

Millennium Cohort Study

First Survey

Demographic and socio-economic characteristics of ethnic minority mothers in England

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1 Introduction

1.1 Ethnic differences among mothers and babies

There is evidence that, like poverty and low income, ethnic minority grouping is a significant risk factor for poor health outcomes for mothers and babies, as reflected in infant deaths and maternal mortality, lower birth-weight and infant and maternal morbidity (Rowe et al 2003). Part of this risk lies in the interaction of economic disadvantage with ethnic minority grouping. Successive analyses by the Department for Work and Pensions (DWP) from the Family Resources Survey have shown that children in households in which the head is of minority ethnic origin are more likely than those in white households to be in the lowest quintile of the income distribution in Britain after housing costs are taken into account. Thus: 47% of children in Asian or Asian British households and 43% of children in Black or Black British households, compared with 25% in White households, in 2004-5, are in this category (DWP, 2006). The level of women's economic disadvantage may be greater, given evidence of inequalities in women's access to intra-household income and resources (Goode et al, 1998). Prior to the MCS little reliable information was available on a range of socio-economic circumstances of women of ethnic minority origin around the birth of a baby.

Interpretation of ethnic trends in maternal outcomes is not straightforward because of the historical legacy of measuring ethnic origin by country of birth despite the fact that large proportions of minority ethnic populations were born in the UK (Macfarlane and Mugford, 2000). Following the 1991 Census, in which for the first time a question on ethnic origin was included, mothers' self-reported ethnic origin has been recorded in Hospital Episode Statistics (HES) for England since 1995. But coverage is incomplete, with around 75% of delivery records containing information on mothers' ethnic group in 2003-4 (Department of Health, 2005). Analysis of birthweight by mother's ethnic group has shown that low birthweight rates (<2500g) were, at 9.5% and 11.1%, higher among 'Black' women (Black Caribbean, Black African, Black Other) and 'Asian' women (Indian, Pakistani, Bangladeshi) respectively, than among White women (6.9%) in 2003-4 (Department of Health, 2005).

The Confidential Enquiry into Maternal Deaths for the period 2000 - 2002 showed that women in non-white ethnic groups were, on average, three times more likely to die than women in white groups. The maternal mortality rate for Black African women, including refugees and asylum seekers, was seven times higher than that for White women. There were ethnic inequalities in access to care among women who died, such as late booking (>22 weeks) and limited or no antenatal clinic attendance. Among mothers who died who spoke little or no English, 60 percent were late bookers, or poor attenders or non-attenders for antenatal care (Lewis and Drife, 2004).

1.2 Barriers to care

As current evidence suggests, poorer outcomes for childbearing women in some minority ethnic groups may be closely linked to inequalities in material circumstances

and access to health care during pregnancy and after the birth of a baby. However, there has been relatively little research specifically about inequalities relating to pregnant women and recent mothers, and particularly those in minority ethnic groups. Broader studies of low income families with young children have shown how a low income, and limited access to resources and services such as transport, health care, and childcare are associated with poor health outcomes (Kempson, 1996; Millar and Ridge, 2001; Jayaweera and Garcia, 2000). Maternity Alliance studies of diets in pregnancy have starkly highlighted the negative experiences of and consequences for, women who are financially constrained from having access to a healthy diet (Burchett and Seeley 2003; Dallison and Lobstein 1995). Local study evidence points to women of Bangladeshi origin, and particularly those with lesser English fluency, having difficulty in gaining information about and accessing aspects of antenatal care and antenatal screening (Jayaweera et al 2005a; Sandall et al, 2001)

Such research evidence emphasises the importance of understanding the economic and social circumstances of childbearing women and the implications for their health, that of their babies, and their access to health care. It is also important to take into account diversity in circumstances, to distinguish for example, between the experiences of women and their partners who have migrated relatively recently to Britain, such as many women living in Bangladeshi communities, and those of women from well established ethnic minority communities such as the Black Caribbean and some South Asian groups. Attention also needs to be paid to differences within and between ethnic groups. One of few surveys of women's morbidity in the perinatal period that included women of ethnic minority origin, found that women of Asian origin in Birmingham reported fewer incidences of stress-related illnesses such as headaches and post natal depression than did white women. It was suggested that Asian women's greater access to social support deriving from the availability of extended family networks makes coping with post-delivery stresses such as childcare easier. However, the Asian women in this study were also 'socially atypical of their ethnic group' as they were of higher social class and lower parity than the population of Asian mothers in Birmingham (MacArthur et al, 1991).

For all women and their children to get the care and support they need in the perinatal and early childrearing period, the NHS and other services need to respond to differences in their circumstances and support needs. Exploring variations in experiences and needs is important for appropriate targeting of health and social services, for example, the provision of interpreting or advocacy services, community support, wider poverty alleviation or neighbourhood regeneration strategies. Two Institute of Public Policy Research (IPPR) reports have stressed the importance of improving financial support for all children in the first year of their lives and their parents (Bennett, 2002; Kendall and Harker, 2003). More substantial evidence is needed about the situation and needs of such families, particularly those who are more disadvantaged, such as ethnic minority, low income and young parents. The availability of a wealth of information about a relatively large number of ethnic minority women with babies in a national sample in the Millennium Cohort Study provides a unique opportunity to explore the relationship between ethnicity, material and social circumstances, and outcomes for mothers and babies among ethnic minority women in the UK.

We begin by describing the sample according to ethnic identity, and then go on to present ethnic differences and similarities in some basic demographic and socio-economic circumstances of the mothers and their families.

2 The Millennium Cohort Study

The Millennium Cohort Study (MCS) is a longitudinal survey of the lives of babies born at the turn of the 21st century. It was designed as an exceptional research opportunity to examine the social conditions surrounding birth and early childhood and their long-term impact. The survey sample was drawn from all live births in the UK over a 12 month period from 1 September 2000 in England & Wales and 1 December 2000 in Scotland & Northern Ireland. Sample selection was from a random sample of electoral wards that were disproportionately stratified to ensure adequate sample size of all four UK countries, deprived areas and areas with high concentrations of Black and Asian families. The first sweep of the survey collected information from the parents of 18,819 babies living in the selected UK wards at age 9 months.

The focus in this paper is on natural mothers in England who were the main respondents in the interview in Sweep 1 (n=11, 502).¹ The numbers of ethnic minorities in the other 3 countries were too small to conduct separate country-specific analysis. Natural mothers were chosen because most circumstances around the birth of a baby primarily affect them, although it is always important to consider them in the context of their households and other relationships. Of the 11, 502 mothers, 11, 476 recorded their membership of an ethnic group, based on their self-perceived ethnic identity². Table 1 shows the ethnic distribution of these mothers.

Table 1
The distribution of natural mothers in ethnic groups, MCS England

Ethnic group+	Unweighted	Weighted	Weighted %
White	8664	8581	87.2
Pakistani	866	339	3.4
Indian	458	217	2.2
Black African	366	169	1.7
Bangladeshi	359	110	1.1
Black Caribbean	255	124	1.3
Mixed	169	109	1.1
Other*	339	186	1.9
Total	11476	9836	

+Ordered according to sample size

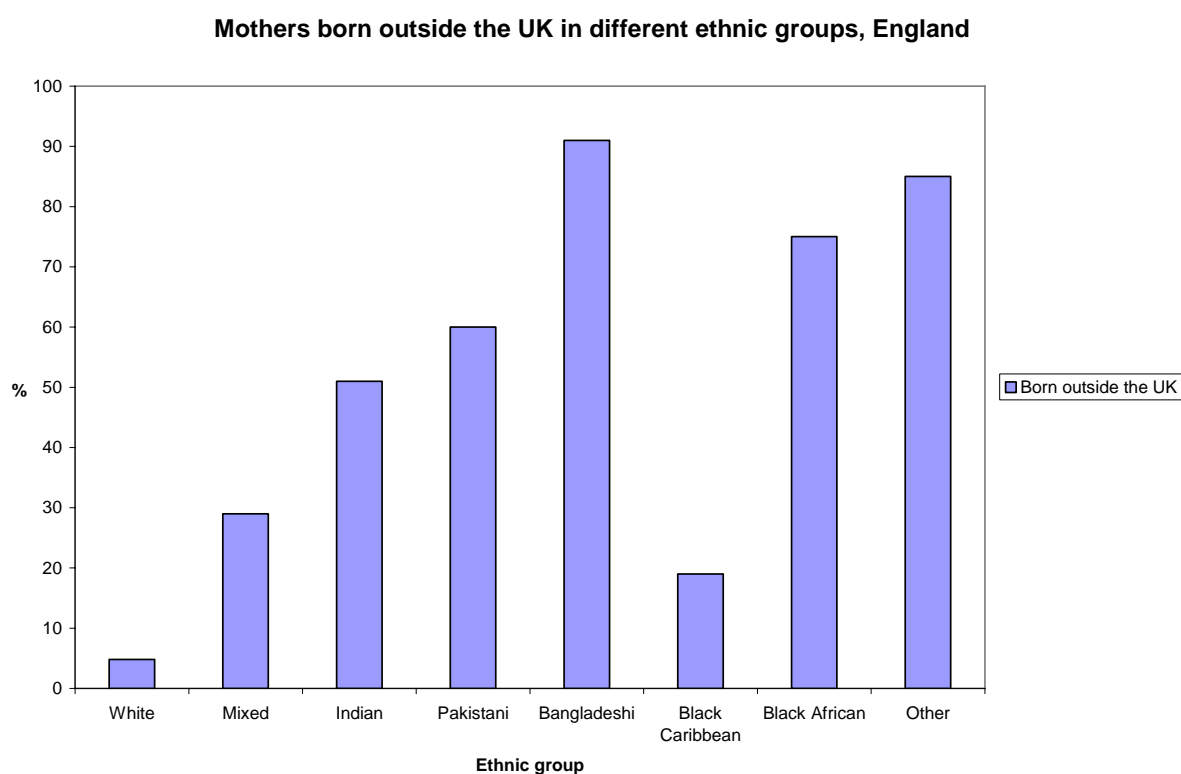
* 'Other' is a heterogeneous category comprised of Chinese, 'any other Asian background' (e.g. Sri Lankan), 'any other black background', and 'any other background' including diverse categories like Arab, Filipino, Japanese, Israeli.

¹ This excluded 14 lone fathers, 2 adoptive mothers, 1 foster mother, 2 maternal grandmothers and 12 natural mothers in couples who were not interviewed.

2.1 Birthplace

Bangladeshi mothers were the most likely to be immigrants, with 91% born outside the UK. Three quarters of Black African mothers were also born outside the UK. Among the South Asian origin groups, fewer Pakistani (60%) than Bangladeshi mothers, were immigrants, and around half of Indian mothers were also born outside the UK. The least 'migrant' group was Black Caribbean mothers, with 19% born outside the UK (Figure 1). These differences arise from differences in migration histories of the different ethnic groups (Modood et al 1997; Peach et al, 1996)

Figure 1*



Base: MCS natural mothers in England born outside the UK. Weighted percentages and numbers.³

* Mothers' place of birth was derived by NPEU from administrative data and ISO 3166 coding. Figure includes 802 additional cases that were linked to birth registration data at the second phase of this operation.

2.2 Area of residence

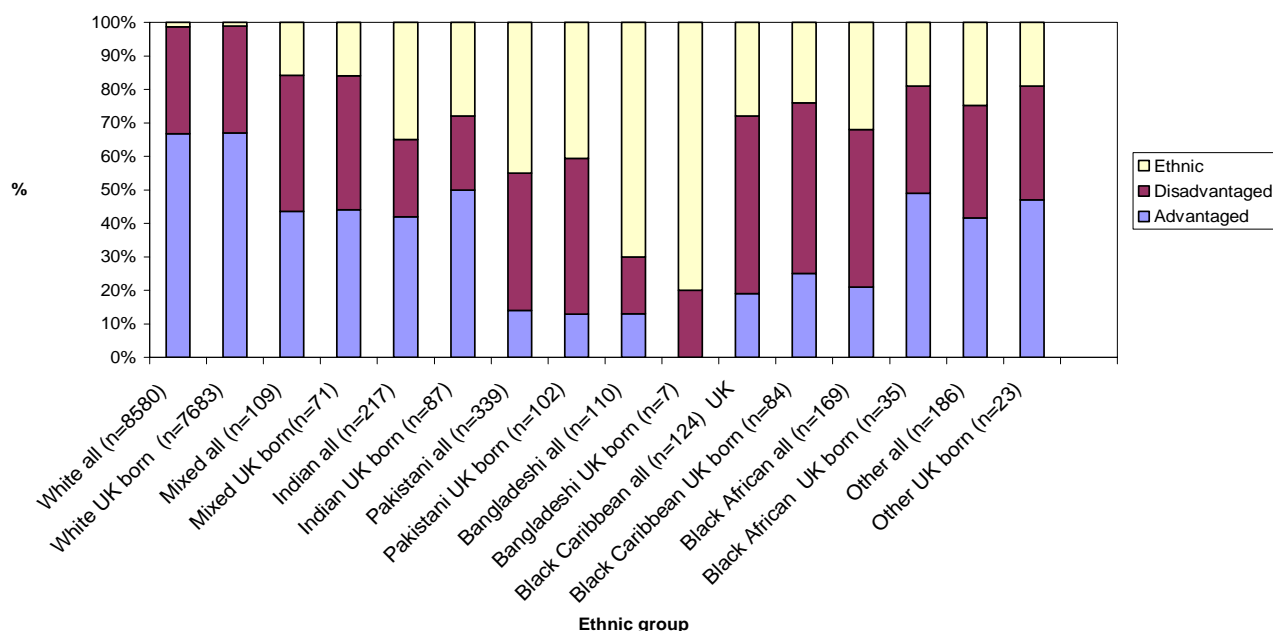
Figure 2 shows considerable ethnic variation in residence patterns among the mothers, with more dispersal of ethnic minority groups, apart from Bangladeshis, in all three ward types, than might have been expected as a result of the stratified sampling design (Plewis, 2004). Of all Bangladeshi mothers, 70%, which is double the proportion of Indian mothers and around three quarters as many as Pakistani

³ All figures in this paper are based on weighted numbers which understate the actual sample size for ethnic minority groups. (See Table 1).

mothers, lived in wards with high ethnic minority concentrations.⁴ The largest proportions among both Black Caribbean and Black African mothers - 53% and 47% respectively - were found in the disadvantaged wards. Three times as many Indian mothers as Bangladeshi and Pakistani mothers were in advantaged wards, and the highest proportion of Indian, like Mixed and White mothers, lived in these wards, reflecting patterns and timing of migration.

Figure 2

The distribution of mothers in different ethnic groups in ward types, all mothers and UK born mothers



Base: MCS natural mothers in England. Weighted percentages and numbers. For unweighted numbers see Table 1

Figure 2 also shows evidence that among some ethnic groups, mothers born in the UK are less disadvantaged and more dispersed according to ward type. This is particularly the case among Black African mothers, as 49% of the UK born Black African, compared with 21% of all Black African, mothers lived in advantaged wards. Among Indian mothers, 50% of those born in the UK compared with 42% of all Indian mothers, were in advantaged wards. Pakistani mothers born in the UK were less likely to be in ethnic wards (41% compared to 45%) and more likely to be in disadvantaged wards (47% compared to 41%) than all Pakistani mothers. The majority of Bangladeshi mothers born in the UK were found in wards of high minority ethnic concentration, as in the case of all Bangladeshi mothers, but as the UK born

⁴ Wards with high minority ethnic concentrations are those with at least 30% of their total population in the two categories 'Black' or 'Asian' in the 1991 census. Of the 169 wards in the ethnic minority stratum, 134 are also defined as disadvantaged – i.e. belonging to the poorest 25% of wards in the Child Poverty Index - and these are excluded from the disadvantaged stratum (see Plewis, 2004).

total is very small, it is difficult to come to any conclusion about their pattern of residence according to birthplace.

3 Demographic characteristics

Table 2 shows a range of variables describing selected demographic characteristics of MCS mothers in England by ethnic group. Elements of these characteristics are discussed in relevant sections below.

Table 2

Selected demographic characteristics of MCS mothers in ethnic groups, England

Characteristics	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other ethnic groups*	p value
% who were teenage mothers at birth of first baby (whether cohort baby or not)	17.0	26.0	6.1	18.0	34.0	25.0	13.0	9.0	<0.001
% whose cohort baby is first born	43.0	41.0	41.0	30.0	24.0	38.0	29.0	46.0	<0.001
Median/mean age at birth of cohort baby	29/29.0	27/27.9	28/28.8	26/26.6	25/26.4	30/29.9	31/31.0	30/30.1	
% who have had 3 or more live births	20.0	26.0	21.0	39.0	47.0	29.0	39.0	17.0	<0.001
% living as lone parents	13.0	30.0	4.0	7.0	5.0	48.0	38.0	10.0	<0.001
% in households with 3 or more other siblings of cohort baby	5.7	7.2	2.8	19.0	28.0	12.0	13.0	9.2	<0.001
% of households with at least one Grandparent	4.4	8.1	30.0	25.0	29.0	11.0	4.2	7.3	<0.001
% with no English spoken at home	0.4	5.1	12.0	25.0	34.0	0.2	14.0	25.0	<0.001
Maximum unweighted sample size (N) **	8664	169	458	866	359	255	366	339	

*A heterogeneous category comprised of mothers of all other backgrounds.

** Unweighted sample of natural mothers in England before missing cases on particular variables were dropped

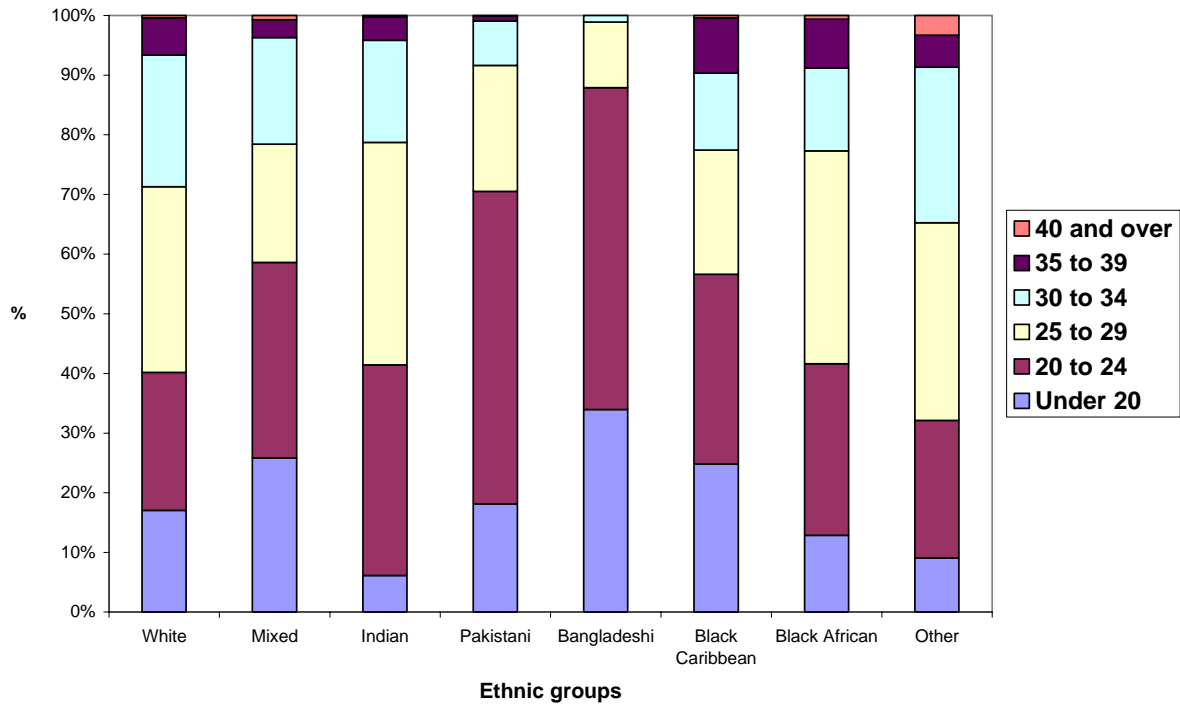
Base: MCS natural mothers in England. Weighted percentages derived from weighted numbers.

3.1 Age

3.1.1 First live birth

Figure 3

Age distribution of mothers at first live birth



Base: MCS natural mothers in England. Weighted percentages

Over 10% of mothers in all ethnic groups apart from Indians and ‘other ethnic’ mothers, were under 20 years old at their first live birth - whether this was the cohort baby or not: Table 2, row 1 and Figure 3. But there are wide ethnic variations in the prevalence of teenage motherhood. About a third of Bangladeshi, and a quarter of Mixed and Black Caribbean, mothers in this sample in England were teenage first time mothers. Among the Asian groups, proportions of teenage mothers were far lower among Indians than among Pakistanis and Bangladeshis. Other research has found a similar ethnic diversity in patterns of teenage motherhood (Berthoud, 2001a). Despite a high incidence, teenage motherhood may have somewhat different characteristics and implications among Bangladeshi mothers compared to Caribbean or Mixed groups, given that the former are far more likely to be married (Berthoud, 2001a). There is no information in the MCS about marital status at first live birth, but if we look at marital status at the time of the first interview survey, of mothers who were teenagers at first birth, almost all Bangladeshi mothers (92%) were married compared with 22% Mixed and 19% Black Caribbean origin mothers. Figure 3 also shows that although many of these mothers from all ethnic groups had their first baby in their 20s, more Bangladeshi and Pakistani mothers were in their early 20s while the other groups, with the exception of the Mixed group, were more likely to be in their mid to late 20s. There were fewer first time mothers over 30 among Pakistani and Bangladeshi groups compared with White, Black Caribbean and Black African mothers. This may be linked to the former’s lower education levels and low paid job opportunities as described below.

3.1.2 The cohort baby

The cohort baby was the first born for fewer than half the mothers in all ethnic groups; but there are quite distinct ethnic differences as Table 2, row 2, shows. For example, a little under three quarters of Bangladeshi mothers had previous children, compared to a little less than 60% of White mothers. As Table 2, row 3 shows, mothers' median and mean ages at birth of the cohort baby were congruent with these patterns, Bangladeshi and Pakistani mothers were younger than other mothers, and Black African mothers being slightly older as noted above.

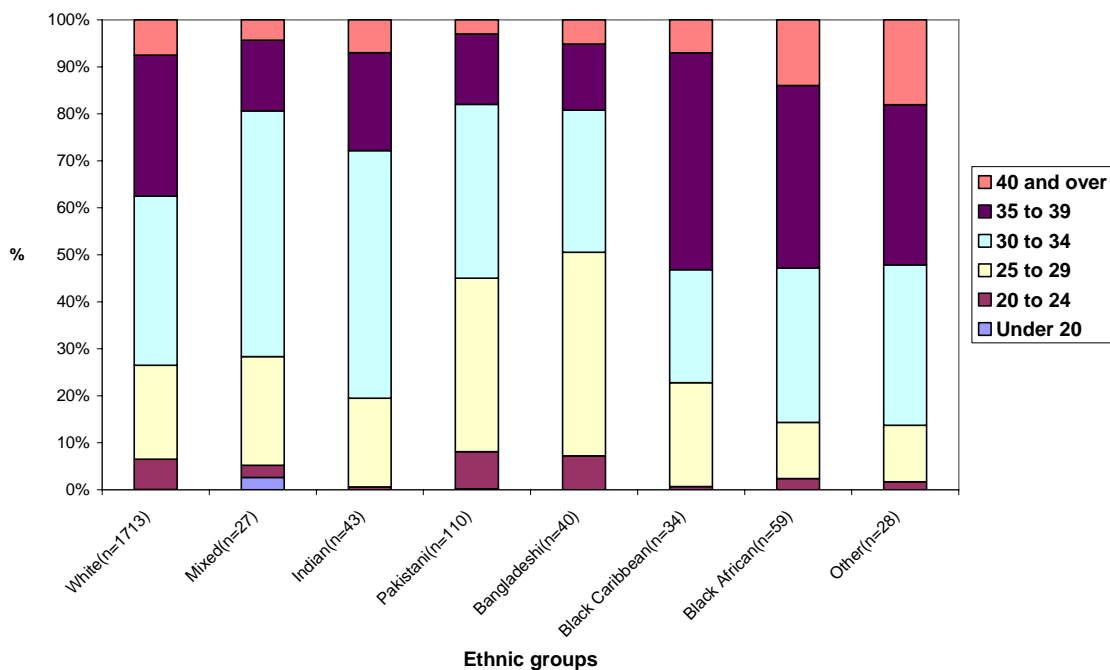
A further analysis of Black African mothers' ages at birth of the cohort baby shows that mothers with higher qualifications were older. Three quarters of mothers with a tertiary level qualification were in the 30-39 age group at the time of the birth, compared to 43% of mothers with no qualifications. The educational levels of Black African mothers are explored in more detail later in this paper. However, there was no significant difference by birthplace in the age at cohort baby's birth ($p=0.8149$): for example, 61% of Black African mothers born in the UK and 57% of Black African mothers not born in the UK were in the 30-39 age group.

3.1.3 Parity (live births)

Table 2 row 4 shows that Bangladeshi, followed by Pakistani and Black African mothers, had larger numbers of live births. 47.0% of all Bangladeshi mothers had 3 or more children at the time of interview, compared to 20.0% of White and 21.0% of Indian mothers. Labour Force Survey data from a similar time period as the MCS shows that Bangladeshi mothers, followed by Pakistani mothers, were the most likely ethnic groups to have more than 2 children (Lindley et al 2004). High parity Bangladeshi and Pakistani mothers in the MCS tended to be younger than mothers in the other ethnic groups (Figure 4): of mothers with 3 or more live births, 8.1% Pakistani and 7.2% Bangladeshi mothers compared with 6.5% White, 0.6% Indian and 2.4% Black African mothers were under age 25 at interview.

Figure 4

Age distribution of mothers who have had 3 or more live births



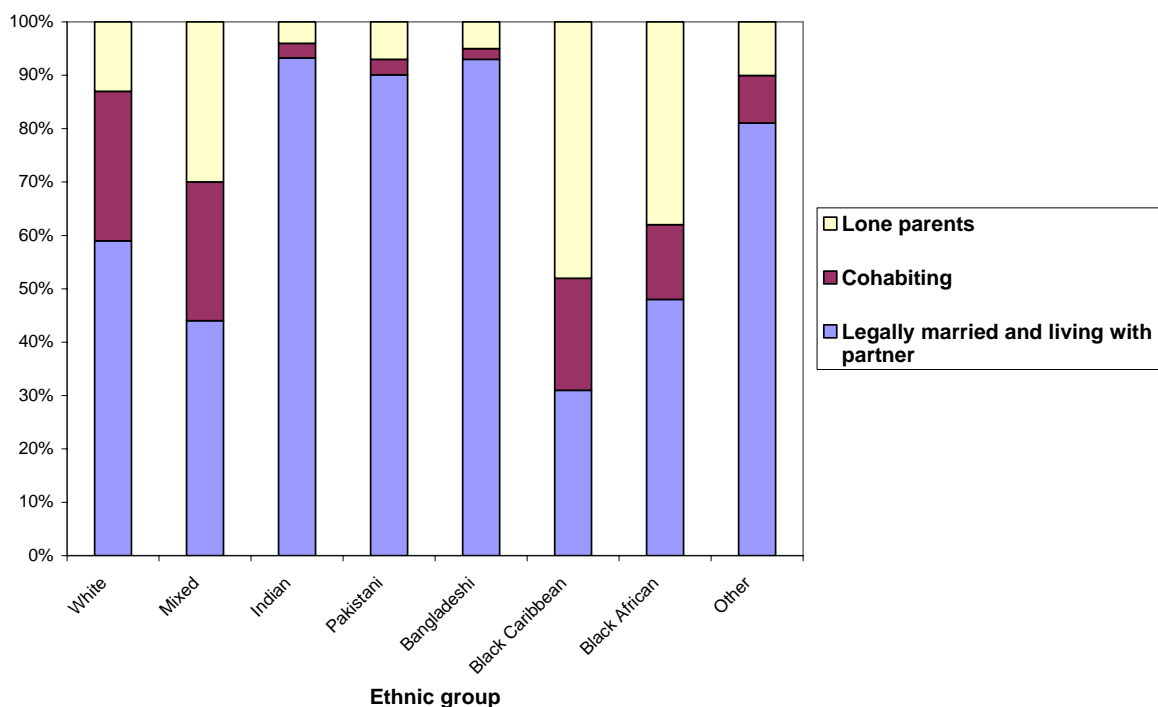
Base: MCS natural mothers in England. Weighted percentages and numbers

To summarise the above patterns, it can be seen that Bangladeshi mothers were much more likely than other groups to start giving birth and to have a larger number of children, at a younger age. Pakistani mothers tended towards larger numbers of live births, but were generally older than the Bangladeshi mothers. Indian mothers' patterns of family formation were similar to those of White mothers, except White mothers had fewer teenage births. Black African mothers differed from Black Caribbean and the Mixed mothers in having fewer births in the youngest age group.

3.2 Partnership status

Figure 5

Partnership status of mothers in ethnic groups



Base: MCS natural mothers in England. Weighted percentages

The incidence of lone parenthood appears highest among Black mothers in England, particularly the Black Caribbean mothers, in which nearly half were living as single parents (Table 2, row 5). Nearly a third of the Mixed ethnic mothers were also single parents. Lone parenthood was least evident among the Asian groups, with a prevalence of marriage of over 90%. On the other hand, cohabiting was most evident among White and Mixed mothers and to a lesser extent among Black mothers. Over a quarter of White and Mixed mothers were in unmarried couples (Figure 5). These diverse ethnic patterns are consistent with trends found in other surveys, as Labour Force Survey data shows (Lindley et al 2004).

Black Caribbean mothers in England in the MCS were also the least likely ever to have been legally married: 57% were never-married, though some were in cohabiting relationships. Nearly half of all mothers in the mixed ethnic group were also 'never married', as were around a third of White and Black African mothers. In contrast, only a very small proportion in the Asian groups had not married (less than 3%, 2% and 1% of Indian, Pakistani and Bangladeshi mothers in England respectively). These marital patterns, particularly

differences between Black Caribbean, White, and South Asian mothers, are consistent with recent trends (Modood et al 1997). Other survey evidence also highlights the importance of age in examining marital patterns as there appears to be some evidence that Black Caribbean women get married as they get older (Berthoud 2001b). If we look at marital status by age at interview in the MCS we find that, in England, 77% of Black Caribbean mothers in their 20s were never married, but that this percentage falls to 41% of those giving birth in their 30s.

3.3 Household size and structure

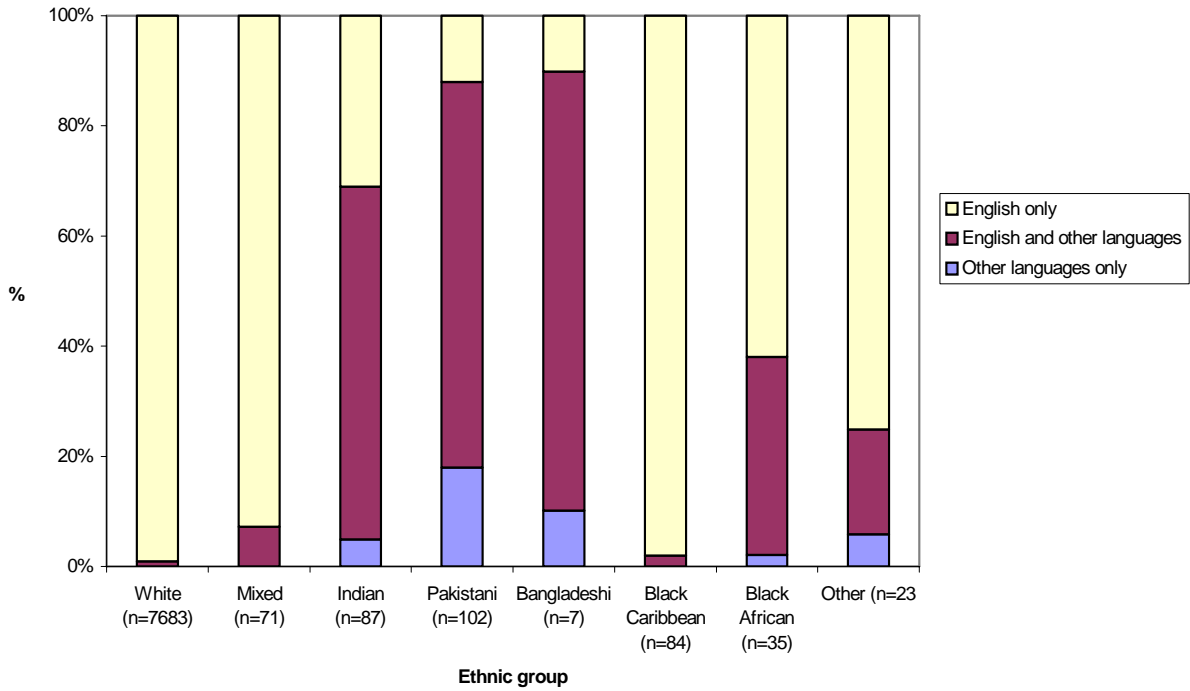
The number of children in households is related to but is not synonymous with the number of children to whom the women have given birth, as it can include step, adopted or foster children. There were wide ethnic variations in household size and structure among the MCS families. Pakistani and Bangladeshi mothers were the most likely to have larger, 3 generational families, and White and Mixed mothers the least. Indian mothers differed from the other Asian groups in having a high proportion of grandparents in the households, but their immediate family size tended not to be large (Table 2, rows 6 and 7). This evidence fits in with data from the Labour Force Survey for Spring 2002, showing a difference in average household size between Bangladeshi and Pakistani households (4.7 and 4.2 respectively), Indian (3.3) and White, Black Caribbean households and those of Mixed backgrounds (around 2.3) (White, 2002).

3.4 Language

Households in which mothers originated in countries where English is not the main language were most likely not to speak English at home; that is, 34% of Bangladeshi mothers, 25% of Pakistani mothers, 14% of Black African mothers and 12% of Indian mothers (Table 2, row 8). However, even among these groups some English was spoken in the majority of homes : 69% of Pakistani, and 65% of Bangladeshi, mothers lived in households in which English and other languages were both spoken. It is also significant that while in less than 1% of Bangladeshi households and less than 10% of Pakistani households was English alone spoken, 20% of Indian mothers and 37% of Black African mothers lived in solely English speaking households (see Figure 2.9 in Bartley et al 2005, p.40). The ethnic differences in household language use revealed among MCS mothers corroborate findings from the 1995 Infant Feeding Survey of Asian Families. That survey found that 3% of Bangladeshi, and 9% of Pakistani, mothers spoke English at home compared to 20% of Indian mothers (Thomas and Avery, 1997, p.142). The MCS data suggests that birthplace is important, as mothers born in the UK were less likely than those born outside the UK, to be in households where only their own, native languages were spoken (see Figure 6a and Figure 6b).

Figure 6a

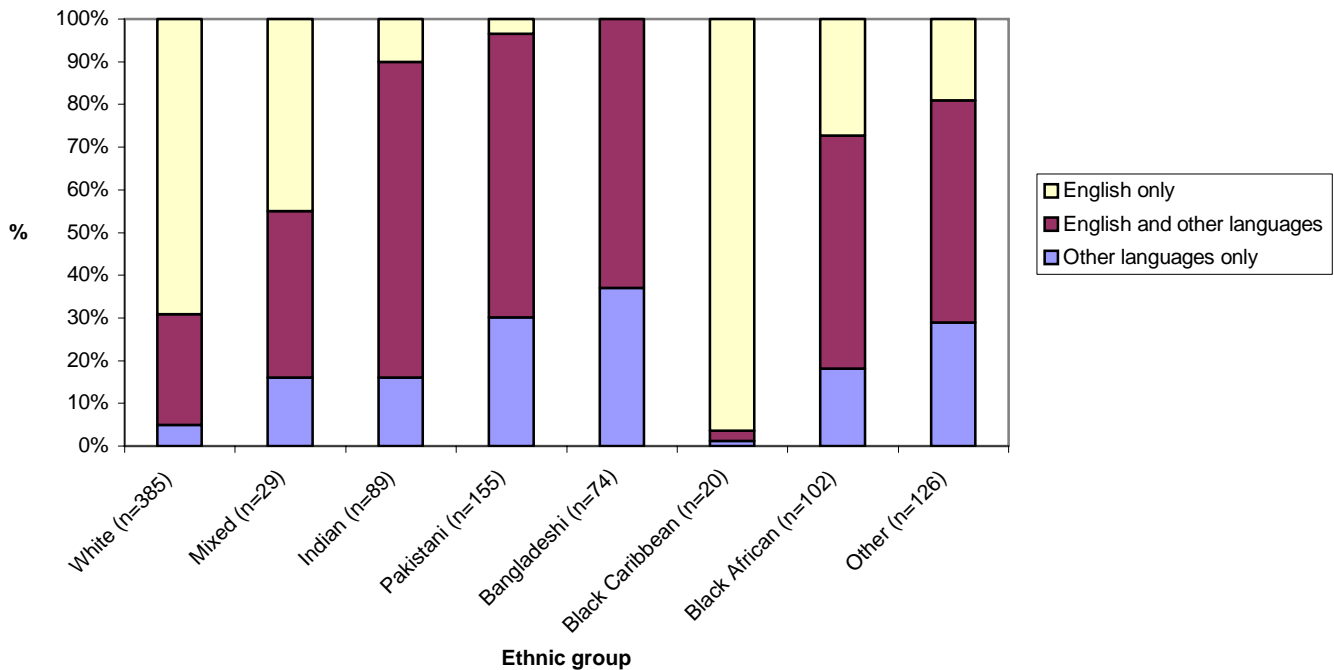
Languages spoken at home among mothers born in the UK by ethnic group



Base: MCS natural mothers in England born in the UK. Weighted percentages and numbers

Figure 6b

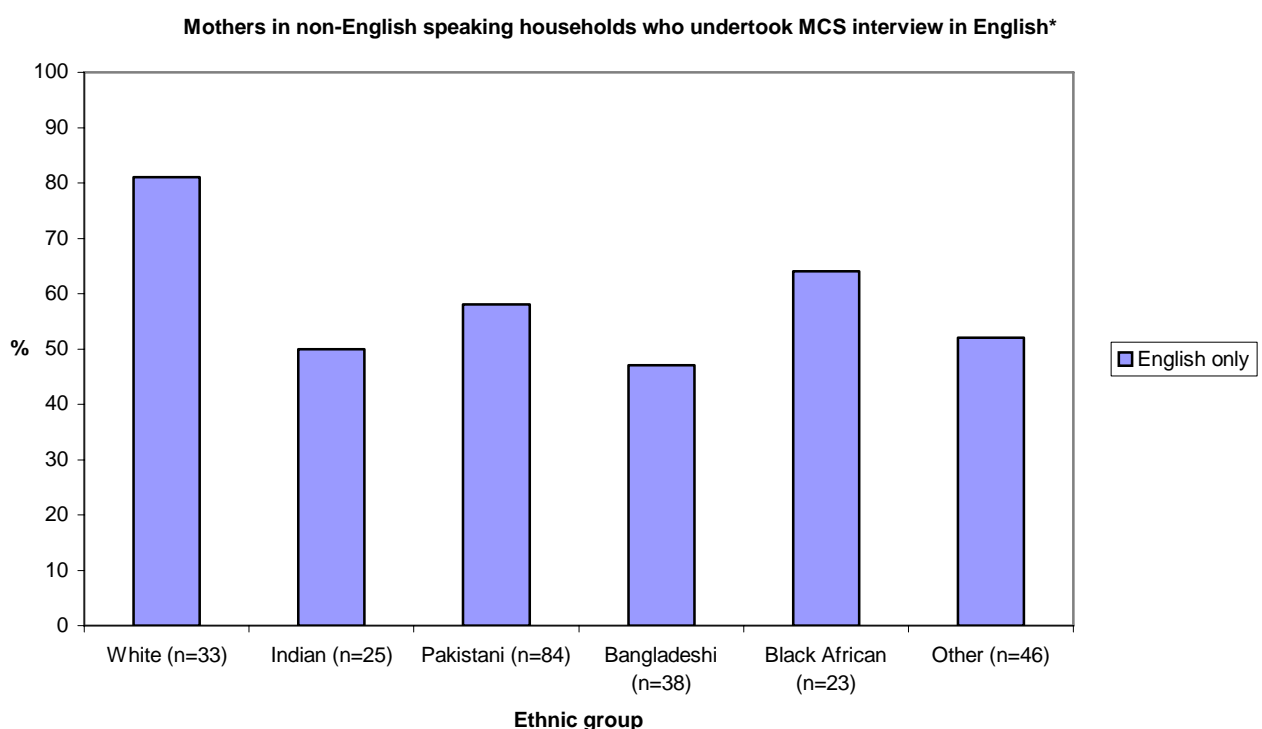
Languages spoken at home among mothers born outside the UK by ethnic group



Base: MCS natural mothers in England born outside the UK. Weighted percentages and numbers

There is evidence that ability to communicate in English has major implications for access to and use of maternity and child health services among minority ethnic groups (D'Souza et al, 2001-2). However, the extent to which English is spoken at home is not necessarily synonymous with personal ability to speak or understand English. We examined how many mothers speaking only other languages at home undertook the MCS interview in English. Figure 7 shows that a substantial proportion of mothers in different ethnic groups living in non-English speaking households chose to be interviewed in English. This includes 47% of Bangladeshi, 50% of Indian, 58% of Pakistani, and 64% of Black African mothers in such households. This suggests the existence of relatively widespread understanding of English among mothers. The Infant Feeding Survey of Asian Families mentioned above also found that relatively few mothers - 16% of Bangladeshi, 9% of Pakistani, and 2% of Indian mothers - were not able to understand English at all (Thomas and Avery, 1997, p.142).

Figure 7



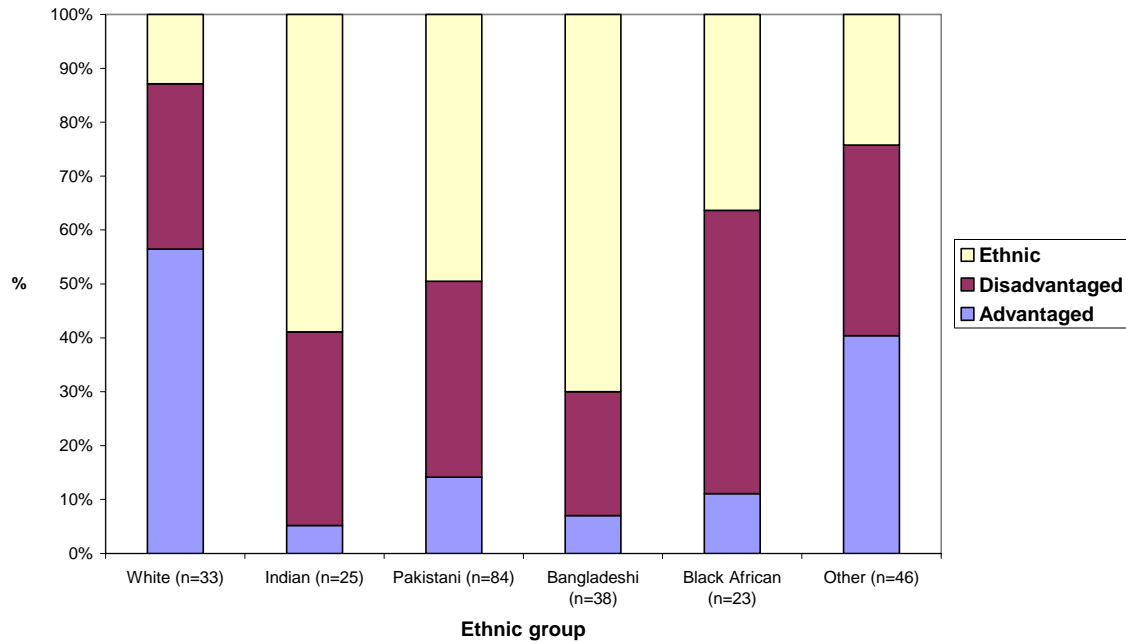
Base: MCS natural mothers in England in non-English speaking households. Weighted percentages and numbers

* Mixed origin and Black Caribbean mothers have been excluded because of very small numbers.

For Indian mothers and to a lesser extent Black African mothers, there appeared to be an association between language spoken at home and the area in which they lived (Figure 8, compared to Figure 2a). Indian mothers who lived in households where no English was spoken at all were more likely to be in wards with high minority ethnic concentration than all Indian mothers. Black African mothers in non-English speaking households were less likely to be living in non-disadvantaged wards than all Black African mothers. For Pakistanis and Bangladeshis this association between household language and ward type seemed lower (Figure 8 and Figure 2a). Ethnic minorities living in communities close to other members of their groups may have less need to use English and may have had less chance to move away hindered by the lack of language skills. These findings should perhaps be interpreted with caution because of small sample sizes for these statistics.

Figure 8

Area of residence of mothers living in households where no English is spoken*

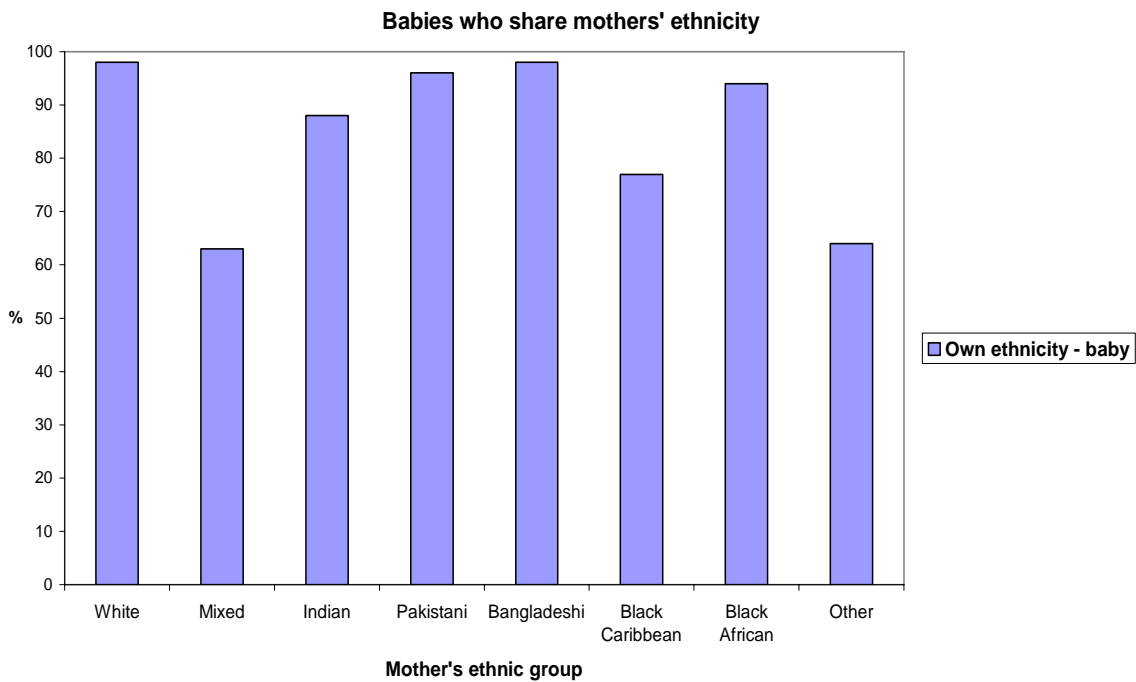


Base: MCS natural mothers in England in non-English speaking households. Weighted percentages and numbers

* Mixed origin and Black Caribbean mothers have been excluded because of very small numbers.

3.5 Ethnic identity

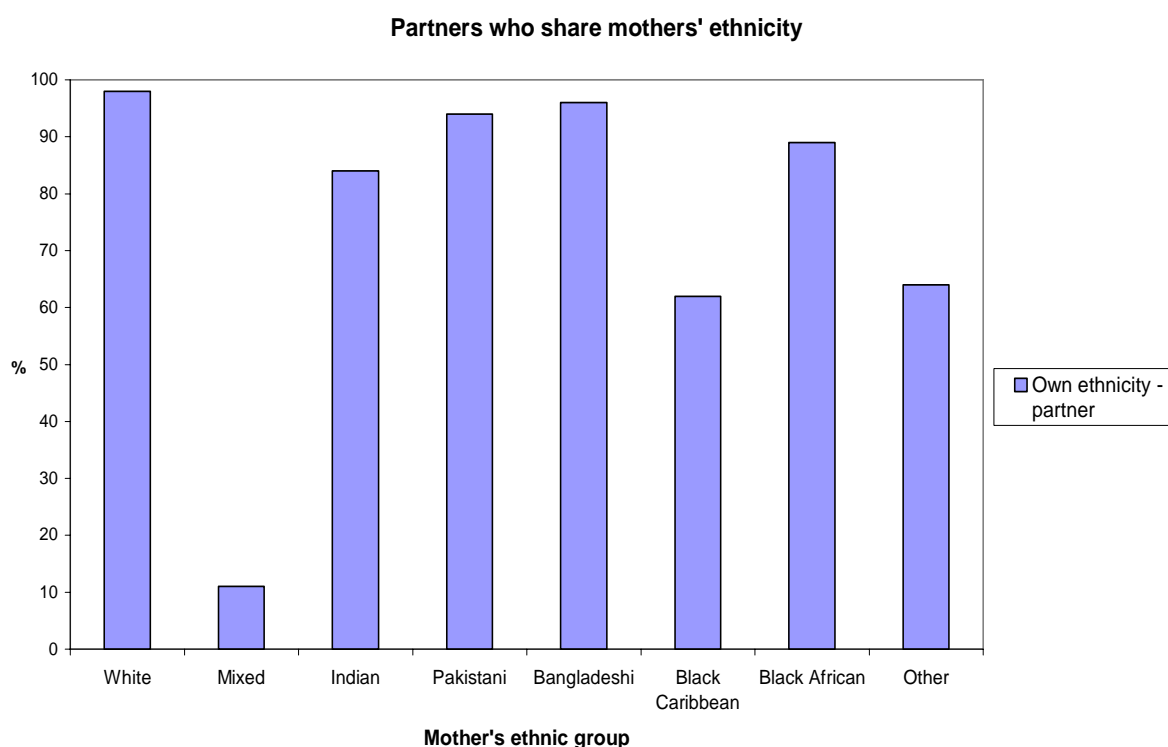
Figure 9a*



Base: MCS natural mothers in England. Weighted percentages and numbers

* Babies' 'ethnic identity' given by mothers.

Figure 9b⁺



Base: MCS natural mothers in England with partners. Weighted percentages

+The (weighted) number of partners in some ethnic groups is small, particularly, Black Caribbeans =51; Mixed=61; Black Africans=80. Unweighted numbers are somewhat larger. This largely reflects the high incidence of single parenthood among the mothers in these groups as well as non-response by partners who were present .

With a few exceptions, most babies, and most partners among mothers with partners, shared the mother's ethnicity. This was almost universal among the White mothers, and over 90% among the Bangladeshi and Pakistani mothers. The proportions were almost as high among the Black Africans (Figures 9a and 9b). Around a quarter of Black Caribbean mothers had partners who were White, although only 17% reported their babies' ethnicity as Mixed. Further analysis is needed to understand possible reasons for this. A little under 10% of Indian mothers with partners had White partners, which is congruent with just under 10% of their babies having a Mixed ethnicity. The greater prevalence of inter-ethnic partnerships among Indians compared to the other Asian mothers may be an indication of longer established settlement in the UK. Overall 3.6% of all the MCS babies were reported to have mixed ethnic origins. The increasing tendency among ethnic minority populations who were born in the UK to have White partners is documented in other survey evidence (Modood et al, 1997). Among Indian mothers with partners in the MCS, 11% of those born in the UK had a White partner, compared to just under 8% of those born outside the UK.

Summary of demographic characteristics

Interesting ethnic variations in demographic characteristics were found among the MCS mothers. There were clear-cut differences within the South Asian category, between Indian mothers on the one hand, and Pakistani and Bangladeshi mothers on the other, The latter, and particularly Bangladeshi mothers, were more likely to be of the migrant generation, concentrated in less advantaged areas, having larger numbers of children, and starting family formation at a younger age, in bigger households, and with significant proportions with

limited English speaking particularly at home. Black Caribbeans were a more established population than the Africans, but had a similar pattern of residence in disadvantaged wards, and a high proportion of lone and older mothers compared to the Asian and White groups.

4 Socio-economic characteristics

Tables 3a and 3b show a range of variables describing selected socio-economic characteristics of MCS mothers in England by ethnic group, which are discussed in relevant sections below.

TABLE 3a
Selected educational, labour market and financial characteristics of MCS mothers in ethnic groups, England

Characteristics	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other ethnic groups*	p value
% with tertiary level academic qualifications	28.0	26.0	37.0	11.0	7.2	23.0	39.0	35.0	<0.001
% with no qualifications**	9.9	19.0	15.0	41.0	42.0	12.0	24.0	24.0	<0.001
Median/mean age at leaving full time education	16/18	16/18	18/19	16/17	16/17	17/17	18/19	18/19	
% looking after home and family and have not actively sought work after birth	36.5	52.6	36.9	78.4	81.6	35.6	40.5	58.8	<0.001
% in managerial and professional social classes***	34.0	31.0	34.0	16.0	19.0	31.0	31.0	32.0	<0.001
% in semi-routine and routine social classes***	36.0	40.0	35.0	60.0	62.0	32.0	38.0	35.0	<0.001
% in couples where both not in work/on leave	6.0	18.0	4.6	17.0	22.0	11.0	14.0	9.7	<0.001
% in households with a low income****	19.0	44.0	21.0	43.0	51.0	44.0	42.0	24.0	<0.001
% in households receiving one or more means tested benefit(s)*****	33.0	51.0	24.0	58.0	62.0	57.0	52.0	29.0	<0.001
% with self-perceived financial difficulties	9.5	20.7	10.3	12.5	21.6	15.9	35.0	16.2	<0.001
Maximum unweighted sample size*****	8664	169	458	866	359	255	366	339	

* A heterogeneous category comprised of mothers of all other backgrounds.

** Existing derived variable giving NVQ equivalence of respondent's highest academic or vocational educational qualification

*** Based on current or past occupation

**** Less than 10,400 p.a., based on threshold of <£176 pwk in 2000-1 HBAI, not adjusted for household size (see Bradshaw et al 2005, pp.80-1)

***** These are: Income Support, Jobseekers' Allowance, Working Families Tax Credit, Disabled persons Tax Credit

***** Unweighted sample of natural mothers in England before missing cases on particular variables were dropped

Base: MCS natural mothers in England. Weighted percentages derived from weighted numbers

TABLE 3b

Selected housing and area characteristics of MCS mothers in ethnic groups, England

Characteristics	White	Mixed	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Other ethnic groups*	p value
% who are home owners**	66.0	39.0	69.0	58.0	35.0	34.0	22.0	53.0	<0.001
% living with parents or rent free	3.9	5.4	14.0	19.0	14.0	6.7	2.1	5.2	<0.001
% living in social housing***	21.0	47.0	8.1	14.0	42.0	55.0	68.0	24.0	<0.001
% with damp in their homes	13.0	25.0	7.6	16.0	25.0	23.0	23.0	17.0	<0.001
% with access to a car or van	87.0	67.0	89.0	80.0	66.0	70.0	61.0	72.0	<0.001
% who are dissatisfied with their area****	10	19	9.1	12	8.4	21	16	9.6	<0.001
Maximum unweighted sample size (N)*****	8664	169	458	866	359	255	366	339	

* A heterogeneous category comprised of mothers of all other backgrounds.

** Own outright or with mortgage or part mortgage/part rent (shared equity)

*** rented from the local authority or a housing association

**** Combining dissatisfied with very dissatisfied

***** Unweighted sample of natural mothers in England before missing cases on particular variables dropped

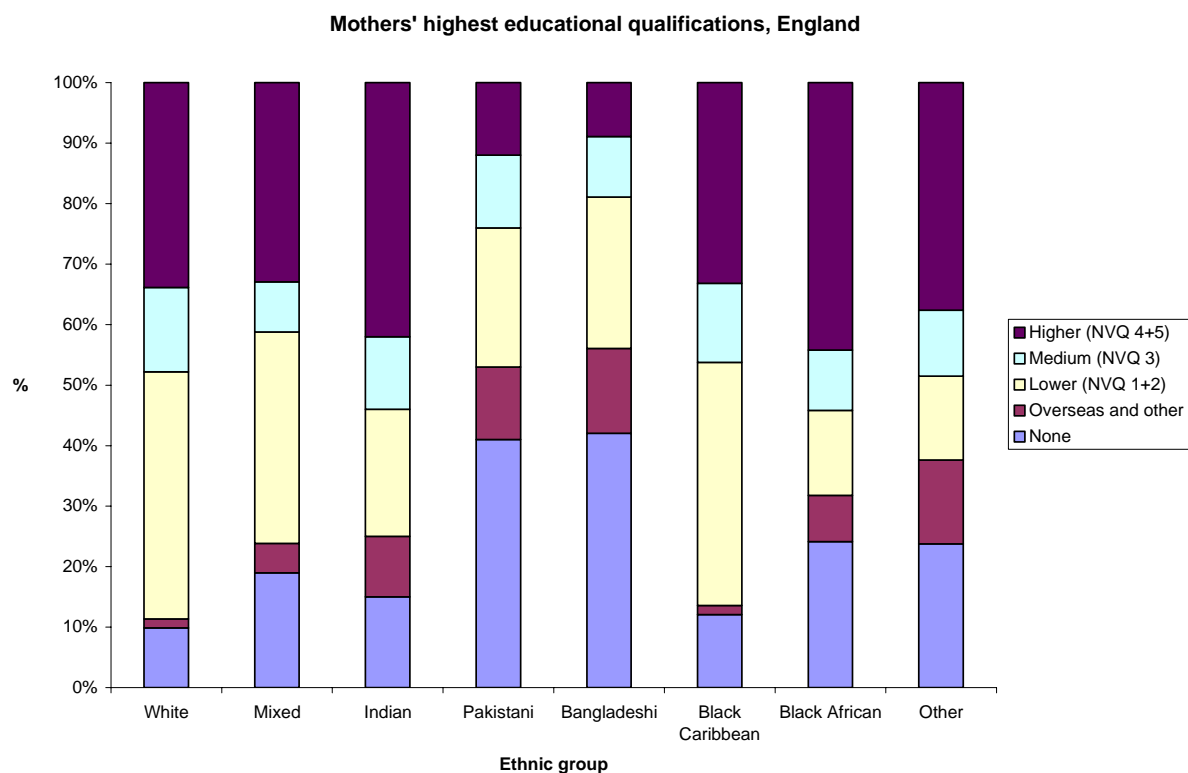
Base: MCS natural mothers in England. Weighted percentages derived from weighted numbers

4.1 Education

Looking at tertiary level academic qualifications among mothers according to ethnic identity (Table 3a, row 1) shows that two groups - Indian and Black African mothers - stand out in that nearly two fifths in both cases have gained an academic qualification beyond school level. Pakistani and Bangladeshi mothers have comparatively low levels of higher academic qualifications. Using a derived variable giving NVQ equivalence of respondents' academic or vocational qualifications in Table 3a, row 2, also shows that just over 40% of Pakistani and Bangladeshi mothers have no academic or vocational qualifications. The median and mean age of mothers at leaving full-time education (Table 3a, row 3) fit in with these patterns, with Indian and Black African mothers staying in full-time education for longer than those in the other ethnic groups, particularly Bangladeshi and Pakistani mothers.

Figure 10 shows the distribution of the highest qualification in each ethnic group, using NVQ equivalence. While Indian and Black African mothers are the most likely to have higher qualifications (degree level or beyond), whether academic or vocational, it is also notable that around nearly a quarter of Black African mothers also have no qualifications, suggesting that there is a polarisation between highly educated Africans and those with very limited education.

Figure 10



Base: MCS natural mothers in England. Weighted percentages and numbers

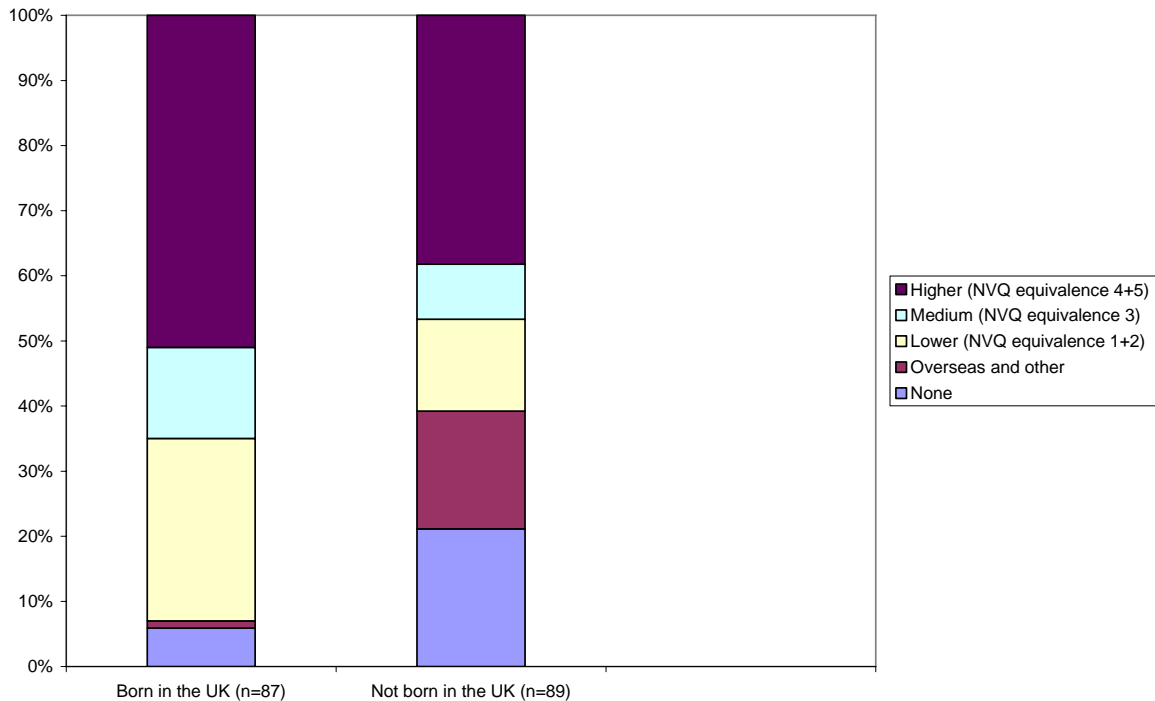
The intra-group differences in educational levels among Indian and Black African mothers are worth further investigation. They suggest that there may be differences in circumstances and experiences of mothers, for example associated with migration and settlement or religion and culture, that influence educational opportunities and access to educational resources. For MCS mothers, at a life cycle stage where they may have tenuous links with

the labour market, their level of education, may be more important than conventional socio-economic measures for understanding inequalities in outcomes and in access to health care (Macfarlane and Mugford, 2000).

Further analysis of the data on the educational levels of the Indian and Black African mothers shows that among Indian mothers, those who were born in the UK were more likely to have higher level qualifications and far less likely to have no qualifications, as Figure 11a shows. The differences between the migrant and second generation were even starker among Black African mothers, as can be seen in Figure 11b, with 73% of mothers born in the UK having higher qualifications compared with 34% of those not born in the UK. Almost all those who had no qualifications (98%) were born outside the UK. It is noteworthy however, that slightly less than half (48%) of the 25 UK born Black African mothers with high (degree level or higher) qualifications were in managerial, professional or high supervisory occupations.

Figure 11a

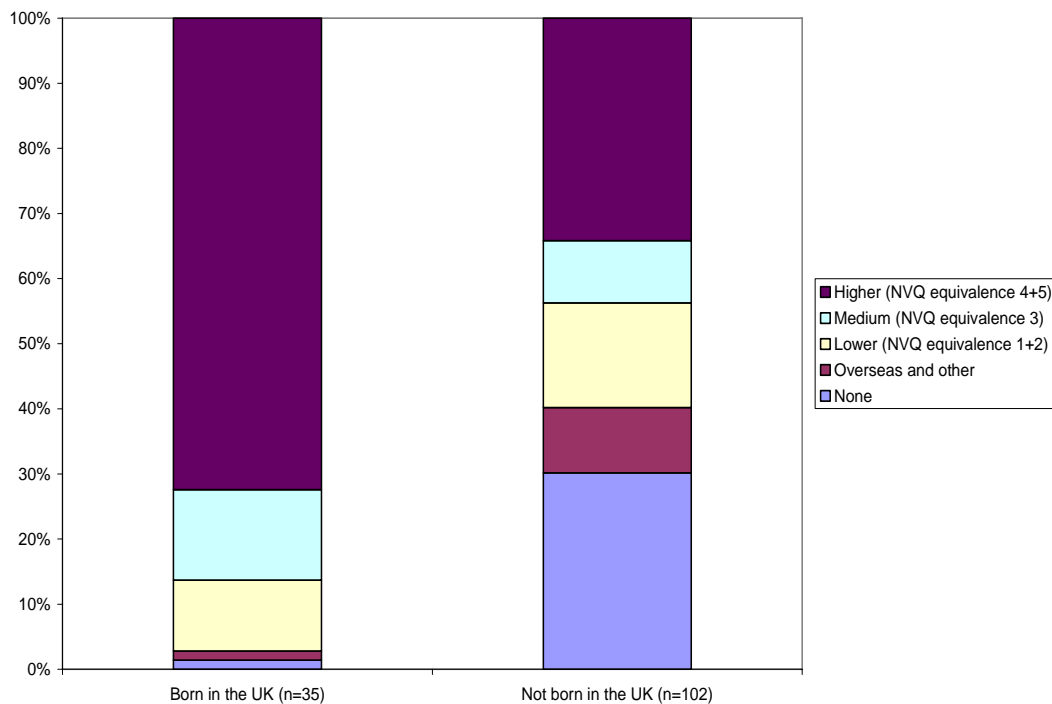
Highest qualification of Indian mothers by whether born in the UK or not



Base: MCS Indian natural mothers in England. Weighted percentages and numbers

Figure 11b

Highest qualification of Black African mothers by whether born in the UK or not



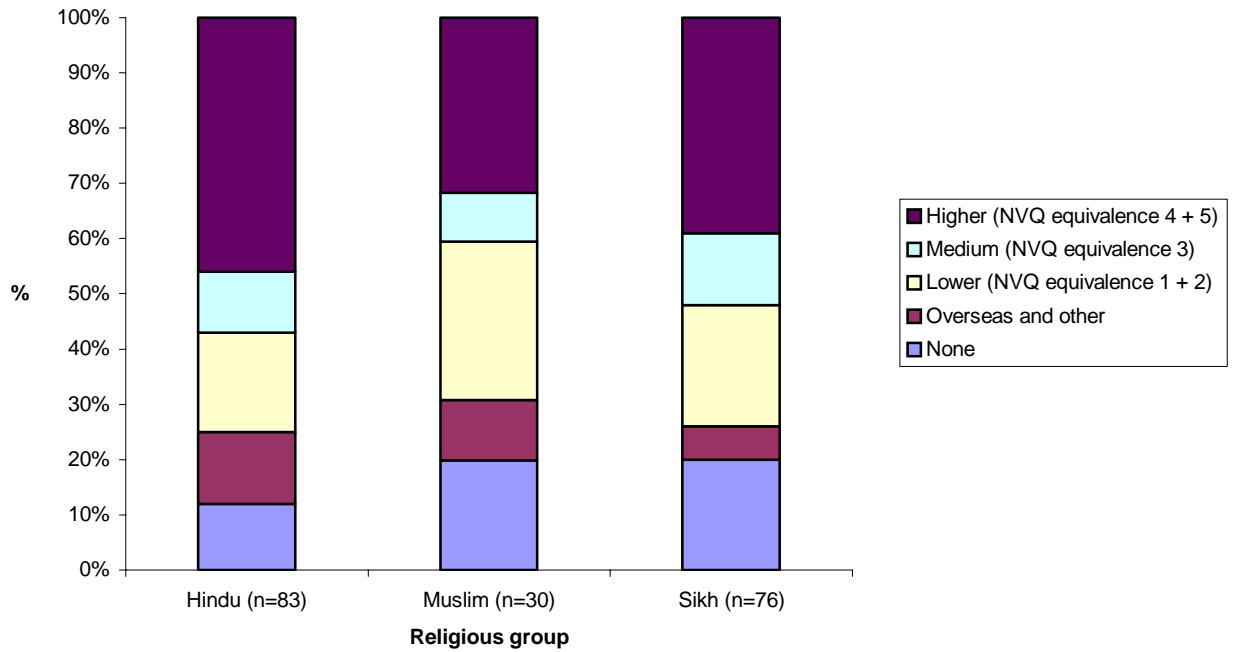
Base: MCS Black African natural mothers in England. Weighted percentages and numbers

Analysis by the main religious affiliations of Indian and Black African mothers shows that among the Indians, Hindus had higher level qualifications than either Sikhs or Muslims, and also were far less likely to have no qualifications than the other two groups. Among the three major religious groups, Muslims had the lowest educational profile (Figure 12a). These patterns fit in with other research that has attempted to uncover religious patterns of economic activity and educational achievement among South Asian groups (Brown, 2000).

In the case of the Black African mothers, Figure 12b shows that more Muslim mothers have no qualifications and far fewer have higher qualifications than Black Africans who claim to be Christian, and to a lesser extent, Catholic mothers. Therefore, it appears that mothers of Black African origin who show less educational achievement are more likely to be Muslims and to have been first generation migrants to the UK, largely from Somalia, Nigeria and Ghana. Such a clear cut polarisation in terms of education is less apparent among the Indian mothers; however, those Indian mothers who show lower levels of educational achievement are, like Black Africans, more likely to be Muslims and to have been born outside the UK.

Figure 12a

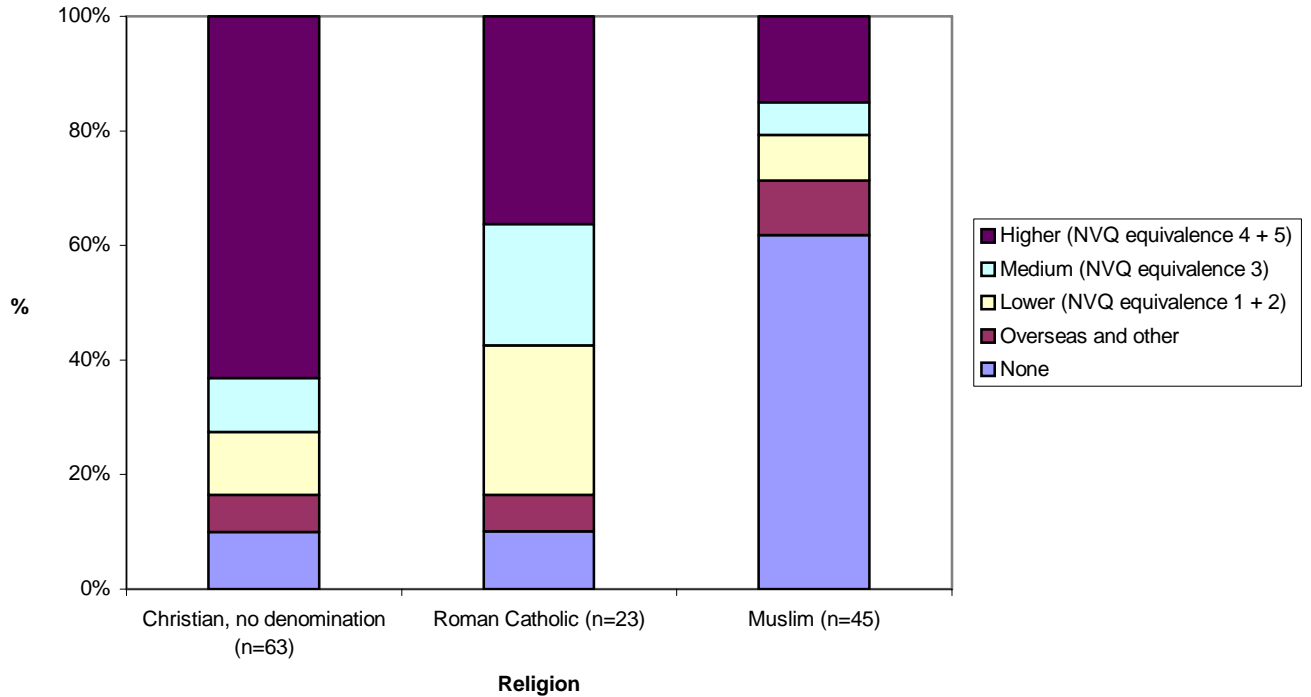
Highest qualification of Indian mothers by religion (selected religions)



Base: MCS Indian natural mothers in England. Weighted percentages and numbers

Figure 12b

Highest qualification of Black African mothers by religion (selected religions)



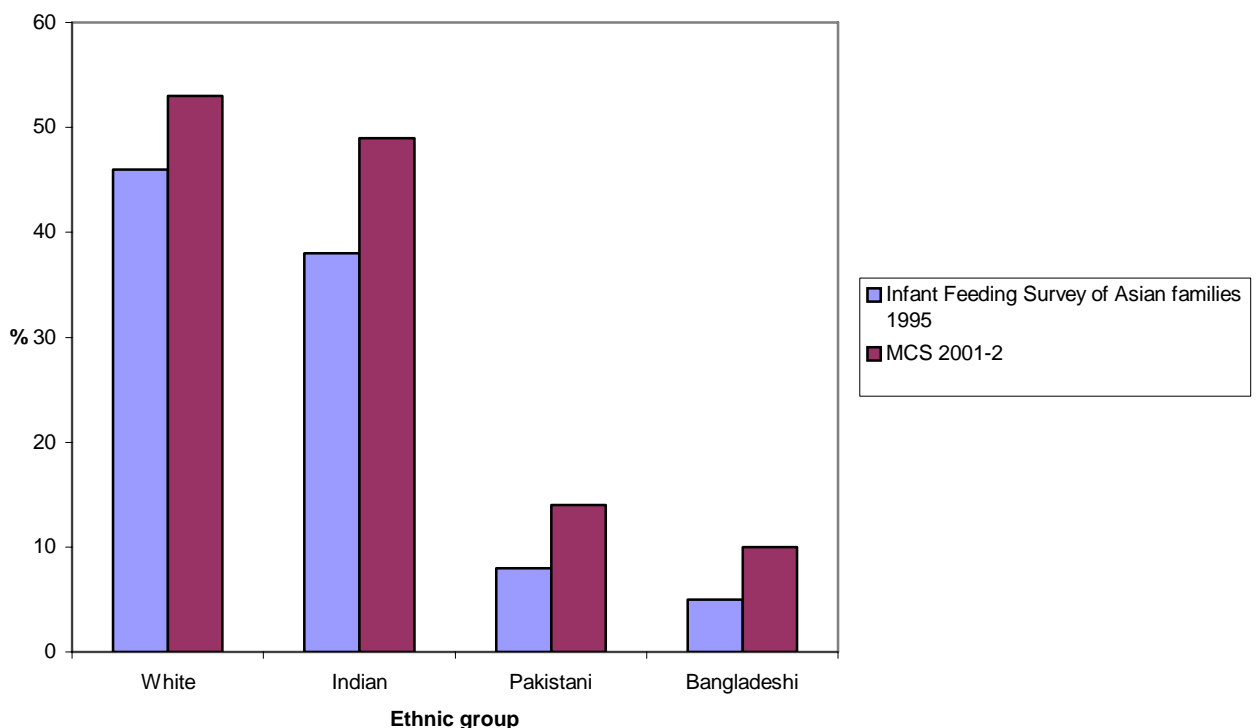
Base: MCS Black African natural mothers in England. Weighted percentages and numbers

4.2 Labour market participation

As might be expected amongst mothers who had given birth during the year they were interviewed, a large proportion in all ethnic groups were caring for their babies at home full time and had not actively sought to participate in the labour market (Table 3a, row 4). But there are significant ethnic differences, particularly between relatively low levels of participation among Bangladeshi and Pakistani mothers on the one hand, and relatively high levels among Black Caribbean and White mothers on the other. These ethnic differences are in line with findings from other national surveys of mothers with young children (White, 2002; Modood et al, 1997). Figure 13 shows the proportions of White, Indian, Pakistani and Bangladeshi mothers who were employed or on leave in the MCS compared with those in the Infant Feeding Survey of Asian Families (IFSAF). Even though the IFSAF was undertaken a few years before the MCS, the fact that one stage of interviews took place when babies were approximately the same age as MCS babies makes it a useful comparison with MCS findings relating to South Asian mothers (Thomas and Avery 1997).

Figure 13

Mothers in White and Asian groups who were employed or on leave when baby was 9 months old



Base: MCS natural mothers in England. Weighted percentages

There is a similar pattern of ethnic differences, with far fewer Pakistani and Bangladeshi mothers participating in paid work than White or Indian mothers in both time periods. The increase in the proportions of mothers in all ethnic groups who were in paid work or on leave in 2001-2 compared with 1995, probably reflects the overall increase in labour market participation among women with young children in the time between the two surveys (Lindley et al, 2004).

There were ethnic differences also among mothers who had not done any paid work since the birth of the cohort baby who said that they had been looking for work and in the hours of work that they were seeking. 21% of non-employed Indian mothers and 18% of non-employed Black Caribbean mothers had been looking for work since the baby was born, compared with 13% of mothers in both the White and Mixed groups, 14% of Black African and 7% and 6% respectively of Pakistani and Bangladeshi mothers. Both among non-employed Indian and White mothers, they had been predominantly looking for part time work (15% and 11% respectively), whereas such a preference was not apparent among the non-employed Black Caribbean mothers, as only 8% had been looking specifically for a part-time job.

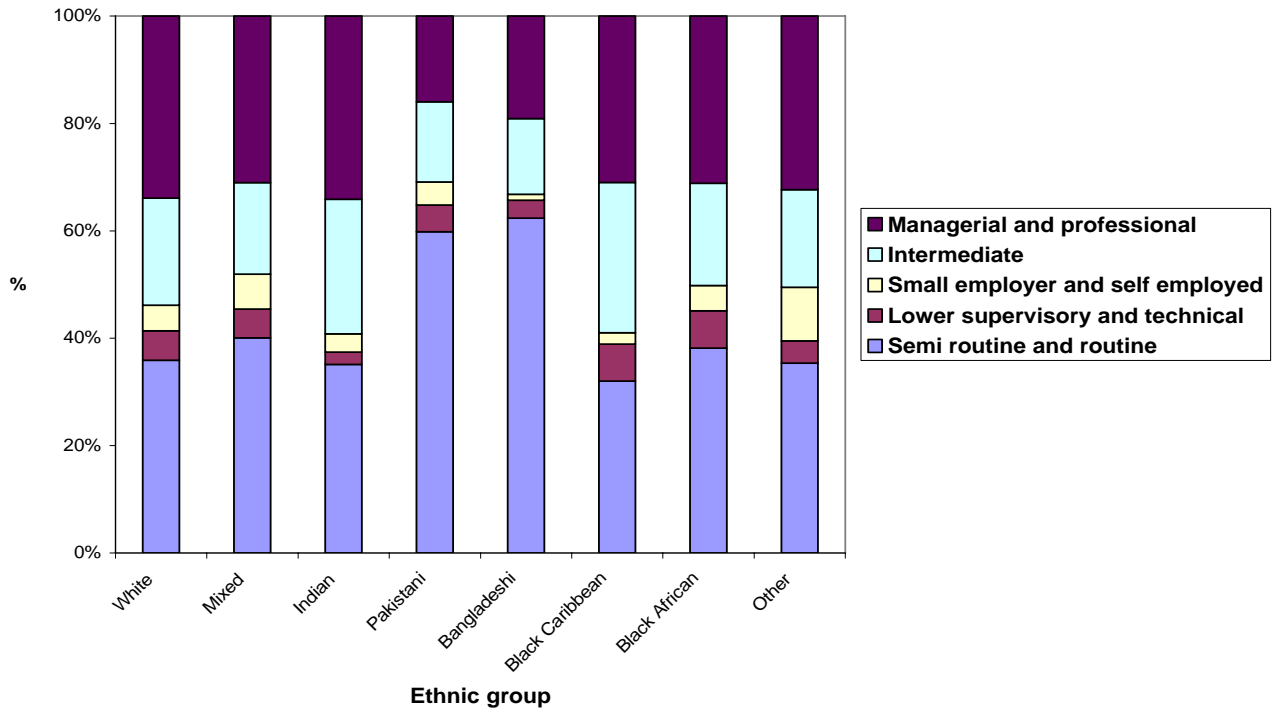
4.3 Occupational social class

Figure 14 gives the occupational class distribution of mothers in England by ethnicity, based on their present or previous job. It can be seen that the occupational distribution of Pakistani and Bangladeshi mothers is highly skewed towards the lower half of the occupational structure, made up of semi-routine and routine jobs. Indian and White mothers were the most likely to be in managerial and professional jobs, closely followed by the other ethnic groups apart from the Pakistani and Bangladeshi mothers. Black African mothers also do not appear to have occupations corresponding to their relatively high educational levels identified earlier. Compared to Indian mothers, there are more African mothers in routine occupations and fewer in the professional and managerial category (see also Table 3a, rows 5 and 6 and Section 1.4).

Figure 15 presents mothers' partners' occupational class, although it is important to bear in mind that Figure 14 and Figure 15 do not present data on couples only and the data on mothers' occupational class in Figure 14 and Table 3a, rows 5 and 6, include mothers without partners and those whose partners did not respond. As other evidence also show (Modood et al, 1997) partners in all ethnic groups were generally in higher level occupations compared to mothers. But there still are important ethnic differences, with more Bangladeshi and Pakistani partners at the lower end of the occupational structure in semi-routine and routine jobs, while partners in the Mixed ethnic group were the most likely to be in managerial and professional jobs, followed by Black African, Indian and White partners.

Figure 14*

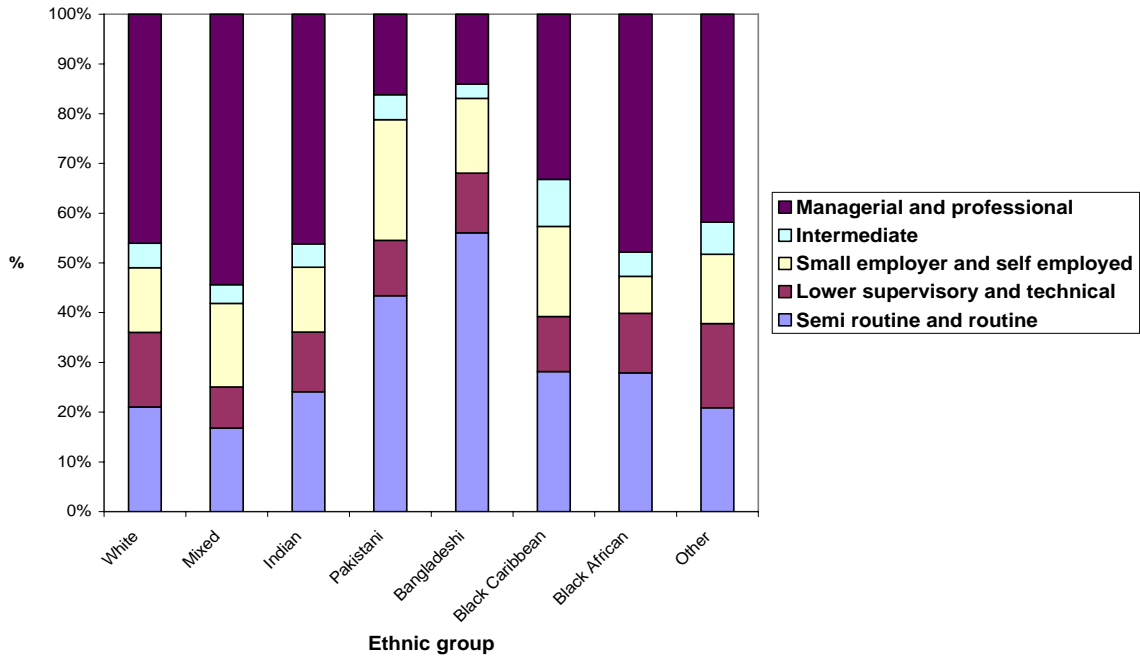
Mother's Occupational Class



Base: MCS natural mothers in England. Weighted percentages

Figure 15*

Mothers' partners' occupational class



Base: Partners of MCS natural mothers in England. Weighted percentages and numbers

* The NS-SEC 5 class categorisation used in Figures 14 and 15 excluded those who have never worked.

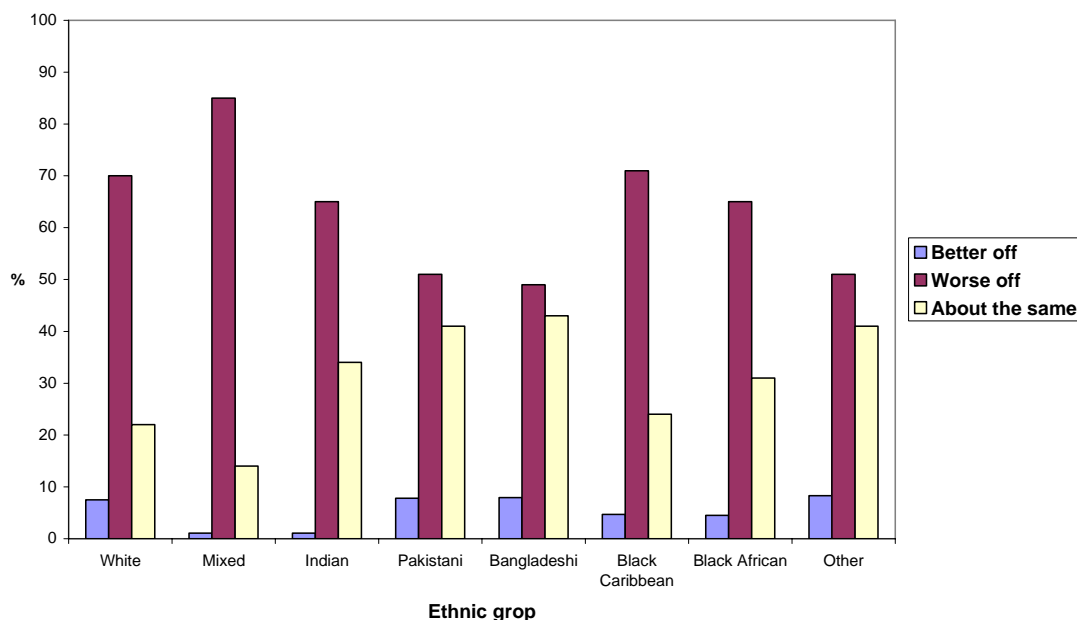
4.4 Financial circumstances

There were significant ethnic differences in the distribution of household income. Around one fifth of White and Indian mothers lived in low income households⁵, compared with over two fifths of each of the other groups. Bangladeshi mothers were the worst off, with around a half living in low income households (Table 3a, row 8). Bangladeshi mothers were also the most likely among all the ethnic groups to live in workless households, that is where both mothers and their partners were not in the labour market, with a little over one fifth in such households. In contrast Indian mothers were the least likely to be in this category, with under 5% in such households (Table 3a, row 7). The level of means-tested benefits (including but not confined to unemployment benefits)⁶ was also highest in Bangladeshi mothers' households, although over half of Pakistani, Black Caribbean, Black African and Mixed origin mothers were receiving benefits compared with a third of White mothers and a quarter of Indian mothers (Table 3a, row 9).

There were wide ethnic differences in the way mothers in the different groups subjectively experienced their financial situation, perhaps related to different goals and expectations as well as to different income levels. Over one third of Black African mothers reported finding it quite difficult or very difficult to manage financially, at the time of interview, whereas only about 10% of White and Indian mothers felt they had financial difficulties (Table 3a, row 10). Bangladeshi mothers differed from Pakistani mothers in their perceptions of financial difficulties: 22% of Bangladeshi mothers compared with 13% of Pakistani mothers felt that they had difficulty in managing financially. This is congruent with the former's lower levels of employment and income.

Figure 16

How mothers with self-perceived financial difficulties felt that their situation had changed in the past year



Base: MCS natural mothers in England. Weighted percentages

⁵ Low income defined as household income 60% below national median, which, in 2000-1 HBAI is <£176 pwk or <£10,400 p.a., not adjusted for household size (DWP, 2000-1). See also Bradshaw et al 2005, pp.80-1.

⁶ These are: Income Support, Jobseekers' Allowance, Working Families Tax Credit, Disabled persons Tax Credit.

Figure 16 shows how mothers who felt that managing financially was quite difficult or very difficult at the time of interview perceived whether their circumstances had changed over the past year. This is an indication of the financial impact on households of having a new baby. Reviews of research on low-income families in the UK have shown that costs associated with a new baby have serious implications for family finances (Henderson and Garcia, 2000; Jayaweera and Garcia, 2000). It can be seen that most mothers in England in the MCS felt that they were worse off now than they were a year ago; that is, 70% of White, 85% of Mixed ethnic mothers, 65% of Indian, 71% of Black Caribbean and 65% of Black African mothers. However, the proportions reporting this among Bangladeshi and Pakistani mothers were smaller (49% and 51% respectively). Also around two fifths of Bangladeshi and Pakistani mothers felt that their situation had not changed over the past year. These results, and the finding that fewer Bangladeshis and Pakistanis felt deeply financially constrained at the time of interview, suggest that although Bangladeshi and Pakistani mothers and their families were 'objectively' poorer than the other groups, their perceptions may not match this reality. This could be because their expectations of financial stability are lower than in the case of more established groups or because wider family support cushions them to some extent from the worst effects of financial hardship (Jayaweera et al 2005a).

4.5 Housing

Black mothers, and particularly African mothers, were the most likely to live in housing that was rented from the local authority or from a housing association (Table 3b, row3). Home ownership was also lowest among these groups, again particularly Black African mothers (Table 3b, row1). Fewer Black Caribbean mothers were in local authority than housing association homes but there was a reversal of this pattern for Black Africans. More mothers in the Asian origin groups compared to other groups were likely to live with their parents or rent free (Table 3b, row 2). There is qualitative evidence from local studies of shared living arrangements with siblings among some Bangladeshi families or a pattern of living rent free in housing owned by siblings (Jayaweera et al, 2005a). While living with the extended family was more common among Indian, compared with White, mothers, there was a similar high level of home ownership among these two ethnic groups. As Table 3b, row 1 shows, if all types of ownership are considered, over two thirds of Indian mothers lived in homes owned by themselves and/or their partners. Pakistani mothers also had a relatively high level of home ownership, but this is accounted for in part by a greater extent of outright ownership (without a mortgage) than among other groups - 15% compared with 7% among Indian, and 3% among White, mothers. Other research on housing shows that there is a relatively high level of owner occupied housing, although of poor quality, among Pakistani families (Chahal, 2000). However, in the MCS, fewer Pakistani mothers compared to other groups except White and Indian mothers, reported that there was damp in their homes (Table 3b, row 4). Private renting of homes was very uncommon in all MCS families (see also Bartley et al 2005, p.56, Figure 2.14).

4.6 Car Access

Access to transport is an important indicator of the ability of families to access crucial resources and services. The uptake of health care, particularly by mothers with young children, has been shown to be affected by the extent to which they have easy access to a car or public transport (Greico, 1995). Over 60% of MCS mothers in all ethnic groups reported that they had access to a car or a van. But there were ethnic variations, with lower

percentages of Bangladeshi and Black African mothers with car access compared with White and Indian mothers (Table 3b, row 5). This could be an indication of the less established situation of Bangladeshi and Black African mothers, given that most belong to a fairly recent migrant generation.

4.7 Satisfaction with local area

A higher percentage of Black Caribbean mothers and those of Mixed ethnic origin were dissatisfied with their area of residence compared with other groups, particularly White and Asian mothers (table 3b, row 6). Analysis by ward type showed that mothers in White and Mixed groups who were dissatisfied overall with their area tended to live in wards with high minority ethnic populations, while Black Caribbean mothers who were dissatisfied were more likely to live in disadvantaged areas rather than areas with high minority ethnic populations. Some ethnic groups were still dissatisfied when they lived in more advantaged areas, but these were relatively small proportions.

Summary of socio-economic characteristics

A look at socio-economic indicators of the MCS mothers shows diverse patterns of advantage and disadvantage according to ethnicity. Indian mothers were closest to White mothers in terms of economic advantage, but together with the Black African mothers, had more educational advantage, particularly if they were born in the UK or were not Muslim. Black Caribbean mothers were not as well off as White mothers, but were more connected to the labour market than all the other groups of mothers. Pakistani and Bangladeshi mothers were the most socio-economically disadvantaged according to many indicators. This fits in with their lower levels of English fluency, distinctive patterns of family formation and, particularly among Bangladeshi mothers, their recent migrant status.

5 Conclusions

This paper has examined selected characteristics of natural mothers in England in the MCS according to their ethnic identities. Interesting ethnic differences and similarities have emerged relating to the circumstances and experiences of mothers in the first year of their babies' lives. The results largely support previous qualitative and survey evidence suggesting the importance for a range of mother and baby outcomes including health, of such factors as migrant status, English fluency, educational qualifications, and access to money and resources. The evidence suggests that ethnicity matters, but differences between and within ethnic groups are also important for understanding differences in outcomes, for example between Indian mothers on the one hand, and Pakistani and Bangladeshi mothers on the other. These preliminary analyses suggest that care must be taken over groupings based on ethnicity data, however, adjusting for some of these inter-group and intra-group differences could reduce the significance of ethnicity on outcomes (see Jayaweera et al, 2005b). It was also difficult to separate the effects of ethnicity from related variables such as English fluency and migrant status for uniformly disadvantaged groups such as the Bangladeshi mothers. The analyses which are the basis of this paper are exploratory, and further examination of, for example, differences between younger and older mothers and between those inside and outside partnerships, and within the Mixed ethnic group across a range of variables, need to be undertaken. The results presented in this paper strengthen the argument made in the introduction about the need for policy and

practice to target the needs of specific ethnic minority communities and sub-communities, arising from their diverse demographic, socio-economic and perinatal circumstances.

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