Joint Strategic Needs Assessment 2014

Children and Young People (Age 0 -19)

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Key Points

1. Sandwell's birth rate has been increasing, but this has now stabilised.

2. Sandwell has a high proportion of young people and this is projected to continue increasing to 2021.

3. There are higher proportions of males than females aged 10-14's (8.5% more in Sandwell compared to 4.7% in England).

4. Almost a third of primary school children and a fifth of secondary school children do not have English as a first language.

5. Sandwell's young population is increasingly diverse with more than 40% being non white.

6. There are a greater proportion of Muslins (14%) of those aged 0-15 than Sikhs (8.8%)

1.1 BIRTHS

1.1.1 Our rise in births has stabilised

Both locally and nationally, births have increased and are projected to increase further till 2016. Table 1.1.1 below shows a year on year percentage increase or decrease in the number of children that are born in Sandwell and nationally. Overall, since 2004, Sandwell has had a 25.4% increase in the number live births. In comparison to the West Midlands, Sandwell's births have increased twice the rate of the West Midlands. This difference in growth is also present in the England comparator (England 14.3% increase vs. Sandwell 25.4% increase), but has not been as steep as for Sandwell.

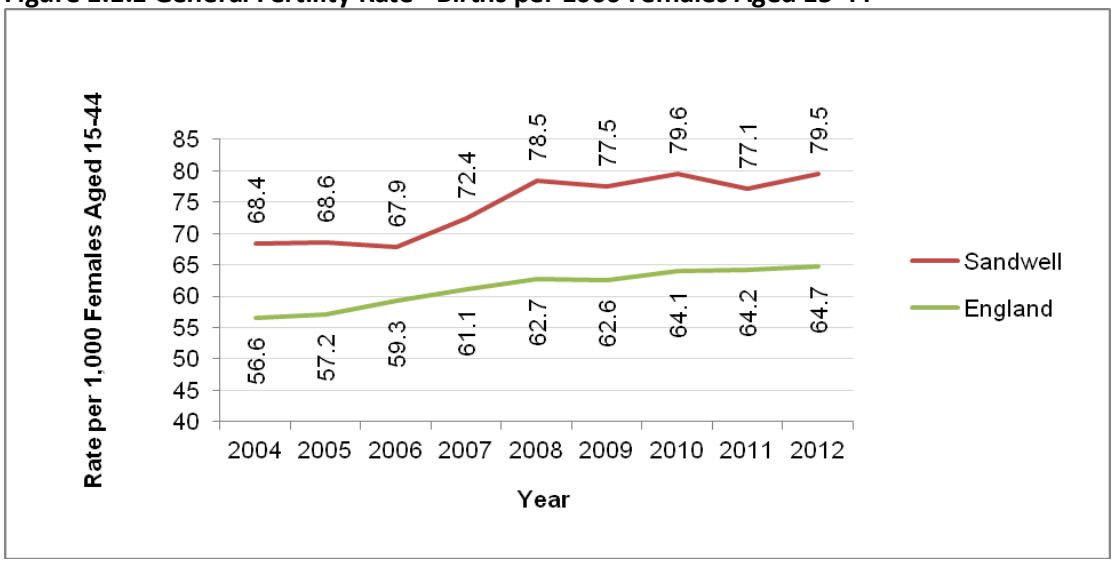
Table 1.1.1 Live Birth Movements 2005 - 2012

Year on Year Birth Movements (%)									
All Births	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**Total Change (2004 - 2012)**
Sandwell Live Births	1.5	-0.7	6.5	8.5	-1.3	2.2	3.5	3.1	25.4%
W.Midlands Live Births	0.1	2.6	3.6	2.3	-1.0	1.5	1.3	1.3	12.2%
England Live Births	1.0	3.7	3.1	2.7	-0.3	2.4	0.2	0.9	14.3%

For Sandwell the highest increase occurred in 2007 and 2008 (6.5% and 8.5%). Sandwell has not had an increase of this size since. This increase is also reflected in Sandwell's general fertility rates (calculation of the number of babies born to 1,000 females aged 15-44).

In 2012, Sandwell has had 14.8 more births per 1,000 women aged 15-44 (see figure 1.1.1 below).

Figure 1.1.1 General Fertility Rate - Births per 1000 Females Aged 15-44



Source: ONS Births and Mid Year Population Estimates

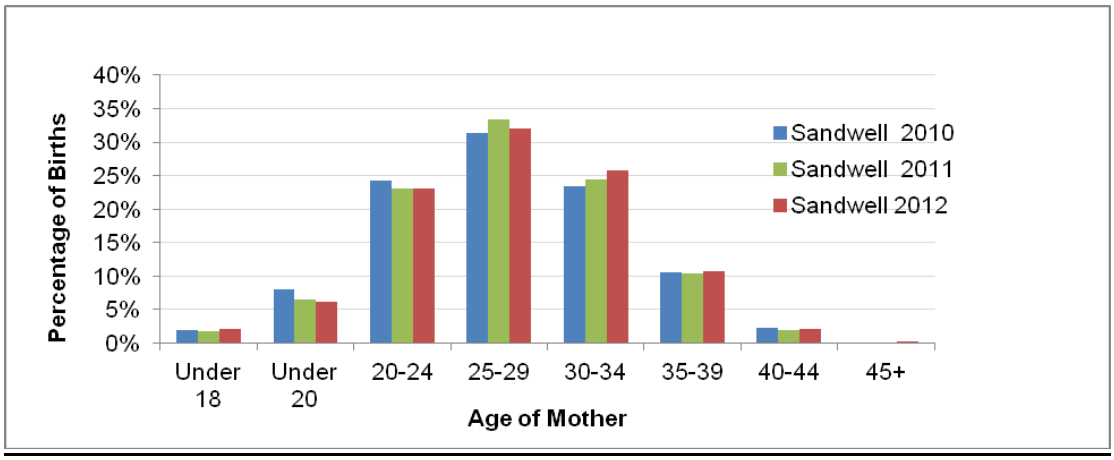
1.1.2 Births by Age of Mother

Mothers and babies in the lower and upper age bands are at greater risk of complications (ChiMat, 2013). Teenage mothers are at risk due to late presentation, lifestyle and diet (which is covered in more detail in the teenage conceptions section) and mothers aged 35+ have increased risk of having babies with birth defects and still births. The age of the mothers will also have impact on future health and social outcomes of the child. Therefore this is important to understand and be aware of trends within Sandwell

In Sandwell, the highest proportion of live births over 2010, 2011 and 2012 were to women aged 25-29 accounting for 31.3% in 2010, 33.4% in 2011 and 32.1% in 2012.

Over the 3 years presented here in figure 1.1.2, between 1.8% and 2% of Sandwell live birth are to mothers aged 18 and under. For those babies born to women aged 35+ the proportions are between 12.6% and 13.1%. The proportions of live births by age group are relatively similar over the last 3 years. The variation between 2010, 2011 and 2012 is between 0.1% and 2%.

Figure 1.1.2 Percentages of Live Births by Age of Mother

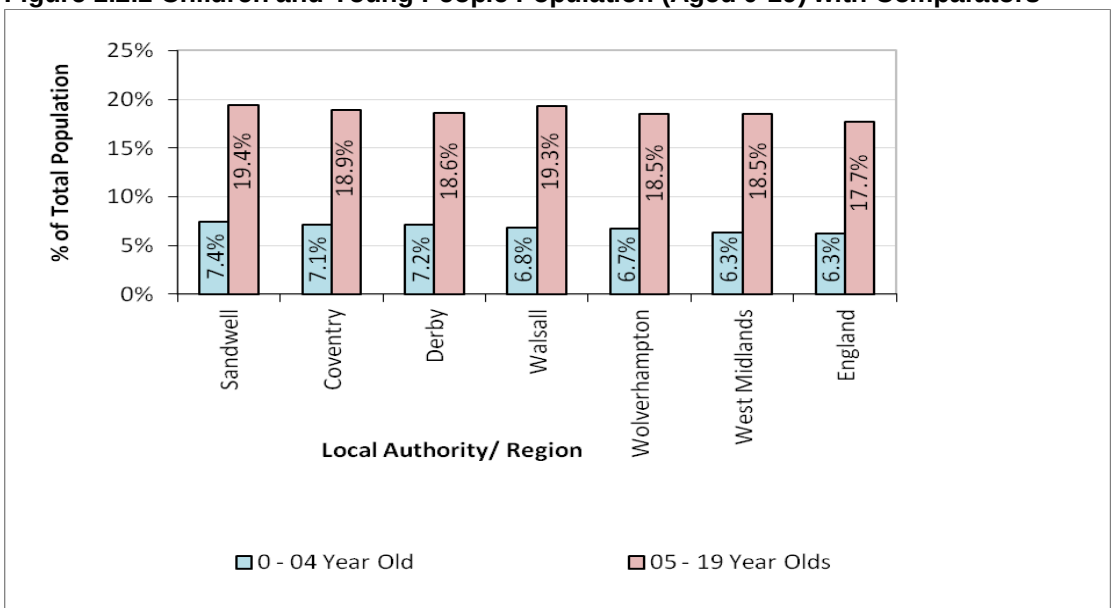


1.2 WHAT DOES SANDWELL'S YOUNG POPULATION LOOK LIKE?

1.2.1 Sandwell's Young Population is growing

There has been a rapid increase in our young population. Since 2005 we have seen the number of under19's rise from an estimated 75,800 to 82,734 (2011 Mid-Year Estimates). We have a higher proportion of under 19s when compared to England and the West Midlands and even when compared to our neighbouring areas, as can be seen in Figure 1.2.1

Figure 1.2.1 Children and Young People Population (Aged 0-19) with Comparators



Source: ONS 2011 Mid Year Estimates

The population pyramid (Figure 1.2.2) shows that we have a higher proportion of our women in the child bearing years. This is likely to be contributing to our high proportion of under 5s, but is also likely to be coupled with a higher fertility rate in our population. Sandwell has a general fertility rate of 79.6 births per 1000 females aged 15-44. In comparison the average rate for England is lower at 64.9.births.

Figure 1.2.2 Sandwell Population Pyramid with England Comparator 2011 Estimates

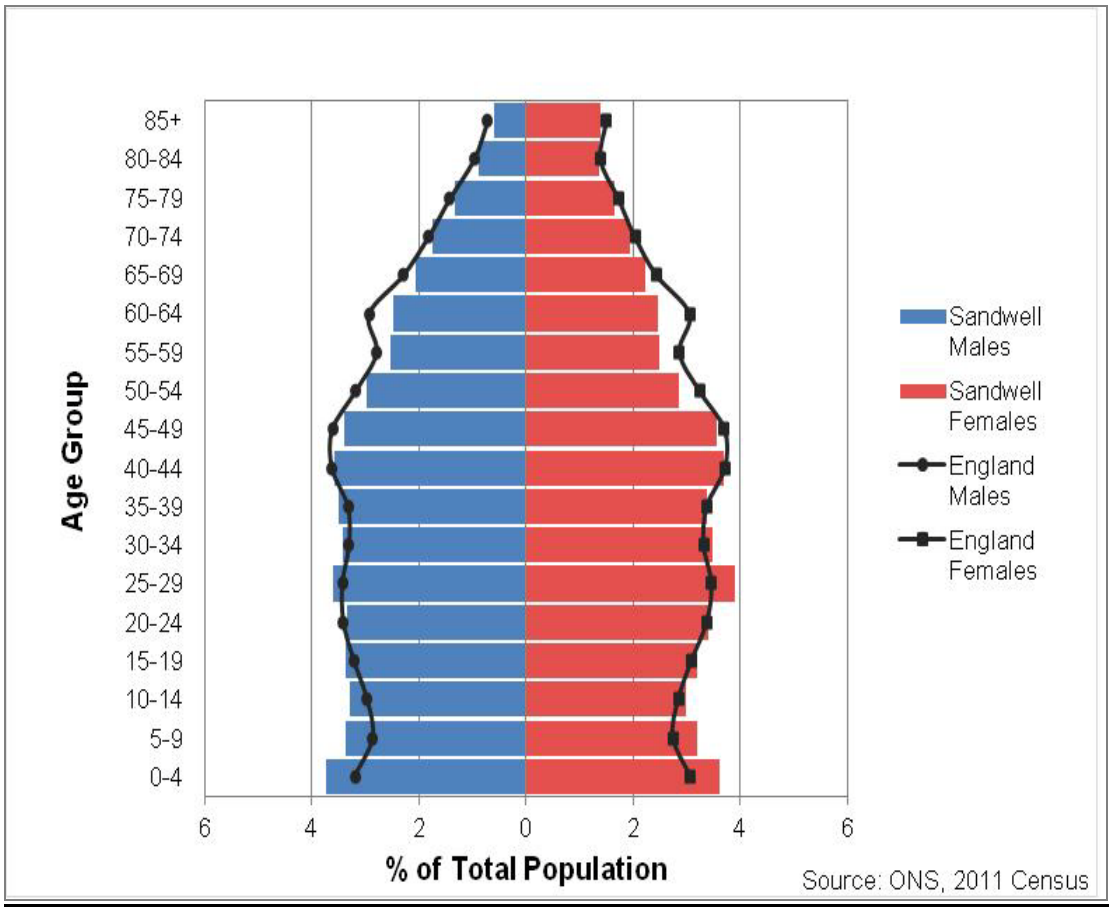
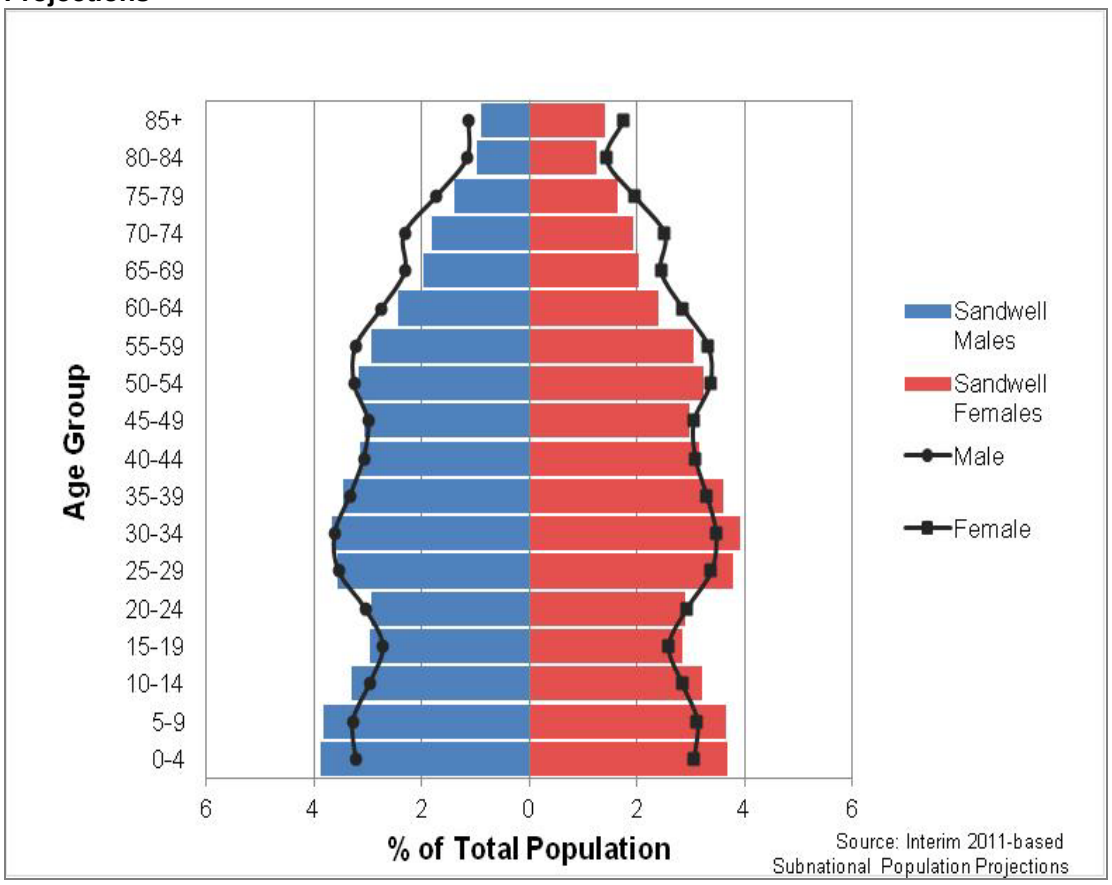


Figure 1.2.2 above also shows Sandwell in 2011 to have a higher proportion of 25 -29 year old females than the England average.

Figure 1.2.3 below shows this trend to continue in 2021 and also including age bands 30-34 and 35–39. These age bands are all within the female child bearing age. In addition to the female population proportions in the above age bands, Sandwell also has a higher proportion of children aged 0-19 (both male and female) than the England average. This difference in population proportions (local compared to national) is projected to continue to year 2021.

Figure 1.2.3 Sandwell Population Pyramid with England Comparator 2021 Estimate Projections



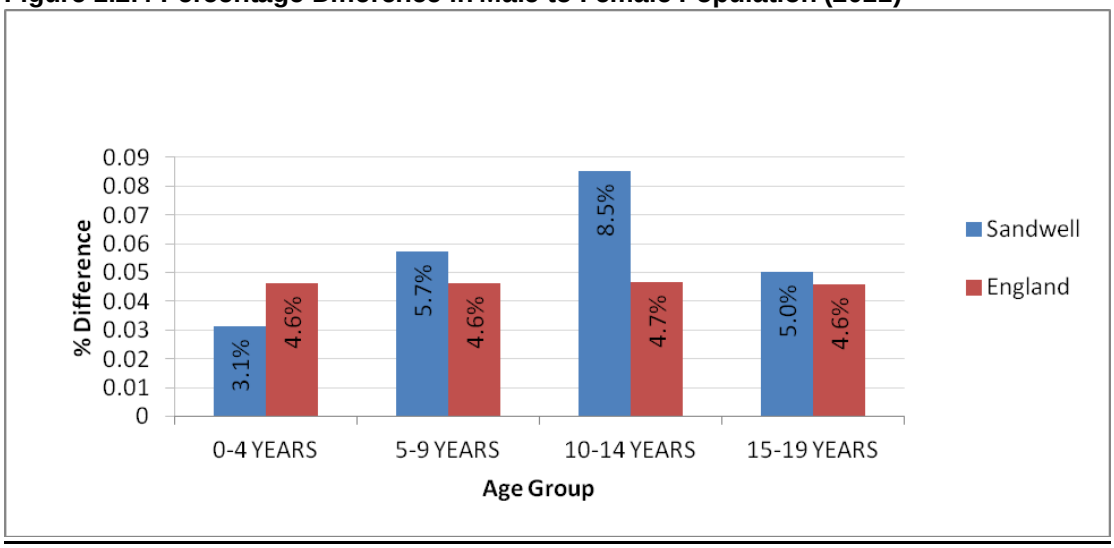
Whilst our population of 0-19 year olds is estimated to continually increase from 82,734 in 2011 to 91,643 in 2021 (a 10.8% increase), the number of under 5s are predicted to rise from 2011 to 2016, then remain relatively stable until 2021. Figures1.4 and 1.5 above show projections for 0-4 year olds and 5-19 year olds. 5 –19 year olds are projected (Figure 1.2.3) to continue to grow through to 2021. Probably due to rise in birth rates working through ages.

1.2.2 We have a larger proportion of males than females

There are more males in the population than females for Sandwell and England. The 2011 census reports Sandwell to have 3.1% more males aged 0-4 than females aged 0-4. This difference is lower than the England difference. However, for the older ages Sandwell's proportion of males is higher than the female. There are 8.5% more males aged 10-14 than females aged 10-14 (see figure 1.2.4 below). This will continue into subsequent years as those aged 10-14 get older and move along the timeline. Although

we do not have 2013/14 population estimates, the 8.5% difference can be expected to have moved into the 15-19 year range.

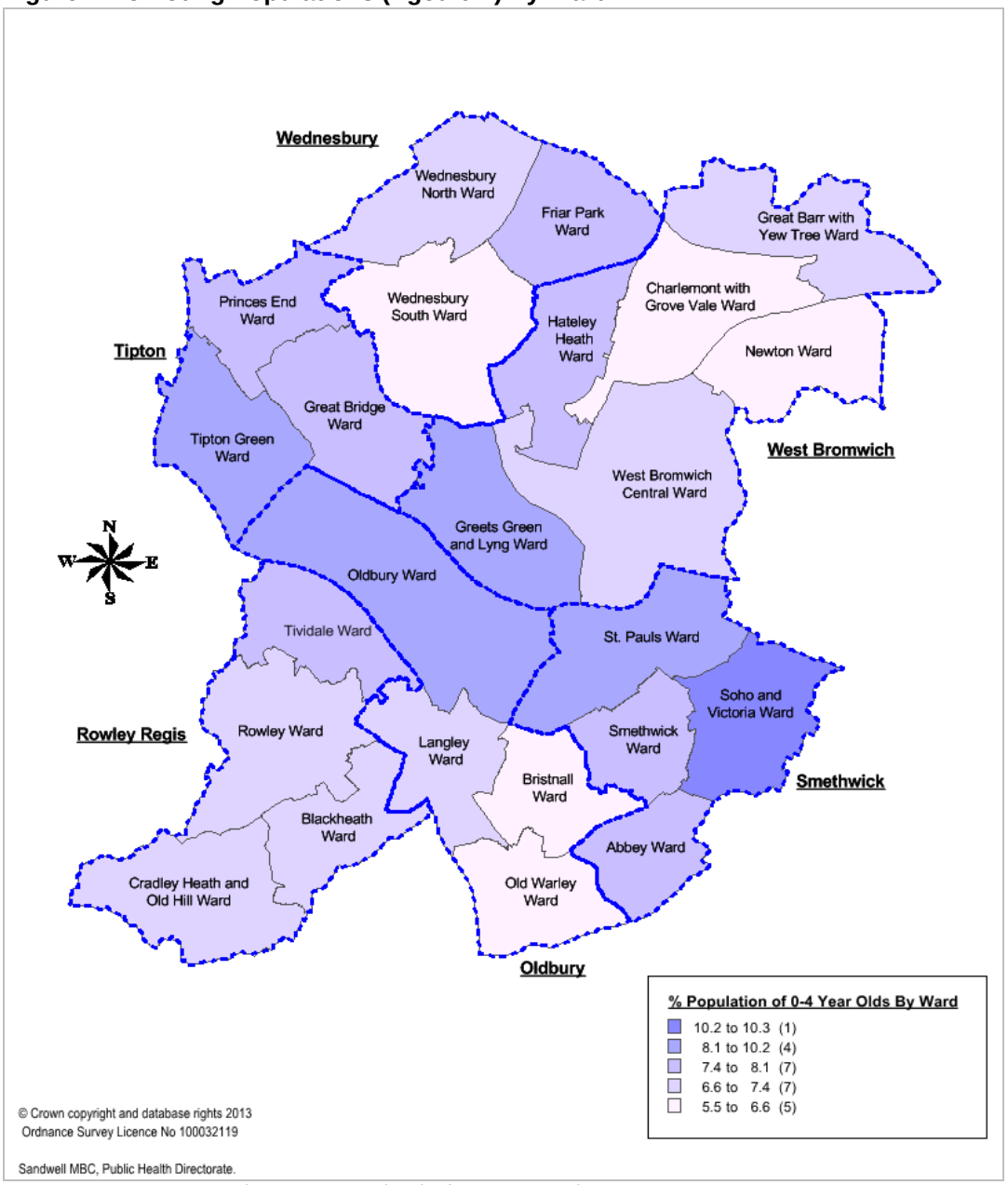
Figure 1.2.4 Percentage Difference in Male to Female Population (2011)



Source: ONS 2011 Mid-Year Estimates

1.2.3 Where do our young people live?

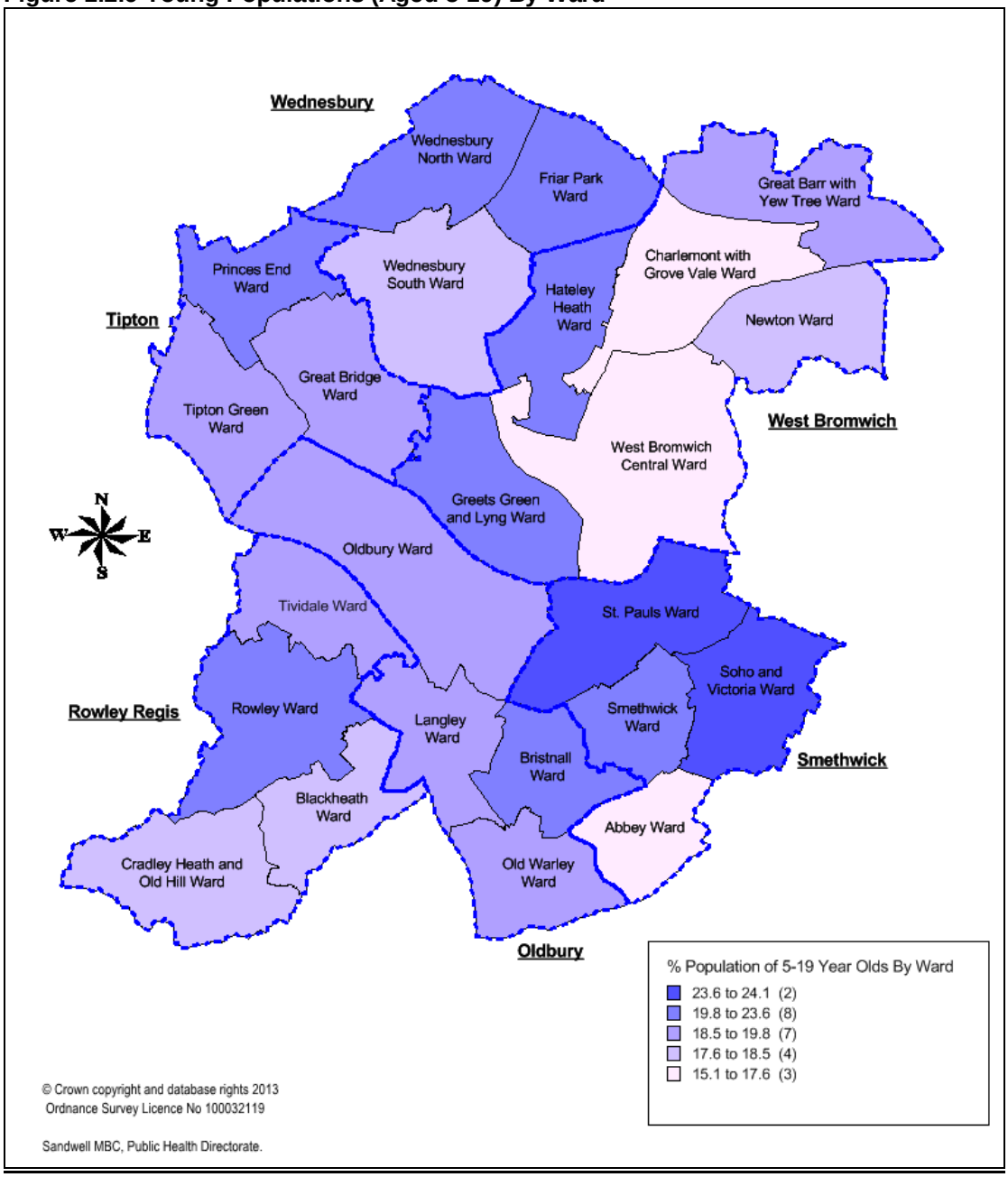
Figure 1.2.5 Young Populations (Aged 0-4) By Ward



Source: ONS 2011Census (qs103ew - age by single year NOMIS)

Figure 1.2.5 above shows a thematic map which highlights the difference in percentage of each ward population that consist of 0-4 year olds. The 0-4 year old population spread amongst the wards is between 5.5% in Old Warley and 10.3% in Soho and Victoria. This is a two-fold difference between the wards. In comparison, Sandwell's overall proportion of 0-4 year olds is only 7.4%.

Figure 1.2.6 Young Populations (Aged 5-19) By Ward



For the 5-19 year olds the population proportions between the wards are slightly narrower than the 0-4 year olds. Charlemont with Grove Vale has 16.2% whereas Soho and Victoria has 24.1% of 5-19 year olds. The two wards with the highest percentage of this age group are Soho and Victoria and St. Pauls, both of which belong to Smethwick town.

On a town level, Smethwick has the highest proportions of 0-19 year olds. Three wards out of the four have higher percentages than Sandwell as a whole.

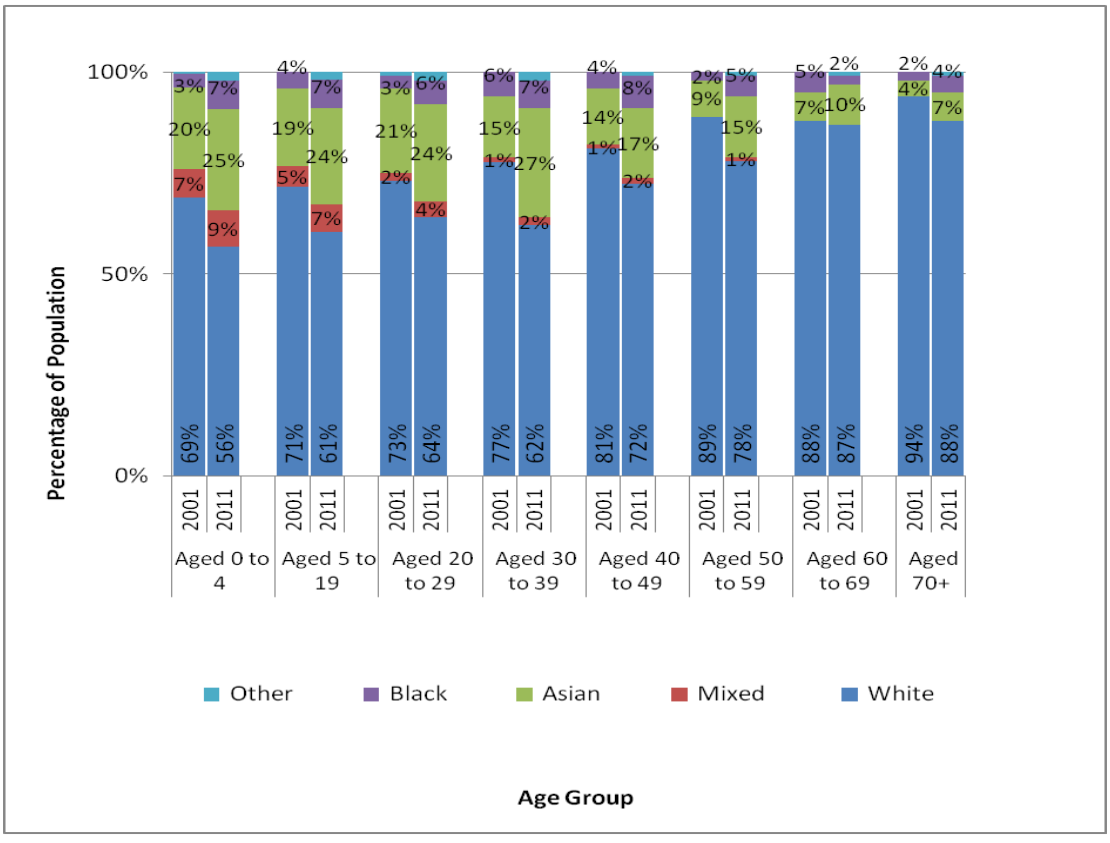
Wednesbury has the smallest percentage proportion of 0-4 year olds and West Bromwich has the smallest percentage proportion of 5-19 year olds.

(See Appendix, for further break down of proportions and percentages)

1.2.4 Growing diversity amongst our young people

Sandwell is a diverse borough and this is reflected in our young population. In fact there is greater diversity amongst our young population than our older population. This is demonstrated in figure 1.2.7 below, where the 2011 census data shows Sandwell's 0-19 year olds to be the most diverse with increases in the Asian, Mixed and Black ethnic groups compared to the 2001 census. The black 0-19 year old population has almost doubled since 2001.

Figure 1.2.7 Sandwell Population Change by Ethnicity and Age



Source: Nomis 2001, 2011 Census (DC2101EW)

England and West Midlands have a proportion of 84.3% and 81.0%, respectively, of young people (0-19 years) that are White. However, Sandwell has 59.6%, many of whom are non White

British. Therefore, more than 40% of Sandwell young people population is from Mixed, Asian, Black or other groups. Further, the Asian population actually represents a quarter of Sandwell's young people (0-19 years) population (24.2%).

Analysis of the 2011 Sandwell's total population (all ages) religion shows the population as:

55% Christian (2001 census = 68%)
9% Sikh (2001 census = 7%)
8% Muslim (2001 census = 5%)
2% Hindu (2001 census = 2%)
19% as having no religion (2001 census = 11%)
7% as Unknown (2001 census = 6%)

As mentioned above, Sandwell has become more diverse and this is also reflected in the changes to the proportions of religion. Christianity has reduced by 13% and those having no religion have increased by 8%. Sikhs and Muslims have also increased.

For the younger population the change is larger - In 2001, the Muslim and Sikh population both represented 8% of the 0-15 year olds. However in 2011, the representation for Muslims has increased to 14.5% whereas the Sikh population has only increased by 0.8%. Sandwell was regarded to have a high proportion of Sikhs, this is now changing and Sandwell will have a higher Muslim population.

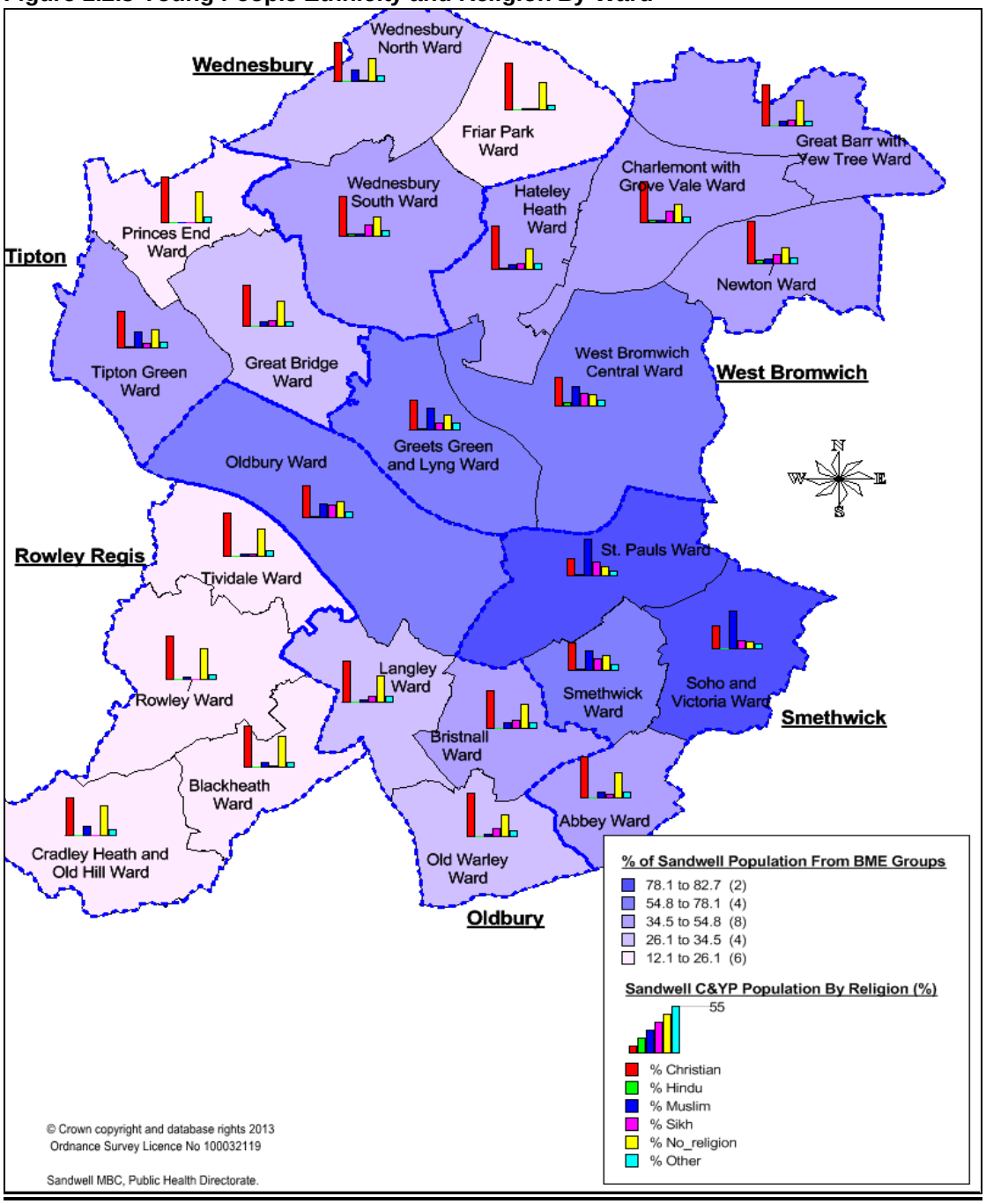
From the analysis of wards and towns (Figure 1.2.8 below) almost half of the young people's (0-19 years) population for Smethwick are Asian (43.6%) and the changes in religious proportion are more apparent. 32.7% Muslim, 12.5% Sikh and 2.0% Hindu. The majority of this proportion resides in St. Pauls (60.6%) and Soho and Victoria (48.6%). Soho and Victoria also have a 20.8% proportion of young people from a black ethnic background. Incidentally, these are also the wards that have the highest percentage of 0-19 year olds (of all ethnicities).

Rowley Regis, Wednesbury and Tipton's population is predominately white. Rowley Regis has 80.9% of the population as White and 9% Asian. Breaking down the population by 49% Christian, 6.3% Muslim, 2.3% Sikh and 34.9% not stated. The split

for these towns are more aligned to England and West Midlands split of ethnicities.

A table of numbers and percentages for each ethnicity and religion by ward and town are available in the appendix.

Figure 1.2.8 Young People Ethnicity and Religion By Ward



Source: ONS Census 2011 (DC2107EW - Religion by age – data NOMIS)

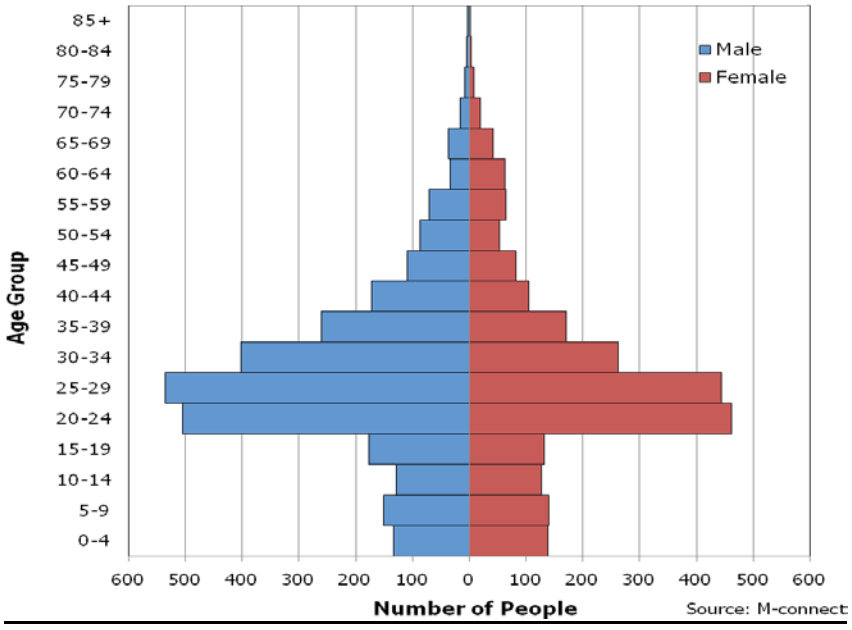
*Other - include Buddhist, Jewish and other – due to small numbers

1.3 MIGRATION

New migrants have distinct needs, associated with getting accustomed to a new way of life and in some cases, learning a new language. They often also have distinct health needs related to the prevalence of infectious diseases in the countries they originate from and may have distinct genetic and lifestyle factors. Education, health protection, sexual health, maternity and general promotion of health and well being should all take migrant factors into consideration.

Information on migrant populations can be obtained from a range of data sources; however no one source is able to provide a detailed picture of all new migrants to the UK that have settled in the borough. To provide an understanding of the Sandwell's migrant population the following information and data has been selected from the West Midlands Migration[1] Summaries and Sandwell's Migrant Needs Assessment – Who are the migrants living in Sandwell and what are their health needs? [2]

Figure 1.3.1 Sandwell New Entrants By Age and Sex (2011)



[11]West Midlands Migration Summaries David Newal PHE

[2] Sandwell Migrant Needs Assessment – Who are the migrants living in Sandwell and what are their health needs? Mary Tooley PH Sandwell MBC

It is worth noting that a high proportion of new migrants are in the child bearing age range.

1.3.1 Many of our children do not have English as a first language

For 29.2% of primary school aged children and 21.8% of secondary school pupils in Sandwell have a non-English first language. This compares with a regional average of 18.9% for primary pupils and 13.8% for secondary school pupils. The report published by Public Health England also reports that Sandwell had the second highest proportion of primary school and third highest proportion of secondary school children with a non-English 1st language in the West Midlands.

Table 1.3.1 Main languages spoken by Sandwell primary and secondary school children

Language	Speakers	Percentage
English	32384	73.6%
Punjabi	3953	9.0%
Urdu	1684	3.8%
Bangladeshi	1594	3.6%
Polish	601	1.4%
Gujarati	175	0.4%
Somali	131	0.3%
Arabic	175	0.4%
Hindi	92	0.2%
Pashto	99	0.2%
Other	3083	7.0%

Source: 2011 School Census

The latest school census of January 2011 lists 141 languages spoken by 43,971 Sandwell pupils.

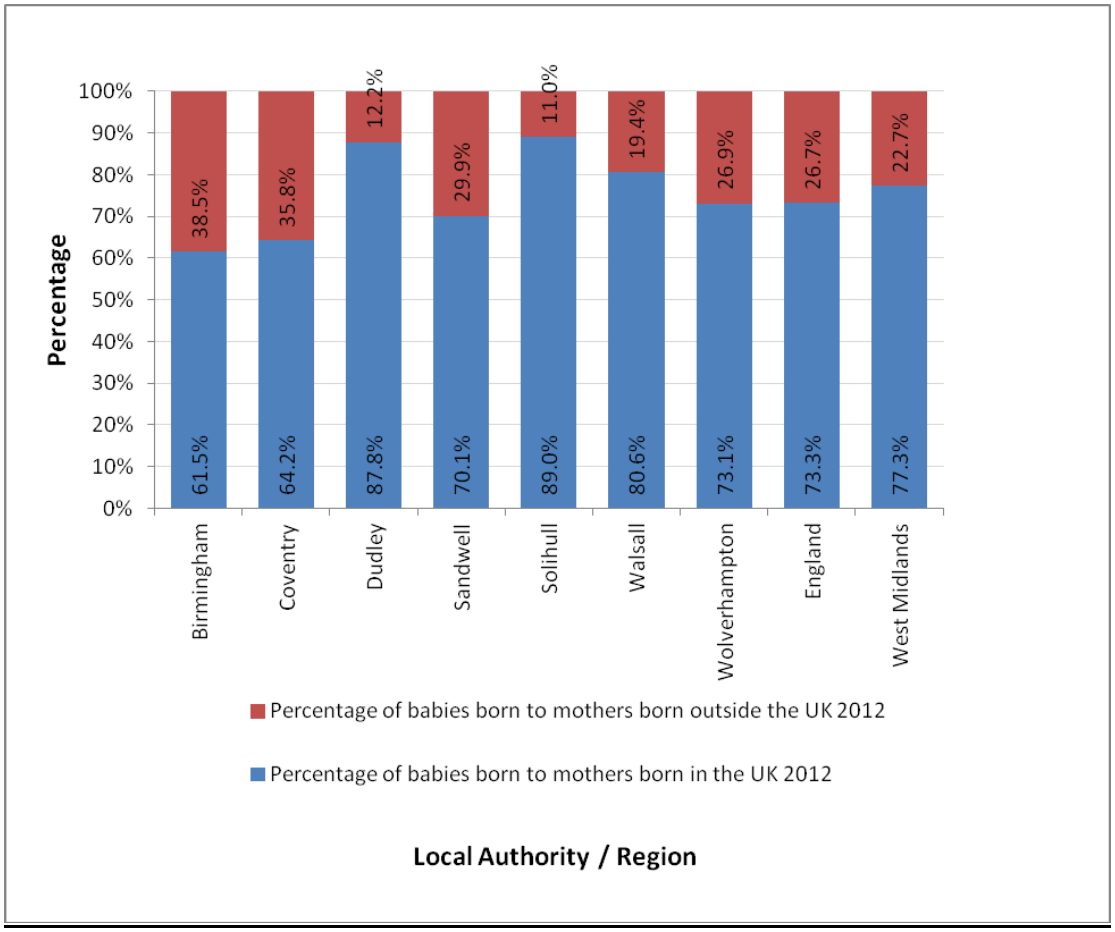
High proportions of our school children are from non- white British ethnic origin: 47% of primary school pupils and 40% of secondary school pupils. This compares with the 30.6% for primary pupils and 25.9% for secondary pupils in the West Midlands as a whole. As with non-English being the first language, Sandwell (47%) has the second highest proportion of non-white ethnicity for primary school pupils (second to Birmingham which has 64%) and the third highest (40%) proportion of secondary school pupils in the West

Midlands for 2011(Birmingham has 59% and Wolverhampton 42.6%).

1.3.2 Births to Non-UK born Mothers

The total number of Births in the Sandwell has increased from 3694 in 2001 to 5151 in 2012. Public Health England has reported that 60% of Sandwell's increase in births between 2001-2012 was contributed by non-UK born women. The number of births to non-UK born mothers increased from 18.3% in 2001 to 29.9% of all births for 2012 compared to 26.7 across England in the same year (see figure 1.3.2 below).

Figure 1.3.2 Percentage of babies born to mothers in and out of the UK (2012)



Fertility rates vary by mothers' country of origin and can also impact on health outcomes for the child.

Chapter 2 – Social Place & Wellbeing

Key Points

1. Sandwell ranks as the 12th most deprived authority in England in the IMD 2010

2. Deprivation in Sandwell since 2004 has increased both in number of LSOA and severity. The majority of Sandwell's LSOAs fall within the 20% most deprived nationally.

3. Sandwell has 3 LSOA's falling within the 1% most deprived areas in the country

4. Whilst the number of children in households with relative property has decreased the number of children living in absolute poverty has increased.

5. There is a correlation between worklessness and/one parent families and children living in poverty. Access to childcare may be a contributing factor.

6. There is correlation between poverty and the number of young people in a ward but not the number of BMEs.

2. DEPRIVATION AND POVERTY

The Index of Multiple Deprivation (IMD) 2010 is an overall measure of deprivation calculated by combining separate indicators organised across the seven distinct domains: Income, Employment, Health and Disability, Education, Skills and Training, Barriers to Housing and Services, Living Environment and Crime. Overall, it is a measure of deprivation rather than affluence but does not necessarily imply the absence of wealth. Similarly, the indices do not describe every resident; more deprived LSOAs will contain residents that are not deprived and vice versa.

The index is expressed as a score (the result of the weighted calculations of the indicators) and a rank from 1st (most deprived) to 32,482nd (least deprived). It is a relative measure, placing the areas on a position in relation to each other based on their weighted score. The ranking allows for grouping of areas according to their position, usually by decile or percentile (e.g. 1% most deprived in England, 10% most deprived, etc). An area is considered deprived if it is ranked within the 20% of the most deprived in England.

2.1 What is the extent of deprivation in Sandwell?

Figure 2.1.1 Sandwell Map with Index Multiple Deprivation Rankings

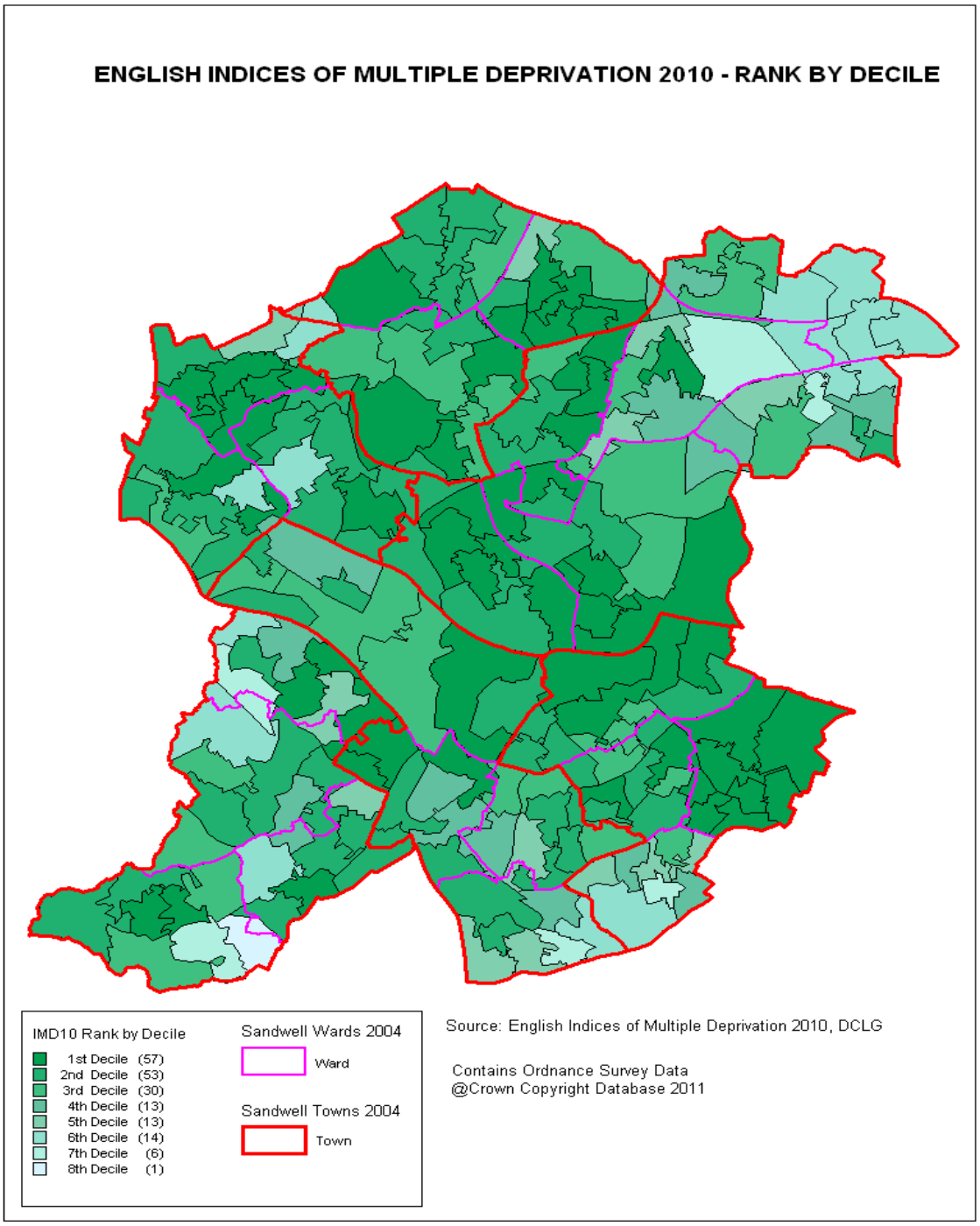


Figure 2.1.1 above shows that the highest rank that Sandwell LSOAs fall into is the 8th decile (only 1 LSOA). 140 out of 187 (75%) LSOAs are in the 1st to 3rd decile, the most deprived deciles

Table 2.1.1 Sandwell LSOAs that are within 1% most deprived areas in England

LSOA	NEIGHBOURHOOD	TOWN	RANK (32,482)	BAND
E01010063	Windmill Lane	Smethwick	146	Top 1%
E01010054	Uplands	Smethwick	232	Top 1%
E01009979	Great Bridge	Tipton	266	Top 1%

Table 2.1 above shows the 2 LSOAs that fall within the 1% most deprived areas in the country.

2.2 How does Sandwell's deprivation compare to other local authorities?

There are currently 326 local authority districts in England and therefore the ranking for local authorities is out of 326, 1 being the most deprived and 326 being the least deprived.

Table 2.2.1 below shows the current Index of Multiple Deprivation rank for local authorities in the West Midlands Metropolitan County area. Rankings in red show an increase in relative deprivation compared to 2007.

Table 2.2.1 IMD Ranking by Local Authority

IMD 2010 – Local Authorities	Rank of Average Score IMD 2010	Rank of Average Score IMD 2007
Birmingham	**9**	**10**
Sandwell	**12**	**14**
Wolverhampton	**21**	**28**
Walsall	**30**	**45**
Coventry	**50**	**61**
Dudley	**104**	**100**
Solihull	**179**	**199**

It is difficult to compare IMD ranks and scores over time as there are different population estimates between the two years and there is a difference in the number of local authorities that now exist (there are 28 fewer local authorities in 2010 than 2007). Some

changes in LSOA rankings between IMD 2010 and IMD 2007 may arise from these influences rather than real change in deprivation. Sandwell's overall ranking in IMD in 2010 has moved from 14 to 12. However this change may be due to the reasons above. The drop in ranking here is minimal and possibly be contributable to the caveats mention above. Moreover, the order of ranking of LA's in 2010 is the same as that in 2007, suggesting no real change.

2.3 Child Poverty

The Government's first national Child Poverty Strategy, A New Approach to Child Poverty: Tackling the Causes of Disadvantage and Transforming Families' Lives was published in April 2011. It recognises that poverty is not just about income but lack of opportunity, aspiration and stability. The strategy is set to provide further fixes beyond the income targets set in the Child Poverty Act 2010 by focusing on combating worklessness, educational failures and preventing family and relationship breakdown with the aim of supporting the most disadvantaged groups struggling at the bottom of society.

The targets set in Child Poverty Act 2010 are based around the proportion of children living in households with:

- relative low income - if they receive less than 60% of the average income[3]
- combined low income and material deprivation (this is a wider measure of living standards)
- absolute low income - if they receive less than 60 per cent of average income adjusted by inflation
- persistent poverty (this is defined by the Act as living in relative poverty for at least three of the last four years)

The equivalised[4] median income in 2011/12 was £427. This means that those households with income of £256 (60% of £427)

[3] Average income is defined as the median equivalised net household income

[4] Equivalisation is a process that makes adjustments to incomes, so that the standard of living of households with different compositions can be compared

or less are considered to be of relative low income. This is the most commonly used threshold and the thresholds applied in the analysis of this report.

2.4 Relative vs. Absolute Poverty

According to HMRC figures, in August of 2011 Sandwell had 29.6% of the child population living in what is considered “relative” poverty. This represents 22,935 dependent children, of which 19,930 (87%) are under 16 years of age.

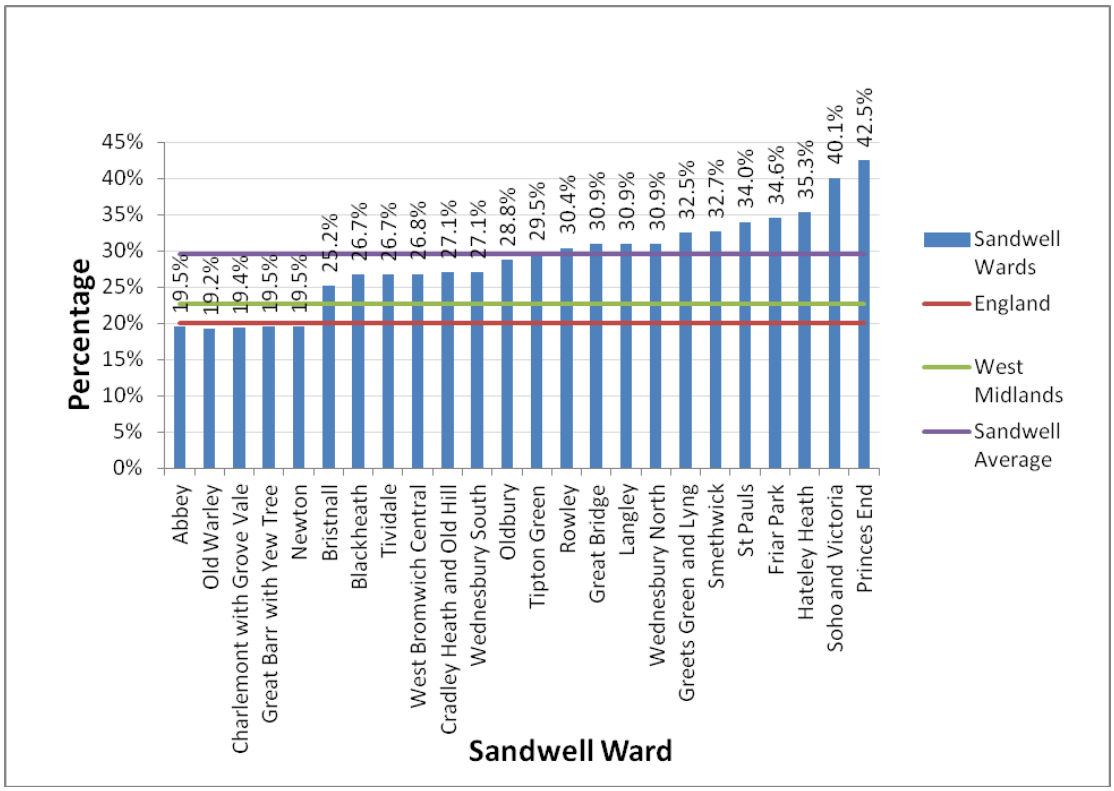
The number of children in relative poverty in the borough is now higher than it was 6 years ago. This is partly due to the increase in the number of children in the Borough.

However, there has been a decrease of 0.5% from the 2010 figure (30.4%) to 2011 of the proportion in relative poverty. The indicator shows a decrease of relative child poverty in the borough; we believe that this is due to economic downturn. It is not due to any real improvement in income locally but the fact that incomes have decreased nationally. However, the Household below Average Income (HBAI) study published in June 2013 shows that the number of children in the “Absolute” low-income indicator is increasing (this measure adjusts the median income for inflation over time).

2.5 Where do Sandwell children living in relative poverty live?

Although 29.6% of all Sandwell children are living in poverty, these children are spread throughout Sandwell Wards. There is a correlation between numbers of children in a Ward and the proportion of children in poverty. Princess End, Soho and Victoria have the highest percentage of its children living in relative poverty (see figure 2.5.1 below). In fact, Soho and Victoria also has the highest proportion of 0-4year olds and 5-19 years olds (see demographics chapter).

Figure 2.5.1 Children Living in Poverty by Sandwell Ward (2011)

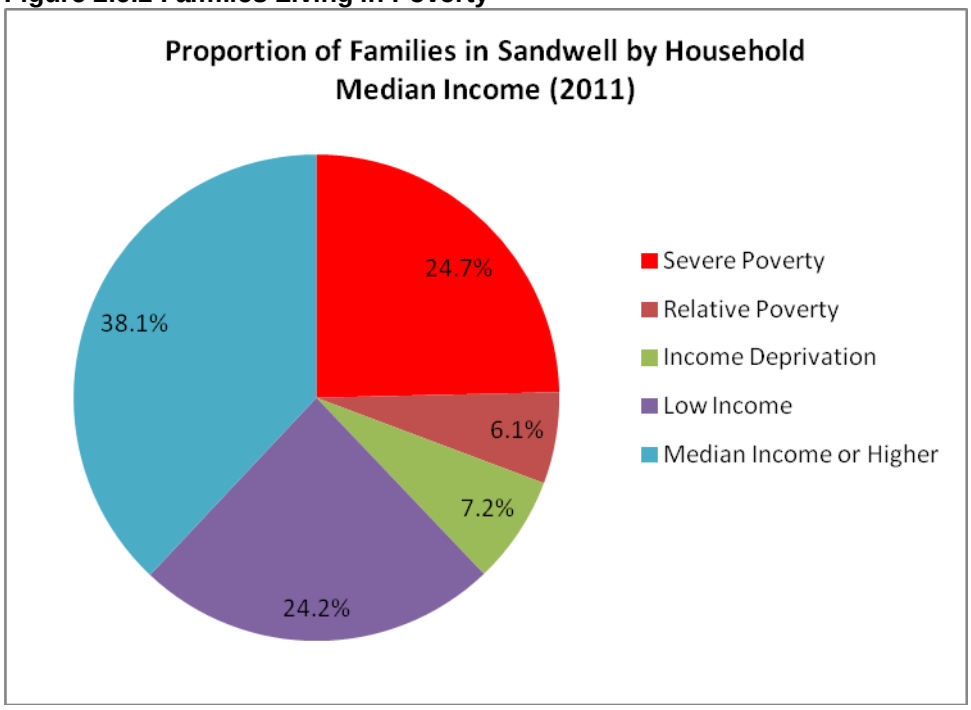


2.6 A quarter of Sandwell families are in severe poverty

Nationally, it is the percentage of children that live in 'relative' poverty that is measured and reported. Locally, an analysis has been conducted (based on HMRC data at 31 August 2011) to separate those in 'relative' and those in 'severe poverty. This analysis has been conducted on the percentage of families opposed to the percentage of children (see figure 2.6.1below).

Figure 2.3 below shows that only 38% of Sandwell families have an income equal or above the national median. This means that 62% of families in Sandwell live on less than the national average for their family type. Half of these families live below the poverty line (30.8% of all families). But, more worryingly, the rate of families in severe poverty (less than 50% median) has increased to almost a quarter (24.7%) since 2009, rising every year for the past 3 years.

Figure 2.6.1 Families Living in Poverty



2.7 Workless households and lone parents are much more affected by poverty

Children in workless families[5] are much more likely to live in relative, absolute and material deprivation (less than 70% the national median), than those families with at least one adult in work. HMRC statistics show that over a quarter (26%) of all children in relative poverty in the UK today live in workless households.

The HBAI[6] figures also show that children in lone-parent families are also more likely to live in low-income households than those in couple families. HMRC statistics show over three quarters (68.8%) of children in relative poverty live in lone parent families

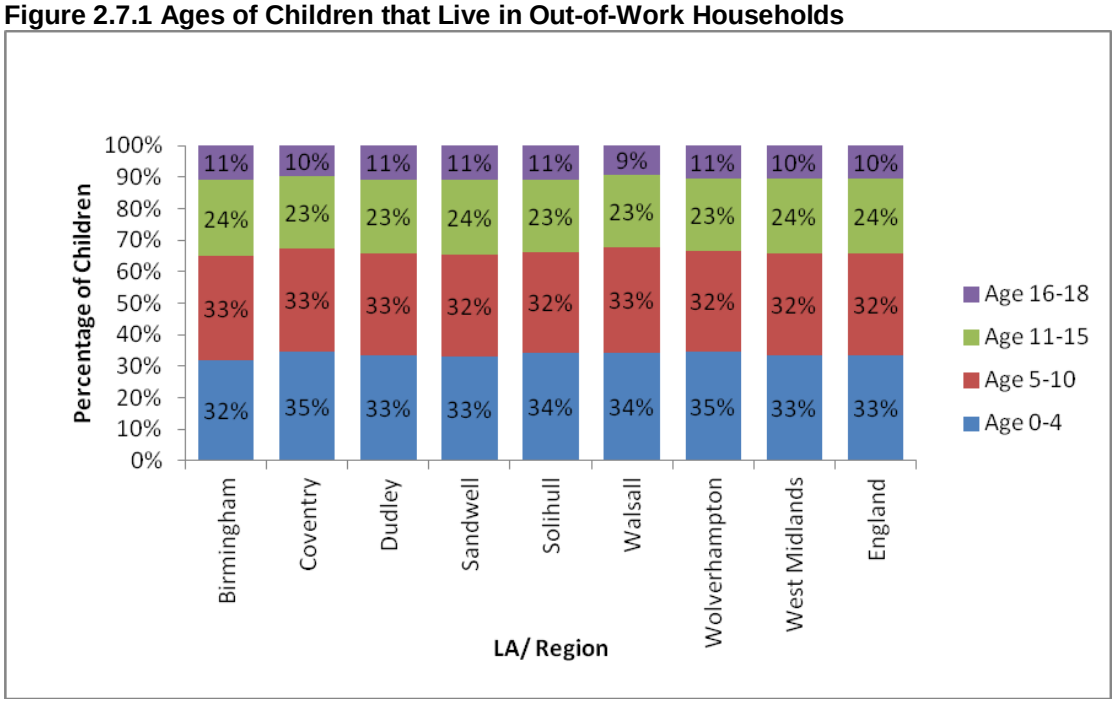
When analysing the number of children who live in households with out-of-work benefit recipients, we can see that two thirds of these are of pre-school or primary school age (0-4) and (5-10). This is a consistent pattern throughout Sandwell and its neighbouring local authorities and England. This indicates that a

[5] If at least 1 parent or guardian claims the relevant benefits

[6] Households Below Average Income (HBAI), Statistical Release June 2013

large contributing factor to the levels of poverty and children living in workless households may be provision of child care or people finding it hard to find work once they have started a family. See figure 2.7.1 below.

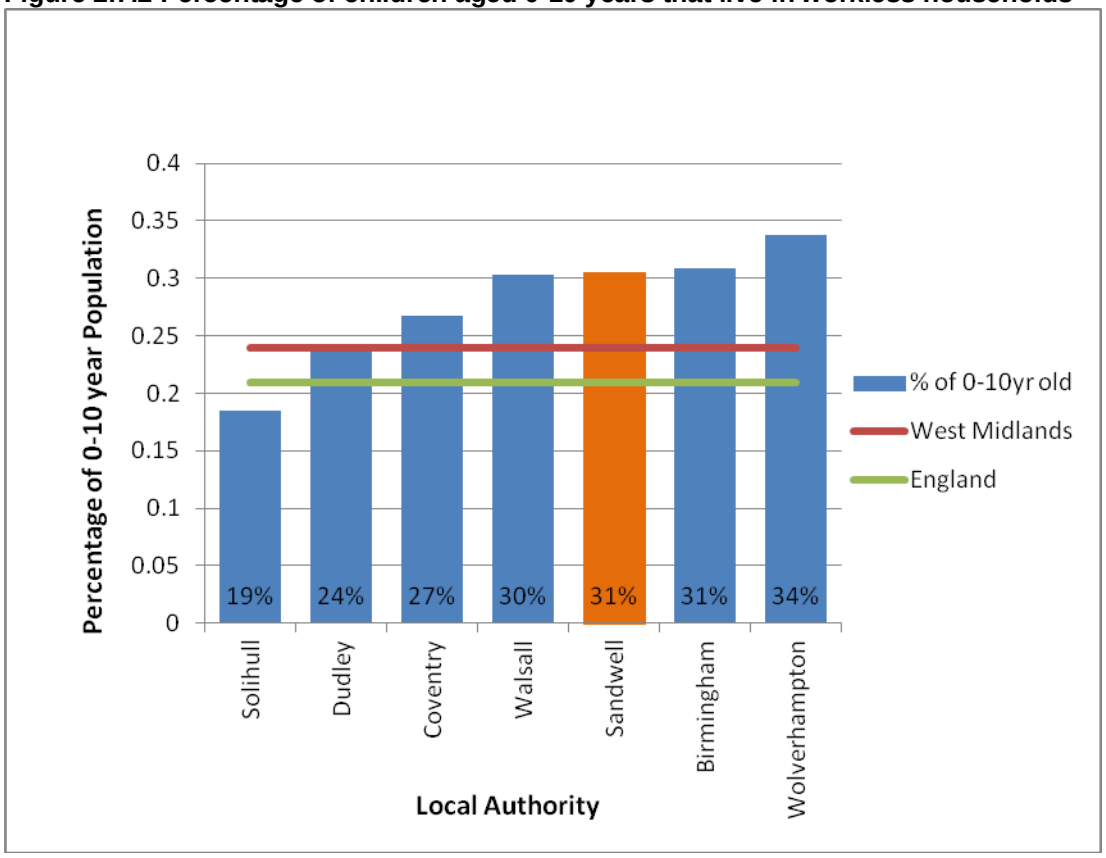
Figure 2.7.1 Ages of Children that Live in Out-of-Work Households



Source: Number of children living in out-of-work benefit claimant households, by age group. May 2012 (DWP)

As mentioned above, two thirds of those children living in workless households are of pre-school or primary school age and this is similar across the West Midlands and England. However, when analysing the number of children that are in workless households from the total 0-10 year old population (figure 2.7.2), the proportion are very different. 31% of the total 0-10 year old Sandwell population is living within work-less households. Sandwell has 7% more than the West Midland's average and 10% more than the England average. It is also the second highest (jointly with Birmingham) within its neighbouring authorities.

Figure 2.7.2 Percentage of children aged 0-10 years that live in workless households



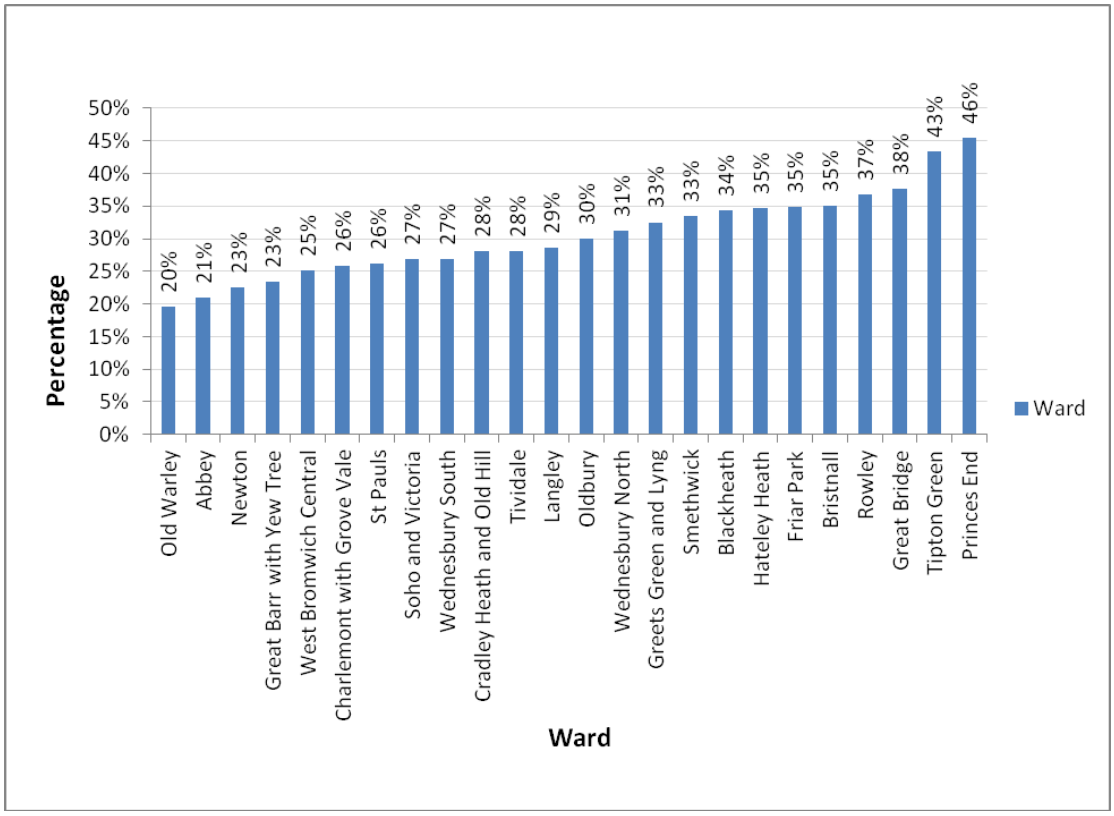
Source: Number of children living in out-of-work benefit claimant households, by age group. May 2012 (DWP) and 2011 Census

2.8 Worklessness and Place

Figure 2.8.1 below shows the proportion of children aged 0-10 that live in workless households by ward. The proportions vary throughout the wards from 20% in Old Warley to 46% in Princess End. 10 out of 24 wards have higher percentages than the average for Sandwell.

Princess End, Tipton, Great Bridge and Rowley to be wards with the highest numbers for unemployment rates and NEETs (This will be covered in later chapters).

Figure 2.8.1 Percentage of Children Aged 0-10 Years that Live in Workless Households in Sandwell Wards

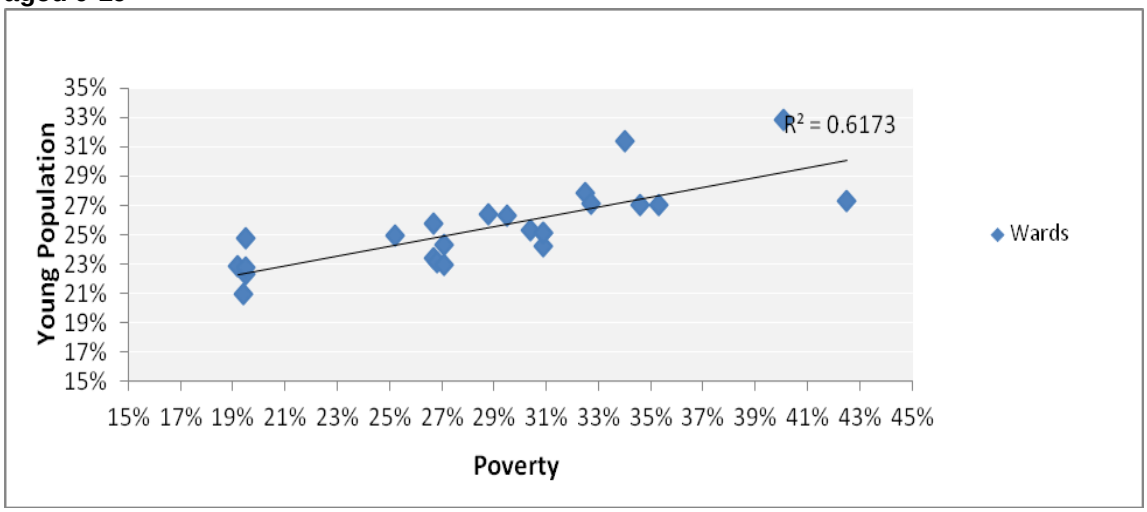


2.9 Demographic Characteristics and Poverty

Young Population

Figure 2.9.1 below shows a strong association (almost 70%) between Sandwell wards with high levels children in relative poverty and the high proportion of young people aged 0-18. This suggests that where there are more children, there is greater relative poverty.

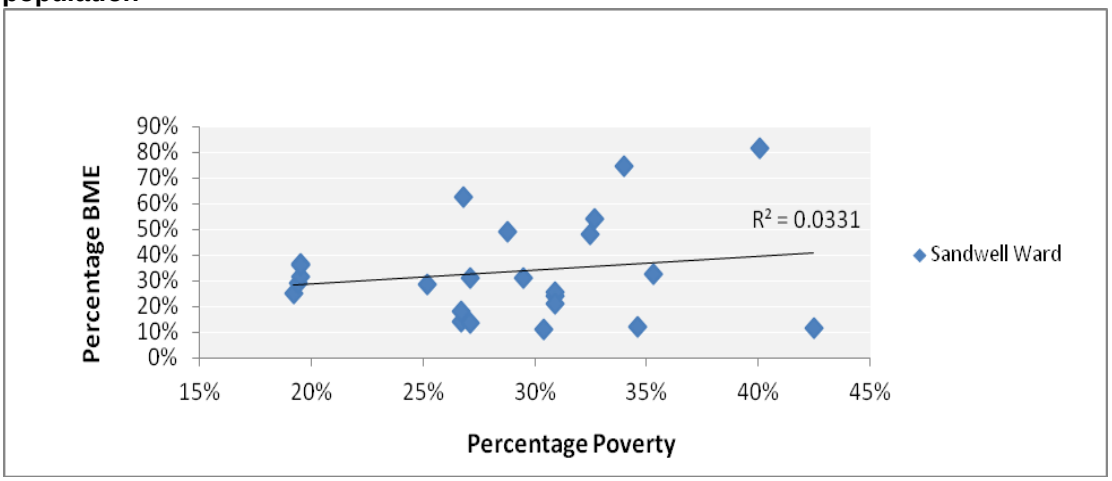
Figure 2.9.1 Correlation of child poverty and the proportion of Sandwell population aged 0-19



BME Population

In contrast to the strong association between the proportions of poverty and the proportions of young population, figure 2.9.2 below shows that the association between children living in relative poverty and the proportions of BME populations is weak (3%). This is because some of the wards with high levels of child poverty are also the wards which have predominantly white British populations (Princess End, Friar Park, Wednesbury North, Langley and Rowley).

Figure 2.9.2 Correlation of child poverty and the proportion of Sandwell BME population



The council is currently reviewing its arrangement to address child poverty. There is recognition that child poverty must be seen in the context of families.

There is Council group addressing childhood poverty. This section has not included addressing poverty but as information to support the rest of needs assessment and to inform configuration of services such as children's centres, health visiting etc.

Chapter 3 – Lifestyle & Health Improvement

3.1 Childhood Obesity - Key Points

- Obesity in children is associated with increased risk of a number of diseases including: Type I diabetes, asthma, metal health disorders and musculoskeletal problems. It is also associated with increased risk of many of these conditions in adulthood as well as increased risk of cardio vascular disease.
- The rates of obesity are much higher in Sandwell, than England.
- At both reception and year 6 rates of obesity are fairly stable.
- Rates of underweight are much higher in Sandwell than England.
- At year 6 Black and mixed children (both males and females) children are most likely to be overweight and obese, followed by white females
- At both reception and year 6 there is considerably variation in overweight rates by school ranging from 10% to 46%

3.1 CHILDHOOD OBESITY

By year 6 Sandwell children are amongst the most overweight and obese children in the country. However, the other side of the coin shows that we also have particularly high rates of children who are underweight. Both issues present health risks for our children.

In Sandwell we are currently targeting a year on year reduction (i.e. 0.5% annually) to 2020 in order to counter the similar rate of increase observable from 2000 (as originally outlined in *Healthy Lives, Healthy People – A Call to Action on Obesity in England - 2011).* The mission locally is to reduce the risk from obesity in childhood in respect of early-onset type II diabetes, orthopaedic problems, sleep problems, low self-esteem and as a predictor of overweight and obesity in adulthood. Evidence supports targeting of children & their families in respect of intergenerational effects i.e. children in families with at least one obese parent being more likely to be obese themselves.

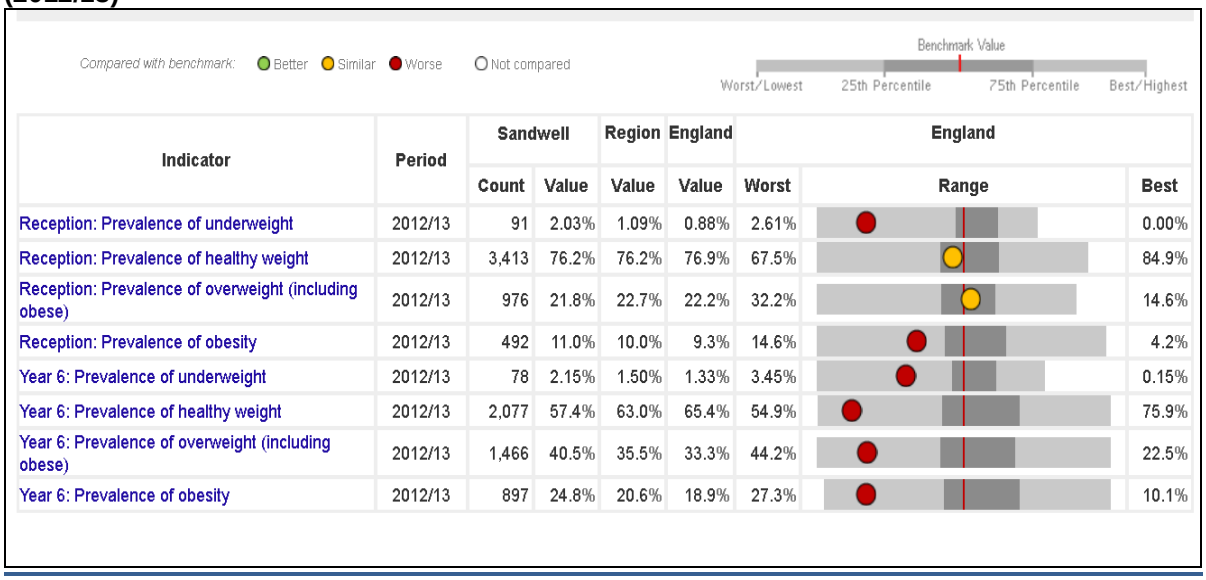
3.1.1 Measuring the Weight of Children

There is a well established programme for measuring the weight of children naturally. This is known as The National Child Measurement Program (NCMP) and was established to support the government strategy of improving weight management and reducing obesity amongst children. Qualified health professionals visit primary schools to measure the children's height and weight. This measurement is taken from children aged 4-5 (Reception Year) and 10-11 (Year 6). Over the years participation in the programme has improved and now covers more than 97% of the population.[7]

[7] More information available at www.hscic.gov.uk/ncmp

3.1.2 Sandwell has too many children that are underweight and overweight

Figure 3.1.1 National Child Measurement Programme Rates (2012/13)



Indicator	Period	Sandwell		Region	England	England		
		Count	Value	Value	Value	Worst	Range	Best
Reception: Prevalence of underweight	2012/13	91	2.03%	1.09%	0.88%	2.61%		0.00%
Reception: Prevalence of healthy weight	2012/13	3,413	76.2%	76.2%	76.9%	67.5%		84.9%
Reception: Prevalence of overweight (including obese)	2012/13	976	21.8%	22.7%	22.2%	32.2%		14.6%
Reception: Prevalence of obesity	2012/13	492	11.0%	10.0%	9.3%	14.6%		4.2%
Year 6: Prevalence of underweight	2012/13	78	2.15%	1.50%	1.33%	3.45%		0.15%
Year 6: Prevalence of healthy weight	2012/13	2,077	57.4%	63.0%	65.4%	54.9%		75.9%
Year 6: Prevalence of overweight (including obese)	2012/13	1,466	40.5%	35.5%	33.3%	44.2%		22.5%
Year 6: Prevalence of obesity	2012/13	897	24.8%	20.6%	18.9%	27.3%		10.1%

Source: Public Health England Fingertips

The spine chart above (figure 3.1.1) shows the prevalence of each BMI category used within the NCMP programme against the average performances throughout England.

The majority (76.2%) of Sandwell children aged 4-5 (reception year) are of a healthy weight. Although this measure is statistically similar to the England and West Midland average, we still have a worrying 23.8% that are either overweight (including obese) or underweight. In fact, the numbers of children that are underweight (2. 03%) or obese (11%) are statistically worse than the England average.

However by as early as year 6, only 57.4% of children measured were classified as healthy. Sandwell has one of the lowest rate of healthy children (54.9% is the worst rate and 75.9 is the best). Overall, 40.5% of Sandwell children aged 10-11 are overweight, with a quarter (24.8%) obese. This is statistically worse than the England average of 33.3% (18.9% obese). Similarly to reception year children; not only does Sandwell have higher rates of children that are overweight or obese but Sandwell also has statistically worse rates of children that are underweight. 2.15% of year 6 children measured in the 2012/13 were underweight. As a

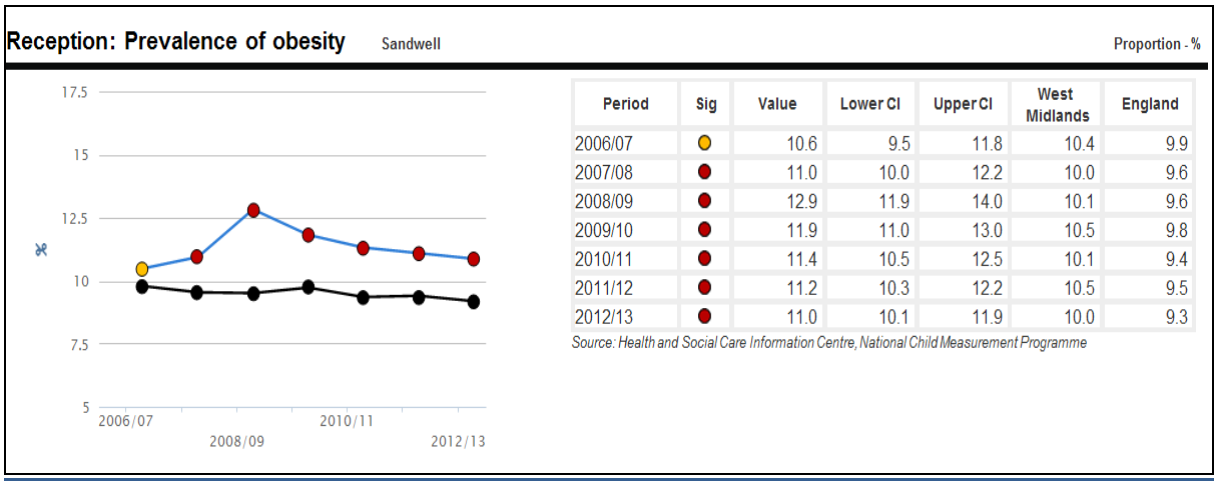
comparator, England's average rate for children aged 10-11 that are underweight is 0.88%.

Some of the reasons for the high proportion of underweight children could be due to the ethnic makeup of our population. NICE suggests that different BMI cut offs should apply depending on ethnicity and should be lower for Asians[8], however, do not specify what these cut off should be. Whilst this would reduce the rate of underweight in our population it would increase the overweight, as Asian are also considered to have higher risks of disease at lower weights.

3.1.3 Sandwell Obesity Trend (2006 – 2013)

Better than England
Worse than England
Same as England

Figure 3.1.2 National Child Measurement Programme - Obesity Prevalence in Reception Year Children



Period	Sig	Value	Lower CI	Upper CI	West Midlands	England
2006/07		10.6	9.5	11.8	10.4	9.9
2007/08		11.0	10.0	12.2	10.0	9.6
2008/09		12.9	11.9	14.0	10.1	9.6
2009/10		11.9	11.0	13.0	10.5	9.8
2010/11		11.4	10.5	12.5	10.1	9.4
2011/12		11.2	10.3	12.2	10.5	9.5
2012/13		11.0	10.1	11.9	10.0	9.3

Source: Health and Social Care Information Centre, National Child Measurement Programme

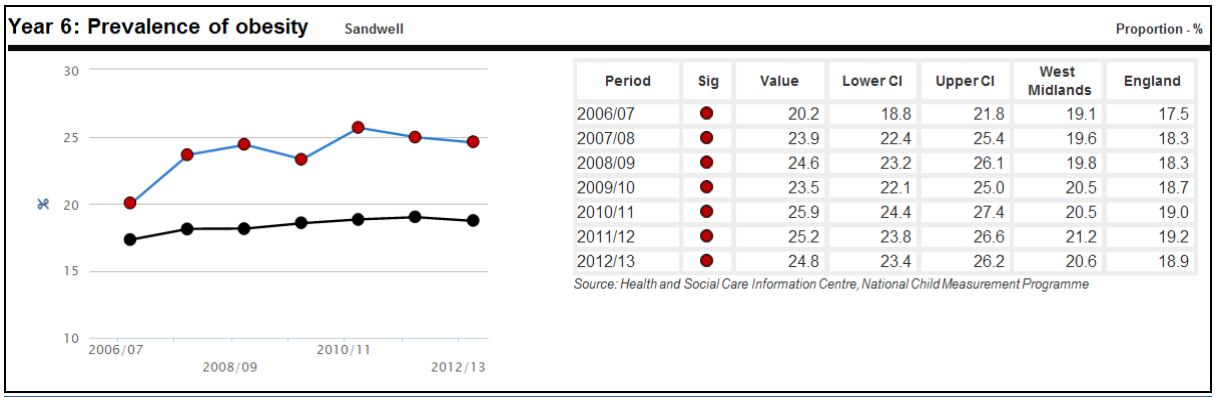
The rates from 2006 – 2008 should be considered in relation to the participation rates which were poor at the start of the programme. Although the trend graph shows a continuous decline since 2008/09, this decline is not a true reflection of an improvement as is likely to be due to random variation in the data. A small degree of change, higher or lower, is to be expected each year, and is not large enough in this case to represent a statistically significant decline. However the rate remains significantly higher than

[8] NICE public health guidance 46 - BMI and waist circumference - Black, Asian and minority ethnic groups: guidance

England. The gap between Sandwell and England also remains static.

Better than England
Worse than England
Same as England

Figure 3.1.3 National Child Measurement Program - Obesity Prevalence in Year 6 Children



Period	Sig	Value	Lower CI	Upper CI	West Midlands	England
2006/07		20.2	18.8	21.8	19.1	17.5
2007/08		23.9	22.4	25.4	19.6	18.3
2008/09		24.6	23.2	26.1	19.8	18.3
2009/10		23.5	22.1	25.0	20.5	18.7
2010/11		25.9	24.4	27.4	20.5	19.0
2011/12		25.2	23.8	26.6	21.2	19.2
2012/13		24.8	23.4	26.2	20.6	18.9

Source: Health and Social Care Information Centre, National Child Measurement Programme

The rate of obesity in Sandwell for children aged 10-11 has remained statistically worse than England since the start of the programme. The last 3 years have seen a change in percentages but this change may be attributable to the establishment of the measurement programme, poorer participation in the early years and some random variation. In the last 3-4 years the NCMP programme has had between 97% and 99% participation rates.

3.1.4 How does Sandwell compare to other areas?

Figure 3.1.4 Metropolitan local authority comparators – reception year

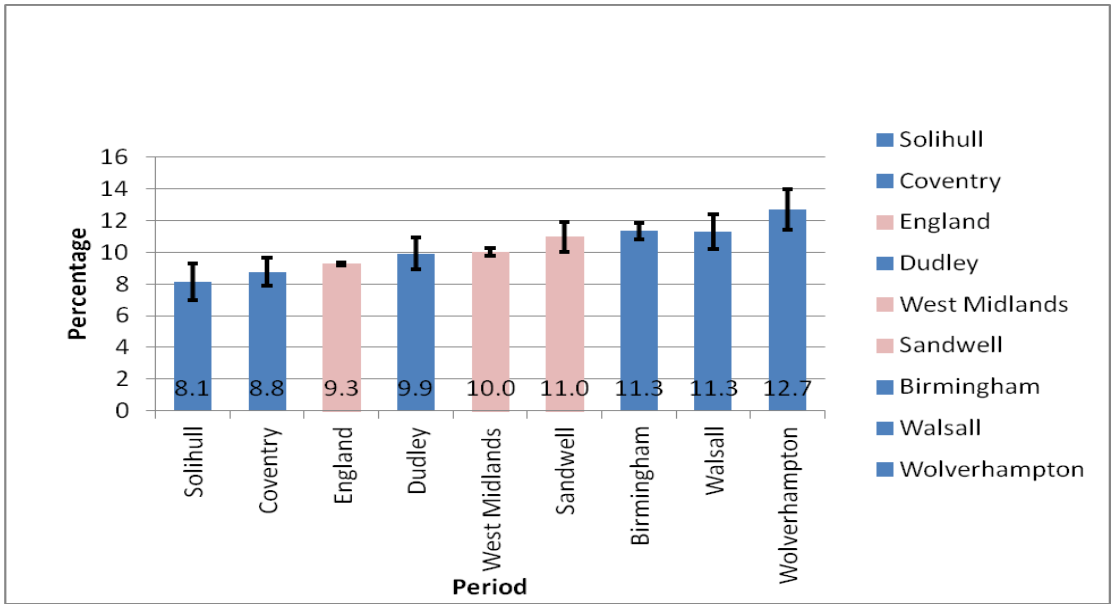
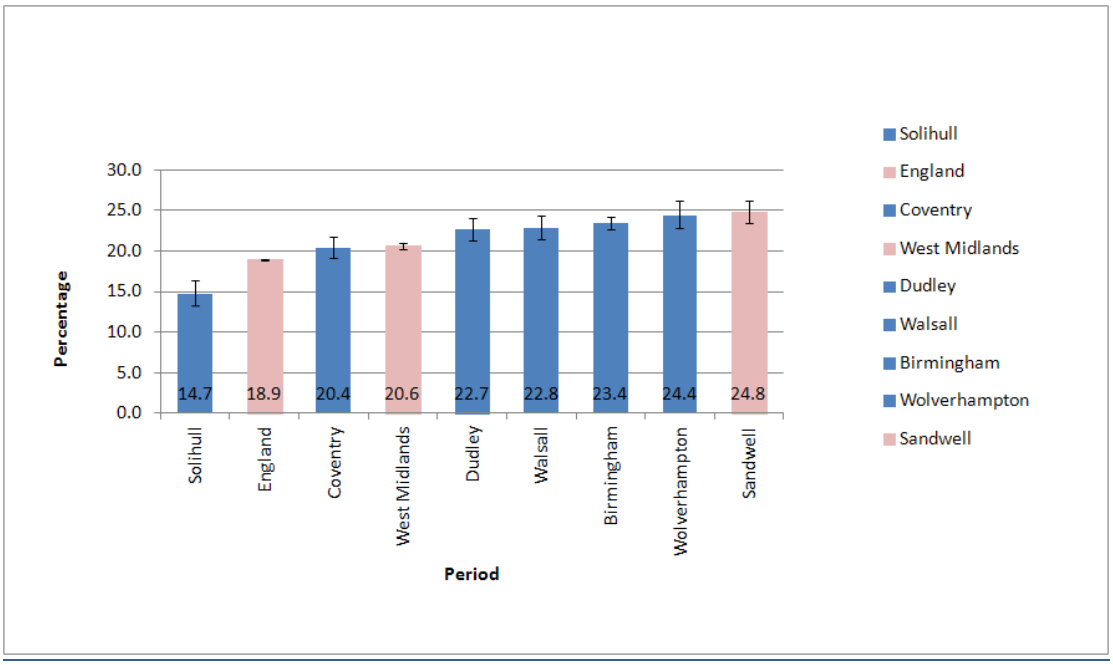


Figure 3.1.4 above shows obesity rates of Sandwell and its neighbouring metropolitan local authorities in the West Midlands. Sandwell's rate of obesity in reception year children is not significantly different to it neighbouring authorities. An exception to this is Solihull and Coventry who have continuously had lower rates of obesity. The rates have been significantly lower than Sandwell and the West Midlands average rate.

Figure 3.1.5 Metropolitan local Authority Comparators – Year 6



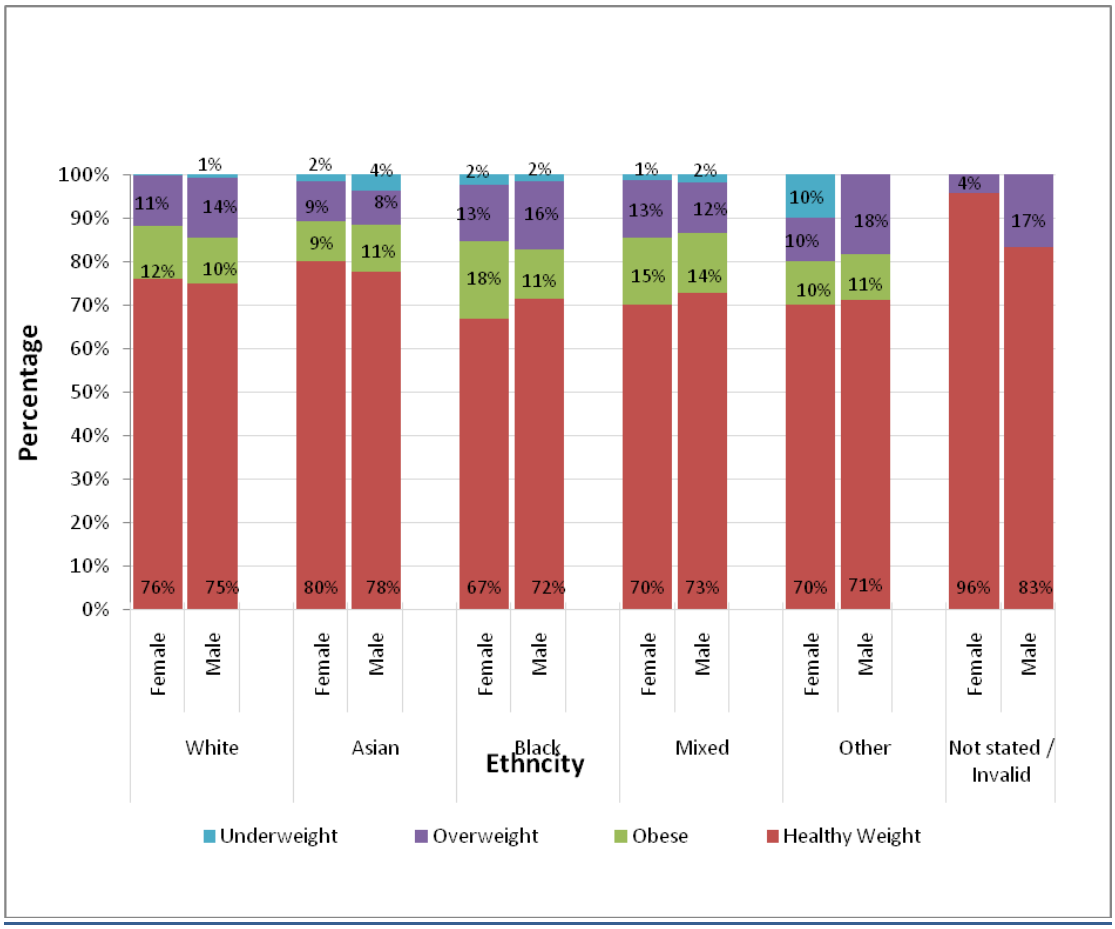
With exceptions of Solihull and Coventry, Sandwell's rate of obesity for children in year 6 is similar to its neighbouring local authorities (See Figure 3.1.5 above) Year 6 obesity rates are in fact statistically higher than Solihull, Coventry, England and the West Midlands average.

3.1.5 The Relationship between Ethnicity and Weight

Although Sandwell is ethnically diverse, the majority of residents (and those children measured) are from a White or Asian background (see demographics section). Of the 2011/12 reception year children that were measured; 55% were White, 29% Asian, 7% Black, 7 % Mixed and 3% were from other or Not Stated ethnicities (rounded to nearest whole number).

Figure 3.1.6 below shows the proportion of each weight category within each ethnic group. Although the children in reception year that are from a black ethnic group only represent 7% of the 2011/12 Sandwell cohort, a high proportion of females in this group that are overweight (18%) and obese(13%).

Figure 3.1.6 Reception Year Weight by Sex and Ethnicity



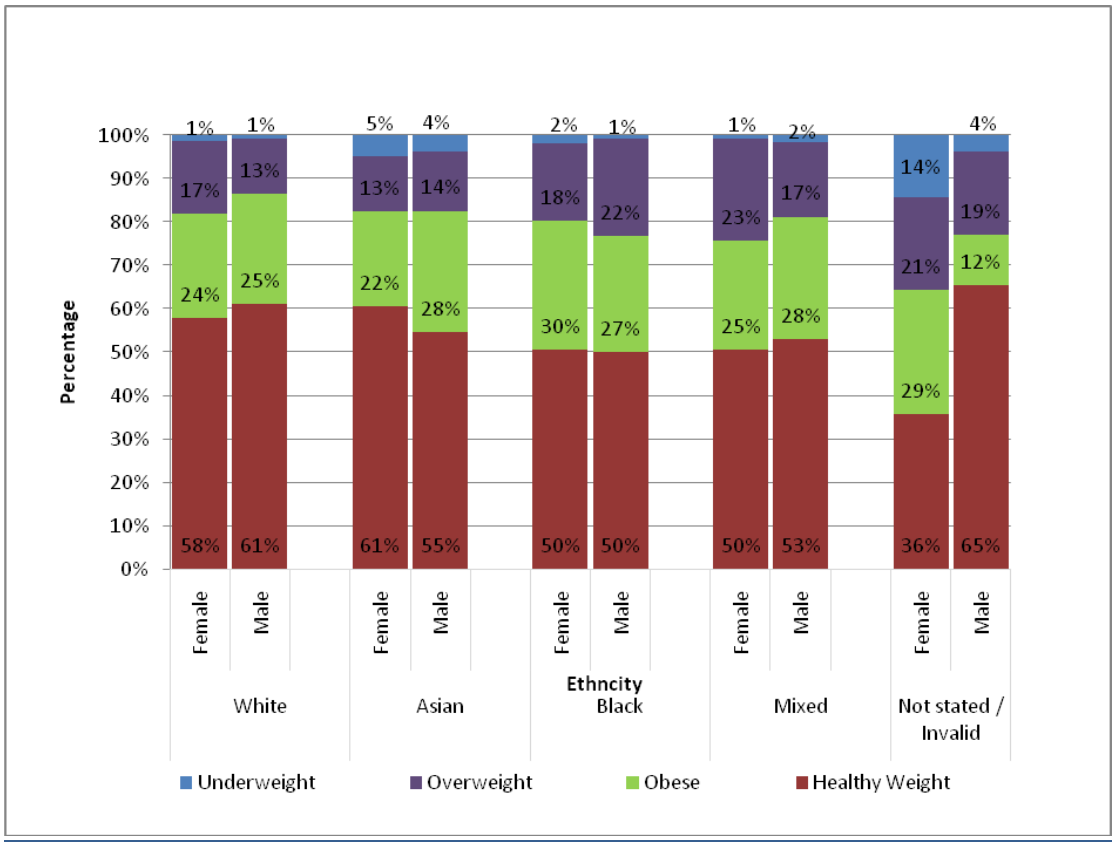
Asian males also had a high rate of underweight at 47%

Figure 3.1.7 below shows the proportion of each weight category within each ethnic group for year 6 Sandwell children. For this age range, it is the black females have the largest proportion of obese children (30%) and it is the mixed ethnic group that has the highest proportion of overweight children (23%). The is followed by white females (17%) obese, 24% over weight stated.

On comparison of reception year children and year 6 children, we can see that the number of children that are overweight or obese almost doubles in year 6. The female Asian children that are

classified as underweight also doubled that of the reception year proportions.

Figure 3.1.7 Year 6 Weight by Sex and Ethnicity



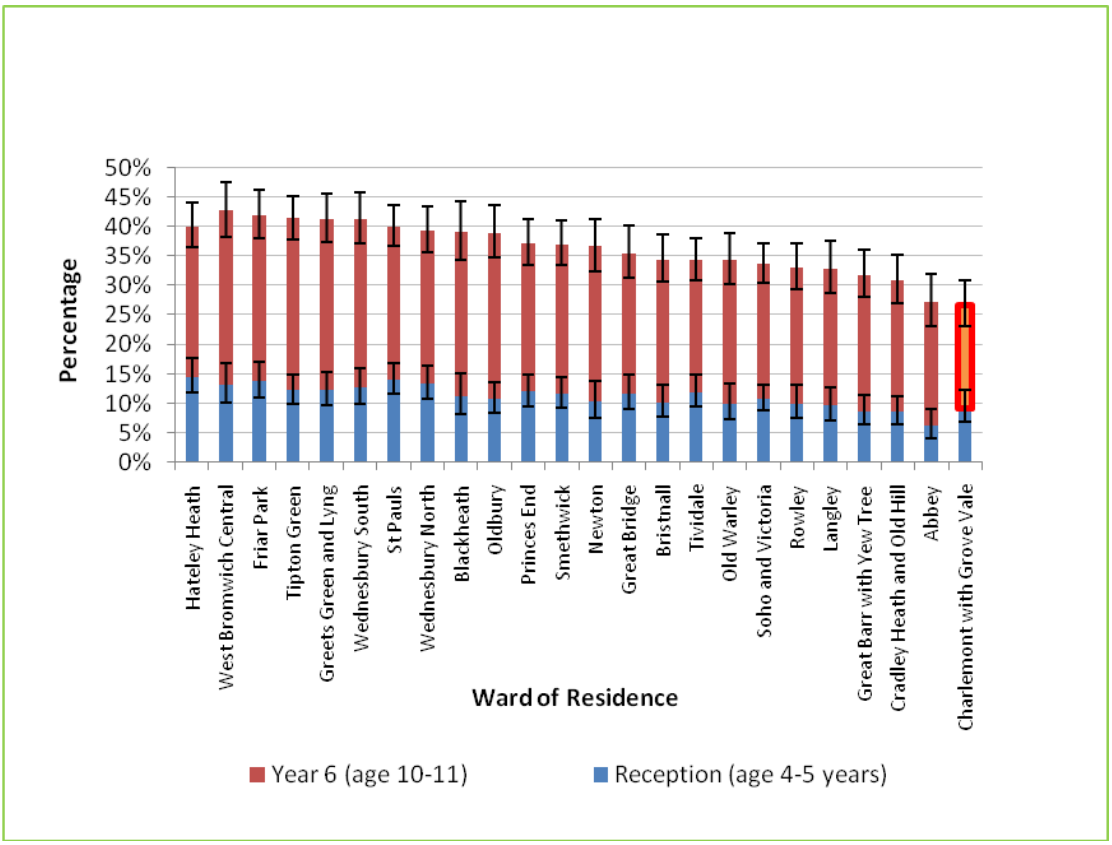
Year 6 children were measured from 88 Sandwell Schools. Out of the 88 schools, 70 schools had higher rate of children measured as overweight or obese than the England average (33.3%) and 46 had higher rates than Sandwell's average (40.5%).

School level obesity is a sensitive measure as it could lead to stigmatisation of schools. However the school is an important unit through which intervention to address childhood obesity could be challenged. For example addressing the quality of lunchtime meals or extracurricular activities.

At reception the rate of overweight and obesity ranges from 10% to 46.7%

3.1.6 Similar Rates of Obesity across Sandwell

Figure 3.1.8 Obesity Prevalence in Sandwell Wards



Levels of obesity amongst Sandwell wards are similar with the exception of Charlemont with Grove Vale (26.7% (combined reception and year 6)) which is lower than 11 other wards (year 6 children).

3.1.7 Evidence-based Approaches – The Local Context for Prevention and Early Intervention

The Chief Medical Officer's annual report *Our Children Deserve Better: Prevention Pays* supports a life course approach and makes the economic case for improving the lives of children and young people, emphasising prevention and highlighting the importance of early life determinants such as parenting and inequalities in child health. Nationally, childhood obesity prevalence correlates strongly with socio-economic status and level of deprivation. Sandwell is currently 12th most deprived borough (IMD) in England overall.

The relevance for Sandwell is further underlined by an extract from the Lifestyle Statistics Team *Health and Social Care Information Centre - Report 2013* contrasting the least/most deprived national deciles states "As in previous years, a strong positive relationship existed between deprivation (as measured by the 2010 IMD score) and obesity prevalence for children in each age group. The obesity prevalence among Reception children attending schools in areas in the least deprived decile was 6.4% compared with 12.1% among those attending schools in the most deprived decile. Similarly, obesity prevalence among Year 6 children attending schools in the least deprived decile was 13.0% compared with 24.2% among those attending schools in the most deprived decile".

In addition to addressing obesity prevention, early intervention and treatment with regard to population socio-economic status and levels of deprivation within the Borough, targeted interventions are needed to meet the needs of 'hard to reach' groups such as those identified in the NCMP analysis by ethnicity i.e. highlighting overweight and obesity in black and mixed ethnicity groups at Reception and Year 6.

3.1.8 Strategy Mapping - Key Areas for Co-ordinated Action

The recommendations which follow below are organised under three key areas. The mechanism for co-ordinating delivery of the detailed action plans required to achieve outcomes in these identified areas will be via a Sandwell Child & Family Obesity 'Strategy Map' which, in time, will cross reference key action plans within Sandwell Metropolitan Borough Council work streams (i.e. Public Health, Planning, Sport & Leisure, Neighbourhoods, Communities & Education), identifying their contribution to key outcomes and measures (i.e. against the Public Health Outcomes Framework and SMBC Score Card Areas) and aligning with the work plans of individual SMBC project officers (i.e. Public Health, Weight Management, Physical Activity, Food, Healthy Urban Environment, Planning, Sports & Leisure, Education, Community Development) in addition to the work of wider partners.

The underpinning approach to the development of services going forward is to address childhood obesity through targeting children

and their families (recognising the inter-generational trend), building an integrated services pathway which is characterised by support for the adoption and maintenance of healthy lifestyle behaviours.

3.1.9 Key Recommendations within Identified Action Areas

Three key areas for sustained action are identified & supported by national guidelines / NICE guidance:

1. **Encouraging Behaviour Change – Working to support children & their families seeking to adopt behaviour changes which favour physical activity and healthy eating.**

2. **Providing Opportunities – Working to provide and promote local opportunities for children & their families to participate in physical activity and enjoy healthy food.**

3. **Changing the Environment – Working to co-ordinate efforts to ensure the living environment encourages participation in physical activity and enjoyment of healthy food choices.**

To be delivered via a mid-term (minimum of five years), universal approach, engaging fully with (internal/external) partner organisations and harnessing the 'user voice' within communities as a key element to further understanding of local barriers, potential solutions and priority actions.

Through coordinated work stream activity across the three key areas identified above (Behaviour Change / Providing Opportunities / Changing Environment), implement the actions identified with the over-arching objectives to:

- support maintenance of healthy weight & reduce overweight:
- promote physical activity & reduce physical inactivity:

1. **Encouraging Behaviour Change – Working to support Sandwell's children & their families seeking to adopt behaviour changes which favour healthy eating and physical activity.**

Key elements for development in support of healthy eating and physical activity are:

Recommendation 1: Food

Educating and supporting children & families concerning the importance of diet and nutrition; incorporating changing attitudes to 'sugary drinks' & 'snacking', promoting healthy eating and developing integrated healthy lifestyles schools/education programmes (lifestyle behaviour, food & physical activity) to be promoted as models of good practice.

Who should take action?

Public Health Improvement Team (Food Project Manager, Lifestyles Team), in liaison with Early Years, Education/Schools, Youth Service, Marketing/Information

(NB Sandwell Public Health Improvement Team will continue to monitor and consider the emerging evidence-base and research discourse suggesting that the relentless upward trend in obesity (at population level) is associated with hormone regulatory disorder. Briefly summarised, this states - People eating an energy-dense diet, high in refined sugar and flour, develop increased resistance to insulin. This mechanism, which drives their excess weight gain, is the same one that increases the risk of heart disease and stroke, high blood pressure, type II diabetes, and some cancers. Obesity is therefore often a 'marker' for these conditions - what makes some people put on excess weight also causes ill-health).

Recommendation 2: Physical Inactivity

Promoting the importance of movement and being physically active (incorporating the notion of 'trade off' activity i.e 'Buy' your inactive screen time with physical activity)

Who should take action?
Public Health Improvement Team (Physical Activity Project Manager, Lifestyles Team), in liaison with Early Years, Education/Schools, Youth Service, Workplace Health, Neighbourhoods, Community Development

Recommendation 3: Physical Activity

Targeting 180 active minutes per day for the under fives, and sixty minutes of moderate (i.e. active play / brisk walking) to vigorous (i.e. running) daily activity from five to eighteen years, children & families should be encouraged to:

- Experience a range of different activities in order to find the things they are more likely to sustain engagement with in addition to traditional sports
- Start with an activity they can do easily and build duration. Set simple targets to be more active, more often - and notice improvements
- Try to spread activity throughout the week in 10-20-30 minute chunks to accumulate to desired activity levels
- Use their feet and focus on reducing the amount of time spent sitting – emphasising that moving about really does make a difference
- Make small changes which become part of daily routine. Forget the quick fixes – they will not be sustainable. Think about easy ways to change via one step at a time.

Who should take action?

Public Health Improvement Team (Physical Activity Project Manager, Lifestyles Team), in liaison with Early Years, Children's Centres, Education/Schools, Youth Service, Neighbourhoods, Community Development

2. **Providing Opportunities – Working to provide and promote local opportunities for Sandwell's children & their families to participate in physical activity and enjoy healthy food.**

Includes development and commissioning of a range of obesity prevention, management and treatment programmes - incorporating behaviour change support, nutritional advice and physical activity – seeking to ensure children and families can access stimulating activities in a variety of settings:

Recommendation 4: Healthy Lifestyles Programmes

Giving people the opportunity to experience a wide range of activities and signposting them to their nearest programmes, clubs, facilities and amenities. Provide information to let people know what's on offer and then support those who want to make positive lifestyle choices to make sustained changes to their daily behaviour.

Who should take action?

In respect of 'Lifestyles Services' Commissioning (Physical Activity & Weight Management): Public Health Improvement Commissioning Team (Physical Activity Project Manager, Weight Management Project Manager, Food Project Manager, Lifestyles Team), in liaison with Early Years, Children's Centres, Education/Schools, Sport & Leisure, Neighbourhoods, Community Development

In respect of 'Weight Management Services Pathway' development: Public Health Improvement Commissioning Team (Physical Activity Project Manager, Weight Management Project Manager, Food Project Manager, Lifestyles Team) in liaison with:-

Re: Healthy weight – NCMP & School Nurses , Primary - Change 4 Life Clubs, Weight Management Programmes (The NCMP is aligned with – 'Supporting families to give children young people the best start in life, through working with health visiting in school

nursing, family nurse partnerships and the trouble families programme')

Re: Tiers One & Two (Prevention & Intervention) Early Years, Children's Centres, Education/Schools, Weight Management Providers, Neighbourhoods, Community Development

Re: Tier Three (Specialist) Weight Management Providers, Sandwell Hospital, SWB CCG, Dietetics (Working towards a local commissioning framework and integrated obesity service pathway)

NB Engagement and service uptake needs to be significantly increased. The process for review, development of service model and re-commissioning of 'Lifestyle Services' is ongoing with service delivery to be in place from August 2015.

Recommendation 5: Physical Activity Programmes
Generally encouraging more organisations that offer affordable, appealing physical activity to children and families

Who should take action?

- Re: Sandwell Physical Activity Partnership work streams – The Public Health Improvement Team is developing commissioning plans for Physical Activity, Sport & Leisure through dialogue with local / regional commissioners and providers (inc. Albion Foundation, Mytime Active, Sandwell Leisure Trust and Black Country BeActive Sports Partnership).

Re: Physical Activity external partners - Play England, Primary schools - Youth Sport Trust / Change4Life Clubs, outside school/informal i.e. Natural England, Street Games, Environment/place, access to green spaces - working with Natural England, Sustrans.

3. **Changing the Environment – Working to co-ordinate efforts to ensure Sandwell's living environment encourages participation in physical activity and enjoyment of healthy food choices.**

A number of 'environmental' factors can influence the likelihood of people being active and making healthy choices – i.e. the physical surroundings in which they live, the food they can access in local shops, restaurants and take-aways, the health of the local economy, the local community culture and their individual lifestyle choices.

The Public Health Improvement Team is working with urban planning to develop mid and short term plans focusing on creating an environment for people to live in where it is possible to make healthy lifestyle choices concerning food consumption and physical activity. Initiatives include:

- Increasing local access to healthier food and supporting people to choose healthier food / shopping baskets to take home by encouraging and supporting more businesses that sells and promote healthy food and limiting the number of fast food shops and restaurants, especially near schools. Sandwell Council, through SHUDU (Sandwell Healthy Urban Development Group), has adopted planning controls to limit the numbers of hot food takeaways near to schools. This has resulted in planning permission being refused for new hot food takeaways. This approach is under review to identify how it can be strengthened.

Recommendation 6: Food Sector

Testing for fat and salt content in retailed food and working with local fast food outlets to improve food quality

Who should take action?

Environmental Health in liaison with Public Health Department

Recommendation 7: Food Sector

Consideration of the application of a local by-law to ban 'trans fats'

Who should take action?

Public Health, Planning & Legislative / Sandwell Metropolitan Borough Council

Recommendation 8: School Food

Promoting schools and other public funded settings to be exemplars of good practice in promoting healthy lifestyle choices. In schools, lunchtimes remain a key focus; dining rooms need to be attractive to children with (trained) staff 'selling' healthy choices.

Who should take action?

Public Health Improvement Team (Food Project Manager, Physical Activity Project Manager, in liaison with Education/Schools

Re: Healthy Eating/Diet work stream links - Early years, Healthy Child Programme, Breast Feeding, Health Visitors, School Food Plan, Five a Day, Growing Projects.

Re: Physical Activity work stream links – Change4Life Clubs/Primary Schools, Youth Sport Trust, Satellite Clubs/Secondary Schools, Sport England

Recommendation 9: School Travel

Making walking and cycling safer near schools and increasing the proportion of children walking or cycling to school - One priority will be to develop approaches to increase the number of children walking regularly. Possible approaches include walking to school initiatives such as walking buses.

Who should take action?

Public Health Improvement Team (Physical Activity Project Manager, Healthy Urban Project Manager), in liaison with Planning, Education/Schools

Recommendation 10: Planning

Influencing development plans to encourage walking and cycling and less reliance on cars and using policy, regulatory, licensing and contracting powers to improve healthy food choices and physical activity offers to children and families.

Who should take action?

Public Health Improvement Team (Physical Activity Project Manager, Food Project Manager, Healthy Urban Project Manager), in liaison with Planning, Neighbourhoods

Recommendation 11: Planning

Optimising the health benefits from major planning developments

Who should take action?

Public Health Improvement Team (Physical Activity Project Manager, Food Project Manager, Healthy Urban Project Manager), in liaison with Planning, Neighbourhoods

3.2 CHILDREN & YOUNG PEOPLE SMOKING

3.2.1 How many young people smoke?

Nationally, the highest rates of smoking are among young people. While the rates of smoking among young people have reduced considerably in recent years, the uptake of smoking by young people continues to be a serious problem. An estimated 330,000 young people under the age of 16 try smoking for the first time in England each year, and around 6 per cent of pupils aged 11–15 were regular smokers in 2009 (regular smoking for pupils being defined as at least one cigarette a week)[9].

Research suggests that children who live with parents or siblings who smoke are up to three times more likely to become smokers themselves than children of non-smoking households[10]. This is particularly significant in Sandwell, with both our percentage of children and young people, and adult smoking prevalence, higher than the national average.

The Tobacco Control Plan for England sets out the Government's aim to reduce prevalence of regular smoking amongst 15 year olds in England. Prevalence is a measure of the levels of smoking within the current population (in this case 15 year olds) which is shown as a proportion of the population[11]. Nationally the target is to reduce current prevalence down to 12 per cent or less by the end of 2015. This will be assessed by calculating the proportion of 15 year olds who are self-reported smokers against the number of 15 year olds with a valid recorded smoking status (non-smokers and smokers).

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[9] Department of Health. Healthy Lives, Healthy People: A Tobacco Control Plan for England. (2011)

[10] Leonardi-Bee J, Jere ML, Britton J. Exposure to parental and sibling smoking and the risk of smoking uptake in childhood and adolsecence: a systematic review and meta-analysis. Thorax 15 Feb. 2011 doi:10.1136/thx.2010.153379.

[11] Department of Health. Healthy Lives, Healthy People: A Tobacco Control Plan for England. (2011)

Locally, we currently do not have a process for capturing smoking prevalence of 15 year olds. National surveys are currently used to deduce local rates. We are awaiting guidance from Public Health England regarding a standardised procedure for recording prevalence.

In Sandwell, the incidence of new childhood smokers is currently reported via national surveys as; 1087 per year, 21 per week, 3 per day.

Table 3.2.1 Childhood Smoking in Sandwell (ASH 2013)

Local Authority	Adult population	Smoking prevalence	No. of adult smokers	% of UK smokers	Number of new childhood smokers per:					
					Year	6 months	Month	Week	Day	Hour
Sandwell	234,401	22.88%	53,627	0.53%	1,087	543	91	21	3	0

In Sandwell, a range of policies and targets exist to address the issue of children and young people smoking;

Sandwell scorecard:

- Ensure the young people we look after live in safety
- Help more people to stop smoking
- Reduce the number of children and young people involved in risky behaviour

Sandwell Health and Wellbeing Strategy (July '13):

- Key priority 1 – Early years and adolescent health
  - Give every child the best start in life
  - Enable and children and young people to have control over their lives

Public Health Outcomes Framework:

- Reduce the number of low birth weight term babies
- Reduce the prevalence of maternal smoking
- Reduce the prevalence of smoking in 15 year olds
- Reduce the prevalence of adult smokers

Tobacco control plan for England:

- Help tobacco users to quit

However we need to understand more about the factors that lead children to start smoking, qualitative research could help our understanding.

3.2.2 Impact of smoking in young people

Smoking initiation is associated with a wide range of risk factors including: parental and sibling smoking, the ease of obtaining cigarettes, smoking by friends and peer group members, socioeconomic status, exposure to tobacco marketing, and depictions of smoking in films, television and other media.3[12]

Children who experiment with cigarettes can quickly become addicted to the nicotine in tobacco. Children may show signs of addiction within four weeks of starting to smoke and before they commence daily smoking.[13]

Children who smoke are two to six times more susceptible to coughs and increased phlegm, wheeziness and shortness of breath than those who do not smoke.[14] Smoking impairs lung growth and initiates premature lung function decline which may lead to an increased risk of chronic obstructive lung disease later in life. The earlier children become regular smokers and persist in the habit as adults, the greater the risk of developing lung cancer or heart disease.6

3.2.3 Young People Smoking Regularly

The annual Government survey of smoking among secondary school pupils in England defines regular smoking as smoking at least one cigarette a week. However, in 2012 pupils classified as regular smokers smoked a mean (average) of 36 cigarettes a

[12]Passive smoking and children. Royal College of Physicians, London, 2010 (pdf).

[13] . Smoking drinking and drug use among young people in England in 2012. The Information Centre for Health and Social Care, 2013.

[14] Smoking and the Young. Royal College of Physicians, 1992.

week, approximately five a day. Occasional smokers consumed on average 3.5 cigarettes a week.[15]

3.2.4 Helping Young People to Stop Smoking

The NHS Stop Smoking Service data is the most accurate local data we have in understanding the number of young people accessing support to quit smoking. From this data we are able to understand the smoking cessation intervention outcomes of young people aged 18 and under. Stop Smoking Services can prescribe nicotine replacement therapy to young people aged 12 upwards.

Table 3.2.2 Number of Under 18's setting a quit date by age, gender and outcome 2008 – 2013.

Number of young people setting a quit date by age, gender and outcome	Total Under 18's Per Year					Males Under 18 Per Year					Females Under 18 Per Year				
	08/09	09/10	10/11	11/12	12/13	08/09	09/10	10/11	11/12	12/13	08/09	09/10	10/11	11/12	12/13
Total number setting a quit date	243	199	380	653	530	99	81	191	315	254	144	118	189	338	276
Number who had successfully quit (self-report), where non-smoking status confirmed by CO validation	**18**	**12**	**91**	**140**	**138**	**7**	**3**	**47**	**67**	**67**	**11**	**9**	**44**	**73**	**71**

In 2010, Sandwell Primary Care Trust introduced a new 'payment by results' model for the provision of Stop Smoking Services. This increased the number of Providers and stop smoking clinics operating in Sandwell. Young people were recognised as a target

[15]Smoking drinking and drug use among young people in England in 2012. The Information Centre for Health and Social Care, 2013.

population and Stop Smoking Service Providers received a higher tariff rate for successfully supporting this group to quit smoking. The data indicates more Young People accessed stop smoking service support under the new service model than in previous years. Uptake of the service id dependent on referrals. Referrals could be increased through schools, social workers, youth workers and others that regularly come into contact with children. Referrals through these routes should be promoted.

3.2.5 Second-hand smoke

In 2010 The Royal College of Physicians (RCP) published a landmark report entitled "Passive Smoking and Children".[16] The report affirms that a child exposed to second hand smoke has an increased risk of asthma, lower respiratory infections, bronchitis, middle ear disease, bacterial meningitis and sudden infant death syndrome (SIDS) as well as general reduced respiratory function (cough, wheezes). These disorders generate over 300,000 UK GP consultations and about 9,500 hospital admissions every year, costing the NHS about £23.3 million.[17]

Children are also more susceptible to the effects of passive smoking. Parental smoking is the main determinant of exposure in non-smoking children. Although levels of exposure in the home have declined in the UK in recent years, children living in the poorest households have the highest levels of exposure as measured by cotinine, a marker for nicotine.[18] Bronchitis, pneumonia, asthma and sudden infant death syndrome (cot death) are significantly more common in infants and children who have one or two smoking parents.

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[16] Passive smoking and children. Royal College of Physicians, London, 2010 (pdf).

[17] Passive smoking and children. Royal College of Physicians, London, 2010 (pdf).

[18] BMA Board of Science. Breaking the cycle of children's exposure to tobacco smoke. British Medical Association, London, 2007.

3.2.6 Smoke free Homes

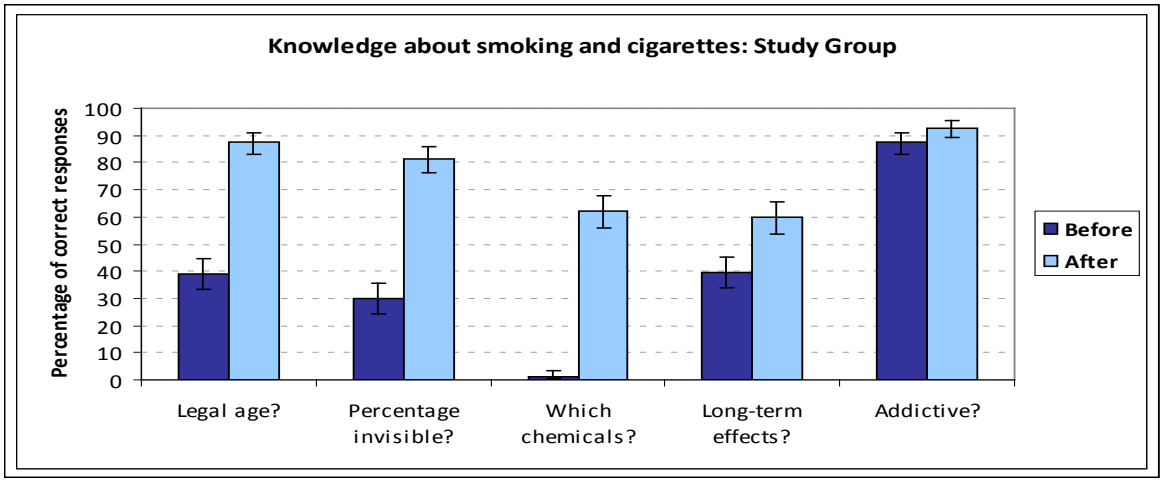
In April, the Department of Health in the UK launched a marketing campaign aimed at increasing the number of smoke free homes and cars.[19]

However, little was known about second-hand smoke and smoke free homes in Sandwell. We therefore commissioned a study to pilot a school-based smokefree home intervention and to measure the impact of it on:

- changes in children's knowledge of smoking and second-hand smoking
- changes in children's attitudes towards smoking and
- changes in parental/carer behaviours regarding smoking in the home

Results from the study are presented in figures 3.2.1 – 3.2.3 below:

Figure 3.2.1 Knowledge about smoking and cigarettes - study group



[19]Going smoke-free. The medical case for clean air in the home, at work and in public places. A report on passive smoking by the Tobacco Advisory Group of the Royal College of Physicians. London, Royal College of Physicians, 2005.

Figure 3.2.2 Knowledge about smoking and cigarettes – control group

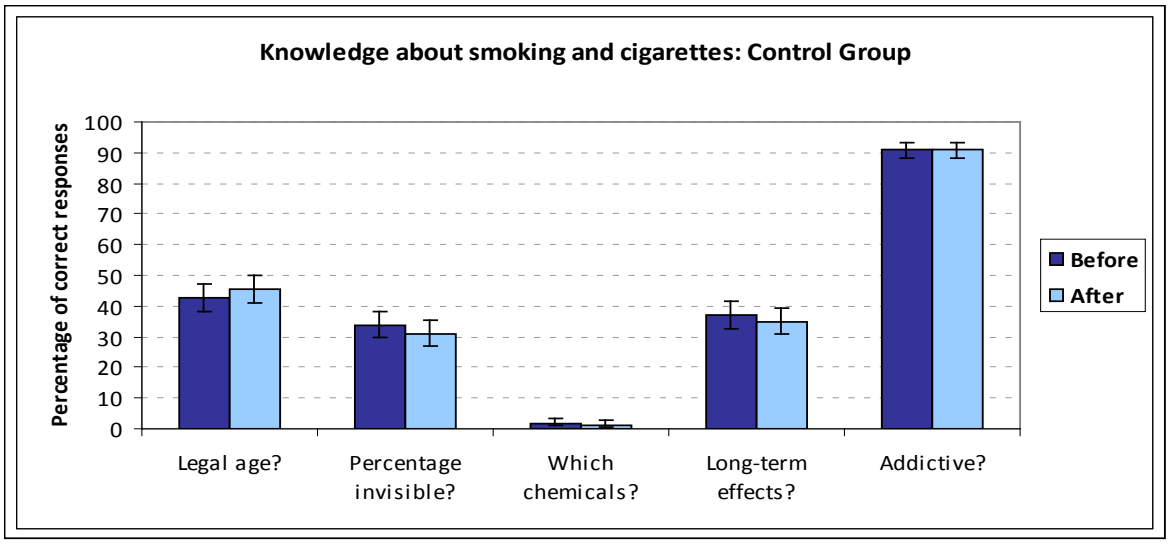


Figure 3.2.3 Children's Attitudes – children smoking prevalence

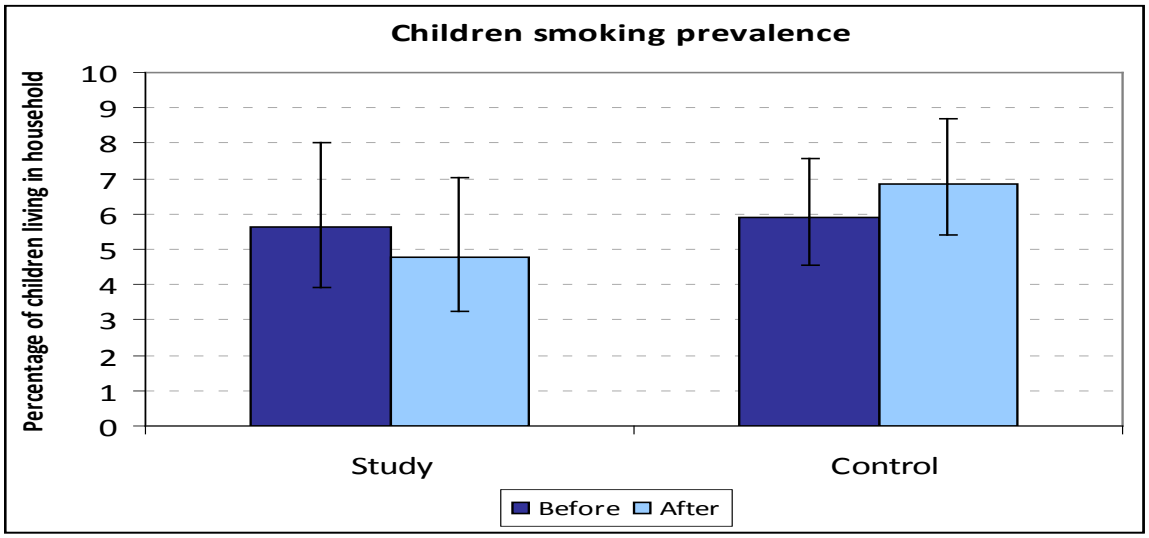
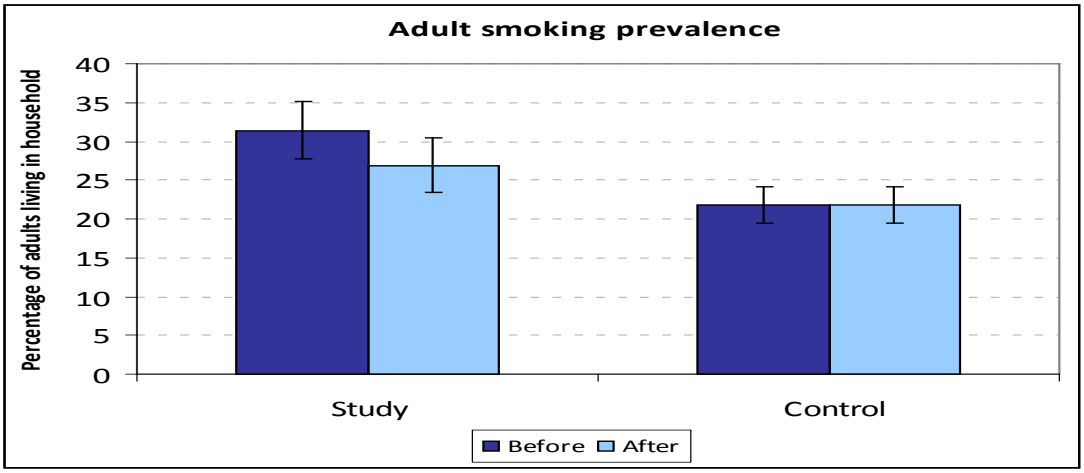


Figure 3.2.4 Changes in Parental / Carer Behaviour: Adult smoking prevalence



The study produced some encouraging findings, particularly in regards of knowledge retention and changes in parental smoking behaviours and the attitudes of children. It is for this reason that the study is being replicated in Secondary Schools in Sandwell during 2013/14.

On basis of the findings of this evaluation we intend to:

- To test the classes in primary schools in Sandwell
- Extend the length of follow-up to determine the sustained impact of the education on attitude and behaviour.
- Explore the use of sensitive ways of capturing changing parental attitudes and behaviours in the intervention. The use of incentives may improve uptake of surveys by parents.
- Help empower more children to discuss smoking with parents, use qualitative methods to understand the barriers to communication and provide some support for this within the educational intervention.
- Develop better data collection around smoking behaviours in children and young people as monitoring of health improvement against national indicators are not currently possible.

3.2.7 Legislation

There has been much legislation around the sale of cigarettes in recent years with the increase in minimum purchase age raised from 16 to 18 in October 2007, a ban on the sale of cigarettes from vending machines in October 2011 and the start of the roll-out of a ban on the display of smoking products in shops from April 2012. These legislative tools have made it more difficult for young people to access cigarettes but despite this, there were 216 prosecutions in 2009 for underage tobacco sales with 175 defendants being found guilty.[20]

However, legislation alone is not enough to prevent the sale of cigarettes to minors and community policies are also required to improve compliance by retailers. In 2012/13, 11 out of 126 shops (9%) who participated in a test purchases actually sold tobacco to under-age customers. This compares well with the regional average of 12% but is up from 8.2% of sales in Sandwell in 2011/12[21] so there is no room for complacency in this area.

It is therefore important that Sandwell Trading Standards continue to maintain high levels of vigilance with regard to underage tobacco sales and continues with test purchases of tobacco using child volunteers to stamp out this unlawful practice. Public Health and Trading Standards have a comprehensive enforcement specification in place to address the aforementioned.

Table 3.2.2 West Midlands Tobacco Test Purchasing Exercises and Sales 2012/13

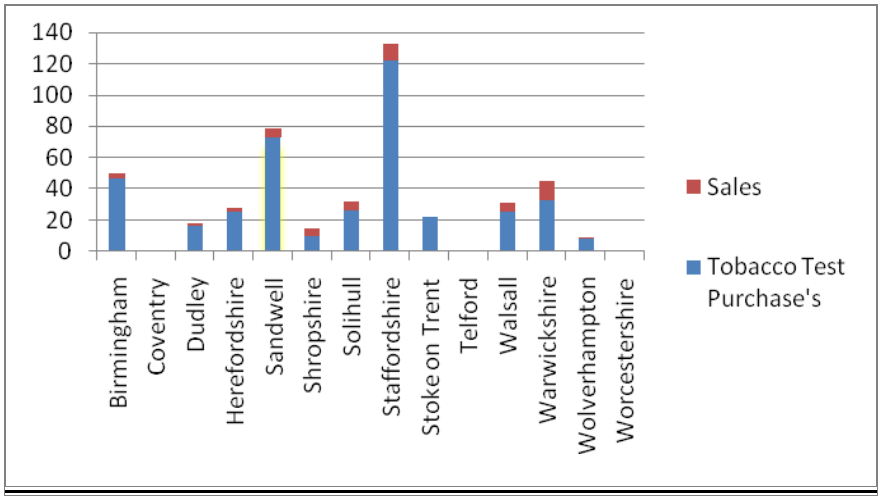
Local Authority	Tobacco Test Purchase's	Sales
Birmingham	47	3
Coventry	0	0
Dudley	16	2
Herefordshire	25	3
Sandwell	73	6
Shropshire	10	5
Solihull	26	6

[20] Department of Health SHS website. http://www.dh.gov.uk/health/2012/03/secondhand-smoke/ (accessed 24th July 2012)

[21] Department of Health SHS website. http://www.dh.gov.uk/health/2012/03/secondhand-smoke/ (accessed 24th July 2012

Staffordshire	122	11
Stoke on Trent	22	0
Telford	0	0
Walsall	25	6
Warwickshire	33	12
Wolverhampton	8	1
Worcestershire	0	0

Figure 3.2.5 West Midlands Tobacco Test Purchasing Exercises and Sales with Comparators 2012/13



3.2.7 Recommendations

1. To implement Public Health England recommendation for collecting smoking prevalence at 15.

2. To carry out qualitative research to understand why children start to smoke in order to inform prevention strategies.

3. To promote referrals of children to the Smoking Cessation Service through staff groups who are in regular contact with children.

4. Implement recommendations from Smoke free homes study.

3.3 BREAST FEEDING

Key Points

1. Breast feeding initiation rates and breast feeding at 6-8 weeks are lower in Sandwell than England in the West Midlands

2. Sandwell has the second worst drop off rates between initiation and 6-8 weeks.

3. White British women are least likely to maintain breast feeding at 6-8 weeks

3.3.1 Evidence Base

Babies who are breastfed are less likely to develop many illnesses in infancy, childhood and adulthood and there is a positive association with the cognitive development of the child. Breast milk protects against gastroenteritis, respiratory infection and there are indications that it helps to protect against middle ear infection, urinary tract infections and juvenile onset diabetes mellitus. Furthermore breastfeeding has been shown to have a positive impact on maternal health i.e. lower risk of breast and ovarian cancer and may protect against post natal depression.

In 'Conception to age 2 – the age of opportunity' the Department of Education (2013) clearly demonstrates the benefits of breastfeeding and that optimal infant nutrition, especially breastfeeding is a protective factor for the health of babies and increases children's chances of leading a future healthy life.

The United Nations Children's Fund (UNICEF) UK Baby Friendly Initiative is the UK strand of an international and widely accepted source of evidence and recommendations on breastfeeding. They recommend that babies are exclusively breastfed for the first six months of life. The UNICEF report, Preventing Disease and Saving Resources (2012) identified clear economic benefits of breastfeeding and examined how increasing breastfeeding rates

could save money through improved health outcomes. Calculations show that moderate increases in breastfeeding could see millions in potential annual savings to the NHS with fewer babies hospitalised and fewer GP consultations in relation to gastroenteritis and respiratory illness.

Increasing breast feeding rates is recognised as a key action in achieving a reduction in the proportion of overweight or obese children, as there is a reduced incidence in obesity at 5 years old in a breast fed compared to a bottle fed baby (WHO).

Increased breastfeeding rates will lead to the following benefits for the baby:

- Reduced risk of sudden infant death
- Reduced risk of lower respiratory tract infections and ear infections
- Reduced risk of UTIs
- Lower incidence of gastroenteritis
- Lower incidence of asthma, allergies and wheeze
- Protection against diseases in adulthood e.g. Obesity and diabetes
- Reduces risk of childhood eczema
- Reduces onset of juvenile diabetes mellitus
- Promotes speech development
- Reduced risk of lymphoid leukaemia

Benefits of breastfeeding for mothers: -

- Reduction in pre-menopausal breast cancer
- Reduction in risk of ovarian cancer
- Reduction in risks of osteoporosis and rheumatoid arthritis
- Post natal weight loss
- Convenience and financial benefit: - milk is free
- Improved mother infant attachment
- Stabilises insulin dependent diabetic mothers in the postnatal period.

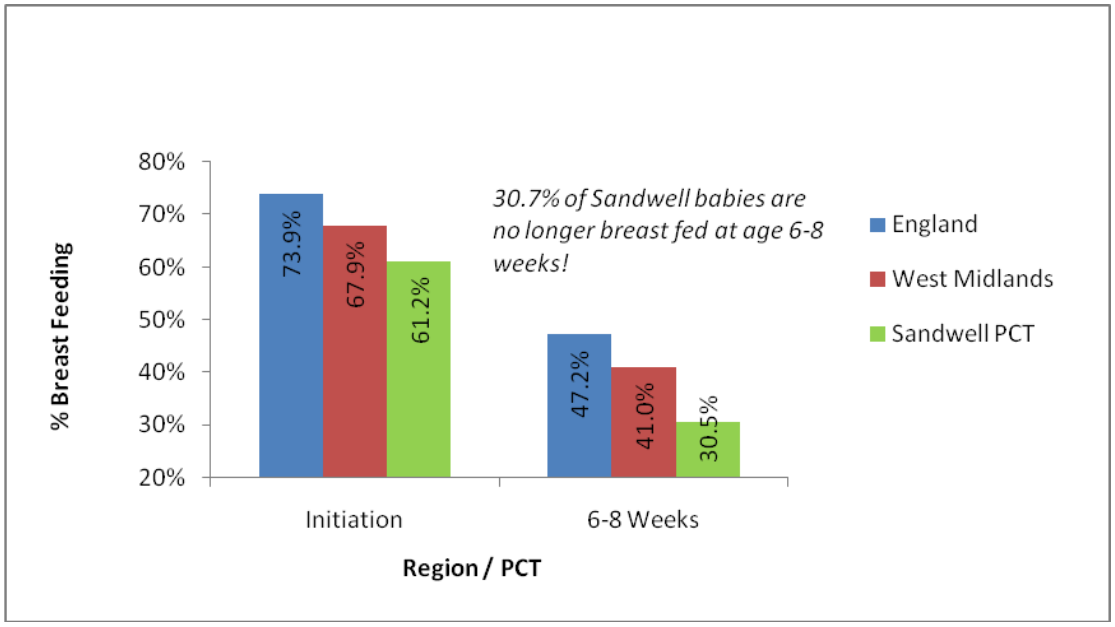
Improvement in breastfeeding rates will therefore impact positively on many relevant aspects of health inequalities in our area.

While UK breastfeeding rates are increasing, they are still among the lowest in Europe. At birth, only 81 per cent of British babies are breastfed. This figure falls to 69 per cent at one week. Just one in three babies are still receiving breast milk at six months, despite recommendations that babies need nothing other than breast milk for the first six months of life.

3.3.2 The majority of Sandwell babies are not breastfed at 6-8 weeks.

The overall breastfeeding initiation rates locally are recorded as 61.2% for 2012/13 compared to 73.9% for England in the same quarter. By 6 – 8 weeks in Sandwell only 30.5% of mothers are still breastfeeding their babies which is lower than the national average of 47.2% (See figure 3.3.1 below).

Figure 3.3.1 Breast Feeding Initiation & 6-8 Weeks



Source: DH Breast Feeding Statistics, SystmOne Child Health, Locally collected GP data

Within the West Midlands metropolitan authorities, Sandwell has the worst rate after Dudley in both initiation and at 6-8weeks.

Table 3.3.1below shows the average drop off rates.

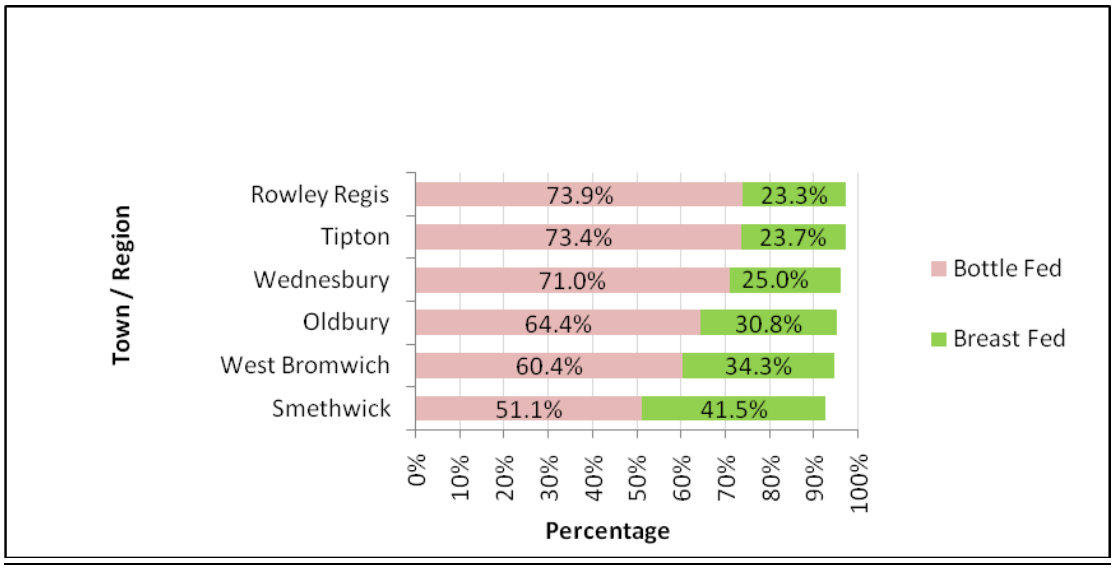
Table 3.3.1 Breast Feeding Drop –Off Rates

	Drop Off Rate 2010/11	Drop Off Rate 2011/12	Drop Off Rate Average 2012/13	Drop Off Rate 3 Year Average 2010-2013
Dudley PCT	45.1%	49.7%	48.1%	47.6%
Sandwell PCT	47.6%	41.7%	49.9%	46.4%
Coventry Teaching PCT	49.1%	46.3%	41.5%	45.6%
Walsall Teaching PCT	43.6%	45.7%	45.5%	44.9%
Solihull Care Trust	40.9%	42.3%	39.1%	40.8%
Wolverhampton City PCT	44.9%	38.5%	38.0%	40.5%
Heart Of Birmingham Teaching PCT	Not Available	20.8%	16.4%	18.6%
West Midlands	42.7%	39.7%	39.7%	40.7%
England	37.7%	36.4%	36.2%	36.7%

A neighbouring PCT - Heart of Birmingham performed better than England average and drop off rates are the lowest at 18.6%. This is an example of where Sandwell could potentially learn from good practice.

Most mothers are in contact with midwives and Health Visitors during this time. Midwives and Health Visitors have a key role in supporting women to maintain breastfeeding.

Figure 3.3.2 Breast feeding prevalence in Sandwell towns



From locally collected data in figure 3.3.2 we can see that there is a wide variance in breast feeding between the different areas of Sandwell. Evidence shows that low levels of breastfeeding are associated with socioeconomic deprivation which is also

demonstrated here. Culture and Ethnicity also contribute to the breast feeding prevalence

We need to understand more about why white women choose not to breastfeed, in order to develop targeted interventions.

3.3.3 Breast Feeding Rates Vary by Ethnicity

Figure 3.3.3 Breast feeding rates by ethnicity

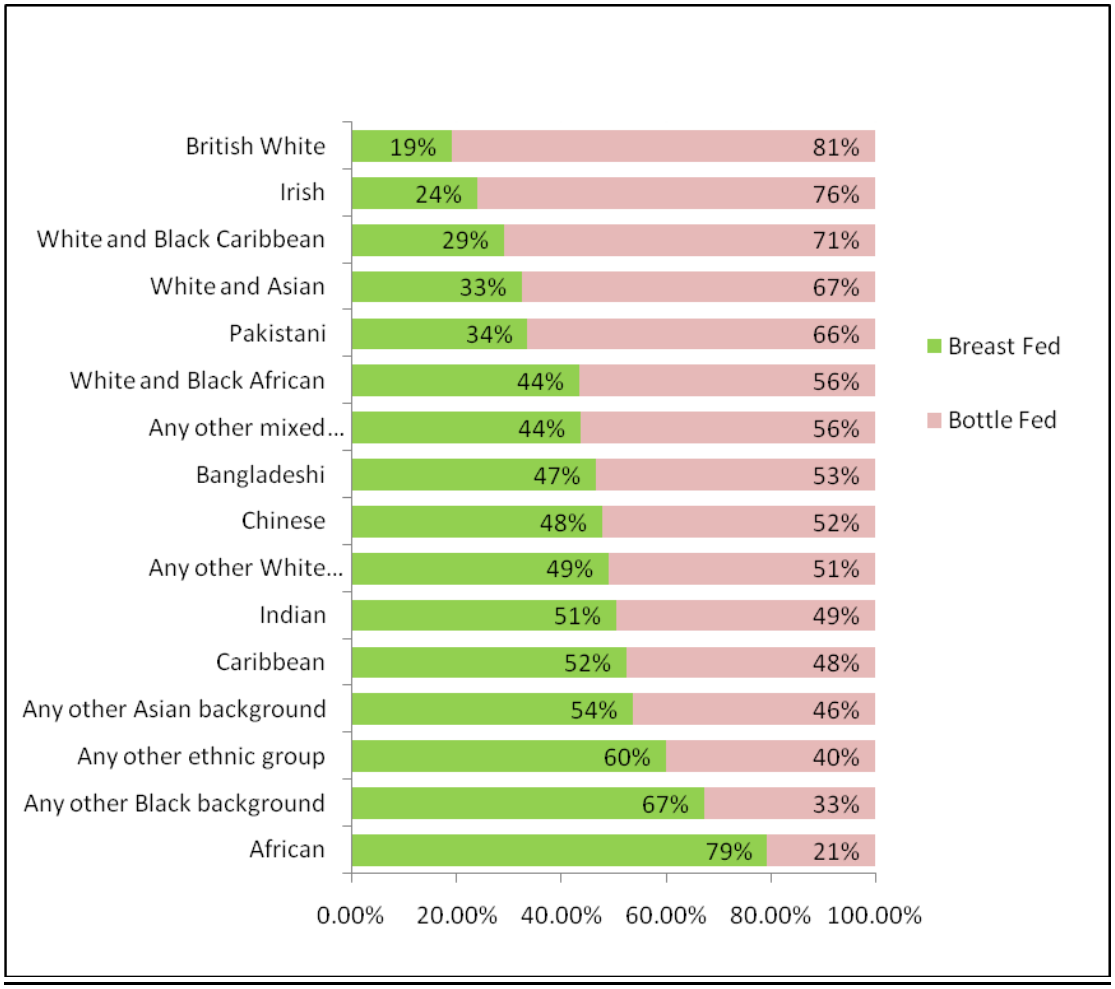


Figure 3.3 above shows considerable variation by ethnic groups with White British group is the least likely group to breast feed.

In years 2009 – 2013, only 19% of white British babies born were breast fed at age 6-8 weeks. This contrasts to the African group of babies where 79% are breast fed and only 21% bottle fed.

3.3.4 Sandwell Breastfeeding Strategy and Action Plan

The PCT led on the Breastfeeding Strategy working in partnership with the main provider Trust, Sandwell & West Birmingham Hospitals NHS Trust and key stakeholders to improve the health, nutritional status, growth and development of Sandwell children by increasing breastfeeding rates, as part of improving the health outcomes for all mothers and their children. This strategy is currently being reviewed by Sandwell Public Health.

3.3.5 UNICEF Baby Friendly Initiative

The Baby Friendly Initiative is a worldwide programme of the World Health Organisation and UNICEF and is a key element of the Sandwell Breastfeeding Strategy. It was established in 1992 to encourage maternity hospitals to implement the Ten Steps to Successful Breastfeeding and to practice in accordance with the International Code of Marketing of Breast milk substitutes.

The UNICEF UK Baby Friendly Initiative was launched in the UK in 1994. Its principles were extended to cover the work of community health care services in 1998 in the Seven Point Plan for sustaining breastfeeding in the community. The Baby Friendly Initiative works with the health care system to ensure a high standard of care for pregnant women, breastfeeding mothers and babies. Support is provided for health care facilities that are seeking to implement best practice and an assessment and accreditation process recognises those that have achieved the required standard.

In 2009, Sandwell PCT (alongside with Sandwell & West Birmingham Hospitals Trust), achieved the Certificate of Commitment to implement Baby Friendly Initiative standards for Community Health professional and Children Centres and in January 2010 Sandwell PCT achieved Stage 1 of the Baby Friendly Initiative.

Responsibility for the Baby Friendly Initiative was transferred from the PCT to the local Trust in April 2013 and they are currently working towards achieving stage two. Sandwell Public Health commissioned the Trust to deliver the community element of the

initiative to promote and increase breastfeeding across all community and hospital based services by working in partnership with key stakeholders e.g. Children Centres, Health Visiting, Midwifery Services, GPs and primary care staff.

3.3.6 Breastfeeding Peer Support Programme

The Department of Health is committed to supporting breastfeeding through the Healthy Child Programme. The Healthy Child Programme, Pregnancy and the First Five Years of Life4 is the evidence-based prevention and early intervention programme to promote optimal health and wellbeing and reduce health inequalities. Peer support for breastfeeding features in this document from helping to support delivery of public service agreement (PSA) indicators for breastfeeding through to preparation for parenthood.

Peer support is an approach that women who have personal, practical experience and additional knowledge of breastfeeding can offer useful support to other mothers. When recruited from local communities they are more likely to understand the social and cultural influences in the areas as well as communication in the most appropriate language

In 2012 Sandwell Public Health commissioned The Breastfeeding Peer Support Programme to deliver of the relevant aims and objectives outlined in the Breastfeeding Strategy and Action Plan with the overall aim of helping new mothers who wish initiate breastfeeding and to support them to continue breastfeeding up to 6 months as recommended by the Department of Health.

The service works in partnership with all partner agencies including maternity, health visiting, children centres etc. to ensure they are responsive to the needs of local women and their babies and ensure the areas of greatest need are targeted in term of addressing cultural change and raising awareness of breastfeeding benefits.

3.3.7 Healthy Start Vitamins & Drops

The national Healthy Start scheme provides vouchers which can be exchanged for fruit, vegetables and milk for families on low incomes where there is a pregnant woman, and/or one or more children under 4 years old. In addition, these families are entitled to Healthy Start vitamin supplements for women from start of pregnancy until 12 months postnatal and Healthy Start vitamin drops for all children aged from six months to four years.

Vitamin D deficiency is recognised as a significant public health problem. It is likely that deficiency is common in high risk groups such as pregnant and breastfeeding women, people with darker skin and those who are not exposed to much sun, however the whole population is potentially at risk.

Healthy Start vitamins contain the appropriate amount of recommended vitamins A, C and D for children aged from six months to four years, and folic acid and vitamins C and D for pregnant and breastfeeding women.

Healthy Start vitamins are important because:

- 8% of children under five in the UK don't have enough vitamin A in their diet
- families in lower-income groups tend to have less vitamin C in their diet[22]
- all pregnant and breastfeeding women and young children are at risk of vitamin D deficiency[23] (teenagers, younger women and those from ethnic minorities are particularly at risk).

Healthy Start provides a great opportunity for health professionals and others working with pregnant women and families to offer encouragement, information and advice on issues such as healthy eating, breastfeeding and vitamins. Health professionals also play a key role in the application process and in signposting the availability of the free Healthy Start vitamins.

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[22] The Lancet UK Policy Matters, Better evidence for better health policy. Maternal Vitamin D supplementation via the Healthy Start Programme

[23] Conception to age 2 – the age of opportunity (2013) Department of Education

Research shows that women who are introduced to the scheme by a health professional who takes time to explain its public health context and health benefits are more likely to view it as a partnership with them to benefit the health of their child, rather than as a simple financial contribution. They may therefore be more likely to make best use of the scheme.

In Sandwell there are a number of distribution points where local families can access vitamins which include health professionals such as community midwives and health visitors, local Children Centres and some pharmacies.

Since the transfer of responsibility for co-ordination of the scheme has moved a number of issues have occurred over the past year with regards to the ordering of vitamins. This is currently being reviewed and publicity updated with consideration in providing the scheme universally across the borough. New NICE guidance on Maternal and Child Health Nutrition is expected later this year.

3.3.8 Recommendations

- Review the Breastfeeding Strategy for Sandwell.
- Undertake qualitative research to understand why white women chose not to breast feed
- Work with the local Trust to achieve Baby Friendly status especially the community element of the scheme.
- Improve breastfeeding rates across the borough (initiation and continuation at 6 to 8 weeks) by promoting the benefits to local women and increase support available within the first 48 hours after delivery.
- Promote healthy start to Sandwell families and ensure distribution points are accessible across the borough with consideration of offering the scheme universally.

3.4 Teenage Pregnancy

Key Points

1. Successful implementation of Sandwell's teenage pregnancy strategy and improvements in educational attainment has had a positive impact on local conception rates.

2. Data for 2012 shows that Sandwell's teenage conception rate has fallen by 44.3 % since 1998 (baseline year).

3. However there continues to be variation in rates across the wards. The five highest rate wards are Friar Park, Great Bridge, Hateley Heath, Wednesbury North and Tividale. Nine Sandwell wards are in the top 20% of wards in England with the highest rates.

4. Despite improvements over past decade, teenage parents remain some of the most disadvantaged young people with their children experiencing poor outcomes and should be a priority for early help and targeted support services.

5. The demise of the national ring fenced teenage pregnancy grant led to disinvestment in services locally and further reductions in public spending and welfare reforms may present challenges to continuing achievement of downward trend in conceptions.

6. There remains a strong economic argument for investing in teenage pregnancy prevention services and support for teenage parents.

7. Health & Wellbeing Boards are responsible for ensuring coordinated action at the local level to support continuation of reduction in conceptions.

3.4.1 Current Policy Context

Teenage pregnancy remains a key priority for the Coalition Government as detailed in the Framework for Sexual Health Improvement in England[24]. There is an expectation that commissioners across local authorities, Clinical Commissioning Groups, Public Health England and NHS Commissioning Board work together to ensure an integrated approach to contraception and sexual health services including action to address reducing teenage conceptions. The under 18 conception rate is also a priority in the Public Health Outcomes Framework[25].

The Sexual Health Framework for England Framework aims to reduce unwanted pregnancies by ensuring people:

- have access to the full range of contraception
- can obtain their chosen method quickly and easily
- can plan the number of children they have and when

The framework highlights areas where improvements in sexual health and wellbeing must be made and issues that need to be addressed. It recognises that sexual health needs vary according to factors such as age, gender, sexuality and ethnicity and that some groups are particularly at risk of poor sexual health. It acknowledge's that people need different information, services and interventions as they move through their lives and proposes a life course approach to addressing sexual health.

The framework provides guidance based on current evidence that supports improved knowledge and resilience of young people and evidences that sexual health outcomes can be improved by:

- Accurate, high-quality and timely information that helps people to make informed decisions about relationships, sex and sexual health.
- Preventative interventions that build personal resilience and self-esteem and promote healthy choices including understanding of sexual consent and issues around abusive relationships.

24 Department of Health (2013)A framework for Sexual Health in England.

25 Public Health Outcomes Framework

Children under 16 need to know how to ask for help, and be able to access confidential advice and support about wellbeing, relationships and sexual health. They should have the confidence and emotional resilience to understand the benefits of loving, healthy relationships and delaying sex. Children also need an understanding of sexual consent and issues around abusive relationships.

Young people aged 16 plus need to be able to make informed and responsible decisions, understand issues around consent and the benefits of stable relationships, and are aware of the risks of unprotected sex. All young people should have rapid and easy access to appropriate sexual and reproductive health services. All young peoples sexual health needs should be met, whatever their sexuality.

3.4.2 Local Policy Context

The requirement to have a teenage pregnancy strategy was removed in 2011. Health and Wellbeing boards are however responsible for ensuring local action to keep the momentum going to support continuation of the downward trend in conceptions.

Sandwell's Health and Wellbeing Board have prioritised:

- Giving every child the best start in life.
- Enabling all children, young people and adults to maximise their capabilities and have control over their lives.

The Joint Health and Wellbeing Strategy 2013-2015 highlights adolescent health as a key priority for concerted action across all partners over the next two years to improve health and wellbeing and reduce inequalities. Addressing prevention of teenage pregnancy and improving support for teenage parents and their children will contribute directly to the Health and Wellbeing Board priorities.

Also contributes to Sandwell Council's Scorecard 'Great People' and Children's improvement plan by contributing to improving the health and wellbeing of children, young people and their families.

Teenage pregnancy clearly links to strategies for Early Help and Targeted Support services.

3.4.3 The National Picture

The majority of teenage pregnancies are unplanned and around half end in abortion. Repeat abortions account for 25% of all abortions in women under 25 in 2009[26]. The percentage is lower in Sandwell with around 30% of teenage conceptions leading to abortion in 2012. As well as the emotional cost to individuals and families, abortions represent an avoidable cost to the NHS. The high percentage of conceptions that end in abortion demonstrates that many of these are pregnancies are unwanted and suggests that barriers may still exist for some young women who are not getting access to effective methods of contraception and advice.

Where teenage pregnancies result in a birth, evidence shows that having children at a young age can damage young women's health and well-being and severely limit their education and career prospects. Whilst young people can be competent parents, longitudinal studies show that children born to teenagers are more likely to experience a range of negative outcomes in later life. Despite this many young people make good parents and successfully raise healthy children.

Teenage pregnancy is both a contributory factor and an outcome of child poverty. Teenage parent families have at least one parent under the age of 18 with responsibility for a dependent child aged under five. These families are at increased risk of the biggest causes of poverty (worklessness and low pay); while under-fives make up 44 per cent of all children in poverty.[27] Children of teenage mothers have a 63% increased risk of being born into poverty compared to babies born to mothers in their twenties.

Children born to teenage mothers have 60% higher rates of infant mortality and are at increased risk of low birth-weight which impacts on the child's long-term health. Teenage mothers are

26 Office for National Statistics, 2009.

27 DWP (2008) 'Ending child poverty: everybody's business'.

three times more likely to suffer from post-natal depression and experience poor mental health for up to 3 years after the birth. Teenage parents and their children are at increased risk of living in poverty (ChiMat).

3.4.4 Local Trends

Teenage conceptions contribute to a number of health, well-being and lifestyle issues including aspirations of individuals. The Office for National Statistics 2012 release shows Sandwell's teenage conception rate has continued to fall. The latest figures show Sandwell to have 38.5 conceptions per 1000 women aged 15-17 in 2012. In relation to numbers of conceptions; **231** young women became pregnant in 2012 as opposed to **379** in 1998. This is an all time low rate for Sandwell. However, in comparison to England's rate of 27.7 and West Midlands rate of 32.0 this is still too high. Please note that the data for the analysis is collected on a national level therefore there is an 18-24 months lag in data.

Figure 3.4.1 Teenage conception 1998 – 2012

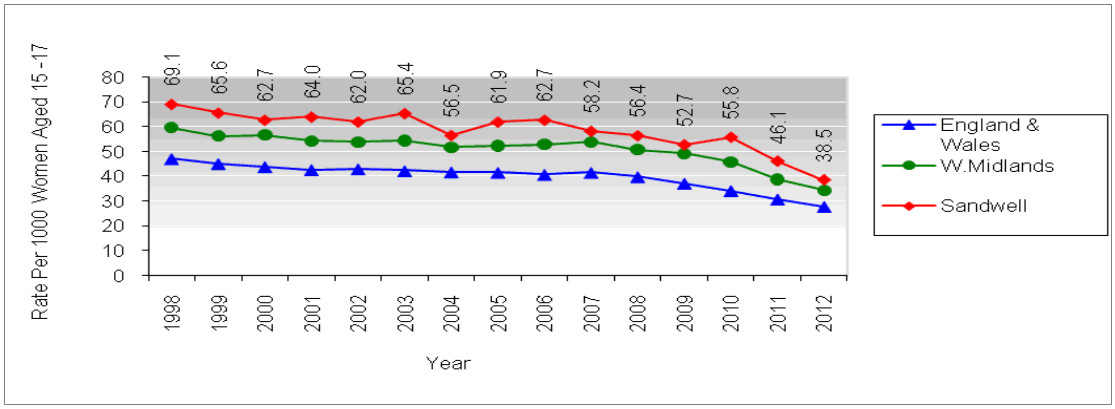


Figure 3.4.1 above shows a reduction of 16.5% since 2011 and a reduction of 44.3% since baseline in 1998. Sandwell's 44.3% reduction is greater than the West Midland's reduction of 38.1% and England's 40.6 reduction. The gap between Sandwell and England is reducing. This is as a result of the successful Teenage Pregnancy Strategy achieved through the concerted efforts of dedicated professionals and partner agencies working together to address key local issues and concerns. The strategy led improvements in the quality of sex and relationships education, improved access to young people's contraception and sexual health services, targeted work with young people most at risk of

conception and improved support and services for pregnant teenagers and teenage parents.

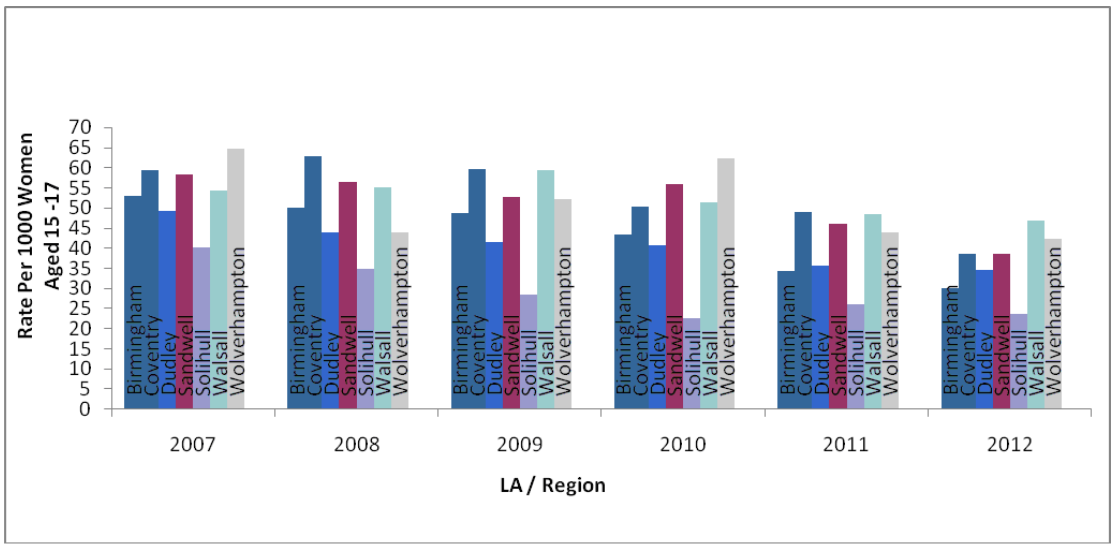
As low educational attainment is associated with a higher risk of conceiving as a teenager, then it is important to acknowledge the valuable role and achievements of staff across Learning, Early Years, Children's Centres and Sandwell schools resulting in children achieving good levels of development, reduced numbers of young people not engaged in education, employment or training (NEET) and higher percentage of pupils achieving 5 or more GCSEs grade A-C and the positive impact this has had on young peoples aspirations and local conception rates.

The national strategy did not achieve its ambitious target to halve conceptions by 2010 however significant progress was made nationally and conception rates in 2010 were at the lowest level nationally they had been in 20 years. No further specific targets were set, however it is expected that local areas will continue to prioritise teenage pregnancy, and work to bring England's performance in line with comparable EU countries.

A criticism of the national Strategy is that inequalities in rates between the most and least deprived local authorities remain undiminished. At the same time, abortion became an increasingly common outcome of under-18 conceptions. However although there is a link between high rates of teenage pregnancy and deprivation, many areas with high levels of deprivation had successfully implemented strategies which had reduced teenage pregnancy which includes Sandwell who between 1998 and 2012 achieved a 44% reduction, greater than the England & Wales's reduction of 40.8% and West Midlands reduction of 42%.

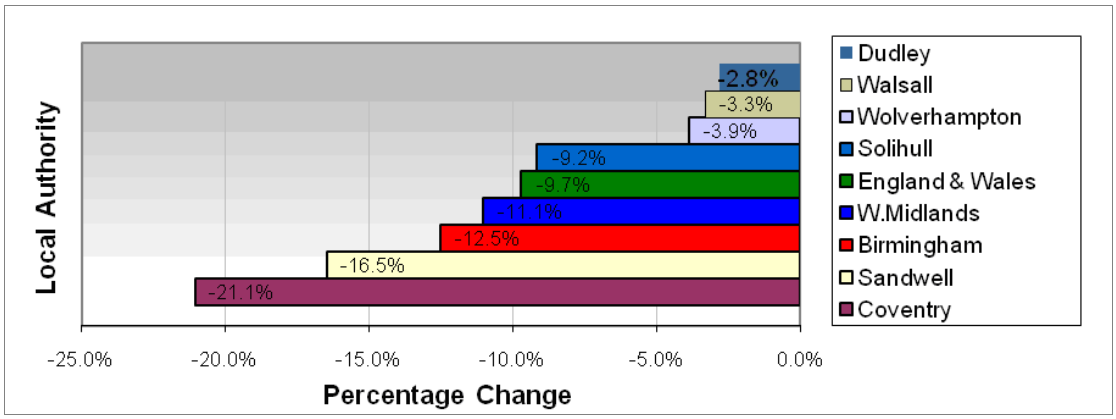
3.4.5 Teenage Conceptions – Comparators

Figure 3.4.2 Teenage conceptions Rate (2007 – 2012) by LA /Region



Within the West Midlands Metropolitan borough, Sandwell's teenage conception rate has consistently been higher than Birmingham, Dudley and Solihull since 2007 (figure 3.4.2 above). However, Sandwell and Coventry have had the largest decreases since 2011 to 2012 (see figure 3.4.3 below).

Figure 3.4.3 Movement in teenage conception rates (2011-2012)

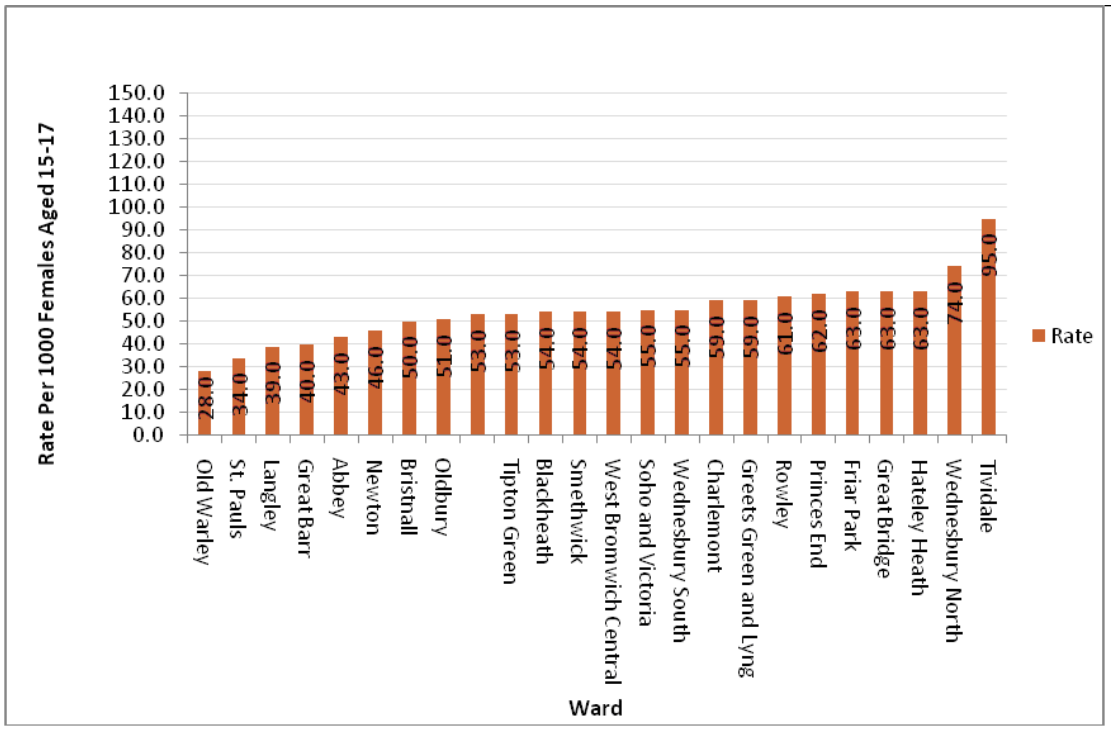


3.4.6 Variations within Sandwell

Despite this achievement in Sandwell the ward level data shows that whilst some wards have reduced their rates considerably there remain some wards with significantly higher rates.

2008-2010 analysis of teenage conception shows a difference in rate per ward. The five highest rates for Sandwell are in Friar Park, Great Bridge, Hateley Heath, Wednesbury North and Tividale. Tividale's rate of 95.0 teenage conceptions per 1000 females aged 15-17 is vastly higher than the other wards. Tividale has 67 more teenage conceptions (per 1000 females aged 15-17) than Old Warley which has the least (see figure 3.4.4 below)

Figure 3.4.4 2008-2010 Teenage Conception Rate by Ward



Further analysis of wards and towns (Ethnicity and Religion Map in demographic chapter) shows almost half of the young people's population for Smethwick are Asian (43.6%). Majority of this proportion resides in St. Pauls (60.6%) and Soho and Victoria (48.6%). Soho and Victoria also have a 20.8% proportion of young people from a black ethnic background. However, Tividale; where we see a higher rate of teenage conceptions is predominantly white with a high percentage from a Christian background or those who have no religion.

3.4.7 Wards in Top Quintile for Under 18 Conception Rates, England, 2008-2010

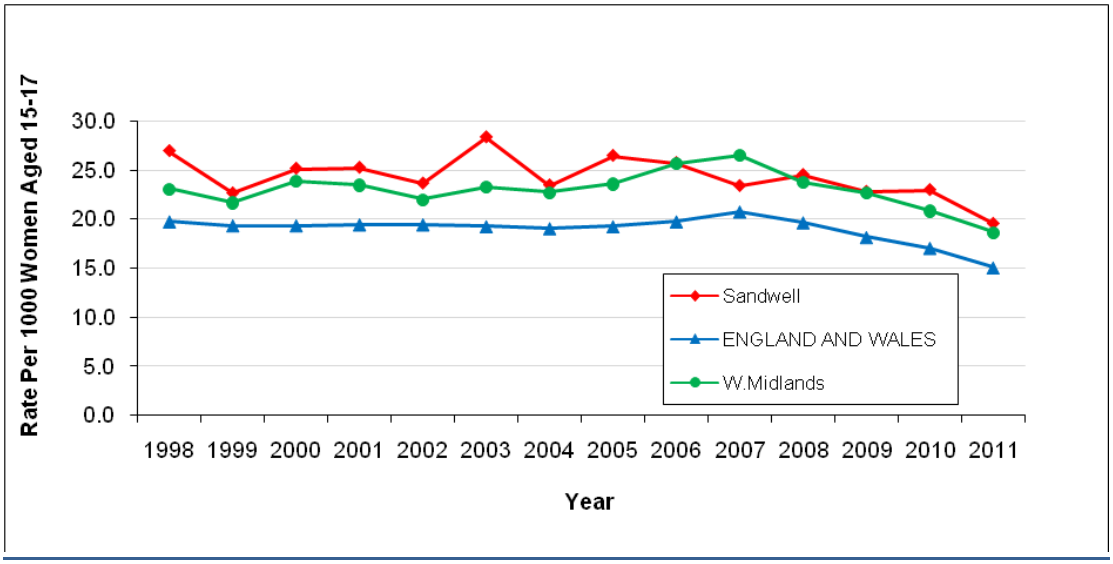
The following wards are in the top 20% of wards in England with the highest rates with rates of at least 58.4 conceptions per 1,000 women aged 15-17.

- Charlemont
- Friar Park
- Great Bridge
- Greets Green and Lyng
- Hateley Heath
- Princes End
- Rowley
- Tividale
- Wednesbury North

3.4.8 Abortion Rates for Women Aged 15 -17

Sandwell, has followed the decreasing trend in the rate of abortions to females aged 15-17, in particularly from year 2007 onwards.

Figure 3.4.5 Teenage abortions (1998-2011)



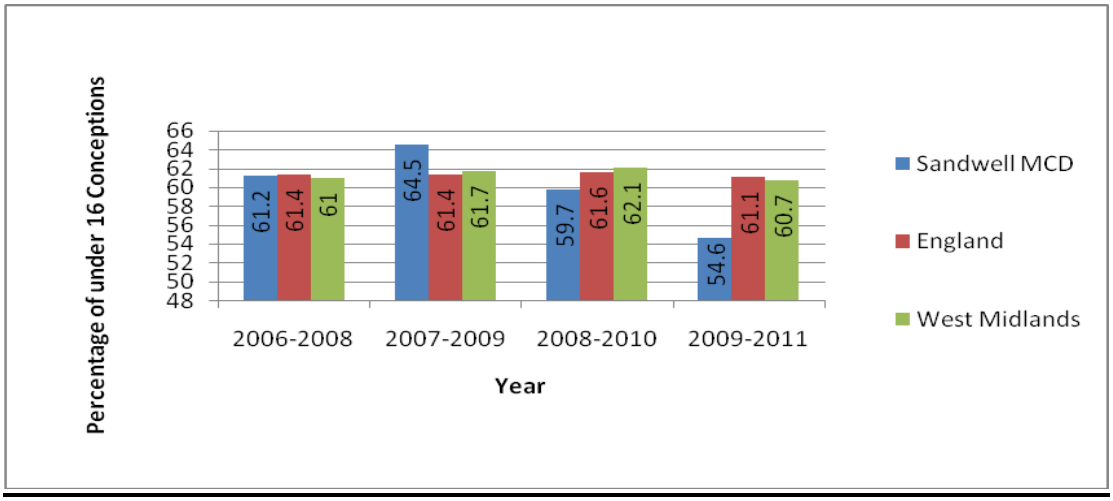
Of the 46.1 conceptions per 1000 females aged 15-17 in 2011, 42.5% led to termination of pregnancy, compared with the national average of 49.3%. Of the conceptions to females aged under 16, 45.3% led to termination of pregnancy, compared with the national average of 60.5%.

Figures (3.4.6 and 3.4.7) below show the percentage of conceptions to under 18 and under 16s that lead to abortions. Sandwell has a lower level of conceptions that lead to an abortion in the under 18 year olds than the West Midlands and England & Wales. Resulting in more teenage parents.

For the under 16s conceptions, the percentage is more in line with the West Midlands overall and England with an exception of 2009 – 2011 where there was a difference of almost 5 %.

Figure 3.4.6 Under 18 conceptions leading to abortions

Figure 3.4.7 Under 16 conceptions leading to abortions



3.4.9 Outcomes for Children Born to Teenage Parents

The infant mortality rate for babies born to teenage mothers is 60 per cent higher than for babies born to older mothers. Children born to teenage mothers have higher mortality rates under 8 years and are more likely to have accidents and behavioural problems. A reduction in teenage pregnancy makes a significant contribution to reducing Infant Mortality[28].

3.4.10 The Cost of Teenage Pregnancy

There is a strong economic argument in investing in measures to reduce teenage pregnancy, which places significant burdens on the NHS and wider public services[29].

The cost of teenage pregnancy to the NHS alone is estimated to be £63m a year. Benefit payments to a teenage mother who does not enter employment in the three years following birth can total between £19,000 and £25,000 over three years. Teenage mothers will be much more likely to require additional support from a range of local services including supported housing and support to re-engage in education, employment and training. It is estimated that local authorities spent £23 million on support services for teenage parents in 2006/07[30].

There is evidence that demonstrates that spending on teenage pregnancy prevention and sexual health interventions is cost effective[31] . For every £1 spent on contraception, it is estimated that £11 is saved in other healthcare costs. The provision of contraception saved the NHS £5.7 billion in healthcare costs that would have had to be paid if no contraception at all was provided.

3.4.11 Risk Factors Associated with Teenage Pregnancy

Teenage pregnancy is a complex issue, affected by young people's knowledge about sex and relationships and their access

28 Child Poverty and Worklessness, DfE Briefing, 2010

29 The Teenage Pregnancy Next Steps: Guidance for Local Authorities and Primary Care Trusts

30 Department for Children, Schools and Families (2008) Teenage Parents: who cares? London: Department for Children, Schools and Families.

31 Department of Health (2013)

to advice and support; and influenced by aspirations, educational attainment, parental, cultural and peer influences, and levels of emotional wellbeing.

There are a number of socioeconomic factors associated with an increased risk of teenage pregnancy[32] Studies consistently point to a strong association between teenage pregnancy and social disadvantage. There is a six-fold difference in teenage conception and birth rates between the poorest areas in England and the most affluent[33]. There is a strong relationship between teenage conceptions and deprivation. Sandwell is ranked at 11 of 149 most deprived local authorities. Further associations are detailed in table 3.4.1

A teenage pregnancy prevention strategy that seeks to reduce conception rates by a substantial margin cannot concentrate on high risk groups alone. Although certain girls are at much greater risk of conceiving and giving birth as teenagers than others and should be targeted, not all the girls that conceive share these risk factors[34].

32 Teenage Pregnancy Unit. (2004) Teenage Pregnancy: An overview of the research evidence. Health Development Agency.

33 Department for education (2012)

34 Teenage Pregnancy in England (2013)CAYT Impact Study: Report No. 6 Claire Crawford Jonathan Cribb Elaine Kelly

Table 3.4.1 Risk factors associated with high teenage pregnancy rates

Risk factors associated with risky behaviour	Evidence base
Early onset of sexual activity	Girls having sex under-16 are three times more likely to become pregnant than those who first have sex over 16.[ii] Around 60% of boys and 47% of girls leaving school at 16 with no qualifications had sex before 16, compared with around 20% for both males and leaving school at 17 or over with qualifications. Early onset of sexual activity is also associated with some ethnic groups (see below).
Poor contraceptive use	Around a quarter of boys and a third of girls who left school at 16 with no qualifications did not use contraception at first sex, compared to only 6% of boys and 8% girls who left school at 17 or over, with qualifications. Survey data demonstrate variations in contraceptive use by ethnicity. Among 16-18 year olds surveyed in London, non-use of contraception at first intercourse was most frequently reported among Black African males (32%), Asian females (25%), Black African females (24%) and Black Caribbean males (23%).[iii]
Risky behaviours	Risky sexual health behaviour (and therefore increased risk of teenage conception is associated with more general risky behaviour.[35] Girls who drunk alcohol monthly or more were also at higher risk[36].
Mental health / conduct disorder/	Studies suggest a link between mental health problems and teenage pregnancy. A study of young women with conduct disorders showed that a third became pregnant before the age of 17[iv].

35 Chimat (2014) Service Snapshot – Teenage Pregnancy – Sandwell Local Authority. http://atlas.chimat.org.uk/IAS/profiles (Last accessed 18 May 2014)

36 E Allen et al. Does the UK governments teenage pregnancy strategy deal with the correct risk factors. Journal of Epidemiology and Community Health, 61, 2007.

Involvement in crime	Teenage boys and girls who had been in trouble with the police were twice as likely to become a teenage parent, compared to those who had no contact with the police.[v] Estimates suggest that around 39% of young women under the age of 21 in prison are mothers.
Alcohol and substance misuse	Research among south London teenagers found regular smoking, drinking and experimenting with drugs increased the risk of starting sex under-16 for both young men and women. A study in Rochdale showed that 20% of white young women report going further sexually than intended because they were drunk[vi]. Other studies have found teenagers who report having sex under the influence of alcohol are less likely to use contraception and more likely to regret the experience.[vii]
Teenage motherhood	A significant proportion of teenage mothers have more than one child when still a teenager. Around 20% of births conceived under-18 are second or subsequent births.
Repeat abortions	Around 7.5% of abortions under-18 follow either a previous abortion or pregnancy. Within London this proportion increases to around 12% of under-18 abortions.
Education related risk factors	**Evidence base**
Educational attainment	The National Institute for Health and Clinical Excellence (NICE) has noted that the likelihood of teenage pregnancy is far higher among those with poor educational attainment, even after accounting for the effects of deprivation. On average, deprived wards with poor levels of educational attainment had an under-18 conception rate double that found in similarly deprived wards with better levels of educational attainment. (80 per 1000 girls aged 15-17 compared with 40 per 1000).

	Young people scoring below average on measures of educational achievement at ages 7 and 16 are at higher risk of becoming teenage parents.[37] Girls with low education achievement and those with declining achievement between the years of 7 and 16 are at greater risk of teenage pregnancy.[38]
Education factors	New research by Centre for analysis of youth transitions[39] (2013) examined a new dataset linking and maternity and abortion records to the education records of girls attending state schools has provided new insight into individual, school and area level factors associated with teenage conceptions and the decision to continue with a pregnancy. It found that teenage conceptions occur in all social groups, areas and types of school, rich and poor areas and in schools with high and low levels or attainment and hence no characteristic provides complete protection from teenage conception. It found that some groups experience higher conception and maternity rates. It found that free school meal eligibility, persistent absence and deterioration in academic performance between Key Stages 2 and 3 (ages 11 and 14 years) is a strong risk factor for teenage conception and of continuing with the pregnancy. Fee school meal eligibility is also a risk factor associated with having a second conception that results in a maternity. Girls who attend high performing schools are less likely to conceive, and more likely to have an abortion if they do conceive. Confirms that teenage conception and maternity rates are higher in deprived areas and that girls living in deprived areas disproportionally more likely to have more than one conception before the age of 18 that results in a maternity. The study also recommends that high performing schools and less deprived areas should not be neglected as regards prevention, as some individual risk factors – such as eligibility for free school meals – are strongly associated with teenage conception and birth in less deprived areas.

37 Kiernan, K. (1995). Transition to parenthood: young mothers, young fathers. LSE Discussion Paper. London School of economics.

38 Kiernan, K. (1995). Transition to parenthood: young mothers, young fathers – associated factors and later life experiences. LSE Discussion paper WSP/113

39 Teenage Pregnancy in England (2013)CAYT Impact Study: Report No. 6 Claire Crawford Jonathan Cribb Elaine Kelly

Poor attendance and dis-engagement from school	A survey of teenage mothers showed that disengagement from education often occurred prior to pregnancy, with less than half attending school regularly at the point of conception. Dislike of school was also shown to have a strong independent effect on the risk of teenage pregnancy.[viii] Poor attendance at school is also associated with higher teenage pregnancy rates. Among the most deprived 20% of local authorities, areas with more than 8% of half days missed had, on average, an under-18 conception rate 30% higher than areas where less than 8% of half days were missed.
Leaving school at 16 with no qualifications	Overall, nearly 40% of teenage mothers leave school with no qualifications.[ix] Among girls leaving school at 16 with no qualifications, 29% will have a birth under 18, and 12% an abortion under 18, compared with 1% and 4% respectively for girls leaving at 17 or over. Leaving school at 16 is also associated with having sex under 16 and with poor contraceptive use at first sex (see below).
Education impact on sexual behaviour	Educational outcomes have a strong influence on the age at which young people first have sex. Sex under-16 is associated with higher levels of regret amongst young women and young women. A national survey of sexual attitudes and lifestyles[40] estimates between one-quarter and one-third of all young people have sex before age 16 but that this is higher amongst those leaving school with no qualifications. Educational attainment also has an impact on contraceptive use with the likelihood of not using any contraception at first sex being higher in young people leaving school at 16 with no qualifications.
Family & background related risk factors	**Evidence base**
Living in Care	Research has shown that by the age of 20 a quarter of children who had been in care were young parents, and 40% were mothers[x]. The prevalence of teenage motherhood among looked after girls under-18 is around three times higher than the prevalence among

40 Wellings K et al. (2001) Sexual behaviour in Britain: early heterosexual experience. Lancet 358: 1843-50

	all girls under-18 in England. Children in care or leaving care are at higher risk. The Children and Young People's Health Outcomes Forum[41] notes that almost half of young women leaving care become pregnant within 18 to 24 months. Studies show an association between sexual abuse in childhood and teenage pregnancy, with experience of abuse twice as high among pregnant teenagers, compared to the general population. Researchers attribute this to low self esteem and a lack of confidence in resisting pressure to have sex, even years after the original abuse has taken place[42].
Daughter of a teenage mother	Research findings from the 1970 British Birth Cohort dataset showed being the daughter of a teenage mother was the strongest predictor of teenage motherhood and were twice as likely to have a teen birth as those born to older mothers according to a 1970's study[43] was a teenage mother however there is a suggestion that the success of the national strategy in challenging social norms over the past decade has less impact on young women today.
Ethnicity	The Office for national statistics (ONS) publishes statistics on conceptions, which is the sum of legal abortions, registered stillbirths and live births. Ethnicity data are not routinely recorded at birth registration, nor for abortions, and so conceptions data by ethnicity are not available. Data on mothers giving birth under age 19, identified from the 2001 Census, show rates of teenage motherhood are significantly higher among mothers of 'Mixed White and Black Caribbean', 'Other Black' and 'Black Caribbean' ethnicity. 'White British' mothers are also over-represented among teenage mothers, while all Asian ethnic groups are under-represented. Whilst Asian groups are under-represented among under-19 births, data on under-20 births show high rates of pregnancy among Asian groups, which suggests these groups have higher than average birth rates at age 19. Girls and young women of Black and Black British ethnicity are also over-represented among abortions under-18. A survey of adolescents in East London[xi] showed the proportion

41 Children and Young People's Health Outcomes Forum 2012

42 Department for Education (2010) Teenage Pregnancy Strategy: Beyond 2010

43 Ermisch, J. and Pevalin, D. (2003) Who has a child as a teenager? Institute for Social and Economic Research working paper. University of Essex

	having first sex under-16 was far higher among Black Caribbean men (56%), compared with 30% for Black African, 28% for White and 11% for Indian and Pakistani men. For women, 30% of both White and Black Caribbean groups had sex under-16, compared with 12% for Black African, and less than 3% for Indian and Pakistani women. Poor contraceptive use has also been reported for some ethnic groups.
Parental aspirations	Research shows that a mother with low educational aspirations for her daughter at age 10 is an important predictor of teenage motherhood.
Relationships with parents.	Young women who could communicate easily with their mother or female guardian were considerably less likely to report teenage pregnancy at or before age 16 years. Sex before age 16 and non-use of contraception were higher for those who did not live with both parents until age 16. The likelihood of not using any contraception at first sex is higher in young people who did not discuss sexual matters with their parents.
Poverty & deprivation	Poverty is a key risk factor as rates of teenage pregnancy are highest among deprived communities, so the negative consequences of teenage pregnancy are disproportionately concentrated among those who are already disadvantaged. Those living in areas with higher levels of social deprivation are also more likely to conceive earlier and less likely to have an abortion. The risk of becoming a teenage mother is almost ten times higher for a girl whose family is in social class V (unskilled manual), than for a girl in social class I (professional). Girls residing in non-privately owned housing are at significantly greater risk.
Violence	Estimates from the Crime Survey for England and Wales indicate that there are around 400,000 female victims of sexual offences each year and, of these around 85,000 are victims of the most serious offences of rape or sexual assault by penetration putting women at risk of pregnancy or sexually transmitted infection[44].

44 Department of Health (2013)A framework for Sexual Health in England

Risk factors	Evidence base
Risk factors for young men.	There is less evidence and data available for young fathers and risk factors. Some research[45] [46] [47] highlights the following factors as associated with early fatherhood: • Conduct problems at age 8 • History of conduct disorder • History of depression • Socioeconomic status • Low education performance and low reading scores • Quality of parental relationship • Family conflict • Leaving school before age 16 • Early initiation of sexual activity • Substance misuse • Antisocial tendencies and having repeatedly committed criminal offences in adolescence • Young men engaged in violence, been arrested or gang members • Estimates suggest that young men in prison are six times more likely to be fathers than those in the general population and much more likely to be teenage or single parents[48] **Parental factors** • Being born to a teenage father/teenage mother • Parents with low level of education • Parental conviction history • Number of years living with a single mother • Harsh discipline • Family conflict • A parent with mental health issues

45 Silva, P and W.R. Stanton. Child to Adult: The Dunedin Multidisciplinary Health and Development Study. Auckland. Oxford University Press. 1996

46 Lehti V et al. Psychological factors associated with becoming a young father in Finland: a nationwide longitudinal study. BMC Public Health. 2012

47 Wei, Evelyn Han-Li. Teenage fatherhood and pregnancy involvement among urban adolescent males. Risk factors and consequences. Science and Engineering, 0419-4217 2000

48J.Sherlock. (2004) Young parents. From Custody to Community. Prison Reform Trust

15 Northburgh Street, London

3.4.12 What works in Reducing Teenage Pregnancy

Evidence of good practice and what works has emerged over the course of delivering the national strategy to reduce teenage pregnancy[49] But it is also clear that as well as giving all young people the means to avoid early pregnancy, sustained reductions in teenage pregnancy rates will only be possible if action is taken to address the underlying factors that increase the risk of teenage pregnancy, such as poverty, educational underachievement, low aspirations and lack of engagement in learning post-16.

A number of evidence based reviews undertaken on behalf of the national Teenage Pregnancy Unit and NICE guidance has identified that the following interventions are most effective in reducing teenage pregnancies:

- Helping young people resist pressure to have early sex through improved school based sex and relationships education, particularly linked to contraceptive services.
- Provision of young people focused contraception and sexual health services, trusted by teenagers and well known by professionals working with them.
- Community based education and programmes that aim to foster social and academic skills among young people, focus on personal development, raise aspirations and which combine academic activities with community based activities such as volunteering.
- Targeted work with at risk groups of young people, in particular Looked After Children and Care Leavers.
- Workforce training on sex and relationship issues within mainstream partner agencies.
- Work with parents to support them in talking to their children about these issues.

49 Teenage Pregnancy Unit. (2004) An overview of the evidence. Health Development Agency.

3.4.13 Sex and Relationships Education

There is good evidence that school based sex and relationships education, particularly when linked to contraception services, has an impact on young people's knowledge and attitudes, delays sexual activity and/or reduce teenage pregnancy rates[50]. There is no strong evidence for the effectiveness of abstinence education programmes or that provision of sex and relationships education increases the onset or frequency of sex or number of sexual partners. There is currently weak evidence that peer education is effective although popular with young people. Similarly there is limited evidence as to the effectiveness of the 'Baby think it over' electronic simulator dolls.

As regards Community based education and programmes there is evidence from American youth development programmes[51] that the most promising approaches are multi-faceted and that different models of programmes that took a multi-dimension long term approach in combination with some or all of the following contributed to reducing conception; self esteem building, voluntary work, educational support, vocational preparation, healthcare, sports, arts activities and sex and relationship education.

3.4.14 What works in Supporting Teenage Parents

Evidence reviews undertaken on behalf of the national teenage pregnancy unit and evaluation of the Sure Start Plus programme have identified that the following interventions are the most effective in ensuring positive outcomes for teenage parents and their children[52]:

- Early access to quality antenatal care improves outcomes for mothers and their children and is cost effective[53].
- Home visiting and support can improve the health and welfare of the mother and baby. The Family Nurse

50 Swann, C et al. (2003) Teenage Pregnancy and Parenthood: a review of reviews. Evidence briefing. Health Development Agency.

51 Teenage Pregnancy Unit. (2004) An overview of the research evidence. Health Development Agency.

52 Department for Children, Schools and Families (2008) Teenage Parents: who cares? London: Department for Children, Schools and Families

53 Swann,C et al. (2003). Evidence based briefing paper on teenage pregnancy and parenthood. London: Health Development Agency.

Partnership is proving particularly effective at supporting first time young mothers and their partners.

- Education and career development programmes providing support for childcare can be effective in encouraging young parents back into education.
- Individual and group parenting programmes are effective in improving a range of outcomes for both teenage mothers and their children.[54]
- Improved housing will result in improved health outcomes of parents and children as poor housing has adverse effects on health.[55]

3.4.15 What Parents and Young People want re Sex and Relationships Education

The majority of parents and carers are very supportive of relationships and sex education. A national Mumsnet survey found that 98% of parents surveyed were happy for their children to learn about sex and relationships at schools (2011). Recent engagement with Sandwell parents also identified that educating young people in school and providing advice on contraception and sexual health services is a key priority for them too. Topics that parents want school nurses to advise and educate young people on in schools includes contraceptive and sexual health, sex, sexually transmitted infections, relationships, puberty, periods, personal hygiene, growing up/changes to body and positive body images.

The national TellUs survey asked young people about how well informed young people felt about sex and relationship[56]. In Sandwell 34.0% of young people felt they needed more information about sex and relationships, compared with 37.0% across England. Out of 180 young people in Sandwell who completed an on-line survey 72% identified sex education and advice as one of their top three priorities for school nurses to deliver.

54 Coren, Eand Barlow, J. (2004). Individual and group based parenting programmes for improving psychosocial outcomes for teenage parents and their children. Cochrane Library.

55 Teenage Pregnancy Unit. (2004) Teenage Pregnancy: An overview of the research evidence. Health Development Agency.

56 Chimat (2014) Service Snapshot – Teenage Pregnancy – Sandwell Local Authority. http://atlas.chimat.org.uk/IAS/profiles (Last accessed 18 May 2014)

3.4.16 Contraception and Sexual Health Services

Pregnancy rates in the USA for 15-19 year old women fell by 27% between 1991 and 2000. Researchers found that 86% of this decrease was because of improved use of contraception rather than other measures.

NICE have recently released new guidance on Contraception services for young people.[57] The guidance provides evidence on how to improve the quality of health services for young people and ensure tailored support to meet the needs of those who are social disadvantaged. This includes evidence to support the advance provision of emergency hormonal contraception to young people to increase emergency hormonal contraception use.

Although the number of abortions in England and Wales has gradually declined the number of women who had one or more previous abortions is increasing: 31% in 2002 to 37% in 2012. 27% of young women who had an abortion in 2012, had already had one or more previously. The total abortions in women under 19 years for Sandwell and West Birmingham CCG area is 183, 12% of these were repeat abortions.

Research into the contraceptive use of women aged 16-24 having one or more abortions[58] has identified that more than half (57%) of women were using contraception when they became pregnant, suggesting a failure of contraception to work due to inconsistent or improper use. Also found that women were less likely to have used contraception if they were Black and other ethnic groups compared to white and single compared to in a relationship or married. Only 12% of women had used Emergency Contraception.

57 Public Health Guidance 51 (March 2014) Contraceptive services with a focus on young people up to the age of 25. National Institute for Health and Care Excellence.

58 Marie Stopes. April 2014. Abortion, contraceptive uptake and use among young women Findings from a quantitative survey In collaboration with the University of Greenwich. www.mariestopes.org/sites/default/files/MSUK%20Contraception%20Uptake%20research.pdf (Last accessed 22 May 2014)

3.4.17 Emergency Hormonal Contraception

There are a number of methods to prevent pregnancy including condoms, implanted devices and hormonal contraception. However, there are occasions in which contraception has not been used, or where it isn't used correctly or whereby it may fail due to a split in the barrier method. In these situations there is an option to use emergency hormonal contraception. There are three options including intrauterine device (IUD), levonorgestrel, or ulipristal acetate. Emergency contraception may prevent up to 95% of unplanned pregnancies.

In 2011 the Family Planning Association (FPA) stated that it believes that emergency contraception is an integral part of the full contraceptive choice. The FPA supports over the counter pharmacy provision of EHC, enabling women to obtain emergency contraception quickly from pharmacists as a measure that safeguards women's health.

Women can access emergency hormonal contraception, which is most effective at preventing pregnancy if taken with 72 hours of unprotected sex, from a number of services in Sandwell including Family Planning, Dartmouth Genito-Urinary Medicine clinic, Brook, and their GP. These clinics are generally open only on weekdays and are not open evenings or weekends which for some women presents a barrier to accessing services. Hence Sandwell local authority commissions forty two pharmacies across Sandwell to provide a more accessible service to women who have had unprotected sexual intercourse or whose method of contraception has failed within 72 hours. The benefits of the service are that pharmacists are based across a wider geographic area and have longer opening times including bank holidays and weekends thereby extending access. Women do not need to book an appointment but can walk in to access the service during opening times. As currently not all pharmacists are providing the service in Sandwell a review should be undertaken to consider access by vulnerable groups and the feasibility of extending the scheme enabling more pharmacists to provide the service especially in the high conception rate wards.

3.4.18 Long Acting Reversible Contraceptives (LARC)

A gap in our understanding is of long acting reversible contraception (LARC) usage rates in Sandwell. Historically LARC data was collated by the former Strategic health Authority which identified relatively low usage in Sandwell. Although slightly increasing, it is still not a highly utilised method of contraception for women in Sandwell. National Institute for Health and Clinical Excellence (NICE) Clinical Guideline CG30 demonstrated that Long Acting Reversible Contraception (LARC) is more effective than condoms and the pill, and if more women chose to use these methods there would be cost savings.

3.4.19 What Young People want from Contraception and Sexual Health Services

Recent engagement with Sandwell young people regarding contraception services and school health nursing services identifies that Sandwell young people consider the following as important in relation to contraception advice and services:

- To provide young people friendly, confidential services.
- To offer choice to young people in order to ensure that services are accessible at times and venues for them.
- Visible services with clear information on opening times, venues and how to access.
- To receive information about services through a variety of methods including; school website, social networking sites, school assemblies, talks in PSHE lessons, leaflets, posters and through text messaging services.

3.4.20 Local Services that Address Teenage Pregnancy

During the implementation of the 2000-2010 Teenage Pregnancy Strategy, a range of new services were commissioned and grants given to partner agencies to build local capacity to address teenage pregnancy prevention and support. This included:

- Teenage Pregnancy Coordinator.
- Sex and relationships education programmes.
- Young peoples contraception services.

- Investment in voluntary sector for targeted services for black and ethnic minority young people.
- Teenage Pregnancy Prevention Social worker for LAC/Care Leavers.
- Teenage Pregnancy Prevention Youth workers.
- Connexions Personal Advisor and Raising Aspirations and Promoting Alternatives to Teenage Parenthood Programme.

Plus support services for teenage parents:

- Specialist midwife for teenage parents
- Specialist Health Visitor
- Welfare rights and benefits advisor
- Mum's to be training programme
- Young parents children centre
- Young fathers project

This was in addition to PCT funded family planning services and local authority funded services for reintegration of teenage parents, Batman's Hill PRES and Supported Housing.

These Teenage Pregnancy prevention and teenage parents support services developed as part of the local strategy were reduced or decommissioned as a consequence of the Department of Health teenage pregnancy grants to local areas ending in 2011. At this time the Primary Care Trust and Local Authority made a commitment to continue the funding of some of the teenage pregnancy services. Some posts that supported teenage pregnancy came to an end and others were mainstreamed and incorporated into wider children and young people's services e.g. the Raising Aspirations and Promoting Alternatives to Teenage Parenthood Programme and teenage pregnancy youth workers became part of targeted youth support services and work of the benefits advisor incorporated into the welfare rights service.

Reductions in local authority funding and the major reorganisation of the NHS has also impacted on services.

Sandwell & West Birmingham Clinical Commissioning Group continues to fund Sandwell & West Birmingham NHS Hospital

Trust to provide a specialist midwife to support pregnant teenagers and teenage parents.

NHS England currently funds the Family Nurse Partnership that provides evidenced based support for pregnant teenagers and teenage parents as part of the Health Visiting Services provided by Sandwell & West Birmingham NHS Hospital Trust. Currently FNP in Sandwell has 18% coverage. NHSE have agreed additional funding which will increase reach to 22.5%.

Sandwell MBC became responsible for commissioning public health services from 1 April 2013. The council have recently retendered for young peoples contraception services. Sandwell Brook were awarded the contract and are providing dedicated contraception and sexual health services to young people across the 6 towns and targeted education and outreach services for vulnerable young people. The council commission family planning and genitourinary medicine services which are available for all age groups and many young people in the borough choose to use these services.

The council has also recently re-tendered and awarded contracts to 42 Community Pharmacists who are providing free emergency contraception and Chlamydia screening to teenage girls who have had unprotected sex or their contraception method has failed.

The council has developed a new service model for school nursing and Birmingham Community Healthcare NHS Trust has been awarded the contract to provide school nursing services in Sandwell. A key part of the specification is addressing teenage pregnancy, delivery of sex and relationships education, improved access to advice and provides brief interventions to address risky behaviour and underlying issues i.e. emotional wellbeing. School nurses will coordinate delivery of the Healthy Child Programme (HCP) which is an evidence based programme for addressing prevention and early intervention and sexual health is a key priority.

As part of integrating teenage pregnancy into children's services the council continued to fund the youth workers who were incorporated into targeted youth support services thereby bring

expertise in teenage pregnancy to the team and broadening the role of these staff to address wider risk taking behaviour.

Following a review of the Young Parents children centre staff were relocated into early help services.

DECCA young peoples service staff have worked throughout the life of the strategy and continue to work closely with teenage pregnancy and sexual health services staff to address risk taking behaviour including delivery of prevention programmes, artemis e-learning for staff, public health campaigns and bringing together key health promotion messages and service information for young people on the ‘our guide to’ website.

Schools continue to support delivery of sex and relationships education. The APAUSE sex and relationships programme has been delivered jointly by teachers and school nurses. From four initial pilot schools the majority of secondary schools now deliver this programme. Recent engagement with head teachers has identified some schools views that this programme is now outdated.

3.4.21 Recommendations

1. The Health and Wellbeing Board to consider the current provision of teenage pregnancy services and to ensure coordinated local action to support the downward trend in teenage conception and that pregnant teenagers and teenage parents are supported to ensure best possible outcomes for themselves and their children.

2. To ensure that Teenage Pregnancy is considered by all relevant strategies and plans including Early Help and Child Poverty.

3. To engage schools and school nurses in review of delivery of local sex and relationships education including the APAUSE programme.

4. To review the new NICE guidance on improving young peoples access to contraception services and consider how local services meet NICE recommendations. This includes addressing repeat abortions, increasing uptake up of LARC and access to emergency contraception.

5. To ensure pregnant teenagers are identified early and access antenatal care and support services and that teenage parents receive targeted support for young people and disadvantaged families. To consider further investment in the Family Nurse Partnership.

6. To ensure universal services continue to educate and support young people and identify those at risk for additional support to reduce their risk of conception.

7. To ensure delivery of preventative programmes and early intervention for vulnerable and at risk young people including looked after children and those identified via “Early Help” Community Operating Groups, targeted support services and residing in high conception rate wards.

8. Interventions designed to target girls at highest risk of conception should be aimed at girls who are eligible for free school meals, persistently absent from school, or who have poor attainment at the end of primary school or make slower than expected progress at the start of secondary school.

Chapter 4 – Health & Wellbeing Status

4.1 PERINATAL MORTALITY

Key Points

1. **Nationally, the rate of infant deaths has declined steadily over the last thirty years. However Sandwell has not made sustained improvement in contrast.**

2. **The West Midlands has a higher rate of stillbirths, early neonatal and infant deaths compared to England and Wales.**

3. **The Black Country has the second highest rate of stillbirths, early neonatal and infant deaths to Birmingham. All rates are unchanged. Sandwell and West Birmingham CCG report the highest rates of stillbirths in the region.**

4. **Leading causes of stillbirths nationally are: remaining antepartum death (unknown cause), asphyxia (suffocation) in the womb and congenital anomaly (birth defects).**
   In the Black Country are: Fetal Growth Restriction (slow or stunted growth in the womb), unclassified/unexplained and placenta/umbilical cord problems (poor connection to maternal oxygen and nutrients).

5. **The leading causes of neonatal death nationally are Immaturity related conditions, congenital anomalies and asphyxia intrapartum (suffocation during birth), these data are not available regionally or locally.**

6.	**The leading causes of infant death are not reported nationally, but regionally and in the Black Country these are pulmonary (lung) immaturity, congenital anomaly and pre-viability (born before organs were developed enough to survive)**

4.1 Perinatal and neonatal mortality

Perinatal or infant mortality is a tragic loss of life and a traumatic occurrence for the families affected. There are many factors which impact on the health of a new born including maternal genetics, maternal lifestyle, infection and the quality of maternity services that screen, support and deliver the child. Such factors not only impact on survival but also impact the life course of that child such as childhood obesity, long term conditions, poor mental health and wellbeing

Table 4.1 Definitions of perinatal and neonatal mortality:

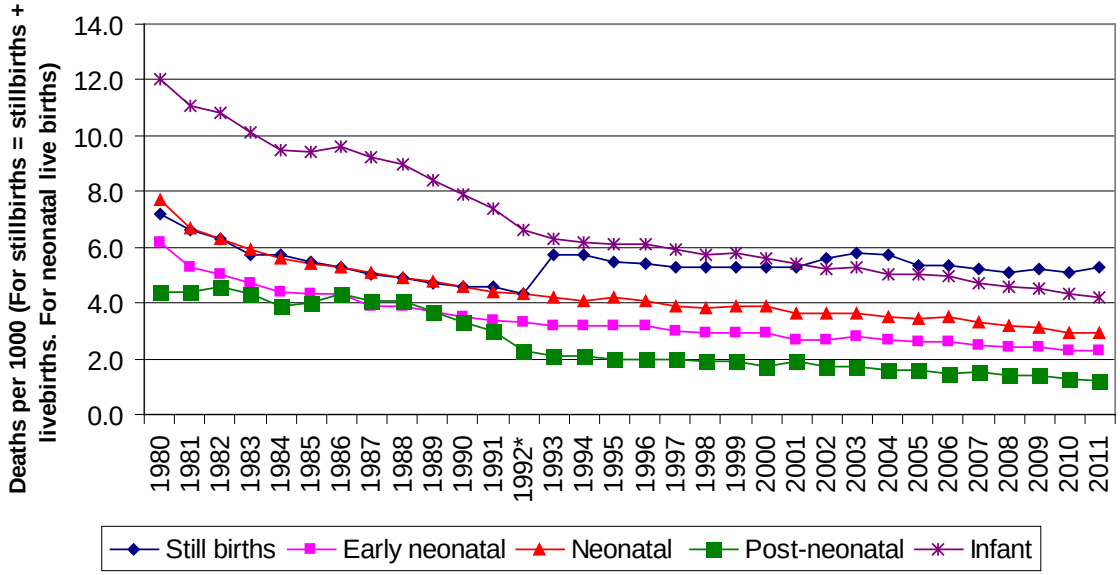
Perinatal:	Stillbirths and early neonatal deaths. Describes the period surrounding birth, and traditionally includes the time from fetal viability from about 24 weeks of pregnancy up to 7 days of life[59]. Deaths at these stages are a measure of preterm birth, fetal anomalies or those born but with no signs of life.
Stillbirth:	Born after 24 or more weeks completed gestation and which did not, at anytime, breathe or show signs of life
Early neonatal:	Deaths under 7 days: Early neonatal deaths are more closely associated with pregnancy-related factors and maternal health such as smoking, drinking, drug use or exposure to chemicals, infectious diseases or medicine which can harm the unborn child.
Neonatal:	Deaths under 28 days: Following birth the survival from birth to 27 days (includes early neonatal and late neonatal deaths).
Late neonatal:	Deaths between 7 and 27 days late neonatal deaths are associated more with factors in the newborn‘s environment. Such as the quality of in-hospital care

[59] Perinatal institute. http://www.perinatal.org.uk

	for the neonate it directly reflects antenatal, intrapartum, and neonatal care.
Post neonatal:	Deaths between 28 days and 1 year, examples of causes of neonatal deaths may include premature birth, Sudden Infant Death, infection or accidents
Infant deaths:	Death under the age of 1 but which was a live birth.

The Office of National Statistics collate all records of stillbirth and infant deaths, see figure 4.1. Nationally, the rate of infant deaths has declined steadily over the last thirty years. In 2011 it was a third the rate seen in 1980. All three measures of infant death have declined steadily year on year excluding stillbirths which have not seen a decrease nationally since 1992. In 1992 there was a change of the stillbirth definition from a baby born without signs of life after 28 completed weeks of gestation to 24 weeks of gestation[60], the rate of stillbirths have remained stable since then, which indicates the improvement seen prior to 1992 was in those which had completed over 24 weeks gestation.

Figure 4.1 Rate of stillbirths and infant deaths in England, 1980-2011.



*In October 1992 there was a change in stillbirth definition.
Source: Office for National Statistics, Child Mortality Statistics 2011.

The West Midlands observes a higher rate of most measures of infant mortality (early neonatal, perinatal, late neonatal and infant

[60] Office of national statistics. Investigation into the increase in stillbirth rate in 2002 in England and Wales. ww.ons.gov.uk/ons/rel/child-health/investigation-into-the-increase-in-stillbirth-rate accessed March 2014

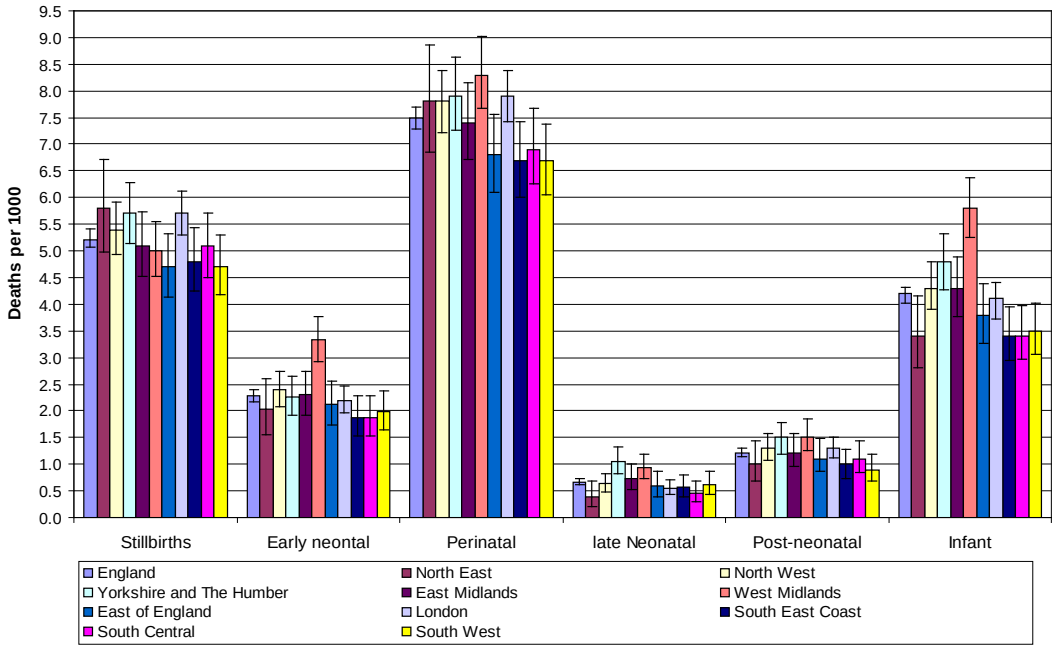
mortality) than other regions, this is statistically significant for early neonatal death against all comparator areas, which are babies born alive but dying within 7 days, see figure 4.2.

Infant mortality is also significantly higher in the West Midlands than most comparator areas; however this is mostly due to early neonatal deaths which are included within this value.

Late neonatal stage (7 days to 27 days after a live birth) are high in the West Midlands and significantly higher than other regions such as London and significantly higher than England.

The post neonatal death rate (28 days after a live birth) is high compared to other areas; but not significantly different to England. We can infer that in the West Midlands survival after the first 7 days after birth is the most critical, followed by survival up to 27 days after.

Figure 4.2 Rate of stillbirths and infant deaths by region in England, 2011



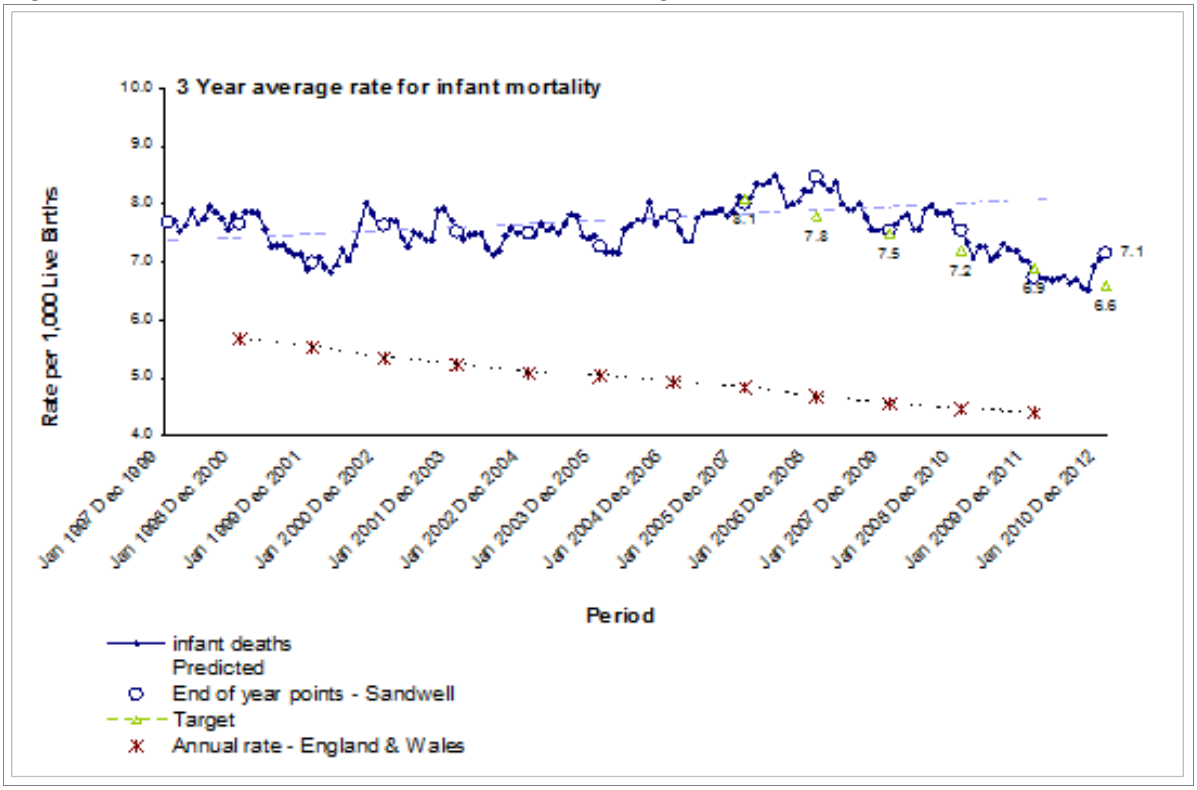
Source: Office for National Statistics, Child Mortality Statistics 2011.

*Stillbirths and perinatal death are number of deaths by live births and stillbirths in same period. Neonatal, post-neonatal and infant deaths are number of deaths by live births.

The rate of infant mortality in Sandwell compared to the national rate shows a slight improvement from 2009-2012, but increased at the end of the period. Overall, infant mortality in Sandwell has not

made sustained improvement in contrast to the fall of about one quarter in the national rate, see figure 4.3.

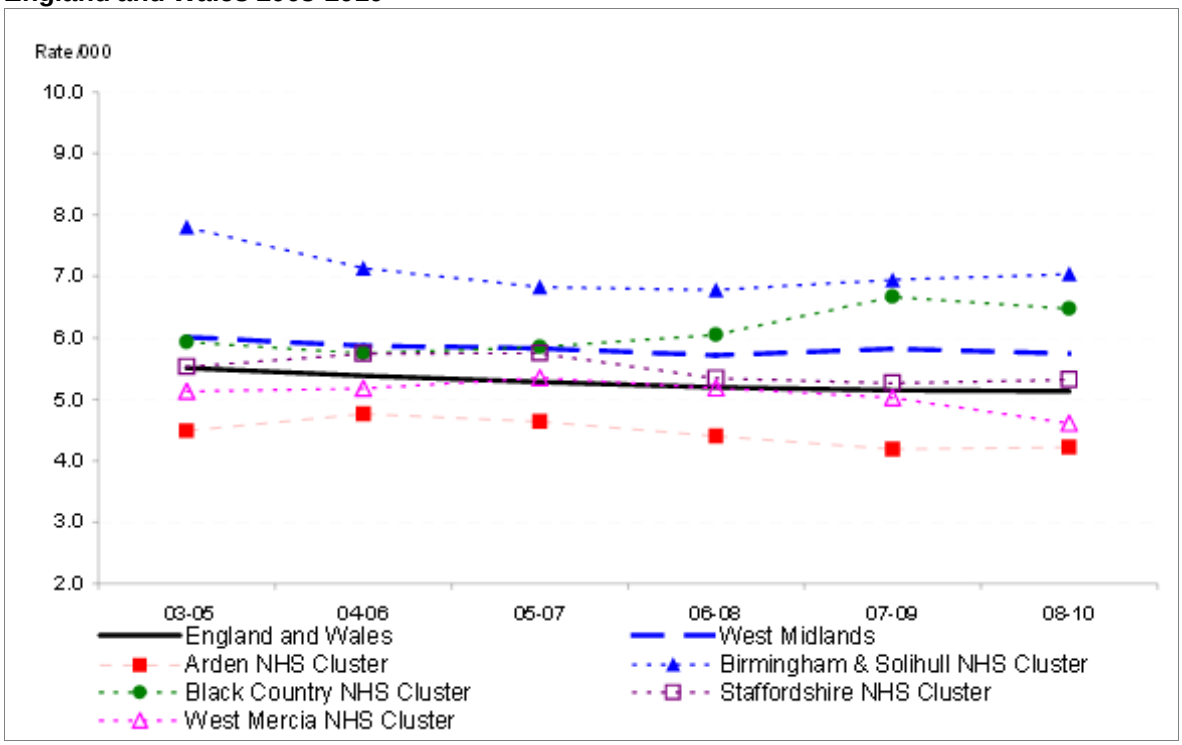
Figure 4.3 Rate of stillbirths and infant deaths in England and Sandwel, 1997-2012



Source: Sandwell Public Health Intelligence team.

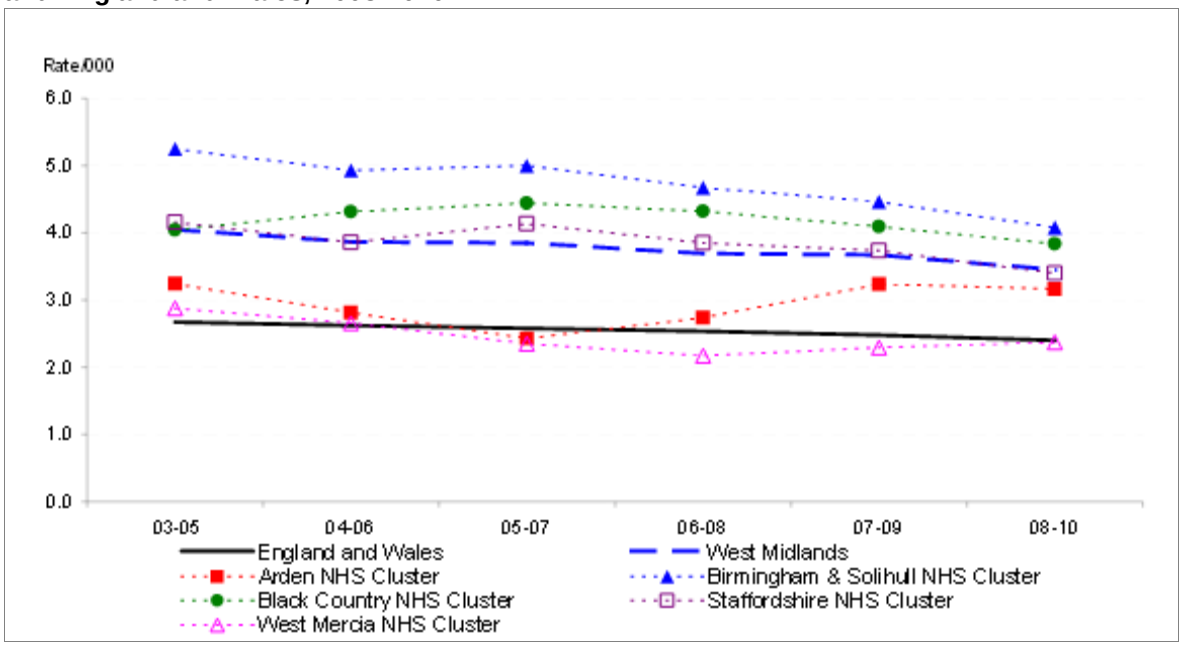
The Perinatal institute reported on the rates of stillbirths, early neonatal death rates and infant death rates by area, see figure 4.4, 4.5 and 4.6. respectively. This shows that the rates of all three indicators are fairly stable. West Midlands has a higher rate of death for stillbirths, early neonatal and infant deaths compared to England and Wales. The Black Country had the second highest rate to Birmingham. Although there is a hint of a downward trend all rates appear fairly stable.

Figure 4.4 3 year moving average, stillbirth rates by cluster, West Midlands and England and Wales 2003-2010



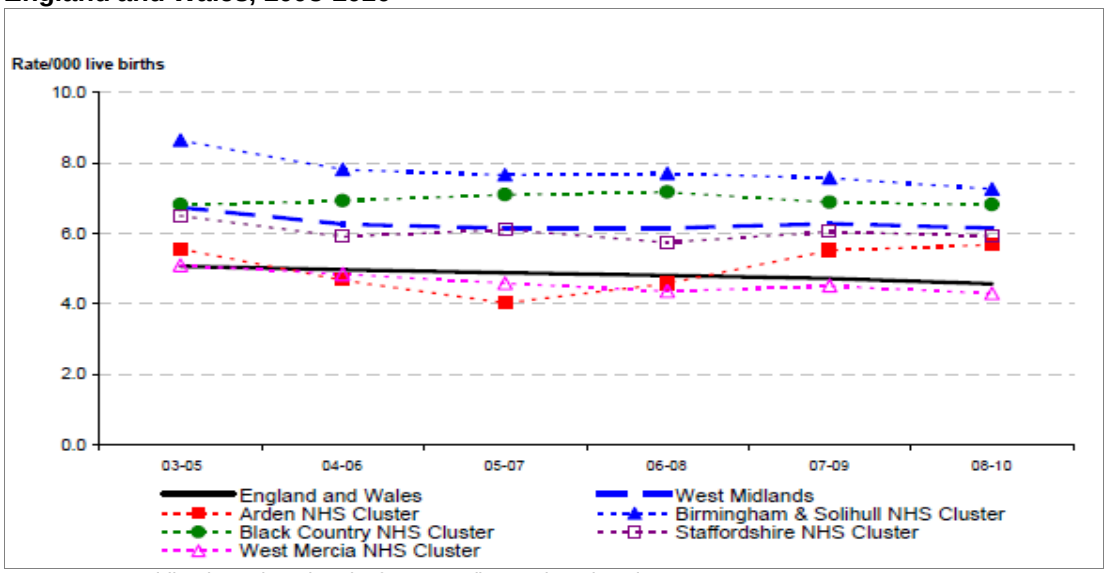
Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

Figure 4.5 3 year moving average, early neonatal death rates by cluster West Midlands and England and Wales, 2003-2010



Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

Figure 4.6 3 year moving average, Infant death rates by cluster West Midlands and England and Wales, 2003-2010

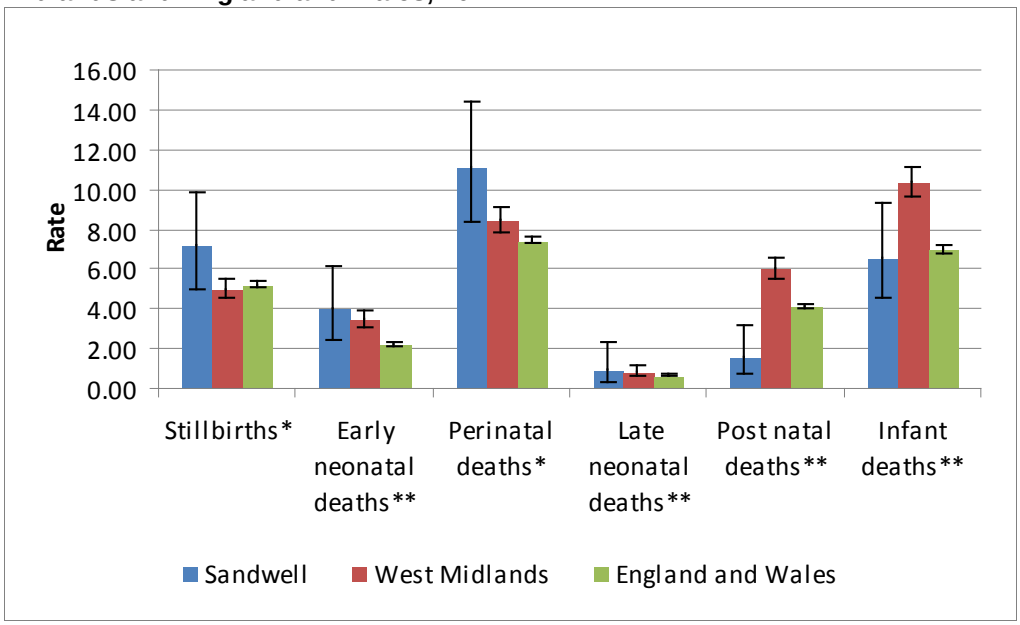


Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

From the 2012 maternity data on stillbirths, see figure 4.7. The stillbirth rate in Sandwell is higher than West Midlands and England, but this is not significantly higher. Sandwell has a significantly higher rate of deaths than see for England and a slightly higher rate of early neonatal and perinatal deaths than the region.

Post neonatal deaths are significantly lower than the region and England and Wales. Infant deaths are significantly lower than the region and lower than England.

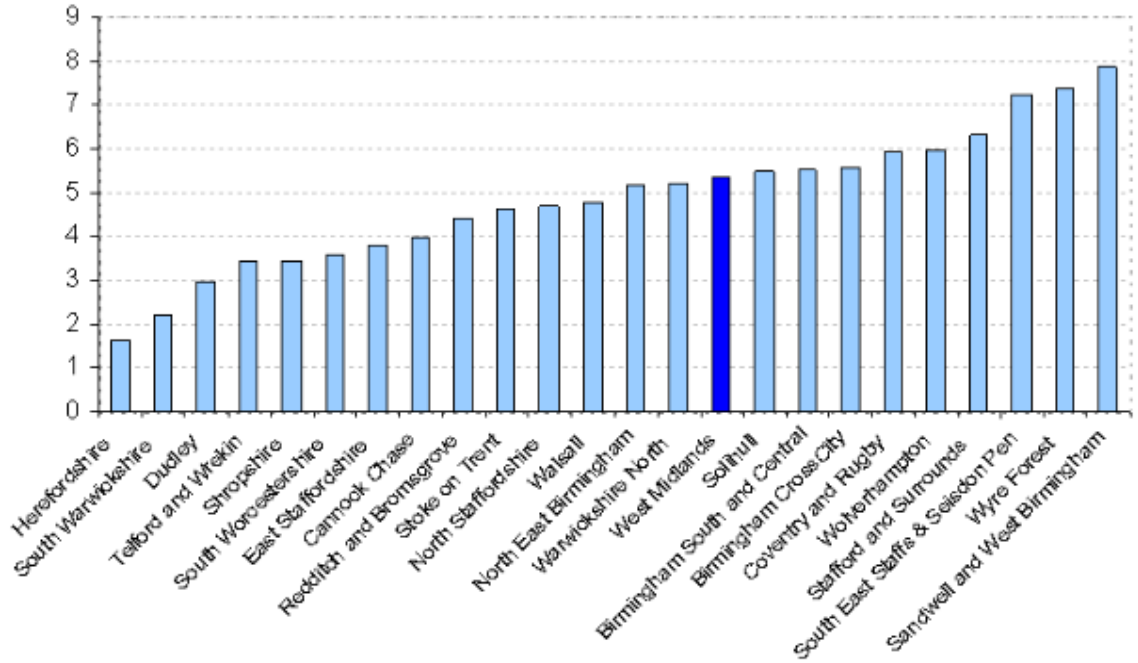
Figure 4.7 Rate of stillbirth, neonatal death and Infant death in Sandwell, West Midlands and England and Wales, 2012



Source: Maternity services data.

Data from the 2011/2012 Key Health Data set showed the rate of stillbirth by CCG, see figure 4.8. Sandwell and West Birmingham had the highest rate of stillbirth of all CCGs in the West Midlands in 2009-11.

Figure 4.8 Stillbirths (rate per 1,000 births) by CCG, West Midlands 3-year average 2009-11



Source: Key Health data 2011/2012

4.2 Causes of Stillbirths, perinatal and infant mortality; nationally, regionally and in Sandwell.

The Office of National Statistics collates the national cause of stillbirths, early neonatal, late neonatal, post neonatal and infant deaths[61], see figure 4.9:

Nationally the leading causes of stillbirth are:

1. Remaining ante partum death,
   Where there is no known cause of death after excluding other causes.
2. Asphyxia (suffocation) of the fetus before birth,
   This is likely to be caused by problems with the placenta and the connection with the fetus.
3. Congenital anomaly.

[61] Dattani, N and Rowan, S. Office for National Statistics. Causes of neonatal deaths. and stillbirths: a new hierarchical classification in ICD-10. www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--15 Accessed march 2014.

The fetus they were born with structural changes not conducive to life. Although the reasons of many of these are largely unknown there are risk factors which can increase the likelihood of these events occurring.

Nationally the leading cause of early neonatal death and neonatal death:

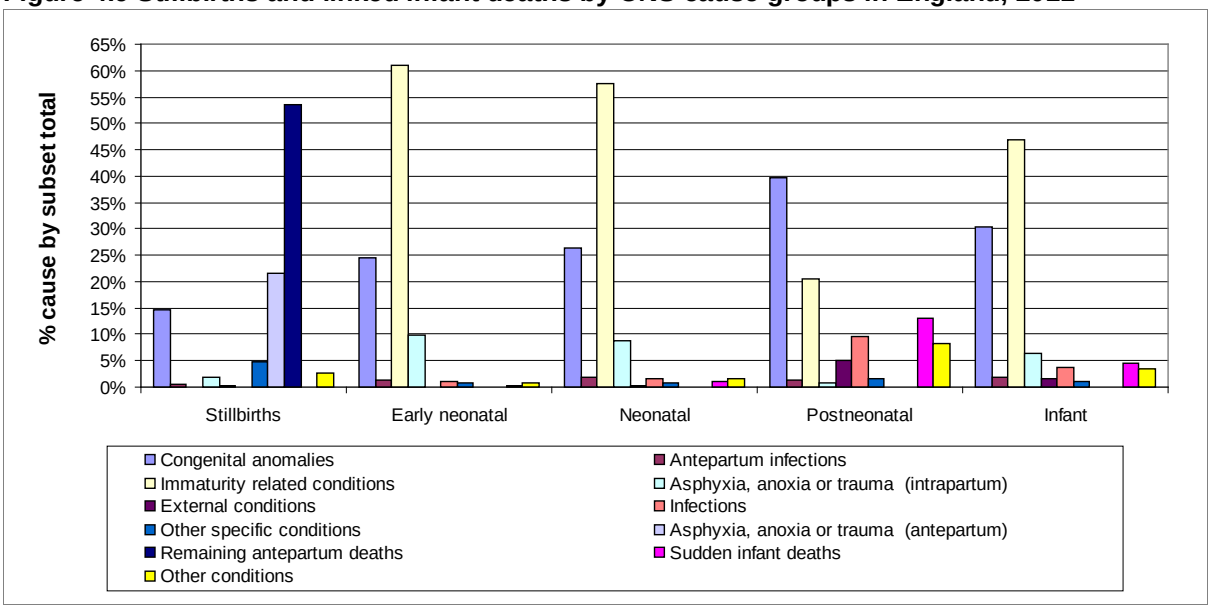
1. immaturity related conditions,
   The fetus was born prematurely before vital organs such as the lungs could fully develop
2. Congenital anomalies.
3. Asphyxia (suffocation) intrapartum
   A lack of oxygen or a total depletion of oxygen during childbirth

Nationally the leading cause of post neonatal deaths:

1. Congenital anomaly,
2. Immaturity at birth,
3. Sudden Infant Death
   The child will suddenly die with no explained reason.
4. Infections post birth.

Overall, the majority of infant deaths are due to immaturity and congenital anomalies, see figure 4.9.

Figure 4.9 Stillbirths and linked infant deaths by ONS cause groups in England, 2011



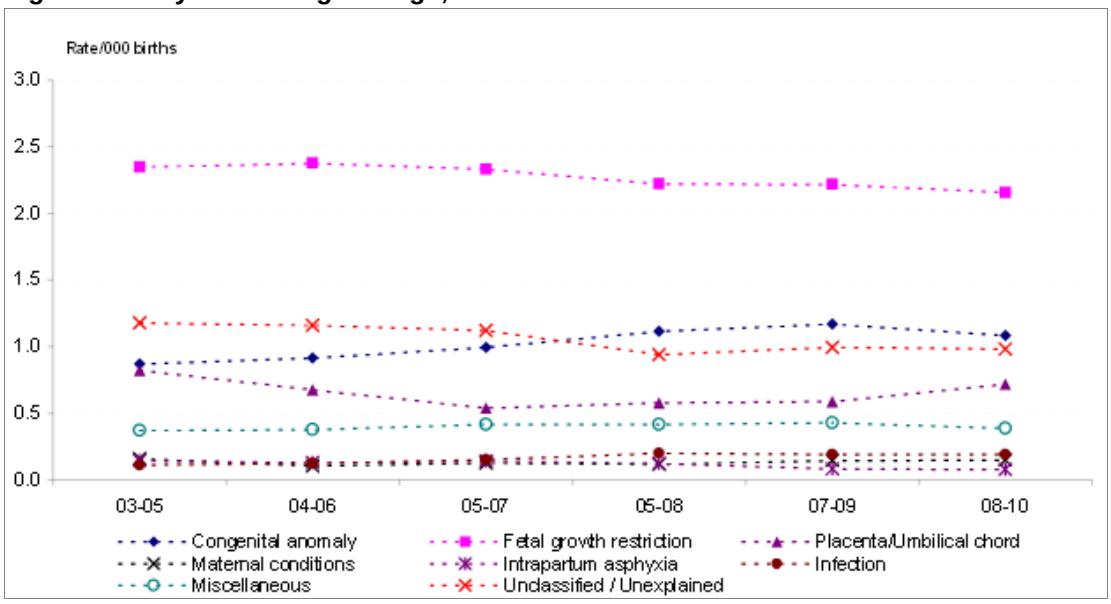
Source: Office for National Statistics, Child Mortality Statistics 2011.

The West Midlands Perinatal Institute reported on the trend of stillbirths by cause from 2003-2010, see figure 4.10. This presents Fetal Growth Restriction (FGR) as the leading cause of stillbirths, followed by Unclassified or unexplained causes and congenital anomalies. FGR is a condition where the growth of a fetus slows or ceases when it is in the womb, it can lead to premature birth and stillbirth. The mechanism by which maternal exposures cause FGR is not known, however, exposures such as smoking have a high risk of leading to FGR.

The perinatal institute were able to collect data on FGR which was not reported at a national level, and therefore the leading cause of death in the West Midlands differs slightly to the trend seen nationally. This makes comparisons of rates difficult as there is no way of knowing if the West Midlands has a higher or lower proportion of FGR cases as data are not available nationally.

It appears to be used interchangeably with immaturity related conditions as the category of cause “immaturity related conditions” is not reported in regional data, however, a fetus born preterm and before their organs could fully develop, is different to a fetus whose growth is stunted for that period of gestation. FGR information is also not available for those who were born alive; therefore it is not possible to compare the survival rates by gestation period. Even comparing weight at birth is not possible as the weight of a newborn may vary largely and two new borns maybe the same weight but one maybe smaller than they otherwise should be. Due to funding for the West Midlands Perinatal Institute ceasing in 2013, recent reports around stillbirths and perinatal reports are not available.

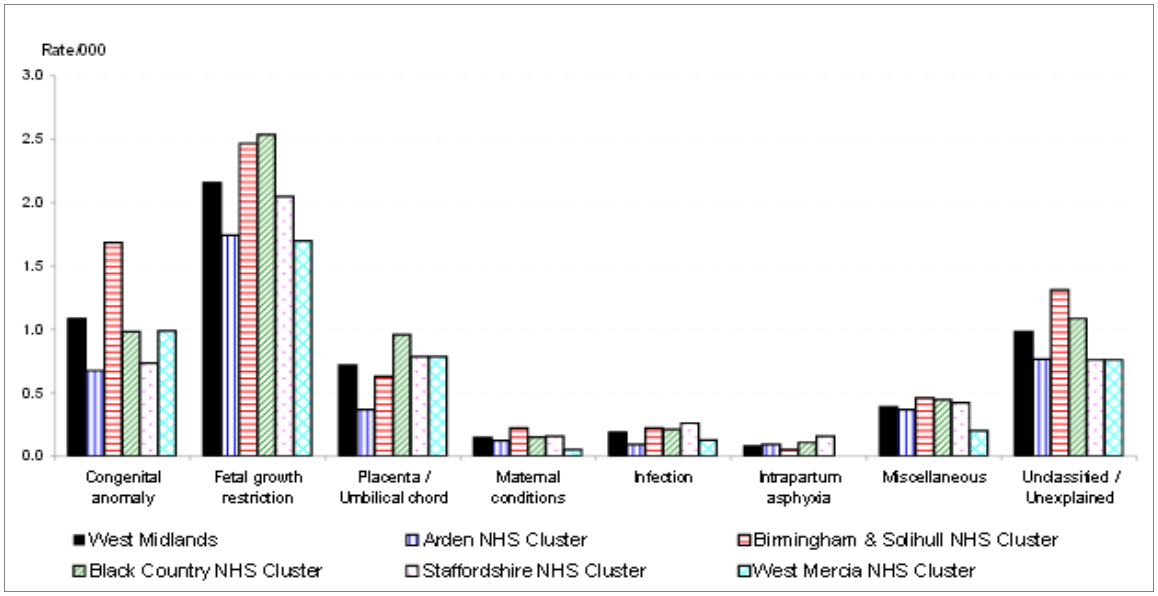
Figure 4.10 3 year moving average, stillbirth rates West Midlands 2003-2010



Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

The Perinatal institute reported on the rates of stillbirth by cause and area, see figure 4.11. The Black Country has a slightly higher rate of FGR and placenta/ umbilical cord (poor connection to maternal oxygen and nutrients) causes of death.

Figure 4.11:– West Midlands Stillbirth rates by cause and area 2008-2010

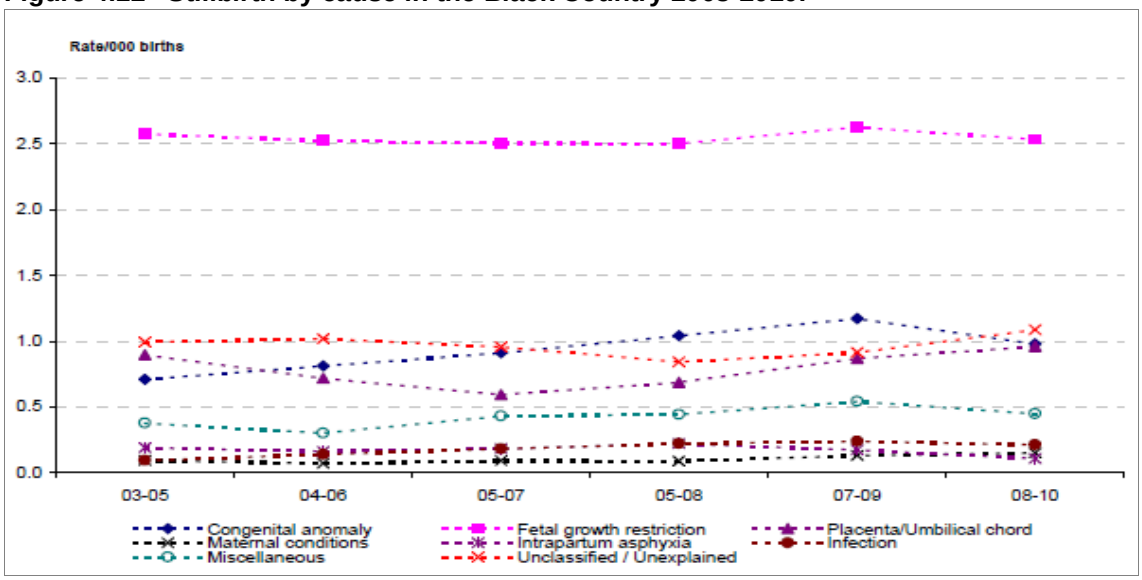


Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

From 2003-2010 data on causes of stillbirth were reported in the perinatal and infant mortality report, see figure 4.12. This showed that the leading causes of stillbirths in the Black Country were

Fetal Growth Restriction, unclassified/unexplained, and congenital anomaly.

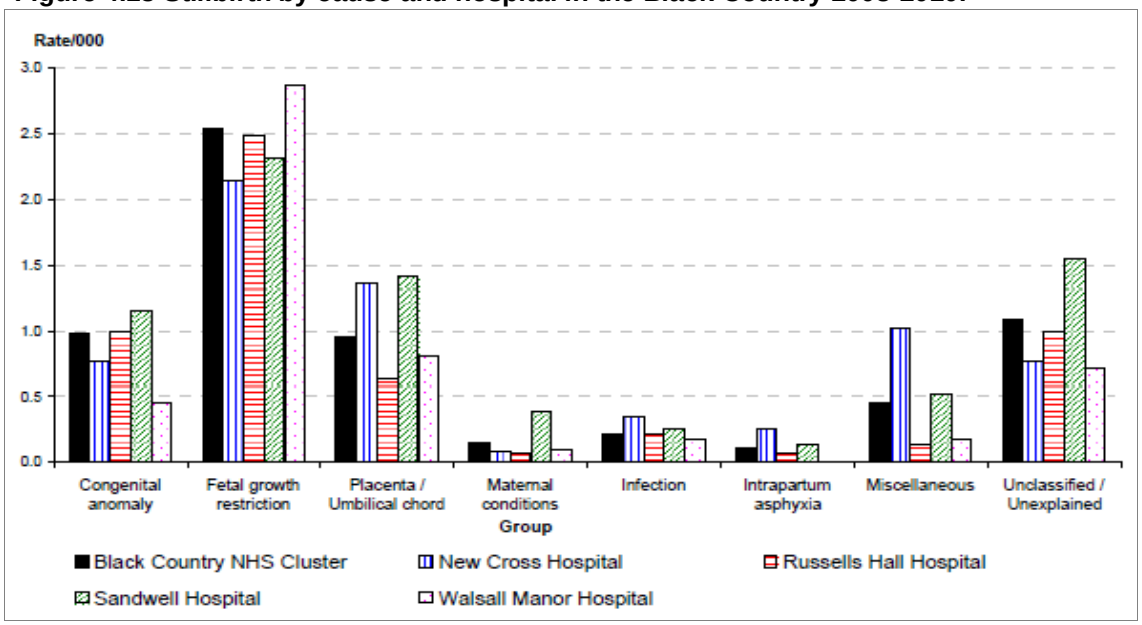
Figure 4.12– Stillbirth by cause in the Black Country 2003-2010.



Source: Black Country Perinatal and Infant mortality. Perinatal Institute 2010

The trend of cause of stillbirth was also reported by hospital, see figure 4.13. This shows that in Sandwell placenta/ umbilical cord problems are more common than congenital anomalies.

Figure 4.13 Stillbirth by cause and hospital in the Black Country 2008-2010.



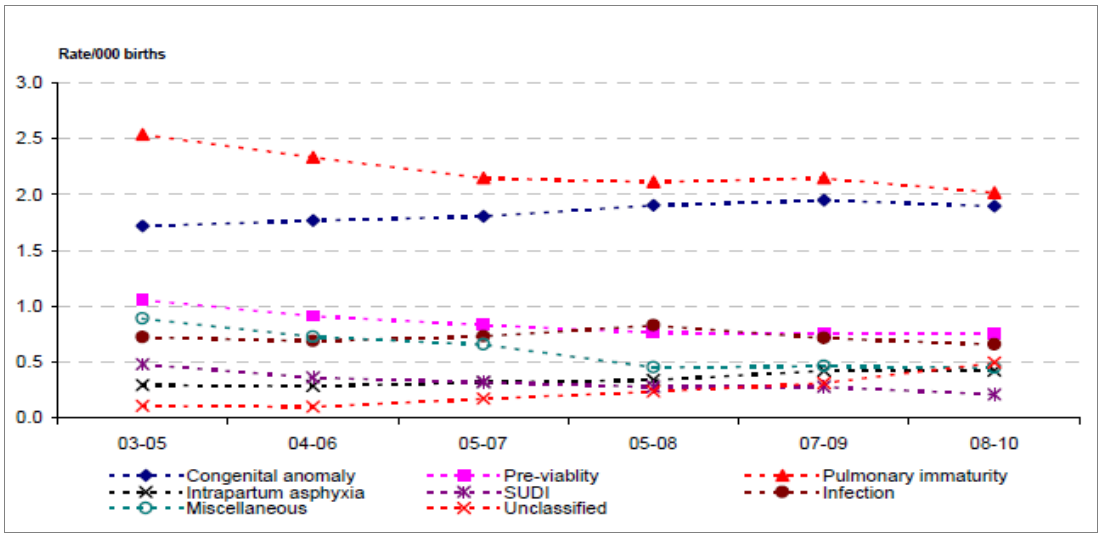
Source: Black Country Perinatal and Infant mortality. Perinatal Institute 2010

For infant deaths; which are all deaths from birth to 1 year, the leading causes reported in 2010 were pulmonary immaturity,

congenital anomaly and pre-viability. These deaths broken down by early neonatal or post natal death groupings are not available.

The Perinatal institute reported the trend of infant death rates by cause, see figure 4.14. The leading cause of death is pulmonary (lung) immaturity which appears to be decreasing since 2003/2005 and the second highest cause is congenital anomaly which is increasing slightly since 2003/2005. Overall from 2003-2010 the trend does not show large fluctuation and therefore it can be assumed that the leading causes are still the same.

Figure 4.14:– West Midlands 3 year moving average, Infant death rates by cause 2003-2010

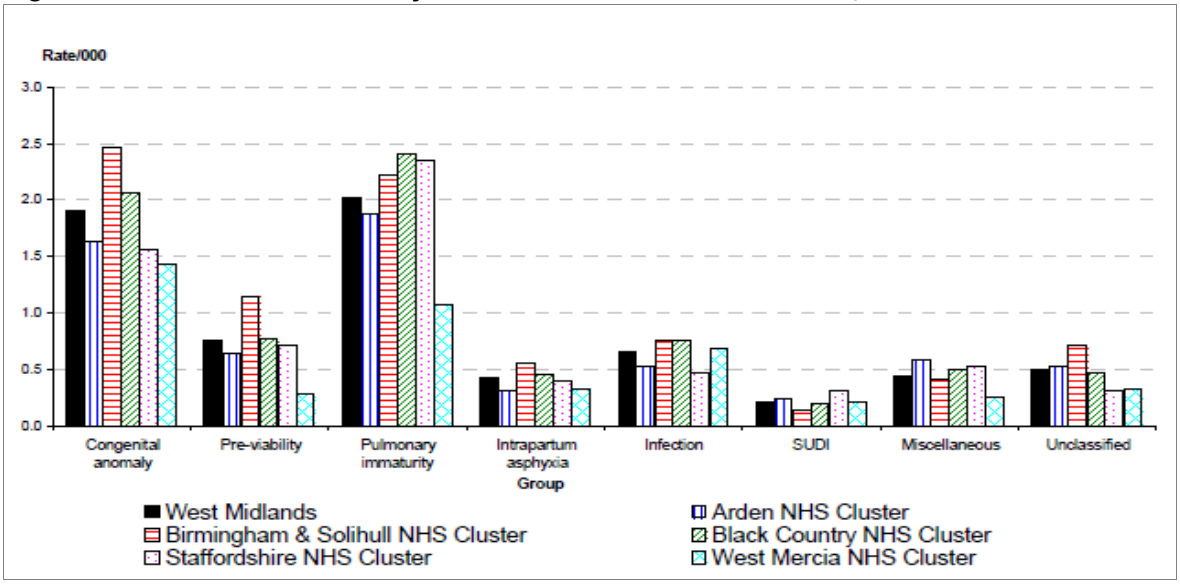


Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

The West Midlands and its composite areas report a similar rate by cause of death to the national picture whereby most infant deaths are due to immaturity and congenital anomalies. There appears to be a much lower rate of unclassified and unknown cases, see figure 4.15. Like the national picture, secondary to these causes are asphyxia in birth and infection.

Birmingham has the highest rate of most causes of infant death, with the Black Country having the second highest rate. However, the Black Country has a slightly higher rate than Birmingham for pulmonary immaturity.

Figure 4.15– Infant death rates by cause and area in West Midlands, 2008-2010



Source: West Midlands Perinatal and Infant mortality. Perinatal Institute 2010

There is an absence of data around the cause of perinatal death. Now that the Perinatal Institute no longer reports this will also mean a lack of data on cause of infant deaths data.

ONS Annual Deaths data can be used to identity cause of perinatal and infant deaths, tables 4.2 and 4.2. For the period of 2007 -2011 the leading cause of perinatal data was extreme immaturity, followed by asphyxia (suffocation) and preterm birth (born before organs had fully matured to survive). Similarly the leading cause of infant mortality was also extreme immaturity. Necrotising enterocolitis (severe stomach infection) can be a symptom of bowel immaturity. However, congenital anomalies are not reported at all here which may indicate that these data are complete.

Table 4.2: Ranked leading cause of Perinatal mortality by frequency in Sandwell 2007-2011

Cause of death	Description	Frequency
P072	Extreme immaturity (less than 28 completed weeks gestation)	45
P219	Birth asphyxia, unspecified	6
P073	Other Preterm infant (between 28 and 37 weeks gestation)	5
P293	Persistent fetal circulation	x
Q913	Edwards syndrome, unspecified	x

Source: ONS death data 2007-2011

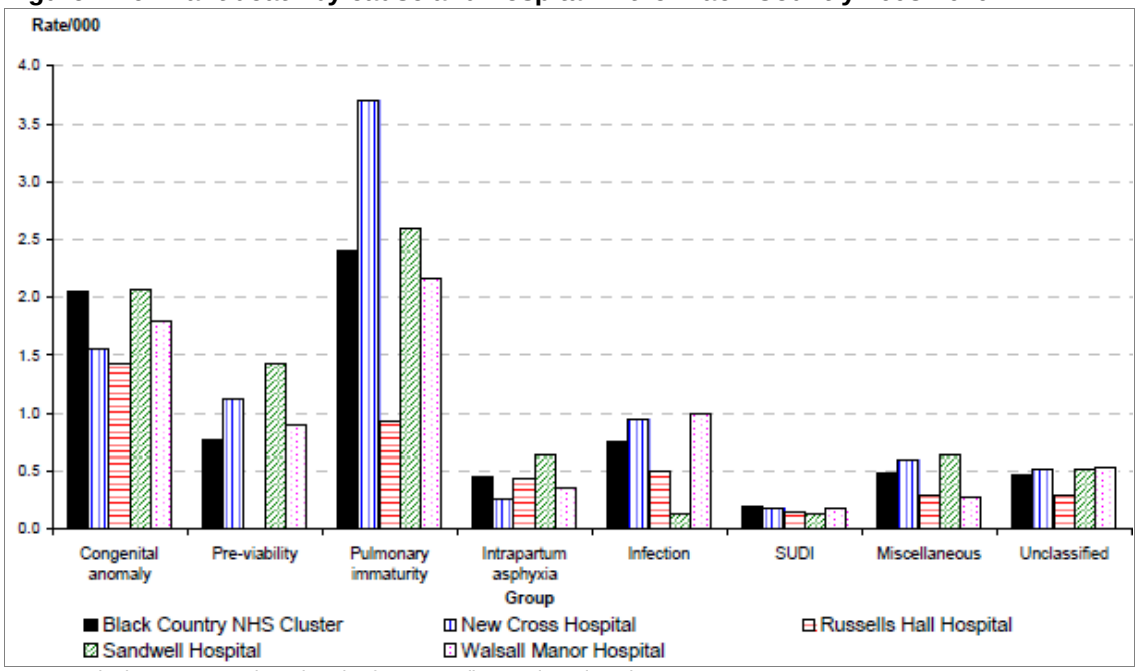
Table 4.3 Ranked leading cause of Infant mortality by frequency in Sandwell 2007-2011

Cause of death	Description	Frequency
P072	Extreme immaturity (less than 28 completed weeks)	48
P77	Necrotizing enterocolitis of fetus and newborn	9
P219	Birth asphyxia, unspecified	7
R99	Other ill-defined and unspecified causes of mortality	6
P073	Other Preterm infant (between 28 and 37 weeks gestation)	6

Source: ONS death data 2007-2011

From 2003-2010 data on causes of infant death were reported, see figure 4.16. This showed that the leading causes of infant death in Sandwell Hospital were pulmonary immaturity, congenital anomaly and pre-viability. Also like the regional picture infection and asphyxia during child birth were secondary causes.

Figure 4.16 Infant death by cause and hospital in the Black Country 2008-2010.

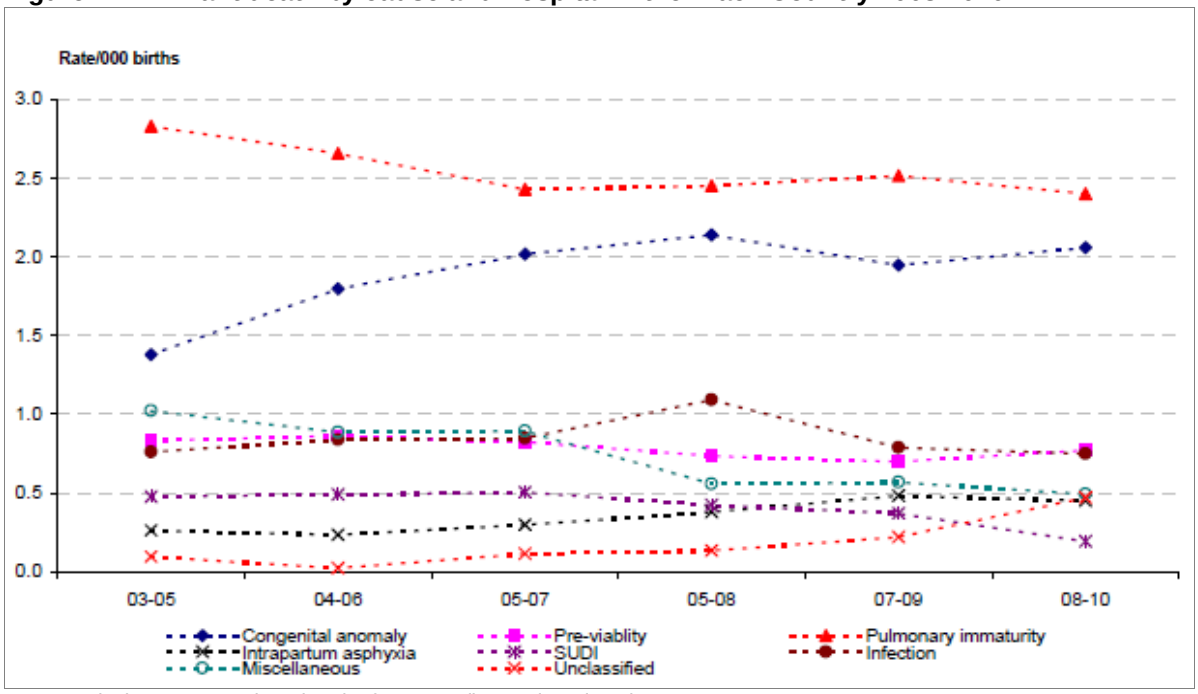


Source: Black Country Perinatal and Infant mortality. Perinatal Institute 2010

The trend of cause of infant death was also reported, see figure 4.17. This mirrors the regional pattern seen in see figure 4.11, the leading cause of death is pulmonary immaturity which appears to be decreasing, second to congenital anomalies which appears to

be decreasing. Overall, there is little fluctuation in the leading cause of stillbirth from 2003-2010.

Figure 4.17– Infant death by cause and hospital in the Black Country 2008-2010.



Source: Black Country Perinatal and Infant mortality. Perinatal Institute 2010

4.3 Infant mortality: Sudden Unexpected Deaths and Preventable deaths (CDOP report data).

Since 2008 child death reviews have been a statutory requirement for Local Safeguarding Children Boards (LSCB). The LSBC is required to review the circumstances of all children's deaths up to the age of 18. This process is overseen by the Child Death Overview Panel (CDOP). The process begins once a child arrives at A & E and the death is reported. An immediate discussion occurs between the parents, consultant paediatrician on-call, police and a member of the rapid response team. The purpose is to try and establish the events which lead to the death.

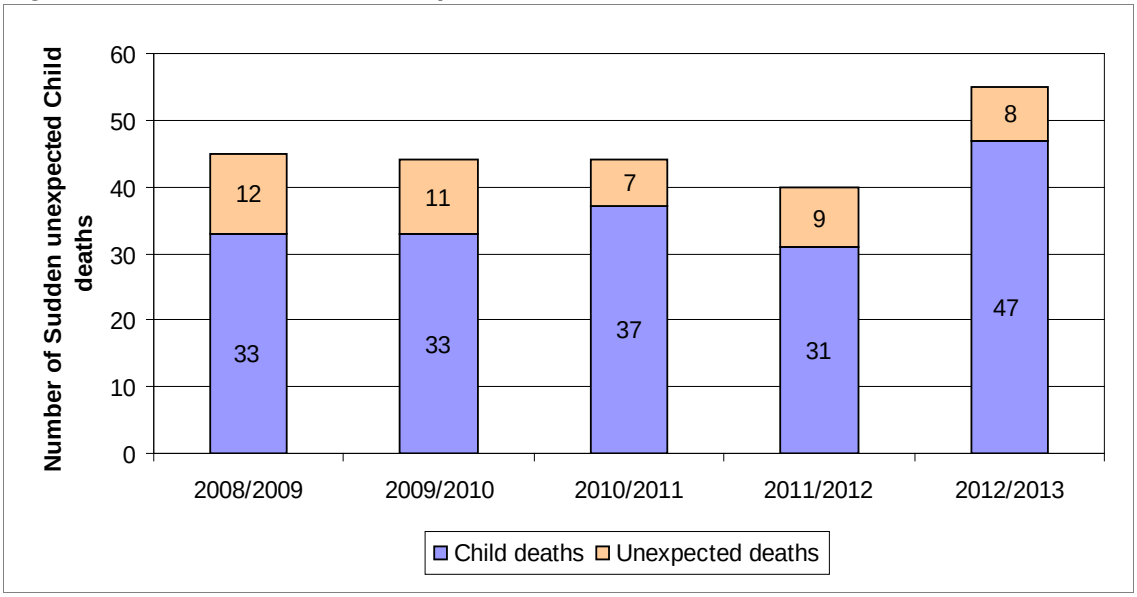
According to CDOP report, there were 55 child deaths (under 18 years of age) reported to the Sandwell Safeguarding Children Board (SSCB) in 2012/2013, this is much higher than the 40 deaths reported in 2011/2012 and is the highest number seen in 5 years.
Of these 55 deaths infant deaths (27males and 28 females), 26 (17 males and 9 females) occurred within 7 days of birth (early neonatal). A further 10 deaths (1 male and 9 females) occurred

within 8-28 days (late neonatal). Meaning that the majority (36/55) were within 28 days of birth.
In 2012/13 there were 8 unexpected deaths which are similar to previous years, see see figure 4.18. An unexpected death is defined as the death of an infant or child (less than 18 years old) which was not anticipated 24 hours before the death; for example a unexpected collapse or incident leading to or precipitating the events which lead to the death[62].

Only 4 of these 8 occurred in infants all 4 were due to various infections post birth including Meningitis, Pertussis and Pneumonia.

The other 4 cases were infants to adolescents which included two congenital conditions, an infection and a suicide.

Figure 4.18 Child deaths and unexpected deaths 2008-2013



Source: Child death overview panel reports 2010/11 and 2012/2013

In 2012/13 there were 28 child death reviews, these relate only to the deaths reviewed in that year by CDOP but not all of them would have been deaths from that year, some of them will have occurred in previous years and will have been delayed getting to CDOP due to police investigations and inquests. For this reason it is not possible to use these data to plan an overall service change but these are vital data to learn lessons from deaths.

[62] CDOP report 2012/2013

A total of 28 child deaths were reviewed in 2012-2013 (however these are all ages and cover the year of review not the year in which the death occurred) of those reviewed the most common cause of death were:

- Perinatal/ neonatal event (8),
- Chromosomal/genetic/congenital anomalies (7),
- Infection (6)
- Acute medical condition (3),
- Malignancy (2)
- Sudden Unexpected/Unexplained Deaths (2).

Within some of the cases reviewed would have been deaths caused from events in which there would be factors which may have been 'modifiable' or preventable. The information from these deaths can be used create local or national interventions to reduce the risk of future child deaths. Within the 28 cases that were reviewed in 2012-2013 there were three, the cause of which were:

- Asthma management in accident emergency
- Risk factors relating to babies on the Care Of Next Infant (CONI) programme
- Infection due to Strep B.

4.4 Maternal factors which lead to perinatal or infant mortality

Nationally, regional and in Sandwell the main three causes of stillbirth or infant death these are:

- Congenital anomaly, these can be causes by:
  Spontaneous or unknown cause,
  Inherited genetic disorder or
  teratogens (substances, environmental agents or even viruses which interfere with the development of an embryo)

- Foetal Growth restriction
- Being born prematurely

4.4.1 Congenital anomaly

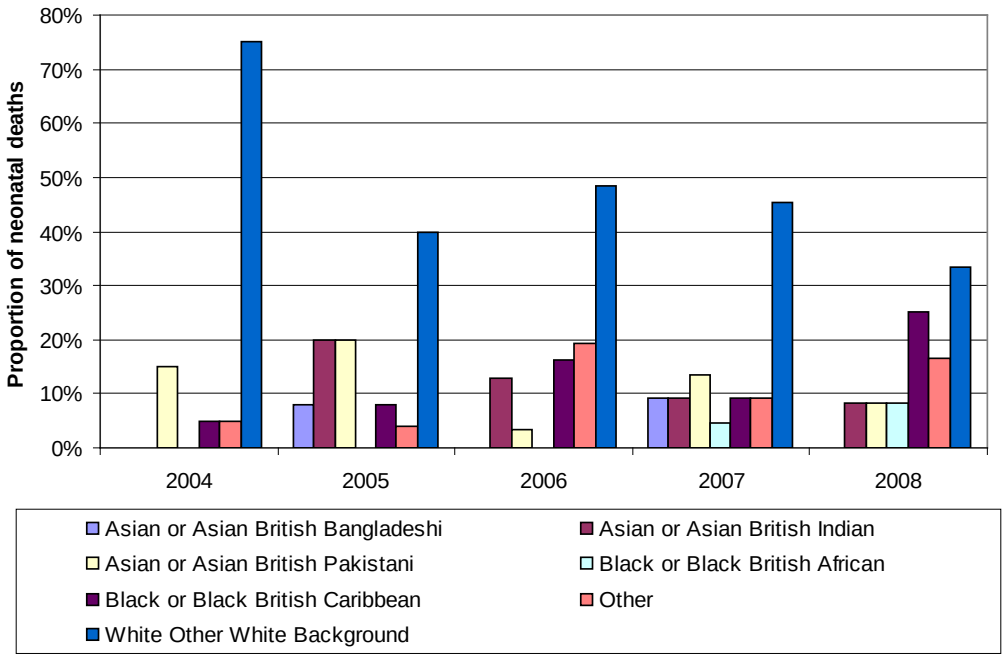
4.4.1.1 Spontaneous and unknown cause:

The embryo may suddenly die or develop an unexpected defect with no clear cause. This defect may affect the ability of the embryo develop correctly leading to a loss of life or create a congenital deformation or syndrome as a result. Although the causal pathway is not fully understood there are factors in which the risk of this occurrence is higher. For example there is a higher risk of stillbirth or fetal death in the women will be reviewed more closely there is little available evidence to predict or prevent this from occurring.

Ethnicity
The only data available on perinatal deaths by ethnicity is from 2004-2008, see figure 4.19. The number of live births by ethnic group is unknown to calculate a rate, the only analysis possible is deaths as a proportion of all neonatal deaths by ethnicity. This shows that the yearly proportion of neonatal death has changed from 75% of deaths in white ethnic groups in 2004 to 33% in 2008. Black or Black British Caribbean has increased from 5% to 25% in 2008.

The Black or Black British Caribbean is only 3.7% of the population in Sandwell based on the 2011 census, this is a high rate of neonatal mortality considering the size of the population.

Figure 4.19 The proportion of all neonatal deaths by the ethnic group by which the occurred 2004-2008



Source: Perinatal Institute 2004-2008

From the Child Death Overview Panel, data is available reporting stillbirths by ethnic group, see table 4.4. This shows that the ethnic groups which have the highest numbers of stillbirths are White British, Asian or Asian British Indian and Asian or Asian British Pakistani, however there are stillbirths within the Black or Black British Caribbean and African ethnic groups year on year. Demographic data are not available to estimate the rates of stillbirth by live births or the rates of stillbirth by women of reproductive age. However as stated the Black or Black British Caribbean is only 3.7% of the population in Sandwell and therefore stillbirths as a subset of the population are high.

Table 4.4 Number of stillbirths by ethnic group (data suppressed for those in which the total is under 5)

Ethnic group	2011/2012	2012/2013	2013/2014*
Any other Asian	x		
Any other mixed	x		
Any other white			x
Asian or asian British – Bangladeshi	x	x	
Asian or asian British – Indian	7	5	5
Asian or asian British – Pakistani	5		4
Black or Black British - other		x	

Black or Black British – Caribbean	x	x	x
Black or Black British - African	x	x	x
Mixed White and Asian		x	
Mixed White and Black Caribbean		x	x
White British	22	10	12
Chinese	x		
Other		x	
Not know	x		
Total	44	26	26

Younger and older mothers

The age of the mother has a causal link to the risks of stillbirth or infant mortality, this is U –shaped effect in that the highest risk of infant mortality are seen in young women and the older age group. Data is available for England and Wales on mortality by maternal age for 2011, see see figure 4.20. This shows that rates of stillbirths and infant mortality are highest in those under 20 years of age and those over 40 years of age.

Many women are delaying having children until their late 30s. The older the woman at pregnancy the higher the risk of stillbirth[63], the causes of which are unclear, but has been proposed to be associated with the quality of the egg in older age groups.

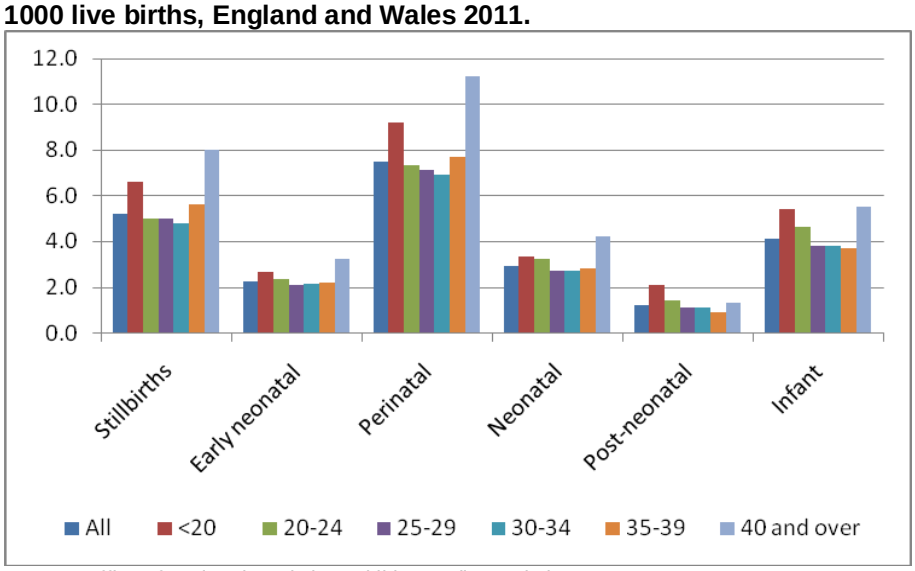
Low birth weight rather than spontaneous unknown causes is likely to be the cause of increase infant mortality linked to teenage parents[64] (low birth weight). The cause of low birth weight in this population group maybe linked to several factors in teen parents such as; poor nutrition, the likelihood of smoking, alcohol and drug use. In addition they may not be aware of their pregnancy and as such do not eat nutritional food accordingly.

Recent Sandwell data covering maternal age and perinatal or infant death is not currently available.

[63] L Huang, R Sauve, N Birkett, D Fergusson and CV Walraven Maternal age and risk of stillbirth: a systematic review, CMAJ. Jan 15, 2008; 178(2): 165–172.

[64] A Friede, W Baldwin, P H Rhodes, J W Buehler, L T Strauss, J C Smith, and C J Hogue Young maternal age and infant mortality: the role of low birth weight. Public Health Rep. 1987 Mar-Apr; 102(2): 192–199.

Figure 4.20: Rate of stillbirth, early, late and post neonatal deaths by age group per 1000 live births, England and Wales 2011.



Source: Office of National Statistics, Child mortality statistics 2011

4.4.1.2 Inherited Genetic conditions

A parent may carry a gene which may cause a disability or disorder in a newborn. This may increase the risk of stillbirth or may lead to the child being born with a disability. This is more likely to occur in pregnancies in which the parents have shared genetic backgrounds such as in consanguineous partnerships. Prospective parents who are aware of a generic disorder in their family or in their partner's family can receive counselling around options available to them to reduce the likelihood of transmission of such genes.

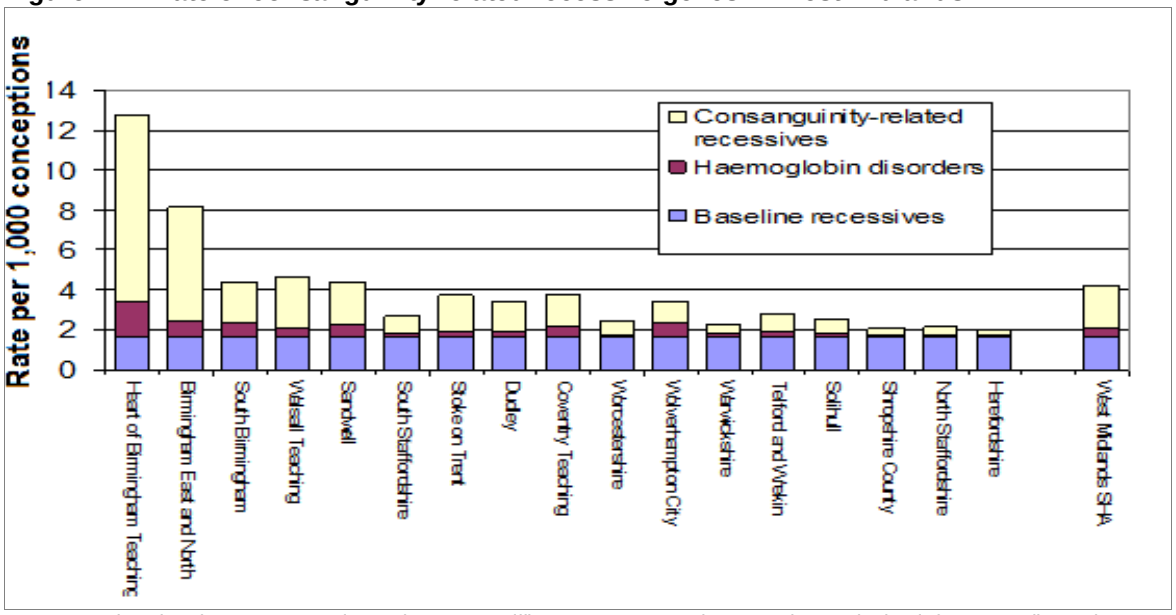
In 2009 Heart of Birmingham PCT looked at the rate of genes linked to consanguineous partnerships, see figure 4.21. This work showed that Sandwell has a rate of almost 2 per 1000 pregnancies which have recessive genes due to consanguinity. This is the fifth highest in the region. The embryo would need to inherit the recessive gene from each parent in order to express a disorder. Based on Mendelian genetics, there is a 1 in 4 chance that these pregnancies could result in genetic anomalies which could lead to stillbirth, neonatal death or congenital disability.

Services supporting genetic testing

There are genetics services which support the Sandwell and West Birmingham trusts. These services will cover all parents who wish to conceive or who are pregnant around possibility of inheriting

known specific conditions. However, broaching the topic of testing with regards to consanguinity is variable if at all.

Figure 4.21 Rate of consanguinity related recessive genes in West Midlands.



Source: Jacky Chambers, Tom Fowler and Annette Williamson. A targeted approach to reducing infant mortality and disability due to rare genetic recessive disorders in the Pakistani Community 2009.

4.4.1.3 Teratogens

Teratogens are substances, environmental agents or even viruses which interfere with the development of an embryo. If a new mother is exposed to teratogens during the early stages of pregnancy (first 3-9 weeks) this may cause birth structural defects in the central nervous system, vascular system or limbs of a growing embryo or fetus, see figure 4.22.
Teratogens include:

- Lifestyle related teratogens such as cocaine, alcohol, amphetamines, nicotine

- Infections such as rubella virus[65] (under 16 weeks) and Varicella zoster (chicken pox – 8-20 weeks).

- Medications such as acne drugs (Isotretinoin[66] and Accutane) and anti- epilepsy drugs (2-3 fold increase in

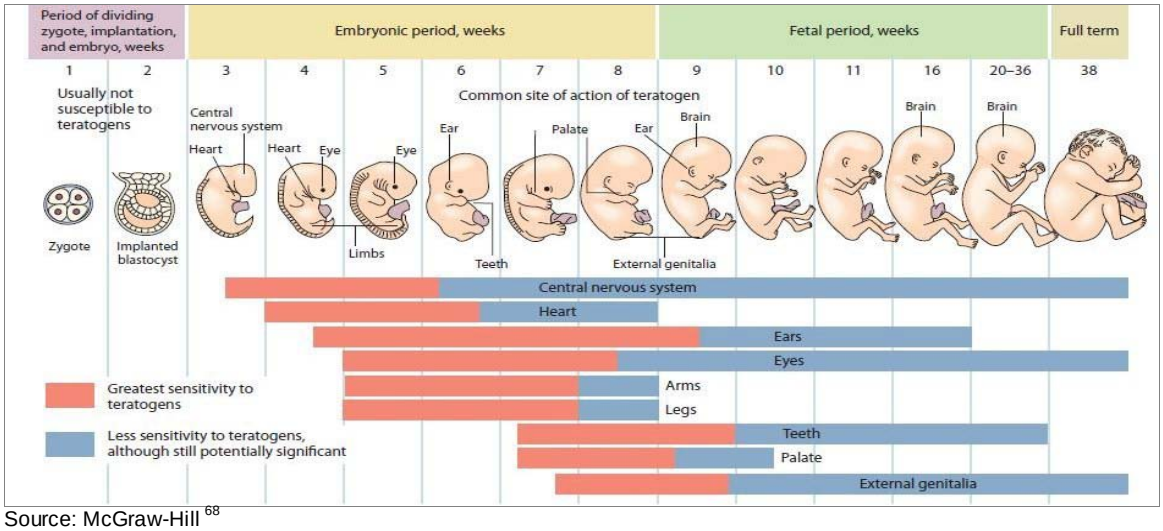
[65] Public health England. Guidance on Viral Rash in Pregnancy http://www.hpa.org.uk/webc/hpawebfile/hpaweb_c/1294740918985

[66] Isotretinoin: a newly recognized human teratogen. Morb Mortal Wkly Rep. 1984;33:171-173.

malformations[67]). Vitamin A is also teratogenic and liver and liver products should be avoided.

Effects of exposure to teratogens in later development are more likely to cause restricted growth or problems in organ function rather than structural damage.

Figure 4.22 Teratogens and the timing of their effects.



Source: McGraw-Hill [68]

Teratogens - Smoking in Pregnancy

Smoking during pregnancy causes up to 2,200 premature births, 5,000 miscarriages and 300 perinatal deaths every year in the UK [69]. It also increases the risk of developing a number of respiratory conditions; attention and hyperactivity difficulties; learning difficulties; problems of the ear, nose and throat; obesity; and diabetes[70].

Over 83,000 infants are born to smoking mothers each year in England[71]. Tragically, around 4000 births end in stillbirth and 3140

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[67] Carbamazepine in pregnancy. BMJ 2010; 341 December 2010

[68] Santrock, J.W. Http://answers.mheducation.com/psychology/branches/lifespan-psychology/prenatal-development-and-birth accessed March 2014

[69] NHS Information Centre for Health and Social Care, Chapter 11 tables: Infant Feeding Survey 2010. Available from: http://data.gov.uk/dataset/infant-feeding-survey-2010 [Last accessed 26.4.13]

[70] Royal College of Physicians, Passive smoking and children, London, Royal College of Physicians, 2010.

[71] NHS Information Centre for Health and Social Care, Chapter 11 tables: Infant Feeding Survey 2010. Available from: http://data.gov.uk/dataset/infant-feeding-survey-2010 [Last accessed 26.4.13]

are reported as infant death[72]. In Sandwell, rates of stillbirth and perinatal deaths are higher than our neighbouring authorities and than the rest of England and Wales, see figure 5.7.

As well as human costs, there are also financial ones. Treating mothers and their babies (0-12 months) with problems caused by smoking during pregnancy is estimated to cost the NHS between £20 million and £87.5 million each year[73].

In Sandwell both smoking prevalence and smoking in pregnancy rates are above the national average[74], see table 4.5. However, locally it is accepted that these figures are likely to be higher, due to inaccurate reporting practice.

Table 4.5: Percentage of Adult Smokers and Mothers Smoking in Pregnancy in Sandwell (Health Profiles 2012)

Indicator	Local Number Per Year	Local Value	England Average	England Worse
Smoking Prevalence (percentage of adults aged 18 and over, 2010/11)	n/a	21.3	20.7	33.5
Smoking in Pregnancy (percentage of mothers smoking in pregnancy where status is known, 2010/11)	716	15.8	13.7	32.7

Smoking rates not only vary by region but also by age and social group. In Sandwell, approximately 80 per cent of smokers are classified as 'routine and manual' workers. Pregnant women from unskilled occupation groups are five times more likely to smoke than professionals. Furthermore, infants born to smokers are much

[72] NHS Choices 23.2.2014. Available at:http://www.nhs.uk/Conditions/Sudden-infant-death-syndrome/Pages/Introduction.aspx & http://www.nhs.uk/conditions/stillbirth/pages/definition.aspx

[73] Godfrey C. et al., Estimating the costs to the NHS of smoking in pregnancy for pregnant women and infants, 2010. York: Department of Health Sciences, The University of York. Cited in NICE, Guidance aims to protect thousands of unborn babies and small children from tobacco harm'. Available from: http://www.nice.org.uk/

[74] Public Health Observatory Health Profiles 2013: Available from: http://www.apho.org.uk/resource/view.aspx?RID=116449

more likely to become smokers themselves, which perpetuates cycles of health inequalities[75].

Smoking in Pregnancy Data

There are two main data sources that provide information on the prevalence of smoking in pregnancy in England: Smoking At Time of Delivery (SATOD) and the Infant Feeding Survey (IFS). Previously, SATOD data has been collected from Primary Care Trusts by the Health and Social Care Information Centre and used to measure progress against the national ambition to reduce maternal smoking prevalence to 11% or less by the end of 2015[76]. However, the accuracy and completeness of these data vary [77], with many hospital trusts relying on self-reported smoking status, sometimes recorded months before the birth. This not only brings into doubt the validity of the data but also highlights that many trusts are not implementing the NICE guidance on smoking in pregnancy.

NICE guidance recommends that smoking status is collected and recorded, through discussion and Carbon Monoxide (CO) screening, at first maternity booking and subsequent appointments. CO screening is not only used to validate smoking status but is an important tool in identifying exposure to secondhand smoke and other sources of CO (such as through faulty gas appliances). Without this action, opportunities are not only missed to raise the issue of smoking and refer pregnant smokers to stop smoking services, but trusts are unable to monitor the impact they are having on reducing smoking in pregnancy rates. In order to collect these data, health professionals in maternity units are required to record the smoking status of every woman at the time of delivery[78].

In Sandwell, NICE guidance has not been implemented, so the data and the identification and referral of smokers are neither

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[75] Tobacco Advisory Group of the Royal College of Physicians, Nicotine addiction in Britain, London, Royal College of Physicians of London, 2000

[76] Department of Health, Healthy lives, healthy people: a tobacco control plan for England, London, Department of Health, 2011.

[77] McCullough, B. et al, Improving clinical practice by better use of data: smoking in pregnancy, 2003, British Journal of Midwifery, 21:2

[78] Smoking Cessation in Pregnancy: A call to action (2013). Available at: www.ash.org.uk/pregnancy2013

effective nor robust and opportunities to offer preventative services are missed.

Table 4.6: Sandwell SATOD Data 2009 – 2013

Year	Number of Maternities	Smoking at Booking	Smoking at Time of Delivery	Smoking Status Unknown	Percentage of Smokers (at delivery)
2009/10	2847	58	462	21	6.16
2010/11	2599	39	435	9	5.97
2011/12	2170	23	290	3	7.48
2012/13	2351	17	310	3	7.58

Service provision - Stop Smoking Services
There are several types of interventions available to aid pregnant smokers in stopping. These broadly fall into two main categories: pharmacotherapy (i.e. nicotine replacement therapy (NRT) and behavioural support 10. In Sandwell, both of these interventions are offered to pregnant smokers. However, the Stop Smoking Services are failing to achieve the local smoking in pregnancy targets due to inconsistent implementation of the NICE guidance. As a result referrals to the service have been very low.

Midwifes are fundamental in the identification and referral of pregnant smokers into the Stop Smoking Services.

A new concern is the use of E-Cigs as a smoking cessation device in pregnancy. E-Cigs are not currently supported or recommended by national smoking cessation services and it is not known if they are safe during pregnancy.

Service provision – support from midwives
New mums receive advice and information from their community midwives with regards to smoking. The NICE guidance suggests all women should be checked with C0 monitors as to their smoking status with an option to opt out. New mums who smoke are referred to smoking cessation services and monitored. The target is to achieve this for every new mum.

From 2013/2014 Sandwell Safeguarding Children team will collect data on sudden infant deaths in which smoking, alcohol and drug

use are a factor within the home, and this is to investigate the impact these factors have on neonatal and infant death.

Teratogens - Drugs and Alcohol in pregnancy
Drinking and taking drugs in pregnancy increases the risk of stillbirth and low birth weight. Between 2007-2011 there were 17 A&E admissions from nine pregnant women with a coding for alcohol use, which demonstrated a small group of women are putting their unborn child at risk from excessive alcohol consumption in pregnancy. There is likely to be a hidden problem of women who use alcohol excessively in pregnancy but do not use health services as a result.

There have only been two children in Sandwell from 2007-2011 which have been diagnosed with Fetal Alcohol Syndrome (FAS), however there is not the specialist knowledge or a policy to cover the assessment to diagnosis of FAS in Sandwell. Based on national estimates and local population figures it is estimated that in Sandwell there would be to be approximately 4 new cases of FAS per year.

Service provision.
Those who are identified as having alcohol or drugs issues are referred to the drugs and alcohol treatment provider in Sandwell. Women already supported by these services receive more attuned support when they wish to become pregnant or have become pregnant.

Although recorded in notes, data is not readily available to report the number of women who are referred to drug/ alcohol treatment services from midwifery and their birth outcomes.

Teratogens - Infections during pregnancy
Cases of congenital rubella have decreased steadily due to vaccination practices, in 2013 there was only one case of congenital rubella in England. Although maternal infections such as rubella virus, chicken pox and syphilis can damage a developing fetus, vaccination and antenatal screening programmes in the UK has meant that this is now rare.

4.5 Low Birth Weight and Fetal Growth Restriction

Low birth weight (LBW) is defined as births under 2,500 gm, under 1,500 gm is defined as very low, and under 1,000gm is defined as extreme.

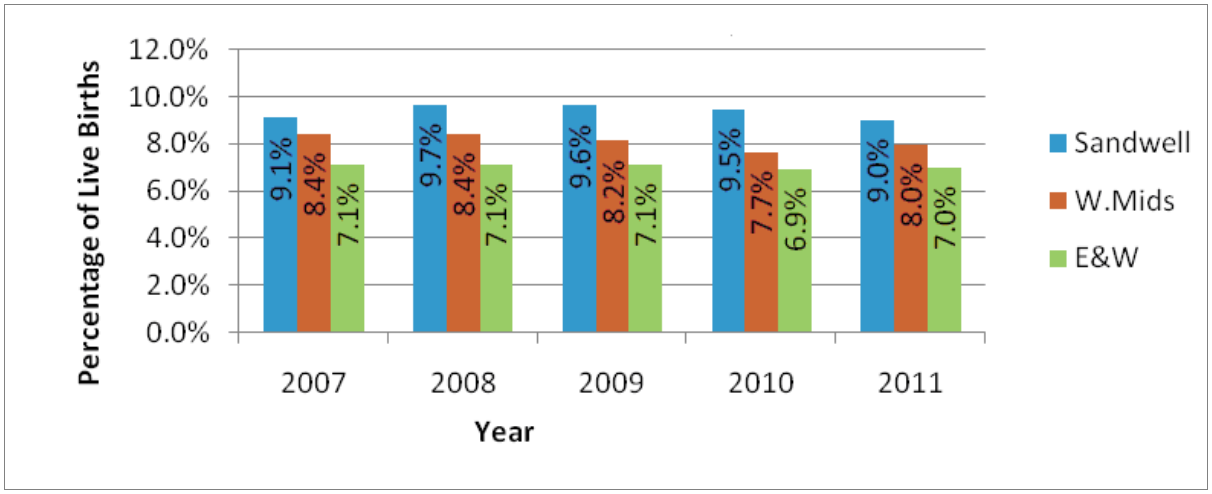
Low birth weight can be a contributing aspect of infant morbidity and has serious consequences for health in later life. Social and health inequalities have an impact on birth weight and these inequalities are likely to affect childhood and adult health inequalities in the future.

Low birth weight is related to gestational ages although the two are not interchangeable. Babies born preterm are more likely to be smaller due to a lack of development in the womb; these will also have health concerns due to the immaturity of their organs. New borns who are small for their gestational age may have underlying causes of poor growth such as congenital anomalies, fetal growth restriction, infections and maternal factors such as poor nutrition, diabetes, alcohol or drug abuse, smoking or exposure to environmental pollutants.

Teen parents are more likely to give birth to babies of low birth weight, the cause of which maybe linked to several factors in teen parents such as; poor nutrition, the likelihood of smoking, alcohol and drug use. In addition they may not be aware of their pregnancy and as such do not eat nutritional food accordingly.

From vital statistics in 2011 the number of live births by birth weight can be reviewed, see figure 4.23. Although the proportions of live births which are of low birth weight are almost static over the past five years, Sandwell still experiences a higher proportion than the West Midlands and England.

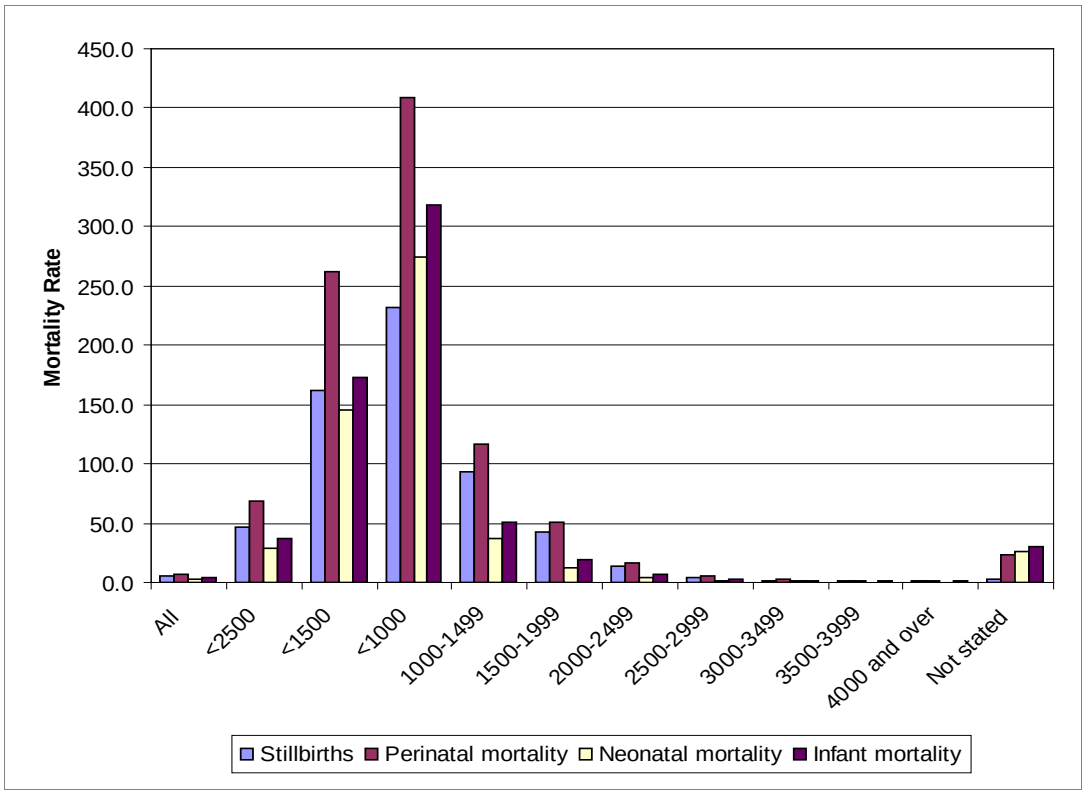
Figure 4.23: Percentage of live births by weight, Sandwell, West Midlands, England and Wales 2011



Source: Vital Statistics 2011

The same data are available on birth outcomes by weight at birth, see figure 4.24. In England and Wales infant mortality overall is highest in those born under 1000 grams, out of a 1000 births in this weight category approximately a third does not survive past the first year. If the new born weighs just 500 grams more the death rate almost halves.

Figure 4.24: England and Wales Rates of stillbirths and infant mortality: by birth weight 2011

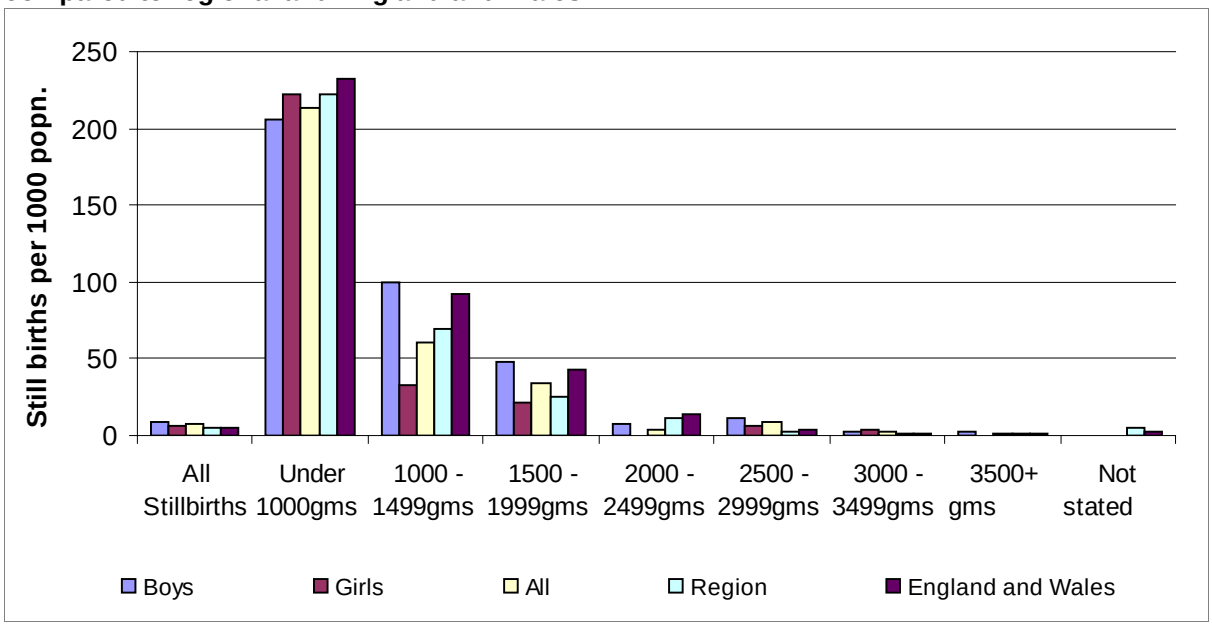


Source: ONS data 2011

Vital statistics for Sandwell, West Midlands and England and Wales show stillbirths by fetal weight, see figure 4.25. Most stillbirths are under 1000g. Sandwell has a lower proportion of underweight stillbirths compared to the region and England and Wales for births under 1000gms and 1000-1499gms.

There are a slightly higher proportion of stillbirths in girls than boys under 1000g but a much higher proportion of stillbirths in boys than girls who are 1000-1499gms and 1500-1999gms. The rate of stillbirths in males in these two weight categories is a lot higher than the average rate in Sandwell, and higher than the data in England and Wales.

Figure 4.25: Proportion of all Stillbirths by weight in boys and girls, Sandwell compared to regional and England and Wales.



Source: Vital Statistics 2011

The number of babies born with a birth weight below 2500g in Sandwell in 2012, see table 4.7. Although the overall proportion is 8.8% for Sandwell, in some towns, the proportion is higher. Wednesbury has the lowest proportion (7.6%) of low birth weighted babies and Tipton has the highest (9.4%).

Table 4.7: 2012 Low Birth Weight by Sandwell Towns

Town	LBW	All Births	% LBW
Oldbury	75	805	9.3%
Rowley Regis	67	772	8.7%
Smethwick	103	1146	9.0%
Tipton	70	745	9.4%
Wednesbury	41	536	7.6%
West Bromwich	99	1141	8.7%
Grand Total	**455**	**5145**	**8.8%**

Source: Maternity data 2012

If the levels of low birth weight continue at approximately 9%, as the number of babies born increase as statistics predict, there will be an absolute increase in numbers of children who are at risk of poor health and social outcomes. Based on current live births and projections, it could be expected that by 2015, Sandwell could potentially have 2,803 children aged 0-5 that have outcomes associated with low birth weight.

This will have implications for:

- Paediatric and neonatal services
- Social care services
- Specialist Educational Needs (SEN)
- Increased pressure on continuing care

Poor nutrition

Nutrition is the largest environmental influence on the developing fetus. It plays a vital role in the development and the growth of a fetus which can be irreversibly stunted by a lack of nutrients[79]. The key dietary needs whilst pregnant and impacts are summarised below[80]:

- The most vital is folic acid, promoting its use in early conception has lead to a decrease in neural tube defects such as spinal bifida[81].

[79] RCOG. The Investigation and Management of the Small–for–Gestational–Age Fetus2nd Edition. Green–top Guideline No. 31. February 2013

[80] Barker, D. The malnourished baby and infant Relationship with Type 2 diabetes. *Br Med Bull (2001) 60 (1): 69-88. http://bmb.oxfordjournals.org/content/60/1/69.full accessed March 2014*

- Lack of nutrients at conception can lead to a smaller initial mass of cells which is associated with lower birth weight[82]

- Protein malnutrition affects the brain, stunting growth at vital stages. The proteins develop the neural pathways, a lack of which can lead to a decline in mental assertion and engagement in childhood.

- Overall slowing of growth due to a lack of availability of nutrients, this can cause slow development of organs. Leading to disproportionate organ size depending on the stages of malnutrition e.g. malnutrition in late pregnancy will affect the kidneys. Severely slow growth rate may cause redistribution of blood vessels to favour the brain, impacting on development of other organs.

Overall under nutrition in the three stages of pregnancy have various effects:

- Early pregnancy: Reduction in growth occurs to reduce need for nutrition. When a fetus implants the fetus moves from glutamine to glucose based metabolism, therefore low glucose at this stage can reduce growth.

- Mid pregnancy: in severe under nutrition growth of the fetus is restricted, in mild under nutrition it is just the fetus which stops growing as fetal growth is sacrificed to maintain healthy connection with the placenta.

- Late pregnancy: under nutrition at this state reduces growth but growth will return once nutrients increase. However, prolonged under nutrition leads to irreversible reduction in growth

Fetal Growth restriction

There are many possible causes of growth restriction ranging from placenta condition to maternal illness but in many cases the

[81] Blencowe, H, Cousens, S, Modell B and Lawn J. Folic acid to reduce neonatal mortality from neural tube disorders. Int. J. Epidemiol. (2010) 39 (suppl 1): i110-i121.

[82] RCOG. The Investigation and Management of the Small–for–Gestational–Age Fetus2nd Edition. Green–top Guideline No. 31. February 2013

underlying cause is unknown. With growth restriction some such causes may be:

- Maternal illnesses such as diabetes, preeclampsia and high blood pressure can reduce the nutrients the fetus receives from the mother.

- Environmental pollutants and smoking

- High glucose concentrations found with maternal diabetes delay embryonic growth at initially states but accelerate them later in pregnancy.

- Severe renal impairment, hypertension and certain types of congenital hearth disease are associated with increased small for gestational age neonates, however the Odds rations are not well reported[83].

- Stress and depression can also have the impact on the growth of the fetus, women who have experienced physical abuse or extreme situations whilst pregnant release specific factors into the blood which reduce fetal growth[84].

In 2009 the Perinatal Institute[85] put forward a regional strategy for detecting Fetal growth Restriction (FGR). The timely detection of which enabled better planning and support at delivery.
The Growth Restriction Intervention Trial (GRIT) compared the effect of delivering a fetus displaying restricted growth early (after completion of a steroid course to help mature the fetus lungs) and delaying the birth for as long as possible. There was no difference in the number of deaths prior to discharge. From this study we can infer that fetuses showing poor development were being delivered at the right time. After two years the rates of death or severe disability were similar. This was further supported in a later study

[83] RCOG. The Investigation and Management of the Small–for–Gestational–Age Fetus2nd Edition. Green–top Guideline No. 31. February 2013

[84] Monk, C. (2001). Stress and mood disorders during pregnancy: Implications for child development. *Psychiatric Quarterly*, 72(4), 347-357.

[85] Perintal institute. Detection of fetal growth restriction (FGR) Jan 2009
http://www.pi.nhs.uk/growth/detection_of_fetal_growth_restriction.pdf

which reviewed the induced verses unassisted labour[86], which showed no important differences in adverse outcomes between inductions of labour and expectant monitoring.

Service provision
Within Sandwell there is debate over the best course of action for a child that is failing to thrive in the womb the options are to deliver or to allow the pregnancy to progress and monitor the situation.

As seen in the GRIT study, if the fetus is closely monitored and delivered prior to signs of fetal decline then a pregnancy can continue without harm to the fetus. This may give the fetus time to fully develop.
However, the concern is whether on discovery of FGR that a fetus is delivered without this consideration which may ultimately increase perinatal mortality rates.

Other issues regarding growth: Large for gestational age
For completeness babies who are large for gestational age are also at a higher risk of perinatal mortality. Macrosomia babies or those with a birth weight greater than 4500 g are associated with increased risks of perinatal and infant mortality and morbidity[87], those with a birth weight greater than 5000 g are at a even greater risk

As already discussed women with gestational diabetes are more likely to have larger babies as an increase in available glucose in late stage pregnancy increases growth of the fetus. However among women with both normal and abnormal (gestational diabetes), increasing level of maternal glucose is linearly related to macrosomia risk, therefore women without diabetes but have excessive weight gain or obesity also have a higher risk of a baby who is large for gestational age.

A high risk factor for perinatal death is a lack of antenatal detection of fetal growth restriction and maternal support to prevent deaths[88].

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[86].K E Boers, S Vijgen, D Bijlenga, et al. Induction versus expectant monitoring for intrauterine growth restriction at term: randomised equivalence trial (DIGITAT). BMJ. 2010; 341. Dec 21, 2010

[87] Zhang, X, Decker A, Platt, R, Krammer, M. How big is too big? The perinatal consequences of fetal macrosomia. American Journal of Obstetrics and Gynecology. 198, (5) 2008.

[88] Gardosi, J, Madurasinghe, V, Malik, A, Francis, A. Maternal and fetal risk factors for stillbirth: population based study. BMJ 2013; 346

New mums receive advice and information from their community midwives with regards to weight. Women with extreme weight issues may be referred to slim well, however the service is reported to be patchy

4.6 Preterm birth

Preterm deliveries are those that occur at less than 37 weeks' gestational age. Babies born before their organs have the chance to fully mature have a lower chance of survival than those who are born on or after this time. The causes of preterm birth are unclear and as a result factors associated with the occurrence of preterm birth rather than causal mechanisms are used to identify pregnant women, who may be at risk. These risk factors are[89]:

- In the UK, women classified as black African and Afro-Caribbean are consistently reported to be at higher risk of preterm delivery: preterm birth rates are in the range of 16–18% in black women compared with 5–9% for white women, the disparity in preterm birth rates between black and white women has remained largely unchanged and unexplained.

- Working long hours and undertaking hard physical labour under stressful conditions are has some association with an increase in preterm birth.

- There is a raised risk of preterm birth in pregnancies arising within close temporal proximity to a previous delivery. An interpregnancy interval of less than 6 months confers a greater than two-fold increased risk of preterm birth after adjustment for confounding variables.

- Nutrition is a risk factor, women who have a low intake of nutrients can reduce fetal growth which may lead to weakness of the placenta and a preterm birth as a result.

- Women who are obese have a higher risk of congenital defects due to poor quality diet which may also lead to a spontaneous or elective preterm birth.

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[89] Goldenberg, R, Culhane, J, Iams, J, Romero R. Epidemiology and causes of preterm birth. Lancet

2008; 371: 75–84

- Having multiple babies can lead to a preterm birth.

- Having a previous preterm birth can increase the likelihood of another preterm birth.

- Mothers experiencing high levels of psychological or social stress are at increased risk of preterm birth even after adjustment for the effects of sociodemographic, medical, and behavioural risk factor. However, it has been noted that housing instability and severe hardship is amongst these risk factors.

- Tobacco use increases the risk of preterm birth (<2–fold) after adjustment for other factors. The mechanism is unknown, and there are many chemicals in cigarette smoke which have potential toxic effects on the unborn fetus, but what is know of both nicotine and carbon monoxide is that they are powerful vasoconstrictors, and therefore are associated with placental damage and decreased uteroplacental blood flow. Smoking is also associated with a systemic inflammatory response which can stimulate this casual pathway.

- Intrauterine infection is a frequent and important mechanism leading to preterm birth. Microbiological studies suggest that intrauterine infection might account for 25–40% of preterm births. Although the mechanism by which an infection can lead to preterm birth is understood, this does not occur due to maternal immune response also being an important variable. Women with Bacterial Vaginosis (BV) have a higher risk of intrauterine infection, incidentally bacterial vaginosis is three times more likely in ethnically black women than white women the UK, and this difference might help explain 50% of the excess preterm births in black women. It is not recommended by NICE that women are screened for asymptomatic BV but the guidance supports that the presence of BV does increase the risk of preterm birth.

4.7 Conclusion

The rate of Stillbirths and early neonatal deaths are much higher in Sandwell than the region and significantly higher than England and Wales.

The main causes of death that have been identified are fetal growth restriction, being born before a point of gestation where the organs have been able to develop and congenital anomalies. These are followed by suffocation in the womb or during birth.

Underlying all of these causes of death are mostly lifestyle factors, most notably smoking and diet. It is smoking and diet which can interfere with the development of the fetus, stunting growth and obstructing the connection to the placenta.

The first contact with a healthcare professional pre or post conception but before ten weeks of fetal development is the most vital stage to inform the new mum of ways in which to reduce the likelihood of congenital anomalies and ensuring healthy growth of their new born. The quality of information and support provided by healthcare professionals either at preconception or in early pregnancy is vital to reduce risky behaviours

However, this first contact may occur many weeks into the pregnancy missing the vital stages all together. The population of reproductive age, as a whole, needs education and awareness of the impacts of smoking, alcohol use, drug use and poor nutrition on a developing fetus.

4.8 Recommendations

4.8.1 Data requirement

Data on maternal outcomes

The largest concern for addressing infant and perinatal mortality in Sandwell is the availability of data regionally and locally on the cause of death by development stage. This is vital to understand the current situation. Currently available data sources are not complete or are not a viable solution to provide such data.

An accurate, timely and consistent source of data is needed. In addition comparator data is also vital to assess whether rates are

higher in Sandwell than other areas, especially due to the rates in West Midlands being higher than England.

These data would need to include: Fetal factors such as age of gestation, cause of death, weight and material factors such as ethnic group, age of mother and maternal factors such smoking status and alcohol use.

The maternity services at Sandwell and West Birmingham Trust are have installed a new data collection and reporting system. Public Health is working with the CCG to ensure reporting of maternity data to Public Health in the maternity contract from 2014 onwards.

Data on Stop Smoking services
Local commissioning arrangements to include a requirement in service specifications that smoking status is collected at booking visit and throughout pregnancy and is recorded accurately and validated using CO screening. All those with a positive reading should be referred to smoking cessation services.

4.8.2 Improving outcomes for all births

Services which support women of reproductive age, trying to conceive or those who are pregnant need to be informed of lifestyle behaviours and exposure which could harm their developing fetus within the first 9 weeks from conception. This is to ensure they are aware of the right behaviours and best services available to support them appropriately.

Ensuring that all new mums regardless of language or ethnicity have access to information and support on staying healthy pre conception, conception and during pregnancy to reduce risk to their unborn child.

In addition, population groups which have been identified to have higher proportions of Perinatal or infant mortality to receive more intensified support and targeted information provision such as ethnic groups, Teenage pregnancies or women of older age.

4.8.3 Smoking

Smoking during pregnancy is a key area to improving outcomes. There are key recommendations around services and support for smoking cessation.

Data Collection - Local commissioning arrangements to include a requirement in service specifications that smoking status is collected at booking visit and throughout pregnancy and is recorded accurately and validated using CO screening. All those with a positive reading should be referred to smoking cessation service.

Audit and report compliance with NICE Guidance - Ensure that services comply with the NICE guidance around smoking cessation to prevent low birth weight in pregnancy

Identifying and Referring Smokers - CCG and Local Authority to work in partnership to ensure that there is an effective and robust referral pathway for pregnant smokers. Include in service specifications that midwifes discuss smoking status at booking with all women and that all woman are screened for CO. Provision of CO monitors for all midwifes and clear procedures for training of staff. For all women with a CO score of 4 or higher, a referral should be made to the local stop smoking service.

Local Stop Smoking Services - Local authority commissioners and stop smoking services should ensure there is sufficient expertise to meet the needs of pregnant smokers.

4.8.4 Preventing Congenital anomalies

Those who are aware that they have a genetic condition or that a genetic condition runs in their family require specialist advice around support available to them and their options, in addition to families in which consanguinity is common practice.

Targeted support for those groups who are at higher risk of congenital anomalies such as women over 40 and of the black Caribbean or black African ethnic groups.

Ensuring compliance NICE Recommendations on screening for fetal anomalies[90]

[90] NICE. Antenatal care routine care for the healthy pregnant woman. Clinical Guideline. 2008 Page 154.

Continue to ensure women are aware of the harms of alcohol and drug use whilst trying to conceive and during pregnancy. Ensure that populations who are at risk of drugs or alcohol use during pregnancy and targeted with information and support to prevent use during conception and pregnancy. Finally, improve recording and reporting of information around drug and alcohol use during pregnancy and its impact on the outcome of the child.

All women should be asked about their drug and alcohol use, women who are identified as using alcohol or drugs should be refereed to support services but also followed up by the midwife.

4.8.5 Preventing low birth weight and growth restriction

Ensure that all services comply with guidance and support new mums regarding awareness of good nutrition in pregnancy, smoking, drug and alcohol use.

All women should be assessed as NICE guidance as to their risk of low birth weight or growth restriction. Those found to be at risk require appropriate monitoring regarding the development of the fetus which can impact on the potential delivery date. There is a need to review the current evidence and practice following identification of FGR.

Raising awareness of social and economic factors: such as stress and domestic violence or other abuse.

4.8.6 Preventing preterm birth.

There is little evidence regarding what is effective in preventing a premature birth but factors involved in ensuring a healthy pregnancy are also the factors associated with reducing risk for a premature birth. Therefore if the fetus has the right nutrition, low exposure to teratogens such as smoking and is growing healthily due to good bonding to the mother via the placenta then this increases the likelihood of a healthy gestation time to birth.