Introduction

In 1999 the government’s ten-year national Teenage Pregnancy Strategy was launched. The main aims of the strategy are to:

• Reduce the rate of teenage conceptions with the specific aim of halving the rate of conceptions among under-18s, and to set a firmly established downward trend in the rate of conceptions among under-16s, by 2010
• Increase the participation of teenage parents in education, training and employment to 60% by 2010, to reduce their risk of long-term social exclusion.

This briefing presents headline findings from key research relating to teenage pregnancy and parenthood which has emerged (mainly) since the launch of the strategy. The topics covered include research on young people’s sexual behaviour; sources of sex and relationships information; what works in preventing teenage pregnancy; who is at risk of becoming a teenage parent; how to support teenage parents, and many more. It draws on a range of sources including systematic reviews of the effectiveness of prevention and support interventions, national surveys and primary research studies. The emphasis is on the UK and specifically English research. It was compiled by Catherine Dennison, Research Manager supporting the Teenage Pregnancy Unit.

Although not representing a systematic or exhaustive search of the published literature, the briefing is intended to be of use to those engaged in implementing the Teenage Pregnancy Strategy. By providing an update on the evidence base it aims to support and inform their activities. Readers are encouraged to access the original references wherever possible. To assist this, web references are provided where available.

The briefing is divided into seven broad sections:

• Sexual behaviour
• Use of services
• Sexual knowledge, attitudes and beliefs
• Groups at risk of teenage pregnancy
• Impact of teenage pregnancy
• Effectiveness of prevention interventions
• Support for young parents

Rates of teenage births (the number of births per 1,000 women aged 15–19) in the UK are five times those in the Netherlands, three times those in France, and twice those in Germany. These comparisons are for 1998, the most recent year for which comparable data are available.

Sexual behaviour

The latest National Attitudes and Sexual Lifestyles Survey (Natsal 2000) is a major source of information on sexual attitudes and behaviour among young people. In 2000 over 11,000 males and females aged 16–44 were surveyed across Britain. The median age at first intercourse among respondents aged 16–19 in 2000 was 16. This was the same among both males and females. Among those currently aged 25–29 (who were 16–19 ten years earlier) the median age was 17. The proportion of men reporting intercourse before age 16 (30%) has remained fairly constant over recent years. In contrast, the proportion of women reporting intercourse before age 16 (26%) is higher among those under 30, but has shown little change over the past decade.

First sex before 16 is more common in those from manual social classes, without qualifications, who did not live with both parents up to age 16, those leaving school before age 16, and those who do not cite school as their main source of information about sex. Early intercourse was more commonly reported by women who were younger than 13 years old at menarche. Earlier first intercourse is less likely to be an autonomous and a consensual event, and more likely to be regretted and unprotected against pregnancy and infection.


The tracking survey to inform the National Evaluation of the Teenage Pregnancy Strategy surveyed more than 750 young people aged 13–21 across England in June 2003. It showed that approximately four in ten had fairly accurate perceptions of the proportion of young people who had sexual intercourse before the age of 16. Forty-six per cent mistakenly believed that more than half of young people had sex before they were 16.


Contraceptive use

Reported use of condoms at first intercourse has increased significantly in recent years. Natsal 2000 found that 83% of males and 80% of females aged 16–19 reported use of a condom the first time they had sex. The proportion of couples relying on the contraceptive pill has remained fairly stable, so the proportion of young people not using any method at first intercourse has decreased substantially. Only 7% of males and 10% of females aged 16–19 reported using no form of contraception at first intercourse.

A 1999 survey of nearly 1000 students aged 16–18 across England and Wales found that use of contraception at first sex was related to having discussed contraception with their partner beforehand, for both males and females. For young men, rates of contraceptive use were higher among those who gave an intimate reason for having sex, and who had parents who portrayed sex positively. For young women, the rate was higher among those who were older at first sex, who had anticipated having sex beforehand, and who felt more comfortable interacting with teenage boys. Surprisingly, young women who had not visited a service were more likely to use contraception.

**Use of services**

The Omnibus Survey of 2002/03 included 200 young women aged 16–19. Of those aged 16–17, 58% had not visited a service for family planning advice or supplies; the corresponding figure for 18–19 years olds was 34%. Among both 16–17 and 18–19 year olds, the most popular source was their own GP or practice nurse (21 and 55%), followed by family planning clinics (17 and 25%).


The BMRB tracking survey of over 750 young people aged 13–21 asked what sources of contraceptive advice and contraceptive supplies they used. The main sources of advice were schools (teachers or school nurses), 31%; general practice (doctor or practice nurse), 22%; and family planning clinics, 16%. Pharmacies (21%), family planning clinics (18%), general practice (18%) and vending machines (16%) were the main sources of supplies. Two per cent of young people had obtained contraception from a school-based clinic.


In 1999 a survey of nearly 1000 young people attending sexual health services revealed that 61% had first used a service after first intercourse. The reason most commonly given by men for their first visit was to obtain free condoms (63%), while for women it was an episode of unprotected sex (32%). The interval between first sex and first visit varied from one day to six years. Among those who visited before first intercourse (29%), the main reason given was ‘to be prepared’.


**General practice**

General practitioners are perceived by young people as being less confidential than other settings. Evidence suggests that some GPs are themselves confused about the legal status of providing contraception to under-16s.


One study which examined over 800 GP practices in Trent region found that lower teenage pregnancy rates were associated with being seen by a female doctor, by one who was younger (under 36 years) and with more practice nurse time, even after adjusting for other factors such as deprivation and rural location.


A second study in Trent region identified young women who had conceived before the age of 20 across 14 practices. Most teenagers who became pregnant had attended general practice during the previous 12 months (93%), with many having sought contraceptive advice (71%) and having been prescribed oral contraception (50%).


**Emergency contraception**

In 1993 a cohort of 95,000 women aged 14–29 were identified from the General Practice Research Database and followed for a period of four years. Sixteen per cent had received emergency contraception during the study period – an average of 5% per year. Only 4% of users of emergency contraception received it more than twice in any one year. More than 70% of those with no previous record of use of regular contraception had used regular contraception within a year of using emergency contraception.


Among young women participating in the 2002/03 ONS Omnibus Survey, hormonal emergency contraception had not been used by 90% of 16–17 year old women, 4% had used it once, 3% twice, and 2% more than twice during the year before the interview. The corresponding figures for 18–19 year olds were 92, 6, 2 and 0%.

Sexually transmitted infections

Natsal 2000 tested over 5,000 18–44 year olds across Britain for Chlamydia trachomatis. Overall, 2.2% of men and 1.5% of women tested positive. Prevalence was highest among males aged 25–34 (3%) and females aged 18–24 (3%).


Teenagers from black Caribbean backgrounds are at higher risk of gonorrhoea and chlamydia than the white population and other ethnic groups. Genital warts, the most common sexually transmitted infections (STIs) in the country, are less common among all minority ethnic groups than among the white population. Although numbers are small, black African young people are disproportionately more likely to be receiving care for HIV infection.


Sources of sex and relationships information

The BMRB tracking survey consistently shows that young people aged 13–21 report their main sources of information about sex and relationships as being lessons at school (77%), friends (53%), mothers (52%), magazines, books, posters and newspapers (45%), and TV and videos (45%) (figures in brackets are for the wave carried out in June 2003).


Sex and relationships education

The BMRB tracking survey shows strong support for sex and relationships education (SRE). Eighty-eight per cent of young people and 86% of parents saw SRE as helping young people be more responsible about sex. Three quarters of young people and two thirds of parents were not of the opinion that sex education encourages young people to have sex too early.


Contraceptive advice and supplies

The BMRB tracking survey asked young people to identify which attributes are important when seeking advice on sex and relationships. Confidentiality/privacy (60%); friendly staff (50%); being able to discuss things with someone of your own sex (36%); not being seen by anyone they knew (29%); convenient location (24%); and long opening hours (16%) were identified as important factors. Confidentiality/privacy was given as the single most important factor (41%). Just under half (45%) thought that confidential/private advice was currently available to them.


Young people describe their ideal contraceptive service as confidential; easily accessible with minimal fear and embarrassment; located on a side street near the town centre; having clean, smart premises with frequent opening times; and operating as a walk-in centre with no appointment necessary. Other desirable features include having reception and waiting areas designed to minimise embarrassment, and staff who are warm, friendly, respectful and non-judgemental, who use non-medical language, who are well informed on gay and lesbian issues and make no assumptions about sexual orientation.


In the first wave of the tracking survey, a sample of 600 parents were interviewed. Fewer than three in ten parents (28%) saw the provision of free contraception to under-16s as wrong. Fewer than one in five (18%) considered giving confidential contraception advice to under-16s to be wrong.

In a representative survey of nearly 3,000 members of the general population aged 18 and over in 2000, 64% of adults agreed that contraception should be more easily available to all teenagers, including those under 16.


The BMRB nationwide tracking survey found that 44% of 13–21 year olds report having received some information on where they could go in their area for advice on sex and relationships. The most common forms in which this was conveyed were leaflets/flyers/postcards (60%), posters (29%) and radio advertisements/articles (23%).


Teenage pregnancy

In the sample of 700 young people and 600 parents for the first wave of the BMRB tracking survey, 67% of parents and 68% of young people felt that having a baby under 18 is ‘just about one of the worst things that could happen to a young person’.


Parental communication

In the most recent report of the BMRB tracking survey nearly half of young people (46%) surveyed said they that received ‘nothing’ or ‘not a lot’ of information on sex and relationships from their parents. More than half (52%) said they found it quite or very easy to talk to their mother about sex and relationships, but only a quarter (26%) said the same for their father. Over a third (38%) said they found it very difficult to talk to their father.


Young people aged 12–15 who participated in the Health Related Behaviour Questionnaire school survey were asked about their preferred sources of sex and relationships information. Forty per cent of year 8 and 31% of year 10 girls said their preferred source was their parents. The corresponding figures for boys were 30 and 23%.


Parents feel strongly that there would be fewer teenage pregnancies if more parents talked to their children about sex, relationships and contraception. Among the first wave of the BMRB tracking survey sample of 600 parents of 10–17 year olds, 86% agreed with this statement.


Just over three-quarters (78%) of parents surveyed by BMRB felt it was easy to talk to their child about sex and relationships. Mothers were more likely to say they would find it easy than fathers (82% mothers, 72% fathers). If parents wanted help in talking to their child about sex and relationships they would probably turn to their GP (33%) or to their partner (12%). Two per cent said they would phone a helpline.


Sexually transmitted infections

The BMRB tracking survey sample of 700 13–21 year olds across England showed awareness of HIV/AIDS to be almost universal among young people (96%). However, knowledge of other STIs is lower: 69% were aware of genital warts, 69% hepatitis B, 60% syphilis, 69% gonorrhoea and 68% chlamydia.

Groups at risk of teenage pregnancy

Those experiencing deprivation

Young women from unskilled manual backgrounds (social class V) are more than ten times as likely to become teenage mothers as those from professional backgrounds (social class I). Those living in areas with higher levels of social deprivation are also much more likely to conceive earlier, as well as being much less likely to opt for abortion.


Recent research drawing on the British Cohort Study 1970 (BCS70) showed that, after taking into account many other factors, women whose mother had no qualifications are about twice as likely to have a teen birth than those whose mother had some qualifications.


Children of teenage mothers

Analysis of a cohort of children born in 1970 (BCS70) showed that, after taking into account many other factors, women whose mother was a teenage mother are about twice as likely to have a teen birth as those born to older mothers.


Young offenders

Estimates suggest that around 39% of young women under the age of 21 in prison are mothers, and 25% of young men are fathers. 10,267 young men and 501 young women aged 15–21 are currently in custody in England and Wales.


Black and minority ethnic groups

Caribbean, Pakistani and Bangladeshi women have higher teenage birth rates than white young women. In contrast, Indian young women have lower rates than white young women. Fertility rates in all South Asian groups have fallen substantially over the past 25 years, but have remained stable in white and black Caribbean young women.


Low self-esteem

A review of the literature on the link between teenage pregnancy and self-esteem concluded that the risk of teenage motherhood is raised – possibly by up to 50% – among teenage girls with lower self-esteem than their peers. Precisely why low self-esteem has this effect is as yet unclear, but it is thought to be linked with an increased likelihood of unprotected intercourse.


Low educational achievement

Young people scoring below average on measures of educational achievement at ages 7 and 16 have been found to be at significantly higher risk of becoming teenage parents, especially those whose performance declined between these ages.


Natsal 2000 surveyed over 11,000 males and females aged 16–44 across Britain. It found that 29% of sexually active young women who left school at 16 without any qualifications had a child before the age of 18, compared with 14% of those who left at 16 with qualifications, and 1% of those who left at age 17 or over.

Impact of teenage pregnancy

Recent UK research with the mothers of twins showed that by the time their children were 5, those who had been teenage mothers had experienced more socio-economic deprivation, more mental health difficulties and drug problems, had lower levels of educational attainment, and were more likely to be living in deprived neighbourhoods. Their partners were more antisocial and abusive. Their children showed reduced educational attainment, had more emotional and behavioural problems, were at increased risk of maltreatment or harm, and showed higher rates of illness, accidents and injuries.


Breastfeeding

The 2000 Infant Feeding Survey interviewed nearly 9,500 mothers of babies born in 2000 across the UK about infant-feeding practices. Just under half (49%) of mothers under age 20 reported initiating breastfeeding. This compared with 60% of 20–24 year old and 69% of 25–29 year old mothers.


www.dh.gov.uk/assetRoot/04/02/39/44/04023944.pdf

Mental health

Analysis based on a comparison of teenage and older mothers participating in the British Household Panel Survey showed that teenage mothers suffer from poorer mental health in the first three years after their child’s birth. Reporting better social support reduced the likelihood of suffering from poor mental health.


Social and economic outcomes

Recent research drawing on a cohort of children born in 1970 (BCS70) took account of associations arising partly from the fact that already disadvantaged teenagers are more likely to become young mothers. It found that the main consequence of having a teen birth is that these women are more likely to partner with men who are poorly qualified and more likely to suffer unemployment, thus reducing their standard of living.


Analysis using data from the Labour Force Survey showed that the association of teenage childbearing with economic disadvantage is smaller or non-existent for ethnic minority groups. Specifically, the increased risk of being in a non-working family in the years following the birth was shown to be lower for Caribbean, African and Indian young mothers, and non-existent among Pakistani and Bangladeshi young mothers.


Costs

It is estimated that the cost to the NHS alone of pregnancy among under-18s is over £63 million pounds a year.


www.teenagepregnancyunit.gov.uk
Effectiveness of prevention interventions

Sex and relationships education

The recent review of reviews conducted by the Health Development Agency (HDA) concluded that there is good evidence that school-based SRE, particularly when linked to contraceptive services, can have an impact on young people’s knowledge and attitudes, delay sexual activity and/or reduce pregnancy rates.


There is no evidence to support the view that increased provision of SRE increases the onset or frequency of sex, or the number of sexual partners.


Kirby identified ten characteristics of effective sex and HIV education programmes in his review of North American evaluation studies:

- Focus on reducing sexual behaviours that lead to unintended pregnancy or HIV/STIs
- Based on theory, identify specific sexual antecedents to be targeted
- Clear messages about abstaining from sex and/or using contraception
- Information about risks of sex and ways to avoid intercourse or protect against pregnancy and STIs
- Activities to resist social pressures
- Examples of, and practice with, communication, negotiation and refusal skills
- Participatory teaching methods
- Goals, teaching methods and materials that match the group
- Adequate and substantial duration
- Led by those who believe in the programme and receive training.


Results from the first UK-based systematic evaluation of school-based SRE were published in June 2002. The SHARE random control trial found that a high quality, experientially based programme was rated highly by the young people who received it, had positive impact on knowledge, and reduced the level of reported regret over first sexual intercourse. However, it had no effects on contraceptive use and sexual behaviour. The results suggest that specific programmes on their own are unlikely to reduce conception rates, but are an essential part of a multi-faceted approach.


An intervention in which teachers gave a single lesson on emergency contraception to year 10 (14–15 year old) pupils resulted in increased proportions knowing the correct time limits for both types of emergency contraception at a six-month follow-up. There was no evidence of a change in either pupils’ sexual activity or their use of emergency contraception.


Contraceptive services

There has been little evaluation of the impact of contraceptive provision. The recent review of reviews conducted by the HDA concluded that there is good evidence to support services adopting the following characteristics:

- Long-term provision
- Clear, unambiguous information and messages
- Services and interventions tailored to meet local needs
- Focus on local high-risk groups
- Key opportunities taken to deliver information and advice, eg negative pregnancy tests
- Checks that interventions and services are accessible to young people
- Selected and trained staff who are committed to programme and service goals
- Respect for the confidentiality of young people
- Joined-up services and interventions with other services for young people, aimed at preventing pregnancy.


There is no evidence to support notions that use of family planning clinics, school-based health clinics and school-linked clinics increases sexual activity rates.

Condom distribution schemes

The review of reviews conducted by the HDA concluded that evidence surrounding any positive impact of school condom availability programmes is not clear.


www.hda.nhs.uk/evidence

Involving parents

There is good evidence that including teenagers’ parents in information and prevention programmes is effective. Further, young people whose parents discuss sexual matters with them are more likely to use contraception at first intercourse.


www.hda.nhs.uk/evidence


Peer education

At present there is only weak evidence that peer-led approaches are effective.


www.hda.nhs.uk/evidence

Electronic dolls ('Baby Think It Over' simulators)

Although feedback from young people is frequently very encouraging, there is little research evidence to support their use as a tool to encourage contraceptive use or prevent teenage pregnancy. An American study found no differences pre- and post-use, or between those who had used the dolls and a control group, with regard to sexual behaviour, intentions regarding childbirth, the extent to which they had plans for their future, realism about the responsibility of parenting or reported contraceptive use.


Abstinence education

The recent review of reviews conducted by the HDA concluded that there is no strong evidence for the effectiveness of abstinence education approaches.


www.hda.nhs.uk/evidence

A recent review applied strict methodological criteria to assess whether teenage pregnancy prevention interventions are effective.* The review concluded that there is some evidence that abstinence approaches may actually increase pregnancy rates. Specifically, this effect was seen in the female partners of male participants in the interventions.


Youth development programmes

American youth development programmes have been shown to be the most promising approaches to teenage pregnancy prevention intervention. Reviews agree that there is evidence to support the effectiveness of a number of different models which combine some or all of the following: self-esteem building, voluntary work, educational support, vocational preparation, healthcare, sports and arts activities, and SRE.


www.hda.nhs.uk/evidence


*The review by DiCenso et al. (2002) included only those evaluations that used randomised control trials, considered to be the most rigorous evaluation methodology. Out of 26 trials reviewed only one was found to have a positive impact on preventing teenage pregnancy. This was a youth development programme which took a long-term, multi-dimensional approach.


*The review by DiCenso et al. (2002) included only those evaluations that used randomised control trials, considered to be the most rigorous evaluation methodology. Out of 26 trials reviewed only one showed a positive impact on teenage pregnancies. The paper concludes that there is no evidence that existing prevention interventions are effective in changing behaviour or reducing conceptions. However, few programmes have been evaluated using randomised control trials, and many interventions do not lend themselves to this design, so this paper considers only a very small proportion of the available evidence base on teenage pregnancy.
Effectiveness of a multifaceted approach

Explanations for recent dramatic decreases in teenage birth rates in the USA have been subject to much speculation. Analysis by the Alan Guttmacher Institute explored the main contributing factors. They suggested that increased abstinence among young women had made some difference but, more significantly, it was due to increased use of newly available, more effective, long-acting hormonal methods of contraception in sexually active young women, in place of other less effective methods. Both these behavioural changes are influenced by broad societal changes in policy, programmes, attitudes and values, and the report does not quantify the relative impact of these. The decline in birth rates began several years before abstinence education came to prominence.

The Institute’s report concludes: ‘these findings suggest that the best strategy for continuing the declines in teenage pregnancy levels is a multifaceted approach.’ It states that although policies and programmes should encourage young people to delay first intercourse, they should recognise that most young people become sexually active in their teens. As a consequence, services should be in place that help them adequately to prevent pregnancy and STIs – ‘that means providing adequate education and information about sexual behaviour and its consequences, as well as confidential, affordable and accessible sources of contraceptive services and supplies.’


More recent research by the Alan Guttmacher Institute compared rates of teenage pregnancy in five developed nations, and their approaches to the issue. It concluded that comprehensive and balanced information about sexuality is one of the hallmarks of countries with lower levels of adolescent pregnancy. Easy access to contraceptives and other reproductive health services were seen to contribute to lower rates.


UNICEF has recently released a report entitled A league table of teenage births in rich nations. The report compares teenage birth and termination rates in 28 countries, and concludes that improving access to contraception, provision of quality sex education and building incentives to avoid early parenthood are the main characteristics of countries with lower rates.


Kirby’s review of the evidence surrounding specific types of pregnancy prevention initiatives concluded by stating that ‘professionals working with youth should not adopt simplistic solutions with little chance of making a dent on the complex problem of teenage pregnancy.’


Research on behalf of the Teenage Pregnancy Unit aimed to identify factors that might have contributed to changes in under-16 conception rates at local level between 1991 and 1997. The researchers found that the 20 areas with the greatest decreases were more likely to recall having made concerted efforts in five key areas, compared with the 20 sites with the largest increases. These key areas were:

- Establishing inter-agency groups concerned specifically with sex and relationships education/teenage pregnancy
- Appointment of new staff to offer specialist advice on sex education
- Introduction of additional training for teachers involved in personal, social and health education
- Consultation with, and/or targeting, young people regarding sexual health
- Establishing new young people’s sexual health services.

Support for young parents

Antenatal care

The recent review of reviews conducted by the HDA concluded that there is some strong evidence that good antenatal care improves pregnancy outcomes for mothers and their children.


Home visiting and emotional support

Home visiting and emotional support for disadvantaged mothers can decrease the incidence of incomplete immunisation, severe nappy rash, hospitalisation in the first year of life, childhood injury, and the number of suspected victims of child abuse.


Parenting education

A recent systematic review concluded that both individual and group-based parenting programmes are effective in improving a range of outcomes for both teenage mothers and their children, including mother–infant interactions, language development, parental attitudes, parental knowledge, maternal meal-time communication, maternal self-confidence and maternal identity.


Housing

There is substantial evidence that poor housing has adverse effects on health. Improving housing will result in improved health of young parents and their children.


Smoking

A recent Scottish study which analysed routine hospital records for 1992–98 found that first teenage births to non-smokers did not result in poorer perinatal outcomes compared with similarly non-smoking older women. Those young women having a second birth were, however, more likely than older women to have a premature birth or still birth. First births to teenagers who were smokers were slightly more likely to be premature, as were second births which were, additionally, more likely to result in neonatal deaths compared with those to older women. This paper suggests that smoking, and the fact that more teenage mothers are likely to smoke, may be a key risk factor associated with adverse maternal outcomes for teenage mothers.


Teenage mothers are more likely than older mothers to smoke during pregnancy. Over a third (39%) of mothers under the age of 20 participating in the 2000 Infant Feeding Survey reported smoking throughout the pregnancy, compared with 29% of mothers aged 20–24 and 19% of mothers aged 25–29.


Young fathers

Researchers from the University of Bristol interviewed a sample of first-time fathers aged 17–23. The young men reported often feeling excluded from involvement in the pregnancy by health service professionals. Health professionals often knew little about the fathers, did not see them as central, and were seen as lacking the skills to engage with men. Nine months after the birth of their child, 69% of couples were living together. The youngest men in this age group were those least likely to still be involved with their child. The most important factor predicting involvement at nine months was the quality of their relationship with their partner during pregnancy.


A research briefing based on the full report has been produced by the Economic and Social Research Council.

About the Health Development Agency

The Health Development Agency (www.hda.nhs.uk) is the national authority and information resource on what works to improve people’s health and reduce health inequalities in England. It gathers evidence and produces advice for policy makers, professionals and practitioners, working alongside them to get evidence into practice.

Teenage Pregnancy and Parenthood Database

The HDA has developed a database containing a range of local research projects, both published and unpublished, about teenage pregnancy and parenthood. It aims to make local research accessible to practitioners and decision-makers working with teenagers and teenage parents. There is the facility to add your research to the database.

http://healthpromis.hda-online.org.uk → Topic Databases

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