Under-18 conceptions in the Lancashire sub-region

2011/12

Intelligence for Healthy Lancashire (JSNA)

NHS Central Lancashire | NHS East Lancashire | NHS North Lancashire | NHS Blackburn with Darwen | NHS Blackpool

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Executive Summary

This report has been written by a multi-agency, multi-disciplinary group as part of the needs assessment process that is being used to inform further development of strategies to tackle under-18 conceptions across Lancashire, including Blackburn with Darwen and Blackpool unitary authorities. It also serves to fulfil one of the recommendations made to Lancashire by the National Support Team for Teenage Pregnancy following their visit in late 2010.

The Objectives

The objectives were to:

- Measure the extent to which documented risk factors for under-18 conceptions play into under-18 conception rates in Lancashire.
- Understand how under-18 conception rates vary by locality, for example by Primary Care Trust and district.
- Focus on prevention.
- Consult with young people and their parents/carers about their needs and what's driving them.

The Methodology

Working from the Lancashire Joint Strategic Needs Assessment (JSNA), there were two elements to the project:

1. Quantitative analysis of national and local data relevant to under-18 conceptions, including health data, social care data and a range of other data sources relevant to known wider determinants of under-18 conceptions. This was broken down into:

    a. Under-18 conceptions analysis.

    b. Known pregnant teens and teenage mother's analysis.

    c. Risk factor analysis.

    d. Sexual health service mapping.

2. Qualitative “insight” work (commissioned by NHS Central Lancashire and delivered by The Hub) with “at risk” young women and their mothers/carers drawn from wards with consistently high rates of under-18 conceptions (or “hotspots”) using focus groups.

The Context

Tackling under-18 conceptions is complex. The determinants of under-18 conception are many. To ensure positive progress in tackling under-18 conceptions against the conception rate target a "joined up" response that is reflective of the range of determinants is required.

Lancashire has made limited progress against the under-18 conception rate since the baseline year of 1998. Within Lancashire there is variation in performance at the district level with just under half showing a statistical reduction in rates, and one district, South Ribble, displaying a significant increase. Most districts have also experienced an increase in the percentage of conceptions leading to termination, potentially indicating an increase in risk taking behaviour.

There is clear commitment and enthusiasm from partner agencies to improve performance. This report supports the need to continue to adopt a well co-ordinated and strategic approach that is systematic in its application of interventions and ensures interventions are proportionate to the identified level of need.

Agencies working to improve the health and wellbeing outcomes of children and young people across Lancashire, including outcomes relating to sexual health, are committed to working together to accelerate progress against the conception rate and improve the sexual health of children and young people in Lancashire. They are committed to the ethos of this approach and, with the current economic climate in mind, are keen to work more collaboratively with better identification and use of community assets. This will help to achieve efficiencies across the partnership, achieving a more integrated approach that is focussed on reducing conceptions to under-18s and improves support to those that continue in their pregnancies.

The Evidence

Factors associated with under-18 conceptions are many. It is widely documented that these factors are seen to cluster in individuals, peer groups, families or communities, thus multiplying the level of risk. It is important to acknowledge that some under-18 conceptions are intended. However, under-18 conceptions are associated with higher rates of terminations and “unwanted” conceptions than other age groups.

Teenage parents tend to have worse health in pregnancy, poorer outcomes for their children and a higher infant mortality rate. They are more likely to smoke in pregnancy, have lower birth-weight babies and are less likely to breastfeed. They are more likely to live in deprived circumstances, be unemployed and have lower educational attainment than their peers.

Some of the factors associated with under-18 conceptions are summarised in the table below. This report has worked to try and identify the extent to which these risk factors are prevalent in Lancashire under-18 conceptions. This will improve understanding of the causes of under-18 conception locally and in turn allow for greater sophistication in the tailoring and targeting of interventions locally.

Table 1 - Ecological framework for risks associated with under-18 conceptions

Individual	Family	Educational	Community	Socio-economic	Health-services
Knowledge Self-esteem Skills (negotiation) Ethnicity (e.g. Afro-Caribbean) Substance misuse Sexual behaviour	Child of a teen parent Parent/child communication Looked after children	Academic attainment/ school exclusion Sex and relationships education (SRE)	Cultural influences Media/peer influences Child abuse	Deprivation Employment prospects	Awareness, availability and access to services (contraception, abortion)

Source: SEU (1999), HDA (2003)

The Findings

Headline findings from the quantitative analysis were:

- There has been some limited progress in reducing the under-18 conception rate in three upper tier local authorities, with none on track to meet the 2010 target of a 50% reduction from the baseline year of 1998.
- There are definite geographical differences to the changing pattern of under-18 conceptions across Lancashire, with rates worsening in central parts and improving around the periphery.
- In most districts under-18 conceptions are more likely to end in a birth than an abortion, although in most districts the numbers of conceptions leading to abortion are increasing and maternities decreasing.

- There are three wards across Lancashire that show a statistically significant reduction in the under-18 conception rate.

- There are no wards across Lancashire that show a statistically significant increase in the under-18 conception rate.

- Across the sub-region there is a definite positive correlation between deprivation (as measured by the Index of Multiple Deprivation 2007) and under 18 conceptions. (Pearson's r. = 0.7).

- Teenage mothers in Burnley and Preston were most likely not to have any qualifications – almost 90% of the sample in each district did not have any qualifications.

- Teenage mothers and pregnant teens in the sub region are most likely to come from MOSAIC household groups I, lower income workers in urban terraces in often diverse areas, and O, families in low rise social housing with high levels of benefit need.

- We have identified 25 wards across the sub region which are not currently under 18 conceptions hotspots but where high levels of multiple risk factors are present. These areas are at risk of becoming under 18 conceptions hotspots if early interventions are not put in place.

- Many of the sexual health services which exist already appear to be well placed to serve those teenagers with the highest risk of conception, however some services appear to be located quite far away from teenage conceptions hotspot areas, which may limit their use to those with the highest need, especially when we consider that most of the population at risk may only walk or use public transport to access them.

Headline findings from the qualitative work were:

- Sexual interest and sexual activity starts early and in advance of some key information being provided that would support young people to make a more informed choice.

- Parents do influence their children but not as much as peers and boyfriends, although there was evidence to suggest that the influence of parents on young people's attitudes and behaviours related to sexual health could be developed

- Parents lack a protocol for discussing sex and relationships with their children.
- Existing services focus on practical help and assistance and are more limited in their offer around emotional support and support for younger teens, parents and carers.

The Recommendations

The recommendations are drawn from the needs assessment analysis and also take account of the recommendations made to Lancashire by the National Support Team for Teenage Pregnancy. The recommendations are to:

- Ensure active engagement of all key mainstream delivery partners for reducing under-18 conceptions;
- Nominate a senior champion who is accountable for and provides the lead in driving the local strategy;
- Ensure the availability of well publicised young people-centred contraceptive and sexual health advice services, These need to have a strong remit to undertake preventative and early intervention work, as well as delivering reactive services
- Give a high priority to PSHE in schools, with support from the local authority to develop comprehensive programmes of sex and relationships education (SRE) in all education settings
- Ensure a strong focus on targeted interventions with young people at greatest risk of under-18 conceptions, in particular with Looked After Children;
- Encourage availability and consistent take-up of SRE training for professionals in partner organisations who work with young people, particularly those most at risk and include: , targeted youth support (TYS) lead professionals, youth workers and social workers
- Ensure a well resourced Youth Service, providing things to do and places to go for young people, with a clear focus on addressing key social issues affecting young people, such as sexual health and substance misuse.
- Mainstream under-18 conceptions/young people's sexual health agenda within local Children & Young People Plans.

Those areas with the greatest success in reducing under-18 conceptions confirmed the evidence base for the strategy. Using the analysis contained within this report, the teenage pregnancy national support team recommendations and the evidence from national strategies, a series of recommendations have been developed in order to make a lasting and positive impact on under-18 conceptions rates. These are split into enabling actions that all key mainstream delivery partners should commit to and partner specific recommendations where it is seen that a partner organisation has a defined role to play.

Enabling recommendations

- Develop an approach which is integrated between sexual health and substance misuse;
- Key mainstream partners to work together to ensure local relevant data is being effectively captured, collated, analysed and disseminated to inform commissioning and to better performance manage local programmes focussed on improving the sexual health of children and young people;
- Develop a performance dashboard able to effectively monitor implementation of local programmes aimed at improving the sexual health of children and young people;
- All organisations with a role in delivering services to children and young people in Lancashire should ensure that their staff are able to sensitively respond to children and young people about sexual health and signpost them to relevant services;
- To support this, a Lancashire-wide training programme around sexual health and substance misuse should be developed and implemented for anyone who is working with children, young people and their families;
- That future commissioning of contraceptive and sexual health services uses a collaborative approach between the NHS and Local Authorities to form an effective sexual health system;
- Develop a comprehensive marketing and communications plan that covers the breadth of the strategy;
- Develop an approach / programme that support parents/carers to become more confident at talking with their children about sex and relationships that is then consistently delivered through mainstream delivery partners.

In addition a more detailed set of recommendations are provided by partner agency.

The Next Steps

This work will be presented to the appropriate teenage pregnancy boards across Lancashire who in turn will take responsibility for agreeing how to progress the recommendations and will monitor progress against them. Ultimate accountability rests with the respective Children's Trusts.

A further piece of work will be considered to assess the scale of health inequality issues for young parents and their children that will feed into the supporting young parents agenda and the infant mortality agenda.

Introduction and methodology

Introduction

Under-18 conceptions are strongly associated with the most deprived and socially excluded young people. The majority of teenage parents and their children live in deprived areas and often have multiple risk factors for poverty, experiencing poorer social and economic outcomes. Moreover, teenagers who become pregnant are more likely to be excluded from school, leading to lower educational attainment and no, or low-paying insecure jobs without training.[1]

As a consequence, evidence clearly shows that having children at a young age is associated with poorer health and wellbeing outcomes for mother and child and can limit their future education and career prospects.

Teenage mothers are less likely to breast feed or be in work or a stable relationship. There is evidence of a strong intergenerational aspect to under-18 conceptions with the children of teenage parents being more likely to become teenage parents themselves, continuing the cycle of poor outcomes. The facts are stark:[2]

- At age 30, teenage mothers are 22% more likely to be living in poverty than mothers giving birth aged 24 or over, and are much less likely to be employed or living with a partner
- Teenage mothers are 20% more likely to have no qualification at age 30 than mothers giving birth at age 24 or over
- Teenage mothers are more likely to partner with men who are poorly qualified and more likely to experience unemployment
- Teenage mothers have three times the rate of post natal depression of older mothers and a higher risk of poor mental health for three years after the birth
- The infant mortality rate for babies born to teenage mothers is 60% higher than for babies born to older mothers

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[1] Department of Health (2010) Aspects of Child Poverty: Reducing teenage conceptions and supporting teenage parents Briefing Paper
[2] Department For Education and Schools (2006)

- Teenage mothers are three times more likely to smoke throughout their pregnancy and 50% less likely to breastfeed than other mothers – with negative health consequences for the child

- Children of teenage mothers have a 63% increased risk of being born into poverty compared to babies born to mothers in their twenties, have higher mortality rates under 8 and are more likely to have accidents and behavioural problems

- Among the most vulnerable girls, the risk of becoming a teenage mother before the age of 20 is nearly one in three

The importance of the under-18 conception agenda is recognised by the Intelligence for Healthy Lancashire group, a partnership group that delivers the Lancashire JSNA with intelligence leads from the three Lancashire Primary Care Trusts (PCTs), Lancashire County Council, the Lancashire district councils and voluntary, community and faith sector, working together with intelligence leads from the PCTs and councils of Blackburn with Darwen and Blackpool. As a result they agreed to support a major needs assessment on the topic. The assessment is being delivered by a multi-agency, multi-disciplinary project team involving teenage pregnancy leads, public health leads, commissioners, and intelligence representatives from social care and NHS organisations in the Lancashire sub-region. The objectives of the needs assessment were:

- To measure the extent to which the documented risk factors for under 18 conceptions play into conception rates in Lancashire

- To understand the variability by localities – PCT and district

- To focus on prevention with a second phase of additional health inequality issues

- To consult with young people and their parents/ carers about their attitudes towards sexual health and the drivers behind them – reporting back on the central Lancashire insight work that was commissioned in wards with high rates of under-18 conceptions

The needs assessment aimed to have the following impacts:

- Through detailed analysis, identify gaps in provision that will inform the commissioning process

- Facilitate the targeting of resources to areas of highest conceptions

- Provide an overview of the characteristics of key target populations in geographical areas to facilitate the targeting of media and communications campaigns
- Help partners across the county develop a better understanding of the key issues relating to under-18 conceptions in Lancashire.
- Highlight areas in which partners can work together to provide enhanced provision around young people's sexual health.

Methodology

Although this is an analysis stemming from the Lancashire JSNA, which is developed on the county footprint, the decision was taken to work together with Blackburn with Darwen and Blackpool local authorities and PCTs to conduct a comprehensive analysis for the Lancashire sub-region.

Under 18 conceptions analysis

A broad analysis has been undertaken of the under-18 conceptions data since the start of the Teenage Pregnancy Strategy in 1998. The district level analysis in particular has focused on the changes in the rates of under-18 conceptions over the length of that strategy. The primary analysis has been to consider the statistically significant changes over the period from 1998-00 to 2008-10. In addition, the project team has considered changes in the numbers of conceptions against population changes and changes in the outcomes of conceptions (those leading to abortion as opposed to live births) over time. Data on outcomes during 2008-10 were not available at the time of publication so the outcomes from the 2007-09 dataset were used.

Ward level rates allow a more detailed analysis and allow for the identification of ‘hotspots’, which can be used to target interventions. There are several ways to measure whether a geographical area, such as a ward, is a 'hotspot' for under-18 conceptions. Three methods are presented here:

- Firstly, the national Teenage Pregnancy Unit each year identifies hotspot wards as those for which the under-18 conception rate is ranked within the highest 20% nationally. As such they are considered a 'hotspot' ward for under-18 conceptions. This measure takes no account of statistical significance, which can mean that wards with rates subject to a large degree of variation (wide confidence intervals) may be considered a 'hotspot' despite having a low number of under-18 conceptions. It identifies hotspots each year using one year's data.

- Secondly, in the non-statutory guidance report, 'Teenage Pregnancy: Accelerating the Strategy to 2010', a 'hotspot' is defined as a ward where more than 6% of girls age 15-17 become pregnant. This is a valid measure as virtually every local authority in England has wards with such rates, giving them all the opportunity to target the identified neighbourhoods.

- Thirdly, and considered the most accurate measure, is to define a 'hotspot' as an area with under-18 conception rates which have been significantly higher statistically than the national average for three consecutive periods, using statistical techniques to calculate confidence intervals. This means that, accounting for variation caused by random chance alone (which is large for many of the rates calculated in this needs assessment, due to the low numbers of actual under-18 conceptions), the real risk within that population is most likely higher than the national average. As the latest data is for 2006-08, the rates of under-18 conceptions would have to be statistically higher than the national average in 2004-06, 2005-07 and 2006-08 to be considered a 'hotspot'

For the purposes of this report, the focus is on statistically significant hotspots (method 3), with some consideration also given to those areas defined as hotspots according to the national Teenage Pregnancy Unit as this is the measure widely used by teenage pregnancy leads. In this report we are looking at those defined as a national Teenage Pregnancy Unit hotspot (method 1) for the latest three consecutive years (as with the statistically significant hotspots or method 3). We hope that the use of three periods worth of data will ensure that the analysis is more robust.

Known pregnant teens and teenage mothers analysis

Connexions, the former advice and guidance service for 13-25 year olds, collected a range of information about Lancashire's young people and was able to provide a range of data in respect of the characteristics of young women who they knew to be pregnant or mothers. Analysis of this data has been conducted to identify likely characteristics of teenagers who become pregnant in Lancashire, such as their educational and employment status, ethnic group and prior destination (their intended educational/employment aspirations). This analysis has been strengthened by using MOSAIC™ geodemographic profiling, which provides richer detail on the likely characteristics of young women who become pregnant and identifies their preferred communication methods – a tool which could prove invaluable for designing appropriate interventions. The analysis does not include any young women whose conception was not known to Connexions, for example if they chose not to continue with the pregnancy and hadn't told Connexions they were pregnant.

Risk factor analysis

The risk factors for under-18 conceptions are well known nationally. To identify whether these risk factors are similar in Lancashire we used correlation co-efficients to identify those variables with a strong relationship at a population level to ward level under-18 conception

rates. Any risk factors found to have a strong correlation were then mapped against the under-18 conception hotspots to highlight the local patterns. In addition, the risk factors with the highest correlations were mapped and it is hoped that this will support the development of upstream interventions to tackle unplanned and unwanted under-18 conceptions. Due to the number of maps and their size, a separate appendix has been compiled. A summary of the analysis is included in this report.

Sexual health service mapping

Full sexual health service mapping that included the nature of the services being provided, opening hours and the site in relation to under-18 conceptions has been conducted for the whole of Lancashire. The maps were produced in consultation with the project team and provide a comprehensive snapshot of the current sexual health provision available for young people in Lancashire (2011). A separate appendix has been produced for the sexual health service mapping, which is published alongside this needs assessment. A summary of the results are included in this report.

Data

In addition to under-18 conceptions data, a range of data has been gathered from local partners to allow for the analysis of risk factors and sexual health services across Lancashire. Data on sexual health services was provided by the project team. The risk factor maps include the following data:

- Female population aged 15-17 calculated using a proportion of the 15-19 age group; Mid 2007 ward estimates; Office for National Statistics – used together with land area data provided by Lancashire County Council's Environment directorate to calculate population density as females 15-17 per square mile.

- Index of Multiple Deprivation[3] score; 2007; The English Indices of Deprivation 2007, Department for Communities and Local Government

- Child Wellbeing Index[4] average score; 2009; Local Index of Child Well-Being 2009, Department for Communities and Local Government

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[3] For more details about the English Indices of Deprivation, please visit the Department for Communities and Local Government website:
http://www.communities.gov.uk/publications/communities/indiciesdeprivation07
[4] A full explanation of the Local Index of Child Well-Being and its domains can be found on the Department for Communities and Local Government website at:
http://www.communities.gov.uk/publications/communities/childwellbeing2009

- Child Wellbeing Index material wellbeing average score; 2009; Local Index of Child Well-Being 2009, Department for Communities and Local Government
- Child Wellbeing Index children in need average score; 2009; Local Index of Child Well-Being 2009, Department for Communities and Local Government
- Child Wellbeing Index education average score; 2009; Local Index of Child Well-Being 2009, Department for Communities and Local Government
- Education: percentage of children not gaining 5 GCSEs at Grade C or above; 2009-10; MADE Lancashire
- Social services: total vulnerable adults rate per 1,000 population aged 18+; 2009-10; MADE Lancashire
- Police incidents: Antisocial behaviour rate per 1,000 population; 2009-10; MADE Lancashire
- Youth offending team individuals rate per 10,000 population aged 10-17; 2009-10; MADE Lancashire
- Unauthorised absences rate per 1,000 pupils; 2009-10; MADE Lancashire
- Percentage of young people aged 16-18 not in education, employment or training (NEET); snapshot data provided by Lancashire Young People Service for Lancashire 12 and by CXL for the unitary authorities: Blackburn with Darwen and Blackpool. Snapshot data are from 31/01/2011 and 10/02/2011 respectively.

Under-18 conceptions data is grouped into two age brackets: under-18 conceptions and under-16 conceptions. As only 5% of under-18 conceptions are to girls under 15 a three-year age group (15-17) is used as the denominator for calculating the under-18 conception rate as including younger age groups in the base population may produce misleading results. The same principle applies for under-16 rates, which use females aged 13-15 as the denominator. The under-18 conceptions data used in this report is as follows:

- Under-18 conceptions rate (per 1,000 females aged 15-17) by ward; 2001-03 - 2006-08; Teenage Pregnancy Unit;
- Under-18 conceptions rate (per 1,000 females aged 15-17), numbers and outcomes by local authority; 1998-00 – 2006-08; Office for National Statistics;

- Under-18 conceptions targets and forecasts; 1992-2010; Eastern Region Public Health Observatory (ERPHO).

Understanding Under-18 Conception Rates and Statistical Significance

When analysing health statistics, sometimes we are interested in the actual number of health events, but more often, statistics are used to assess the true underlying risk of a health issue in a population.

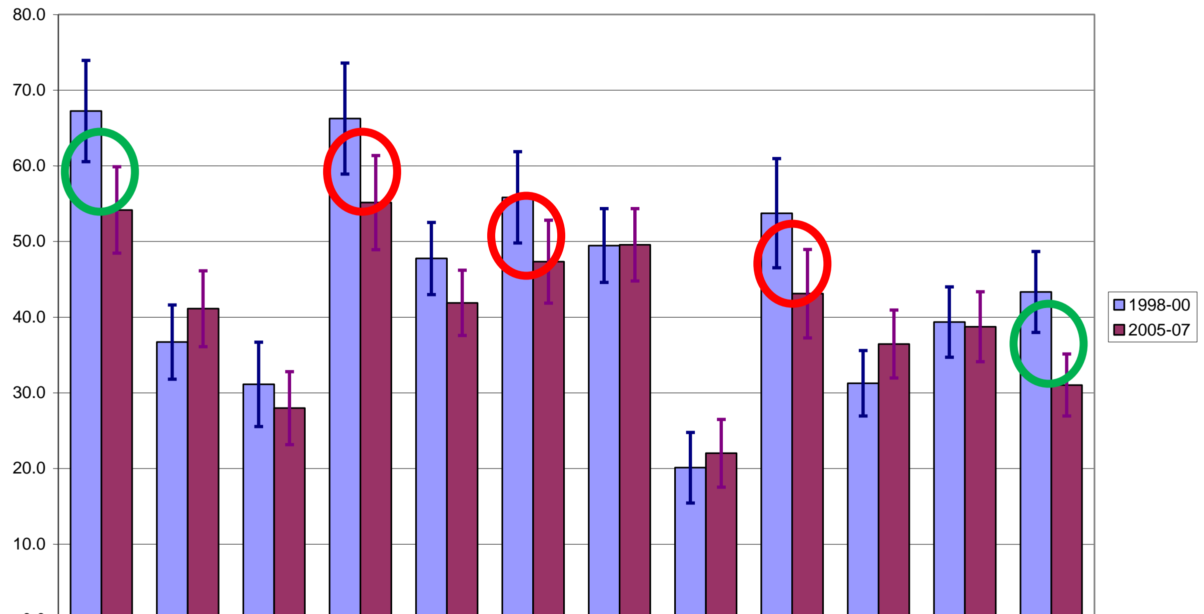
Observed health statistics are not always an accurate reflection of the true underlying risk in the population. Observed rates can vary from year to year and place to place (especially ones such as under-18 conceptions where numbers of events are low), even when the true underlying risk might be the same.

Health events, such as under-18 conceptions, are subject to random variation because the number of events that occurred may be considered as one of a large series of possible results that could have arisen under the same circumstances.

In technical terms, the 95% confidence interval indicates the range of values within which the statistic would fall 95% of the time, if the researcher were to calculate the rate from an infinite number of samples of the same size, drawn from the same population. In less technical language, the confidence interval is a range of values within which the “true” value of the rate is expected to occur (with 95% probability).

For the purposes of this report, statistical significance has been determined using 95% confidence intervals. If the confidence interval for one rate does not overlap with the interval for another rate then the two rates are statistically significantly different. This is demonstrated in the chart below where the green circles indicate rates which *are* statistically significantly different and the red circles indicate rates which are *not* statistically significantly different.

Figure 1 – Under-18 conception rate and confidence intervals, 1998-00 and 2005-07



In the example above, Burnley and Wyre have had statistically significant changes between 1998-00 and 2005-07 as can be seen using the chart above or table below. For both Burnley and Wyre, the intervals placed around the bars for each year do not overlap so there has been a true, statistically significant reduction in the rate of under-18 conceptions. The table below shows a rate for Burnley of 67.2 in 1998-00 and 54.2 in 2005-07. The confidence interval for 1998-00 is between 60.5 and 74.5 and for 2005-07 it is between 48.4 and 60.4. As the upper value of the 2005-07 interval is lower than the lower value of the confidence interval for 1998-00 (60.4 versus 60.5), the rate of under-18 conceptions is said to have had a statistically significant reduction.

On the other hand, consider Hyndburn – the under-18 conception rate fell from 66.2 to 55.1. However, the interval in 1998-00 was 58.9 to 74.2 and in 2005-07 was 48.9 to 61.9. The lower value of the confidence interval in 1998-00 was 58.9 whilst the lower value of the confidence interval in 2005-07 was 61.9. As the confidence interval represents the value within which the true under-18 conception rate can lie it is possible that the true under-18 conception rate in both years was a value between 58.9 and 61.9 and therefore has not changed. Therefore, although there has been a reduction in the headline rate, the true value may lie in the overlapping confidence interval (between 58.9 and 61.9) and we cannot therefore say that there has been a statistically significant reduction in the rate.

Table 2 – Under-18 conception rate and confidence intervals, 1998-00 and 2005-07

	1998-00	95% Confidence Interval		2005-07	95% Confidence Interval	
	Rate	lower	Upper	Rate	lower	Upper
Burnley	**67.2**	**60.5**	**74.5**	**54.2**	**48.4**	**60.4**
Chorley	**36.7**	31.8	42.2	**41.1**	36.1	46.6
Fylde	**31.1**	25.5	37.5	**28.0**	23.2	33.5
Hyndburn	**66.2**	**58.9**	**74.2**	**55.1**	**48.9**	**61.9**
Lancaster	**47.7**	43.0	52.9	**41.9**	37.6	46.6
Pendle	**55.8**	**49.8**	**62.4**	**47.3**	**41.8**	**53.3**
Preston	**49.5**	44.6	54.7	**49.6**	44.8	54.7
Ribble Valley	**20.1**	15.4	25.7	**22.0**	17.5	27.3
Rossendale	**53.7**	**46.5**	**61.8**	**43.1**	**37.3**	**49.6**
South Ribble	**31.3**	26.9	36.1	**36.4**	32.0	41.4
West Lancashire	**39.3**	34.7	44.4	**38.7**	34.1	43.8
Wyre	**43.3**	**38.0**	**49.2**	**31.0**	**26.9**	**35.6**

Similarly, for Pendle there is an overlap in confidence intervals between 49.8 and 53.3. It is possible that the true conceptions rate could be between these values in both years and therefore we cannot say there has been a statistically significant reduction.

Again, for Rossendale there is an overlap in confidence intervals between 46.5 and 46.9. It is possible that the true conceptions rate could be between these values in both years and therefore we cannot say there has been a statistically significant reduction.

Developing local under-18 conceptions data

Normal practice for the Office for National Statistics (ONS) is to release provisional conception statistics approximately 14 months after the period to which they relate. The delay in such data can make it difficult to monitor the impact of local interventions. The most up to date data at district and ward level is for 2008-10.

The reason for this time-lag is that to be able to record a conception ONS require information on the birth or abortion resulting from that conception. Birth registration may be legally undertaken up to 6 weeks after birth resulting potentially in information on a birth not being available until 11 months after the date of conception.

ONS require 3 months to compile the complete conception statistics prior to the release of annual conception data in February each year (as such provisional 2008 data was made available in February 2010). Quarterly data, at upper tier level only, are also produced after corresponding time intervals.

There is then a further delay between provisional and final rates. Final data arrive the following August allowing ONS an opportunity to check data and take account of any overall

population movements. Quarterly data are released in May (in relation to the first quarter of the previous year), August and November each year.

It is possible to create a local indicator using Secondary Uses Service (SUS – hospital activity data) births data and abortions data from providers. This would provide data sooner than the national indicator but there are barriers to its use:

- The SUS data would suffer through cleansing issues as this is not the intended use of the data. This cannot be changed and a degree of inaccuracy would have to be accepted
- It does not capture miscarriages.
- The providers may not currently consistently report the required data.
- Due to the number of providers in Lancashire it would require capacity to pull the consolidated data together.
- The resultant local indicator will be incompatible with ONS data.
- The small numbers involved may lead to wide differences due to the methods of calculating standardised rates and the inherent errors in the SUS data.

However, calculating this would be possible with investment in additional staff and changed provider contracts and three months would be gained as a benefit.

Another option considered was to use the Young People Service Lille system. This could be used to record those who attend and have a positive pregnancy test and could provide a local indicator if used in conjunction with abortions data. However, there would be some barriers:

- It doesn't capture those who use home tests or those who attend GP surgeries. Therefore, it is likely that there would be wide under-reporting.
- There is also the potential for duplication as those recorded on the system may go on to have an abortion.

Given the low numbers of conceptions each year it would not be a reliable method of recording numbers of under-18 conceptions and is not recommended here.

In summary, there are options to create local data. This data would be unlikely to match the official statistics that are released but they would be available approximately three months earlier. They would require additional capacity and provider contract changes might be required. All of this would be subject to further investigation as to whether the strategy would change if the data was available a few months earlier.

Report structure

The remainder of the report is structured as follows:

- The next section of the report outlines the policy context for under-18 conceptions including what is known around the risk factors, successful interventions and the economics of under-18 conceptions.
- Following this, the context for under-18 conceptions is detailed including the size and location of the population at risk, their ethnicity and the deprivation status.
- Full analysis of county, district and ward level under 18 conception rates follows with identification of under 18 conception hotspots in Lancashire and discussion of the outcomes from under-18 conceptions.
- Profiling of the known characteristics of teenage mothers and pregnant teenagers known to Connexions, including MOSAIC™ geodemographic profiling is provided in the next section of the report. The full MOSAIC™ profiles of the identified types are provided in an appendix.
- A summary of the risk factors for under-18 conceptions in Lancashire is included, with the full mapping analysis provided in an appendix document separate to this report.
- Similarly, a summary of the sexual health service mapping is included with the full mapping analysis provided in an appendix document separate to this report.
- To consider what the attitudes towards sexual health of young people and their parents/ carers and the drivers for this; a summary of the central Lancashire insight work follows.
- In the final section of the report the conclusions, recommendations and a summary of actions that partners can consider taking to reduce under-18 conceptions are provided.

Context

National Policy Context

Over the years a number of national guidance documents have been published around under-18 conceptions and this section covers some of the main ones.

1999 - The government at the time launched the **Teenage Pregnancy Strategy**. Since then there has been steady progress. This Teenage Pregnancy Strategy represented the first coordinated attempt to tackle both the causes and the consequences of under-18 conceptions. The strategy's targets were to:

- Halve the under-18 conception rate by 2010, taking 1998 as a baseline year
- Increase the proportion of teenage parents in education, training or employment to reduce their risk of long-term social exclusion

All local areas have had a 10-year strategy in place, with local under-18 conception rate reduction targets of between 40% and 60%. These local targets underpinned the national 50% reduction target.

2006 - **Teenage Pregnancy Next Steps: Guidance for Local Authorities and Primary Care Trusts on Effective Delivery of Local Strategies** was published. The guidance set out what was knwon about effective delivery of local teenage pregnancy strategies, based on in-depth reviews carried out in a number of areas with differing levels of success in reducing under-18 conception rates. It also included new analysis on the underlying factors that affect young people's sexual behaviour and subsequent outcomes, to help areas target their strategies on young people at greatest risk of early pregnancy.

2006 – Teenage Pregnancy: Accelerating the Strategy to 2010 set out how the strategy needed to develop to take account of the growing body of evidence of what is working in areas with sharply declining rates, and to reflect new analysis on the underlying causes of under-18 conceptions. It also set out how the government at that time would focus support on areas with high and/or increasing rates.

2007 - a refreshed strategy was published: **Teenage Parents Next Steps: Guidance for Local Authorities and Primary Care Trusts.** This refreshed strategy took account of the findings from the Sure Start Plus pilots and the US model of health-led parenting programmes that were being piloted within 10 areas in England – the Family Nurse

Partnership which is an evidence-based programme that is offered to young mothers early in pregnancy and ends when the child is 2 years old.

2010 - Teenage Pregnancy Strategy: Beyond 2010 was published. This document set out what has been achieved so far on the strategy and proposals for post-2010 when the current phase of the strategy ends. This strategy document focuses on the factors we know can reduce under-18 conception rates when they are implemented robustly and consistently, with each delivery partner understanding and taking responsibility for their particular contribution to the overall strategy. It:

- took stock of what has been achieved so far and sets out the results of work undertaken to review the evidence base for the strategy and to assess its cost-effectiveness
- set out the vision of what should be provided for young people, so that they have the knowledge and skills to make safer and healthier choices, and accessible, young people-friendly services they need when they become sexually active
- described how all universal and targeted services for young people have a role to play in helping to prevent under-18 conceptions and provide support for teenage parents
- looked at how local areas can be best supported and challenged to drive down rates further, based on the lessons learnt from the areas where under-18 conception rates have fallen fastest; and
- asked for thoughts on what more we can do to accelerate progress

2011 - A New Approach to Child Poverty: Tackling the Causes of Disadvantage and Transforming Families Lives[5] set out a three year plan to lay foundations for a new approach. Chapter three of the strategy focussed on supporting family life and children's life chances. Key areas included:

- Early Intervention – for young people at risk of under-18 conceptions and substance misuse
- Tackling risky behaviours such as unprotected sex, drug- taking and truancy

[5] Department for Work and Pensions, Department for Education (2011)

- Supporting strong parenting and recognising the need for a much wider culture change towards the importance of parenting

- Improving housing and local environment – that may impact on under-18 conceptions

Local Policy Context

2011 – Lancashire Children and Young People Plan (CYPP) 2011 – 2014 set out how partners will take a joint approach to improve outcomes for children and young people in Lancashire by:

- Ensuring that Lancashire babies are born healthy and have the best start by improving the health of women prior to pregnancy

- Improving children and young people's health and wellbeing through healthy lifestyle choices. This will be achieved by:
    - Developing resilience to risk taking behaviours
    - Improving knowledge, attitudes and behaviours
    - Easier access to services

The CYPP was also informed by:

2010 - Lancashire Prevention and Early Intervention Strategy aims to ensure that the needs of children, young people and families who are vulnerable to poor outcomes are identified early and that those needs are met by agencies working together effectively and in ways that are shaped by the views and experiences of the children, young people and families themselves.

Total Family Approach – considers the needs of the whole family unit and involves close joint working across both adult and children's teams to provide tailored and holistic services that work with the entire family.

Risk factors for under-18 conceptions

The under-18 conception agenda is a complex one, affected by young people's knowledge about sex and relationships and their access to advice and support; and influenced by aspirations, educational attainment, parental, cultural and peer influences and levels of emotional wellbeing (Every Child Matters).

A number of factors mean that some young women are more likely to become pregnant. Risky lifestyle behaviours, education and family background have all been found to link to higher rates of under-18 conceptions. The specific factors are outlined below:

Risky lifestyle behaviours

- 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 (Testa & Coleman, 2006)
- Poor contraceptive use
- Poor emotional wellbeing leading to poor mental health / conduct disorder (Maskey, 1991; Hobcraft, 1998)
- Young people who are involved in crime leading to offending (HM Chief Inspector of Prisons, 1997; Hobcraft, 1998 & Limmer, 2005)
- Alcohol and substance misuse (Cook et al, 2010, Redgrave & Limmer, 2005; alcohol Concern, 2002; Ingham, 2001; Wight, 2000, Hosie & Dawson, 2005)

Education-related factors

- Those with low educational achievement (Kiernan, 1995)
- Disengagement from school - dislike of school was also shown to have a strong independent effect on the risk of under-18 conceptions (National Statistics, 2004).
- Leaving school at 16 with no qualifications - overall, nearly 40% of teenage mothers leave school with no qualifications (Barn *et al*., 2005)

Family / background factors

- Those experiencing deprivation (Botting *et al*., 1998)
- Teenage girls living in local authority or other social housing (Teenage Pregnancy Strategy Social Exclusion Unit, 1999)

- Children living in care or leaving care (Teenage Pregnancy Strategy Social Exclusion Unit, 1999)
- Children of teenage mothers (Ermisch and Pevalin, 2003)
- Belonging to a particular ethnic group (Berthoud, 2001; Viner & Roberts, 2004); in the 2001 census, ‘mixed white’, ‘black Caribbean’, ‘other black’ and ‘white British’ were over-represented among teenage mothers
- Parental aspirations - a mother with low educational aspirations for her daughter at age 10 is an important predictor of teenage motherhood (Welling *et al.*, 2001)
- Those with low-self esteem (Emler, 2001)
- Violence or bullying at school
- Parents alcohol misuse - an increased risk of under-18 conceptions, along with other disadvantages, was seen more frequently among cases where the parents were alcohol misusers (Christoffersen and Soothill, 2003).

There is qualitative evidence to suggest that young fathers are also more likely to experience several of these risk factors (Teenage Pregnancy Strategy Social Exclusion Unit, 1999).

Some of the factors associated with under-18 conceptions are summarised in the table below.

Table 3 - Ecological framework for risks associated with under-18 conceptions

Individual	Family	Educational	Community	Socio-economic	Health-services
Knowledge Self-esteem Skills (negotiation) Ethnicity (e.g. Afro-Caribbean) Substance misuse Sexual behaviour	Child of a teen parent Parent/child communication Looked after children	Academic attainment/ school exclusion Sex and relationships education (SRE)	Cultural influences Media/peer influences Child abuse	Deprivation Employment prospects	Awareness, availability and access to services (contraception, abortion)

Source: SEU, 1999, HDA, 2003

Where young women experience multiple risk factors, their likelihood of becoming a teenage parent increases significantly. Young women experiencing five risk factors (daughter of a teenage mother; father’s social class IV & V; conduct disorder; social housing at 10 and poor

reading ability at 10) have a 31% probability of becoming a mother under 20, compared with a 1% probability for someone experiencing none of these risk factors[6].

Similarly, young men experiencing the same five risk factors had a 23% probability of becoming a young father (under age 23), compared to 2% for those not experiencing any of these risk factors[7].

In addition to these risk factors, there is also a range of societal and organisationally constructed pressures encouraging teenagers to have sex that have arguably never been greater. Cinema, television, pop music, videos, the Internet, smart phones, teen magazines etc frequently depict sex as a 'must have' symbol.

This introduces the concept of under-18 conception as an issue that is interlinked with a range of other issues and does not exist as a problem independently. The factors affecting under-8 conception rates resulting in unwanted and unplanned pregnancies are complex. It is clear that early loss of virginity is associated with a wide range of behaviours including media spin, cigarette smoking, alcohol misuse, drug-taking, suspension from school and low self-esteem. Much teenage sexual activity has little to do with sex (Genuis and Genuis, 1994; 1995). It may be a way of expressing anger or frustration, a means of acting out, or a cry for attention (Furstenberg et al., 1997) or false perceptions of invulnerability, which are particularly common in early adolescence (Wise, 1998; Tanner, 1998).

Key factors for reducing under-18 conceptions

The analysis of risk factors points to a number of issues that should be addressed in order to accelerate progress on reducing under-18 conceptions (Teenage Pregnancy Next Steps, 2006):

- Poor knowledge and skills among young people in relation to sex, relationships and sexual health risks
- Poor and inconsistent contraceptive use among young people
- Lack of support for parents and professionals on how to engage with young people on relationships, sex, and sexual health issues

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[6] Berrington A, Diamond I, Ingham R Stevenson J *et al* (2005) *Consequences of teenage parenthood: pathways which minimise the long term negative impacts of teenage childbearing'* University of Southampton
[7] Teenage Pregnancy unit (2006) Teenage Pregnancy working towards 2010; Good Practice and self assessment toolkit. Department of Education and Skills, Department of Health

- Disengagement from/dislike of school among those most at risk
- Low attendance/attainment at school
- Lack of aspiration among young people in the most disadvantaged communities

Interventions

Research shows that there is no simplistic solution to reducing under-18 conception rates. Decision makers often look for a "magic bullet" action that can be taken to reduce under-18 conceptions. In reality, a multi-faceted approach works best.

Historically, areas in England that have achieved the largest reductions of under-18 conceptions have identified a range of factors that need to be in place:

- **Engagement of delivery partners**
  Active engagement of all of the key mainstream delivery partners who have a role in reducing under-18 conceptions: health, education, social services, youth support services, and the voluntary sector.
- **Selection of a senior champion**
  A senior champion who is responsible for the local strategy and can take the lead in implementing it.
- **Effective sexual health advice service**
  The availability of well-publicised contraceptive and sexual health advice services which are centred on young people. These need to have a strong remit to undertake preventative and early intervention work, as well as delivering reactive services.
- **Prioritisation of sex and relationships education**
  High priority given to Personal, Social and Health Education (PSHE) in schools, with support from the local authority to develop comprehensive programmes of sex and relationships education (SRE) in all schools and education settings
- **Focus on targeted interventions**
  A stronger focus on targeted interventions with young people at greatest risk of under-18 conceptions, in particular with looked-after children.
- **Training on SRE for partner organisations**
  The availability and consistent take-up of SRE training for professionals in partner organisations who work with young people, particularly those most at risk and

include: , targeted youth support (TYS) lead professionals, youth workers and social workers.

- **Well-resourced youth service**
  Providing things to do and places to go for young people, with a clear focus on addressing key social issues affecting young people, such as sexual health and substance misuse.

Evidence also shows that children whose parents talk to them openly and honestly about sex and relationships have 'first-sex' later and are more likely to use contraception when they do become sexually active. Department for Children, Schools and Families (DCSF) provided additional funding in 2008 to the Family Planning Association to extend its ‘Speakeasy’ course in 50 of England's local authority areas where under-18 conceptions rates were a concern. Speakeasy is a structured programme of advice and support for parents on talking to their children about sex and relationships - to more local areas.

In a review of pregnancy and social exclusion by the Social Exclusion Unit (1999), six of the intervention studies reviewed provided sound evidence of the value of two particular approaches to targeting the social exclusion associated with unintended under-18 conceptions:

- Early childhood interventions consisting of preschool education and parenting support
- Social skills development and youth development programmes combining community service and student learning, or providing a programme of academic and social development.

A statistical meta-analysis completed by the SEU (1999) (random effects model) revealed that these approaches reduced by 39% the number of young women reporting under-18 conceptions, and also had positive effects on employment and economic status.

The qualitative research revealed three recurrent themes in the experiences of young people: dislike of school; poor material circumstances and unhappy childhoods; and low expectations for the future (Young people, pregnancy and social exclusion, 2006).

The Health Development Agency[8] review of reviews (2003) found good (strong evidence contained in category 1 or 2 reviews[9]) evidence for the effectiveness of the following interventions aimed at preventing unintended under-18 conceptions:

- School-based sex education, particularly linked to contraceptive services (measured against knowledge, attitudes, delaying sexual activity and/or reducing pregnancy rates)
- Community based (e.g. family or youth centres) education, development and contraceptive services
- Youth development programmes: although the evidence base for this was small, reviews indicate that programmes focusing on personal development (programmes that support and teach confidence, self esteem, negotiation skills), education and vocational development may increase contraceptive use and reduce pregnancy rates
- Family outreach: some good evidence was found for the effectiveness of including teenagers' parents in information and prevention programmes.
- Checking that interventions and services are accessible to young people – in terms of location, opening hours and so on
- Selecting and training staff who are committed to programme and service goals and to the needs of young people, who will respect the confidentiality of young people where possible
- Making sure that information and education is in place before young people become sexually active
- Working with teenage 'opinion leaders' and peer group influences
- Making sure that interventions are age appropriate
- Encouraging a local culture in which discussion of sex, sexuality and contraception is permitted

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[8] The Health Development Agency was incorporated into the National Institute for Health and Clinical Excellence (NICE) in 2005; the original review is available at: http://www.nice.org.uk/niceMedia/documents/teenpreg_evidence_briefing_summary.pdf

[9] The following explanation of the hierarchy of evidence is based on a classification from the BMJ, accessible at http://thorax.bmj.com/content/59/suppl_1/i13.full.pdf

- Joining up services and interventions aimed at preventing pregnancy with other services for young people, and working in partnership with local communities.

Some good (category 1 or 2) review level evidence was also found for the following characteristics of effective services and interventions:

- Focusing on improving contraceptive use and at least one other behaviour likely to prevent pregnancy and/or STI transmission
- Long-term services and interventions, tailored to meet local needs of young women and young men, with clear and unambiguous information and messages
- Focusing on local high risk groups
- Including interpersonal skills development – such as negotiating and refusal skills – in programmes, and allowing young people to practise these skills
- Taking key opportunities – e.g. if an adolescent uses a clinic service and receives a negative pregnancy test –for education and information
- Basing interventions and programmes on theory-driven approaches, with clear behavioural goals and outcomes, and using participatory, inclusive teaching methods

National Support Team

The visit of the Teenage Pregnancy National Support Team (NST) to Lancashire in July 2010 identified a number of recommendations that the county council and its partners are now addressing in order to accelerate the reduction of under-18 conceptions rates in the county. These include:

- the Children's Trust to urgently develop a robust performance management framework for the Teenage Pregnancy Strategy, holding partners to account
- the County Council and PCT partners to work together to ensure local relevant data is being consistently captured, collated, analysed and disseminated to inform commissioning and to better performance manage the Teenage Pregnancy Strategy
- to embed young people's sexual health across commissioning activity at county, PCT and locality level
- that future commissioning of contraceptive and sexual health services uses a collaborative approach between NHS and Local Authority to form an effective sexual health system
- that work on the development of a core Sex and Relationships Education (SRE) offer is prioritised to outline:
    - what pupils can expect from their school SRE
    - what schools can expect from health, local authority and voluntary sector providers
    - the responsibilities of schools to their pupils, including giving information about and supporting access to local Contraception and Sexual Health (CASH) services.
- The NST visit also highlighted that the three Lancashire PCT's: Central East and North Lancashire have a higher rate of alcohol- specific hospital admissions in the under 18's compared to the England average. As such, emerging programmes of work around under-18 conceptions and sexual health will also consider the links with alcohol.

The Economics of Under-18 Conceptions

Cost effectiveness of under-18 conception services

The review of reviews by the Health Development Agency (HDA) in 2003 showed that there was good evidence (category 1) to indicate that effective contraceptive services are highly cost effective in preventing under-18 conceptions. However, information on the cost effectiveness of other types of interventions was not identified (HDA, 2003).

Contraception is highly cost effective. Every £1 spent saves the NHS £11, in the cost of ante and post natal care, a delivery or abortion. This should be a powerful argument for commissioners of sexual health services. The provision of contraception is critical in reducing under-18 conceptions (The Independent Advisory Group on Teenage Pregnancy, 2009). The savings from reducing under-18 conceptions are clear.

Preventing under-18 conceptions will have benefits for individual young women themselves and their partners and therefore the wider economy, through enabling them to spend more time in education gaining qualifications and subsequently enhancing their job prospects and earning capacity (Teenage Pregnancy Strategy: beyond 2010).

The case for investment in under-18 conceptions prevention is strong – from both a social and economic point of view. The challenge, though, is to identify what is the right type and mix of services to invest in (Teenage Pregnancy Strategy: beyond 2010).

To inform the next phase of the national strategy, an extensive review of the evidence was conducted, findings of which are soon to be published. In summary, the international evidence identifies two factors for which the evidence of impact on under-18 conception rate reductions is strongest (Teenage Pregnancy Strategy: beyond 2010).

- the delivery of comprehensive SRE programmes and
- provision of accessible, young people-centred contraceptive and sexual health (CASH) services

Guidance has been published by the National Institute for Health and Clinical Excellence (NICE) into costs if these recommendations to reduce under-18 conceptions were implemented (NICE 2007). The cost and activity assessments in the reports are estimates based on a number of assumptions. They provide an indication of the likely impact of the principal recommendations and are not absolute figures. Assumptions used in the report are based on assessment of the national average. This guidance assumes that more one to one

sexual health advice for vulnerable young people aged 18 and under will lead to a reduction in conceptions and abortions among this population (NICE, 2007).

The literature review and economic analysis conducted in order to develop the guidance suggests that implementing the recommendations should lead to a reduction in conceptions. Any such reduction will avoid certain activity costs that would have arisen due to delivery of a baby or to terminate a pregnancy (NICE, 2007).

Cost of under-18 conceptions

- Under-18 conceptions are a key inequality and social exclusion issue. But there is also a strong economic argument in investing in measures to reduce under-18 conceptions, which places significant burden on the NHS and wider public services: (Teenage Pregnancy Next Steps Guidance for Local authorities and Primary Care Trusts on Effective Delivery of Local Strategies, 2006).
- The cost of under-18 conceptions 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 than older mothers to require targeted support from a range of local services, for example to help them access supported housing and/or re-engage in education, employment and training Broad estimates suggest that every pound spent on the Strategy saves approximately £4 to the public purse, when assessed over a period of 5 years (Teenage pregnancy next steps guidance for local authorities and primary care trusts on effective delivery of local strategies, 2006).

The cost of under-18 conceptions in Lancashire

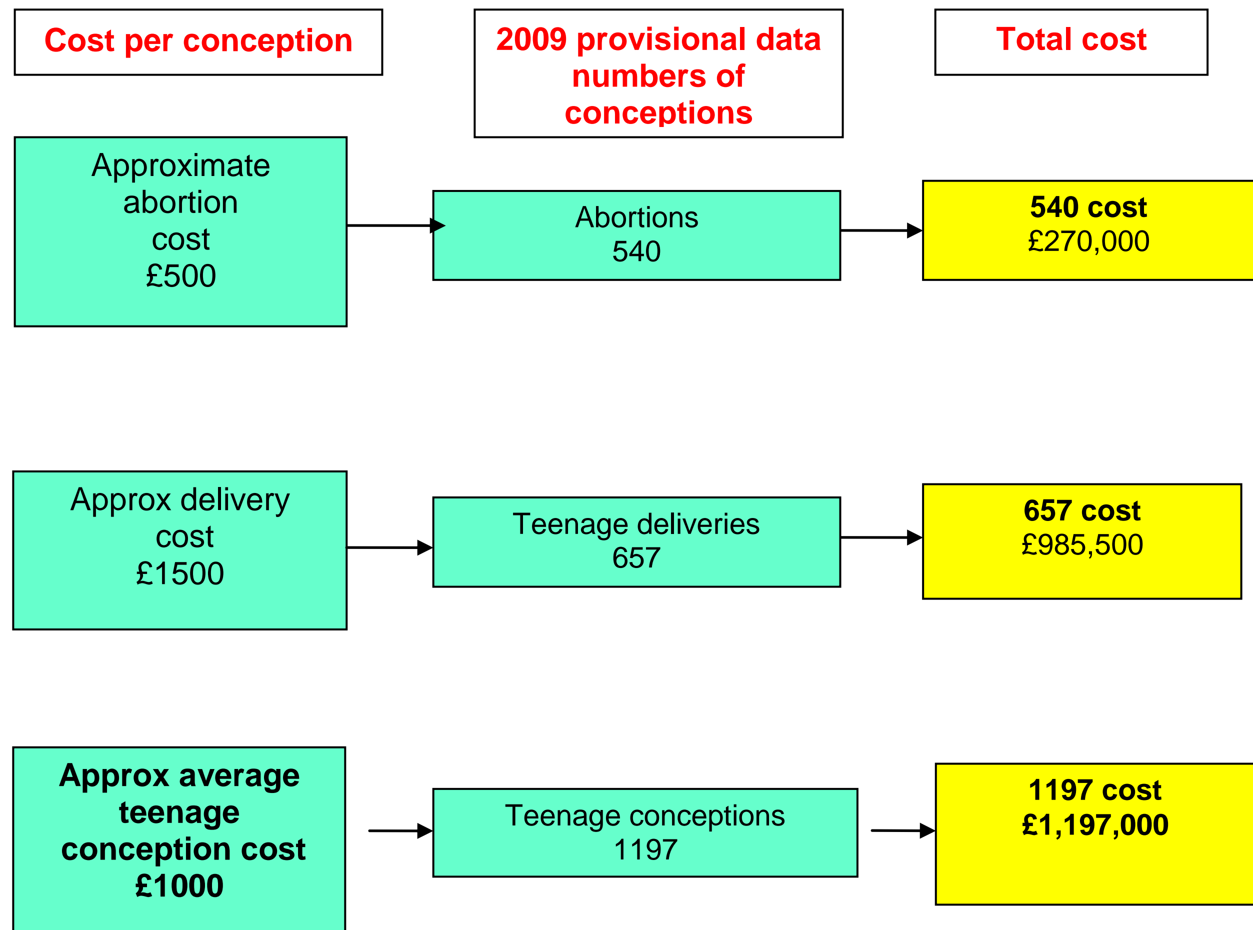
Following the teenage pregnancy NST visit in 2010 the following schematic estimate of the clinical cost of under-18 conceptions in Lancashire was provided.

Using approximate costs of abortions and deliveries, the figure estimates the cost of under-18 conceptions in Lancashire in one year. It is estimated that under-18 conceptions resulting in abortion cost approximately £500 so that with 540 terminations in one year, the cost in Lancashire would be £270,000. With an approximate delivery cost of £1,500 and 657 under-18 conceptions resulting in a year the cost in Lancashire would be £985,500.

Assuming an average cost of £1,000 per under-18 conception, with 1,197 conceptions the total annual cost in Lancashire would be £1,197,000.

The costs are purely clinical and do not include the wider costs such as those to social care services and the long term costs to the economy in terms of benefit payments and longer term health costs.

Figure 2 - Annual cost of under-18 conceptions in Lancashire



Lancashire Context

Demographics

Age

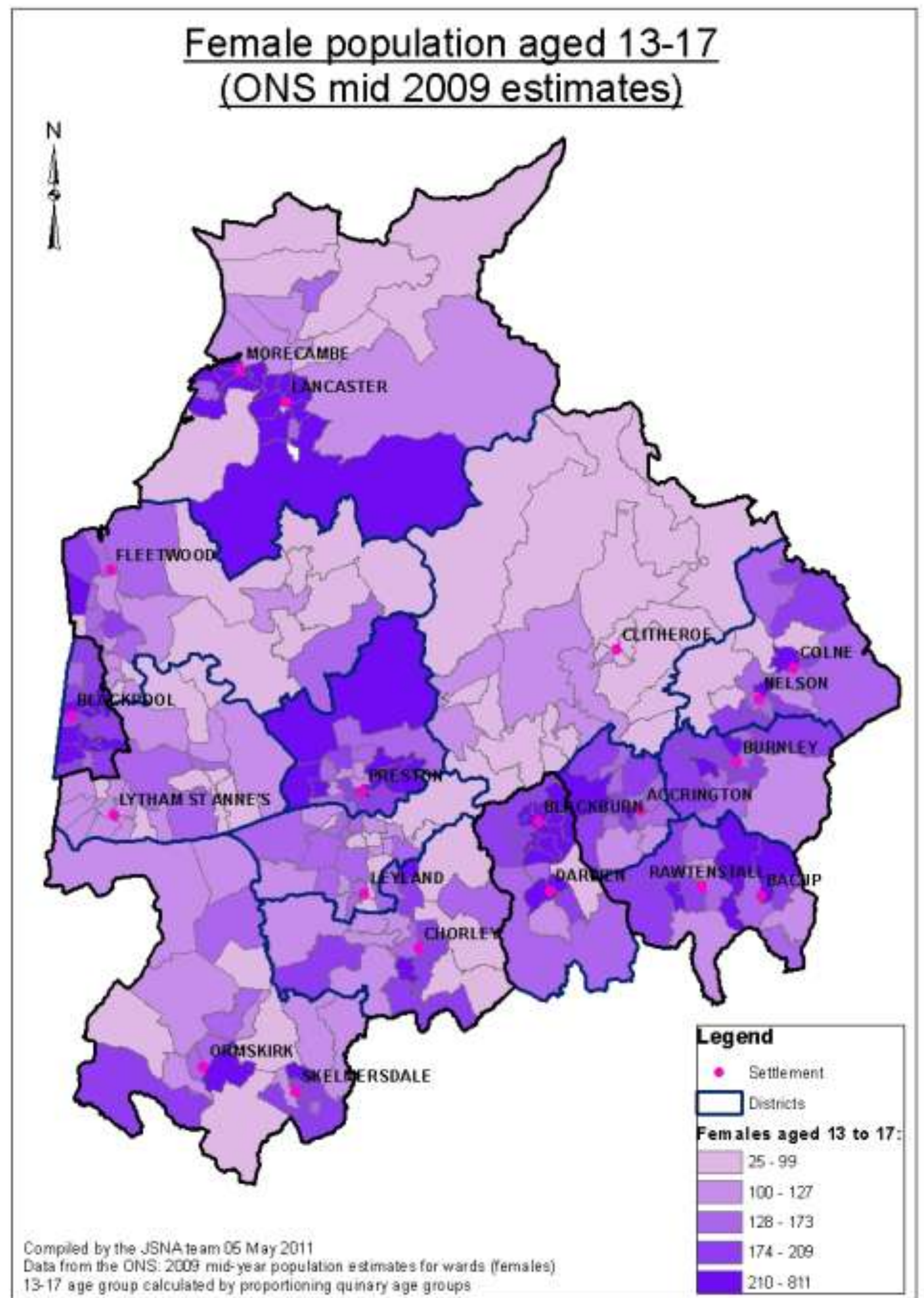
The population of interest when considering under-18 conceptions are the female population aged 13 to 17. Across the Lancashire sub-region there are more than 46,000 females in this age group. The largest proportions of this population are found in Blackburn with Darwen, Lancaster, Blackpool and Preston.

Table 4 - Female population aged 13-17 in Lancashire by district, 2009

Female population aged:	13-15	15-17	13-17
Blackburn with Darwen	3,000	3,000	5,000
Blackpool	2,540	2,700	4,340
Burnley	1,640	1,800	2,840
Chorley	1,800	1,800	3,000
Fylde	1,220	1,260	2,060
Hyndburn	1,680	1,680	2,800
Lancaster	2,760	3,480	5,080
Pendle	1,740	1,860	2,980
Preston	2,380	2,820	4,260
Ribble Valley	1,100	1,140	1,860
Rossendale	1,360	1,440	2,320
South Ribble	1,860	1,980	3,180
West Lancashire	2,020	2,220	3,500
Wyre	1,860	1,980	3,180
Totals	26,960	29,160	46,400
Source: ONS 2009 mid-year population estimates			

The map below highlights that the majority of the young female population live in urban areas close to major settlements. These would be expected to be the areas with greatest numbers of under-18 conceptions. Only Clitheroe and Lytham St Annes are exceptions to the general rule with relatively small numbers of teenage females living in these areas.

Map 1 - Female population aged 13-17 in Lancashire by ward, 2009

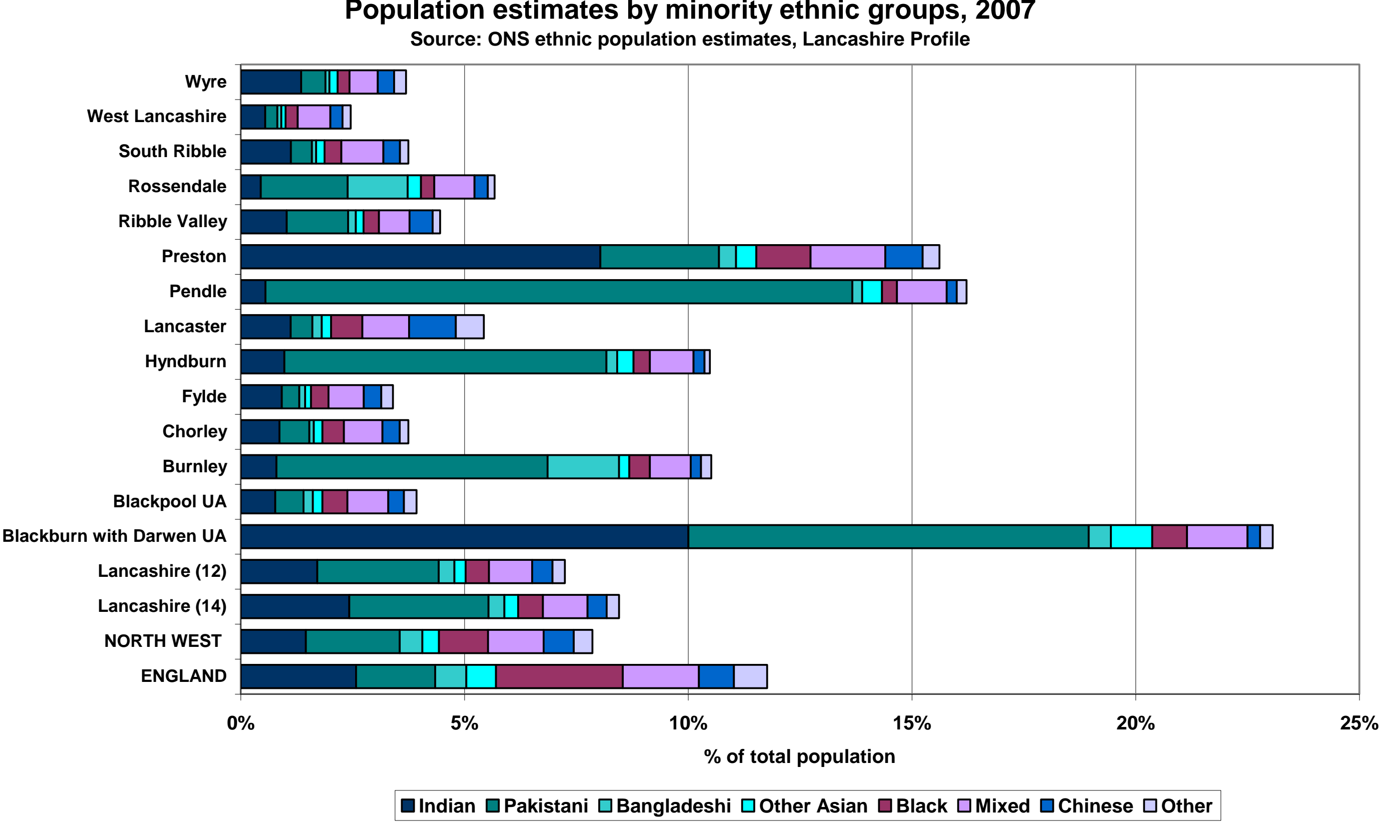


Ethnicity

Some ethnic groups are more likely to become teenage parents than others. Asian groups are not over-represented among teenage mothers according to the 2001 census. However, white British groups were, and the sub region of Lancashire displays less ethnic diversity than England as a whole with 91.6% of the population estimated to be from a white ethnic background against the national average of 88.2%. Aside from these, the largest ethnic

groups in the Lancashire population are Indian and Pakistani groups which account for 2.4% and 3.1% of the population.

Figure 3 - Population estimates by minority ethnic groups 2007



Only three districts display greater diversity in the population than the national average would predict – Blackburn with Darwen, Pendle and Preston. The population of Burnley and Hyndburn also display greater ethnic diversity than the Lancashire sub-region, although less than the national average.

Changes in the ethnic population

Between 2001 and 2007 the population of Lancashire is estimated to have grown by some 34,200 or 2.4%, a little below the England rate of 3.3%.There was a small decrease in the size of the white British group and the white Irish group over the period (due both to net international emigration and more deaths than births) but this relatively stable state was more than offset by the increase in the other white group[10]. This is accounted for by new

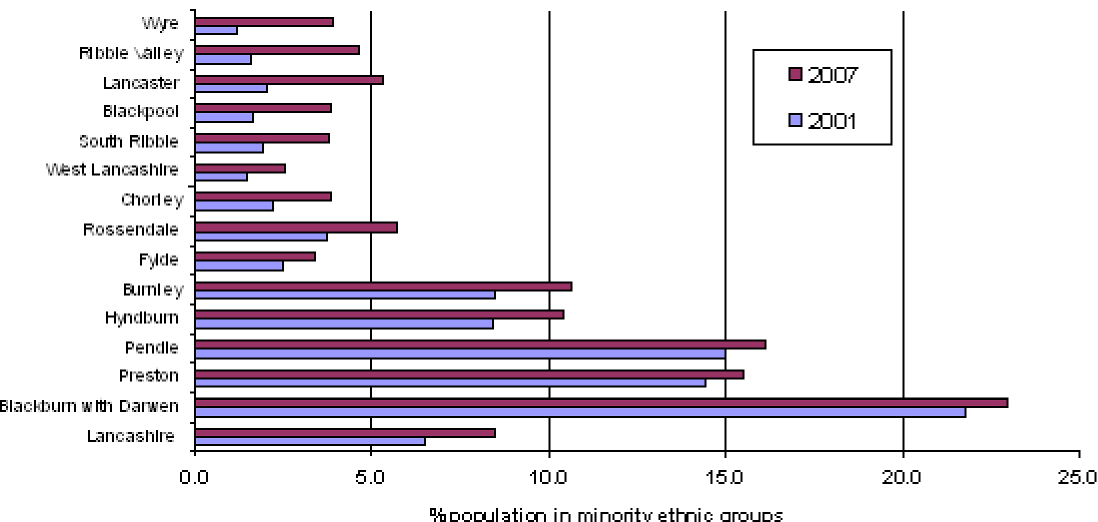
[10] September 2009, http://www.lancashire.gov.uk/office_of_the_chief_executive/lancashireprofile/monitors/popethnic.asp, www page

migrants, the largest numbers of which are from Poland according to the National Insurance Number Registrations.

Numerically there was also a considerable increase in Pakistani, Indian, black African, Chinese and "other" groups. In percentage terms the greatest increases derived from those groups with some of the smallest starting populations, most notably black African, other Black, other Ethnic Group, white and Black African, Chinese and Caribbean. Some of these groups are likely to have higher rates of under-18 conceptions and identifying the locations of such communities will support more effective intervention.

The small size of some ethnic groups within many Lancashire local authority areas allied with the rounded nature of the published data make it unrealistic to calculate accurate rates of change for individual ethnic groups at this geographical level. However it is possible to identify a pattern of faster growth rates of minority ethnic groups in areas with smaller starting populations, for example in Wyre, Ribble Valley, Lancaster, Blackpool and South Ribble within Lancashire. Conversely, the lowest growth rates are in the areas of Blackburn with Darwen, Preston and Pendle.

Figure 4 - Change in the population of Black and minority ethnic groups, 2001 to 2007



Source: ONS 2007 estimated population by ethnic group, Lancashire Profile

Deprivation

There is a wealth of information about social and economic deprivation provided through the English Indices of Deprivation. The indices examine deprivation against seven themes: income deprivation, education, crime, health and disability, employment, barriers to housing and services and living environment.

These indices are grouped to form an overall index of deprivation. The overall index summarises deprivation across the country and provides rankings at district level, which allow local authorities to understand where they are in relation to other authorities across the country. At unitary or district local authority area, the 2010 indices of multiple deprivation show the deprivation ranks as highlighted in the table below.

Table 5 - Deprivation rank by Lancashire local authority

Rank in Lancashire (where 1 is most deprived)	Local authority	National percentile (where 1 is most, 100 is least deprived in England)
1.	Blackpool	3.07
2.	Burnley	6.44
3.	Blackburn with Darwen	8.59
4.	Hyndburn	12.27
5.	Pendle	12.58
6.	Preston	18.10
7.	Rossendale	27.61
8.	Lancaster	40.80
9.	West Lancashire	46.93
10.	Chorley	53.07
11.	Wyre	56.75
12.	South Ribble	63.50
13.	Fylde	72.09
14.	Ribble valley	87.42

Three out of 14 of the districts in the Lancashire sub-region are ranked as being within the most deprived 10% of all authorities nationally; one of these is within the most deprived 5% of all authorities. At the other end of the scale there is one district ranked in the 25% least deprived areas across the country and a further district ranked inside the third least deprived local authorities. As under-18 conceptions are linked to deprivation, this alone highlights the scale of the issue faced by Lancashire.

The district level analysis can hide more local pockets of deprivation, which the small area data allows to be highlighted. The map below shows the location of the most deprived areas across Lancashire and highlights that there are many small areas in Lancashire in the most deprived 20% nationally.

These are concentrated within urban areas in the east of the county (Blackburn with Darwen, Hyndburn, Burnley, Pendle and Rossendale), Preston, Blackpool, Fleetwood, Lancaster, Skelmersdale, Chorley and Leyland. Whilst Lancashire has some large areas of deprivation it is important not to ignore the pockets of deprivation which exist, particularly those in the more affluent areas as these areas are still at risk of under-18 conceptions. Interventions to support reduced rates of under-18 conceptions should be delivered according to Marmot's principle of progressive universalism – that is, they should be delivered universally as potentially all young people are at risk of under-18 conceptions, but they should be targeted

in proportion to the level of need. This means interventions should be delivered across all parts of Lancashire but should be heavily targeted in the most deprived areas where a higher proportion of the children and young people population of Lancashire live, who face the greatest risk.

Map 2 - Deprivation in Lancashire, 2010

Source: Lancashire Profile 2010

Under-18 conception rates

Introduction

Data on rates of under-18 conceptions are available from the Office of National Statistics via the national Teenage Pregnancy Unit. The upper tier local authorities of Lancashire county council, Blackburn with Darwen council and Blackpool council were performance managed on their rate of under-18 conceptions through national indicator NI112, under-18 conception rate. All upper tier authorities were set a target to reduce under-18 conceptions by 50% by 2010. The under-18 conception rate target is retained in the newly published public health outcomes framework[11] under the health improvement domain.

Under-18 conceptions are both a cause and consequence of inequality. In Lancashire, Blackburn with Darwen and Blackpool there is full commitment to deliver the Teenage Pregnancy Strategy to continue to drive down the rates of under-18 conceptions and improve the sexual health of children and young people. This chapter provides analysis of the nationally reported under-18 conceptions data including abortions data. Other data sources include Connexions which has allowed analysis of the known teenage parents in the Lancashire sub-region.

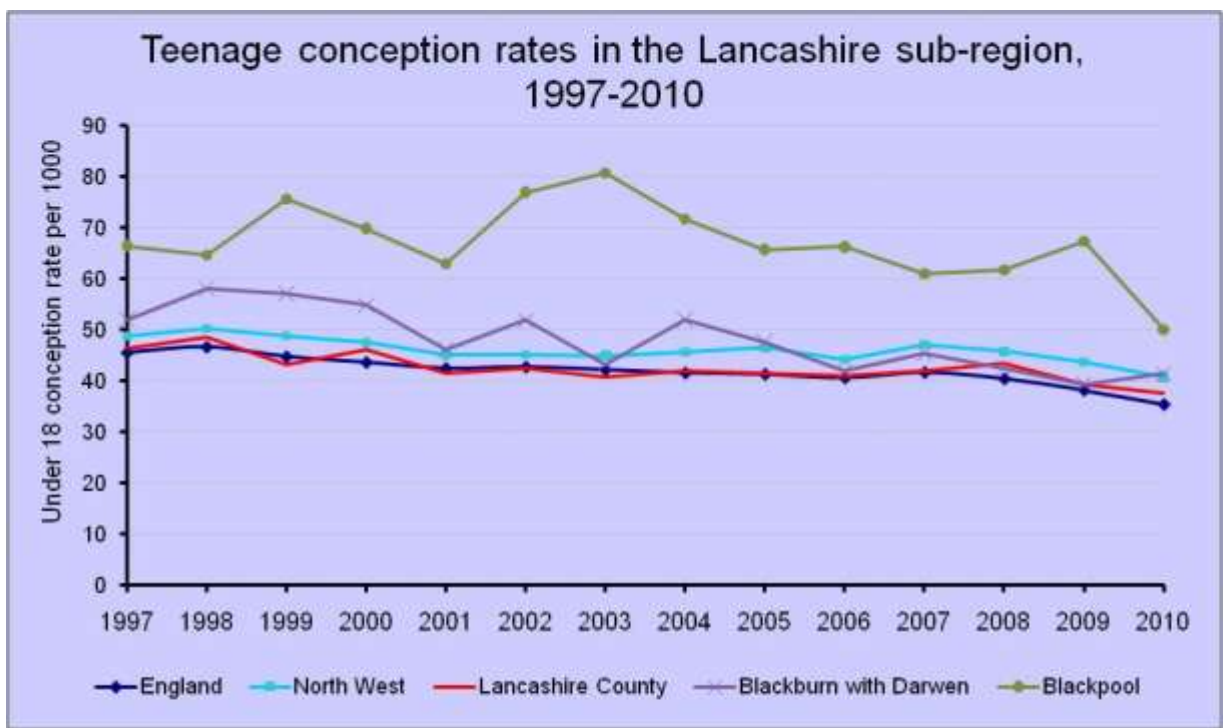
Upper tier authority analysis

Under 18 conception rates

Since 1997 there have been reductions in under-18 conceptions rates in all three of Lancashire's upper tier local authority areas reflecting the national pattern. Under-18 conception rates are broadly in line with the national average in Lancashire County, although the rates tend to be higher in Blackburn with Darwen and are considerably higher in Blackpool.

[11] Department of Health (2012). *Improving Outcomes and Supporting Transparency; a public health outcomes framework for England 2013-2016.*

Figure 5 - Under-18 conceptions trends in Lancashire, 1997 to 2010



Under-18 conception targets

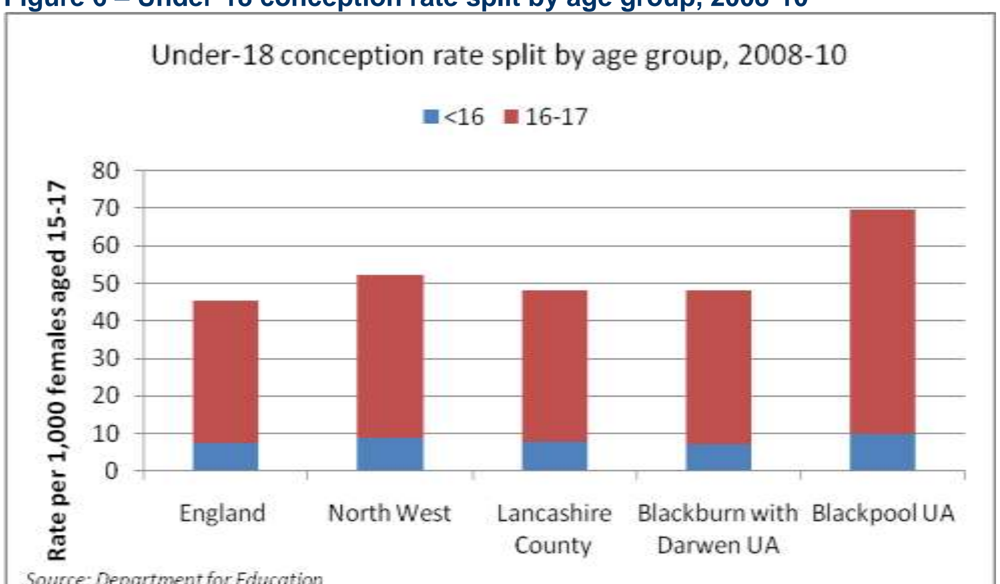
Despite the reduction in rates of under-18 conceptions across the Lancashire sub-region, none of Lancashire's upper tier authorities met the target set by the Teenage Pregnancy Unit in 1998. The largest deviation from the target was in Blackpool but all authorities were quite far off their target rate.

Table 6 - Rates of under 18 conceptions across the Lancashire sub-region

	Under-18 conception rate														Variance from target
Area	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 target	
Blackburn with Darwen UA	58.2	57.1	54.8	46.2	51.9	43.3	52.0	47.6	41.9	45.5	42.6	39.3	41.4	26.2	15.2
Blackpool UA	64.8	75.7	69.9	63.0	77.0	80.8	71.8	65.8	66.3	61.0	61.8	67.4	50.0	29.1	20.9
Lancashire-12	48.5	43.3	46.1	41.4	42.6	40.7	41.9	41.5	41.0	42.1	43.5	39.4	37.5	24.3	13.2

In all three upper tier authority areas, the vast majority of under-18 conceptions are to young women aged 16 and 17. The rate of under-16 conceptions is broadly similar across all three authorities and is in line with the national average. Blackpool has a slightly higher rate of under-18 conceptions to females aged under-16.

Figure 6 – Under-18 conception rate split by age group, 2008-10



Under-18 conception numbers – upper tiers

Examining the numbers of under-18 conceptions highlights the scale of the challenge faced across the Lancashire sub-region. In order to have met the 2010 target there would need to have been 742 conceptions each year. Actual figures for 2010 show that there were in fact 1,074 conceptions, 332 more than the target amount.

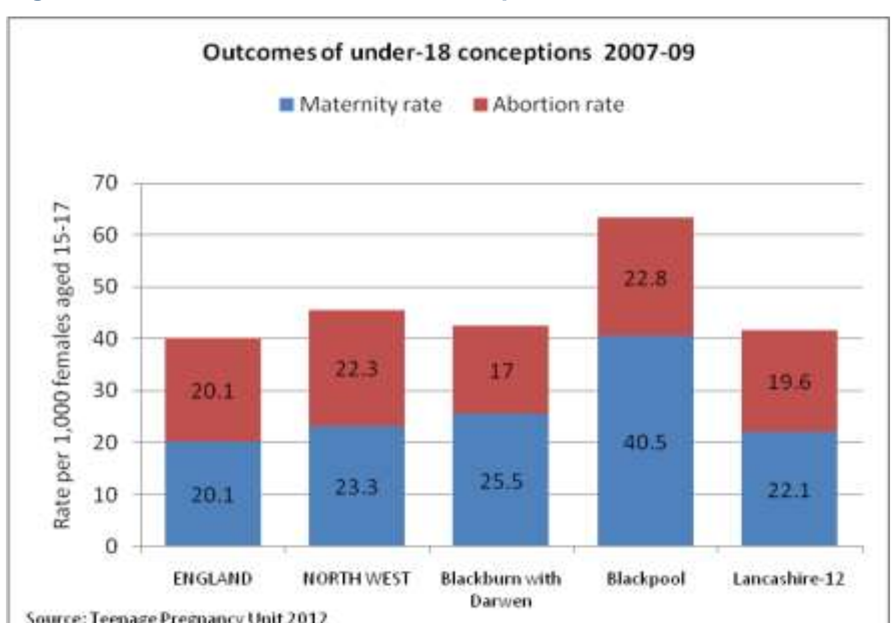
Table 7 - Numbers of under 18 conceptions across the Lancashire sub-region

Area		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 target	Variance from target
Blackburn with Darwen UA	u18 conception numbers	**169**	**163**	**161**	**140**	**168**	**148**	**179**	**158**	**135**	**140**	**136**	**121**	**124**	82	**+42**
	% leading to abortion	*28%*	*33%*	*34%*	*36%*	*38%*	*38%*	*39%*	*36%*	*42%*	*36%*	42%	42%	43%		
Blackpool UA	u18 conception numbers	**153**	**182**	**171**	**156**	**200**	**217**	**193**	**176**	**182**	**170**	**175**	**183**	**130**	81	**+49**
	% leading to abortion	*37%*	*35%*	*37%*	*41%*	*36%*	*36%*	*32%*	*24%*	*37%*	*32%*	43%	33%	45%		
Lancashire 12	u18 conception numbers	**1031**	**928**	**1008**	**922**	**960**	**931**	**968**	**976**	**971**	**999**	**1016**	**893**	**820**	579	**+241**
	% leading to abortion	*37%*	*42%*	*41%*	*41%*	*43%*	*40%*	*40%*	*39%*	*44%*	*47%*	43%	48%	49%		

Outcomes from under 18 conceptions

Nationally approximately half of under-18 conceptions result in abortions. The split is mirrored in Lancashire. In Blackpool conceptions are considerably more likely to result in births: the rate of under-18 conceptions with a birth outcome is almost equal to the total rate of under-18 conceptions nationally. The circumstances of young females in Blackpool are clearly different to those of young females across the county of Lancashire.

Figure 7 - Outcomes of under-18 conceptions, 2007-09

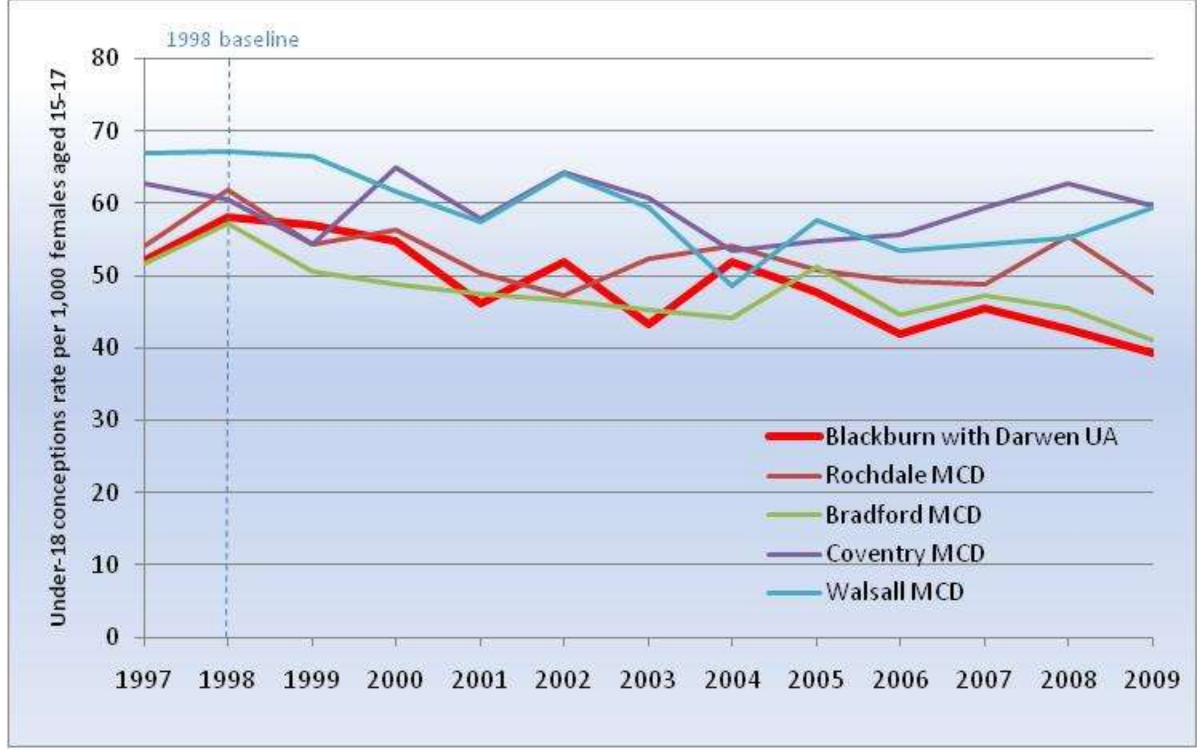


Statistical neighbours

Statistical neighbour analysis provides a method for benchmarking progress. For each upper tier local authority, there are a number of other local authorities deemed to have similar characteristics. These designated authorities are known as statistical neighbours. An authority may compare its performance against its statistical neighbours to provide an initial guide as to whether their performance is above or below the level that might be expected.

Since 1998 Blackburn with Darwen has maintained favourable rates of under-18 conceptions compared to its statistical neighbours: Walsall, Bradford, Coventry and Rochdale. In 1999 and 2004 Blackburn fared less well by comparison to its neighbours when its own rates peaked and those of its neighbours simultaneously fell.

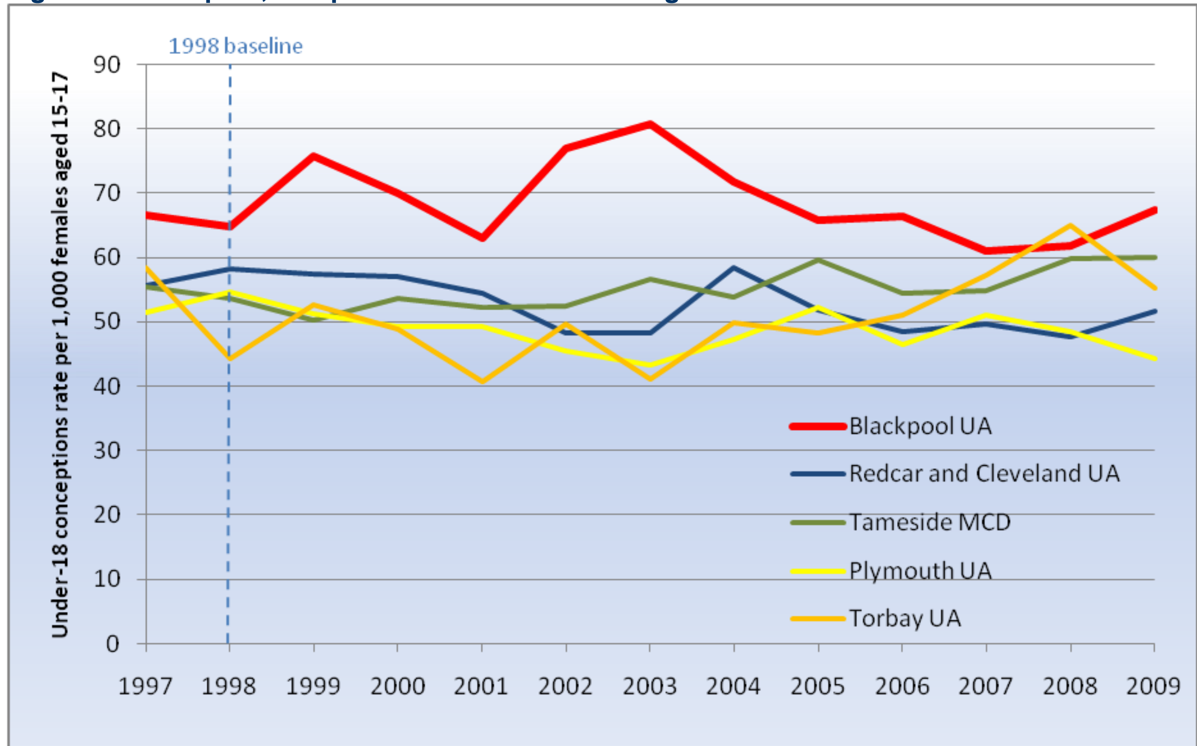
Figure 8 - Blackburn with Darwen, comparison with statistical neighbours 1997-2009



Source: Department for Education

In contrast to Blackburn with Darwen, Blackpool remained the poorest performer in under-18 conceptions rates compared to its statistical neighbours: Tameside, Torbay, Redcar and Cleveland and Plymouth, except for a brief spell in 2008 when Blackpool's rate had dipped and that of Torbay had peaked. What is also notable is the distance by which Blackpool has under-performed compared to its neighbours until recent years.

Figure 9 - Blackpool, comparison with statistical neighbours 1997-2009



Source: Department for Education

Lancashire County has more or less held the middle ground in terms of under-18 conception rates since 1998 compared to its statistical neighbours: Bury, Nottinghamshire, Calderdale and Sefton. Poor comparable performance was seen in 2000 and 2002 when Lancashire's under-18 conception rates rose whilst those of Bury and Claderdale fell. Since around 2003, Lancashire has experienced more stable rates of under-18 conceptions compared to its statistical neighbours.

Figure 10 - Lancashire, comparison with statistical neighbours 1997-2009

Source: Department for Education

District level analysis

Aggregated data is the preferred dataset for analysing current performance at district level. It provides a more accurate picture of trend, removing peaks and troughs seen in annual data that small numbers can trigger. As such, aggregated data is more reliable in demonstrating the likelihood of overall impact of activity since the baseline year. Annual data at district level should be interpreted with extreme caution.

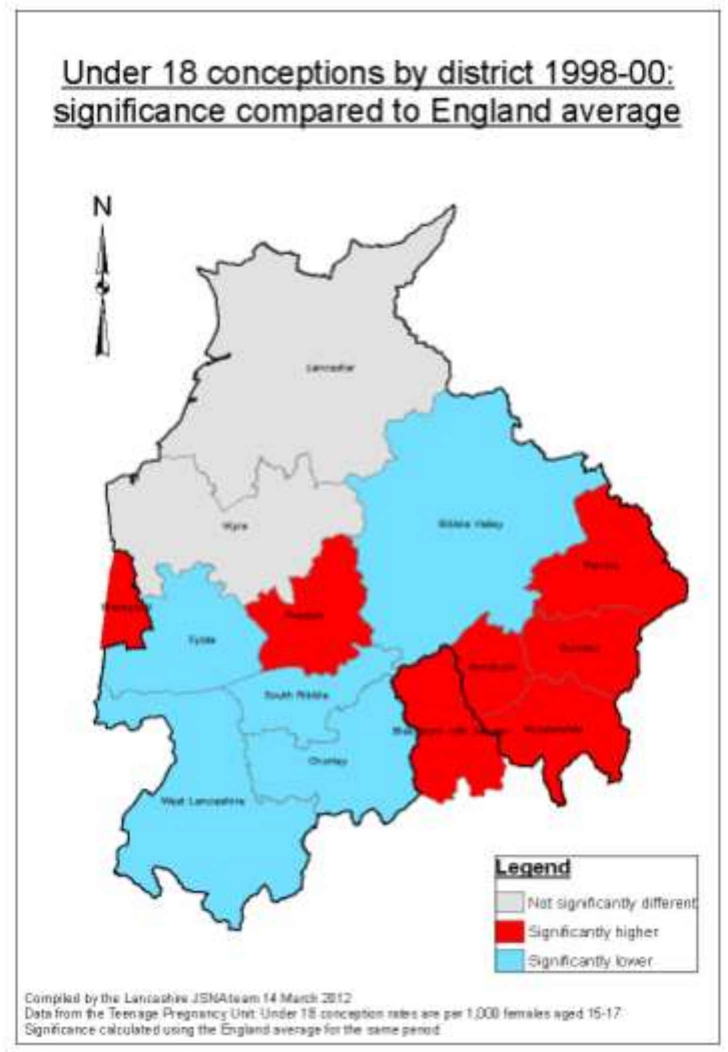
Under-18 conception rates

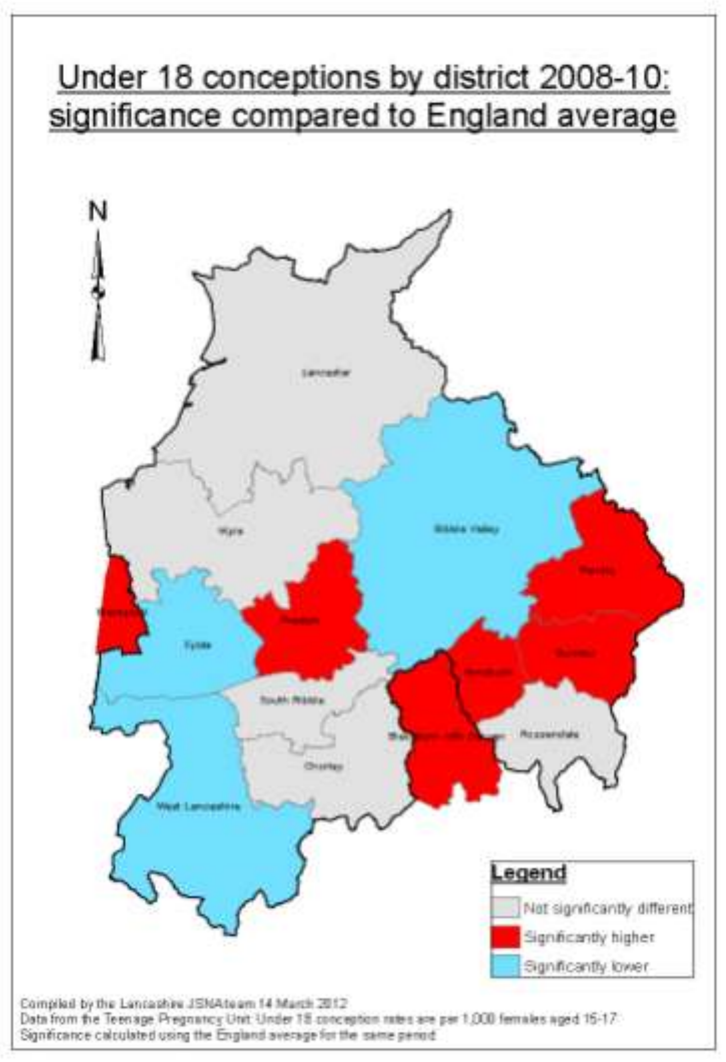
During 1998-00 the rates of under-18 conceptions in Blackburn with Darwen, Blackpool, Burnley, Hyndburn, Pendle, Preston and Rossendale were significantly above the national average. The 2008-10 data shows a similar picture with the exception of Rossendale where the rate, although still higher than the England average, is not significantly different in statistical terms.

The Lancashire-12 rate was not significantly different from the England average in 1998-00 but more recently has been significantly higher than it since 2007-09.

At the other end of the spectrum the 2008-10 data shows fewer districts with significantly lower rates of under-18 conceptions compared to 1998-00. In statistical terms, only Fylde and Ribble Valley have had consistently lower rates compared to the England average since 1998-00.

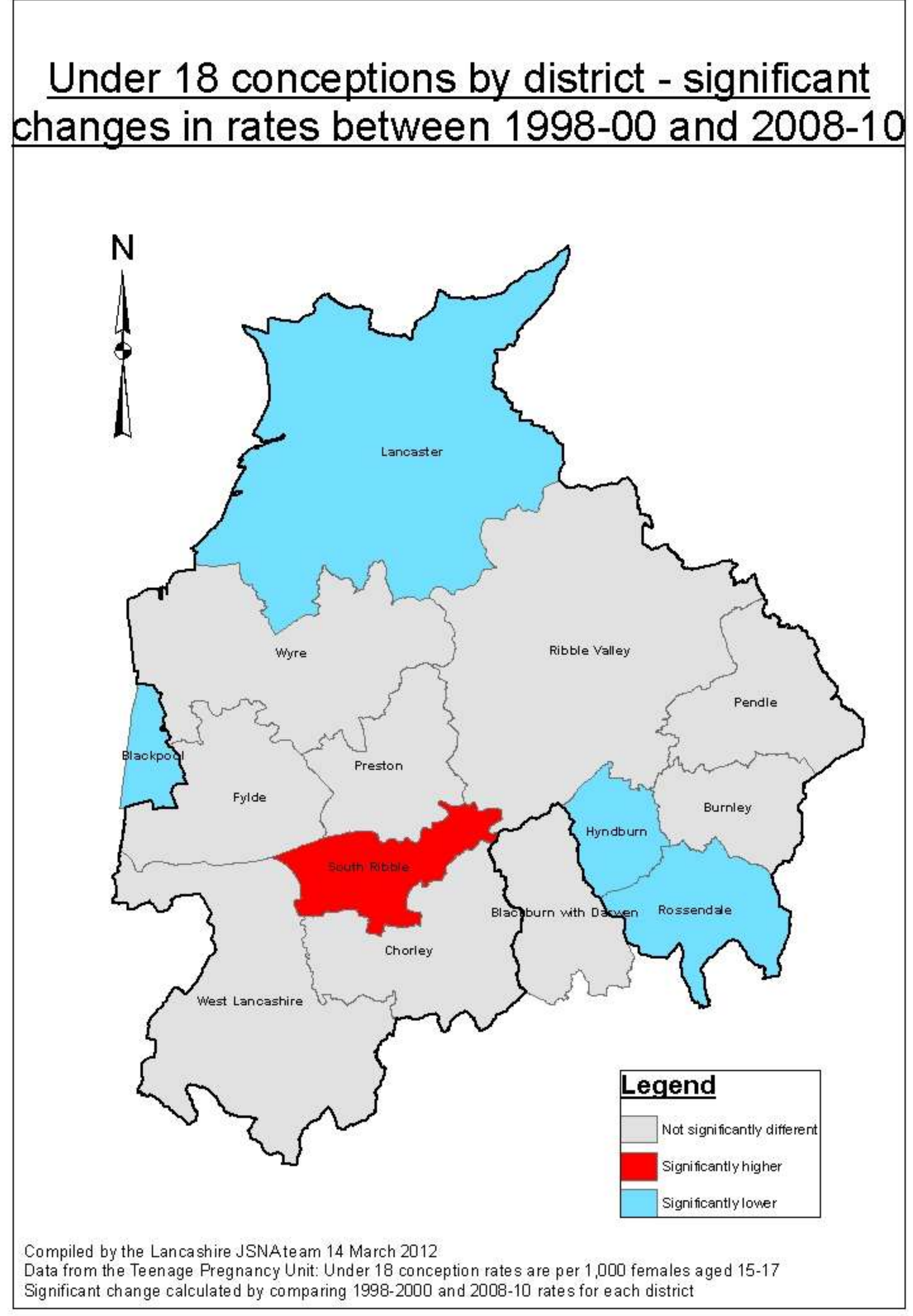
Map 3 – Under-18 conceptions by district: significance compared to the England average, 1998-00 and 2008-10


Under 18 conceptions by district 1998-00:
significance compared to England average
N
Legend
Not significantly different
Significantly higher
Significantly lower
Compiled by the Lancashire JSNAteam 14 March 2012
Data from the Teenage Pregnancy Unit: Under 18 conception rates are per 1,000 females aged 15-17
Significance calculated using the England average for the same period



Since the start of local teenage pregnancy strategies in 1998, Lancashire's internal inequality gap in under-18 conceptions rates has narrowed. Some of the worst performing districts in 1998-00 have seen significant improvements over time while those districts with the lowest rates back in 1998-00 have remained steady or worsened. Only one district, South Ribble, has experienced a significant increase in under-18 conceptions rates. Following the national, North West and Lancashire-12 trend four districts have experienced a significant reduction in rates. These are: Blackpool, Hyndburn, Lancaster and Rossendale.

Map 4 – Under-18 conceptions by district: statistically significant changes, 1998-00 and 2008-10



Under-18 conception numbers – district level

Across the Lancashire-14 area there are approximately 1,280 under-18 conceptions each year, resulting in around 710 births to young mothers. In an average year around 515 of these births would be to mothers in Lancashire-12 (of which the highest numbers would be from Preston and Burnley), 80 would be from Blackburn with Darwen and 115 would be from Blackpool. The numbers given in the table below are an annual average from each three year period. The average number of under-18 conceptions in Lancashire-12 has decreased since 1998-00 although there has been a shift in the outcomes with large reductions in conceptions resulting in births being matched by increases in conceptions resulting in abortions. The percentage of conceptions during 2008-10 leading to abortion is not yet known so the outcomes analysis in the rest of this section is based upon the 2007-09 data.

Table 8 - Average annual number of under-18 conceptions, maternities and abortions 1998-00 to 2008-10*

Area of usual residence	1998-00			2007-09			2008-10*			% change 1998-00 to 2008-10	% change 1998-00 to 2007-09*	
	U-18 conc's	Mat's	Ab'ns	U-18 conc's	Mat's	Ab'ns	U-18 conc's	Mat's	Ab'ns	U-18 conceptions	Mat's	Ab'ns
ENGLAND	**39,679**	**22,394**	**17,285**	**38,372**	**19,186**	**19,186**	**35,767**	**-**	**-**	**-10%**	**-14%**	**11%**
NORTH WEST	**6,316**	**3,787**	**2,528**	**6,138**	**3,130**	**3,007**	**5,685**	**-**	**-**	**-10%**	**-17%**	**19%**
Blackburn w Darwen	164	112	52	133	80	53	127	-	-	-23%	-29%	2%
Blackpool	169	107	61	176	113	63	163	-	-	-4%	5%	3%
Lancashire-12	**989**	**593**	**396**	**971**	**515**	**456**	**910**	**-**	**-**	**-8%**	**-13%**	**15%**
Burnley	123	66	57	106	60	46	101	-	-	-18%	-8%	-20%
Chorley	67	43	24	75	36	39	73	-	-	9%	-16%	65%
Fylde	36	21	15	40	18	23	39	-	-	7%	-15%	47%
Hyndburn	99	65	34	94	55	39	82	-	-	-17%	-15%	14%
Lancaster	122	76	46	103	54	49	94	-	-	-23%	-30%	7%
Pendle	103	61	43	88	46	42	89	-	-	-14%	-25%	-1%
Preston	125	82	43	131	75	56	116	-	-	-7%	-9%	30%
Ribble Valley	21	10	11	29	9	20	26	-	-	25%	-13%	88%
Rossendale	66	43	23	61	33	29	61	-	-	-8%	-24%	25%
South Ribble	62	35	27	83	43	41	82	-	-	32%	20%	53%
West Lancashire	86	48	38	77	41	36	69	-	-	-20%	-15%	-4%

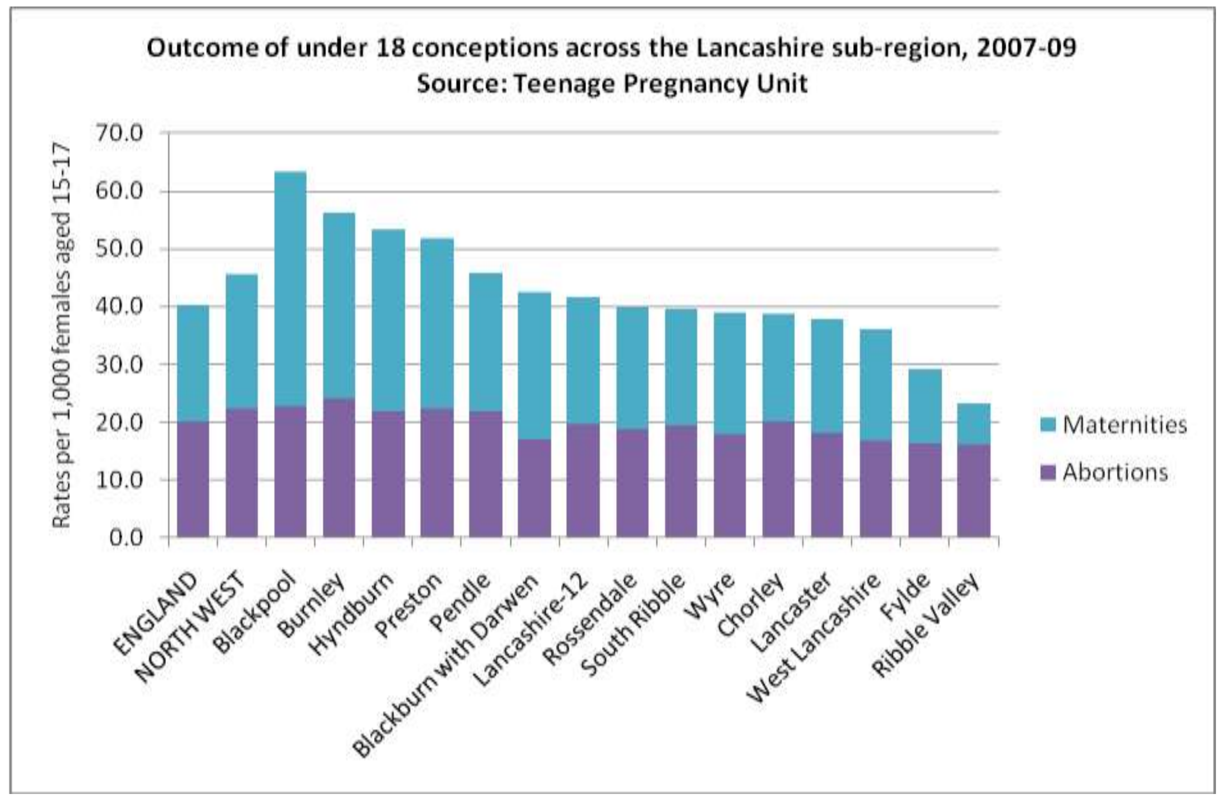
Wyre	79	42	37	83	45	38	78	-	-	-1%	6%	4%

*Data on outcomes of teenage conceptions during 2008-10 are not yet available.

Outcome of Under-18 Conceptions

There are variations in the outcomes of under-18 conceptions at district level. In most districts under-18 conceptions are more likely to result in a birth than an abortion. The only exceptions to this are Chorley, Fylde and Ribble Valley, some of the most affluent districts, where young women who conceive are more likely to have an abortion.

Figure 11 - Outcome of under-18 conceptions across the Lancashire sub-region, 2007-09



District summaries

Examining the changing pattern of maternities and abortions as outcomes of under-18 conceptions can be useful in aiding understanding of what is working where. A summary table below highlights changes in rates against changes in the number of conceptions and their outcomes.

Any interpretation given on district analysis and the apparent success or failure of local strategies to address under-18 conceptions should be considered with caution unless statistical significance in the interpretation is shown.

Table 9 - Changes in conceptions, abortions and maternities by district, 1998-00 to 2008-10*

Area of usual residence	Conceptions rate			% of under-18 conceptions leading to abortion			% change in numbers between 1998-00 and 2008-10		% change in numbers between 1998-00 and 2007-09*	
	1998-00	2008-10	Change	1998-00	2007-09*	Change	Conceptions	Female pop aged 15-17	Maternities	Abortions
ENGLAND	**45.0**	**38.1**	**-15%**	***44***	***50***	**6**	**-10%**	**6%**	**-14%**	**11%**
NORTH WEST	**48.9**	**43.5**	**-11%**	***40***	***49***	**9**	**-10%**	**1%**	**-17%**	**19%**
Blackburn w Darwen	56.7	41.1	-28%	*32*	*40*	8	-23%	7%	-29%	2%
Blackpool	70.2	59.9	-15%	*36*	*36*	0	-4%	13%	5%	3%
Lancashire-12	**46.0**	**40.2**	**-13%**	***40***	***47***	**7**	**-8%**	**5%**	**-13%**	**15%**
Burnley	67.2	56.8	-15%	*46*	*43*	-3	-18%	-3%	-8%	-20%
Chorley	36.7	37.9	3%	*36*	*52*	17	9%	6%	-16%	65%
Fylde	31.1	29.5	-5%	*42*	*56*	14	7%	13%	-15%	47%
Hyndburn	66.2	47.2	-29%	*34*	*41*	7	-17%	17%	-15%	14%
Lancaster	47.7	35.0	-27%	*38*	*48*	10	-23%	5%	-30%	7%
Pendle	55.8	48.0	-14%	*41*	*48*	7	-14%	0%	-25%	-1%
Preston	49.5	48.6	-2%	*35*	*43*	8	-7%	-6%	-9%	30%
Ribble Valley	20.1	21.5	7%	*51*	*69*	18	25%	17%	-13%	88%
Rossendale	53.7	40.5	-25%	*35*	*47*	12	-8%	23%	-24%	25%
South Ribble	31.3	40.0	28%	*43*	*49*	6	32%	3%	20%	53%
West Lancashire	39.3	32.9	-16%	*44*	*47*	3	-20%	-5%	-15%	-4%
Wyre	43.3	37.6	-13%	*47*	*46*	-1	-1%	14%	6%	4%

*Data on outcomes of teenage conceptions during 2008-10 are not yet available.

Key:	
Rate lower than national average at a statistically significant level	
Rate higher than national average at a statistically significant level	
Statistically significant reduction in the conceptions rate	
Statistically significant increase in the conceptions rate	

For further details please contact:jsna@lancashire.gov.uk

Blackburn with Darwen

The rate of under-18 conceptions in Blackburn with Darwen has not changed significantly in statistical terms between 1998-00 and 2008-10. The number of under-18 conceptions however has decreased over the same time period from an annual average of 164 to 127. This is set against an increase in the female population aged 15-17.

Examination of the outcomes of under-18 conceptions shows that the rate and number of abortions has remained broadly constant, and that the reductions are in girls who become pregnant and chose to become mothers – there were 29% fewer maternities and 2% more abortions during 2007-09 than in 1998-00. This may indicate that the strategy to tackle under-18 conceptions within Blackburn with Darwen is more successful at targeting those who are less likely to have an abortion.

Figure 12 - Blackburn with Darwen average annual under 18 conceptions, 1998-00 to 2008-10

Blackpool

Blackpool experiences consistently higher than average rates of under-18 conceptions compared to the rest of England, the highest in the Lancashire-14 area. However, rates have significantly decreased between 1998-00 and 2008-10. The proportion of conceptions which end in abortion is

below the national average and is the lowest in Lancashire; it has also remained fairly constant over the time period.

The numbers of conceptions have decreased slightly, from an annual average of 169 during 1998-00 to 163 during 2008-10. This decrease is set against an increase in the female population aged 15-17, which may suggest some success in the delivery of the under-18 conceptions agenda in Blackpool.

Figure 13 - Blackpool average annual under-18 conceptions, 1998-00 to 2008-10

Burnley

Burnley has high rates of under-18 conceptions with rates above the national average during both periods of 1998-00 and 2008-10. Burnley has experienced a significant reduction in its under-18 conception rates, which may indicate a successful approach.

Numbers of under-18 conceptions have reduced from an annual average of 123 during 1998-00 to 101 during 2008-10. In Burnley's case the majority of the reduction is for those for whom the outcome would have been abortion: abortions reduced by 20% over the period 1998-00 to 2007-09 compared to a reduction of 8% for maternities. The reduction in the overall number of conceptions is all the more important given the much slower decrease in the female 15-17 population over the same period – between 1998-00 and 2008-10 conceptions reduced by 18% whilst the population decreased by just 3%.

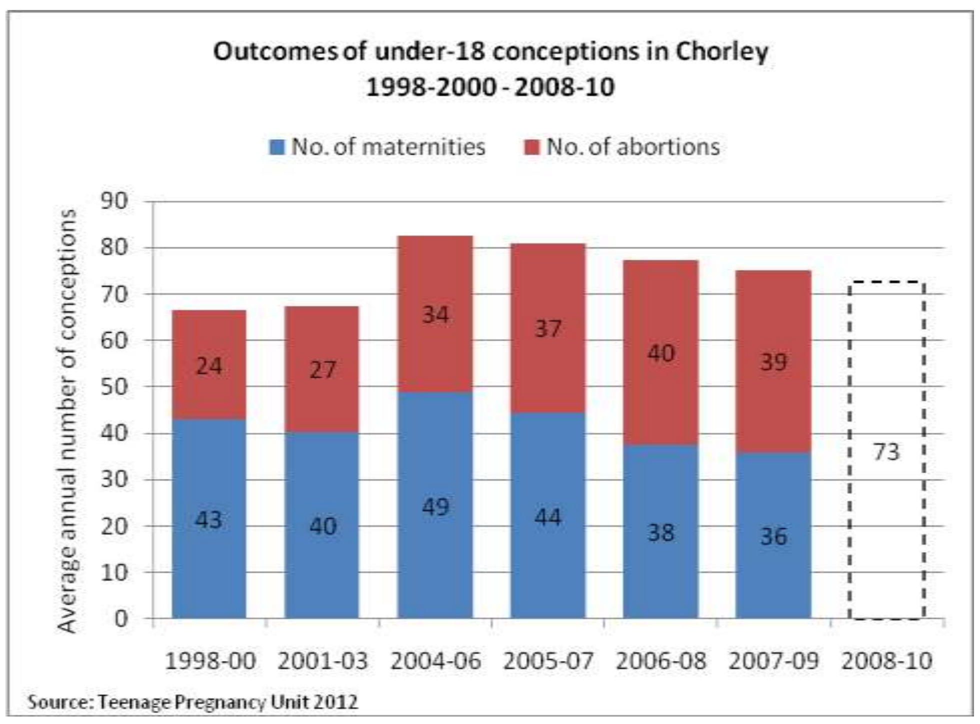
Figure 14 - Burnley average annual under-18 conceptions, 1998-00 to 2008-10

Chorley

Between 1998-00 and 2008-10 the rate of under-18 conceptions in Chorley increased by 3% but this increase is not statistically significant. At the start of the period the rate of conceptions in Chorley was significantly lower than the England average but by 2008-10 it was similar in statistical terms.

Overall numbers of under-18 conceptions have certainly increased and this is reflected in a 65% increase in the numbers of abortions whilst the numbers of conceptions which lead to maternities have decreased by 16%. The increase in numbers of conceptions by 9% is set against a population increase of 15-17 year old females of only 6%.

Figure 15 - Chorley average annual under-18 conceptions, 1998-00 to 2008-10

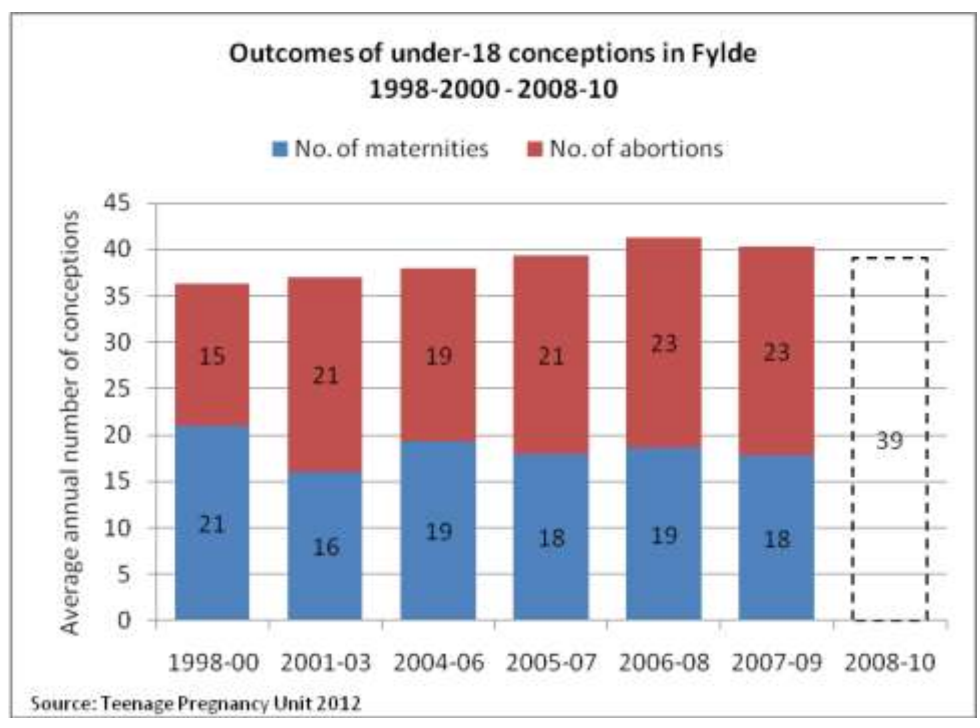


Fylde

Under-18 conceptions rates within Fylde have remained significantly below the national average over the period from 1998-00 to 2008-10. The rate in the district has fallen, although the change is not statistically significant.

The numbers of under-18 conceptions have increased during the period and. there has been a definite shift in outcomes from under-18 conceptions with girls more likely to have an abortion. Just over half of under-18 conceptions ended in abortion during 2007-09, - the second highest rate of abortion in Lancashire.

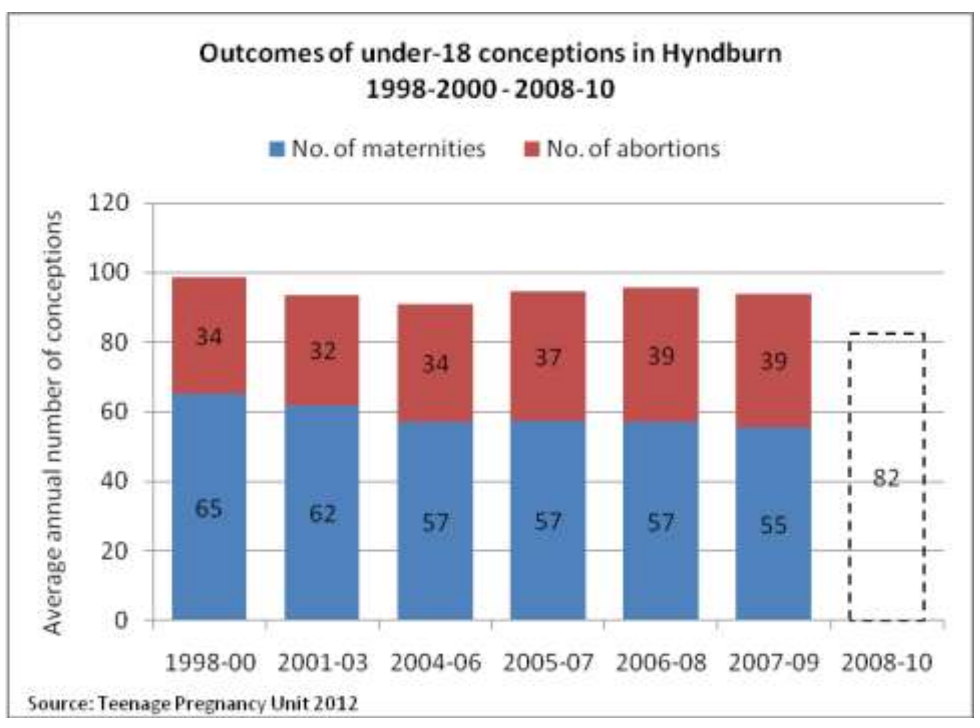
Figure 16 - Fylde average annual under-18 conceptions, 1998-00 to 2008-10



Hyndburn

Rates of under-18 conceptions are high in Hyndburn and have remained consistently above the national average between 1998-00 and 2008-10, although the rate has dropped significantly during this time. A similar pattern is present across much of East Lancashire. Numbers of under-18 conceptions have decreased from an average of 99 per annum during 1998-00 to 82 during 2008-10. The 17% decrease becomes even more remarkable when set against a 17% *increase* in the female population aged 15-17 over the same period. This may indicate some success in tackling under-18 conceptions. There has been a shift in outcomes with under-18 conceptions becoming increasingly likely to end in abortion.

Figure 17 - Hyndburn average annual under-18 conceptions, 1998-00 to 2008-10



Lancaster

2008-10 rates of under-18 conceptions in Lancaster are not distinguishable from the national average in terms of statistical significance and have been that way since 1998-00. The overall rate of conceptions has significantly decreased during that time. The number of conceptions has decreased from an annual average of 122 during 1998-00 to an annual average of 94 during 2008-10. The number of conceptions reduced by 23% whilst the female population aged 15-17 increased by 5%.

There has been a noticeable shift in the outcomes of conceptions. During 1998-00 less than four in ten under-18 conceptions ended in abortion, rising to almost half during 2007/09.

Figure 18 - Lancaster average annual under-18 conceptions, 1998-00 to 2008-10

Outcomes of under-18 conceptions in Lancaster 1998-2000 - 2008-10

No. of maternities
No. of abortions
Average annual number of conceptions
140
120
100
80
60
40
20
0
1998-00: 76, 46
2001-03: 60, 48
2004-06: 63, 48
2005-07: 61, 53
2006-08: 63, 56
2007-09: 54, 49
2008-10: 94

Source: Teenage Pregnancy Unit 2012

Pendle

Rates of under-18 conceptions in Pendle are still significantly above the national average in 2008-10 as they were during 1998-00. The district experienced a reduction in under-18 conception rates over the period, although the change was not statistically significant. It should be noted however that there was a significant reduction in rates between 1998-00 and 2007-09.

There have been reductions in the numbers of under-18 conceptions over the period from an annual average of 103 conceptions during 1998-00 to 89 during 2008-10. The reductions are largely in the type of conception which ends in maternity, although conceptions ending in abortion have also reduced very slightly. There may be indications of some success in the policies and interventions put in place but changes in the ethnic make-up of the population, in particular the growth of Asian communities may also have had an impact.

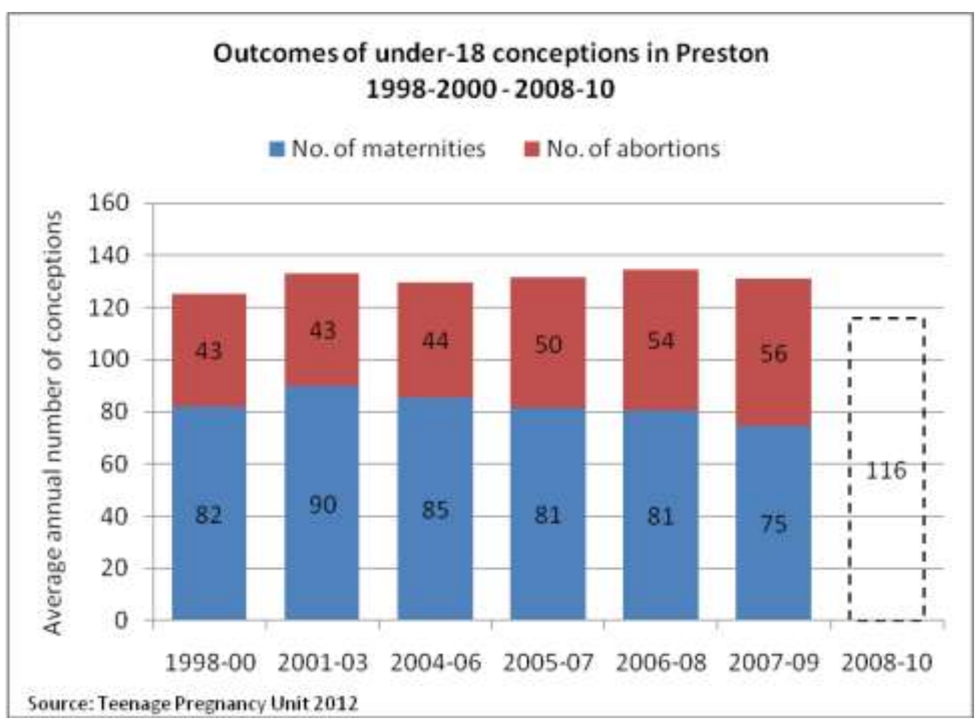
Figure 19 - Pendle average annual under-18 conceptions, 1998-00 to 2008-10

Preston

Like Blackpool and Hyndburn, Preston's under-18 conception rates have remained significantly higher than the national average since 1998-00.

Numbers of under-18 conceptions have decreased over the period from an annual average of 125 to 116. However, the decrease is only just larger than the decrease in the female population aged 15-17. There has been a 30% increase in the number of under-18 conception leading to abortion, whereas those leading to maternity have decreased by 9%.

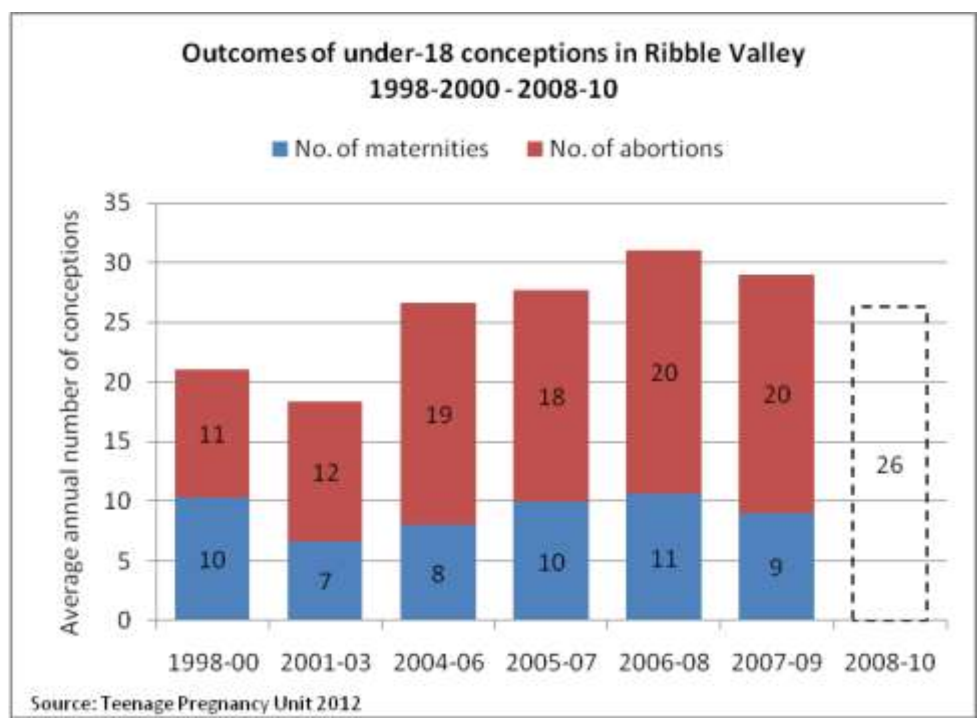
Figure 20 -Preston average annual under-18 conceptions, 1998-00 to 2008-10



Ribble Valley

Ribble Valley has low rates of under-18 conceptions, which have remained significantly below the national average between 1998-00 and 2008-10. There has been an increase in the rate of conceptions over the period but it is not statistically significant. There has been a small increase in the average number of conceptions over the period. .Numbers of maternities have fallen, highlighting that the increase in the number of conceptions is entirely in those which result in abortions – more than two thirds of under-18 conceptions in Ribble Valley end this way and the numbers leading to abortion have increased by 88% between 1998-00 and 2008-10. Although the rates of under-18 conceptions are low, it is clearly an increasing occurrence within the district. It is particularly concerning when considered against the trends in the population of interest. Whilst the female population aged 15-17 increased by 17% over the period, under-18 conceptions increased by 25%.

Figure 21 - Ribble Valley average annual under-18 conceptions, 1998-00 to 2008-10

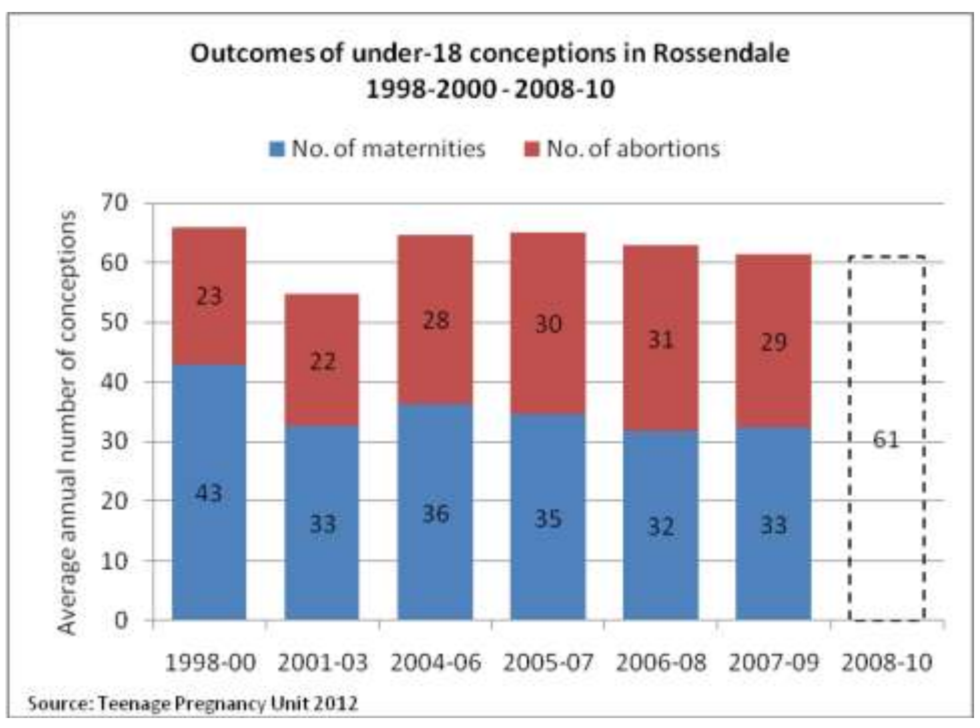


Rossendale

Rates of under-18 conceptions have significantly reduced in Rossendale over the period between 1998-00 and 2008-10. In 1998-00 the rate was significantly higher than the national average and by 2008-10 it was not significantly different, indicating an overall improvement compared with the England rate.

The number of conceptions has decreased by 8% over the period, with an annual average of 61 under-18 conceptions during 2008-10 compared to 66 during 1998-00. Given that the female population aged 15-17 increased by almost a quarter over the period, the decrease in numbers of conceptions can be taken as a measure of success. There has been a shift in the outcomes of conceptions with a greater proportion ending in abortion – just under half of conceptions end this way now compared to just over a third at the start of the period. The number of under-18 conceptions leading to abortion has risen by 25% whereas those leading to maternity have fallen by almost the same amount - 24%.

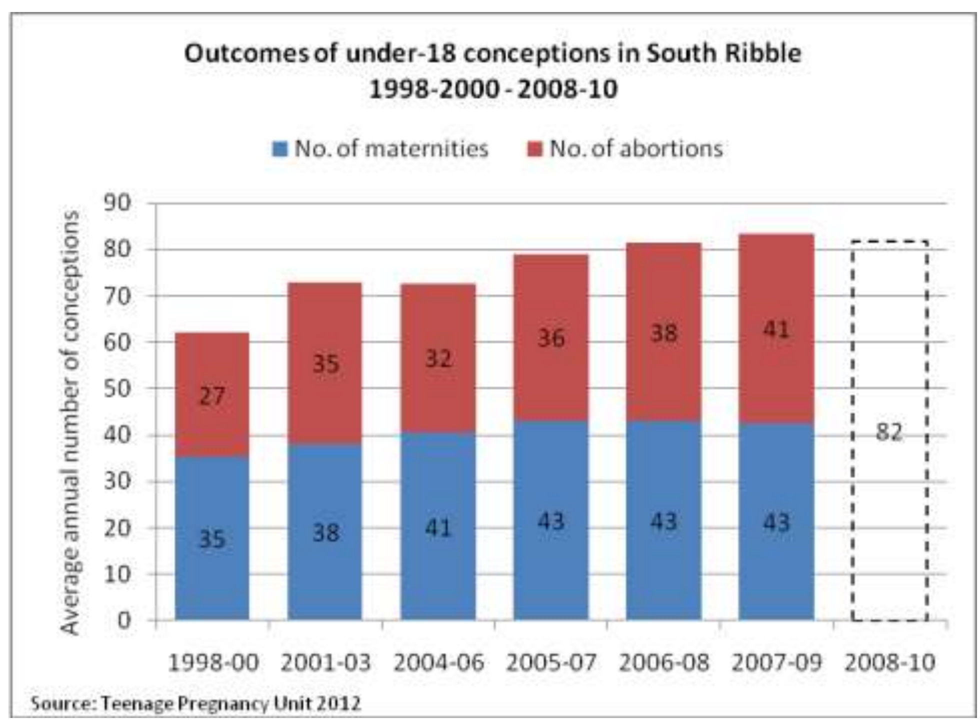
Figure 22 - Rossendale average annual under 18 conceptions, 1998-00 to 2008-10



South Ribble

The under-18 conception rate in South Ribble has significantly increased between 1998-00 and 2008-10. At the start of the period the rate was significantly lower than the national average but now it is not significantly different in statistical terms. The average annual number of conceptions has increased over the period from 62 during 1998-00 to 82 during 2008-10 – the largest increase in numbers across Lancashire. This 32% increase in the number of conceptions is set against a 15-17 female population increase of only 3%, highlighting a growing trend. The increase has been reflected more strongly in conceptions ending in abortion (up 53%), although the numbers of maternities have also increased by a fifth over the period. Under-18 conceptions in South Ribble are a growing concern and additional resources may now be needed in order to prevent the steep rise.

Figure 23 - South Ribble average annual under-18 conceptions, 1998-00 to 2008-10

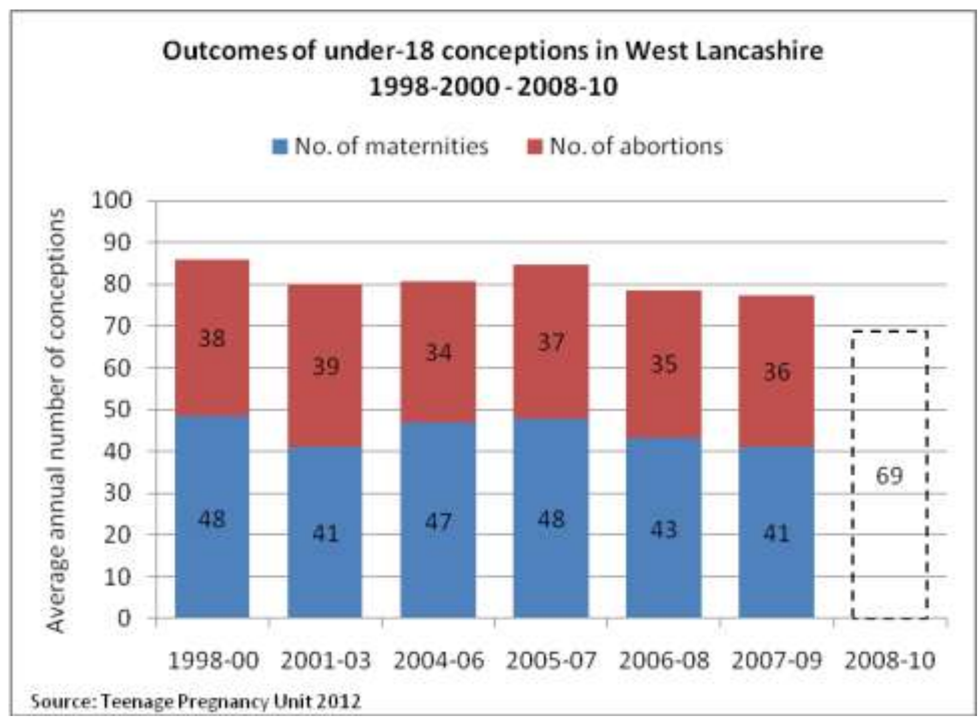


West Lancashire

Under-18 conception rates within West Lancashire are generally lower than the national average and have decreased between 1998-00 and 2008-10, although the change is not statistically significant.

The number of conceptions has reduced by a fifth from 86 in 1999-00 to 69 in 2008-10. West Lancashire has seen a larger reduction in the number of under-18 conceptions ending in maternities than abortions, although both have decreased.

Figure 24 - West Lancashire average annual under-18 conceptions, 1998-00 to 2008-10

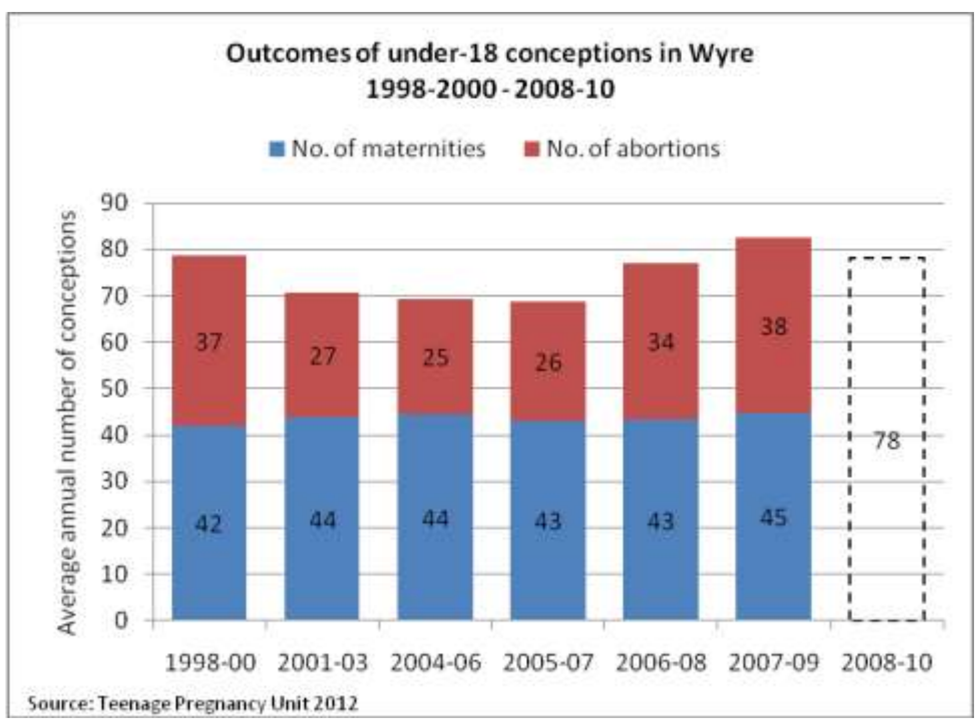


Wyre

Under-18 conceptions within Wyre are generally lower than the national average although the difference in 2008-10 is not statistically significant. Rates have reduced between 1998-00 and 2008-10, but again this reduction is not statistically significant.

The tiny 1% decrease in numbers of under-18 conceptions between 1999-00 and 2008-10 becomes more noteworthy when considering the 14% increase in the 15-17 female population over the same period. Between 1998-00 and 2007-09 West Lancashire had experienced a slight increase in the number of under-18 conceptions and this was mainly in those leading to maternity rather than abortion (6% versus 4%).

Figure 25 - Wyre average annual under-18 conceptions, 1998-00 to 2008-10



Ward level analysis

Ward level under-18 conception rates can be used to highlight local hotspots for under-18 conceptions. Several methods can be used to identify hotspots and these are outlined in the methodology section of this report. For this analysis the focus is on statistically significant hotspots, with consideration also given to those areas defined as hotspots according to the national Teenage Pregnancy Unit. The project team have defined a hotspot as a ward with a high rate of conceptions for three consecutive periods.

Understanding the very local areas where under-18 conceptions are high will help to be able to target support and interventions to prevent unwanted pregnancies. Throughout this section analysis by different time periods and groupings have been used for different purposes:

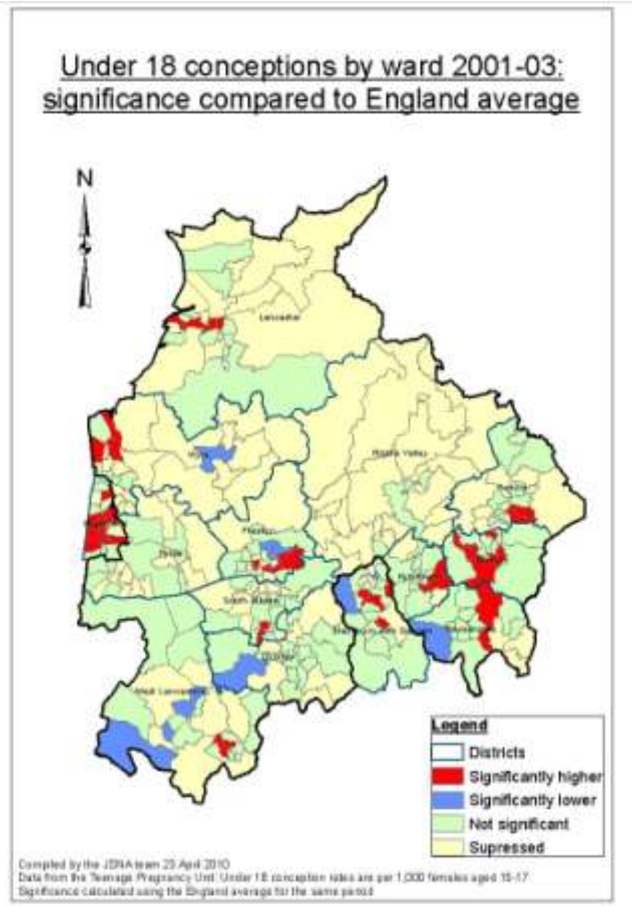
- The earliest ward level data we hold for the Lancashire sub-region is for 2001-03 so this has been used as a baseline for discussion of ward level rates and to provide a historical picture.
- The ward level analysis was completed early on in the project and looks at 2004-06 to 2006-08 data.

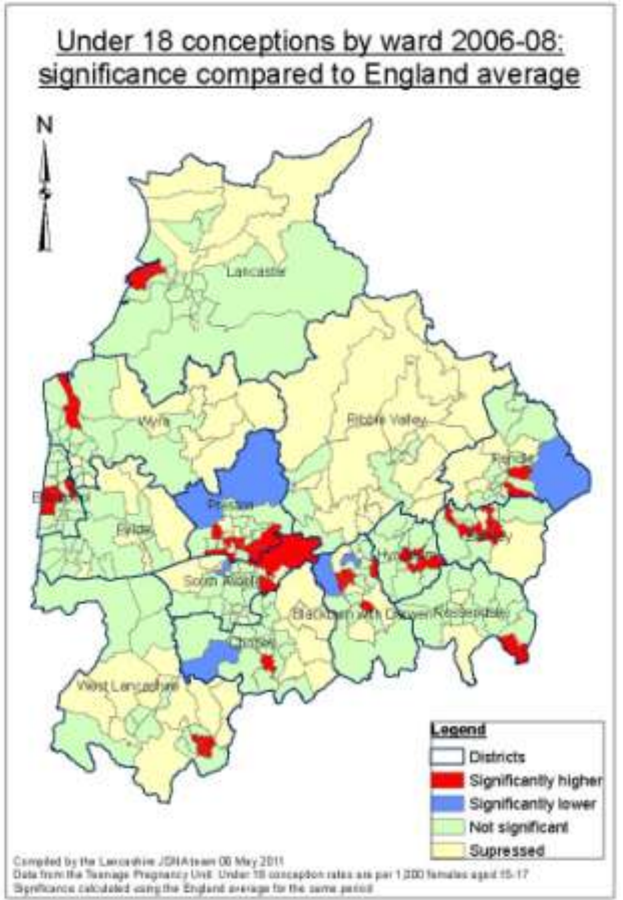
Identifying under-18 conception 'hotspots'

Statistically significant under-18 conception rates over all periods, 2001-03 to 2006-08

The first stage of ward level under-18 conception rates analysis is to identify hotspots to benchmark the rates against the national averages over all the available time periods. There are 301 wards in Lancashire and the rates of under-18 conceptions by wards are shown in the maps below for the earliest and latest periods of data used, 2001-03 and 2006-08.

Map 5 - Statistically significant under-18 conception rates by ward compared to the England average, 2001-03 and 2006-08

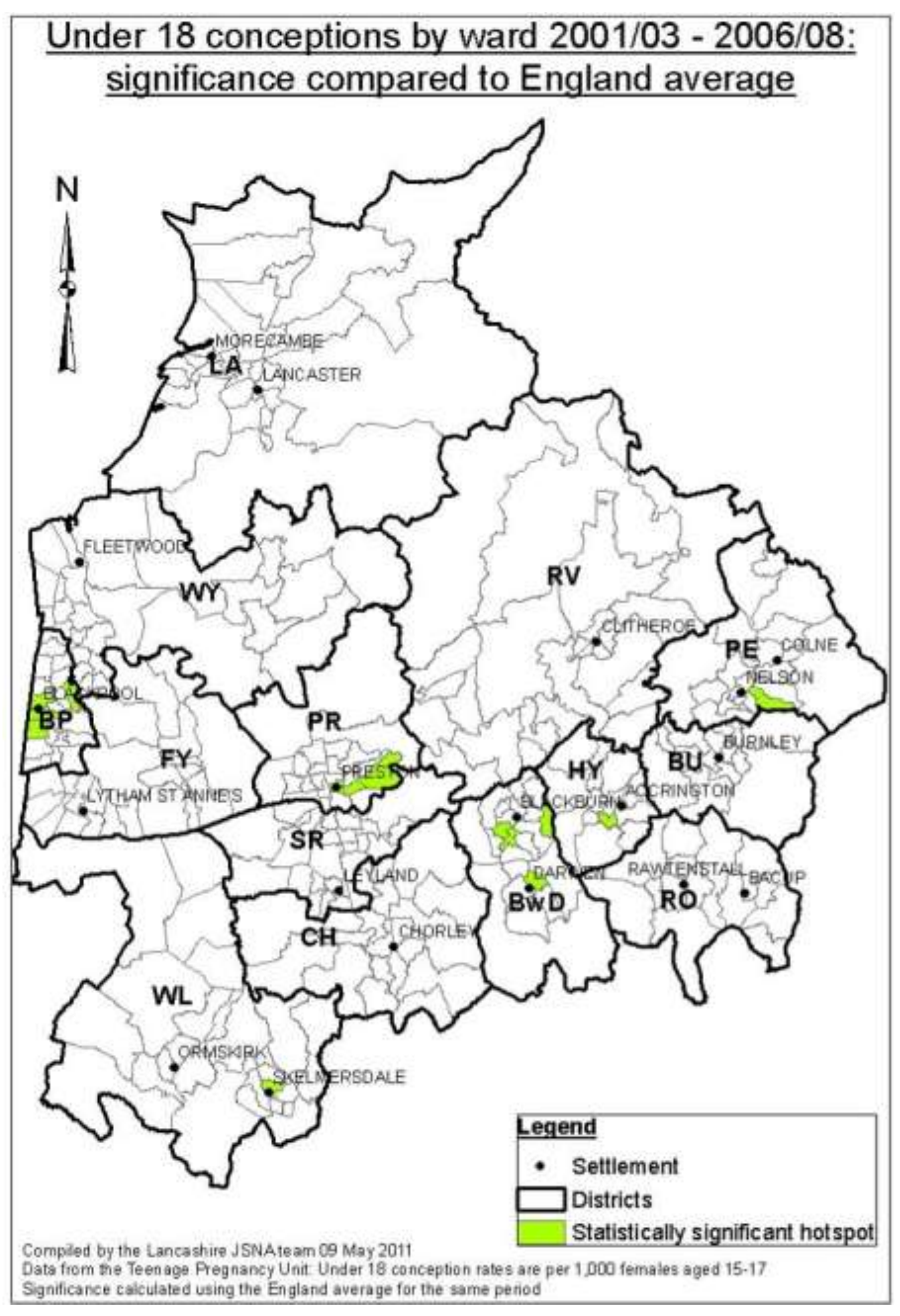




The under-18 conception rates were higher than the England average in 47 Lancashire wards during 2001-03 and 2002-04, 41 wards during 2003-05, 43 wards during 2004-06, 42 wards during 2005-07 and 46 wards during 2006-08. Only in 15 wards were the rates of under-18 conceptions significantly higher than the England average over the entire period. This highlights the year on year variation that can be present in under-18 conception rates due to the low numbers involved and as such the caution that should be used when using and interpreting the data.

The 15 wards are discussed below by upper tier authority:

Map 6 - Statistically significant under-18 conception rates by ward compared to the England average, 2001-03 to 2006/08



Blackburn with Darwen

More and more wards in Blackburn are improving compared to England but there remain wards which show no sign of improvement. Four wards in Blackburn with Darwen have consistently had significantly higher rates than the national rate between 2001-03 and 2006-08:

- Ewood
- Mill Hill
- Shadsworth with Whiteburk
- Sudell

Blackpool

In no Blackpool wards were the under-18 conception rates significantly lower than national rates between 2001-03 and 2006-08. Four wards in Blackpool have consistently had significantly higher rates than the national rate between 2001-03 and 2006-08:

- Bloomfield
- Claremont
- Park
- Talbot

Lancashire

Seven wards in Lancashire have consistently had significantly higher rates than the national rate between 2001-03 and 2006-08:

- Peel (Hyndburn, East Lancashire)
- Spring Hill (Hyndburn, East Lancashire)
- Southfield (Pendle, East Lancashire)
- Ribbleton (Preston, Central Lancashire)
- St. George's (Preston, Central Lancashire)
- St. Matthews (Preston, Central Lancashire)

- Birch Green (West Lancs district, Central Lancashire)

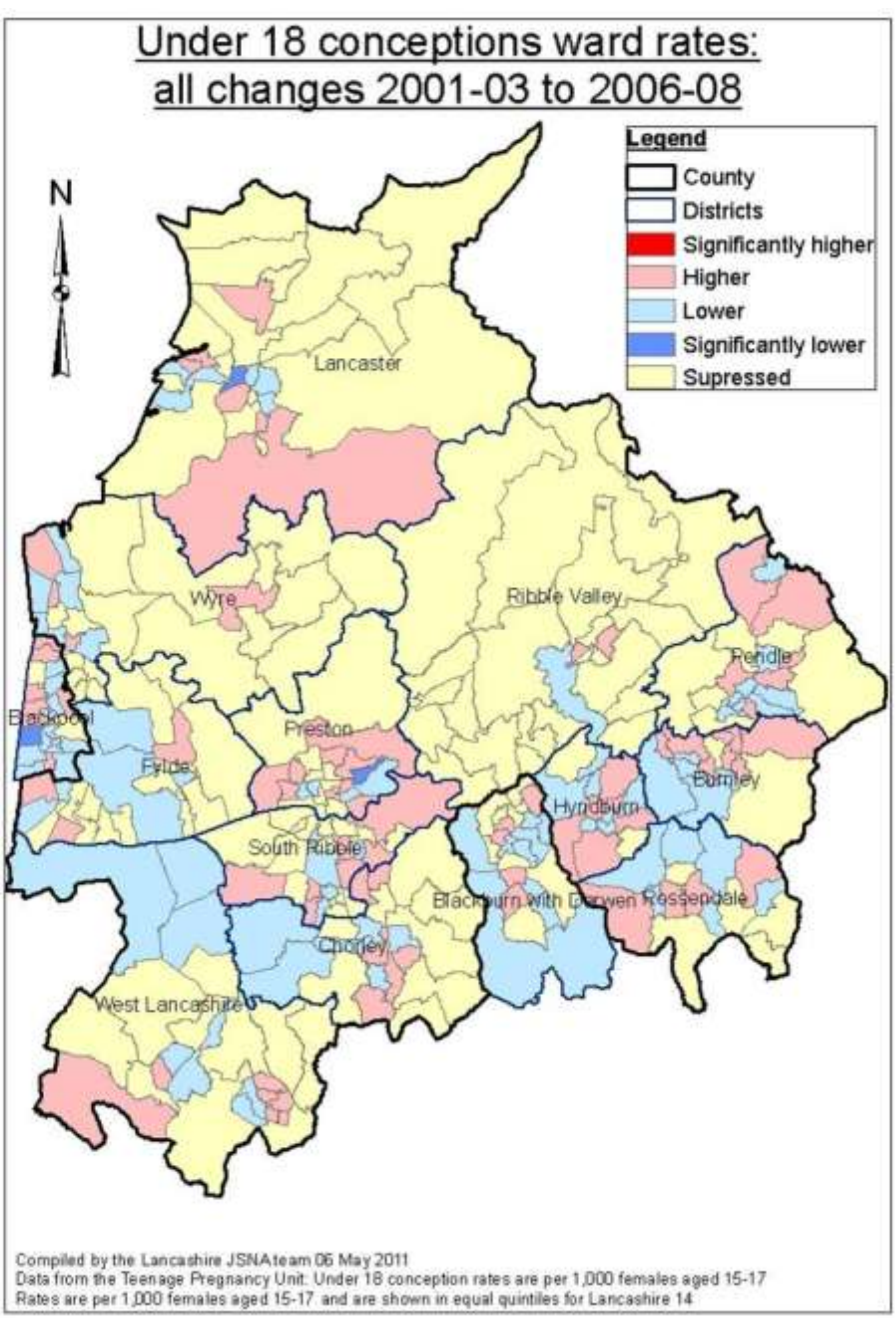
Trends in Lancashire are difficult to gauge from these maps as the rates for many wards are suppressed due to the very small number of conceptions. Again there are some definite hotspot areas which have remained relatively unchanged.

The map below shows the change in under-18 conception rates for Lancashire wards between 2001-03 and 2006-08. Many wards experienced changes in the rates of conceptions over the period, but very few were statistically significant. There were three statistically significant changes over the period:

- Bloomfield (Blackpool) – significant decrease
- Brookfield (Preston) – significant decrease
- Skerton West (Lancaster) – significant decrease

No wards experienced a significant increase in rates.

Map 7 - Changes in ward level under-18 conception rates: 2001-03 to 2006-08



Persistent TPU hotspots

Using the national Teenage Pregnancy Unit hotspot definition and rate it is possible to identify a series of wards as being hotspots over the three periods of 2004-06, 2005-07 and 2006-08. 54 wards have been identified as "persistent TPU hotspot" wards from 2004-06 to 2006-08. These are mapped below and summarised in a table on pages 69-70. This indicates a multitude of areas in Lancashire where outcomes are consistently poor for children and young people. However, a note of caution is again introduced as the TPU method does not take account of statistical

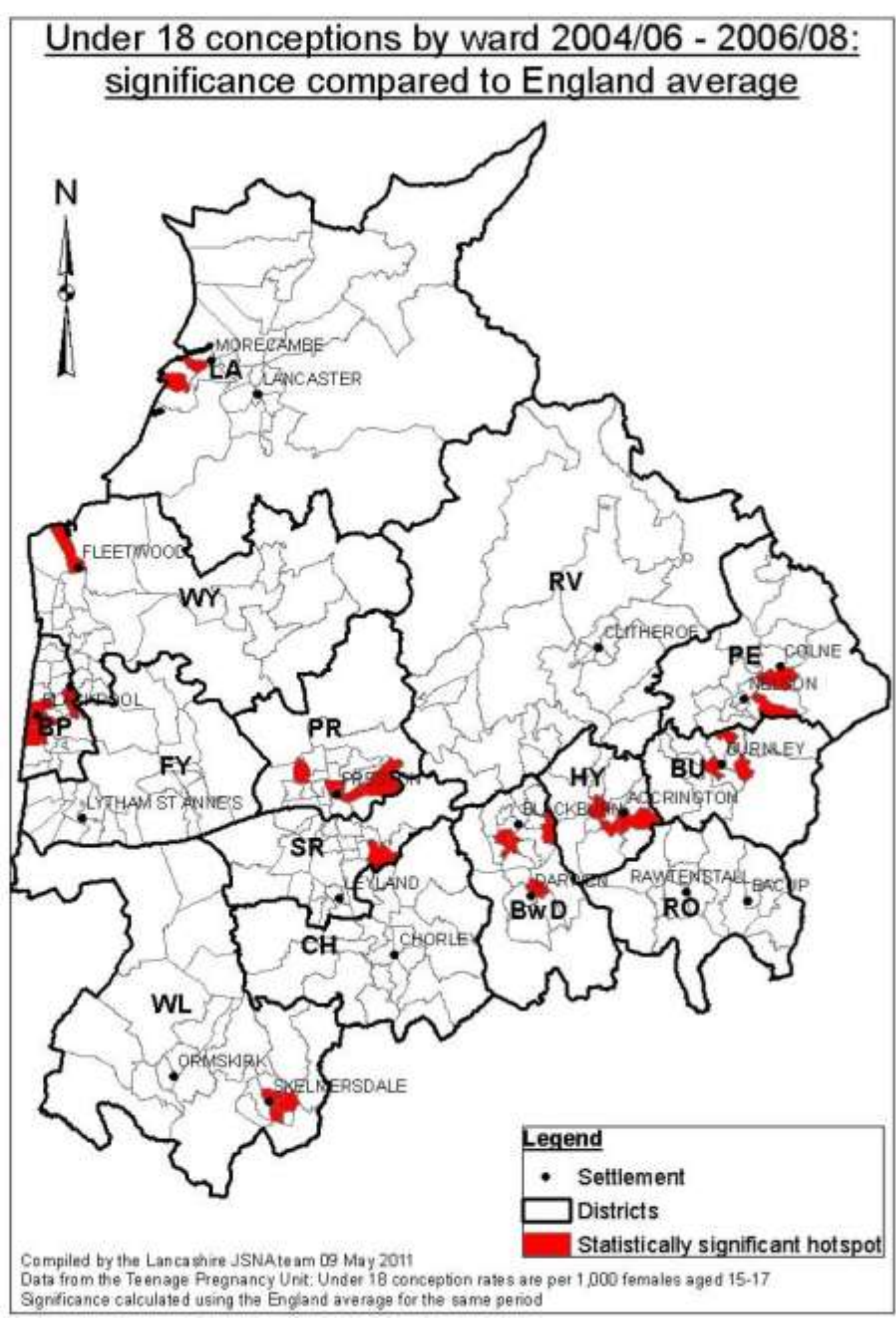
significance and some of the wards may have high rates with very wide confidence intervals due to small numbers.

Map 8 - TPU persistent hotspots, 2004-06 to 2006-08

Statistically significant hotspots

Over the same periods, 2004-06, 2005-07 and 2006-08, only 29 wards had rates consistently higher than the national average, highlighting the difference between the statistical significance method and the TPU "hotspot" method. These are mapped below and summarised in a table on pages 69-70.

Map 9 - Statistically significant hotspots, 2004-06 to 2006-08



Lancashire under-18 conception ward hotspots

The two types of hotspots are summarised in the table below along with the wards that have had significantly high rates across all periods from 2001-03 to 2006-08. As mentioned previously in the report, Marmot's principle of proportionate universalism indicates that interventions to reduce unwanted and unplanned under-18 conceptions should be applied universally across Lancashire. However, they should be targeted with intensity appropriate to the level of need. Identifying hotspot wards will aid in this process.

Although the national TPU method is not statistically valid, this is the national TPU recommended way of targeting and it is therefore ideal to focus interventions in all 54 wards to impact upon under-18 conception rates. However, the current economic climate is likely to require increased focus of interventions.

If restrictive budgets are the case, the optimal solution given constraints should be to focus on those areas identified as hotspots using the statistical significance method which identifies 29 wards during the same period which have had consistently higher rates of under-18 conceptions.

In the most extreme case of budget cuts, the need for focus will be even greater, as would the case for focusing efforts in the 15 wards with conception rates above the England average since 2001-03.

The service mapping undertaken and presented in a later chapter has used the national TPU persistent hotspots and the statistically significant hotspots (2004-06 to 2006-08).

Table 10 - Summary of Lancashire under 18 conception ward hotspots analysis

District	Ward	TPU persistent hotspots (2004-06 to 2006-08)	Statistically significant hotspots (2004-06 to 2006-08)	Statistically significant hotspots (2001-03 to 2006-08)
Blackburn with Darwen	Earcroft	Yes		
Blackburn with Darwen	Ewood	Yes	Yes	Yes
Blackburn with Darwen	Meadowhead	Yes	Yes	
Blackburn with Darwen	Mill Hill	Yes	Yes	Yes
Blackburn with Darwen	Shadsworth with Whitebirk	Yes	Yes	Yes
Blackburn with Darwen	Sudell	Yes	Yes	Yes
Blackburn with Darwen	Wensley Fold	Yes		
Blackpool	Bloomfield	Yes	Yes	Yes
Blackpool	Brunswick	Yes	Yes	
Blackpool	Claremont	Yes	Yes	Yes
Blackpool	Park	Yes	Yes	Yes
Blackpool	Talbot	Yes	Yes	Yes
Blackpool	Victoria	Yes		
Burnley	Bank Hall	Yes	Yes	
Burnley	Brunshaw	Yes	Yes	
Burnley	Gannow	Yes		
Burnley	Gawthorpe	Yes	Yes	
Burnley	Queensgate	Yes	Yes	
Burnley	Rosegrove with Lowerhouse	Yes	Yes	
Burnley	Rosehill with Burnley Wood	Yes	Yes	
Burnley	Trinity	Yes	Yes	
Chorley	Chorley East	Yes		
Chorley	Chorley South West	Yes	Yes	
Hyndburn	Barnfield	Yes	Yes	
Hyndburn	Church	Yes	Yes	
Hyndburn	Huncoat	Yes		

District	Ward	TPU persistent hotspots (2004-06 to 2006-08)	Statistically significant hotspots (2004-06 to 2006-08)	Statistically significant hotspots (2001-03 to 2006-08)
Hyndburn	Milnshaw	Yes	Yes	
Hyndburn	Peel	Yes	Yes	Yes
Hyndburn	St Andrew's	Yes		
Hyndburn	Spring Hill	Yes	Yes	Yes
Lancaster	Carnforth	Yes		
Lancaster	Harbour	Yes	Yes	
Lancaster	Heysham Central	Yes	Yes	
Lancaster	Overton	Yes		
Pendle	Clover Hill	Yes		
Pendle	Horsfield	Yes		
Pendle	Southfield	Yes	Yes	Yes
Pendle	Waterside	Yes	Yes	
Preston	Fishwick	Yes	Yes	
Preston	Ingol	Yes	Yes	
Preston	Moor Park	Yes	Yes	
Preston	Ribbleton	Yes	Yes	Yes
Preston	St George's	Yes	Yes	Yes
Preston	St Matthew's	Yes	Yes	Yes
Preston	Tulketh	Yes	Yes	
Rossendale	Healey and Whitworth	Yes	Yes	
South Ribble	Bamber Bridge East	Yes	Yes	
South Ribble	Earnshaw Bridge	Yes		
West Lancashire	Birch Green	Yes	Yes	Yes
West Lancashire	Digmoor	Yes	Yes	
West Lancashire	Moorside	Yes	Yes	
West Lancashire	Tanhouse	Yes	Yes	
Wyre	Mount	Yes	Yes	
Wyre	Pharos	Yes	Yes	

Comparing under-18 conception rates against risk factors

Risk factors for under-18 conceptions are well recognised and provide a compelling case for targeted action on young people who are exposed to these risks. Young people experiencing risk factors for under-18 conceptions are highly concentrated within particular areas and among vulnerable groups.

To target effectively those most at risk requires both a geographical focus on high rate neighbourhoods and the identification of vulnerable groups at high risk of under-18 conceptions.[12]

The risk factors for under-18 conceptions at an individual and population level are well known nationally. To understand the relevance in Lancashire a simple exercise was conducted to correlate under 18 conception rates against a number of other sets of data. The results are provided in the table below. The Pearson's correlation coefficient measures the degree of association between two variables. The value can range between zero and one and can be either positive or negative. The closer the value is to one, the greater the degree of association. A negative value indicates a negative relationship with under-18 conceptions in that as the variable increases, under-18 conceptions reduce. A positive value indicates that both the variable and under-18 conception rates move together.

It is important to note that this does not provide any measure of causation. Further investigation was given to those variables with a correlation coefficient with under-18 conception rates above 0.7.

Table 11 - Correlation of under 18 conceptions with risk variables in Lancashire

Variable	Pearson's r =
IMD Score 2007	0.7
CWI average score	0.7
CWI Material well-being average score	0.7
CWI Health and disability average score	0.5
CWI Education average score	0.8
CWI Crime average score	0.6
CWI Housing average score	0.5
CWI Environment average score	-0.2
CWI Children in need average score	0.8
YOT individuals rate per 1,000 people aged 10-17	0.7
Educ: KS3 % gaining L5 or above (English)	-0.6
Educ: KS3 % gaining L5 or above (Maths)	-0.6
Educ: KS3 % gaining L5 or above (Science)	-0.6
Educ: % gaining no GCSEs	0.4
% not gaining 5 at C or above	0.6

[12] Teenage pregnancy: accelerating the strategy to 2010

Variable	Pearson's r =
% Unauthorised Absences	0.6
Police: Rape rate per 1,000 pop	0.5
Social Services: Total Vulnerable Adults rate per 1,000 pop	0.6
Police: All Crime rate per 1,000 pop	0.5
Police Incidents: Anti-Social Behaviour Total rate per 1,000 pop	0.6
Police Incidents: Prostitution Related Activity rate per 1,000 pop	0.2
Christian	0.4
Buddhist	0.1
Hindu	0.1
Jewish	0.0
Muslim	0.1
Sikh	0.2
Other religion	0.4
No religion	0.5
Religion not stated	0.6
All NEET	0.7
L12 all NEET	0.5
L12 age 16 NEET	0.6
L12 age 17 NEET	0.6
L12 age 18 NEET	0.6
Children looked after by current residence	0.3
Children looked after by original residence	0.3
Child protection plans	0.3

The risk factor mapping appendix is provided as a separate document and includes maps highlighting the prevalence of each of the strongly correlated factors by district. These maps should enable the targeting of upstream interventions to prevent under-18 conceptions, but also to target sexual health services to prevent the rise of under 18 conceptions in areas where they are currently not high.

The table below shows those wards which are not currently identified as under-18 conception hotspots but are found to have high rates of 7 or more of the 12 risk factors we have found to correlate strongly with under-18 conceptions. This method identifies 32 wards which are currently statistically significant hotspots and 25 which are not. It is likely that measures to reduce under-18 conceptions are already in place in the hotspot wards but may not be in the wards which are not hotspots but have high levels of many of the risk factors. These wards are at risk of becoming under-18 conceptions hotspots in the future if preventative measures are not in place.

Table 12 - Wards with high levels of 7 or more known risk factors, which are not currently under-18 conceptions hotspots

District	Ward	Number of risk factors at high level
Blackburn with Darwen	Audley	7
Blackburn with Darwen	Higher Croft	7
Blackburn with Darwen	Wensley Fold	10
Blackpool	Brunswick	9
Blackpool	Clifton	9
Blackpool	Hawes Side	8
Blackpool	Victoria	9
Burnley	Bank Hall	10
Burnley	Daneshouse with Stoneyholme	8
Burnley	Gawthorpe	8
Burnley	Lanehead	7
Burnley	Rosegrove with Lowerhouse	9
Burnley	Rosehill with Burnley Wood	8
Hyndburn	Central	11
Lancaster	Heysham North	9
Lancaster	Poulton	9
Lancaster	Skerton West	10
Lancaster	Westgate	7
Pendle	Bradley	10
Pendle	Clover Hill	7
Pendle	Walverden	8
Pendle	Whitefield	7
Preston	Brookfield	11
Preston	Fishwick	10
Preston	Larches	8
Preston	Town Centre	10
Preston	University	8
South Ribble	Golden Hill	7
South Ribble	Lowerhouse	9
West Lancashire	Moorside	7
Wyre	Mount	9
Wyre	Rossall	8

* Unauthorised absence data was divided into equal quintiles for Lancashire 12 plus Blackburn with Darwen due to Blackpool data being unavailable. IMD data was divided into national quintiles as per the maps.

A summary of the findings from this under-18 conceptions risk factors analysis is provided in the form of a SWOT summary below.

Strengths

- Many of the areas with high levels of multiple risk factors are not under-18 conceptions hotspots – there are protective factors in place.

- Many areas have low levels of most of the identified risk factors.

Weaknesses

- Some areas with average or low levels of many risk factors are nonetheless still under-18 conception hotspots.
- Some areas have high levels of multiple risk factors.

Opportunities

- This analysis identifies which risk factors are present in each area so that interventions can be targeted accordingly.
- Early intervention could be taken in the areas with high levels of multiple risk factors which are not currently under-18 conceptions hotpots.

Threats

- We have identified 25 wards across Lancashire 14 which are not currently under-18 conceptions hotspots but where high levels of multiple risk factors are present. These areas are at risk of becoming under-18 conceptions hotspots if early interventions are not put in place.

Known pregnant teens and teenage mothers

The data used in this section has been made available by the Lancashire Connexions services as at the time this report was being prepared they held the most comprehensive data set on pregnant teenagers and teenage mothers. It shows a snapshot of the status of pregnant young women and young mothers who were recorded on the Connexions database in July 2010.

Education status

There is a well known link between under-18 conceptions and low levels of education. Nationally, nearly 40% of teenage mothers leave school with no qualifications. In the Connexions sample 66% of teenage mothers were either pre-GCSE or had no qualifications. A similar proportion was found (64%) for pregnant women. Teenage mothers in Burnley and Preston were most likely not to have any qualifications – almost 90% of the sample in each district did not have any qualifications.

The implications of having no qualifications are stark and are linked to low income, a poorer quality of life and poor health. Low income and poor quality of life could mean that the children of teenage mothers have a poorer start in life, which is a critical period in the life cycle, influencing the course of the rest of life.

Table 13 - Education status of teenage mothers and pregnant teens known to Connexions, July 2010

	Teenage Mother								Pregnant						
	Total	A/AS Level or NVQ 3 or BTEC Nat Dip or equiv.	GCSE (1 or 2 A-C) or equiv.	GCSE (3 or 4 A-C) or equiv.	GCSE (at least 5 A-C), BTEC 1st Diploma or NVQ 2 or equiv.	GCSE grades D/E or NVQ 1 or equiv.	GCSE grades F/G or equiv.	Pre-GCSE or no qualifications	Total	GCSE (1 or 2 A-C) or equiv.	GCSE (3 or 4 A-C) or equiv.	GCSE (at least 5 A-C), BTEC 1st Diploma or NVQ 2 or equiv.	GCSE grades D/E or NVQ 1 or equiv.	GCSE grades F/G or equiv.	Pre-GCSE or no qualifications
Blackburn with Darwen	**26**	0%	0%	8%	12%	19%	15%	**46%**	**28**	7%	0%	32%	25%	7%	**29%**
Blackpool	**45**	0%	4%	4%	4%	16%	4%	**67%**	**47**	2%	13%	2%	13%	4%	**66%**
Burnley	**17**	0%	12%	0%	0%	0%	0%	**88%**	**11**	9%	9%	18%	9%	0%	**55%**
Chorley	**22**	5%	0%	5%	18%	14%	0%	**59%**	**10**	0%	10%	20%	30%	0%	**40%**
Fylde	**3**	0%	0%	0%	0%	0%	0%	**100%**	**6**	17%	0%	0%	0%	0%	**83%**
Hyndburn	**19**	0%	11%	5%	11%	5%	5%	**63%**	**9**	0%	0%	0%	11%	11%	**78%**
Lancaster	**14**	0%	7%	14%	14%	7%	0%	**57%**	**14**	0%	7%	0%	21%	0%	**71%**
Pendle	**10**	0%	10%	20%	10%	20%	0%	**40%**	**7**	14%	0%	0%	29%	14%	**43%**
Preston	**21**	0%	0%	5%	0%	0%	10%	**86%**	**12**	0%	0%	33%	17%	0%	**50%**
Ribble Valley	**2**	0%	0%	0%	0%	0%	0%	**100%**	**0**						
Rossendale	**11**	0%	0%	0%	9%	9%	0%	**82%**	**4**	0%	0%	0%	0%	0%	**100%**
South Ribble	**21**	0%	10%	5%	0%	14%	10%	**62%**	**8**	0%	13%	13%	13%	0%	**63%**
West Lancs	**13**	0%	0%	8%	23%	0%	0%	**69%**	**11**	9%	0%	9%	9%	0%	**73%**
Wyre	**15**	7%	0%	7%	20%	7%	0%	**60%**	**22**	14%	5%	5%	5%	9%	**64%**
Lancashire Total	**239**	**1%**	**4%**	**6%**	**9%**	**10%**	**5%**	**66%**	**189**	**5%**	**6%**	**11%**	**15%**	**4%**	**59%**

Source: Connexions

Ethnic group

The vast majority of both teenage mothers and pregnant young women were from White British backgrounds. The second largest group were young women from mixed White and Black Caribbean groups. The ethnicity of more than one in ten teenage mothers and pregnant young women is not known.

Table 14 - Ethnic group of teenage mothers and pregnant teens known to Connexions, July 2010

	Teenage Mother												Pregnant					
	Any other Ethnic Group	Asian/Asian British-Pakistani	Black/Black British -Caribbean	Not Known	Other Asian Backgrounds	Other Mixed Backgrounds	White and Black Caribbean	White and Black African	White British	White Irish	White Not Known	Total	Asian/Asian Brit-Bangladeshi	Not Known	White and Black Caribbean	White British	White Irish	Total
Blackburn with Darwen	0%	0%	0%	0%	0%	4%	0%	0%	96%	0%	0%	**26**	0%	0%	0%	100%	0%	**28**
Blackpool	0%	0%	0%	38%	0%	0%	0%	2%	60%	0%	0%	**45**	0%	38%	0%	62%	0%	**47**
Burnley	0%	0%	0%	6%	6%	0%	0%	0%	88%	0%	0%	**17**	9%	9%	0%	82%	0%	**11**
Chorley	0%	0%	0%	5%	0%	0%	0%	0%	91%	5%	0%	**22**	0%	10%	0%	80%	10%	**10**
Fylde	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	**3**	0%	17%	0%	83%	0%	**6**
Hyndburn	5%	5%	0%	5%	0%	0%	0%	0%	84%	0%	0%	**19**	0%	0%	0%	100%	0%	**9**
Lancaster	0%	0%	0%	14%	0%	0%	0%	0%	79%	0%	7%	**14**	0%	7%	0%	93%	0%	**14**
Pendle	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	**10**	0%	0%	0%	100%	0%	**7**
Preston	0%	0%	0%	5%	0%	5%	10%	0%	76%	5%	0%	**21**	0%	0%	8%	92%	0%	**12**
Ribble Valley	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	**2**	-	-	-	-	-	**0**
Rossendale	0%	0%	0%	18%	0%	0%	0%	0%	82%	0%	0%	**11**	0%	0%	0%	100%	0%	**4**
South Ribble	0%	0%	5%	5%	0%	0%	5%	0%	86%	0%	0%	**21**	0%	13%	0%	88%	0%	**8**
West Lancs	0%	0%	0%	8%	0%	0%	0%	0%	92%	0%	0%	**13**	0%	0%	0%	100%	0%	**11**
Wyre	0%	0%	0%	7%	0%	0%	0%	0%	93%	0%	0%	**15**	0%	9%	0%	91%	0%	**22**
Lancashire Total	**1**	**1**	**1**	**28**	**1**	**2**	**3**	**1**	**198**	**2**	**1**	**239**	**1**	**25**	**1**	**161**	**1**	**189**

	Teenage Mother												Pregnant					
	Any other Ethnic Group	Asian/Asian British-Pakistani	Black/Black British -Caribbean	Not Known	Other Asian Backgrounds	Other Mixed Backgrounds	White and Black Caribbean	White and Black African	White British	White Irish	White Not Known	Total	Asian/Asian Brit-Bangladeshi	Not Known	White and Black Caribbean	White British	White Irish	Total
	0%	0%	0%	12%	0%	1%	1%	0%	83%	1%	0%		1%	13%	1%	85%	1%	
Source: Connexions																		

Education, employment or training status

The majority of teenage mothers in the sample (almost 60%) were not in education, employment or training (NEET). Whether this is an active choice or as a result of facing additional barriers to education, employment and training as a result of their parenthood is unknown. Conversely, the majority of pregnant young women (again almost 60%) were in education, employment or training. This may reflect the younger ages of pregnant young women versus the young mothers.

District level variation is present in the Connexions sample with young mothers in Burnley, South Ribble, Wyre and Hyndburn most likely to be NEET. Young mothers in Preston were most likely to be in education, employment and training. This may reflect a greater level of access to opportunities in the city.

Table 15 - Education, employment or training status of teenage mothers and pregnant teens known to Connexions, July 2010

	Teenage Mother					Pregnant				
	EET	NEET	Not Known	Total	% NEET	EET	NEET	Not Known	Total	% NEET
Blackburn with Darwen	10	15	1	**26**	**58%**	15	13	0	**28**	**46%**
Blackpool	19	24	2	**45**	**53%**	28	18	1	**47**	**38%**
Burnley	0	13	4	**17**	**76%**	2	6	3	**11**	**55%**
Chorley	8	14	0	**22**	**64%**	4	6	0	**10**	**60%**
Fylde	1	2	0	**3**	**67%**	5	1	0	**6**	**17%**
Hyndburn	6	13	0	**19**	**68%**	5	4	0	**9**	**44%**

	Teenage Mother					Pregnant				
	EET	NEET	Not Known	Total	% NEET	EET	NEET	Not Known	Total	% NEET
Lancaster	6	8	0	**14**	**57%**	4	9	1	**14**	**64%**
Pendle	6	4	0	**10**	**40%**	3	4	0	**7**	**57%**
Preston	10	6	5	**21**	**29%**	6	6	0	**12**	**50%**
Ribble Valley	1	1	0	**2**	**50%**	0	0	0	**0**	**0%**
Rossendale	6	5	0	**11**	**45%**	2	2	0	**4**	**50%**
South Ribble	3	15	3	**21**	**71%**	5	3	0	**8**	**38%**
West Lancs	4	8	0	**12**	**67%**	7	4	0	**11**	**36%**
Wyre	3	11	2	**16**	**69%**	17	5	0	**22**	**23%**
Lancashire Total	**83**	**139**	**17**	**239**	**58%**	**103**	**81**	**5**	**189**	**43%**
Source: Connexions										

Prior destination

Data on the prior destination of teenage mothers confirms what the analysis above suggested, namely that the majority of teenage mothers were either in school or further education prior to becoming pregnant. A further one in five were not in education, employment or training, highlighting another well know national link which is present in Lancashire.

Table 16 - Prior destination of teenage mothers known to Connexions, July 2010

	Teenage Mothers									
	Total	School Year 10	School Year 11	FE	WBL	Employ -ment	e2e	Not Known	Available NEET	Illness
Blackburn with Darwen	26	4%	27%	46%	0%	0%	8%	4%	12%	0%
Blackpool	45	0%	29%	33%	9%	0%	7%	4%	18%	0%
Burnley	17	0%	12%	6%	6%	0%	18%	29%	29%	0%
Chorley	22	0%	32%	18%	0%	5%	18%	0%	27%	0%
Fylde	3	0%	33%	33%	0%	0%	0%	33%	0%	0%
Hyndburn	19	0%	16%	21%	0%	0%	5%	5%	47%	5%
Lancaster	14	0%	7%	36%	14%	7%	0%	7%	29%	0%
Pendle	10	0%	30%	30%	0%	0%	20%	0%	20%	0%

	Teenage Mothers									
	Total	School Year 10	School Year 11	FE	WBL	Employ -ment	e2e	Not Known	Available NEET	Illness
Preston	21	0%	33%	19%	5%	0%	5%	24%	14%	0%
Ribble Valley	2	0%	50%	0%	0%	50%	0%	0%	0%	0%
Rossendale	11	0%	36%	36%	0%	0%	9%	9%	9%	0%
South Ribble	21	0%	29%	29%	0%	0%	5%	19%	19%	0%
West Lancs	13	8%	23%	31%	8%	0%	15%	8%	8%	0%
Wyre	15	0%	33%	13%	0%	0%	13%	13%	27%	0%
Lancashire Total	**239**	**1%**	**26%**	**27%**	**4%**	**1%**	**9%**	**10%**	**21%**	**0%**
Source: Connexions										

Table 17 - Prior destination of pregnant teens known to Connexions, July 2010

	Pregnant											
	Total	School Year 8	School Year 10	School Year 11	FE	WBL	Employ-ment	e2e	Not Known	Available NEET	Young Carer	Illness
Blackburn with Darwen	28	0%	0%	14%	29%	7%	4%	7%	0%	39%	0%	0%
Blackpool	47	0%	4%	30%	13%	9%	6%	11%	4%	23%	0%	0%
Burnley	11	0%	0%	27%	0%	0%	0%	9%	27%	27%	9%	0%
Chorley	10	0%	0%	30%	20%	0%	0%	0%	10%	40%	0%	0%
Fylde	6	0%	0%	17%	67%	17%	0%	0%	0%	0%	0%	0%
Hyndburn	9	0%	0%	22%	44%	0%	0%	11%	0%	22%	0%	0%
Lancaster	14	0%	0%	29%	14%	7%	14%	0%	7%	29%	0%	0%
Pendle	7	0%	0%	43%	14%	0%	0%	0%	14%	29%	0%	0%
Preston	12	0%	0%	33%	25%	0%	0%	8%	0%	33%	0%	0%
Ribble Valley												
Rossendale	4	0%	0%	25%	25%	0%	0%	0%	0%	50%	0%	0%
South Ribble	8	13%	13%	25%	13%	0%	0%	0%	0%	25%	0%	13%
West Lancs	11	0%	0%	27%	9%	0%	0%	27%	9%	27%	0%	0%
Wyre	22	0%	0%	32%	27%	5%	0%	14%	0%	23%	0%	0%
Lancashire Total	**189**	**1%**	**2%**	**27%**	**21%**	**5%**	**3%**	**8%**	**5%**	**28%**	**1%**	**1%**

Teenage pregnancy in the Lancashire sub-region

	Pregnant											
	Total	School Year 8	School Year 10	School Year 11	FE	WBL	Employ-ment	e2e	Not Known	Available NEET	Young Carer	Illness
Source: Connexions												

For further details please contact:jsna@lancashire.gov.uk

Segmentation profiling

We obtained postcode data for pregnant teens and teen parents from Connexions to undertake segmentation profiling. Segmentation profiling, or geodemographic profiling, is a way of understanding the needs and views of a population in terms of the different communities that make up the population. Segmentation analysis provides the most efficient way to understand the important differences among the various groups of people served by public sector organisations. Using MOSAIC™ public sector, it is possible to identify the likely characteristics of young people who become pregnant, which can support in the targeting of interventions. It does not provide a segmentation profile for those young people who are not known to connexions or who seek an abortion.

The MOSAIC™ profile highlights that teenage mothers and pregnant teens are most likely to come from household groups I, lower income workers in urban terraces in often diverse areas, and O, families in low rise social housing with high levels of benefit need.

However, the profile also identifies which groups are over-represented in comparison to the Lancashire population. Two groups are highlighted: group G, young, well-educated city dwellers, and group N, young people renting flats in high density social housing.

A guidance sheet for interpretation of the following tables is given in appendix A.

Figure 26 - MOSAIC™ group profile of teenage mothers and pregnant teens known to Connexions, July 2010

Experian Mosaic Public Sector

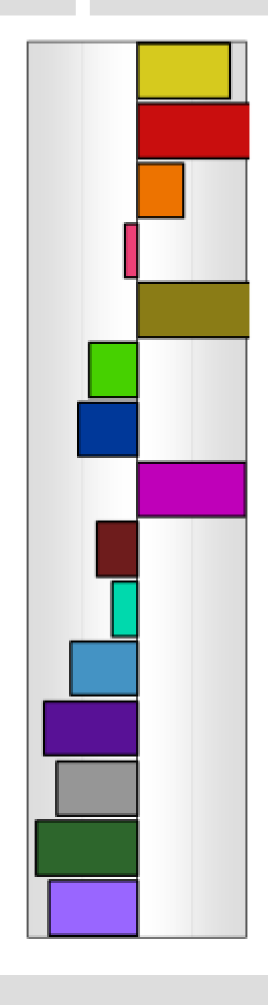
Your area or file:

Teenage pregnancies all (pregnant and mothers)

Comparison area or file:

Lancashire Mosaic households

Rank		Mosaic Public Sector Groups	Your area / file	%	Comp.	%	Pen. %	Index
1	I	Lower income workers in urban terraces in often diverse areas	119	28.33	98,796	15.31	0.12	185
2	O	Families in low-rise social housing with high levels of benefit need	73	17.38	40,095	6.21	0.18	280
3	K	Residents with sufficient incomes in right-to-buy social housing	45	10.71	48,336	7.49	0.09	143
4	J	Owner occupiers in older-style housing in ex-industrial areas	41	9.76	70,958	10.99	0.06	89
5	G	Young, well-educated city dwellers	26	6.19	18,828	2.92	0.14	212
6	B	Residents of small and mid-sized towns with strong local roots	25	5.95	69,145	10.71	0.04	56
7	E	Middle income families living in moderate suburban semis	24	5.71	78,731	12.20	0.03	47
8	N	Young people renting flats in high density social housing	19	4.52	14,697	2.28	0.13	199
9	M	Elderly people reliant on state support	16	3.81	39,283	6.09	0.04	63
10	H	Couples and young singles in small modern starter homes	11	2.62	22,026	3.41	0.05	77
11	F	Couples with young children in comfortable modern housing	9	2.14	35,092	5.44	0.03	39
12	D	Successful professionals living in suburban or semi-rural homes	5	1.19	53,836	8.34	0.01	14
13	L	Active elderly people living in pleasant retirement locations	5	1.19	28,663	4.44	0.02	27
14	A	Residents of isolated rural communities	1	0.24	19,299	2.99	0.01	8
15	C	Wealthy people living in the most sought after neighbourhoods	1	0.24	7,717	1.20	0.01	20
		Total	**420**	**100**	**645,502**	**100**	**0.07**	**100**



Group I, lower income workers in urban terraces in often diverse areas, account for 28% of teenage mothers and pregnant teens known to Connexions at the time the sample was taken. Experian provides the following summary profile of the group, highlighting their key features and communication preferences.

Table 18 - Group I, lower income workers in urban terraces in often diverse areas

Key Features	Communication Preferences
Few qualifications Routine occupations Young singles and couples Some young children Ethnic diversity Small homes Crowded Below average income Sport	**Access Information** SMS Text, Interactive TV, National and Local Papers Not Telephone **Service Channels** None Not Post

Group O, families in low rise social housing with high levels of benefit need, account for 17% of teenage mothers and pregnant teens known to Connexions. The key features and communication preferences of this group are highlighted in the table below. A comparison of the two tables highlights that the groups are quite different and have very different ways of accessing both information and services. This supports the need to develop a variety of interventions to reduce unplanned and unwanted under-18 conceptions, targeted in a way that is informed by such analysis.

Table 19 - Group O, families in low rise social housing with high levels of benefit need

Key Features	Communication Preferences
Disadvantaged Low incomes Unemployment Long term illness Low rise council housing One parent families High TV watching Dependent on state	**Access Information** Local Papers and Face to Face Not Internet **Service Channels** Face to Face Not Internet, Telephone, Mobile Phone or Post

The MOSAIC™ groups breakdown into MOSAIC™ types, which differentiate household types further to give more accurate descriptions of key features and communication preferences.

The most common household types for under-18 conceptions and teenage mothers are type 43, older town centre terraces with transient, single populations (15% of the total), type 44, low income families occupying poor quality older terraces (11%), and 69, vulnerable young parents needing substantial state support. The full MOSAIC™ profiles for each of these groups are included in appendix A. These profiles can be used to develop appropriate interventions to target these groups.

Figure 27 - MOSAIC™ type profile of teenage mothers and pregnant teens known to Connexions, July 2010

Experian Mosaic Public Sector

Your area or file:

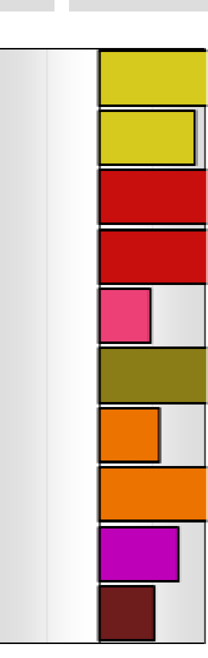
Under-18 conceptions all (pregnant and mothers)

Comparison area or file:

Custom - Lancashire county 14 districts Mosaic households (Households)

This page identifies the top ten Mosaic Public Sector types in your area ranked on percentage. Following this is a description of the top three types

Rank		Mosaic Public Sector Types	Your area / file	%	Comp.	%	Pen. %	Index
1	43	Older town centres terraces with transient, single populations	63	15.00	41,534	6.43	0.15	233
2	44	Low income families occupying poor quality older terraces	46	10.95	37,006	5.73	0.12	191
3	69	Vulnerable young parents needing substantial state support	43	10.24	19,119	2.96	0.22	346
4	67	Older tenants on low rise social housing estates where jobs are scarce	26	6.19	18,275	2.83	0.14	219
5	45	Low income communities reliant on low skill industrial jobs	25	5.95	25,886	4.01	0.10	148
6	33	Transient singles, poorly supported by family and neighbours	22	5.24	9,063	1.40	0.24	373
7	50	Older families in low value housing in traditional industrial areas	22	5.24	21,550	3.34	0.10	157
8	51	Often indebted families living in low rise estates	17	4.05	7,646	1.18	0.22	342
9	61	Childless tenants in social housing flats with modest social needs	14	3.33	12,228	1.89	0.11	176
10	57	Old people in flats subsisting on welfare payments	11	2.62	11,073	1.72	0.10	153



Support for teenage parents

The clear priority is to reduce unplanned and unwanted under-18 conceptions. However, it is also important to provide support for those who become young parents to reduce the risk of poor outcomes for them and their children. Tackling under-18 conceptions contributes to reducing child poverty and infant mortality. The national teenage pregnancy strategy outlined what support should be provided for teenage parents and this is documented below:

Historically Sure Start Plus programmes were in place in areas of deprivation to provide dedicated and targeted support to pregnant teens, young mothers and young fathers. The evaluation of Sure Start Plus pilots made recommendations of good practice that should be included as part of local programmes*:*

- develop strong and confident parenting skills;
- address any emotional or mental health problems;
- prevent further unplanned pregnancies;
- mediate positive relationships with their family and, where appropriate, the father of the child;
- continue or re-engage with education and training;
- develop financial management skills;
- develop the knowledge and skills to look after their own and their children's health;
- packages of support that are tailored to individual needs of the young parent (including young fathers);
- dedicated work with young fathers to include re-engagement in education, employment or training and greater responsibilities for contraception.

Sexual health service mapping

In order to identify any issues in sexual health service provision and access, the five Lancashire primary care trusts compiled a list of all their sexual health services, general practices, pharmacies and condom distribution schemes and some maps were produced. The services were mapped against persistent under-18 conception hotspots to evaluate whether the services were well placed in relation to those areas with higher levels of need and those at risk or becoming teenage parents. All of these maps can be found in appendix D.

A summary of the findings from this mapping exercise are provided below:

- Many of the services which exist already appear to be well placed to serve those teenagers with the highest risk of uner-18 conception.
- Some services in the highest risk areas have comprehensive opening hours and offer a good range of sexual health services.
- Some services appear to be located quite far away from under-18 conception hotspot areas, which may limit their use to those with the highest need, especially when we consider that most of the population at risk may only walk or use public transport to access them.
- Some services only open for a few hours a week or every fortnight and this is often not on the days when we would expect the highest levels of need. (Evidence shows that most under-18 conceptions occur on weekend nights. Emergency hormonal contraception can be taken up to 72 hours after unprotected sex, (although the earlier it is taken the more effective it is likely to be), so services would be needed most in the 72 hours afterwards. These patterns of service might not be well understood by those in need and may act as a barrier to use.
- Some services, although well located in terms of hotspot areas and/or target population density do not offer as full a range of services as may be needed.
- The maps in this report show that there are patches of high population density of females aged 15-17. Some of these patches have already been identified as under-18 conception hotspots, but others may be at risk in the future. A proactive approach to intervention planning is needed for such areas.
- Other potential future hotspot areas have been identified in the risk factors section of the report. These are areas which are not currently hotspots but have seven or more risk factor

rates that are within the top quintile in Lancashire. These areas would benefit from preventative approaches and early intervention as well as careful monitoring to make sure that they don't become hotspot areas in the future and should be taken account of in service and/or intervention planning.

Local insights into under-18 conceptions

Funded by the Lancashire Teenage Pregnancy Partnership, NHS Central Lancashire commissioned 'Hub Marketing' to undertake local qualitative insights into under-18 conceptions that would inform the central Lancashire under-18 conceptions programme in the context of the teenage pregnancy strategy. This section is taken directly from the Hub's final report to the primary care trust.

Using persistent under-18 conceptions "hot spot" wards (2005/2007 data) in central Lancashire, insights were undertaken in the following wards:

- Digmoor ~ West Lancashire
- Birch Green ~ West Lancashire
- Ribbleton ~ Preston
- St Georges ~ Preston

Insight objectives

Objectives were broad ranging to gain insight/understanding of:

- Behaviours, attitudes, beliefs and values towards sexual health / contraception / under-18 conception
- What role parents think that they have to play in talking to their daughters about sex, realtionships and contraception and what they currently do
- Perceptions of sexual health services and how appropriate current services are for young girls

Methodology

In order to meet the insight objectives, it was agreed that the sample should be segmented into three groups as follows:

Teenage girls that are considered 'at risk' of becoming pregnant - 'At-risk' teenage girls are a primary audience for the under-18 conception strategy and local services therefore ensuring a full

understanding of their behaviour, attitudes, values and beliefs, as well as their perceptions of local services is key.

Teen mothers- Teenage mothers were included to allow exploration of their experiences and their journey to becoming a teenage mum. Engaging with teenage mothers provided invaluable insight into the psychological, social and environmental factors that lead to conception and becoming a teen mother at a local level.

Mothers of teenage mothers - This audience was included because of the importance of parent-daughter discussions (intergenerational aspect) about sex and relationships in determining outcomes. The Teenage Pregnancy Strategy (1999) states that the likelihood of under-18 conceptions is more than doubled for young women who do not discuss sex easily with their parents. Furthermore, research from the University of Southampton shows that children and young people who come from families in which sex and relationships are openly discussed are more likely to delay the age at which they first have sex, have fewer partners and use contraception when they do have sex.

Given the outlined objectives and the desire for a broad level of insight it was agreed that a focus-group approach would be adopted. Two focus groups were conducted with each segment, each lasting for 1.5 hours

Limitations to the sample

There were a few limitations to the sample that should be taken into account when reviewing the insight, particularly with the recruitment of the participants:

- Participants were drawn from existing groups – benefits regarding group cohesion but they may not represent a true picture of general members of the public who may not be engaged with services in the same way
- Difficulty with recruitment resulted in one of the influencer groups becoming mixed rather than solely comprising influencers. A mixture of participants could affect group cohesion, influencing responses, potentially skewing data
- Difficulty with recruitment also prevented some of the groups being run at capacity, so some segment numbers are relatively small
- The desire to reach a greater number of participants with a wide range of objectives limited the depth of insight

Summary of findings

Young women begin learning about sex through formal (school) and informal (friends) means around the age of 11 years. Formal sex and relationships education was received passively with limited, if any two way dialogue between teachers and pupils. Participants recalled teachers being obviously embarrassed by the subject matter, and classes focused on the biology of sex at the expense of relationships and the emotional side of sexual relationships. The majority of the girls said they would not consider, or feel comfortable, approaching a teacher to discuss anything to do with sex. In contrast, information from friends was actively sought and centred around gossip about sex and, when sexually active, getting information about how to 'do it'.

There was general agreement amongst all participants that the provision of sex and relationships education was too late as many young people were already engaging in sexual activity before they received any formal education. Indeed, there was a general consensus in the young mums groups that a lack of knowledge about sex was often a key contributing factor to partaking in risky sexual behaviour and falling pregnant.

"I was already pregnant when we had the talk at school" - ***At Risk***

There is a risk that increased information without the development of emotional intelligence could prove confusing for primary school age children, but it is felt that increased information given in a context-sensitive way would reduce the likelihood of pre-teens and teenagers engaging in risky sexual behaviour.

Both of the young people and parent groups reported varying levels of comfort in discussing sex with their parents or children respectively and there was also variation in the level of influence that children and parents perceived parents to have over their children's attitudes and behaviour.

Many parents did not actively engage in active, open and frequent dialogue with their children about sex, for a number of reasons:

- Primarily many parents felt embarrassed and unsure as to when, or how, to broach the subject with their children.
- Furthermore parents often perceived other services, specifically schools, as being better placed to teach their children about sex. This resulted in parents not perceiving their child's sex and relationships education as their responsibility.
- If parents did engage in a discussion about sex and relationships this was often a one-off 'lesson' or chat rather than an ongoing dialogue with 'triggers' such as TV adverts or getting a new boyfriend used as a prompt for discussion that is often rushed and uncomfortable.

“We found out she was having sex (but she still denied it) so both me and her dad sat her down. He said blokes were just after one thing, I told her it wasn’t all it’s cracked up to be” - ***Mother***

“I would be sick if my mum asked me about it” - ***At Risk***

Both parents and the two young women groups felt that the influence of friends and boyfriends was much greater than that of parents. The media was also mentioned as an influencer and it is largely felt that the media glamorises sex, encourages the perception that ‘everyone is doing it’ and is not being responsible when it comes to portraying safer sex practices and contraception use.

Behaviours, attitudes and values towards sex

Values and attitudes towards sex amongst teenagers are formed by a number of factors including friends, boyfriends, self-esteem and their own parents’ views on sex (although not expressed directly), through the information they receive and the media. The current critical point for intervention is at age 12/13 when interest in sex is high but information is limited in terms of both quality and quantity. Participants indicated that emotional maturity is low at this age and the confidence to express an opinion regarding sex, relationships and contraception is limited as is access to contraception. Many teens that engage in sexual behaviour at this age expressed regret when they are older:

“You just think it’s a cool thing...if I had known more about STIs and the facts about pregnancy I probably wouldn’t have lost it so early” - ***At Risk***

Sexual behaviour at ages 12-13 is largely attributed to the ‘normalisation’ of sex amongst peer groups as well as the pressure exerted by peers, including older boys. Low aspirations, limited opportunities and a perceived lack of things to do lead to boredom and alcohol use which all were reported to contribute to risky sexual behaviour.

The table below demonstrates the development of young girls' attitudes and values towards sex and relationships. It illustrates the shift that occurs from sex being very much in the periphery of their lives at age 11-12, something of which they have limited emotional understanding and developing to a routine behaviour with a high likelihood of feelings of regret for previous behaviour at age 17-18.

Figure 28 - Attitudes and values towards sex in girls aged 11 to 18

Age 11-12	Age 13-14	Age 15-16	Age 17-18
• Sex not a core part of their world • Majority aware of sex and becoming increasing interested in it • Little emotional understanding of sex • Confusion and fear	• Sex becoming more of a central topic in their world (hormones, older friends, more freedom, less to do) • Limited emotional understanding of sex • New and exciting • Sex is still a source of confusion and fear but centred more on performance and others' reactions to their behaviour • Perceived self-efficacy	• Sex is important part of life for majority • Sex is routine/ 'expected' • Sex is less frowned upon by parents/services	• Sex is important and routine for majority • Emotional understanding better developed • Regret about previous behaviour

Source: Hub Marketing 2010 [sic]

Behaviours, attitudes and values towards contraception and pregnancy

At age 15, knowledge, confidence and access to contraception has significantly increased but risky behaviour is still undertaken. This is often linked to gaps in knowledge that, although fewer than at age 11, is often of poor quality and full of misconceptions:

"I always thought you couldn't get pregnant when you lose your virginity but apparently that's not true"... "can you really?"..."it's not as likely - ***Teen Mum Conversation – persistent misconceptions***

As well as a lack of informed knowledge, teenagers often have older boyfriends who put pressure on them to have sex without contraception. If pressure is coupled with low self-esteem teenagers will forgo the risks to do what they think will keep the boy. In addition, although most of the groups think that contraception should be both partners' responsibility, in reality this always rests with the girl.

"They say, afterwards, you're on the pill aren't you, and if not they say well you better go and get the morning after pill" - ***At Risk***

Finally, accidents and/or the desire to have a child are significant factors contributing to a higher likelihood of under-18 conceptions:

"I wanted the child. I had a terrible family life and wanted one of my own" - ***Teen Mum***

Amongst participants from the teen mums groups, pregnancies were largely unplanned and no one felt that they were at high risk of becoming pregnant prior to being so. Pregnancy had largely arisen due to forgetting / choosing not to use contraception, or using contraception incorrectly. The

majority of teenage mothers said they wished that they had waited before having a child now that they fully understand the realities of rearing a child, and can recognise the 'missed opportunities' in their own lives. The majority chose to continue with their pregnancy because they felt supported by their parents and/or partners to do so, or because they wanted a baby. Participants from the teen mums groups in particular reflected that their parents could have done more before they fell pregnant to talk to them about their choices.

Participants from the at-risk groups held a range of different attitudes to pregnancy - from considering it to be a 'disaster' through to actively wanting a baby. The majority of the participants from these groups said that they would not feel that falling pregnant would be a disaster, however, they acknowledged that their lives would change dramatically and that their parents would, at least initially, react negatively.

It would be a shame because college would be a waste, but I'd actually be stoked if I got pregnant"
- ***At Risk***

"When I was 16 I wanted a baby...nothing else to look forward to" – ***At Risk***

Services

Across the sample all of the young women were aware of, and used, Talkwize and the Young People's Service (YPS) These services were preferred to traditional clinical services as they appeared to be youth focussed with friendly, welcoming and non-judgemental staff, as well as having drop-in facilities. At-risk participants were more likely to access Talkwize and had more positive experiences than the young mums group, many of whom felt embarrassed and felt 'looked down on'. Both teen mums and the at risk group had mixed experiences with healthcare professionals and said that they felt uncomfortable in clinical environments, and with GPs who were often awkward and focussed solely on their medical needs, or refered directly to Talkwize. The influencer mothers had limited knowledge of services or the information that was available to them. They were not actively looking for support or advice so any information gained was passive.

Discussions around ideal services for young people provided a range of insights to inform service development / delivery. Specifically, from the young people's groups there were suggestions for an internet based fact site and the possibility of talks about the reality of being a teen parent given by teen mums themselves to other young people. In addition, most young people expressed a preference for easy access for themselves to relevant information, or via their friends rather than through parents or teachers. A robust body of information that is easily accessible and from a trusted source (generally considered friends or family) was perceived to be an effective way to communicate.

*"If everybody was more open you wouldn't want to do it so much" -**Teen Mum***

The majority of the groups for young people say that an ideal service for young people would be a similar set up to Talkwize but with a number of key improvements including increasing the accessibility of the service via longer opening hours, more community locations, appointment times for those that are time pressed and opening the service to a younger age range (12-14) are considered important. Better promotion of all services was also suggested including traditional media and word of mouth methods as well as social media channels such as Facebook. Finally young people felt that service users should be involved in service design.

Crucially before service improvements can be made for the mothers of teenagers, they need to be convinced that they can have a positive influence on their children's decisions either through opening a direct dialogue or via indirect action i.e nurturing self-esteem. Service ideas suggested by the mothers of teenage mothers group included schools informing parents of the topics they are covering, better advertising of what services they can signpost their children to and offering hints and suggestions of 'triggers' and 'openers' that can open conversations or start an ongoing dialogue. It was also suggested that teen pregnancy as a stand-alone issue would not interest parents enough to actively seek guidance and advice as other issues such as alcohol and drug abuse are more of a concern. However, a holistic guidance approach to teen issues with teenage sexual behaviour and pregnancy as one strand might provide a bigger pull.

Alcohol

Due to the limited sample it is not possible to say that restricting alcohol access or attractiveness to young people would result in fewer early sexual experiences but the views expressed by participants as well as wider research does suggest that alcohol misuse it is a contributory factor to risky sexual behaviour.

- Evidence from the sample suggests that alcohol plays a part in most sexual experiences that occur around the ages of 13/14
- This is especially relevant for girls that had sex with a casual partner rather than established boyfriend
- Prior to 13 alcohol was less of a contributing factor with lack of emotional development, lack of accurate information and curiosity being much more of an influence
- Most of the 'at risk' group and some of the teen mums who had sex with a casual partner suggested alcohol lowered their inhibitions and was a factor in these sexual encounters

- Alcohol did not necessarily stop participants considering or asking a partner to use a condom but they were less likely to insist upon usage

- Some regret was demonstrated the next day following these encounters

Changing Behaviour

In order to tackle long term behaviour change and focus efforts, it is crucial to identify the tipping point – the point at which the momentum for change becomes unstoppable. The diagram below draws together the learning from undertaking this qualitative work and takes account of the available evidence base (much summarised earlier in the report) to demonstrate the likely point at which this occurs. It should be noted that this will vary across and between groups and individuals if a multiplicity of risk factors is experienced at once.

Figure 29 - Identifying the tipping point

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The audience journey - identifying the tipping point

	Age 11-12	Age 13-14	Age 15-16	Age 17-18
PERSONAL	Interest increasing through experimentation (through the bases) Little emotional understanding of sex Confusion and fear Embarrassed	Interest increasing through experimentation - have sex Excited but still worried and embarrassed - pressure Hormonal but increasingly confident (perceived efficacy)	Sex is important part of life Stresses in life - other pressures Wider understanding	Sex is routine Emotional understanding Regretful of earlier choices - maturity
SOCIAL	New friendship groups Wider range of opportunities through new experience Social networking activity increases	Older friends/ boyfriends Hot topic of conversation - about act rather than emotions	Engaging in other risky behaviour	New, older circles Alcohol key part of life
ENVIRONMENTAL	New school New travel arrangements Greater freedom Parents don't talk unless prompted SRE factual and passive	More freedom Less to do - bored Parents don't talk unless prompted SRE - contraception introduced but factual Access to contraception limited	Sex is less frowned upon by parents/services Lack of employment Parents don't talk unless prompted Nowhere to go	Work, college or NEET Parents don't talk unless prompted Nothing to do if no disposable income

Tipping point (between Age 11-12 and Age 13-14)

Little understanding / Fear → Routine and understanding / Regret

Key conclusions

- Sexual interest and activity starts at 11. This is in advance of provision of some key information (particularly the range of contraception available), emotional development and confidence to act

- Parents do influence their children, but not as much as peers and boyfriends – however, some evidence to suggest that this could be developed

- Parents lack a protocol for engaging with their children about sex given they did not have positive experiences with their own parents

- Existing services focus on practical help and assistance regarding sex, contraception, STIs and pregnancy, limited in their offer for:
    - Emotional support
    - Support for younger teens
    - Support for those less confident to speak face to face
    - Support for parents

Recommendations drawn from this work have been included within the overall set of recommendations at the end of this report.

Conclusions and recommendations

Actions partners can take to reduce under 18 conceptions

The national document *Accelerating the Strategy to 2010* laid out a series of recommendations that provide a useful framework in which to structure local programmes. These recommendations are still valid and all key mainstream delivery partners should take account of them. These recommendations are:

- Ensure active engagement of all key mainstream delivery partners for reducing under-18 conceptions;
- Nominate a senior champion who is accountable for and provides the lead in driving the local strategy;
- Ensure the availability of well publicised young people-centred contraceptive and sexual health advice services, These need to have a strong remit to undertake preventative and early intervention work, as well as delivering reactive services
- Give a high priority to PSHE in schools, with support from the local authority to develop comprehensive programmes of sex and relationships education (SRE) in all education settings
- Ensure a strong focus on targeted interventions with young people at greatest risk of under-18 conceptions, in particular with Looked After Children;
- Encourage availability and consistent take-up of SRE training for professionals in partner organisations who work with young people, particularly those most at risk and include: , targeted youth support (TYS) lead professionals, youth workers and social workers
- A well resourced Youth Service, providing things to do and places to go for young people, with a clear focus on addressing key social issues affecting young people, such as sexual health and substance misuse.
- Mainstream under-18 conceptions/young people's sexual health agenda within local Children & Young People Plans.

Those areas with the greatest success in reducing under-18 conceptions confirmed the evidence base for the strategy. Using the analysis contained within this report, the teenage pregnancy national support team recommendations and the evidence from national strategies, a series of recommendations have been developed in order to make a lasting and positive impact on under-18

conceptions rates. These are split into enabling actions that all key mainstream delivery partners should commit to and partner specific recommendations where it is seen that a partner organisation has a defined role to play.

Enabling recommendations

- Develop an approach which is integrated between sexual health and substance misuse;
- Key mainstream partners to work together to ensure local relevant data is being effectively captured, collated, analysed and disseminated to inform commissioning and to better performance manage local programmes focussed on improving the sexual health of children and young people;
- Development of a performance dashboard able to effectively monitor implementation of local programmes aimed at improving the sexual health of children and young people;
- All organisations with a role in delivering services to children and young people in Lancashire should ensure that their staff are able to sensitively respond to children and young people about sexual health and signpost them to relevant services;
- To support this, a Lancashire-wide training programme around sexual health and substance misuse should be developed and implemented for anyone who is working with children, young people and their families;
- That future commissioning of contraceptive and sexual health services uses a collaborative approach between the NHS and Local Authorities to form an effective sexual health system;
- Develop a comprehensive marketing and communications plan that covers the breadth of the strategy;
- Develop an approach / programme that support parents/carers to become more confident at talking with their children about sex and relationships that is then consistently delivered through mainstream delivery partners.

Partner specific recommendations

Education settings

These recommendations are relevant to formal and informal education settings. For formal education settings this would include primary, secondary and special schools and colleges.

- Nominate a named senior management lead and governor lead for SRE;
- Complete a full SRE audit to assess the quality of SRE provision. This should include involvement and participation of children and young people;
- Work with appropriate partners to produce action plans to address areas for development;
- Settings should utilise relevant data, information, support and evidence based resources to support SRE delivery;
- Actively support parents/carers to feel more confident in talking to their children about sex and relationships;
- Ensure that teachers have information and access to training in basic sexual health awareness and messages around delaying sexual activity;
- Take account of how SRE programmes integrate with programmes addressing substance misuse and violence in relationships;
- Ensure information is available on local sexual health services and how to access them.

Education standards and inclusion

- Prioritise development of a core Sex and Relationships Education (SRE) offer to outline:
  - what pupils can expect from their school SRE;
  - what schools can expect from health, local authority and voluntary sector providers;
  - the responsibilities of schools to their pupils, including giving information about and supporting access to local Contraception and Sexual Health (CASH) services.
- Ensure that staff linked to and working in schools in 'hot spots' or with catchments that include 'hotspots' are aware of the links between educational attainment, disaffection and disengagement from school and under-18 conceptions;

- Encourage schools to develop holistic SRE programmes with information and access to local sexual health provision

Children's Centres

- Ensure a sexual health policy is in place and being implemented and is subject to regular review;
- Provide holistic support to pregnant teenagers and their partners, offering opportunities for them to be seen together, where appropriate;
- Support the involvement of young fathers in parenting their children, including non-resident young fathers where appropriate;
- Ensure a strong focus on building the self-esteem and self-confidence of young parents through an integrated support package that includes quality, evidence based parenting programmes, one to one advice, emotional support and practical help;
- Improve access to support (ensuring proactive supported referral) for supported accommodation, benefits, education and training opportunities as well as health and wellbeing services (breastfeeding support, smoking cessation, sexual health services);
- Provide intensive crisis support as required and ensure a model that is in line with local thresholds for early support;
- Provide outreach to young parents in supported housing.

Children's social care

- Ensure a sexual health policy is in place and being implemented and is subject to regular review;
- Engage with opportunities for workforce development to ensure appropriate capacity and capability of staff for delivery of preventative work as well as effective working with young parents;
- Increase access to condom distribution and sexual health services for young people looked after;

- Ensure that work with vulnerable families includes work with parents and foster carers on how to talk to their children about sex and relationships.

Young People's Service

These recommendations would be relevant to Youth Service provision through both upper tier authorities and the community, voluntary and faith sector.

Prevention:

- Ensure a sexual health policy is in place and being implemented and is subject to regular review;
- Engage with opportunities for workforce development to ensure appropriate capacity and capability of staff for delivery of sexual health work including;
    - Identifying staff to train as trainers on the basic sexual health awareness training;
    - Ensuring management support to allow trainers to train on an agreed number of courses each year;
    - Identify priority staff to receive basic sexual health awareness training.
- Provide level 1 services[13] in targeted formal and informal settings.
- Ensure an appropriate level of sexual health outreach work is delivered in targeted localities;
- Audit staff currently trained to issue condoms and assist with pregnancy tests broken down by district and 'hot spot' areas;
- Aim to increase number of workers designated to issue condoms and assist with pregnancy testing;
- Ensure information is up to date and readily available to inform young people of local sexual health services;
- Strengthen partnership links with PCT's including public health, school health and sexual health staff;

- Ensure that targeted youth work includes work specifically around sexual health, relationships and substance misuse and is needs led.

Supporting pregnant teenagers and teenage parents:

- Ensure that pregnant teenagers and teenage parents have access to information, advice, guidance and support through robust links with children's centres;
- Ensure that teenage parents have access to information on Care 2 Learn and support in accessing funding to pay for child care;
- Develop a range of personal development opportunities for teenage parents that take account of their needs.

Lancashire Youth Offending Team (YOT)

- Develop and implement a sexual health policy for young people who offend;
- Engage with opportunities for workforce development to ensure appropriate capacity and capability of staff for delivery of sexual health work including;
    - Identifying appropriate staff (in line with the sexual health policy) for issuing of condoms and assisting with pregnancy testing where appropriate;
    - Ensuring all staff have a basic awareness of sexual health issues and how to address them.
- Ensure that information on local sexual health services is available and up to date for all YOT clients and in local YOT offices;
- Provide information for parents on how to talk to their children about sex and relationships.

Borough and City Councils

- Include young peoples sexual health within District Children's Trust Action Plans (based on need)
- Provide up to date information on sexual health services in all appropriate community facilities;

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[13] Non-clinical services

- Ensure local neighbourhood management schemes are linked into local sexual health initiatives;
- To engage with local arrangements for improving the sexual health of children and young people in their district;
- Engage with opportunities for workforce development to ensure appropriate capacity and capability of staff for delivery of sexual health work.

Commissioners of sexual health services

- Develop and implement a Lancashire wide condom distribution scheme;
- Increase availability and access to long acting reversible contraception;
- Ensure that information on free emergency hormonal contractive provision in local pharmacies is publicised and promoted to young people;
- Ensure local sexual health services are publicised widely to young people;
- Ensure that sexual health staff have the remit and capacity to provide outreach services in targeted areas and to hard to reach young people;
- To work closely with staff from the Young People's Service and other partners to provide creative and flexible clinical and education sessions.

Contraceptive and sexual health advice services

- Engage with opportunities for workforce development, providing input to the design and delivery of training programmes;
- Ensure any changes to service provision are co-designed with the target audience following the 'You're Welcome' quality criteria;
- Ensure awareness within staff of the issue of consanguinity and have appropriate strategies in place to effectively address this, liaising with specialist services as appropriate;
- Improve the promotion of services including through targeted communications that are informed by analysis of the available intelligence.

Supporting People

- In line with national guidance ensure that teenage parents, who were unable to live at home, are placed in either a dedicated housing project, or have an intensive floating support package, co-ordinated by a lead professional.
- Ensure that a support package:
    - Is tailored in content and length to the individual needs of the young parent;
    - develops strong and confident parenting skills;
    - addresses any emotional or mental health problems;
    - prevents further unplanned pregnancies;
    - mediates positive relationships with their family and, where appropriate, the father of the child;
    - continues or supports re-engagement with education and training;
    - develops financial management skills;
    - develops the knowledge and skills to look after their own and their children's health.

General Practitioners and Clinical Commissioning Groups (CCGs)

- Ensure teenage pregnancy and young peoples' sexual health is a priority – both as a provider and as a commissioner;
- Offer a full range of contraceptive methods, including long-acting reversible contraceptives (LARC);
- Offer Chlamydia screening to young people aged 16 -24, particularly those identified as being at risk of becoming pregnant;
- Audit your service to young people. This can be added to your revalidation portfolio. Consider how the practice;
    - Is 'young person friendly' considering working towards the You're Welcome quality mark;

- Supports staff to be confident and competent in talking with young people about sexual health;
- Promotes the fact that young people can see a GP in confidence without a parent/carer – even if they are under-16;
- Lets young people know what services are available at the practice;
- Flags if a young person is at higher risk of an under-18 conception or young parenthood.

Alcohol and under-18 conceptions

Alcohol misuse among young people in the UK is becoming a growing concern. Adolescents in the UK ages 15 -16 are ranked in the top five of thirty countries for most measures of alcohol use (Hibell et al 2009). In 2008 53% of 11 – 15 year olds surveyed in England reported drinking alcohol (Fuller et al 2009). Whilst this has decreased from 61%, the amount consumed has risen by 15% with the greatest increase demonstrated in girls. Between 2003 and 2007, hospital admissions for alcohol specific conditions for under 18's in England rose 49% to 64% per 100,000 males and 58% to 80% per 100,000 females (Bellis et al 2009)

Alcohol affects people in different ways, even a little bit of alcohol can change the way young people behave. Alcohol can often make people feel more confident. They may talk to someone they like and they might do things that they wouldn't do when they are sober, things that could put young people in danger or things that they may regret the next day. Alcohol can also affect a person's ability to say yes or no to sex or they might not even remember if they have had sex at all.

Emerging studies are indicating a strong relationship between alcohol misuse, precocious sexual behaviour and under-18 conceptions (Cook et al 2010). Recent insights in central Lancashire, participants revealed that alcohol misuse is a contributory factor to risky sexual behaviour (Hub 2010).

There is currently a gap in the data available for young people and alcohol but work is planned within the JSNA team for the 2011/12 work programme to address this.

Recommendations related to substance misuse

- Consider the work of this report when undertaking further work on a JSNA for alcohol;
- Collect robust data around alcohol use and young people including A&E alcohol specific data for young people;
- Compare hotspots for both sexual ill health and alcohol with hotspots for single indicators to gain insight as to why the relationship with sexual ill health and alcohol varies between areas;
- Further integrate sexual health and substance misuse services;
- Campaigns to address under-18 conceptions should include alcohol consumption for both young men and women;
- Reduce accessibility of alcohol;
- Work with the Local Authority and Trading Standards to develop retailer schemes such as CAPS further.

Appendix A: Mosaic Profiles and explanation of group and type reports

43 Older town centres terraces with transient, single populations

Key Features

Low income
Unemployment
Terraced housing
Few qualifications
Service jobs
Manual labour
Limited car access
Low technology access

Communication Preferences

Access Information
SMS Text, Interactive TV, Face to Face, Local Papers
Not Magazines, Internet, Telephone

Service Channels
Face to Face

Not Post

44 Low income families occupying poor quality older terraces

Key Features

Young couples
Children
Close to town centres
Terraced housing
Low car ownership
Lower income
High proportion of tenants
Poor credit history

Communication Preferences

Access Information
SMS Text, Interactive TV and Face to Face

Not Magazines

Service Channels
Mobile Phone

Not Post

69 Vulnerable young parents needing substantial state support

Key Features

Vulnerable households
Unemployment
Single parent
Young people
Bus
Alcohol and tobacco
Second hand goods
TV

Communication Preferences

Access Information
SMS Text, Face to Face, National Papers, Local Papers
Not Internet, Magazines

Service Channels
Face to Face

Not Internet, Telephone, Mobile Phone or Post

Profile Reports Explained:

Experian
Mosaic Public Sector

A profile report allow s you to understand the characteristics of a citizen / prospect file or a geographical catchment, compared to a comparison file or area.

For more information on profiles please refer to the know ledge base at http://w w w .publicsectorknow ledgebase.co.uk

Your area/file:
The number of records in your chosen area that fall within each Mosaic group.

Comparison area/file:
The number of records in your chosen comparison area that fall within each Mosaic group.

Penetration Percentage:
Shows the proportion of the comparison area that is made up of your area's population for each Mosaic group. For example, if the penetration of group A was 10%, then your area represents 10% of all group A's living within the comparison area.

Index:
Shows how close your area % is to the comparison area %.
An index of 100 means your area % is equal to the comparison area %.
Below 100 means your area % is lower than the comparison area %.
Above 100 means your area % is higher than the comparison area %.

Your area/file percentage:
The number of records in your chosen area that fall within each Mosaic group as a percentage of the total in your area.

Comparison area/file percentage:
The number of records in your chosen comparison area that fall within each Mosaic group as a percentage of the total in the comparison area.

Index Value Graph:
Shows the index value visually.
The centre line is 100, where your area % and the comparison area % are equal.
Left of centre means that the Mosaic Group is underrepresented in your area/profile compared to the comparison area/profile.
Right of centre means that the Mosaic Group is overrepresented in your area/profile compared to the comparison area/profile.

Example report:

area or file:
ple
Comp... or file:
Examp...
Client:
Client Name
Your contact:
account manager name
...: 06.01.2010

Mosaic Public Sector classifies all consumers in the United Kingdom by allocating ... to one of 7 Super...s, 15 Groups and 69 Types. These paint a rich picture of UK citizens in terms of ...-economic and socio-...ural behaviour.

Mosaic Public Sector Supergroups	Your area/file	%	Comp.	%	Pen. %	Index
A Rural and small town inhabitants	53	0.41	33,425	1.03	0.16	40
B Affluent households	778	6.02	298,991	9.23	0.26	65
C Middle income families	1,009	7.80	412,985	12.74	0.24	61
D Young people starting out	3,751	29.00	1,169,884	36.10	0.32	80
E Lower income residents	2,263	17.50	548,859	16.94	0.41	103
F Elderly occupants	622	4.81	118,528	3.66	0.52	131
G Social housing tenants	4,457	34.46	658,052	20.31	0.68	170
Total	12,933	100	3,240,724	100	0.40	100

The supergroups have been created to provide a high level overview of an area and are constructed by combining together the relevant groups. These groupings are;
Supergroup A - Groups A and B
Supergroup B - Groups C and D
Supergroup C - Groups E and F
Supergroup D - Groups G and H
Supergroup E - Groups I, J and K
Supergroup F - Groups L and M

Mosaic Public Sector Groups	Your area/file	%	Comp.	%	Pen. %	Index
A Residents of isolated rural communities	0	0.00	1,150	0.04	0.00	0
B Residents of small and mid-sized towns with strong local roots	53	0.41	32,275	1.00	0.16	41
C Wealthy people living in the most sought after neighbourhoods	724	5.60	264,004	8.15	0.27	69
D Successful professionals living in suburban or semi-rural homes	54	0.42	34,987	1.08	0.15	39
E Middle income families living in moderate suburban semis	962	7.44	385,061	11.88	0.25	63
F Couples with young children in comfortable modern housing	47	0.36	27,924	0.86	0.17	42
G Young, well-educated city dwellers	3,123	24.15	989,627	30.54	0.32	79
H Couples and young singles in small modern starter homes	628	4.86	180,257	5.56	0.35	87
I Lower income workers in urban terraces in often diverse areas	1,980	15.31	451,907	13.94	0.44	110
J Owner occupiers in older-style housing in ex-industrial areas	94	0.73	36,672	1.13	0.26	64
K Residents with sufficient incomes in right-to-buy social housing	189	1.46	60,280	1.86	0.31	79
L Active elderly people living in pleasant retirement locations	173	1.34	57,056	1.76	0.30	76
M Elderly people reliant on state support	449	3.47	61,472	1.90	0.73	183
N Young people renting flats in high density social housing	4,277	33.07	621,754	19.19	0.69	172
O Families in low-rise social housing with high levels of benefit need	180	1.39	36,298	1.12	0.50	[illegible]
Total	12,933	100	3,240,724	100	[illegible]	[illegible]

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Appendix B: Under-18 conceptions and cost benefit analysis – Literature

Title/Authors	Publication type	Aim/Objective	Methodology	Findings
Interventions addressing the social determinants of teenage pregnancy. Adam Fletcher, Angela Harden, Ginny Brunton, Ann Oakley, Chris Bonell. (2008). Health Education Volume: 108 Issue: 1 Page: 29 – 39 ISSN: 0965-4283	Review	identify promising interventions and priorities for future research and to make recommendations for policy and practice in the UK	Paper discusses the evidence regarding the potential of interventions which target determinants under-18 conceptions relating to school disaffection and low expectations, drawing on recent systematic reviews and trials to consider future directions for research, policy and practice	High-quality research evidence illustrates the potential of **two** approaches to address determinants of under-18 conceptions relating to disaffection and low expectations. These are : 1. school-ethos interventions, which aim to facilitate a positive and inclusive school-ethos, strengthen school relationships and reduce disaffection; and 2. targeted, intensive youth work interventions, which aim to promote positive expectations, vocational readiness and self-esteem through vocational and life-skills education, volunteering and work experience.
Teenage pregnancy and social disadvantage: systematic review integrating controlled trials and qualitative studies. Harden A, Brunton G, Fletcher A, Oakley A. Teenage pregnancy and social disadvantage: systematic review integrating controlled trials and qualitative studies. BMJ 2009; 339:b4254.	Review	To determine the impact on under-18 conceptions of interventions that address the social disadvantage associated with early parenthood and to assess the suitability of such interventions for young people in the United Kingdom	PubMed including MEDLINE, EMBASE, CINAHL, ERIC, SocAbstracts, ASSIA, and PsycINFO were searched between 1950 and June 2004 without language restrictions. BiblioMap, Cochrane Central Register of Controlled Trials (CENTRAL), NRR, Health Promotion Library for Scotland (HPLS) and Health Promis were also searched. The search terms were not reported. Four appropriate journals and the reference lists of relevant articles were manually searched, and experts consulted, to identify additional articles	Ten controlled trials were included in the review, six of which were of sufficient methodological quality (2,822 patients, range 104 to 1,163), and four of these were included in the meta-analyses. Compared with individuals receiving standard practice or no intervention, under-18 conceptions rates amongst young women receiving an intervention were 39% lower (RR 0.61, 95% CI 0.48 to 0.77; four controlled trials). There were no significant difference in the number of partner pregnancies reported by young men who had received an intervention compared with those who had not (RR 0.59, 95% CI 0.34 to 1.02; three controlled trials). The effects of interventions on birth rates were reported in the review (one trial for each intervention type). There was no evidence of statistical heterogeneity. Authors' conclusions - A small but reliable evidence base supports the effectiveness and suitability of early childhood interventions and youth development programmes for reducing unintended under-18 conceptions.

Economic evaluation of a comprehensive teenage pregnancy prevention program: pilot program. Rosenthal MS, Ross JS, Bilodeau R, Richter RS, Palley JE, Bradley EH. Am J Prev Med. **2009** Dec;37(6 Suppl 1):S280-7.	Research	Develop estimates of the cost-benefit of the Pathways/Senderos Center, a comprehensive neighbourhood-based program to prevent unintended pregnancies and promote positive development for adolescents.	Using data from 1997-2003, an in-time intervention analysis was conducted to determine program **cost-benefit** while teenagers were enrolled; an extrapolation analysis was then used to estimate accrued economic benefits and cost-benefit up to age 30 years	The program operating costs totaled $3,228,152.59 and reduced the teenage childbearing rate from 94.10 to 40.00 per 1000 teenage girls, averting $52,297.84 in total societal costs, with an economic benefit to society from program participation of $2,673,153.11. Therefore, total costs to society exceeded economic benefits by $559,677.05, or **$1599.08 per adolescent per year**. In an extrapolation analysis, benefits to society exceed costs by $10,474.77 per adolescent per year by age 30 years on average, with social benefits outweighing total social costs by age 20.1 years. CONCLUSIONS: This comprehensive under-18 conceptions prevention program is estimated to provide societal economic benefits once participants are young adults, suggesting the need to expand beyond pilot demonstrations and evaluate the long-range cost effectiveness of similarly comprehensive programs when they are implemented more widely in high-risk neighbourhoods.
Effectiveness of an intensive, school-based intervention for teen mothers. Key JD, Gebregziabher MG, Marsh LD, O'Rourke KM. J Adolesc Health. 2008 Apr;42(4):394-400. Epub **2008** Feb 7.		This study evaluated the effectiveness of a secondary teen pregnancy prevention intervention that includes school-based social work services coordinated with comprehensive health care for teen mothers and their children.	Prospective cohort study compared subsequent births to teen mothers followed for at least 24 months or until age 20 years (whichever was longer) compared with matched subjects from state data. Analyses were based on intent to treat and included chi(2), survival, and cost-benefit analysis.	Subsequent births were more common in the comparison group (33%) than among subjects (17%) (p = .001), and survival curves were significantly different (p = .007) (hazard ratio = 2.5). There was a trend toward fewer births with increased participation in medical care (p = .08) and case management (p = .08) but not with group meetings. **Cost savings were calculated as $19,097 per birth avoided or $5,055 per month**. CONCLUSIONS: The intervention was effective in reducing subsequent births to teens; however selection bias of school enrolment cannot be excluded by this study. The cost savings of delayed births outweigh the expenses of this intensive model.

Appendix C – Risk factors maps

Please see separate report

Appendix D – Sexual health service mapping

Please see separate report

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