	8.7	1.6
1994	6.3	21.1	34.5	27.0	9.5	1.6
1995	6.5	20.2	33.5	28.0	10.1	1.7
1996	6.9	19.4	32.5	28.7	10.7	1.9
1997	7.2	18.4	31.5	29.2	11.6	2.0
1998	7.6	17.9	30.4	29.6	12.4	2.1
1999	7.8	17.8	29.3	29.8	13.1	2.3
2000	7.6	17.8	28.2	29.8	14.1	2.5
Live births inside marriage and jointly registered births outside marriage						
1991	5.8	23.8	36.8	24.2	8.0	1.5
1992	5.4	22.7	36.6	25.3	8.5	1.5
1993	5.2	21.6	36.0	26.5	9.1	1.6
1994	4.9	20.1	35.4	28.2	9.8	1.7
1995	5.0	19.2	34.4	29.1	10.5	1.8
1996	5.3	18.3	33.4	30.0	11.1	1.9
1997	5.6	17.4	32.4	30.5	12.1	2.1
1998	5.9	16.8	31.1	31.0	12.9	2.2
1999	6.1	16.8	30.0	31.1	13.6	2.4
2000	6.0	16.8	28.9	31.1	14.6	2.6
Sole registrations						
1991	28.2	36.3	21.1	10.0	3.6	0.8
1992	26.1	35.7	22.2	11.0	4.1	0.9
1993	25.0	34.8	22.6	11.9	4.6	1.0
1994	24.5	33.5	23.2	12.7	5.1	1.1
1995	24.8	32.6	22.7	13.5	5.3	1.1
1996	25.4	31.8	22.3	13.7	5.7	1.2
1997	26.2	30.8	21.8	13.8	6.0	1.4
1998	27.7	29.7	21.3	13.6	6.3	1.4
1999	27.4	30.0	20.6	13.7	6.7	1.6
2000	27.2	30.4	20.1	13.4	7.2	1.7

Source: ONS Birth statistics, Series FM1 and unpublished analysis of ONS Birth statistics

Table 8.5 Percentage distribution of live births by age of mother and father's social class and registration status, 2000

England and Wales — Percentages

	Under 20	20–24	25–29	30–34	35–39	40 and over
I	0.7	5.5	24.2	42.4	23.0	4.2
II	1.8	9.6	27.2	38.6	19.6	3.2
IIINM	5.0	15.2	29.7	32.2	14.9	3.0
IIIM	6.9	20.2	31.8	27.1	12.0	2.0
IV	9.7	24.6	30.1	24.0	9.9	1.6
V	14.9	27.2	27.6	19.8	9.0	1.6
All couple registration	6.0	16.8	28.9	31.1	14.6	2.6
Sole registration	27.2	30.4	20.1	13.4	7.2	1.7
All	7.6	17.8	28.2	29.8	14.1	2.5

Source: Unpublished analysis of ONS Birth statistics

Table 8.6 Birthweight by ethnic group, 2001–2002

England — Percentages

	Birthweight (grams)				
	Under 2,500	2,500–2,999	3,000–3,499	3,500–3,999	4,000 and over
Asian	12.1	28.8	38.3	16.6	4.1
Black	10.1	19.8	37.7	24.6	7.8
White	7.6	15.4	34.9	29.9	12.2

Source: Department of Health, NHS Maternity statistics, England, 2001–02, Statistical bulletin 2003/09

Table 8.7 Mean birthweight of live births by ethnic group of mother in 1991, 1991–1998

England and Wales — Mean birthweight (grams) and numbers

	Mean birthweight (grams)					Number of babies in sample			
	White	Black	Asian	Other	All	White	Black	Asian	Other
1991	3,355	3,200	3,125	3,241	3,336	5,774	119	413	52
1992	3,372	3,263	3,137	3,376	3,354	5,769	137	413	37
1993	3,358	3,213	3,121	3,301	3,339	5,442	137	365	38
1994	3,343	3,149	3,118	3,305	3,323	5,299	130	387	34
1995	3,350	3,119	3,126	3,165	3,329	5,207	141	351	43
1996	3,354	3,174	3,128	3,253	3,335	5,400	135	377	39
1997	3,342	3,166	3,022	3,089	3,317	5,132	142	341	29
1998	3,360	3,198	3,125	2,942	3,341	4,989	129	292	35

Source: Unpublished analysis of ONS Longitudinal Study statistics
Note:
Birthweights under 100g are assumed to be erroneous and have been excluded.

Table 8.8 Low birthweight live births by mother's country of birth and birthweight, 2000

England — Numbers and percentages

		Birthweight (grams)						
	All	Not stated	Under 1,500	1,500–2,499	Under 2,500	Under 1,500	1,500–2,499	Under 2,500
		Numbers				Percentage of stated birthweights		
All	604,441	1,020	7,536	38,191	45,727	1.2	6.3	7.6
United Kingdom	510,835	766	6,206	31,475	37,681	1.2	6.2	7.4
Outside the United Kingdom	93,606	254	1,330	6,716	8,046	1.4	7.2	8.6
Irish Republic	4,050	14	41	222	263	1.0	5.5	6.5
Other European Union	11,105	24	107	631	738	1.0	5.7	6.7
Rest of Europe	7,362	33	76	315	391	1.0	4.3	5.3
Australia, Canada and New Zealand	3,635	3	34	174	208	0.9	4.8	5.7
New Commonwealth	47,249	118	822	4,262	5,084	1.7	9.0	10.8
Bangladesh	7,482	13	79	702	781	1.1	9.4	10.5
India	6,650	9	112	767	879	1.7	11.5	13.2
Pakistan	13,561	18	220	1,295	1,515	1.6	9.6	11.2
East Africa	3,959	13	75	386	461	1.9	9.8	11.7
Southern Africa	1,907	10	23	103	126	1.2	5.4	6.6
Rest of Africa	6,537	38	207	482	689	3.2	7.4	10.6
Far East	1,538	0	16	86	102	1.0	5.6	6.6
Mediterranean	1,148	3	16	78	94	1.4	6.8	8.2
Caribbean	2,681	9	55	210	265	2.1	7.9	9.9
Rest of the New Commonwealth	1,786	5	19	153	172	1.1	8.6	9.7
Rest of the World and not stated	20,205	62	250	1,112	1,362	1.2	5.5	6.8

Source: ONS Mortality statistics, Series DH3 no.33

Table 8.9 Percentage of live births weighing under 2,500g by age of mother, 1991–2000

England and Wales — Percentages

	Under 20	20–24	25–29	30–34	35–39	40 and over	All
1991	8.9	7.3	6.2	6.5	7.8	8.6	6.9
1992	8.3	7.3	6.2	6.3	7.7	8.6	6.8
1993	8.7	7.4	6.2	6.4	7.6	9.0	6.8
1994	9.1	7.5	6.4	6.4	7.7	8.9	7.0
1995	9.1	8.2	6.8	6.7	7.8	9.2	7.3
1996	9.1	7.9	6.8	6.7	7.8	8.9	7.3
1997	9.1	8.1	7.0	6.8	7.8	9.5	7.4
1998	9.2	8.3	7.1	6.7	7.7	9.1	7.5
1999	9.3	8.3	7.2	6.9	7.8	9.5	7.6
2000	9.3	8.3	7.2	6.9	7.7	9.1	7.6

Source: Unpublished analysis of ONS statistics

Table 8.10 Low birthweight by multiplicity and population quintile, 1996–2000

England — Numbers and percentages

Quintile	Under 1500g			1500–2499g			All live births		
	Singleton	Multiple	All	Singleton	Multiple	All	Singleton	Multiple	All
Numbers									
Most deprived	10,800	2,332	13,132	49,320	8,624	57,944	724,287	18,127	742,414
2	7,876	1,903	9,779	33,253	7,628	40,881	609,516	16,688	626,204
3	6,044	1,690	7,734	25,998	7,239	33,237	547,580	16,362	563,942
4	4,878	1,578	6,456	21,178	6,993	28,171	511,247	16,274	527,521
Least deprived	4,368	1,579	5,947	18,501	7,463	25,964	508,850	17,398	526,248
Total	33,966	9,082	43,048	148,250	37,947	186,197	2,901,480	84,849	2,986,329
Percentage of births in group									
Most deprived	31.8	25.7	30.5	33.3	22.7	31.1	25.0	21.4	24.9
2	23.2	21.0	22.7	22.4	20.1	22.0	21.0	19.7	21.0
3	17.8	18.6	18.0	17.5	19.1	17.9	18.9	19.3	18.9
4	14.4	17.4	15.0	14.3	18.4	15.1	17.6	19.2	17.7
Least deprived	12.9	17.4	13.8	12.5	19.7	13.9	17.5	20.5	17.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Unpublished analysis of ONS statistics

Table 8.11 Self-reported longstanding illness and limiting longstanding illness in children aged 2 to 15 years by sex and minority ethnic group, 1999

England — Percentages and numbers

	Black-Caribbean	Indian	Pakistani	Bangladeshi	Chinese	Irish	General population, 1997[1]
	Percentage with longstanding illness						
Boys							
Limiting longstanding illness	9	10	10	7	8	6	11
Non-limiting longstanding illness	17	11	9	9	13	20	18
Any longstanding illness	27	21	19	17	21	25	29
Girls							
Limiting longstanding illness	9	6	7	7	4	9	9
Non-limiting longstanding illness	14	11	4	4	10	18	16
Any longstanding illness	23	17	11	11	14	27	25
Bases							
Weighted							
Boys	*207*	*275*	*243*	*106*	*43*	*852*	*
Girls	*217*	*209*	*245*	*98*	*42*	*894*	*
Unweighted							
Boys	*300*	*268*	*397*	*385*	*138*	*270*	*3,485*
Girls	*312*	*203*	*393*	*357*	*126*	*265*	*3,478*

Source: Health Survey for England – The Health of Minority Ethnic Groups '99, Table 13.2
Notes:
1. Comparative general population data in this chapter have been taken mainly from the 1997 Health Survey, because this was a year when the child sample was substantially increased in size. In some cases the relevant topic was not covered in the 1997 Health Survey.
**. The 1997 general population data are weighted according to the weighting scheme for that year's survey. Weighted bases are not shown because they do not follow the 1999 weighting scheme.*

Table 8.12 Acute sickness reported by children aged 0 to 15 years or their parents by social class of head of household and sex of child, 1990–1996,1998, 2000

Great Britain — Percentages

	Boys			Girls		
	Non-manual	Manual	All	Non-manual	Manual	All
	Percentage who reported restricted activity in the 14 days before interview					
1990	13	10	12	12	11	12
1991	11	11	11	10	9	10
1992	10	10	10	9	10	9
1993	11	11	11	10	10	10
1994	12	9	10	13	10	12
1995	11	9	10	11	10	10
1996	11	10	11	9	9	9
1998	9	10	10	10	10	10
2000	9	11	10	10	9	10

Source: General Household Survey

Table 8.13 Self-reported acute illness in children aged 2 to 15 years by sex and ethnic group, 1999

England

	Black-Caribbean	Indian	Pakistani	Bangladeshi	Chinese	Irish	General population, 1997*
	Percentage who had acute sickness in the 14 days before interview						
Boys							
Had acute sickness	10	9	10	5	6	12	14
1-3 days	5	6	6	3	4	8	8
4-6 days	2	1	1	0	2	2	3
7-13 days	2	1	1	0	1	1	2
a full 2 weeks	1	1	2	1	0	1	1
No acute sickness	90	91	90	95	94	88	86
Mean number of days	0.47	0.38	0.45	0.17	0.23	0.46	0.58
Standard error of the mean	0.1	0.1	0.1	0.06	0.09	0.11	0.03
Girls							
Had acute sickness	11	6	7	6	5	14	14
1-3 days	6	4	5	3	2	8	8
4-6 days	2	1	1	1	0	2	3
7-13 days	2	1	1	2	3	2	2
a full 2 weeks	1	1	0	0	0	2	1
No acute sickness	89	94	93	94	95	86	86
Mean number of days	0.44	0.26	0.25	0.35	0.26	0.71	0.62
Standard error of the mean	0.10	0.10	0.06	0.09	0.11	0.15	0.03
Bases							
Weighted							
Boys	*207*	*275*	*243*	*106*	*43*	*852*	*
Girls	*217*	*209*	*244*	*98*	*42*	*894*	*
Unweighted							
Boys	*300*	*268*	*397*	*385*	*138*	*270*	*3,485*
Girls	*312*	*203*	*392*	*357*	*126*	*265*	*3,479*

Source: Health Survey for England – The Health of Minority Ethnic Groups '99, Table 13.2
Note:
**. The 1997 general population data are weighted according to the weighting scheme for that year's survey. Weighted bases are not shown because they do not follow the 1999 weighting scheme.*

Table 8.14 Health of young people aged 15 to 24 years by social class of head of household and sex, 1995–1997

England — Means and percentages

Age group (years)	Social class of head of household						All
	I	II	IIINM	IIIM	IV	V	
	Height adjusted mean systolic blood pressure of young people aged 15–24						
Male							
5–6	104	104	105	105	105	106	105
7–9	107	108	108	107	108	108	108
10–12	113	112	111	112	112	112	112
13–15	120	119	119	120	120	122	120
16–19	128	128	126	130	128	128	128
20–24	130	133	132	132	134	131	132
Female							
5–6	107	105	105	105	105	107	105
7–9	109	108	109	109	109	110	109
10–12	113	113	114	114	114	113	114
13–15	119	117	117	118	118	119	117
16–19	121	121	119	121	120	122	121
20–24	122	123	121	122	123	121	122
	Percentage who had wheezing in the last 12 months						
Male							
2–15	17	18	22	20	20	19	19
16–24	15	20	20	20	24	25	20
Female							
2–15	16	17	18	16	19	17	17
16–24	22	22	24	23	26	24	23
	Percentage who had doctor-diagnosed asthma						
Male							
2–15	21	23	23	24	23	27	23
16–24	23	19	19	16	24	13	19
Female							
2–15	17	17	20	18	20	17	18
16–24	22	17	16	21	18	24	18

Source: Health Survey for England – The Health of Young People '95-97. Tables 4.6, 5.3

Table 8.15 Respiratory symptoms reported in children aged 2 to 15 years by sex and ethnic group, 1999

England — Percentages and numbers

	Black-Caribbean	Indian	Pakistani	Bangladeshi	Chinese	Irish	General population, 1997*
	Percentage with respiratory symptoms						
Boys							
Ever wheezed	41	25	24	18	26	37	34
Wheezed without a cold	25	15	14	10	11	25	21
Breathless when wheezing	23	15	13	10	14	22	20
Wheezed in the last 12 months	20	15	15	12	15	18	19
Doctor-diagnosed asthma	30	17	18	17	22	28	23
Girls							
Ever wheezed	32	23	15	11	17	34	29
Wheezed without a cold	18	13	8	5	10	20	17
Breathless when wheezing	20	16	5	5	11	18	17
Wheezed in the last 12 months	16	13	8	5	11	19	17
Doctor-diagnosed asthma	24	13	10	8	18	21	19
Bases							
Weighted							
Boys	*206*	*275*	*243*	*105*	*43*	*827*	*
Girls	*217*	*209*	*245*	*98*	*42*	*888*	*
Unweighted							
Boys	*298*	*268*	*397*	*384*	*138*	*267*	*3,485*
Girls	*312*	*203*	*393*	*358*	*126*	*264*	*3,479*

Source: Health Survey for England – The Health of Minority Ethnic Groups '99, Table 13.7
Note:
** The 1997 general population data are weighted according to the weighting scheme for that year's survey. Weighted bases are not shown because they do not follow the 1999 weighting scheme.*

Table 8.16 Children aged 2 to 15 years who had consulted an NHS GP in the two weeks before interview by age and ethnic group, 1999

England — Percentages and numbers

	Black-Caribbean	Indian	Pakistani	Bangladeshi	Chinese	Irish	General population, 1999
	Percentage who had consulted and NHS GP in the previous two weeks						
Boys							
Consulted a GP in past two weeks	11	15	16	10	11	5	11
1 consultation	10	14	12	10	8	5	9
2 or more consultations	1	1	3	0	3	1	1
Did not consult a GP in past two weeks	89	85	84	90	89	95	89
Girls							
Consulted a GP in past two weeks	10	16	12	9	10	12	9
1 consultation	7	14	10	8	7	10	8
2 or more consultations	3	2	2	1	3	1	1
Did not consult a GP in past two weeks	90	84	88	91	90	88	91
Bases							
Weighted							
Boys	*207*	*275*	*243*	*106*	*43*	*852*	*12108*
Girls	*217*	*209*	*245*	*98*	*42*	*894*	*11063*
Unweighted							
Boys	*300*	*268*	*397*	*385*	*138*	*270*	*956*
Girls	*312*	*203*	*393*	*358*	*126*	*265*	*886*

Source: Health Survey for England – The Health of Minority Ethnic Groups '99, Table 13.28

Table 8.17 Incidence of breast-feeding by social class of partner, 1995 and 2000

England and Wales — Percentages and numbers

Social class of partner	Percentage who breastfed initially		*Bases*	
	1995	2000	*1995*	*2000*
I	91	91	*303*	*369*
II	82	84	*1150*	*1373*
IIINM	72	79	*354*	*465*
All non-manual	82	84	*1807*	*2207*
IIIM	65	65	*1113*	*1398*
IV	58	62	*483*	*579*
V	50	59	*164*	*218*
All manual	61	64	*1760*	*2195*
Unclassified	62	71	*294*	*167*
No partner	49	53	*737*	*871*
All	68	71	*4598*	*5441*

Source: Infant Feeding 2000, Table 2.5

Table 8.18 Incidence of breast-feeding by ethnic group, 2000

United Kingdom — Percentages and numbers

Ethnic group	Percentage who breastfed initially	Base
White	67	*8608*
Asian	87	*275*
Black	95	*185*
Mixed	86	*93*
Other	86	*66*
All	66	*9492*

Source: Infant Feeding 2000, Table 2.8

Table 8.19 Incidence of breast-feeding by birth order and ethnic group, 1994

England — Percentages and numbers

Birth order	Bangladeshi	Pakistani	Indian	White
	Percentage of all mothers in each group who breastfed initially			
First birth	94	80	89	72
Second birth	91	77	80	53
Third birth	85	80	75	50
Fourth or later birth	87	66	68	23
Second and subsequent birth	88	74	77	54
All	90	76	82	62
	Numbers in sample			
Base=100%				
First birth	209	251	391	295
Second birth	140	206	301	194
Third birth	93	115	160	93
Fourth or later birth	165	155	78	35
Second and subsequent birth	401	480	543	324
All	610	731	934	619

Source: Infant Feeding in Asian Families, Table 1.1

Table 8.20 Percentage of mothers who smoked during pregnancy by social class of partner, 1985, 1990, 1995, 2000

United Kingdom — Percentages

Social class of partner	1985	1990	1995	2000[1]
	Percentage of mothers who smoked during pregnancy			
I Professional	8	8	7	4
II Employers and managers	18	13	12	8
IIIn Intermediate and junior non-manual	19	16	14	11
IIIM Skilled manual	31	29	23	20
IV Semi-skilled manual	32	34	28	21
V Unskilled manual	46	39	37	26
All women	30	28	24	20

Source: Infant Feeding surveys

Note:

1. The smoking questions asked in the Infant Feeding Survey were redesigned in 2000 to improve the reliability of the information provided. As a result, percentages from the 2000 survey are for 'women who continued to smoke during pregnancy' and are not directly comparable with data from previous surveys.

Table 8.21 Children's self-reported frequency of smoking cigarettes, children aged 8 to 15 years, by social class of head of household and sex, 1995–1997

England — Percentages

Cigarette smoking frequency	Social class of head of household						Total
	I	II	IIINM	IIIM	IV	V	
	Percentages						
Boys							
Don't smoke cigarettes	98	97	96	96	95	95	96
Smoke cigarettes, less than once a week	1	1	1	1	1	1	1
Smoke cigarettes once a week or more often	1	2	3	3	4	5	3
Girls							
Don't smoke cigarettes	97	96	95	94	94	93	95
Smoke cigarettes, less than once a week	1	2	1	2	2	3	2
Smoke cigarettes once a week or more often	2	2	4	4	4	4	3
	Numbers in sample						
Bases							
Weighted							
Boys	*234*	*1036*	*398*	*1060*	*568*	*168*	*3631*
Girls	*228*	*1014*	*388*	*976*	*563*	*194*	*3543*
Unweighted							
Boys	*262*	*1107*	*450*	*1113*	*609*	*184*	*3889*
Girls	*259*	*1119*	*436*	*1054*	*585*	*189*	*3815*

Source: Health Survey for England – The Health of Young People '95-97. Table 6.4

Table 8.22 Children aged 8 to 15 years who had ever smoked cigarettes by sex and ethnic group, 1999

England — Percentages and numbers

	Black-Caribbean	Indian	Pakistani	Bangladeshi	Chinese	Irish	General population, 1997*
			Percentage who had ever smoked				
Boys	21	10	10	8	6	25	19
Girls	21	7	5	1	3	30	21
			Numbers in sample				
Bases							
Weighted							
Boys	*114*	*144*	*89*	*43*	*23*	*450*	*
Girls	*119*	*116*	*119*	*41*	*23*	*445*	*
Unweighted							
Boys	*159*	*138*	*145*	*161*	*76*	*136*	*1,869*
Girls	*170*	*108*	*190*	*144*	*66*	*130*	*1,867*

Source: Health Survey for England – The Health of Minority Ethnic Groups '99, Table 13.12
Note:
**. The 1997 general population data are weighted according to the weighting scheme for that year's survey. Weighted bases are not shown because they do not follow the 1999 weighting scheme.*

Table 8.23 Children aged 8 to 15 years who had ever drunk alcohol by sex and ethnic group, 1999

England — Percentages and numbers

	Black-Caribbean	Indian	Pakistani	Bangladeshi	Chinese	Irish	General population, 1999
			Percentage who had ever drunk alcohol				
Boys	31	12	1	1	18	36	40
Girls	25	8	2	1	11	36	32
			Numbers in sample				
Bases							
Weighted							
Boys	*112*	*143*	*89*	*42*	*23*	*450*	*6518*
Girls	*119*	*116*	*118*	*41*	*23*	*445*	*5754*
Unweighted							
Boys	*157*	*137*	*145*	*159*	*76*	*136*	*500*
Girls	*170*	*108*	*189*	*142*	*66*	*130*	*448*

Source: Health Survey for England – The Health of Minority Ethnic Groups '99, Table 13.18