

7. Teenagers

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As well as the physical changes that occur during adolescence, the choices that teenagers have to start to make in their lives can affect them well into adulthood. The main health risks for teenagers include tobacco use, alcohol and drugs, exposure to injuries and violence, physical inactivity and an unhealthy diet, and high-risk sexual activities.

7.1 The challenge of adolescence

The Chief Medical Officer's Annual Report (Department of Health, 2007) highlighted some of the challenges that young people face as they mature from children to adults. Young people need to balance risks and manage the consequences on a wide range of fronts, including health. Many unhealthy habits are formed during teenage years, and the consequences can last a lifetime. We know that in terms of health behaviours compared to our European neighbours (Table 7.1), our 13 year-olds are worse in terms of alcohol consumption and inebriation.

Young people are often perceived as a threat by adults. Figure 7.1 shows the large proportion of adults who perceive teenagers 'hanging around on streets' as a threat, compared to other issues, where antisocial behaviour is felt to be a problem locally.

It should also be recognised how much marketing of products occurs to influence this age group. We know that young people continue to smoke and increasingly drink alcohol, which means that effective public health policy is required to tackle the issues.

There are a variety of age definitions applied to young people between the ages of 10 and 24 years, and Figure 7.2 shows how many young people there are in each of the age groups in Devon.

Table 7.1 Health behaviour of England's 13 year-olds compared with other countries

Indicator	Position of England	Best performance
Eat fruit	Best	England, Belgium, Romania
Brush teeth	7th best	Switzerland, Sweden, Netherlands
Watching television	7th best	Switzerland, Luxembourg, Belgium
Medically attended injury in last year	Middle ranking	Former Yugoslav Republic of Macedonia, Poland, Bulgaria
High life satisfaction	Middle ranking	Netherlands, Finland, Belgium
Overweight or obese	Middle ranking	Lithuania, Ukraine, Latvia
Smoke weekly	Middle ranking	Greece, Norway, Former Yugoslav Republic of Macedonia
Exercise	Middle ranking	Slovakia, Ireland, United States
Rate health as fair or poor	10th worst	Former Yugoslav Republic of Macedonia, Slovakia, Israel
Drink alcohol weekly	6th worst	Norway, Greenland, Iceland
Been drunk at least twice	4th worst	Norway, Former Yugoslav Republic of Macedonia, Sweden

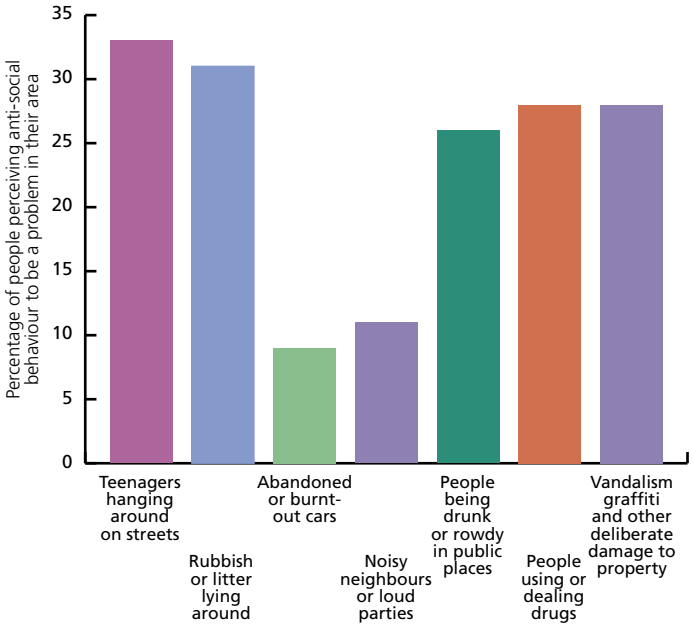
Source: On the State of Public Health: Annual Report of the Chief Medical Officer, 2007

Chief Medical Officer's Top Ten Tips for Keeping Healthy for Young People

1. Have a close friend that you can talk to about things you really mind about.
2. Eat at least five portions of vegetables or fruit a day, especially tomatoes (including ketchup), red grapes and salad.
3. Don't smoke. If you haven't started – don't. If you have started – stop.
4. Eat lots of bread, rice or pasta at least four times a week.
5. Alcohol – the chances are that you will try it sometime, but stay in control of the situation at all times.
6. Sex – think of all the sexy things you can do without actually 'doing it' and if you do 'do it', be safe and use a condom.
7. Eating fish once a week may not help the fish's health, but it will certainly help yours.
8. Get breathless by good exercise at least three times a week (enough to make you sweat) – fast walking, biking, playing football – whatever.
9. Illegal drugs – find out as much as you can about drugs and don't do them.
10. If you are being bullied, or abused – tell someone you trust about it. Telling helps, then doing something about it helps even more.

Adapted from the Chief Medical Officer's Annual Report, 2007

Figure 7.1 Teenagers hanging around on the streets are commonly perceived as a problem



Source: British Crime Survey 2006-07

Figure 7.2 The population of young people in Devon

	Age (years)													
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Adolescent	91,200														
Teenage				65,700											
Youth						93,100									
Young people	136,700														

Source: Data from Office for National Statistics, 2008

7.2 Smoking

Smoking has been estimated to cost the NHS £2.7 billion a year and is the single greatest cause of preventable illness and premature death in the United Kingdom, killing 87,000 people annually in England alone.

Children who smoke increase their risk of dying prematurely from diseases such as cancer, chronic obstructive airway disease, coronary heart disease and stroke, and are two to six times more susceptible to coughs and increased phlegm, wheeziness, shortness of breath and adverse changes in blood cholesterol than those who do not smoke. Earlier starters are at greater risk of developing lung cancer, with a person smoking 40 cigarettes a day for 40 years eight times more likely to develop lung cancer than a person smoking 20 cigarettes a day for 20 years. Starting to smoke at an early age also appears to adversely affect the brain and increases the likelihood of mental health disorders.

Most adult smokers start young, and children are more likely to become smokers if their parents smoke. Sixty-six percent of regular smokers start before the age of 18, and 39% start before the age of 16. Nearly all regular smokers start before the age of 25.

Nationally, smoking among 11-15 year-olds has decreased from 13% in 1996 to 9% in 2007, exceeding the government target of 11% smoking prevalence in this group four years ahead of schedule. However, while smoking by young people has declined in the last decade, latest figures show:

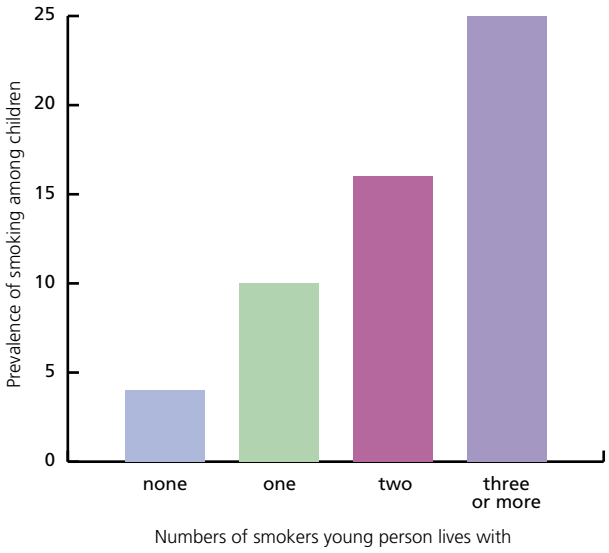
Nine per cent of 11-15 year-olds are regular smokers, with girls 2.5 times more likely to smoke than boys in this age group.

Twenty per cent of 16-19 year-olds smoke.

Thirty-one per cent of young people aged 20-24 smoke. This is 9% above the national adult average, and the highest smoking rate of any age group.

Smoking initiation in children is very strongly related to the smoking behaviour of their parents. Children who live with two adult smokers are four times more likely to smoke than children who live with non-smokers (Figure 7.3).

Figure 7.3: Smoking prevalence in 11-15 year-olds by number of smokers they live with



Source: Action on Smoking in Health, Crown Copyright, 2008

In May 2008, the government launched its Consultation on the future of tobacco control. The consultation proposed a comprehensive national strategy, involving a range of measures aimed at reducing smoking prevalence among children and young people, including:

- Ending point of sale tobacco displays.
- Making it unlawful to sell cigarettes from vending machines.
- Ensuring that cigarettes can only be sold in plain packaging.
- Requiring a minimum pack size of 20 cigarettes.

The evidence base about what works in supporting young people to be smoke-free is still developing. A joint Action on Smoking in Health/No Smoking Day report from 2003 indicated that where there had been success in tackling youth smoking, it was in programmes supported by comprehensive community-wide strategies that facilitated population-wide shifts in behaviour and attitudes.

The 2008 government consultation looked at how to deter children from starting smoking by reducing exposure to cigarettes and by 'denormalising' smoking.

Price increases have been shown to be effective in deterring initiation into smoking as young people are three to four times more price sensitive then adults.

The most effective way of reducing smoking prevalence among children and young people is for parents to quit, as smoke-free homes nearly double the chances that children who do begin to smoke will successfully quit.

Mass media campaigns have been shown to have some effect on preventing the uptake of smoking among young people, although there is little evidence that schools-based information and education campaigns have much impact beyond delaying the uptake of smoking (NICE public health guidance on school-based interventions to prevent the uptake of smoking is due to be published in December 2009).

Currently, most NHS Stop Smoking services are targeted at adult smokers who form the majority of their clients. The specialist service in Devon also supports young people over the age of 12 who seek help to quit.

Since 2006, nicotine replacement therapy (NRT) has been available on prescription to 12-18 year olds. Young people can get support to quit from the Devon Primary Care Trust Specialist Stop Smoking Service in the form of one-to–one or group support. They can also receive support to quit from their GP practice, and from the majority of pharmacies in Devon. Some of the Trust's school nurses and health visitors are trained Stop Smoking Advisers.

Devon Primary Care Trust recognises that tackling youth smoking as a single intervention is not enough. The Trust is developing a Devon Tobacco Control Alliance which will build on the government strategy of 'denormalising' smoking. It is important not to see tobacco control as solely the domain of the health sector, but rather a multi-sector concern and in everyone's interest. As such, representatives from the local authority, police and fire services, and schools will all be represented on the Alliance.

While the greatest short-term impact on disease trends will result from adult quit rates, taking action to prevent or reduce uptake in children and young people will facilitate a longer-term reduction in smoking-related diseases.

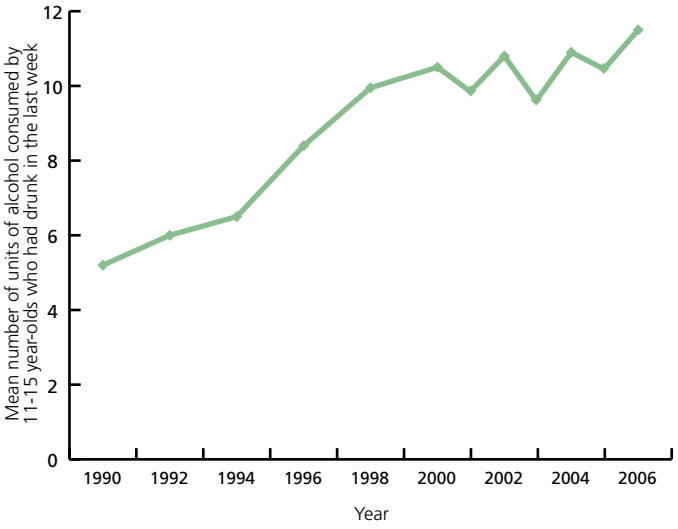
Nearly all smokers start young, so long-term reduction in smoking prevalence will only be achieved by preventing children and young people from starting smoking in the first place. Every effort needs to be made to reduce the attractiveness of smoking and the accessibility of cigarettes to young people.

Children and young people who live with adult smokers are much more likely to start smoking then those who live in smoke-free homes. Reducing adult prevalence is therefore essential in preventing young people starting smoking.

7.3 Alcohol and drugs

Alcohol consumption by young people is a significant public health problem. Those 11-15 year olds who drink consume more alcohol, more frequently, and favour higher strength alcoholic drinks (Figure 7.4). Binge drinking is often associated with young people and can be harmful because of its links with crime, violence and unwanted or high-risk sexual activity. Adolescent binge drinkers are 50% more likely than their peers to be dependant on alcohol or taking illicit drugs when they reach 30 years of age (Chief Medical Officer's Annual Report, 2007).

Figure 7.4 Young adolescent drinkers are drinking more heavily



Source: The Information Centre

There are many adverse consequences of drinking alcohol for children and young people (Figure 7.5).

Devon has had specialist Substance Misuse Services in place for young people for over six years, which is considerably longer than in some other areas of the country. The service provision includes treatment for any young person who is using drugs, alcohol or volatile substances to the extent that it causes them direct or immediate physical, emotional or social harm. The services have grown and the workforce has developed in its expertise over this time. There is now provision for working with young people who have a substance misuse issue, advice and support for parents whose child may have a substance misuse issue, and children and young people of substance-misusing parents.

Targeted prevention work is undertaken with those young people who are considered most vulnerable; this will include those attending Pupil Referral Units, other social inclusion units, young people who are clients of the Youth Offending Service and Children in Care.

It is recognised that young people with substance misuse issues are likely to have other difficulties in their lives. Work with young people is therefore undertaken in a holistic manner. Partnership working around issues such as Teenage Pregnancy, Emotional Health and Wellbeing and Youth Offending, is an essential part of working to ensure that young people receive a service that covers all aspects of their lives. The importance of working in a multi-agency manner is particularly important when considering the needs of Children in Care. Work with children of substance-misusing parents and their families will continue to be a priority and the links between adult treatment services and young people's services need to be further developed.

Young People's Substance Misuse Services in Devon now cover the under-18s, although possibilities exist for providing the service over the age of 18 if it is considered to be in the best interest of the young person. The age of those accessing treatment in 2007-08 peaked at 16 years of age. Transitions work between adult and young people's treatment services is being undertaken to ensure that moving into adult services, if required, is managed in a care-planned manner with the young person at the centre of the process.

Research undertaken by the Devon Young People's Substance Misuse Services has shown that a quarter of those in treatment stated that they first started using substances at the age of 13. Education for parents and young people therefore needs to start at an early age and progress throughout the teenage years. There is a close working relationship between the Young People's Substance Misuse Lead and the Adviser for Personal, Social and Health Education and Healthy Schools to ensure that substance misuse education is developed within schools.

Awareness training on substance misuse for anyone working with young people continues to be provided on a rolling basis. The training includes the use of the drug and alcohol screening tool and the process of referring to Young People Substance Misuse Services. This in turn, has resulted in a wide range of referring agencies. As well as providing high-quality services, practical advice should be made available to all young people (Figure 7.6).

Figure 7.5 Adverse consequences of drinking alcohol for children and young people

- Adolescents and young people who drink alcohol are more likely to sustain an injury, often as a result of an assault.
- Adolescents and young people who drink and drive, or allow themselves to be carried by a drink driver, are more likely to be involved in a car accident.
- Alcohol consumption is associated with: not using a condom during a young person's first sexual encounter; an increased likelihood of having sex and at a younger age; unprotected sex; teenage pregnancy and the likelihood of contracting sexually transmitted diseases.
- Alcohol may make some young people more likely to display aggressive behaviour, although it is likely that other factors such as their personality and family life will play a role.
- Alcohol consumption by young people, particularly students, is more likely to make them vulnerable to being the victims of crime.
- Alcohol abuse in adolescence, during a developmentally sensitive period, poses a particular danger to the emerging brain faculties of executive functioning and long-term memory.
- Alcohol may increase feelings of depression.
- Young people are not immune to the chronic diseases and conditions associated with excess alcohol consumption in adults, and deaths from liver disease are now occurring at younger ages.
- Alcohol consumption during an evening may affect a child's performance at school on the following day, since it takes time to metabolise alcohol and this process varies depending on the dose of alcohol that was consumed and differing metabolic capacity.
- There are associations between alcohol consumption and subsequent behaviour with peers and friends. Excessive alcohol use can be detrimental to a young person being able to maintain friendships, particularly if the consumption levels are higher than among the peer group generally.
- Adolescents are likely to be more vulnerable than adults to both subtle brain damage and long-lasting cognitive deficits following alcohol exposure.
- Adolescents who misuse alcohol are more likely to suffer from side effects including appetite changes, weight loss, eczema, headaches and sleep disturbance.

Source: Draft Guidance on the Consumption of Alcohol by Children and Young People, Department for Children, Schools and Families, January 2009

Fig 7.6 Advice for young people on safe socialising

- Look out for your friends. Don't let them drink too much, get into risky situations, or drink and drive. Get help if they become ill or hurt from drinking too much.
- You can say "No, thanks" if you don't want a drink.
- If you are out with friends, pick a non-drinker who can watch out for people.
- If you drink, eat something first, make sure that you know what is in your drink, take smaller sips and drink water or a soft drink between alcoholic drinks.
- Make sure that you have a plan for getting home safely.

Source: Youth Alcohol Action Plan, Department of Health, Department for Children, Schools and Families, Home Office, June 2008

7. Teenagers

During 2007-08, Devon specialist services undertook treatment work with approximately 350 young people. The National Treatment Agency's figures for 2007-08 show that of the young people in treatment, 51% were being treated nationally, primarily for the use of cannabis and 36% for alcohol. Devon figures for that period were slightly lower for the use of cannabis at 44% and slightly higher at 42% for alcohol. For 2008-09, the Devon figures were 49% and 34% respectively.

Alcohol-related hospital admissions for young people in Devon are causing concern and further analysis is being undertaken with respect to this data. The figures available, not including attendance at Accident and Emergency Departments, show a higher than average regional number for Exeter, East Devon, Torridge and North Devon.

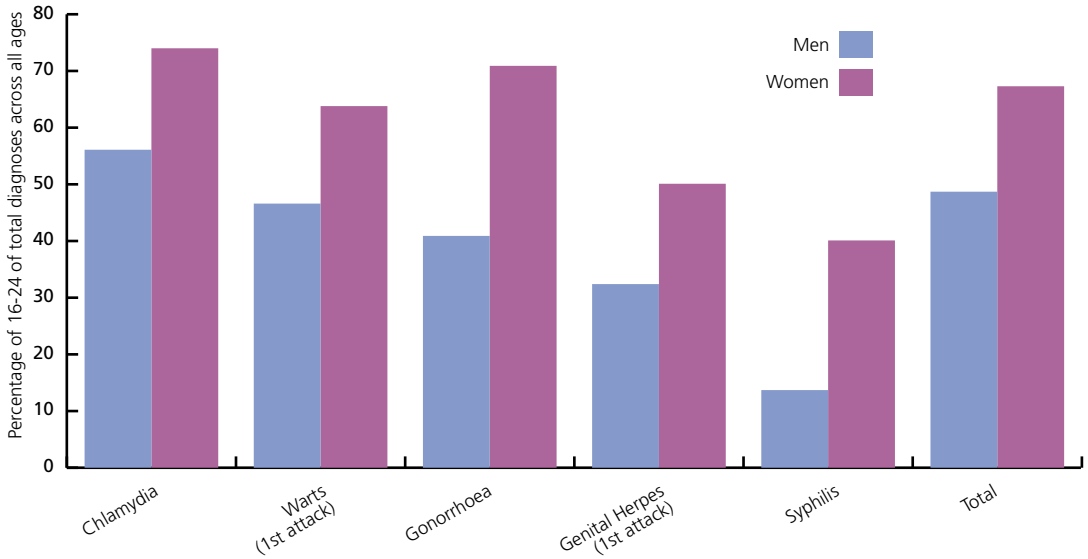
7.4 Sexual health

Sexually transmitted infections, including Human Immunodeficiency Virus (HIV), remain one of the most important causes of illness due to infectious disease among young people (16-24 year olds). If left untreated, many sexually transmitted infections, such as Chlamydia or gonorrhoea, can lead to long-term infertility problems. Infection with the type of Human Papilloma Virus (HPV) that causes cervical cancer can lead to long-term illness and possible death.

Young people (16-24 years old) are the age group most at risk of being diagnosed with a sexually transmitted infection (other than HIV). While young people only represent 12% of the total population, they accounted for nearly half of all sexually transmitted infections diagnosed in genitourinary medicine (GUM) clinics across the UK in 2007, as demonstrated in Figure 7.7.

The number of new sexually transmitted infections is continuing to rise year-on-year, with the greatest burden falling on young people. As well as better diagnosis, there is also some evidence of greater unsafe sexual behaviour among young people.

Figure 7.7: Percentage of sexually transmitted infections diagnosed among young people (16-24), UK, 2007



Source: Sexually Transmitted Infections and Young People in the UK 2007: Health Protection Agency, 2008.

Overall, reported condom use has increased significantly in recent years. In 2000, 83% of males and 80% of females aged 16-19 reported using condoms the first time they had sex. However, the likelihood of not using any contraception at the time of first sexual intercourse is higher in young people leaving school at 16 with no qualifications. Around a quarter of boys and a third of girls who left school at 16 with no qualifications did not use contraception at the time of first sexual intercourse, compared to only 6% of boys and 8% of girls who left school at 17 or over with qualifications (Department for Education and Skills, 2006). Sexual activity among teenagers is often opportunistic, unplanned and affected by alcohol and drug taking.

Sexual health among young people in Devon reflects the national picture. Devon Primary Care Trust, in collaboration with Devon Children's Partnership Trust, published a Devon Young People's Sexual Health Strategy in 2008. The strategy was produced following engagement with young people. The aim of the strategy is to develop an environment in Devon which promotes positive sexual health for young people. The strategy includes a series of commissioning recommendations which are being prioritised through the work programme of the Devon Teenage Pregnancy Board.

Young people are at high risk of being diagnosed with a sexually transmitted infection. Since 1998, the rates of most sexually transmitted infections in young people attending Genitourinary Medicine clinics have risen in the United Kingdom. Reducing this trend and improving overall sexual health are national and local priorities. Changing sexual behaviour and sexual practice is a considerable challenge. Part of the solution is to ensure that young people have easy access to sexual health services that can provide advice, screening and treatment for sexually transmitted infections (including HIV), and free condoms targeted at those at greatest risk. The delivery of high-quality sex and relationship education is of paramount importance for schools.

References

Department of Education and Skills (2006). Teenage Pregnancy Next Steps: Guidance for Local Authorities and Primary Care Trusts on Effective Delivery of Local Strategies

7.5 Chlamydia screening

Genital *Chlamydia trachomatis* infection is the most commonly diagnosed bacterial sexually transmitted infection in Genitourinary Medicine (GUM) clinics in the United Kingdom. Chlamydia is easily passed from one person to another through any unprotected sex, including oral.

Known as the 'silent' infection, as most people are asymptomatic, a large proportion of cases remain undiagnosed and if untreated, may have serious long-term consequences. In women, it is a well-established cause of pelvic inflammatory disease, ectopic pregnancy and infertility. Most people have no symptoms, but a quarter of women and up to half of men do develop symptoms.

For women, these include:

- Unusual vaginal discharge.
- Bleeding between periods.
- Bleeding after sex.
- Pain during sex.
- Pain when passing urine.
- Lower abdominal (pelvic) pain.

For men, these include:

- A white/cloudy or watery discharge from the penis.
- Burning or itching in the genital area.
- Pain when passing urine.
- Painful swelling of the testicles.

The number of diagnoses of uncomplicated genital Chlamydial infection in Genitourinary Medicine clinics in the United Kingdom has risen steadily since the mid-1990s, and between 2005 and 2006, diagnoses rose by 4% from 109,428 to 113,585. Prevalence is highest in young sexually active adults, especially women aged between 16 and 24 years and men aged between 18 and 29 years.

In November 1998, the Chief Medical Officer's Expert Advisory Group on Chlamydia concluded that Chlamydia screening met the criteria for public health intervention. The National Chlamydia Screening Programme was launched in 2003.

A national screening target was set for all sexually active adults under 25 years of age. For 2008-09 the target was 17%, rising to 25% in 2009-10 and 35% in 2010-11. The proportion of the population screened in Devon in 2008-09 was only 12%.

Since the publication of the 1998 report (Department of Health, 1998) the evidence base for Chlamydia screening has continued to grow. A study in Wisconsin, USA showed that screening reduced the incidence of pelvic inflammatory disease by 33% and ectopic pregnancy by 20% over a five-year period.

Mathematical modelling shows that the prevalence of Chlamydia will reduce by 30% after one year and 70% after five years, if there is 30% coverage and 20% partner notification in both men and women. These figures rise to 40% after one year and 80% after seven years with a 50% coverage and 20% partner notification. Further evidence is available from the National Chlamydia Screening website www.chlamydiascreening.nhs.uk

7.6 Teenage pregnancy

Teenage pregnancy is strongly linked with poor outcomes for the mothers, fathers and their children. Teenage parents are more likely to suffer poor health and to live in poor housing. Long periods spent on benefits and out of work are also more likely. Teenage mothers are less likely to complete their education and over a third have no qualifications. As 70% are not in education, training or employment, the risk of long-term social exclusion is increased.

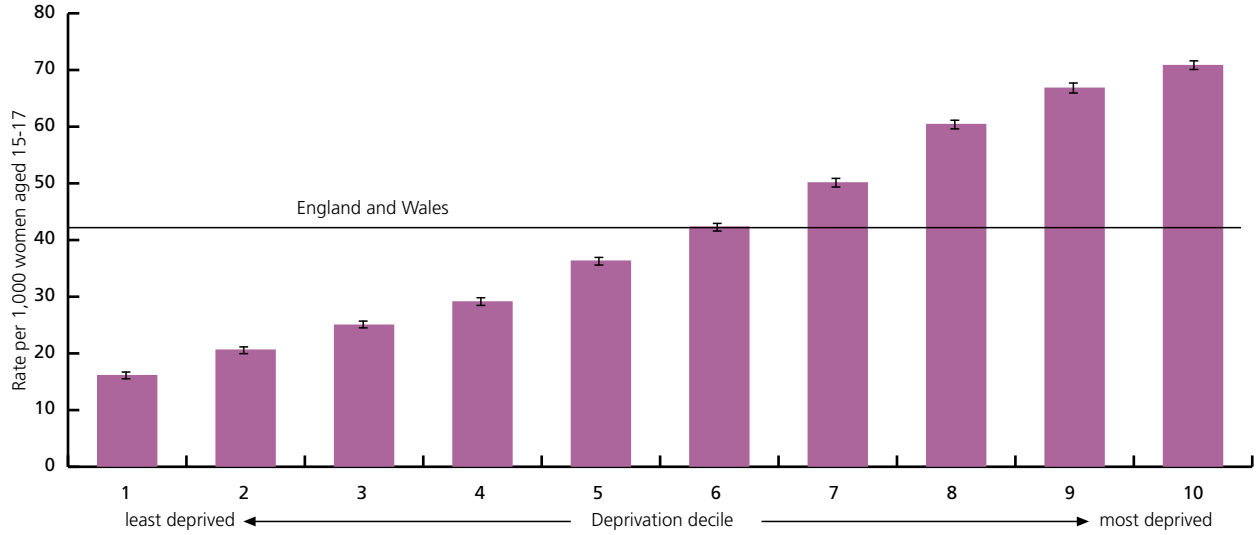
As it impacts on the poorest communities, teenage pregnancy widens health inequalities. Half of all under-18 conceptions occur in the 20% most deprived wards, and among the most vulnerable girls, the risk of becoming a teenage mother is almost one in three (Figure 7.8).

Teenage pregnancy carries avoidable costs to the NHS and public services. The majority of teenage conceptions are unplanned and about half lead to abortion. The babies of teenage mothers have a 60% higher risk of dying in the first year of life. As they grow up, they face an increased risk of living in poverty and of achieving less at school.

The United Kingdom has had a historically high rate of teenage pregnancy – the rates reached a plateau in the 1980s and 1990s while other countries continued to decline. Figure 7.9 shows the progress that has been made in reducing teenage conception rates. There has been an overall reduction of 10.7% nationally since 1998 when the government launched the Teenage Pregnancy Strategy.

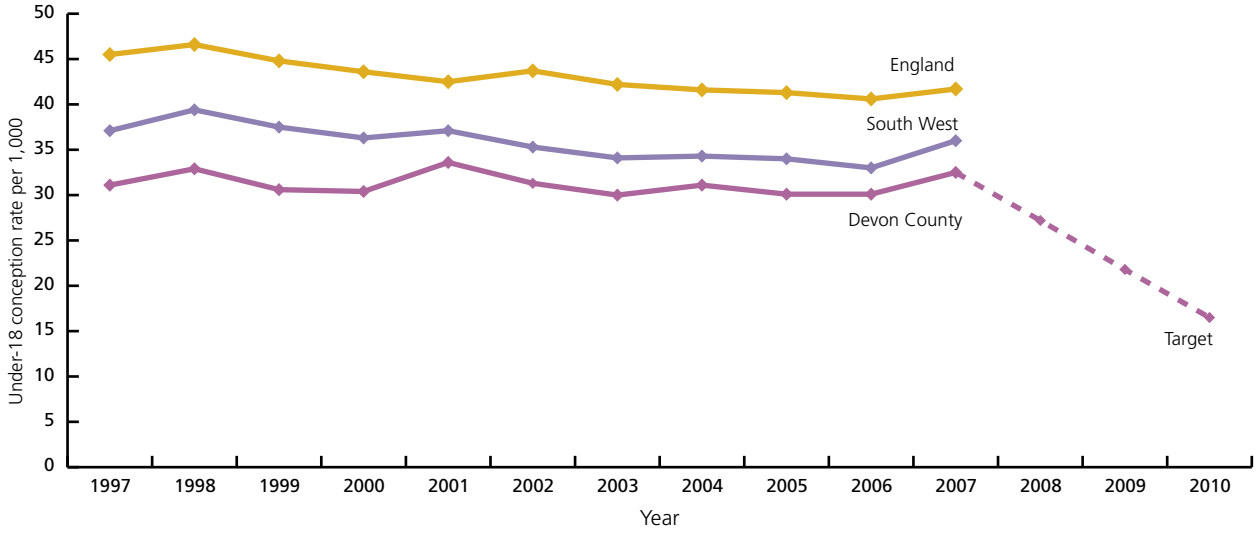
In 2007 there was a slight upturn following a previous downward trend. This was due to a rise in unplanned conceptions ending in abortion rather than an increase in teenage mothers giving birth, suggesting that young people are not accessing effective contraception and may be engaging in more risky behaviour. This indicates the need for better advice and information about sex and relationships both from their parents and in schools.

Figure 7.8: Under-18 conception rate by deprivation decile in England and Wales, 2001 and 2002



Source: Office of National Statistics, Health Statistics Quarterly, Number 33, Spring 2007

Figure 7.9: Under-18 conception rates per 1000 15-17 years olds



Source: Office of National Statistics and Teenage Pregnancy Unit, Crown Copyright, 2009

7. Teenagers

An international evidence base of what works in reducing teenage pregnancy rates can be summarised as:

- Clear messages to young people about early sex and its associated risks, contraception, sexually transmitted infections and availability of advice.
- Sex and relationships education to enable development of positive and safe personal and sexual relationships.
- Confidential contraceptive services.
- Discussion between young people and their parents about sex and relations.

A 'deep-dive' review of three local authority areas with increasing rates and three with decreasing rates revealed some additional key factors for success:

- Strong leadership and clear accountability for delivery of the teenage pregnancy target.
- Joined up working between all statutory and voluntary sector services.
- Good use of local population data to help with assessing need and targeting.
- Early intervention and preventative work with 'at risk' groups of young people.
- Multi-agency workforce training on sex and relationship issues.
- Active integrated youth support services in the statutory and voluntary sector.
- Aspiration-building programmes for those most at risk.

Overall the picture is one of Devon doing relatively well when compared to the national picture. Since 1998, the rate in Devon has shown a very slight decrease. As the rates are low, change can be more difficult to achieve. Table 7.2 and Figure 7.10 show that compared to 'statistical neighbours', which are parts of the country classified as being similar, Devon's progress is much less. If we look at what is happening within Devon, the progress achieved masks noticeable variations in local areas.

Figure 7.11 shows that there are some areas with higher than average rates, notably Exeter. The lowest rates in Devon are to be found in South Hams, West Devon and Mid Devon. There are also a number of wards which have relatively high rates, such as Exeter and Ilfracombe.

By looking in detail at local data, we may overlook how poorly the United Kingdom compares to other European countries. There is considerable variation across England and Wales and under-18 conception rates have doubled since 1990. Compared to other European countries, the United Kingdom has a significantly greater proportion of 12-18 year-olds giving birth than the Netherlands (Figure 7.12).

In Devon, the Teenage Pregnancy Partnership, a multi-agency group committed to reducing teenage pregnancy rates, is working closely with the National Support Team. There has recently been a major review of our priorities resulting in a variety of measures to improve access to services by:

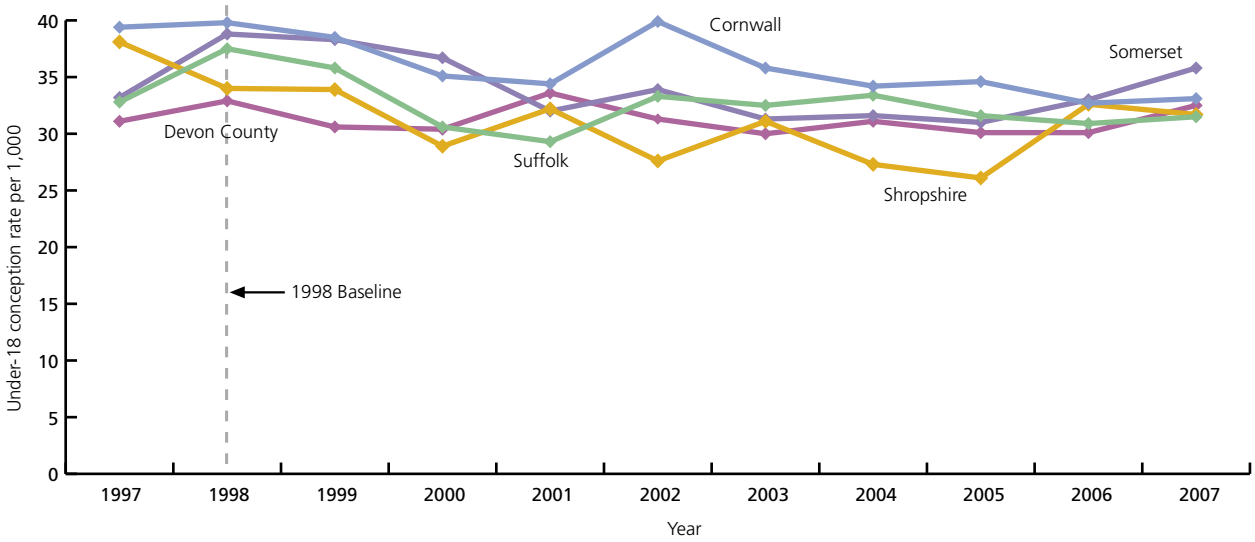
- Extending school and college-based health drop-ins.
- Launching a condom card scheme so that young people, especially young men, can access condoms.
- Raising awareness of emergency contraception.
- Making services more user-friendly by developing an easily identified logo in line with national campaigns.
- Supporting parents to speak openly about sexual health with their children.

Table 7.2 Under-18 conception trends by Department of Children, Schools and Families Statistical Neighbours

LA code	LA	Deprivation score	Under-18 conception rate 1998	2007	% difference 1998-2007
18	Devon County	17.4	32.9	32.5	-1.4%
40	Somerset	15.9	38.8	35.8	-7.8%
39	Shropshire	16.2	34.0	31.7	-6.7%
42	Suffolk	15.3	37.5	31.5	-16.0%
15	Cornwall	24.0	39.8	33.1	-16.8%

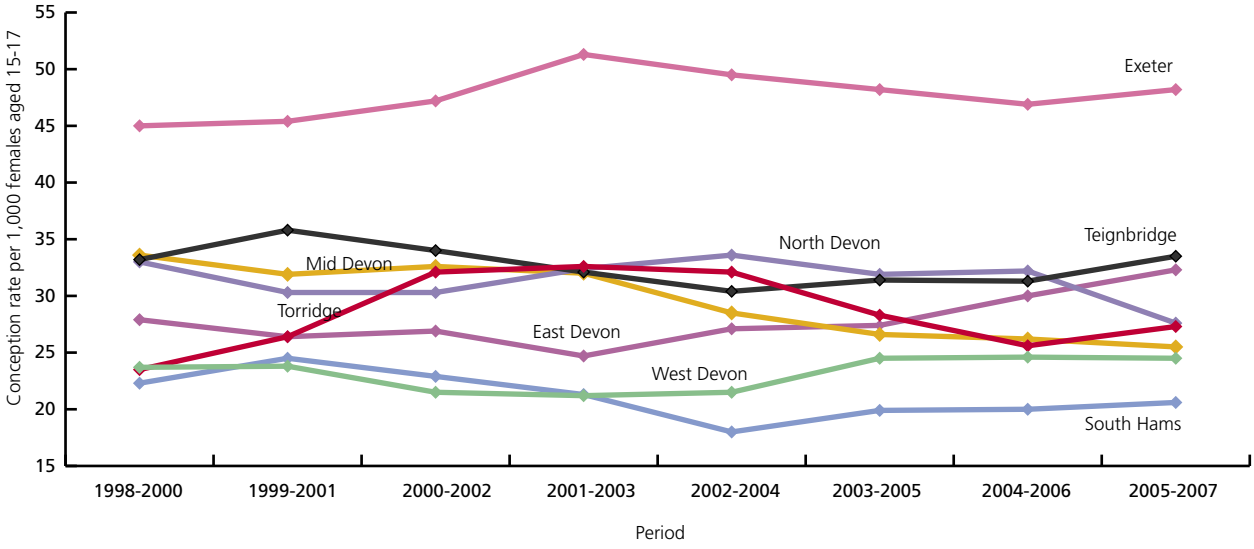
Source: Teenage Pregnancy Unit, February 2009

Figure 7.10 Under-18 conception trends by Department of Children, Schools and Families Statistical Neighbours



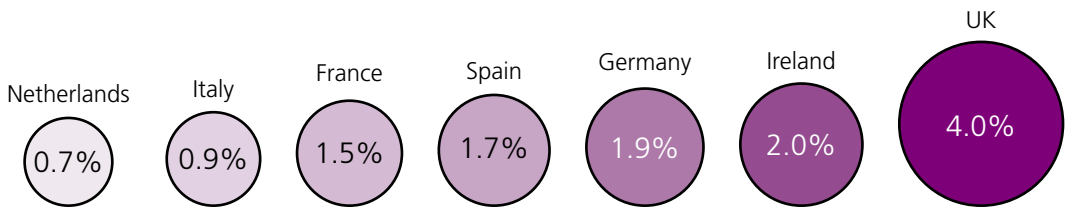
Source: Teenage Pregnancy Unit, February 2009

Figure 7.11 Under-18 conception rates per 1000 15-17 year old females for District Councils in Devon



Source: Office of National Statistics and Teenage Pregnancy Unit, Crown Copyright, 2009

Figure 7.12 Percentage of 12-18 year-old mothers of total births, 2006



Source: The Guardian, 27th February 2009

7.7 Human Papilloma Virus (HPV) immunisation

The Human Papilloma Virus vaccination was introduced into the national immunisation programme from September 2008 for girls in school years 8 and 13. The vaccine is delivered by injection into the upper arm with three doses, completing the course over a 12-month period. The vaccination was launched with a national information programme and in Devon this was been fully supported by the Primary Care Trust, the Local Medical Committee and Devon Education Services. Devon Primary Care Trust has delivered this vaccine through a school-based programme in line with the Department of Health guidelines. To date, there has been an uptake of at least 80%.

The Human Papilloma Virus infects the deepest layer of the skin or genital surfaces (epithelium). There are approximately 100 types of the Human Papilloma Virus, of which approximately 40 infect the genital area. The majority of all Human Papilloma Virus infections resolve on their own and cause no clinical problems. Around 70% of new genital infections clear within one year and approximately 90% clear within two years (Ho et al,1998; Franco et al,1999).

Genital Human Papilloma Virus can cause cancer, genital warts and other rare anogenital cancers of the head and neck (Parkin et al, 2006; Stanley, 2007).

Human Papilloma Viruses that affect the genital area are classified as:

- High risk or oncogenic types, which cause cervical cancer and the early changes in the cervix associated with cervical cancer.
- Low risk types, which lead to the development of benign (non-cancerous) genital warts.

Infection by one of the high-risk types of Human Papilloma Virus is necessary for the development of cervical cancer. Over 99% of cervical cancers are caused by Human Papilloma Virus infection, but most cases of high-risk Human Papilloma Virus infection do not lead to cervical cancer. Persistent infection can cause abnormalities of the cervix which, if left undetected and untreated, can lead to cervical cancer. While infection by genital Human Papilloma Virus is most common among young adults aged 18-28 (Koutsky, 1997), cases of cervical cancer peak in women in their late thirties. Two types of the high-risk Human Papilloma Virus (HPV 16 and HPV 18) are responsible for over 70% of all cancers in Europe (Smith et al, 2007).

Genital Human Papilloma Virus infections are spread primarily by sexual contact, particularly through sexual intercourse but also by non-penetrative genital contact. Risk factors for acquiring Human Papilloma Virus infection are related to sexual behaviour as risk increases with the introduction of a new sexual partner and their sexual history. Non-sexual routes of Human Papilloma Virus infection include transmission from mother to baby in the period immediately before and after birth, and hand to genital contact may explain some infections in childhood (Cubie et al,1998).

In a study conducted in the United Kingdom, 40% of the cervical smears from women aged 20-24 were positive for the Human Papilloma Virus DNA which would indicate a current infection. Fifteen percent of these women were infected with types 16 or 18.

Worldwide cervical cancer is the second most common cancer of women with approximately 500,000 new cases annually and 270,000 deaths annually (Parkin et al, 2006; Munoz et al, 2006). Routine cervical screening in industrialised countries has had a positive impact and prevented many invasive cancers and deaths. In England, 2,235 new cases of invasive cervical cancer were diagnosed in 2005 (National Statistics, 2007). Most cases are seen in women in their thirties with a second peak in older women in their seventies and eighties who did not have the opportunity to be screened when they were younger.

The vaccine is over 99% effective in preventing cervical changes linked to the virus types 16 and 18 in women who have not already been infected by these types (Ault et al, 2007; Harper et al, 2006). The vaccine is made up of the proteins that make up the outer coat of the virus and when a person is vaccinated, their immune system responds so that when the body is exposed to the real virus infection, the immune system can react quickly.

Vaccination is one of the most effective ways of protecting against infectious disease. The introduction of a new vaccine to the national vaccination programme demands a structured approach to ensure that it is available to all of those eligible. A large and rural Trust like Devon presents challenges and delivering this vaccine has been successful due to the partnership working and support of the population. The introduction of the accelerated catch-up programme will ensure that the protection offered will be in place at the earliest opportunity.

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7. Teenagers

Recommendations

7.1 To develop a Devon Tobacco Control Alliance.

7.2 To ensure Stop Smoking Services in Devon are advertised and available to all age groups in all areas, building on national and regional advertising campaigns.

7.3 To ensure all health workers who work with young people are aware of the Stop Smoking Service, and establish clear pathways for referrals.

7.4 To promote alcohol awareness at an early age.

7.5 To encourage families to lead by good example, setting boundaries for their children and not exposing young people to alcohol-fuelled excesses.

7.6 To work with partners to combat the illegal sale and consumption of alcohol by young people.

7.7 To introduce a condom distribution programme (C-Card) within Devon.

7.8 To introduce a quality marker, utilising the national "You're Welcome". criteria, so young people can access sexual health services with confidence that they are young-people friendly.

7.9 To promote locally-available services, including where to access sexual health advice, screening and treatment.

7.10 To ensure local publicity of national sexual health campaigns such as the "Condom Essential Wear" media campaign.

7.11 To develop a comprehensive Chlamydia screening programme across Devon to meet national targets in 2009-10 and 2010-11.

7.12 To use local data to ensure that there is effective commissioning.

7.13 To implement a media and communications plan.

7.14 To develop and implement a joint Young People's Contraceptive and Sexual Health Commissioning Plan to ensure universal and targeted provision which is performance managed through the Teenage Pregnancy Partnership Board.

7.15 To develop and implement, in partnership with young people, a Devon-wide approach to universal and targeted Sex and Relationship Education provision.

7.16 To develop interventions to meet the needs of a range of vulnerable groups.

7.17 To implement the accelerated Human Papilloma Virus catch-up campaign for girls in Year 8 (12 and 13 year-olds) and those in Years 10, 11, 12 and 13 in the academic year 2009-10.