Key Data on Adolescence
2015

The latest information and statistics about young people today

Ann Hagell
John Coleman
Fiona Brooks
The Association for Young People’s Health (AYPH)

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While this report has been developed in collaboration with PHE, the opinions and views expressed in it are those of the designated authors and do not necessarily reflect the opinions or views of PHE or any other part of government.
# Contents

Acknowledgements ........................................................................................................................ IV
Summary ........................................................................................................................................ VII

## CHAPTER 1: Introduction ........................................................................................................ 1
- The ‘Key Data on Adolescence’ Series: 10th Edition .................................................. 2
- Adolescent development ........................................................................................................... 2
- Overview of data sources ........................................................................................................ 4
- New formats for KDA 2015 ..................................................................................................... 4
- References ................................................................................................................................ 5

## CHAPTER 2: Demographics ................................................................................................... 7
- Adolescent population in the UK ............................................................................................ 8
- Family structure ....................................................................................................................... 11
- Adolescent mortality ................................................................................................................ 15
- References ................................................................................................................................ 18

## CHAPTER 3: Social determinants of health ......................................................................... 19
- Low income and poverty ........................................................................................................ 20
- Area based deprivation .......................................................................................................... 26
- Housing and living circumstances .......................................................................................... 28
- Education to 16 years .............................................................................................................. 34
- Education, training and employment 16-18 years ................................................................. 41
- Participation in education, training and employment 18 and over ........................................ 47
- References ................................................................................................................................ 52

## CHAPTER 4: Health behaviour and lifestyle .......................................................................... 55
- Physical activity ....................................................................................................................... 56
- Nutrition and obesity ............................................................................................................... 60
- Smoking, drinking and drug use ............................................................................................. 65
- Accidents ................................................................................................................................ 73
- Media and communication activities ..................................................................................... 74
- Sleep ......................................................................................................................................... 76
- References ................................................................................................................................ 77
CHAPTER 5: Sexual health ................................................................. 79
  Sexual activity ................................................................. 80
  Use of contraception ......................................................... 83
  Conception and birth ......................................................... 88
  Sexually transmitted infections ...................................... 92
  References ......................................................................... 95

CHAPTER 6: Mental health .......................................................... 97
  Prevalence of mental health problems among young people ... 98
  Emotional disorders and low mood .................................... 102
  Self-harm ........................................................................... 103
  Suicide .............................................................................. 106
  Conduct disorder and behaviour problems ....................... 107
  Attention deficit and hyperactivity disorder ...................... 109
  Eating disorders ................................................................ 109
  Autistic spectrum disorders ............................................. 110
  Young people’s reports of their wellbeing ......................... 111
  References ......................................................................... 114

CHAPTER 7: Physical health, longterm conditions and disability .... 117
  Common physical health problems .................................... 118
  Asthma, diabetes, epilepsy and arthritis ............................ 119
  Cancer .............................................................................. 122
  Disability ........................................................................... 124
  References ......................................................................... 128

CHAPTER 8: Healthcare promotion and use of health services ...... 131
  Health promotion .............................................................. 132
  GP consultations ................................................................ 136
  Child and Adolescent Mental Health Services .................... 140
  Hospital admissions ........................................................ 141
  Transition from children’s to adult services ....................... 143
  Palliative care ..................................................................... 144
  References ......................................................................... 146

List of charts ............................................................................. 149
**Summary**

Adolescence is a critical time for laying the foundation for health and wellbeing in adulthood. Collating age specific data about this age group can lead to a better understanding of their health needs, and can help us to provide more appropriate, youth friendly health services.

In this 10th anniversary edition of the biennial *Key Data on Adolescence* we draw on publically available data relating to young people aged 10-24 years, looking at the social determinants of health, information about health behaviour and lifestyle, sexual health, mental health, physical health and longterm conditions, and use of health care services.

**Demographics:** There are 11.7 million young people aged 10-24 in the UK; one in five of the population. More than 20% is from an ethnic minority. The majority of young people are living with their parents. Adolescence is generally a healthy life stage but those aged 10-24 do die (2,349 in 2014), often from preventable causes. Young men die more frequently than young women and the major cause of death in this age group is road traffic accidents, particularly in the years 15-24. Death from suicide is also a significant contributor, as is cancer.

**Social determinants of health:** Adolescence is a key period for establishing life-long health behaviours and these develop in the context of the family, school and community. These contexts can be structural, such as national wealth, income inequality and educational opportunities, or proximal, including family factors, availability of social support, and quality of the neighbourhood and school environment. Without equal access to resources and support across all these contexts, some young people are put at a disadvantage.

More than one tenth of those under 19 are living in situations of low income and material deprivation. One in eight young people under 15 live in workless households in the UK, and 14.6% of secondary school children are eligible for free school meals. Nearly two million young people aged 10-19 live in the most deprived areas of England. Nearly one in five of the 19-24 age group is not in education, employment or training. Deprivation is linked to a range of health outcomes including obesity.

Other indices of disadvantage include the numbers living in temporary accommodation, being looked after by the local authority, arriving as unaccompanied asylum seekers or being held in youth custody. Some trends are encouraging – youth custody, for example, has fallen considerably over the last 10 years. However, the needs of these groups of young people for extra support are particularly high if their longterm outcomes are to be good. Supporting good educational outcomes is key, but while 55.4% of the age group achieve 5+ GCSEs graded A*-C at age 16, only 14% of those in local authority care do so.

**Health behaviour and lifestyle:** Many life-long health behaviours are set in place during the second decade of life. Physical activity declines across adolescence, particularly for young women, and nutrition often falls short of national recommendations. Around one in five school pupils aged 11-15 are obese. Rates of smoking, drinking and drug use in this age group have all fallen over recent years which is good news. One in ten say they have drunk alcohol in the last week, and even fewer say they are regular smokers – the lowest rates since the 1980s. Concern remains over a small group who do get drunk regularly, and data are just emerging on e-cigarettes and legal highs, new to the scene; it is not clear what part they will play in the overall picture in coming years. One quarter...
of secondary school pupils say they do not get enough sleep and managing media and communications activities may be part of the problem. Use of smartphones has opened up a new world of swift, flexible communications and access to media, bringing both challenges and opportunities.

Sexual health: The average age of first heterosexual intercourse is 16. In 2013, rates of conceptions in the under-18 age group were at their lowest level since 1969, but the UK still has a relatively high rate of births among 15-19 year olds compared with other countries. The highest rates of sexually transmitted infections are among those aged 15-24 (particularly Chlamydia), and continued testing is vital for this age. Primary care and community contraceptive services are important sources of information for young people aged 15-24, as is good quality sex and relationships education at school.

Mental health and wellbeing: Half of all lifetime cases of psychiatric disorders start by age 14 and three quarters by age 24. Some estimates suggest the majority start before age 18. Yet we lack up to date, representative data on recent trends in mental health for this age group. Older data suggest that around 13% of boys and 10% of girls aged 11-15 have mental health problems including anxiety and depression, eating disorders and hyperactivity and attention deficit disorders. Suicide rates have fallen since the early 2000s for this age group but there were 41,921 hospitalisations for self-harm by poisoning or other methods among 10-24 year olds in England in 2014, representing a slight rise since 2007/8. However the majority of young people rate their wellbeing as good.

Physical health, longterm conditions and disability: Although the years 10-24 tend to be a time of good physical health, young people do experience a range of short term physical health problems and around 15% of those aged 11-15 have longterm chronic conditions or some kind of disability. Approximately 800,000 teenagers in the UK suffer from asthma, 63,000 young people under 19 have epilepsy, 35,000 under-19s suffer from diabetes, 2,500 under-17s develop arthritis every year and 2,200 young people aged 15-24 are diagnosed with cancer every year.

Healthcare: Young people are regular users of healthcare, particularly primary care and community contraceptive clinics but also child and adolescent mental health services (CAMHS) and hospital admissions. Although many are satisfied with their experiences, many are not, and the proportions saying they are not tend to be higher than for other age groups. There is a particular shortage of CAMHS provision; despite at least 10% of the age group having mental health problems, only 1,400 young people are referred to CAMHS per 100,000 of the population aged 0-18.
Adolescence is usually defined as 10-19 years, young people as 10-24 years, and youth as 15-24 years.

The peak age for puberty in the UK is 12-13 years in girls and 13-14 years in boys.

Brain development can continue up to age 25.

It is critical to separate out the data for the age groups from those for younger children or older adults, so that we can design services most appropriate to young people’s needs.
CHAPTER 1: Introduction

Introduction

Adolescence is critical for laying the foundation for health and wellbeing in adulthood. Young people passing through adolescence need particular support and services, especially those who are vulnerable. Yet the data on adolescence are often bundled up with other age groups. The data are also frequently compartmentalised into topics such as youth justice, obesity, or mental health, which may present information in different ways or relate to different age breakdowns. Drawing connections between the topics may be challenging, yet we need to view adolescence holistically. This is the only way to get an overview of what young people need to reach their full potential and the services which need to be commissioned. Key Data on Adolescence (KDA) brings together all the robust and representative information we can find to get a full impression of the UK’s current adolescents.

The Key Data on Adolescence series: 10th edition

This is the 10th anniversary edition of the biennial Key Data on Adolescence, the first having been published in 1997 by the Trust for the Study of Adolescence. That first publication represented a groundbreaking attempt to pull together essential descriptive information about the lives and wellbeing of young people in the UK, separated out from the data on younger children or adults. Eighteen years have passed since the first edition and there is still a need for up to date, adolescence specific data to inform the development of appropriate services for this age group. And adolescent lives are constantly changing so we try to distil data on the longer term trends as well as the current situation.

KDA is a collaborative exercise and all the volumes have involved contributions from a number of organisations. KDA is currently produced by the Association for Young People’s Health (AYPH), with support from the National Child and Maternal Health Intelligence Network, Public Health England. In recent editions we have developed the section on the social determinants of health and added new topics. In this edition you’ll find new sections on youth justice and young people as victims of violent crime, and more on young people with complex needs living in care or youth custody. Where possible we have focused on the relevant drivers in the Public Health Outcomes Framework and the NHS Outcomes Framework (Viner et al, 2012; Department of Health, 2012, 2013).

Adolescent development

The data presented in this publication relate primarily to young people in the second decade of their lives, aged between 10 and 20. However, with an increasingly elongated transition into adulthood and the challenge of transitions from children’s services into adult services, it has also been important for some topics to extend this range upwards to age 24. These age bandings map onto the United Nations General Assembly, Unicef, and World Health Organisation definitions of adolescence (10-19 years), youth (15-24 years) and young people (10-24 years) (Unicef 2011).

During this time of their lives, young people experience huge physical, psychological and behavioural changes as they mature from children to adults. All of the data in the following pages should be viewed through the lens of adolescent development. They
all represent a snapshot for a group of people who are constantly changing. Some have support to help them make these transitions with ease – others are subject to poverty and other social determinants of health that may hinder their progress. The data tell us important things about the experience of adolescence in the UK today and suggest ways in which we can improve outcomes.

Development in adolescence takes place in the following domains:

- **Physical development.** The three or four years of pubertal development include a growth spurt, maturing of the reproductive organs, development of secondary sex characteristics and menarche in girls. There is wide individual variation in the timing of the start and completion of puberty. Generally, evidence suggests a peak age of puberty in the UK of around 12-13 years for girls, and 13-14 for boys (Patton and Viner, 2007).

- **Cognitive development.** Recent work has revealed that the brain undergoes a huge reorganisation and ‘fine tuning’ in the adolescent years. Changes in anatomy and functioning seem to result in a brain that is more efficient and more adapted to the surrounding environment. During their second decade, young people become better at weighing up risk, learning from experience, moral thinking, political thought and at controlling impulses (Coleman, 2011; Steinberg 2005). There are important ongoing changes to the ‘social brain’, the part of the brain driving understanding and interacting with others (Blakemore, 2011). There is evidence from MRI scans that brain development continues up to age 25 (Giedd, 2004).

- **Emotional development.** Key tasks of adolescence include firming up a sense of personal identity and self-esteem, developing autonomy and learning coping strategies for dealing with life events and challenges (American Psychological Association, 2002). Young people seek more independence and responsibility. Supporting the development of emotional health and wellbeing is a task for everyone who lives or works with young people.

- **Social development.** Peer groups become of paramount importance and peer influences are powerful, although families remain very significant (Brown and Bakker 2010). Young people start to develop a sexual identity and to seek more relationships outside the family.

- **Behavioural development.** Brain changes mean that adolescents are more likely than other age groups to seek out novel experiences and take risks. This can present some challenges in terms of taking care of their health, but is an important part of learning. Many life-long health behaviours are set in train during adolescence.
Overview of data sources

There is a wealth of data about young people from decades of research around the world. The countries of the UK have regularly undertaken national surveys such as the census, the Health Survey for England, the Labour Force Survey, and the Annual Population Survey. But there are fewer large scale data sets that tell us about adolescent experiences in all of the UK’s constituent countries.

The main sources we rely on have had to meet some quality criteria. They need to draw on a significant sample size, resulting in generalised results to a known population, using reliable and valid survey instruments, and they need to adhere to the standards of ethical research methods. Where there are gaps in published data we have occasionally drawn on research undertaken with smaller sample sizes or in limited geographical areas. The text makes clear the sources in all cases and we make it clear if we have reservations about generalising from data.

Unfortunately, despite efforts to fill the gaps, the data on many aspects of adolescent health are inadequate. Statistics are frequently recorded in ways that make it impossible to draw sensible conclusions by, for example, reporting data on those between the ages of 0-19 years, or from 16-59 years. Once again we wish to express our concern over this limitation and to emphasise that good commissioning must depend on the availability of data relevant to the age group. In the current climate, with health services across the United Kingdom (UK) affected by financial constraints, change and significant scrutiny, useful and robust data are critical. Hopefully the emphasis from the Children and Young People’s Health Outcomes Forum (2012) on quinary age bandings will help, otherwise it will be difficult to introduce improvements in services for young people. Finally, KDA has always had a strong emphasis on health. Due to pressures on space and limitations in the data, there are inevitably aspects of young people’s lives that are not covered.

New formats for Key Data on Adolescence 2015

The full 10th Edition of Key Data on Adolescence is published on-line as an interactive PDF only. You can access the data by clicking on the ‘download data’ button below the charts, and there are many hyperlinks to allow you to navigate through to original sources and extra information.

In addition, a summary version has been made available, also downloadable and there is a slide pack for you to use in your own presentations. Additional data resources about young people’s health are available on the Public Health England Child and Maternal Intelligence Network webpages (www.chimat.org.uk/youngpeople).
References


There are 11.7 million young people aged 10-24, representing one fifth of the UK population.

One in five is from an ethnic minority.

Young people aged 10-19 live in 4.8 million households, mainly with married parents (60%), cohabiting parents (9%) or lone parents (25%).

Half of those aged 20-24 are still living at home with parents.

A total of 35,936 young people aged 11-15 had parents who divorced in 2011.

In 2014, 2,349 young people aged 10-24 died, nearly half from external causes. Young men die more frequently than young women and the major cause of death in this age group is road traffic accidents.
Demographics

Adolescent population in the UK

Young people form a significant proportion of the population. The UK population in 2013 stood at 64.1 million, with 56.1 million living in England. Chart 2.1 shows that of the UK population, 7.4 million were 10-19 year olds, and 11.7 million were 10-24 year olds. There were slightly more aged 20-24 and 15-19 than aged 10-14.

As Chart 2.2 illustrates, young people aged 10-19 represent 12% of the total population of the UK, the same as the proportion aged 0-9. If we include those aged up to age 24, the 10-24 age group accounts for 19% of the population. We hear a lot about the increasing numbers of elderly people in the UK but the proportion of over-70s is also 12% – the same as 10-19s, and considerably smaller than the 19% for 10-24 year olds.
There are always fluctuations in the population, reflecting births, deaths, immigration and emigration. **Chart 2.3** shows the UK’s 2013 population, with the 2003 data plotted against it. Although there appears to be a slight contraction in the cohort aged 10-14, the 0-4 and 5-9 year olds are expanding in numbers again and will push through into adolescent services in the next 10 years. Adolescents may represent a falling proportion of the whole population because of extended longevity in older groups. But it is important to note there are still as many of them in absolute numbers as there were 10 years ago and there will be similar numbers in the next 10 years. This has clear implications for service delivery needs.

**Chart 2.3**
Population in the UK, by age and gender, 2003 and 2013

Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

» Download data
In the population as a whole there are more adolescents from ethnic minority groups than older people from these groups. Overall, the proportion of the population of England and Wales who classified themselves in a group other than white British is 19.5% (ONS, 2012a). These data have not been updated since the census.

Chart 2.4 shows the ethnic group of all those aged 10-19 in England and Wales, again from the 2011 census. Overall the proportion of this age group who classified themselves as not being white British was 21.5%. Younger people are more likely to come from ethnic minorities than older people.
Data in Chart 2.5 shows there are wide variations in the age distribution of different ethnic groups. The proportion of adolescents is much larger in the mixed group, and in Pakistani, Bangladeshi and some Black groups. In all of these, the proportions of under-16s is higher than in the White British group.

Family structure

Chart 2.6 shows there were 26.7 million households in the UK in 2014, of which 4.9 million (18%) contained at least one person aged 10-19.
Chart 2.7 shows where all those aged 10-19 were living in 2014. The majority (60%) are with their married parents. An additional 9% are living with cohabiting parents and 25% with lone parents. However, 6% live in other situations, including in halls of residence (2%) or in their own newly constructed families (1.5% cohabiting or married and 0.5% are lone parents themselves). The 3% who are coded as 'other' are in local authority care, hospitals, prisons, or are living as lodgers, in house shares, or with other family members such as siblings or cousins.

A notable social change of recent years is the increasing proportion of young people over 20 who are still living at home with their families. Chart 2.8 presents the proportions of young women and young men still in the family home from aged 15 to 34 years, by gender. Overall young men are more likely still to be at home at any age. At age 20, 57% of all young people are still living at home. This falls to 32% by age 25, and to 11% by age 30. Overall half (49%) of those aged 20-24 are still living at home.
Chart 2.8
Young people and adults aged 15-34 years living with parents in the UK, by age and gender, UK 2014

Chart 2.9 presents a comparison between the overall rates of young people living at home in 2002 compared with 2012. It will be interesting to see what happens in coming years due to the effects of welfare changes and the costs of rents and housing.

Chart 2.9 Change in the proportion of young people living at home in the UK, 2002-2012

Source: Labour Force Survey (LFS), Office for National Statistics » Download data

NB: University students are coded as not living with their parents, and young people in prison are not part of the survey
Another part of the picture is provided if we look at the way in which the structure of families has changed in the UK over the last three or four decades. Although children and young adults are staying longer in the family home, these homes are more likely now to be headed by lone parents than they used to be. Chart 2.10 shows the gradual reduction in children living with married/cohabiting couples and the rise of those living with just one parent. Overall, the number of lone parents with dependent children (under 16 years, or 16-18 and in full time education) has more than doubled since the early 1970s, to 22% in 2011. The highest level was reached in 2005 when 25% of families were headed by a lone parent, but this figure has fallen back over recent years.

These figures tell an important story about the changing structure of families as experienced by young people. For example, a significant number of young people are still experiencing their parents getting divorced, although this is declining. Chart 2.11 shows that in 2012 a total of 35,936 young people aged between 11-15 had parents who divorced that year. Again this is a fall on the previous year, and is at the lowest level for 20 years. In fact both marriage and divorce are falling, while the numbers of couples choosing to cohabit continue to rise. Marriage rates peaked in the 1960s but have been falling since. Divorce peaked in the early 1990s (Office for National Statistics 2014a). Cohabiting couples will be splitting up as well as those formally divorcing, and we do not know the effect of this on young people.
Adolescent mortality

Over the last 50 years, age specific mortality rates have fallen for all age groups from 0-24 years (Office for National Statistics, 2014b). While adolescence is generally a healthy life stage those aged 10-24 do die, often from preventable causes. The overall UK childhood mortality rate is higher than in some other European countries, and concern has been expressed that the UK has relatively high rates of death among, for example, young people with chronic conditions (Wolfe et al, 2015).

Death in adolescence is more common than in younger children excluding babies (Viner et al 2012). Chart 2.12 shows the age specific mortality rate for children and young people in England and Wales from aged 5 to young adulthood. The rates are lowest for those aged 5-14, middling for those aged 15-19 and highest for those aged 20+.
**Chart 2.13** shows the causes of death by age groups 10-14, 15-19 and 20-24 in England for deaths registered in 2011. Causes of death were defined using the International Classification of Diseases tenth revision. In total there were 1,066 deaths among those aged 10-19, and a further 1,283 among those aged 20-24. The main causes of death in these age groups were external (just under half), followed by neoplasms (cancer). External causes include accidents and intentional self-harm.

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<tr>
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<tr>
<td>Neoplasms</td>
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<tr>
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<tr>
<td>All causes</td>
<td>295</td>
<td>771</td>
<td>1283</td>
</tr>
</tbody>
</table>

**Source:** Office for National Statistics (2014) Mortality Statistics; Deaths registered in England and Wales (Series DR) 2013 » Download data
Chart 2.14 gives more detail on the rate of mortality per 100,000 of the population for three important and potentially preventable causes of death – traffic accidents, self-harm (including suicide) and violence. The rise in traffic accidents between the younger and older adolescents is very striking. Despite media focus on violence among young men, in fact traffic accidents and self-harm are significantly more common causes of death. The disparity of rates between genders is also very striking. Young men are far more likely to die from any cause than young women.
References


Significant proportions of young people aged 10-24 are affected by poverty. One fifth of young people aged 11-15 live in families with the lowest levels of income.

14.6% of secondary school children receive free school meals.

Living in an area of multiple deprivation is associated with higher levels of obesity for Year 6 (age 11) children.

In 2014, 39,600 young people in England aged over 10 were being looked after by local authorities, usually for reasons of neglect or abuse.

In 2014, over half (53.4%) of pupils at secondary school in England achieved five or more A*-C grades including English and maths. This is a slight drop on previous years. The other countries of the UK use slightly different forms of calculation and their estimates for a similar (but not identical) level of achievement were 57% in Scotland, 55.4% in Wales and 62.2% in Northern Ireland.

GCSE results are strongly linked to socioeconomic determinants. Only 14% of looked after young people achieved five or more A*-C grade GCSEs in 2014. This figure has not improved in the last few years.

The majority of young people stay on in education at 16-18 to do A-level examinations or vocational qualifications. One third continue to university.

Very small proportions of young people are in employment. The unemployment rate for young people aged 16-24 in the UK has increased significantly since the early 2000s.
Social determinants of health

Young people’s health is affected by a wide range of social, economic and environmental factors. From the Black Report in the 1980s (DHSS, 1980) to more recent World Health Organisation reports on the social determinants of health (eg, WHO, 2008; Marmot et al, 2012) there has been ongoing debate about reducing health inequalities and creating more equality of access to services. Reducing health inequalities is a priority for all the health system leaders including the Department of Health, NHS England, Public Health England, NHS Scotland and NHS Wales.

Adolescence is a key period for establishing life-long health behaviours and these develop in the context of the family, school and community. These contexts can be structural, such as national wealth, income inequality and educational opportunities, or proximal, including family factors, social support, neighbourhood environment and school ethos (Viner et al, 2012). Without equal access to resources and support across all these contexts, some young people are put at a disadvantage. In this chapter we look at the data on some of the social determinants of health for this age group.

Low income and poverty

The root causes of health inequality are bound up with economic factors such as low income. Living in stressful economic circumstances is not good for either physical or mental health. Overall, children and young people are disproportionately represented in families with lower levels of income, compared with adults. Splitting family income into five different brackets, Chart 3.1 shows that 21% of young people in the UK aged 11-15 were living in families with the lowest levels of income in 2012-2013, compared with 15% who were living in families with the maximum levels of income. There was little variation between the age groups and the pattern holds for younger children as well as for adolescents.
A consequence of low income is lack of resources to meet daily needs. According to the Department for Work and Pension’s more extreme measure of income inequality, 13% of those aged 0-19 years were living in households classified as low income and materially deprived in 2012-2013 (DWP 2014). This indicates that they did not have many of the basics regarded as standard and had a household income of below 70% of contemporary median incomes before housing costs. A smaller proportion (4%) was living in severe low income and material deprivation, where the household income had dropped below 50% of median income. Chart 3.2 demonstrates that this has not changed much in the last three years.

![Chart 3.2](source)

Young people may be put at a disadvantage by living in households where the adults are not working. Around one in eight children aged 0-15 live in workless households in the UK (ONS, 2014). Across the UK, the lowest incomes are for lone parent families, where 51% have weekly incomes of £300 or less, compared with 17% of cohabiting couples with children and 9% of married couples with children (ONS, 2010). Lone parent mothers are also less likely to be working than mothers in a couple family.

13% of 0-19 year olds live in households with low income and material deprivation

Source: DWP Households below average income 2012-2013

NB recording methods changed 2009-2010, so data before this date are not now comparable.
Chart 3.3 shows that 74.3% of lone mothers with 11-18 year olds were working, compared with 79.9% of those living with a partner. The differences are more notable for the younger age groups, but still occur for mothers of adolescents. More needs to be done to support lone and unemployed parents to prevent young people being adversely affected by poverty.

The most recent survey of child wellbeing in OECD countries (Unicef, 2013) presented international comparisons of relative child poverty, based on the percentage of children aged 0-17 living in households with equivalent incomes below 50% of the national median. Chart 3.4 shows that there were 15 countries where up to 10% of children were living in poverty; the UK was 14th out of 15.
<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>1</td>
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<tr>
<td>Netherlands</td>
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<td>Denmark</td>
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<td>Estonia</td>
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<td>Slovakia</td>
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<td>Poland</td>
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<td>Canada</td>
<td>21</td>
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<td>Portugal</td>
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<td>Italy</td>
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<td>Lithuania</td>
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<td>Spain</td>
<td>26</td>
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<td>Latvia</td>
<td>27</td>
</tr>
<tr>
<td>United States</td>
<td>28</td>
</tr>
<tr>
<td>Romania</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Unicef (2013) Child wellbeing in rich countries

NB: Ranking based on % of children aged 0-17 years living in households with equivalent incomes below 50% of national median.
Another index of hardship is provided by eligibility for free school meals. In England a free school meal is a statutory benefit available to school aged children from families who receive other qualifying benefits. From September 2013 free school meals were extended in England to all children in infant schools (in reception, Years 1 and 2). However, for older pupils in primary and secondary schools they are not universal. **Chart 3.5** presents the proportions of children at different school stages receiving free school meals, and shows that on average 14.6% of secondary school children were eligible. The rates of free school meals among those in special education and pupil referral units is much higher.

![Chart 3.5](chart35.png)

**Chart 3.5**
School pupils in England claiming free school meals

Young adults have been particularly affected by the austerity cuts in the UK in recent years. Based on analyses of Department of Work and Pension poverty statistics, the New Policy Institute has concluded that poverty rates among people aged 19 to 25 years have increased more than other groups (**Chart 3.6**), and they now have among the highest rates of all age groups at around 29% (Aldridge, 2015).
We explore unemployment for this age group later in the chapter but here we note that there is evidence of increasing levels of personal debt being experienced by young people. According to a recent poll of 1,800 young people, the majority had more than £2,000 of debt, with one fifth owing in excess of £10,000. More than half of 18-24 year olds said their debt had increased over the previous five years, compared with far fewer older people (Salter, 2014).
Area based deprivation

The quality of the local environment is an important part of the social determinants of health. There is a strong link between area deprivation and a number of important health indicators for young people, including sexually transmitted infections, teenage conceptions and obesity.

Deprivation is a multidimensional construct, which includes income, health, education, crime and availability of local resources. The four nations of the UK have each derived their own index of multiple deprivation (IMD) based on methods developed at the Oxford Social Disadvantage Research Centre (Noble et al, 2006). The domains used vary by country. The unit of analysis for IMD is usually ‘Lower Level Super Output Areas’, which are small geographical locations of consistent size, with stable boundaries, containing a population of around 1,500 people. The average score can provide a useful indicator of widespread problems of deprivation within areas. However, at the time of writing the latest deprivation figures in England related to data collected in 2008 (Department for Communities and Local Government, 2011). New data are due for release later in 2015. Patterns may change given the economic turmoil of the intervening years, although the new 2014 Welsh Index of Multiple Deprivation in fact showed a picture of deprivation that was very similar to that recorded in Wales in 2011 (Welsh Government, 2014b).

![Chart 3.7](https://example.com/chart3.7.png)

**Chart 3.7** shows the numbers of young people living in the most deprived areas of England at the time that the English IMD was last calculated in 2010. Young people aged 10-19 are more likely to be living in the most deprived fifth of the country (quintile 5). In total, 1.9 million young people aged 10-19 are living in these areas, together with 1.2 million young people aged 20-24. The IMD was due to be published again in the summer of 2015.

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**NB** Data provided by Ceris Anderson and colleagues, Streetgames
In England the 2010 index of multiple deprivation has been used in a different way to derive the Income Deprivation Affecting Children Index (IDACI), published by the Department for Communities and Local Government. This ranks geographical areas on the number of children aged 0-15 living in income deprived households as a percentage of all children in the area. Across all of England, 21.8% of this age group live in income deprived households. The rates by local authority range from 2.7% on the Isles of Scilly (although numbers are very low) to 59% in Tower Hamlets, East London (APHO, 2012).

The Welsh Index of Multiple Deprivation has been used to derive the Child Index 2011, which looks at indicators most relevant to children’s lives, such as school absence rates, air quality, young offenders, proximity of libraries etc. (Welsh Government, 2011). More specific area based deprivation data tailored to adolescents (rather than all children) would be useful in understanding the social determinants of health and commissioning services.

Chart 3.8 illustrates the relationship between these area deprivation measures and health outcomes, by showing the 2013-2014 rates of obesity for Year 6 children presented by the 2010 IMD deciles. Higher levels of deprivation are clearly associated with higher rates of obesity in the area.

![Chart 3.8](chart3.jpg)

*Source: Health and Social Care Information Centre*  
*NB* Where Decile 1 is most deprived and Decile 10 least deprived
Housing and living circumstances

Health and living circumstances are closely related. Here we look at the statistics for young people on housing tenure, homelessness, living in local authority care or staying in youth custody. Chart 3.9 presents the housing tenure of people in England with dependent children, comparing those living as couples with those living as lone parents. Owner/occupier and mortgaged status are more common to couples with dependent children, whereas various kinds of rental are more common in lone parent families. Nearly half of couple families live in owner occupied homes, compared with under 8% of lone parents.

The UK government reported that there were 60,940 households in temporary accommodation in England in September 2014; the highest number over the previous five years (House of Commons Library, 2015). Of these, 45,620 included dependent children and/or a pregnant woman. In total, 87,420 children were living in temporary accommodation. The majority of these households with dependent children were in self-contained premises, with 5% in bed and breakfast accommodation (DCLG, 2014). Figures for Scotland show that on 31 December 2014, 2,491 households with children were living in temporary accommodation, representing a total of 4,333 children (Scottish Government, 2015a).

The official statistics on numbers of 16-24 year olds who are homeless has steadily decreased since 2006, but there has been an increase in those who are 18-20 year old care leavers (Homeless Link, 2014). In total 340 young people aged 16-17, or care leavers
aged 18-20, were accepted as homeless by local authorities in England in 2014 (DCLG, 2014). The official numbers are undoubtedly an underestimate as there is likely to be a significant number who stay temporarily with friends or sleep rough. There is evidence that more young people are approaching voluntary sector homelessness organisations for help (Homeless Link, 2014).

As well as adolescents living in temporary accommodation, groups potentially living in vulnerable circumstances include those looked after by the local authority. This group does poorly on almost all outcomes measures, including school performance, mental health, involvement with the criminal justice system and employment. Governments have recognised this and attempted to address some of the challenges. However, the problems are not easy to overcome and outcomes for these children today continue to cause concern.

The figures for looked after children are based on a snapshot over a census week and do not reflect the numbers in care during an entire year. In England in 2014, 25,140 young people aged 10-15 years and 14,460 young people aged 16 and over were in the looked after category at the time of the census.

Chart 3.10 shows the ages of all looked after children in England in 2014, with adolescent age groups (10-15 and 16 or over) accounting for the majority. Reasons for being looked after most commonly include neglect or abuse, family dysfunction, family acute stress, parental illness or disability and absent parenting.

There had been a steady reduction in the 1990s, but as the figures in Chart 3.11 reflect, the numbers of 10-15 year olds who are looked after have remained fairly constant through the 2000s, with increases in those aged 16 and over. This may be partly because of a growing recognition that this age group does continue to require considerable support.
**Chart 3.11**

**Chart 3.12** shows that boys have always outnumbered girls in the care system.

**Chart 3.12**
Looked after children in England by gender, 1996-2014

Source: Department for Education, SFR 36/2014, Children looked after in England (including adoptions and care leavers) year ending 31 March 2014 and earlier releases » Download data
Chart 3.13 shows that the majority of looked after children are from white British backgrounds, but there are also many from other ethnic groups.

There are legislative differences between the different countries of the UK that mean their statistics on looked after children are not completely comparable. However, the Welsh Government recently undertook a review of the statistics and published comparisons for the year ending 31 March 2013. Chart 3.14 shows the total children looked after on this date in England, Scotland, Wales and Northern Ireland. The largest numbers were in England but in fact the Welsh Office analyses show that England had the lowest rate per 10,000 resident population (60 compared with 156 for Scotland, 91 for Wales and 85 for Northern Ireland) (Welsh Government, 2014a).

### Chart 3.13

Looked after children in England by ethnic group, 2014

- **White**: 78%
- **Mixed**: 4%
- **Asian or Asian British**: 7%
- **Black or Black British**: 9%
- **Other ethnic group**: 2%

**Source:** Department for Education, SFR 36/2014, Children looked after in England (including adoptions and care leavers) year ending 31 March 2014 and earlier releases » Download data

### Chart 3.14

Total looked after children in England, Scotland, Wales and Northern Ireland on 31 March 2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>68,100</td>
</tr>
<tr>
<td>Scotland</td>
<td>16,248</td>
</tr>
<tr>
<td>Wales</td>
<td>5,769</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>2,807</td>
</tr>
</tbody>
</table>

**Source:** Welsh Government (2014) A review of the comparability of statistics of children looked after in the different countries of the United Kingdom. » Download data
Chart 3.15 compares where those children were placed (what kinds of accommodation) in each of the countries of the UK. The majority of all looked after children were still at home with parents, with friends and relatives, or with foster carers. Only 7% of those looked after in England, and less than that in the other countries, were in children’s homes.

| Placements for looked after children in England, Scotland, Wales and Northern Ireland on 31 March 2013 |
|-------------------------------------------------|---------|---------|---------|---------|
| At home with parents                             | 5%      | 32%     | 10%     | 12%     |
| With friends/relatives                           | 11%     | 25%     | 16%     | 80%     |
| With foster carers / prospective adopters       | 72%     | 35%     | 69%     |         |
| Residential accommodation                        | 11%     | 9%      | 6%      | 6%      |


As well as those looked after children who are in local authority children’s homes, adolescents and young adults can also be resident in the criminal justice system. Chart 3.16 illustrates that the numbers in youth custody (11-18 years) in England and Wales rose in the early 2000s but are now at their lowest level since 2000, with 1197 young people in custody in April 2014. This represents a fall of 55% over the previous five years (Prison Reform Trust, 2014). Of these, 54 were under 14 years of age. Again, this is a snapshot of the situation during one month. As the average custodial sentence served for young people is much less than one year, many more young people will pass through custody over the course of a 12 month period. Many are very vulnerable – 193 young people aged 15-24 died in penal custody between 2002 and 2013 (Prison Reform Trust, 2014). However, the general trend for custody numbers to fall for this age group is to be welcomed.

Source: Prison Reform Trust

Source: Youth Justice Board
Different countries have different youth justice systems. In Scotland, for example, very few young people under the age of 16 are detained – there were 10 custodial sentences in total given to this age group in 2012-13. Overall 464 young people aged 16-20 were in custody in Scotland in November 2014 of whom only 25 were young women (Scottish Prison Service, 2014).

Asylum seekers form another group in vulnerable living circumstances. Figures illustrated in Chart 3.17 indicate that among asylum seekers under 18 the highest numbers are among the 16 and 17 year olds, who account for nearly two thirds of the total.

Source: Youth Justice Board for England and Wales Monthly Youth Custody Report January 2015

Source: Home Office: Immigration Statistics, October to December 2014

Chart 3.16
Secure estate custody population (12-18 year olds) in England and Wales, April 2000-April 2014

Source: Youth Justice Board for England and Wales Monthly Youth Custody Report January 2015

» Download data

Chart 3.17
Unaccompanied asylum seeking children applications received in the UK by age, 2014

Source: Home Office: Immigration Statistics, October to December 2014

» Download data
Education to age 16

Education is an important variable in health outcomes. There have been rapid changes in education systems in recent years. In England, for example, this has included the growth of the academy programme, the introduction of ‘free schools’ and the extension of the official school leaving age up to 18 years from 2015 (Cabinet Office and Department for Education, 2013). In Scotland, the Curriculum for Excellence programme has led to changes in the qualifications taken. University tuition fees are also impacting on young people and the policy debate about the future of education provision is set to continue.

Almost all young people start on a programme of study at 14-16 (sometimes referred to as Key Stage 4) that is expected to lead to qualifications. For the majority of those in England, Wales and Northern Ireland, these will be from the General Certificate of Secondary Education (GCSE) series. In 2014, for example, 91% of pupils at all schools in England were entered for 5+ GCSEs or their equivalents. There are over 60 possible subjects that can be taken, and 5.2 million separate entries to GCSEs were made that year. In Scotland pupils sit ‘Standard grade’ or ‘Intermediate’ exams at the age of 15-16, as part of the Scottish Credit and Qualifications Framework (SCQF). This covers eight subjects including English and maths, a language and sciences.

Since the last edition of Key Data on Adolescence there have been major reforms affecting the calculation of Key Stage 4 (KS4) performance measures in England. The number of qualifications that are counted has been restricted, so that fewer GCSE ‘equivalents’ are included. These are known as the ‘Wolf’ rules after the Wolf report on vocational education (Wolf, 2011). An ‘early entry’ policy has also been introduced that means only a pupil’s first attempt at a qualification is counted. The achievement statistics for 2014 have been officially published in two forms; calculating them according to the old rules for the sake of comparisons, and according to the new rules for going forward.

Chart 3.18 shows the proportions of pupils managing different levels of achievement at GCSE and some equivalents (according to the new rules) at the end of Key Stage 4 in England in 2014, when they were 15-16 years old. These range from the broad aim of five or more GCSEs at grades A*-G including maths and English, which is achieved by 89.7%, to 35.6% achieving a pass in a foreign language. Girls usually outperform boys at GCSE and 2014 was no exception; 58.9% of girls achieved 5+ A*-C grades including English and maths, compared with 48.2% of boys (DfE, 2015).
Changes to recording practices make it challenging to establish time trends, but Chart 3.19 presents the Department for Education’s statistics from 1995 to 2014 adjusted for comparability (DfE, 2015). These show examination attainment was rising in the UK until 2011-2012, but has been stabilising or possibly slightly falling since then.
Comparing the countries of the UK is also fairly challenging, given the different education systems and different ways of reporting the relevant statistics. In Scotland in 2013 36% of pupils achieved five or more awards at SCQF level 5 or above by the time they were 15-16 years old and 57% did so by the time they were 17-18 (Year 6 in the Scottish system) (Scottish Government, 2014a). The SCQF suggests that level 5 is equivalent to a GCSE A*-C grade, so if English and maths and a modern language are included in these statistics, this would make the SCQF level 5 qualification similar to the English Baccalaureate.

The Welsh Government releases slightly different statistics, giving the results of external examinations taken by pupils aged 15 at the beginning of the academic year. The key marker is a ‘Level 2 achievement’, equivalent to five GCSEs A*-C grade. In 2014, 55.4% achieved this threshold including English or Welsh and mathematics (Welsh Government, 2015a). Northern Ireland reports differently again, giving the proportion of ‘school leavers’ – who could be over 16 – achieving at least five GCSEs A*-C including English and maths by the time they leave, which in 2013 stood at 62.2% (Northern Ireland Statistics and Research Agency, 2014).

**Chart 3.20** illustrates regional variation in GCSE attainment within England. There is only a small variance between the lowest levels of achievement in Yorkshire & the Humber (62.8% five or more GCSEs at grades A*-C) and the highest in London (70.5%). Two things to note here. First the percentages are substantially lower than the previous year because of the change in the way achievements are recorded. In addition, the rates are so close that different areas score high and low year on year (neither Yorkshire & the Humber nor London featured in the previous edition of this publication).

**Source:** Department for Education: SFR 02/2015: GCSE and equivalents results in England, 2013 to 2014

» Download data
However, attainments at this age do differ significantly by a range of social and economic factors. Children who are looked after by the local authority, are from certain minority ethnic groups or who are living in families with very low incomes may all fare worse. The achievement of looked after children has long been cause for concern and the latest data do not suggest any great improvement. Chart 3.21 shows that only 14% of looked after young people achieve five GCSEs at grades A*-C including English and maths, compared with 55.4% of their peers. This is calculated according to the ‘old’ methods for comparability with previous years and even so still reflects a slight fall. Using tougher new methods (excluding GCSE equivalents etc.), the rates of achievement for looked after children are 12% compared with 52.1% for their peers. These are the results for young people in Year 11 who have been continuously looked after for at least 12 months, compared with young people who are not in the care of the local authority. There is no evidence of young people in care catching up their peers yet.

![Chart 3.21](image-url)

Source: SFR 32/2014 Outcomes for Children Looked After by Local Authorities in England, as at 31 March 2014

NB Data for children looked after continuously for at least 12 months, in year 11 compared with children not looked after.

NB Calculated using 2013 methodology – see Chart 3.19
Across the country, 14.6% of young people at state funded secondary schools are eligible to receive school meals (DfE, 2014), which as we have seen already is a proxy measure for low income. Young people in receipt of free school meals have lower levels of GCSE attainment. In 2014, one third of them (33.5%) achieved five A*-C grades including maths and English, compared to 60.5% of all pupils at that time (DfE, 2014). There is a significant attainment gap between schools with high and low proportions of disadvantaged pupils. Chart 3.23 shows that in schools with the most disadvantaged pupils only 43% achieve the level of five A*-C grades at GCSE (including English and maths), compared with 81% of those in schools with few disadvantaged pupils. There is much more variation here than was evident comparing the achievement of large geographical regions (Chart 3.20 above). It is important, however, not to judge a school from its GCSE results, but to look at the ‘value added’ score which charts the attainment of a pupil from arrival to departure.

One in five of this age group are from ethnic minorities and, as Chart 3.22 shows, achievement varies considerably by group. On average, the lowest levels of GCSE attainment are for young people from Black Caribbean and Pakistani groups. The highest levels are for those from Indian and Chinese groups.
Not all young people take academic qualifications. Some combine them with vocational awards or follow a purely vocational route. Vocational qualification subjects include retail and commercial enterprise, health and social care and construction, planning and the built environment. In recent years the system in England, Wales and Northern Ireland has been shifting to a new overarching Qualifications and Credit Framework (QCF), which is replacing the previous National Qualifications Framework (NQF). Scotland has its own system, the Scottish Credit and Qualifications Framework.

Chart 3.24 presents an overview of the main qualifications under both these systems up to Level 2 (GCSE level), giving a sense of some of the complexity still remaining in the system. The rates of NVQs in England, Wales and Northern Ireland has decreased sharply from a peak at 1 million in 2009/10 to 44,000 in 2013/14 (Department of Business Innovation and Skills 2015). However the introduction of QCF qualifications from September 2009 have meant the overall levels of vocational qualification achievements has remained fairly steady in recent years, and has increased overall since the early 2000s.

<table>
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<tr>
<th>Level</th>
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<th>QCF examples</th>
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<td>Entry level aware, certificate and diploma</td>
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<tr>
<td></td>
<td>Entry level Skills for Life</td>
<td>Entry level Functional Skills</td>
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<td></td>
<td></td>
<td>Entry level Foundation Learning</td>
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<td>GCSE (grades D-G)</td>
<td>BTEC award, certificate &amp; diploma level 1</td>
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<td>Key Skills level 1</td>
<td>Foundation Learning level 1</td>
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<td></td>
<td>NVQ level 1</td>
<td>Functional Skills level 1</td>
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<td>Skills for Life level 1</td>
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<td>Foundation diploma</td>
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<tr>
<td>2</td>
<td>GCSE (grades A*-C)</td>
<td>BTEC award, certificate &amp; diploma level 2</td>
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<td>NVQ level 2</td>
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<td>Higher diploma</td>
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</tbody>
</table>
A final important feature in secondary education is the rate of exclusions, particularly permanent ones. Being excluded from school clearly impacts on educational attainment and acts as a marker for a range of problems. Over the years, successive governments have made strenuous attempts to keep the figures down. Chart 3.25 shows the trends since 2000, reflecting a slight rise to the middle of the 2000s and then a fall, with the lowest levels for a decade witnessed in 2012-2013.

Chart 3.25
Permanent exclusions from secondary schools in England, 2000/1-2012/13


Chart 3.26 presents more detail on the 4,090 permanent exclusions in 2012-2013, showing that many more boys than girls are excluded and that those aged 13 and 14 (in school years 8 to 10) are most likely to be excluded.

Chart 3.26
Exclusions from secondary school in England, by age and gender, 2012/13

Source: Department for Education, SFR 17/2014, Permanent and fixed period exclusions from schools and exclusion appeals in England: 2012 to 2013 » Download data

NB Some of the zeros are actually very low numbers, suppressed to preserve identity.
Education, training and employment 16-18 years

There are ongoing policy changes affecting this age group. As we have noted, young people in England can no longer leave compulsory education at age 16 (Cabinet Office and Department for Education, 2013). The participation age is being raised, placing a legal requirement (from September 2015) for all young people to stay in education or training until they are 18. In Scotland the school leaving age remains at 16 years.

A number of choices are open to 16 year olds in the UK at this age, depending on their examination achievements. The majority remain in full time education, but others move into flexible pathways including various combinations of education, training and employment.

Chart 3.27 shows that participation in education and training of 16-18 year olds in England rose substantially between the mid 1980s and early 1990s, levelled out and then crept up again from the turn of the millennium. By 2013, 84.4% of young men and 86.9% of young women were participating in education and/or training at this stage.

Source: Department for Education
Chart 3.28 breaks down the activities of all 16-18 year olds in England in 2013, separating out full time education, work based learning, employer funded training and other types of training, employment and ‘none of the above’ (not in education, employment or training, NEET). There are a number of things to note from this chart. The first is that the proportion in employment was just under 7%. Employment does not feature as a common source of activity for this age group any more and, given the rise in education participation rates from 2015, will decline further in coming years. This represents a significant shift from the 1960s or 1970s. The chart shows that the proportion in employment was exceeded by the proportion who are NEET, which stood at 7.6% in 2013 (see also Chart 3.32 below). Finally we can see that 70% of the age group were in full time education. These are figures that it will be important to watch in the context of the rise in the higher education participation age in England in the 2015/16 school year.

![Chart 3.28 Participation of 16-18 year olds in education, employment and training in England 2013](source)
Scottish statistics are presented differently, giving destinations for all school leavers in a given year, who may be 16, 17 or 18 and over at the point of leaving. The most recent data suggest that the majority of pupils were staying on at school until 17 (70% in 2013), and around half were staying until the end of S6, the equivalent to the end of English A-levels (Scottish Government, 2014a).

For those young people in full time education, the majority were studying for Level 3 qualifications; in England these are GCE A-levels and their equivalents. Fewer young people studied for A-levels (or for Highers and Advanced Highers in Scotland) than studied for GCSEs. The number of students entered for at least one A-level or equivalent Level 3 qualification in England in 2014 was 415,315. This represented an increase of 17.9% compared to 2008/9 (DfE, 2014).

The increase in participation in this age group comes almost entirely from a rise in those doing Level 3 vocational qualifications (equivalent to A-levels). This is shown in Chart 3.29. The academic cohort has remained fairly static over the past four years, but the size of the vocational cohort at this age has increased by 84.6% since 2008/9.

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Chart 3.30 illustrates the various types of schools and colleges where young people were studying in England in 2013/14. Similar numbers were in further education colleges (approximately 190,000 young people) and in the sixth forms of state funded schools (approximately 174,000 young people). By January 2014, 57% of state funded secondary schools were academies, including free schools, universal technical colleges and studio schools, representing an increase on the previous year. By 2014, approximately 114,000 young people were in the sixth forms of academies and free schools. The smallest proportion (36,000) were studying at independent schools.
Compared with the numbers doing A-levels and Level 3 school based vocational qualifications, the numbers doing apprenticeships is very low. Chart 3.31 compares the rates from 2007/8 to 2013/14.

Source: SFA/SFR28 Further Education and Skills: Learner Participation, Outcomes and Level of Highest Qualification Held, March 2015 » Download data
There is continued concern over the proportion of young people not in education, employment or training (NEET). Chart 3.28 above showed that the NEET rate in England for the 16-18 age group has fallen slightly to around 8% of the age group. Chart 3.32 presents the NEET comparisons for the 16-18 age group for the four countries of the UK in 2013 and 2014, as estimated in the Welsh Government’s annual statistics (Welsh Government, 2015b). All the countries of the UK had similar rates in 2014, and all saw a fall from 2013 apart from Northern Ireland (but note reservations about the low quality of the Northern Ireland data). On average, the 2014 rate for this age group across the whole of the UK was estimated at 8.3%.

Chart 3.33 portrays the trends in NEET rates for 16-18 year olds in England from 1995 to 2013. Despite various government initiatives, figures have stayed fairly static over the last couple of decades but these newest figures are encouraging. However, the NEETs definition masks a number of different reasons for opting out. These could include being a young carer, being unwell or the effect of disaffection or low qualifications preventing progression to the next stage. In addition, young people will move in and out of the definition across their late teens; being NEET is not a fixed state.
Participation in education, training and employment, 18 and over

Increased participation can be seen in higher education as well (post 18). Comparisons across time are set out for higher education in Chart 3.34. Approximately 1.5 million young people were studying at UK Higher Education Institutions (largely universities) in 1996/7, a figure that had increased to over two million during the 2000s. However, figures for the last two years show a fall, back down to 1.3 million in 2013/14. The initial fall in 2012/13 was attributed to unusual deferral behaviour (a reduction) as a result of the impending introduction of the full annual university fees of £9,000 (Department for Business, Innovation and Skills, 2014). Fewer students took gap years. There was a high level of participation in 2011/12 in advance of the increase, and lower participation the following year. However, 2013/14 also shows a low level.


Source: Higher Education Statistics Agency SFR 210 Higher Education Student Enrolments and Qualifications Obtained at Higher Education Providers in the United Kingdom 2013/14 » Download data
Overall, just over one third of the 17-20 age group go to university. The Higher Education Initial Participation Rate (HEIPR) is used to measure progress towards the target of 50% of 18-30s taking up higher education. Reflecting the statistics on students in UK higher education institutions in Chart 3.34, the HEIPR has fallen in the last couple of years. The estimate for the 2012/13 academic year was 43%, down by six percentage points compared with the previous year. Chart 3.35 indicates that the estimates are lower if we just look at the 17-20 age group rather than the 17-30 age group; clearly some young people do not go to university until they reach their 20s.

![Chart 3.35](chart3.35.png)


Clearly not everyone goes on to further education or training. Evidence from Eurostat makes it possible to compare the rate of early leavers from education and training across the European Union. Chart 3.36 shows the percentage of the population aged 18-24 with, at most, lower secondary education and who were not in further education or training in 2014. The average for the EU as a whole in 2014 was 11.2%; the UK has an average rate of 11.8%.

![Chart 3.36](chart3.36.png)


» Download data
We saw above that a very small proportion (7%) of 16-18 year olds are in employment; the proportions are higher after the age of 18 years but are still very low. This is not the activity of the majority until they are some way into their 20s. Chart 3.37 shows that the unemployment rate for young people aged 16-24 in the UK has increased significantly since the early 2000s.
For those young people who are in employment, there is a concern that they are disadvantaged by working practices such as zero hours contracts. Those employed on zero hours contracts receive a lower weekly pay than those who are not and work fewer hours on average. The prevalence of such contracts is higher among young people than other age groups, with 37% of 16-24 year olds in employment with such contracts (Pennycock, Cory and Alakeson, 2013).

**Chart 3.38** presents the European comparisons on unemployment rates for the under-25s, demonstrating that in 2012 the UK had a rate of 20.5%, just below EU average of 23.4%.

Finally, returning to NEET statistics, **Chart 3.39** shows comparisons between the UK countries for rates of young people aged 19-24 not in education, training or employment, for 2013 and 2014. Overall the NEET rate for this older age group is higher, as we would expect as they are past the age of compulsory education, standing at around 17.5% for the UK as a whole in 2014. Wales and Northern Ireland had slightly higher rates than England and Scotland. The Office for National Statistics pulls together the NEET rates for the countries of the UK for the larger age group of 16-24 year olds, and the latest estimate for this group was 13% NEET. ONS has estimated that just under half of those who are NEET in this age group were looking for work, and were therefore classified as unemployed. The remainder were not available for work and were classified as economically inactive (ONS, 2015).

**Chart 3.39**

Estimates for the proportion of young people aged 19-24 not in education, training or employment (NEET) by UK country, 2013-14

Source: Welsh Government (2015b) Young people not in education, employment or training » Download data

NB Northern Ireland data are marked as of low quality because of small number of responses
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Department for Business, Innovation and Skills (2014) Participation rates in higher education: Academic years 2006/7 – 2012/13 (provisional)


Northern Ireland Statistics and Research Agency (2014) *Qualifications and destinations of Northern Ireland school leavers 2012/13*


Scottish Government (2014b) *High level summary of statistics last trend update: Wed 7 May 2014 Not in Employment, Education or Training (NEET)*


Scottish Government (2015b) *High level summary of statistics trend last update June 2014, pupil attainment S4-S6*


Welsh Government (2011) *Welsh Index of Multiple Deprivation 2011 Child Index*


Welsh Government (2015a) *Academic achievement by pupil characteristics 2014,* Cardiff: Statistics for Wales

Welsh Government (2015b) *Young people not in education, employment or training.*


Physical activity declines across adolescence. By age 13-15, only 14% of boys and 8% of girls achieve one hour of exercise a day. A total of 37% of 11-16 year olds walk to school.

Young women aged 11-18 consume 2.7 portions of fruit and vegetables daily, compared with 3 for young men, and 4.1 for adults.

The Health Survey for England 2012 estimated that one fifth of 11-15 year olds were obese. Similar rates were reported in the National Child Measurement Programme for 10-11 year olds. Rates have levelled out in recent years but the trends are not clear.

8% of 15 year olds say they are regular smokers. 22% of 11-15 year olds say they have tried smoking. Smoking in this age group has halved since the mid 1990s. However one third of those aged 16-24 are still regular smokers.

Estimates of secondary school children who have tried e-cigarettes range from one in 12 to one in five.

9% of pupils aged 11-15 say they have drunk alcohol in the last week – the lowest rate since the 1980s.

Use of illegal drugs (largely cannabis) in the last year has also fallen, from 41% to 26% for 15 year old males, and from 36% to 22% for 15 year old females.

Deaths caused by road traffic (either as driver, passenger or pedestrian) remains the largest cause of injury related deaths in 10-19 year olds.

The average 16-24 year old spends 9 hours and 8 minutes every day on media and communications activities.

One quarter of secondary school children report they do not get enough sleep.
Health behaviour and Lifestyle

Promoting healthy lifestyles is very important in adolescence. This age marks the beginning of risk taking and is a time when life-long health behaviours are set in place. Health behaviours can directly affect health outcomes. In the longterm these may include cancer, heart disease and Type 2 diabetes. Prevention and early intervention are not just relevant for young children; they are equally possible in adolescence (Hagell and Rigby, 2015). Understanding patterns of adolescent health behaviour informs health promotion and healthcare commissioning and can prevent longterm difficulties from arising or escalating. The key topics of adolescent health behaviour include physical activity, nutrition and obesity, substance use, risky behaviour, accidents, media and communication activities, and sleep. Sexual health is also critically important and this is the subject of Chapter 5.

Physical activity

Young people’s physical activity levels are critical to their overall health (Department of Health, 2011a). Current UK guidelines for children and young people recommend at least one hour of moderate to vigorous physical activity every day (Department of Health, 2011b).

The Health Survey for England (HSE) 2012 included a module on physical activity. It had not been included in the survey since 2008. The results, in Chart 4.1, show that 19% of boys aged 11-12 and 14% of girls exercised for one hour a day. By the age of 13-15, the rates were 14% for boys and 8% for girls.

---

Chart 4.1
Proportion of young people aged 8-15 meeting physical activity recommendations by age and sex, Health Survey for England 2012

Source: Craig and Mindell (2012), Health Survey for England, 2011 » Download data
A similar question was asked in the 2014 Health Behaviour in School Aged Children Survey (HBSC). Despite using slightly different age groups, Chart 4.2 shows the results were very similar. Both these surveys show how physical activity declines across adolescence and they also tend to show much lower levels of activity for young women.

Both the HSE and the HBSC surveys have repeated information over time allowing us to see whether physical activity is increasing or decreasing. Chart 4.3 suggests there was a fall between 2008 and 2012 as measured in the HSE, for both genders and all age groups except the girls aged 11-12.
**Chart 4.4** presents data on different kinds of physical activity (walking, informal activity and formal activity). This shows that while rates of walking and informal activity are broadly comparable for boys and girls, girls have lower rates of formal physical activity, particularly among the older age group. However, rates of participation are much higher in this chart than in the previous two; it may be that many young people are participating in these activities to some extent, but not to the level of one hour per day as required by the guidelines.

Much formal physical activity is centred on school sport. The Department for Education has not repeated its Physical Education and Sport Survey since 2009/10. In 2010, 33% of girls and 25% of boys aged 15-16 reported that they met the targets, for three hours of high quality PE and out of hours school sport in England. Given the trends suggested in the previous charts, we might predict that these proportions may have fallen, but new data are needed.
As shown in Chart 4.4, much of the exercise that young people get is walking to and from school or college. Drawing on data from the Department of Transport’s National Travel Survey, Chart 4.5 shows that 37% of trips to school in the UK by young people aged 11-16 are made on foot, with the rest using buses or cars. Only a very small proportion travel to school by rail (5%) or cycle (2%).

Public transport and walking clearly have a big role to play in daily physical activity for this age group. As they get older, driving themselves plays only a small role, unlike in countries such as the USA. At the time of writing, young people can take a driving test at age 17 years. However, the trend for those aged 20 or under to hold a full driving licence has been falling since the mid 1990s. As Chart 4.6 shows, less than one third of this age group held a licence.
Nutrition and obesity

Adolescent nutrition is an area of increasing concern because of the relationship to obesity. Young people have more control over what they consume as they get older. Again, habits of a lifetime can be formed at this stage and poor nutrition has many implications for both current and future health status. Improving diet is a key indicator in the Public Health Outcomes Framework (Department of Health, 2012).

Consumption of five portions of fruit and vegetables a day has become a marker for good diet. As we can see in Chart 4.7, average daily consumption of ‘five a day’ for females aged 11-18 years was reported to be 2.7 and for males the figure was 3. Adults averaged 4.1 portions.

Chart 4.7
Average daily consumption of ‘five a day’ fruit and vegetable portions in the UK, by age and gender, 2008/9-2011/12

<table>
<thead>
<tr>
<th>Number of portions per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males 11-18</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Source: Public Health England: National Diet and Nutrition Survey Results 2008/09 - 20011/12 » Download data

The Health Behaviour of School Aged Children study also used broader measures that indicated that 38% of young people aged 11-15 reported eating fruit every day, and 43% reported eating at least one vegetable every day. That still leaves a majority of young people who do not eat fruit or vegetables daily. Levels were similar for boys and girls. One in eight (13%) also reported daily consumption of sugary carbonated drinks, and 7% were consuming energy drinks at least five times a week (Brooks et al, 2015).
The National Diet and Nutrition Survey used dietary diaries and other methods to estimate the proportion of young people aged 11-18 years with low levels of daily intake of various minerals. As a baseline, the survey uses the Lower Reference Nutrient Intake, which is a level of intake likely to be sufficient to meet the health needs of only 2.5% of the population, so it is a conservative measure of adequate intake. **Chart 4.8** shows that worryingly high proportions of young men and young women do not appear to be consuming enough minerals. This is particularly the case for young women, of whom nearly half are estimated to be deficient in their iron, selenium (an essential trace mineral) and magnesium intake. These estimates are indicative only, as these are difficult data to collect, but they do alert us to the need to consider adolescent nutrition as a whole and they raise a particular concern about the nutrition of young women.

**Chart 4.8**
Proportion of young people 11-18 with average daily intakes of minerals below the Lower Reference Nutrient Intake in the UK, by gender, 2008/9-2011/12


NB Estimate of the amount of nutrient needed to maintain good health
LRNI set at a level of intake likely to be sufficient to meet the needs of only 2.5% of the population
Based on limited data, indicative only
One of the consequences of poor nutrition is obesity. Reducing excess weight in 10-11 year olds is a ‘health improvement’ indicator in the Public Health Outcomes Framework (Department of Health, 2012). Reducing obesity is one of Public Health England’s seven key priorities for 2015-16. Chart 4.9 provides an overview of trends in obesity prevalence in 11-15 year olds since 1995, drawing on data from the Health Survey for England. According to these data, obesity peaked in 2004 at 24.3% for boys, and 26.7% for girls. By 2013 the respective rates were 20.4% and 19.4%. This measurement of obesity is based on the UK national BMI percentiles classification. BMI measurements that fall into or above the 95th percentile of the 1990 reference population are classified as obese. Overall, obesity levels in England for this age group have levelled out in recent years, but the trends are not very clear.

Separate estimates for obesity at age 10-11 are provided by the National Child Measurement Programme (NCMP). The latest data from the programme showed that one in five children of this age (19.1%) were obese (HSCIC, 2014a), very similar rates to those found in the Health Survey for England. Chart 3.8 in Chapter 3 presented obesity by deprivation (school area), using the NCMP measurements. This showed that obesity rates in the most deprived decile were 25% compared with 13% in the least deprived decile (HSCIC, 2014a).

Estimates of obesity in children for Wales and Scotland are available from their own health surveys, including the Scottish Health Survey 2013 and the Public Health Wales Measurement Programme (latest data 2012/13). However, the data tend to be presented for age 2-15 years and 16 to 24 years (as in the Scottish Health Survey), or for primary school only (such as in the Scottish school BMI survey), and are not available...
beyond 2012 or 2013, limiting comparability. The HSCIC has concluded that obesity prevalence for children in Scotland aged 2-15 was 16% in 2013, and had been stable at that level for around five years. Similarly, the estimate for obesity in 2-15 year olds in Wales in 2012 was 19% (HSCIC, 2015). The latest reports from the 2014 HBSC in Wales and Scotland had not been published at the time of writing.

Obesity is the extreme end of the weight distribution; there is also a group of young people who are overweight but not obese, as Chart 4.10 demonstrates. Once again obesity is a BMI that falls at or above the 95th percentile of the distribution and overweight is a BMI falling at or above the 85th percentile. A total of 32% of young men and 38% of young women were either overweight or obese from 2008/9 to 2011/12. This is a substantial proportion of the adolescent population and is a continuing cause for concern.

Although the measurement of obesity in Chart 4.10 is the same as that used in Chart 4.9, these data in Chart 4.10 derive from a different survey (National Diet and Nutrition Survey), covering a different geographical area (the whole UK), a different time span (a rolling average of three surveys from 2008/9 to 2011/12) and a wider age group (11-18 years). There could be a number of reasons for this, to do with the survey methods, different gender patterns in other UK countries, or different gender patterns in the older age group (16-18) that may sway the data. It also indicates the risk of relying on just one survey to draw firm conclusions.
Hospital admissions for bariatric surgery provide another index of trends and severity of obesity in this age group. Chart 4.11 shows hospital admissions for young people aged 10-24. The absolute numbers are small – never more than 200 in any one year, but the rise in these figures should be noted.

Having a positive body image during adolescence relates to good self-efficacy and overall life satisfaction (Fenton et al, 2010). The attitudes and behaviours of young people in relation to body size and weight are illustrated in Chart 4.12. One quarter of boys and over one third of girls reported they were trying to lose weight. HSE also reports that of these young people trying to lose weight, more than one quarter overall were neither overweight nor obese. The converse was also true – of those who were obese, just over one quarter were not trying to change their weight (Craig and Mindell 2012). These findings probably reflect a number of issues, including some evidence of disordered eating and unnecessary dieting, potentially some evidence of avoidance of tackling excess weight, but also possibly a lack of identification of the problem. We return to eating disorders in Chapter 6.
Smoking, drinking and drug use

Smoking causes one in five deaths in people aged over 35 (HSCIC, 2014b). It is the primary cause of preventable illness and premature death. Concern about levels of smoking among young people arises from awareness about the longer term outcomes such as cancer, but also the shorter-term negative effects such as respiratory illness and impact on physical fitness. Repeated Department of Health ‘Smoking, Drinking and Drug Use’ (SDDU) surveys of 11-15 year olds in England have shown that smoking is clearly related to age. As Chart 4.13 shows, smoking is much more prevalent in 14-15 year olds than 11-13 year olds. In 2014, 8% of all 15 year olds said they were regular smokers (smoking at least one cigarette a week). Very similar estimates for regular smoking were found in the latest round of the Health Behaviour in School Aged Children, where 6% of boys and 8% of girls aged 11-15 reported being regular smokers (Brooks et al, 2015).

The most recent HBSC data for Wales and Scotland were not published at the time of writing, but estimates from the previous wave, in 2010, showed similar rates of smoking among 15 year olds in England, Wales, Ireland and Scotland (Welsh Government, 2012).
CHAPTER 4: Health behaviour and Lifestyle

Drawing on SDDU data, Charts 4.14 and 4.15 portray a positive picture of the longterm trends for smoking behaviour. Chart 4.13 shows 22% of pupils said they had ever smoked, less than half the rate in the mid 1990s. Chart 4.14 shows regular smokers, and the trajectory is very similar, with 2013 rates (3% overall for all pupils 11-15) again being the lowest since the mid 1990s. The introduction of a smoking ban in public places came into force in England in July 2007 and may have had some impact on the figures, although there was no noticeable acceleration in the downward trend at the time.

22% OF PUPILS AGED 11-15 SAY THEY HAVE TRIED SMOKING

Source: SDDU survey 2013, HSCIC 2014c

Chart 4.14
Proportions of 11-15 year olds in England who have ever smoked, by gender, 1982-2014

Chart 4.15
Proportion of Proportions of 11-15 year olds in England who were regular smokers, by gender, 1982-2014

Source: HSCIC (2015b), Smoking, Drinking and Drug Use Among Young People in England in 2014 » Download data
These downward trends are also apparent in the older age groups from 16-19 years and 20-24 years, demonstrated in Charts 4.16 and 4.17. The gender patterns in these older age groups are not consistent; sometimes more young women smoke, sometimes more young men, but the overall trend is positive. However, there is no room for complacency. The fact that nearly one third of those aged 16-24 are regular smokers is still a serious concern.

Finally, robust, nationally representative data on use of e-cigarettes are not available yet. The charity Action on Smoking and Health (ASH) is undertaking regular YouGov surveys of 2,000 young people aged 11-18. The latest survey concluded that the proportion of 11-18 year olds who had ever tried an electronic cigarette increased from 5% in 2013 to 8% in 2014 (ASH, 2014). Other surveys give higher estimates. Moore et al (2015) report from two nationally representative Welsh datasets that, overall, 12.3% of secondary school students (11-16) reported ever using e-cigarettes. However only 1.5% reported regular e-cigarette use. In a large survey of 14-17 year old secondary school children in the North West of England, Hughes et al (2015) report that 19% had accessed e-cigarettes. Of those using e-cigarettes, 16% had never smoked before. A further 23% of e-cigarette smokers were young people who had tried conventional smoking but had not liked it. The authors concluded that e-cigarettes are being accessed by teenagers more for experimentation than smoking cessation. However, more research is needed before we can say anything with any confidence. The concern about e-cigarettes is that they are being designed and marketed to attract young people, they are unregulated so can be bought by under-18s and contain nicotine which is known to be highly addictive.

**Adolescent alcohol consumption**

patterns have been a concern for many years, but as with conventional smoking the recent data are encouraging. The ‘Smoking, Drinking and Drug Use’ surveys of 11-15 year olds in England regularly show that the proportions of young people who drink alcohol has been falling. The latest data suggest that 61% of those aged 11-15 say they have never drunk alcohol. Around one in eleven (9%) report that they had drunk alcohol in the last week. This is the lowest rate at any time since the SDDU survey began in 1988 (HSCIC, 2014c).

<table>
<thead>
<tr>
<th>ESTIMATES OF SECONDARY SCHOOL CHILDREN WHO HAVE TRIED E-CIGARETTES RANGE FROM ONE IN 12 TO ONE IN FIVE</th>
</tr>
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<tbody>
<tr>
<td>Source: ASH, 2014; Moore et al, 2015; Hughes et al, 2015</td>
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<table>
<thead>
<tr>
<th>9% OF PUPILS AGED 11-15 SAY THEY HAVE DRUNK ALCOHOL IN THE LAST WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: SDDU survey 2013, HSCIC 2014c</td>
</tr>
</tbody>
</table>
Chart 4.18 shows, the majority of those drinking alcohol are 14 and 15 years old. The rise in drinking at age 13-14 may make school Year 9 a potentially important group to target with alcohol related health promotion interventions. Among the 15 year olds, 22% reported drinking in the previous week – slightly more males than females (25% compared with 19%).

Chart 4.19 shows the average number of units drunk by those pupils aged 11-15 who drank in the last week. This has fluctuated in recent years although the overall trend has been down.
Being drunk is a key indicator of alcohol misuse. HBSC reports that among the 10% of 15 year olds in the study who report being weekly drinkers, 83% of the boys and 57% of the girls had been drunk ten times or more in the last month (Brooks et al, 2015). This suggests there is a small group of young people who are not following the general trend of reducing consumption.

In 2012 the survey for collecting drinking data on people aged 16 and over in the UK changed from the General Lifestyle Survey to the Opinions and Lifestyle Survey (OLS). According to the OLS, in 2012 half of the age group (50% of men and 48% of women) reported drinking in the last week. **Chart 4.20** shows that two per cent drank on five or more days in the week. **Chart 4.20** shows that two per cent drank on five or more days in the week. Young adult drinkers are more likely to have drunk heavily than older age groups, measured as more than eight units on one occasion in the previous week for men, and six units over the same period for women. Without a survey covering both the 11-15 and 16+ age groups (and for the same year), it is hard to tell whether there is an increase in drinking in the late teens or not.

However there is evidence of a fall over time in regular drinking in this 16-24 age group.

There is a considerable amount of data relating to substance and illegal drug use among young people. However, not all findings are consistent as this is a challenging area to research and self report studies have obvious potential limitations. **Chart 4.21** reports on drug use. Overall, there had been a downward trend, with a fall from 41% to 26% for males, and from 36% to 22% for females. The chart illustrates an increase in use from the younger to older teens, as with alcohol and smoking. Overall, in 2011, 3% of 11 year olds reported that they had taken a drug in the previous year, rising to one quarter of 15 year olds.
Concern often centres on young people who take several substances, as an indicator of particularly problematic use. Chart 4.22 gives a summary of drug use, showing cannabis on its own is the most common form of usage. Young people were unlikely to report using a Class A drug on its own without using another drug as well.
Pulling together use of all different kinds of substances, including nicotine, alcohol and illegal drugs, Chart 4.23 shows 87% of 11 year olds had never done any of these activities (HSCIC, 2014c). This drops to 22% of 15 year olds. A number of young people will report a range of risky health behaviours at the same time. It has long been known that the clustering of multiple risky behaviours in youth predicts worse outcomes (eg, Elliott et al, 1989).

Finally, a note about legal highs, which are designed to copy the effect of illegal drugs but are chemically different enough to avoid the law and are not regulated. The term covers a range of substances including stimulants and sedatives, long and short acting. Risks to young people come from toxicity and the use of combined, untested ingredients. These substances constitute a moving target, in that drugs that fell into the legal high category become illegal as the law catches up; such as Mephedrone, Gammahydroxybutrate and Benzylpiperazine which are all now classified as illegal. The European Monitoring Centre for Drugs and Drug Addiction identified 73 new psychoactive substances in 2012 alone (EMCDDA 2013), the largest number in any year so far. They also reported that there were 693 internet shops selling legal highs to consumers in the EU in 2012, 100% more than the previous year. Reliable representative data on prevalence of use are limited, but in 2013 the UN Office of Drugs and Crime estimated the number of people in the UK aged between 15 and 24 who had tried illegal highs could be in excess of 500,000 (UNODC, 2013). While this cannot be verified, it is important to note the role and risks posed by legal highs which fall outside existing surveys.
Accidents

The highest rate of unintentional injury or death occurs in young men aged 15-19 years, more than any other age of childhood (European Child Safety Alliance, 2012). Accidents at this age are therefore an important part of the picture of health, and may be affected in part by behaviour.

Chart 4.24 shows the large relative proportion of deaths among 15-19 year old males caused by being a driver or passenger in a motor vehicle. There is a death rate of 10.55 per 100,000 for this age group from this cause per annum. Driving related events are also the largest cause of death by accidents for females in this age group (at 3.01 per 100,000).

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Males 10-14</th>
<th>Males 15-19</th>
<th>Females 10-14</th>
<th>Females 15-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homicide</td>
<td>0.02</td>
<td>0.35</td>
<td>0.07</td>
<td>0.16</td>
</tr>
<tr>
<td>Fires, burns, scalds</td>
<td>0.04</td>
<td>0.08</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Motorcycle drivers</td>
<td>0.08</td>
<td>2.70</td>
<td>0.00</td>
<td>0.04</td>
</tr>
<tr>
<td>Poisoning</td>
<td>0.15</td>
<td>1.17</td>
<td>0.07</td>
<td>0.56</td>
</tr>
<tr>
<td>Falls</td>
<td>0.17</td>
<td>0.54</td>
<td>0.02</td>
<td>0.10</td>
</tr>
<tr>
<td>Suicide/self-inflicted</td>
<td>0.17</td>
<td>3.27</td>
<td>0.13</td>
<td>0.97</td>
</tr>
<tr>
<td>Drowning</td>
<td>0.21</td>
<td>0.84</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Cyclists</td>
<td>0.45</td>
<td>0.39</td>
<td>0.09</td>
<td>0.10</td>
</tr>
<tr>
<td>Motor vehicle driver/passengers</td>
<td>0.55</td>
<td><strong>10.55</strong></td>
<td>0.25</td>
<td><strong>3.01</strong></td>
</tr>
<tr>
<td>Choking/strangulation</td>
<td>0.62</td>
<td>0.68</td>
<td>0.25</td>
<td>0.27</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>0.77</td>
<td>1.81</td>
<td>0.60</td>
<td>0.70</td>
</tr>
</tbody>
</table>

In recent analyses of the 2013 Department for Transport road casualties statistics, Public Health England estimated that there was an average of 463 deaths recorded by the police among road users under 25 years every year, and an average of 13,731 admissions to hospital as a result of road traffic injuries (PHE, 2014). Drawing on both road traffic statistics and mid-year population estimates, they calculated that the rate of fatal and serious injuries for 10-14 year olds was significantly greater for children from the 20% most deprived areas (37 per 100,000) compared with those from the most affluent areas (10 per 100,000).
Media and communications activities

Perhaps the biggest shifts in young people’s behaviour over recent decades relate to the use of information and communication technologies. In the UK, use of smartphones has opened a new world of swift, flexible communications and access to media. Young people are early adopters in all kinds of technological developments, with 88% of 16-24 year olds in the UK owning a smartphone, compared to 14% of those aged 65+ (Ofcom, 2014).

New technologies bring both challenges and opportunities. The risks are widely discussed – the opportunities less so. However, there is growing recognition that new media and communications devices offer platforms for health interventions that may be particularly suitable to young people (Layard and Hagell, 2015).

Reporting data in this area is notoriously difficult because of the pace of change. There has in fact been little change in the average minutes per day of television viewing by children and young people, as shown in Chart 4.25. These are data from the UK broadcasters, and as well as presenting the rates for children and young adults, we have included the rates for adults aged 45-54 as a comparator. This shows that rates are relatively low among young people compared with older adults, and remain at similar levels to the mid 2000s.

Source: British Audience Research Board » Download data
What has changed relates more to online (internet based) activity. In Chart 4.26 the most common daily online activities are presented for 11-13 year olds and 14-15 year olds.

Access to social networking sites has risen substantially in recent years as shown in Chart 4.27.
Sleep

We conclude with sleep. Adolescent sleep is an important topic that has been receiving more interest in recent years, as it becomes obvious that poor sleep (insufficient sleep and poor quality sleep) may be both the cause and the result of health problems. For example, sleep deficiency has been identified as a contributing factor in road traffic accidents (AYPH, 2012). There are also links with the previous topic, as overuse or particularly late evening use of smart phones, tablets and computers have been linked to sleep disturbances in this age group (Lemola et al, 2015).

However, there are very few representative survey data on adolescent sleep. The Exeter Schools Survey Unit undertakes a series of surveys in schools (Balding and Regis, 2014), including a question on whether young people get adequate sleep to cope at school. Chart 4.28 shows that approximately one quarter of secondary school students say they do not get enough sleep to concentrate and stay alert.

Similar rates of adequate sleep are also reported in the most recent HBSC study, with 22% of 11-15 year olds reporting that they did not get enough sleep. Rates of adequate sleep decrease as age goes up (Brooks et al 2015).
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Health and Social Care Information Centre (2014c) *Smoking, drinking and drug use among young people in England in 2013.* Leeds: HSCIC


Ofcom (2014) *The Communications Market Report 2014*


The average age of first heterosexual intercourse is 16.

Among women aged 16-49, the lowest levels of contraceptive use are found in the 16-19 year olds. Two thirds of heterosexual 16-19 year olds are ‘at risk’ of pregnancy (ie, have a sexual partner) but approximately one in ten of those with a partner does not use contraception.

Both GPs and community contraceptive services are important sources of information for young people aged 15-24. In 2013/14, 22% of those aged 16-19 had visited a community contraceptive clinic.

In 2013 the reported rate of conceptions in the under-18 age group was at its lowest since 1969 but the UK still has a relatively high rate of birth among 15-19 year olds compared with other countries.

Of those young people having intercourse, the majority report using some kind of contraception. For the younger age group the most common method used is condoms. By early adulthood young women are more likely to use the oral contraceptive pill.

The highest rates of sexually transmitted infections are among those aged 15-24. Those under 25 accounted for 63% of all new Chlamydia diagnoses in 2014.

In 2013 there were 736 new HIV diagnoses among those aged 15-24. A total of 643 under-15s were receiving care for diagnosed HIV infection, together with 2,699 young people aged 15-24.
CHAPTER 5: Sexual health

Sexual health

Developing a sexual identity is a key task of adolescent development. Staying safe, healthy and happy through the process is important. As a result, the sexual health and behaviour of young people is a huge topic in adolescent public health, with important ramifications for wellbeing, education and service provision. There is a lot that we know, but this is also a topic where there are many challenges in collecting regular, robust information.

In policy terms, there have been some significant changes. In England, the Teenage Pregnancy Strategy ran from 1999-2010. Under-18 conception rates fell from 44.8 per 1,000 in 1999 to 34.2 in 2010, a reduction of 23.7% over the course of the strategy. The reduction accelerated after 2008, with further reductions down to 24.5 conceptions per 1000 women aged 15-17 by 2013 (Office for National Statistics, 2015). As teenage pregnancy is a complex issue requiring a multifaceted approach, the steeper decline in the later stages of the strategy is likely to be due to a combination of factors. These might include the increasing priority in local areas following the midcourse review, an increase in under-18s choosing more effective long acting reversible contraception (LARC) methods and the cumulative impact of the Strategy’s long term prevention programme.

Following the change of Government in 2010, in England the continuing priority of teenage pregnancy was signalled by including the under-18 conception rate as an indicator in a new Public Health Outcomes Framework (Department of Health, 2012). Further reduction in the under-18 conception rate is also one of eight objectives in the Department of Health’s Framework for Sexual Health Improvement in England (Department of Heath, 2013), which restates the Strategy’s evidence base. However, this has not been accompanied by detailed guidance to inform local implementation of effective prevention and there is no target or performance management of local progress. No central funding was retained after 2010 for national actions to support local areas and the previous structures and access to expertise at all government levels, which supported the Strategy implementation, have been disbanded.

In Scotland the Scottish Government held an inquiry into teenage pregnancy published in 2013, noting that although rates were in decline, they still remained high in the European context. The inquiry made a number of recommendations including calling for a new strategy for Scotland (Scottish Parliament, 2013).

Sexual activity

The third National Survey of Sexual Attitudes and Lifestyle (Natsal-3) reported in 2013, providing information about sexual behaviour of adults aged 16-74 (i.e., over the age of consent) in Great Britain. The youngest age group in the published data are 16-24 year olds, and Chart 5.1 summarises the main findings about the sexual experiences of this age group as reported in 2012. The results confirm the fairly consistent finding that the average age of first heterosexual intercourse is 16 years, and that nearly one third of both men and women reported first heterosexual intercourse before they turned 16. This still means that the majority do not have sex until after 16.
The patterns of sexual activity in Chart 5.1 are notably similar for men and women, although the men aged 16-24 reported an average of 6.5 sexual partners compared to the women, who reported 5.2, and men were more likely to report a new sexual partner in the last year. A significant proportion of both genders reported new partners in the last year and this is important when we consider how best to ensure they have the sexual health advice that they need.

For information about people under 16, one of the main sources of data on young people’s reports of their sexual behaviour remains the Health Behaviour in School Aged Children (HBSC), which collected data for England, Scotland and Wales in 2014. Chart 5.2 presents the data on the proportions of 15 year olds in the English survey who reported experience of sexual intercourse in the HBSC report, and compares this to the rates reported in the previous sweeps in 2002, 2006 and 2010. We can see that one quarter of boys and one fifth of girls reported having had sexual intercourse by this age, and that this proportion has been falling over the last decade.
It is interesting to compare the HBSC trends and those reported in Natsal-3. HBSC trends indicate a decline in 15 year old sex from 2002 onwards. However, Natsal-3 found that the proportion reporting first heterosexual intercourse before age 16 years increased in successive birth cohorts (Mercer et al, 2013). It is not clear how we account for the trends seen in HSBC, nor the different picture suggested in Natsal-3, although it is worth noting the surveys are very different in methods.

As these data suggest, adolescence and early adulthood is a time of developing sexual identity. Overall, national statistics obtained in the Integrated Household Survey suggest that 1.6% of UK adults identify their sexuality as gay, lesbian or bisexual. In the 16-24 age group the rates are slightly higher; 2.7% report being gay, lesbian or bisexual, and a further 8% say they do not know, refuse to answer the question, give no response or state ‘other’ (Office for National Statistics, 2014). These figures are likely to be underestimates as many people will not feel ready to reveal their sexual identity in a survey.

Finally, there is concern about sexual exploitation and unwanted sexual attention in this age group. Finding representative, robust data on these topics is particularly challenging. Official estimates of the numbers of young people who are trafficked or are victims of sexual exploitation are very low, because so few cases become subject to official proceedings. However, Natsal-3 provided important data on rates of non-consensual sex in the 2014 survey. Respondents answered questions about whether anyone had made them have sex against their will. In the 16-24 year old group (1,700 young people), 16.4% reported that someone had attempted to have non-consensual sex with them, and 6.9% reported they had experienced non-consensual sex. In one quarter of the cases, the young people had told the police (Macdowall et al, 2013). The median age for the whole sample (aged 16-74) to report non-consensual sex was 18 in women and 16 in men. The majority of the perpetrators were reported to be family, friends or current intimate partners. The Natsal-3 researchers concluded that this kind of sexual experience is mainly one that happens at a young age, and is strongly associated with poor health (physical and mental), risk behaviours such as binge drinking, and abortion and pregnancy before age 18. Natsal-3 also showed that young women who cited school as the main source of sex and relationship education were less likely to report having non-consensual sex, although this did not apply to young men.
Use of contraception

The majority of young people use contraception during heterosexual sexual intercourse, but rates are still not as high as for older age groups. The most recent ONS general population survey on contraception and sexual health among women was undertaken in 2008/09 (Lader, 2009) and has not been updated since. In the absence of new data, **Chart 5.3** shows the use of contraception by age among women at that time, demonstrating the lowest levels of contraceptive use among those aged 16-19. Lader estimated that 64% of those aged 16-19 were ‘at risk’ of pregnancy (i.e., had a heterosexual sexual relationship and were not protected), so the finding that only 57% were using any methods of contraception suggests that approximately one in ten were not protected. In addition, some of those using contraceptives may not be doing so properly or on every occasion. Use of contraception is important both for preventing conception and also for protecting against sexually transmitted infections (STIs). The English Sexual Health Framework (DH, 2013) specifically aims to increase knowledge and awareness of all methods of contraception for all ages.

**Chart 5.3**
Use of contraception by women in the UK, by age, 2008/9


NB Figures for 16-19 are unreliable and should be treated as indicative, not definitive.
Data on contraceptive use by those aged 15 is available from the Health Behaviour in School Aged Children. Of those who had had sexual intercourse, the majority (85%) reported using some kind of contraception. Use of condoms at last intercourse was the most common method in this younger age group, used by 61% of the boys and 57% of the girls. The contraceptive pill was the second most common method, followed by the morning after pill or another method (Brooks et al 2015).

The 2008/9 ONS survey of women also illustrated the numbers using family planning services (during the five years prior to interview) and the ways in which the reported behaviour of the 16-19 year olds differed from those aged 20-24, as demonstrated in Chart 5.4. Approximately half of the younger age group had used at least one service and these tended to be either their own GP or a community contraceptive clinic. Two thirds of those aged 20-24 had used contraceptive services and the GP or practice nurse was the most popular choice.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>16-19</th>
<th>20-24</th>
<th>All 16-49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not use a service</td>
<td>49</td>
<td>32</td>
<td>45</td>
</tr>
<tr>
<td>Community contraception clinic</td>
<td>27</td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td>GP or practice nurse</td>
<td>26</td>
<td>53</td>
<td>45</td>
</tr>
<tr>
<td>Chemist or pharmacy</td>
<td>10</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Walk in centre</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Somewhere else</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>


NB Percentages sum to more than 100 as respondents could use more than one type of service

More up to date data on the preferred type of contraception is available from nationally collated information about those who chose to attend community contraceptive clinics. These include contraceptive and sexual health clinics run by voluntary organisations such as Brook. It excludes contraceptive services provided by outpatient clinics and general practitioners. Overall, in 2013-14, young people aged 16-19 were the age group most likely to have visited community contraceptive clinics (HSCIC, 2014), as demonstrated in Chart 5.5.
It can be seen from the data illustrated in Chart 5.6 that the most common type of contraceptive for all young women attending clinics remains oral contraceptives, followed by the male condom. Use of the male condom is highest in the youngest age groups and is overtaken by the oral pill in those aged 15 and above. However, long acting reversible contraceptives, such as IU devices, injectable contraceptives and implants, account for approximately one fifth of those aged over 15 years; a significant proportion that has increased over the last five years.
Considering how important community clinics are for the younger age group, it is interesting to note the majority of respondents in the Exeter Schools Unit annual survey did not know if there was a ‘special birth control service for young people available locally’. The low awareness may be because a minority are sexually active, but it is important that young people know in advance of need so that they access help early. The results suggest the need to improve promotion of local services and access to them. 

Chart 5.7 shows that, among the 15 year olds in the survey, only one third of both boys and girls indicated they were aware of such services. However, as Balding and Regis (2014) note, the majority (66%) of 14-15 year olds in the survey did know where to get free condoms.

Source: Balding and Regis (2014) Young people into 2014. Exeter Schools Health & Education Unit (SHEU)
Research shows that young people receiving good quality sex and relationships education at school are more likely to use condoms and other forms of contraception when they first have sex (Kirby, 2007). Natsal asked about sources of information about sex while growing up, and the data suggest those who reported their main source of information had been at school were less likely to have an unplanned pregnancy (Wellings, 2013). School was also the preferred source of information about sex when growing up: Chart 5.8 shows that both young men and young women aged 16-24 reported that they would particularly have liked more information from schools, their parents and health professionals. There are interesting gender differences; young women would prefer information from their mothers, young men from their fathers.

Chart 5.8 Preferred sources of information about sex when growing up, young people aged 16-24, Great Britain, 2012

Conception and birth

Teenage conception rates provoke continuing debate. Data collection improved in England during the Teenage Pregnancy Strategy. The establishment of the Teenage Pregnancy Unit in England in 1998 and cross-government support was pivotal to giving the topic a high profile. The leadership and national guidance also assisted professionals in reducing rates of teenage pregnancy and improving support for young parents. In 2013 the reported number of conceptions in the under-18 age group in England and Wales was the lowest since 1969 (ONS, 2015), at a figure of 24,306. The rate of under-18 conceptions for 2013 was also the lowest since records began in 1969 at 24.5 pregnancies per 1,000 women, compared to 47.1 in 1969. The rate has thus nearly halved (although there is considerable variation between local authorities). Charts 5.9 and 5.10 illustrate how this rate (per 1,000 females aged 15-17) has fallen since the late 1990s, both in England and Wales and in Scotland. In addition, in England and Wales, the proportion of under-18 conceptions that result in an abortion has remained fairly stable since the mid-2000s and in 2013 stood at 50.7% (ONS, 2015), although the proportion varies considerably between regions, from 42% in North East to 64% in London.

Source: ONS, Conception Statistics, England and Wales, 2013 » Download data
Conception rates among the under-16s are low but of considerable concern. **Charts 5.11 and 5.12** again present the trends for England and Wales and Scotland. England and Wales demonstrate a similar trend as the under-18s, with a downward fall (apart from an unexplained spike in 2007). The proportion resulting in a termination of pregnancy is higher for the under-16s than for the older age group, at 62% (ONS, 2015). The trends in Scotland do not reflect such a clear trajectory and have remained fairly constant since 1998.
Conception rates are not available for Northern Ireland, but we can look at the number of live births in the 15-19 age group since 1998. These figures are shown in Chart 5.13 which show there has been a decline here too, with a reduction from 28 births per 1,000 young women in 1998 to 15.7 per 1,000 in 2013.
Looking at international rates, comparable conception data are not available for other European countries, but comparisons can be made for birth rates per 1,000 women aged 15-19. **Chart 5.14** plots the births per 1,000 young women aged 15-19 in the UK in 2013 and the average for a selection of other countries. The data are collected at the age the mother gives birth, not adjusted for age of conception, so these data are not directly comparable to the under-18 conception data published annually by ONS. The UK birth rate among women aged 15-19 was higher than many other countries.
Sexually transmitted infections

As well as pregnancy, sexual behaviour carries the possibility of sexually transmitted infections (STIs). Public Health England data on the number of STI diagnoses in England make it clear that the highest rates of infection are among those aged 15-24. Indeed it is estimated that those under 25 accounted for 63% of all new Chlamydia cases in 2013 (Public Health England, 2015).

Chart 5.15 demonstrates that the 20-24 age group is most at risk of STIs for both genders. Among women, the second age group at risk is 15-19 but in males it is the 25-29s (PHE, 2015). Under the age of 24, rates are higher in young women than young men. Helping all young people to protect themselves is a major public health issue, but the higher rates in young women indicate that particular attention needs to be paid to health promotion strategies directed at them.

![Chart 5.15: Rates of new STI diagnoses by age group and gender, England 2014](source)
Chart 5.16 presents the rates of selected STI diagnoses, per 100,000 population, for young people in the UK in 2015 by gender and age. Chlamydia is clearly the most frequent STI diagnosis, followed by genital warts, herpes and Gonorrhoea. Syphilis is rare.

<table>
<thead>
<tr>
<th></th>
<th>Rate per 100,000 population</th>
<th>Chlamydia</th>
<th>Gonorrhoea</th>
<th>Herpes</th>
<th>Syphilis</th>
<th>Genital warts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YOUNG MEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 15</td>
<td></td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>15-19</td>
<td></td>
<td>881</td>
<td>101</td>
<td>40</td>
<td>4</td>
<td>208</td>
</tr>
<tr>
<td>20-24</td>
<td></td>
<td>1799</td>
<td>330</td>
<td>162</td>
<td>22</td>
<td>765</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Rate per 100,000 population</th>
<th>Chlamydia</th>
<th>Gonorrhoea</th>
<th>Herpes</th>
<th>Syphilis</th>
<th>Genital warts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YOUNG WOMEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 15</td>
<td></td>
<td>136</td>
<td>10</td>
<td>8</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>15-19</td>
<td></td>
<td>2651</td>
<td>166</td>
<td>216</td>
<td>2</td>
<td>476</td>
</tr>
<tr>
<td>20-24</td>
<td></td>
<td>2692</td>
<td>161</td>
<td>332</td>
<td>3</td>
<td>632</td>
</tr>
</tbody>
</table>


Improvements in screening and diagnosis have meant that more STI cases are identified now than previously, so untangling the underlying trends is complicated. England’s National Chlamydia Screening Programme, launched in 2003, has diagnosed well over half a million infections in 15-24 year olds. Modelling by the former Health Protection Agency (now Public Health England) suggested that it has ‘probably decreased the prevalence of Chlamydia among sexually active under-25 year olds’ (HPA, 2012).
In addition, changes to PHE data collection methods in 2012 make comparisons with earlier years difficult. **Chart 5.17** illustrates both these points. The data for Chlamydia diagnoses by age group and gender are presented from 2003 to 2013. In 2008 the rates go up exponentially as data from community services were included as well as data from genitourinary clinics (GUM). As we can see from the increase in the figures in 2008, the largest proportion of the diagnoses are actually made in the community clinics so it does not make sense to look at the trends without including these data. The data for 2012 and 2013 stand separate from the trend lines because PHE introduced further changes to data collection methods and the results are not comparable to those for 2003-2011. Overall, there has been an increase in diagnoses between 2008 and 2009 and a levelling out or slight decline since then. It is worth noting that PHE Chlamydia screening policy is to achieve a diagnostic rate of 2,300 per 100,000 15-24 year olds in order to find the infection, treat and bring down prevalence.

Rates of acute STI diagnoses vary by the Index of Multiple Deprivation; for example, Health Protection Agency (now Public Health England) data for London residents in 2011 showed that the acute STI rate for people living in the most deprived areas of London was 3.4 times higher than for those living in the least deprived areas (Health Protection Agency, 2012). As we have seen, people with STIs are more likely to be young people than other age groups.

Finally, in 2013 there were 736 new HIV diagnoses among those aged 15-24 years, and 643 under-15 were receiving care for diagnosed HIV infection, together with 2,699 15-24 year olds (Public Health England, 2014). This is important as one of the Public Health Outcomes Framework sexual health indicators is late diagnosis of HIV.
References


Half of all lifetime cases of psychiatric disorders start by age 14 and three quarters by age 24. Some estimates suggest the majority start before age 18.

Surveys show that around 13% of boys and 10% of girls aged 11-15 have mental health problems.

The most common problems for boys are conduct problems. For girls they are emotional difficulties.

Over recent years there have been falls in physical fighting across countries including the UK.

Suicide rates for young men have fallen since 2001 to 7 per 100,000 in 2013 for 15-19 year olds, and to 14 among 20-24 year olds. There has been little change for young women, who generally have lower rates.

We lack representative data on recent trends in mental health for this age group. Some indications suggest there may be no rise in overall mental health problems for this age group. Others suggest there may be rises in some indicators, such as self-harm.

In 2014, there were 41,921 hospitalisations for self-harm by poisoning or other methods among 10-24 year olds in England.

The largest number of admissions to hospital for eating disorders is among young women aged 15.

Other mental health problems include attention deficit and hyperactivity disorder, affecting around two to four per cent of teenagers.

Four out of five young people report high life satisfaction.
Mental health

Mental health is a major part of young people’s general wellbeing, and is also closely bound up with their physical health. There is much debate about whether today’s generation of young people is more anxious, depressed and stressed than previous generations (Hagell, 2012; Collishaw et al, 2004), but there is no doubt that mental health disorders in young people are surprisingly common. Those most frequent in the teenage years include anxiety and depression, eating disorders, conduct disorder (serious antisocial behaviour), attention deficit and hyperactivity disorder (ADHD) and self-harm. At this age there can be early emergence of rarer psychotic disorders such as schizophrenia (Green et al, 2005). Half of all lifetime cases of psychiatric disorders start by age 14 and three quarters start by age 24 (Kessler et al, 2005). Other estimates suggest most of these problems start before the age of 18 (Kim-Cohen et al, 2003).

Mental health problems have important implications for every aspect of young people’s lives including their ability to engage with education, make and keep friends, engage in constructive family relationships and find their own way in the world. Detection, treatment and support for young people with mental health problems are all important parts of the services provided to this age group. Mental health problems are also a major contributor to the global burden of disease (Whiteford et al, 2013) and untreated problems are likely to be very expensive for health services as young people grow into adulthood. There is more on mental health services in Chapter 8, but it is worth noting that the mental health of young people is subject to considerable policy discussion in the UK at the time of writing, partly as a result of the House of Commons Health Committee report on the topic in October 2014, and the government report ‘Future in Mind’ published in 2015 following the work of the Children & Young Peoples Mental Health taskforce (Department of Heath, 2015).

Prevalence of mental health problems among young people

The prevalence of selected diagnosed mental health conditions in the UK youth population is not measured regularly and this shortage of good, recent data is an issue in understanding the picture. There are some measures in the British cohort studies but these are not repeated annually and the latest, the Millennium Cohort Study, only has data available on children in the primary school years. Two large scale and robust surveys by the Office for National Statistics (ONS) in 1999 (Meltzer et al, 2000) and 2004 (Green et al, 2005) are the source of most information about this topic but they have not been repeated since. Given that the Green data were collected in 2004, they are more than a decade out of date. Plans are underway to fund a new survey, but data will not be available for some time. It is critical to repeat these kinds of representative population surveys, particularly as there has been concern by academics and practitioners about the possible impact on this age group of the economic crisis of 2008, ongoing cuts to services and changes to the examination system in ways that may increase pressure and anxiety (Faculty of Public Health, 2010; Young Minds, 2015). Encouraging the regular collection of new survey data on the topic of adolescent mental health is critical.
Drawing on the older data from the last ONS survey of child and adolescent mental health in 2004, we can see (Chart 6.1) that the most common mental health problems in young men at that time were conduct disorders, with emotional problems most common in young women, although both were common in the opposite gender too. Overall, around 13% of boys and 10% of girls were rated as having some kind of disorder.

Chart 6.2 shows that the prevalence of mental health problems in the 2004 ONS survey varied by ethnicity and Chart 6.3 by parents’ educational backgrounds (as a proxy for socioeconomic status). Rates of mental health problems were higher in some ethnic minority groups (Black) and lower in others (Indian, Pakistani and Bangladeshi). The distribution of disorders also appeared to be associated with social background. Young people living in households with higher levels of parental educational qualifications had lower levels of mental disorders.
Analyses of parents’ reports of their 16 year old children’s symptoms (in successive British birth cohorts) have allowed comparisons of data on this age group from 1974, 1986 and 1999. Although parental report has limitations in terms of understanding young people’s mental health, the repetition of similar questions at these three time points offers a unique insight. Over this 25 year period it appeared that there was a significant increase in emotional problems such as depression and anxiety and a rise in adolescent behaviour problems (Collishaw et al, 2004). However in the beginning of the 21st century this trend seemed to have slowed down or stopped. Comparison of the two large scale ONS surveys in 1999 and 2004 mentioned above showed little change over this five year period, as illustrated in Chart 6.4.
A recent study compared mental health difficulties in early adolescence (11-13 years) in two cross sectional studies from secondary schools in England from 2009 to 2014, using the Strengths and Difficulties Questionnaire (SDQ). The samples were not nationally representative as the second study had a larger than usual ethnic minority sample, and the first study was weighted to match. However, the results were interesting – there were no large differences between the cohorts but a change in pattern. The results suggested an increasing burden of emotional problems for girls, and indication of a decrease in overall difficulties for boys (Fink et al, 2015). In 2014, 24% of the boys showed symptoms of conduct problems, compared with 15% of the girls. Emotional problems were more common in the girls: 20% compared to seven per cent in the boys.

Data returns to the Higher Education Funding Council for England has shown the proportion of university students who formally identify themselves as having mental health problems doubled between 2008/9 and 2013/14 (Institute for Employment Studies, 2015).
Emotional disorders and low mood

Collishaw and colleagues undertook a comparison between representative surveys in 1986 and 2006, focusing particularly on depression and anxiety (Collishaw et al, 2010). Chart 6.5 shows parents’ reports of their children’s symptoms of depression or anxiety for one cohort in 1986 and then another cohort in 2006. The same questions were asked in both surveys. Over the 20 year intervening period, ratings of depressed and irritable mood, sleep disturbance, appetite problems and general worry increased in both boys and girls. Note that this study covered a longer time period than the Fink et al (2015) study cited above, and the final data point was 2006 rather than 2014. Rates for all these problems in 1986 ranged from 1-12% of the age group; in 2006 they ranged from 3-17%. The reason for this is not clear (Hagell, 2012). The combination of this study, the Fink et al (2015) survey and recent data on self-harm all suggest a possible rise in some emotional disorders, especially in young women.

Although not based on any representative sample, it is interesting to note that ChildLine (the UK’s free, 24-hour helpline for children and young people) reported 315,111 counselling sessions in 2011/12, with the primary concerns being family relationships, bullying, physical abuse and self-harm (Harker et al, 2013).
Self-harm

The majority of people who self-harm (usually through deliberate cutting or scratching) are aged between 11 and 25 (Mental Health Foundation, 2006; Association for Young People’s Health, 2013). However, self-harm is a very private behaviour and a very sensitive topic, which means that there is a shortage of reliable information unless young people present at accident and emergency services. A Scottish self-report survey in schools found 14% of pupils aged 15-16 years claimed to have self-harmed. It was over three times more common in girls than boys (O'Connor et al, 2009). Recent estimates from the Health Behaviour of School Aged Children survey (Brooks et al, 2015) were higher, suggesting that overall 22% of the 15 year olds in the study had self-harmed. Again, these rates were three times as high for girls (32% of girls compared to 11% of boys). The majority of those self-harming said they were doing so once a month or more.

A minority of people who are self-harming will end up in hospital, but these cases provide important information about this behaviour. Reducing hospital admissions caused by self-harm is a key public health outcome indicator (Department of Health, 2012). Chart 6.6 shows self-poisoning admissions. The majority of these episodes will be drug overdoses, but some will include methods such as swallowing bleach. Although the peak age for admissions is 15, with a total of 4,403 admissions, there is a long ‘tail’, with steady rates of admissions into the early 20s. In total there were 36,423 admissions of 10-24 year olds for self-poisoning in 2014. Some young people will be admitted several times over the course of a year. In addition, some incidents will be accidents. But this figure represents a huge number of young people in extreme distress, particularly considering the number who do not go to hospital. Self-poisoning is one of the most common acute medical presentations in the UK (Camidge, Wood and Bateman, 2003).

Chart 6.7 presents self-harm statistics, showing the majority of these incidents involve “intentional self-harm by sharp object”. The age distribution is similar but more extreme; this is particularly a behaviour of 15 year olds. The numbers are lower, totalling 5,498 incidents. Combining these with the self-poisoning statistics, this results in a total of 41,921 hospitalisations for self-harm among 10-24 year olds in England in 2014. Researchers studying hospital statistics have noted that relationship issues were the main reported cause in adolescents. Younger adolescents report problems with friends, older adolescents report problems with boy/girlfriends (Hawton et al, 2014).

The hospital admissions data can also be used to look at time trends. Chart 6.8 shows the rate of hospital admissions for all kinds of self-harm per 100,000 population aged 10-24. This allows us to compare year on year allowing for changes to the numbers of 10-24 year olds in the population, so it is a more accurate way of reporting trends than absolute numbers. The chart shows a rise from a rate of 330 per 100,000 in 2007/8, to 367 in 2013/14.
Finally, rates of self-harm are particularly high amongst groups of vulnerable young people, such as those in the youth justice system. In 2014 there were 157 incidents reported for 15-17 year olds in prison, 1,081 among 18-20 year olds and 1,615 in the older age group of 21-24 year olds. These figures represent a fall in absolute numbers, but they represent a rise if we look at rates per 100 young people, because numbers in custody have fallen over this period. For example, reported rates of self-harm per 100 young people aged 10-17 in custody increased from 4.1 in 2010/11 to 6.6 in 2013/14 (Ministry of Justice / Youth Justice Board, 2015).
Suicide

Suicide is rare among young people but reducing all suicide is a Public Health England outcome indicator (PHE 2012). Reducing suicide by 20% is also a target of the Scottish Government (Scottish Government 2013). Chart 6.9 shows rates are higher in the older age group, and higher among young men than young women, a different gender pattern to self-harm. In addition, the chart shows a peak in suicide in the mid-1990s, but a decline in rates from then until around 2005. After this, rates seem to have been fairly stable. In 2013 the rates for young women were 1.6 per 100,000 for 15-19 year olds and 3.5 for 20-24 year olds, and for young men were 7 for 15-19 and 14.3 for 20-24.

Comparing suicide rates between the countries of the UK is difficult, as they vary in terms of definition and how the statistics are presented. Overall, the rates are similar in England, Wales and Scotland, with reductions in suicides by young people over recent years, but reflecting consistently higher rates among young men (ONS, 2015a). The trends in Northern Ireland are less clear but the absolute numbers are very small so the rates can fluctuate quite substantially.
Conduct disorder and behaviour problems

At some point, almost everyone gets involved in antisocial behaviour. Some risk taking in adolescence is normal and what is defined as antisocial is to some extent culturally and generationally specific. At any time, there are all sorts of different ways to be antisocial, some more concerning than others.

However, serious violent behaviour in this age group is relatively rare and can be associated with longterm negative outcomes. ‘Conduct disorder’ is the official, psychiatric term for serious antisocial behaviour (eg, American Psychiatric Association, 1994), including the extremes of aggressive behaviour (fighting, being cruel to others or animals), destructive behaviour (arson or vandalism), deceitful behaviour (lying, stealing) and violation of rules (running away, truanting). As we have seen above in Chart 6.1, prevalence estimates for conduct disorder from the 2004 ONS survey suggested a rate of around 6.5% for young people aged 11-15%, with a higher rate in young men than young women.

Another measure of behaviour problems is the rate of first time entrants to the youth justice system. This is not a completely objective rating as it is affected by processing by the police and courts, which are themselves controlled by policy changes. Reducing first time entrants is currently a Youth Justice Board key performance target for Youth Offending Teams in England. The number of young people aged 10-17 receiving their first substantive outcomes (reprimand, final warning or court disposal) in 2013/14 was 22,393. This was down 75% from 2003/4. Overall there were 90,769 proven offences by young people under 18 leading to a caution or conviction in 2013/4, down eight per cent on the previous year and down 68% since 2003/4, ten years previously (Ministry of Justice/Youth Justice Board, 2015). Reasons for the fall include reductions in crime levels as a whole and changes in the way children are dealt with, including the development of more informal and constructive approaches within the youth justice system (Allen, 2011).

The Health Behaviour in School Aged Children (HBSC) study looked at trends in adolescent physical fighting across 30 countries using the 2002-2010 data. These have also shown that there were declines over time in two thirds of the countries involved (Pickett et al, 2013), including the UK and the USA. Chart 6.10 presents the comparisons for a selection of these countries. Rises were seen particularly in countries that had suffered severe economic crises during the intervening years (Greece and Spain, for example).
Unfortunately there are very few data on victims of violence in this age group. Some of the few data we have derive from the Crime Survey for England and Wales, which focused on violent crime and sexual offences in 2013/14 (ONS, 2015b). However, incidents against 10-15 year olds in 2013/14 were recorded for just a few hundred young people, which may not give a representative picture of the country.
Attention Deficit and Hyperactivity Disorder (ADHD and hyperkinetic disorders)

Key symptoms of ADHD are inattention, impulsiveness and hyperactivity. It has been estimated that ADHD affects around two to four per cent of teenagers in the UK, with rates consistently higher in boys than girls (AYPH, 2012). It can affect educational attainment, peer relationships, self-esteem and can contribute to youth offending. Chart 6.11 demonstrates the higher rates in young men, but until there is a new representative survey we cannot tell whether there has been an increase in prevalence in recent years.

![Chart 6.11](data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAAgAAAAAgCAYAAABlamQ6AAAAAXNSR0IArs4c6QAAAARnQU1BAACxjwv8YQUAAAAJcEhZcwAADsQAAA7EAZUrHq winterj6WAAAABGd7UKS5TAAAAALAAAAAQBAYAAQ Jane Alexander.jpg)  

Source: Green et al (2005), Mental health of children and young people in Great Britain, 2004

Eating disorders

The average age for the start of eating disorders is in the mid-teens and understanding these complex and distressing disorders is important when thinking about this age group. Overall, it is estimated that around one in 250 females and one in 2,000 males will experience anorexia nervosa, usually as an adolescent or young adult, and that around five times this number will suffer from bulimia nervosa (National Collaborating Centre for Mental Health, 2012). A study of the incidence of eating disorders in the UK from 2000 to 2009, using a primary care register, reported an age standardised annual incidence rate of 164.5 per 100,000 for girls aged 15-19 years, more than double the rate for other ages (Micali et al, 2015). However, like self-harm, eating disorders may be underestimated in the general population. Significant proportions will not seek help and good representative community surveys are rare. On the basis of routine Hospital Episode Statistics, the Health and Social Care Information Centre has reported that young people aged 10-19 years account for more than half of hospital admissions for eating disorders (HSCIC, 2014). As Chart 6.12 shows, the largest number of admissions in 2013/14 was for 15 year old girls. Although bulimia is more common, anorexia accounts for a larger proportion of the hospital admissions.
On the basis of the hospital admission data, HSCIC has estimated that these figures are rising; there was an eight per cent rise between 2011/12 and 2012/13, for example, and across that period the biggest rise was in young people in the 15-19 age group (HSCIC, 2014).

## Autistic spectrum disorders

The majority of young people become increasingly focused on their peer groups and social interaction during adolescence. So this can be a very difficult time for young people who find it hard to manage their relationships with others. Those with autistic spectrum disorders (such as Asperger’s) may find this a particularly challenging life stage.

The new Diagnostic and Statistical Manual version V was published in 2013, drawing together the various diagnoses of autism, autistic spectrum disorder and Asperger’s under one umbrella diagnosis of ‘autistic spectrum disorder’. This has three levels of severity and there is also a related diagnosis of social communication disorder (American Psychiatric Association, 2013). The defining characteristics of autistic spectrum disorders are impairments of social interaction, communication and imagination and often a reliance on repetitive, habitual activities and behaviours.

The only national survey data relating to prevalence derive from the 2004 ONS survey by Green and colleagues. This suggested a prevalence rate of approximately one per cent for autistic spectrum disorders (Green et al, 2005). A prevalence study involving a total population cohort of 56,000 children aged nine to ten in south London, (Baird et al, 2006) estimated a total prevalence rate of all autistic spectrum disorders as 116 per 10,000. Extrapolating from available figures, there could be approximately 133,500 young people under 18 in the UK with an autistic spectrum disorder (National Autistic Society, 2012).
There is a strong gender differential in autistic spectrum disorders, with around five times as many boys as girls, and on average half of the children diagnosed with autistic spectrum disorders have learning disabilities (Frombonne et al, 2011).

**Young people’s reports of their wellbeing**

There is a wide range of measures of young people’s wellbeing and different surveys use different approaches (ONS, 2014), making it difficult to compare. The 2014 Health Behaviour in School Aged Children survey asked 11, 13 and 15 year olds to report their life satisfaction using a device called the Cantril ladder (Cantril Self-Anchoring Life Satisfaction Scale). Respondents had to place themselves on a 10 step ladder, where the top rung indicates they have the best possible life and the bottom rung indicates the worst. **Chart 6.13** shows the proportion of young people in England reporting high life satisfaction using this method. Four out of five young people reported high life satisfaction, although rates are lower in the older age group and lower in girls than boys. Comparable country rates from the HBSC are not available for the 2014 data at the time of writing but in the 2010 survey the rates were similar in England, Scotland and Wales.

![Chart 6.13](chart613.png)

*Source: Health Behaviour in School-aged Children data for England 2014 ▸ Download data*
High levels of life satisfaction were reported in the latest ONS wellbeing survey, although the method used was slightly different. Chart 6.14 shows the proportions reporting that they were satisfied with their life, felt they were doing worthwhile things with their lives, and felt happy yesterday.

Finally, the widely cited Unicef Office of Research produces the Innocenti Report Card (which is based in part on HBSC data), assessing child wellbeing in rich countries, with the most recent report published in 2013 (Unicef Office of Research, 2013). Chart 6.15 presents the rankings of children’s reported life satisfaction in 29 countries. The UK came 16th out of 29. Scandinavian countries are overrepresented in the top half of the table and Eastern European countries in the bottom half.
## Unicef league table of child wellbeing

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<td>29</td>
<td>Romania</td>
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</table>

CHAPTER 6: Mental health

References


National Autistic Society (2012) How many people have autism disorders?


CHAPTER 7: Physical health, longterm conditions and disability

- Young people seek medical advice for common physical problems including headaches, abdominal pain, skin disorders and acne, muscular skeletal disorders, coughs and respiratory infections.
- One in seven young people (15%) aged 11-15 report having been diagnosed with a longterm medical illness or disability such as asthma, diabetes, epilepsy, cancer, or physical or mental impairment.
- One in four young women (25%) and one in seven young men (14%) took at least one prescribed medicine in the previous week.
- Approximately 800,000 teenagers in the UK suffer from asthma.
- Diabetes affects approximately 35,000 under-19s.
- Approximately 63,000 young people under 19 have epilepsy.
- More than 2,500 young people under 17 develop arthritis every year.
- 2,200 young people aged 15-24 are diagnosed with cancer every year.
- Learning disability affects around three per cent of young people.
- One fifth of pupils going into secondary schools have special educational needs.
Physical health, longterm conditions and disability

Although the years 10-24 tend to be a time of good physical health, young people do experience a range of short term physical health problems. A significant proportion have longterm chronic conditions or some kind of disability.

Common physical health problems

Headaches, abdominal pain, skin disorders and acne, muscular skeletal disorders, coughs and respiratory infections are some of the common physical health problems for which young people seek medical advice.

Young people are more frequent users of primary care services than is often thought. However there are no up to date robust prevalence data on the regular short term health problems of this age group. The topic has not been covered in the Health Survey for England since 2002, and there have been no large scale studies of why young people in particular present at general practice since Churchill et al (2000). Projects on individual topics such as headaches (Abu-Arafeh et al, 2010) and skin conditions (Scholfield et al, 2009; Scholfield et al, 2011) suggest these may be very common in this age group. For example, it has been estimated that over half of children and adolescents have suffered headaches (Abu-Arafeh et al, 2010). (Abu-Arafeh et al, 2010). More data on routine health concerns (other than longterm conditions such as diabetes) are urgently required for planning services and training GPs and other primary care professionals.

The most recent Health Survey for England (HSE) did cover the use of prescribed medicines and revealed that in the 16-24 age group, 14% of young men and 25% of young women had taken at least one prescribed medicine in the previous week. These were largely medicines for respiratory conditions, or antidepressants, antibacterials, analgesics and or non-steroidal anti-inflammatory drugs. (HSCIC, 2013).

Longerterm conditions – where more data are available – include asthma, diabetes, allergies, epilepsy, cancer and physical and mental impairment. Overall, results for England from the Health Behaviour in School Aged Children study (HBSC) in 2014 found that 23% of young people aged 11-15 reported that they had a longerterm medical illness or disability. Asthma accounted for over half the cases. Of those with a disability, 59% said they were taking medication (Brooks et al, 2015).
Asthma, diabetes, epilepsy and arthritis

Asthma is a chronic inflammatory disorder of the airways affecting many young people. It is a complex and episodic disorder. The Quality and Outcomes Framework estimates that approximately six per cent of the English population has asthma overall, a total of 3.2 million people (HSCIC, 2009). The charity Asthma UK puts the figure for the UK at 5.4 million, with one in 11 children having asthma – the most common longterm medical condition (Asthma UK, 2015). It has been estimated over 800,000 teenagers in the UK suffer from asthma, and noted that under diagnosis and poor treatment are common. More boys than girls are told by a doctor that they have asthma. Drawing on data from the 2010 Health Survey for England (which focused on respiratory disease), Chart 7.1 shows how the prevalence of lifetime asthma increases with gender and age, with four times as many young people aged 13-15 with the condition compared to those aged 0-3. This may be partly due to differences in diagnosing very young children, as asthma cannot be formally diagnosed in under 5’s.

Approximately 800,000 teenagers in the UK suffer from asthma.

Source: Couriel (2003)

Chart 7.1
Prevalence of lifetime doctor-diagnosed asthma in England, by age and gender, 2010

There has been much debate about whether rates of asthma have increased in recent years, but HSE data suggest that they did not rise for children – at least across the decade from 2001 to 2010. Rates for all boys aged 0-15 fell from 23% to 17% over this period and for girls from 18% to 12% (HSCIC, 2011). These trends are clearly to be welcomed. It is worth noting that a smoking ban in public places was introduced in Scotland in 2006 and in England and Wales in 2007. In addition, as we saw in Chapter 3, smoking by young people has fallen over recent decades, which may have played a role. However, absolute levels of asthma are still very high and hospital admissions remain at around the same level as shown in Chart 7.2.

Diabetes is also a key concern for this age group. Reducing recorded diabetes is an outcome indicator in the Public Health Outcomes Framework, with the latest measurements reflecting a rise in recent years (PHE, 2015). Drawing on surveys from England, Wales and Scotland, the charity Diabetes in the UK has estimated that there are approximately 35,000 children and young people under the age of 19 with the condition. Of these, the great majority have Type 1 diabetes (96%), with approximately 700 (2%) known to have Type 2. The remaining two per cent have other rare forms (Diabetes UK, 2014). On this basis, Diabetes UK estimates that local authorities can expect between 100-150 young people under 18 to be living with diabetes in their area.
The peak age for diagnosis of Type 1 diabetes is between 10 and 14 years of age. Type 2 diabetes is nine times more common in children of South Asian origin than white children, and six times more likely in African Caribbean children. Slightly more diagnoses are made in boys (52%) than girls (48%) (Diabetes UK, 2014).

In absolute numbers, diabetes hospital admissions in England among 10-19 year olds increased by one third from 5,800 in 2002/3 to over 7,500 by the end of the decade in 2009/10 (Hagell et al, 2013). However, looking at hospital admissions from 2006/7 to 2013/14 (Chart 7.3) suggests that the trend remains reasonably level across this period. Type 1 diabetes is not related to obesity, but a rise in obesity among young people may result in more Type 2 diagnoses in the longterm.

Epilepsy is another important longterm condition that affects more teenagers than diabetes, although it results in fewer hospital admissions. Epilepsy is a tendency to have recurrent seizures and represents a group of over 40 types of the condition. The Joint Epilepsy Council of the UK and Ireland estimates 600,000 people in the UK have epilepsy – around one per cent of the population. Children and teenagers account for around ten per cent of this total, affecting around 63,400 young people under 19. This equates to 1 in 220. If the age range is extended up to age 24, the total is approximately 112,700 (Joint Epilepsy Council 2011).
CHAPTER 7: Physical health, longterm conditions and disability

Chart 7.4 shows that the rate of hospital admissions for epilepsy has remained fairly level since 2006/7.

There is evidence that epilepsy levels are higher in urban areas, areas of social deprivation and areas without specialist services (Thomas et al, 2012), suggesting that social determinants of health play a part in its development.

Arthritis, an inflammatory joint disease, is rare in young people. It covers several related conditions occurring before the age of 16, including juvenile rheumatoid arthritis and juvenile idiopathic arthritis. Despite being rare, it is estimated that juvenile idiopathic arthritis affects 15,000 children in the UK with more than 2,500 developing the condition every year (Arthritis Research UK, 2014). There are no UK prevalence data and this is an obvious gap.

Cancer

Cancer is also relatively rare in young people, but is one of the leading causes of death for those in their teens and early 20s. Cancer Research UK estimates around 2,200 young people aged 15-24 years are diagnosed with cancer every year in the UK and approximately 310 of this age group die from cancer each year (Cancer Research UK, 2015).

Chart 7.5 shows the incidence of cancer diagnoses in young people aged 15-24 are similar between the four countries. Although there are variations, these are not statistically significant (Cancer Research UK, 2015).

The most common cancers for this age group are lymphomas, including cancer of the lymph system, Hodgkin Disease and non-Hodgkin Lymphoma. Chart 7.6 shows lymphomas account for 21% of new cancer cases each year, followed by carcinomas.
(malignant tumours on the surface or lining of a body organ), accounting for 20%. Cancers show different distributions by gender; there are more lymphomas, germ cell tumours (in cells producing sperm and eggs) and leukaemias (cancer of the white blood cells) among young men and more carcinomas and malignant melanoma among young women (Cancer Research UK, 2015). Overall it is estimated that the male:female ratio for cancer in this age group is 11:10.

The cancer registry data compiled by Cancer Research UK suggests an increase of one fifth in cancer diagnoses among 15-24 year olds in the UK since the 1990s. Mortality, however, has almost halved since the 1970s (Cancer Research UK, 2015). Overall, over 80% of those diagnosed survive five years or longer.
Disability

Nine per cent of children aged 11-15 and eight per cent of young adults aged 16-24 in Great Britain were classified as disabled (Office for Disability Issues, 2011). The UK Equality Act 2010 defines disability as a physical or mental impairment that has substantial and longterm (usually one year) negative effects on a person’s ability to do normal daily activities. This might include some of the conditions covered above such as arthritis and cancer, or other conditions including HIV infection, chromosomal and gene problems (for example, Downs Syndrome, cystic fibrosis, haemophilia and spina bifida), or loss of physiological and psychological functions such as mobility, sight, hearing and learning capacity. Disability can result in social, economic or environmental barriers restricting full and equal participation in society.

Estimates vary in different surveys depending on the definition of disability used. The HBSC made a slightly higher estimate, although this was a broader construct including longterm illness and disability. In the 2010 General Lifestyle Survey, rates for children aged 5-15 were 16% for boys and 10% for girls using the definition of longstanding illness and disability (ONS, 2012). Most surveys show that proportionately more boys than girls are classified as disabled.

Chart 7.7 shows longterm pain and chronic health conditions are most common in older adolescents and young adults, affecting six per cent and four per cent of them respectively. Chronic health conditions included asthma, severe allergies, heart disease, diabetes, cancer, epilepsy, cerebral palsy, spina bifida, cystic fibrosis, arthritis and other conditions. Learning difficulties and mental health conditions both affected three per cent of the age group and all other impairments affected around one per cent. Despite a significant proportion of young people suffering from chronic pain, there is a real gap in terms of the treatment evidence base and the provision of specialised services.

The Department for Education (DfE) has estimated that in the first year of secondary school, at age 11-12, special education needs (SEN) pupils constituted nearly one fifth (18.5%) of the total. By the end of secondary school, at age 18, that proportion had fallen to one in ten (9.1%). SEN covers children who have learning difficulties or disabilities that make it harder for them to learn than their peer group. These data are presented in Chart 7.8, for children with SEN but not ‘statemented’. Those with formal statements form about 10% of the total of those with SEN.
Chart 7.7
Prevalence of impairment types for young people and adults aged 16-34 in Great Britain, 2009/10

Source: Life Opportunities Survey, Wave one results, 2009/10 » Download data

NB Prevalence of impairment types for young people and adults aged 16-34 in Great Britain, 2009/10

Chart 7.8
Proportion of pupils with special educational needs (without statements) in English state funded secondary schools, 2014

Source: Department of Education » Download data
The Life Opportunities Survey compares parental reports of the participation levels of children aged 11-15 with and without impairments, across some key dimensions of life including education, personal relationships and transport. Chart 7.9 demonstrates the high levels of restrictions experienced by these young adolescents with impairments compared to others in their age group. In core areas like education, well over one quarter of young people with an impairment experience restrictions in access and opportunity compared to only a very small percentage of children without impairments.
Moreover, for children with impairments, Chart 7.10 shows that parents identified the attitudes of others as one of the most significant barriers encountered by their children, along with other factors including poor services.

Professor Sir Ian Kennedy found disabled young people faced major barriers in the NHS in accessing quality health services. He noted they are given lower priority, face a lack of coordination between services and have to navigate the sheer complexity of the services they need (Kennedy, 2010).

Other research has revealed the significant barriers restricting disabled young people’s participation in society. They face a greater risk of targeted violence and younger disabled people are least likely to be satisfied with their lives.
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CHAPTER 8: Health promotion and use of health services

- Young people rely heavily on parents, school and peers as sources of health information.
- On average, young women aged 15-19 visit their GP 4.5 times a year, and young men visit twice a year.
- One fifth of girls felt uneasy with their GP at their last visit.
- Approximately 1,400 children and young people aged 0-18 are referred to CAMHS per 100,000 of the population.
- Young people aged 10-24 account for 21% of admissions to Accident and Emergency (A&E) departments.
- The most common reason for attendance at A&E by 13-17 year olds is injury (72%).
- In one study 35% of young people with mental health problems were not referred on to adult services.
- The proportion of adolescent patients who are treated on adolescent wards has not increased over the last 10 years.
Health promotion and use of health services

Good outcomes for young people rely on an interaction between their needs and how well services can meet them. In this chapter we look at young people’s views on and use of health services, from community based health promotion through to NHS inpatient care.

Health promotion

One of the key challenges of adolescence is the transition to independence that takes place across the second decade of life. Learning how to recognise health issues and manage the process of getting help is very important at this time. Supporting young people through this process means empowering them to take control of their health and giving them the information they need to seek appropriate services.

Health promotion for this age group often focuses on sexual health, physical activity, smoking, drinking and drug use, and diet and nutrition. Interventions to promote health can address individual behaviour and can also involve wider social and environmental factors. Wider population interventions might include media information campaigns or policy such as advertising bans, tax incentives and pricing structures (for example, in relation to alcohol sales) and clearer food labelling. There are very few representative data on how these might impact on young people. However, health promotion can also work through information in school, vaccination programmes, access to helplines and individual level support and advice and we have more information about these.

When asked about sources of helpful information, for example about drug use, young people report that they use a wide range of sources. The HSCIC Smoking, Drinking and Drug Use Survey (SDDU) showed teachers and parents come top of the list. Chart 8.1 ranks the sources that young people mentioned in the survey.
Chart 8.1
Sources of helpful information about drug use, school pupils in England, 2013

Source: HSCIC (2014), Smoking, Drinking and Drug Use Among Young People in England  » Download data
Chart 8.2 draws on data from the Exeter Schools Health Education Unit to show peers feature strongly as sources of information and support among 12-15 year olds. However, many young people often report turning first to their family for information, help and advice, with the exception of sex and relationships and marital conflict. These findings illustrate the value of providing support to parents in communicating with their teenage children. Importantly, primary care services also feature as a source of advice and help for a wide range of issues, highlighting the value of helping GPs and others to prioritise young people’s health.
Chart 8.3 presents findings from the latest National Survey on Sexual Attitudes and Lifestyle (Natsal-3), showing schools, parents and health professionals are the preferred sources for information about sex and relationships, for 16-24 year olds.

As these three surveys all show, schools clearly play a major role in health promotion through the provision of personal, social, health and economic education (PSHE), and schools may also be involved in developing wider, whole school approaches, such as Healthy Schools in England (Arthur et al, 2011). PSHE is considered a necessary part of the school curriculum in the UK, although in England and Wales it is not statutory. The aim of PSHE is “...to equip pupils with a sound understanding of risk and with the knowledge and skills necessary to make safe and informed decisions,” (Department for Education, 2013). Charts 8.1 and 8.4 draw on data from SDDU survey on young people’s own perspectives on the substance misuse classes they have received. The SDDU survey compiles data from approximately 6,000 young people aged 11-15.
Chart 8.4 illustrates that although there have been minor fluctuations since 2003 the proportion of pupils who remember receiving drug related health education lessons has remained relatively stable at around 60%.

Overall, in the SDDU study, more than one third of school pupils thought their school had not given them enough information on smoking (40%), alcohol (44%) or drugs (46%) (HSCIC, 2015).

**General Practice (GP) consultations**

Young people access their GPs regularly for a wide range of health issues. Chart 8.5 shows consultation rates, drawing on the QResearch Database (HSCIC, 2009) from over 600 GP practices. They show a relatively stable rate of consultation over a 14 year period. The consultation patterns remain relatively constant at around two consultations per year for young men of all ages. Among young women, however, late adolescence (15-19 years) marks a dramatic increase in rates to an average of 4.5 per year, with a further increase to 5.5 consultations per year by age 20-24.
Slightly lower rates of consultation were reported by the 11-15 age group in the latest HBSC survey, where 78% of boys and 82% of girls said they had visited the GP in the last year (Brooks et al, 2015). Chart 8.6 presents a slightly different measure with around half of school pupils in Year 10 (aged 14-15) reported visiting their GP in the three months preceding the survey. Although estimates of attendance vary depending on age group and survey, it is evident young people are frequent users of primary health care, particularly young women.
The ‘Young people into 2014’ survey (Balding and Regis, 2014) reported on teenagers’ experience of talking to their GP, with Chart 8.7 showing one fifth of girls (25% of Year 8 and 21% of Year 10) reported feeling ‘quite uneasy’ or ‘very uneasy’ with their doctor on their last visit. In the latest HBSC survey, 89% of young people reported that their GP treated them with respect, and 52% reported that they were able to talk about personal things with their doctor (Brooks et al, 2015). Overall the findings highlight the importance of supporting GPs to provide youth friendly services.

![Chart 8.7](image)

The experiences of 16-24 year olds is shown in Chart 8.8 from the GP Patient Survey 2013-14. Although many are satisfied with their experience, the figures suggest that many are not. The majority felt able to get to see or speak to someone, but only around one third went to the appointment they were offered, rated the experience as ‘very good’, or the convenience ‘very good’. Over half said that they definitely had confidence and trust in their GP. These rates were lower than for older age groups. Young people’s preferred method of booking an appointment was by telephone, with online appointment being the second preference. Just over one quarter were ‘very satisfied’ with surgery opening hours.
We have previously noted the dearth of up to date information about young people’s usage of primary health care services and further research is still needed. Fifteen years ago, Churchill et al. (2000) undertook a survey identifying the range of conditions that prompted young people to seek a primary health care consultation. The most common were respiratory, dermatological and musculoskeletal conditions and problems associated with ears, nose and throat. New data on this topic are now needed urgently. Data on young people’s experiences with the wider range of professionals involved in primary health care – such as practice nurses – are also lacking.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to get appointment to see or speak to someone</td>
<td>65%</td>
</tr>
<tr>
<td>Convenience of the appointment, very good</td>
<td>38%</td>
</tr>
<tr>
<td>Helpfulness of receptionist, very good</td>
<td>33%</td>
</tr>
<tr>
<td>Overall experience of making an appointment, very good</td>
<td>30%</td>
</tr>
<tr>
<td>Satisfaction with opening hours, very satisfied</td>
<td>28%</td>
</tr>
<tr>
<td>Preferred method of booking appointment at GP surgery</td>
<td></td>
</tr>
<tr>
<td>by phone</td>
<td>72%</td>
</tr>
<tr>
<td>on-line</td>
<td>45%</td>
</tr>
<tr>
<td>in person</td>
<td>27%</td>
</tr>
<tr>
<td>Went to the appointment I was offered</td>
<td>36%</td>
</tr>
<tr>
<td>Went to Accident and Emergency instead</td>
<td>11%</td>
</tr>
<tr>
<td>Saw a pharmacist instead</td>
<td>4%</td>
</tr>
<tr>
<td>Other (rearranged appointment, DNA etc)</td>
<td>49%</td>
</tr>
<tr>
<td>Overall experience of the surgery, very good</td>
<td>30%</td>
</tr>
<tr>
<td>Confidence and trust in GP, yes definitely</td>
<td>56%</td>
</tr>
</tbody>
</table>

*Source: GP Patient Survey 2013/14, Ipsos MORI for NHS England*
Child and adolescent mental health services (CAMHS)

Child and adolescent mental health services (CAMHS) are provided through a network of providers offering universal, targeted and specialist services. These are organised in four ‘tiers’. Tier 1 consists of universal services provided through early year services and primary care. Tiers 2 and 3 provide targeted services through youth offending teams, school and youth counselling, and specialist community based psychiatric and psychological services. Tier 4 consists of inpatient and very specialised outpatient services.

As well as the gap in data on prevalence of mental health problems for this age group, there is also a gap in data on CAMHS. In England a new ‘Child and Adolescent Mental Health Services Data Set’ will draw on data from NHS funded providers of CAMHS. But it won’t cover the important provision from the voluntary and independent sectors. They deal with a significant proportion of young people who do not meet the threshold for CAMHS. Despite the lack of data, this is an area of considerable policy debate, with recent reports from the House of Commons Health Committee (House of Commons, 2014), the Child and Adolescent Mental Health Task Force (DH/NHSE, 2015) and the setting of CAMHS waiting times in Scotland (Information Services Division Scotland, 2015).

Data from the NHS Benchmarking Network (2013) assessed an average referral rate to CAMHS across England of 1,357 per 100,000 population aged 0-18. This equates to a rate of approximately 1.5% of the child and adolescent population. Around 10% are likely to have mental health problems which would benefit from intervention (Chapter 5). This demonstrates the lack of capacity in the service to meet potential demand. This figure relates to referrals to Tiers 1-3. Specialised inpatient beds (Tier 4) are very limited with approximately 1,400 across the whole of England. The average waiting time to be seen by CAMHS is 15 weeks, which has been increasing since 2011. Both in England and Scotland the ‘did not attend’ (DNA) rates for appointments in CAMHS are approximately 10% (NHS Benchmarking Network, 2013; Information Services Division Scotland, 2015).

In a survey of 3,750 young people aged 12-16 in UK secondary schools, only five per cent of those at high risk of depression or self-harm had seen specialist CAMHS in the previous six months. Amongst those with probable depression, 79% had seen their GP and five percent had seen specialist mental health services in the preceding year (Sayal et al, 2014).

One of the key issues with CAMHS is the upper age limit, which is usually 18, but can in some cases vary – in some areas of Scotland, for example, services are provided up to 16 only. It is worth noting that many adult mental health services deal with young people within the age range of 18-24.
Hospital admissions

Young people have lower overall morbidity than older age groups and this fact can result in their health needs being overlooked within health design and commissioning. Nationally there are very few hospital facilities specifically for teenagers. Yet many young people are at risk of hospital admission, particularly those with a longterm or chronic condition. Age appropriate services can make an important difference for young people.

Many hospital admissions take place through Accident and Emergency departments. Recent Care Quality Commission estimates place this at 47% of admissions for those aged 12-15 (CQC, 2015). The NHS England Hospital Episode Statistics in Chart 8.9 show relatively low rates of A&E attendance in the five to nine age group, but rates rise through the teens. The 20-24s have the second highest level in all age groups. Altogether, the rate for children and young people is comparable to that for the 65+ age group. A study of 10,455 attendances by 8,303 young people aged 13-17 has shown that reasons for attending Accident and Emergency include injuries (72%), abdominal pain (16%), self-harm (11%), fits, faints and funny turns (10%), breathing difficulties (7%) and intoxication (6%) (Shanmugavadivel et al, 2014).

Source: Shanmugavadivel et al 2014

INJURY IS THE MOST COMMON REASON FOR ATTENDANCE AT ACCIDENT AND EMERGENCY BY 13-17 YEAR OLDS, TOTALLING 72%.

Chart 8.9
Accident and Emergency attendances by age group in England, 2013-14

Source: Balding and Regis (2014). Young People into 2014 » Download data
The emergency admission rate for children under 15 rose 28% from 1999-2010, according to Hospital Episode Statistics (Gill et al, 2013). As Chart 8.10 shows, the rise was less notable in those aged 10-14 years than for the younger age group. The authors note this was primarily due to increases in admissions for common infections, including respiratory tract infections, urinary tract infections and gastroenteritis. Reducing emergency admissions is to everyone’s benefit; it not only reduces NHS costs but also reduces the chance of hospital acquired infections (Gill et al, 2013).

In addition, Hospital Episode Statistics have suggested children and young people from more deprived areas account for a greater proportion of inpatient care than those from more affluent areas (Hargreaves et al, 2012). It is also worth noting that around one quarter of teenagers and young adults with cancer are diagnosed at A&E, having presented as emergencies (National Cancer Clinical Network, 2013).

In 2014 the Care Quality Commission surveyed 19,000 under-16s about their experience of being in hospital. Chart 8.11 shows that among those aged 12-15, 10% were treated on teenage/adolescent wards. This figure has not changed in the 10 years since the 2004 NHS National Young Patient Survey. The 2004 NHS survey also included 16-17 year olds, 62% saying they wanted to be treated on teenage/adolescent wards (Viner, 2007).
CHAPTER 8: Health promotion and use of health services

Transition from children’s to adult services

Increasing numbers of children with long-term conditions are surviving into adulthood because of improved healthcare. Adolescence is a time of moving to independent use of healthcare. Successful management of ongoing conditions can reduce the need for emergency care and improve outcomes. The transition from child services to adult services through the years from 16 to 19 has received increasing attention. Continuity of care is vital in long-term conditions such as diabetes, kidney disease and epilepsy as well as mental health (Royal College of Nursing, 2004; Allen et al, 2010; Brodie et al, 2011; Joint Commissioning Panel for Mental Health, 2012).

However, there are very few data on transition. The first study to follow a systematically identified cohort of young people Singh et al (2010) reported one third were not referred on to adult services and one fifth of those referred on were never seen. Fewer than four per cent were reported to have experienced optimal transition. The study was relatively small and only explored mental health services, but suggests the need for more data on this topic.
Palliative care

Young people do not die very often and a major cause of death is accidents. However, there is still a small but very important group who are likely to require palliative care in their teens and early 20s. From 2005 data it was estimated that 20,088 young people in England aged 0-19 required palliative care and that 1,787 died from causes likely to have required palliative care (Cochrane et al, 2007). Under half of these will be in the 10-19 age group. In the last edition of Key Data on Adolescence (2013) we drew on Hospital Episode Statistics to estimate that there were approximately 750 deaths per year in England among 10-19 year olds from causes requiring palliative care. Others have noted that there are no universal registers of patients with palliative care needs, that patient data are not collected in a consistent form and that definitions of palliative care can vary (Savage, 2011).

Chart 8.12 presents data from a three year period (2006-2009) on deaths from causes likely to require palliative care. The most common causes were neoplasms (cancer in body tissue) and diseases of the nervous system.

The majority of deaths from causes likely to have required palliative care occur in hospital. An estimated 74% of deaths for the 0-19 age group (excluding neonatal) occurred in hospital. Approximately 19% occurred at home and only seven per cent either in a hospice or some other setting such as a psychiatric hospital (Cochrane et al, 2007). New and detailed data would help establish what very ill adolescents need and help ensure the most appropriate location for their care.
<table>
<thead>
<tr>
<th>Category</th>
<th>10-14</th>
<th>15-19</th>
<th>20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neoplasms</td>
<td>337</td>
<td>554</td>
<td>729</td>
</tr>
<tr>
<td>Diseases of the nervous system</td>
<td>285</td>
<td>475</td>
<td>498</td>
</tr>
<tr>
<td>Congenital malformations, deformations and chromosomal abnormalities</td>
<td>148</td>
<td>194</td>
<td>203</td>
</tr>
<tr>
<td>Endocrine, nutritional and metabolic diseases</td>
<td>107</td>
<td>105</td>
<td>166</td>
</tr>
<tr>
<td>Diseases of the circulatory system</td>
<td>100</td>
<td>229</td>
<td>338</td>
</tr>
<tr>
<td>Diseases of the blood, blood forming organs &amp; immune mechanism</td>
<td>45</td>
<td>69</td>
<td>86</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system &amp; connective tissue</td>
<td>42</td>
<td>66</td>
<td>44</td>
</tr>
<tr>
<td>Diseases of the genitourinary system</td>
<td>25</td>
<td>33</td>
<td>72</td>
</tr>
<tr>
<td>Injury, poisoning and certain other consequences of external causes</td>
<td>16</td>
<td>39</td>
<td>26</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>15</td>
<td>26</td>
<td>88</td>
</tr>
<tr>
<td>Diseases of the respiratory system</td>
<td>13</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Certain conditions originating in the perinatal period</td>
<td>11</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Certain infectious and parasitic diseases</td>
<td>10</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>External causes of morbidity and mortality</td>
<td>1</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Mental and behavioural disorders</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Hospital Episode Statistics, NHS Information Centre » Download data
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LIST OF CHARTS
List of Charts

To access the data for each chart, click on the chart title in this list or go to the chart in the text, and then click on 'download data' at the bottom of the chart. This will take you to a simple Excel spreadsheet containing the numbers used in the chart and full details on source.

CHAPTER 2: Demographics

2.1 Usual resident population in the United Kingdom, by five-year age group, 2013 ......................................................... 8
2.2 Proportion of population accounted for by different age groups the UK, 2013 ........................................................................................................ 8
2.3 Population in the UK, by age and gender, 2003 and 2013 ......................... 9
2.4 Ethnic group of those aged 10-19 years in England and Wales, 2011 .......... 10
2.5 Population age distribution in Great Britain, by ethnic group, 2008-10 (combined) ...................................................................................... 11
2.6 Proportion of households in the UK with a 10-19 year old, 2014 .................. 11
2.7 Living circumstances of young people in the UK aged 10-19 years, 2014 ........ 12
2.8 Young people and adults aged 15-34 years living with parents in the UK, by age and gender, UK 2014 ................................................................. 13
2.9 Change in the proportion of young people living at home in the UK, 2002-2012 ................................................. 13
2.10 Families with dependent children in Great Britain, by family type, 1971-2010 ............................................................ 14
2.11 Children aged 11-15 whose parents divorce in England and Wales, 1990-2012 ......................................................................................... 15
2.12 Age specific mortality rates per 1,000 population for children and young people, England and Wales, by gender, 2013 .............................. 15
2.13 Underlying cause of death by age, England and Wales, 2013 ..................... 16
2.14 Common preventable, external causes of death among young people aged 10-24 years in the UK ................................................................. 17

CHAPTER 3: Social determinants of health

3.1 Quintile distribution of income for children in the UK, 2012/13 .................... 20
3.2 Children and young people (0-19) falling below thresholds of low income and material deprivation in the UK, 2010-2013 ................................................. 21
3.3 Employment rates for couple mothers and lone parents in the UK, 2013 ........ 22
3.4 Relative child poverty rates in OECD countries ........................................... 23
3.5 School pupils in England claiming free school meals ................................. 24
3.13 Looked after children in England by ethnic group, 2014 ....................................... 31
3.14 Total looked after children in England, Scotland, Wales and Northern Ireland on 31 March 2013 ................................................................. 31
3.15 Placements for looked after children in England, Scotland, Wales and Northern Ireland on 31 March 2013 .................................................... 32
3.16 Secure estate custody population (12-18 year olds) in England and Wales, April 2000-April 2014 ................................................................. 33
3.17 Unaccompanied asylum seeking children applications received in the UK by age, 2014 ................................................................. 33
3.18 Achievements at GCSE and equivalent at the end of Key Stage 4 in England, 2014 ........................................................................................................ 35
3.19 Time series of GCSE and equivalent entries and achievements in England, 1995/96 to 2013/14 ................................................................. 35
3.20 Pupils in England achieving five or more GCSEs at A*-C by region, 2013/14 ...... 36
3.21 GCSE (5+ A*-C inc English/maths) achievements of looked after children in England, 2008-2013 ................................................................. 37
3.22 Pupils in England achieving five or more GCSEs (inc English and maths) at grades A*-C by ethnic group, 2013/14 ........................................ 38
3.23 Attainment gap between schools with the greatest and smallest proportions of disadvantaged pupils in England, 2013/14 ...................... 38
3.24 Numbers of young people in the UK achieving NVQs/SVQs, 1996/7-2013/14 .......... 39
3.25 Permanent exclusions from secondary schools in England, 2000/1-2012/13 ....... 40
3.26 Exclusions from secondary school in England, by age and gender, 2012/13 ........ 40
3.27 Participation in education and training of 16-18 year olds in England, 1985-2013 ................................................................. 41
3.28 Participation of 16-18 year olds in education, employment and training, in England 2013 ................................................................. 42
3.29 Students entered into Level 3 qualifications in England, 2008-2014 .................. 43
3.30 Students 16-18 years entered for Level 3 qualifications equivalent to at least one GCE at A level in England, by type of institution, 2013/14 ............ 44
3.31 Under-19 apprenticeships achieved in England 2007/8-2013/14 ................................ 45
List of Charts

3.32 Estimates of the proportions of young people not in education or training or employment (NEET) by UK country, 2013-2014 ........................................ 46
3.33 6-18 year olds not in education training or employment (NEET) in England, 1995-2013 .............................................................. 47
3.34 UK domiciled students in UK Higher Education Institutions 1996/7-2013/14 .......... 47
3.35 Initial participation rates in higher education at UK institutions by English domiciled students, by age and gender, 2008/9-2012/13 ..................... 48
3.36 Early leavers from education and training in the EU: % population 18-24 years with, at most, lower secondary education and not in further education or training, 2014 ................................................................. 49
3.37 Unemployment rate for young people aged 16-24 in the UK, 2000-2012 ............ 49
3.38 Unemployment rates for under-25s in selected European countries, 2009-2013 ................................................................. 50
3.39 Estimates for the proportion of young people 19-24 not in education, training or employment (NEET) by UK country, 2013-14 ................................. 51

CHAPTER 4: Health behaviour and Lifestyle

4.1 Proportion of young people aged 8-15 meeting physical activity recommendations by age and sex, Health Survey for England 2012 .............. 56
4.2 Proportions of young people aged 11-15 meeting physical activity recommendations in England, by age and gender, HBSC survey 2014 ............... 57
4.3 Young people aged 11-15 meeting recommended activity levels in England, by age and gender, 2008-2012 ............................................................. 57
4.4 Participation in different physical activities in England, by age and gender, 2012 ................................................................. 58
4.5 Trips to school by main mode for young people aged 11-16, Great Britain, 2012 ............................................................................ 59
4.6 Proportion of young people aged 17-20 holding a full driving licence, Great Britain, 1975/6 – 2013 ..................................................................... 59
4.7 Average daily consumption of ‘five a day’ fruit and vegetable portions in the UK, by age and gender, 2008/9-2011/12 ........................................... 60
4.8 Proportion of young people 11-18 with average daily intakes of minerals below the Lower Reference Nutrient Intake in the UK, by gender, 2008/9—2011/12 .......................................................... 61
4.9 Obesity prevalence among 11-15 year olds in England, by gender, 1995-2013 .... 62
4.10 Body mass index (BMI) prevalence of overweight and obesity, 11-18 year olds in the UK, by gender, 2008/9 – 2011/12 ............................................ 63
4.11 Hospital admissions for bariatric surgery for young people aged 10-24 in England, 2006-2014 ................................................................. 64
4.12 Desire to change weight, 11-15 year olds in England, by gender, 2012 ............ 64
4.13 Proportion of 11-15 year olds in England who were regular smokers, by gender, 2013 ................................................................. 65
4.14 Proportions of 11-15 year olds in England who have ever smoked, by gender, 1982-2013 ................................................................. 66
4.15 Proportions of 11-15 year olds in England who were regular smokers, by gender, 1982-2013 ................................................................. 66
4.18 Prevalence of drinking alcohol in the last week, by age, 2003-2013 ................................................................. 69
4.19 Mean alcohol consumption (units) in the last week by pupils who had drunk, in England, by gender, 2007-2013 ................................................................. 69
4.20 Young people aged 16-24 years drinking on 5 days per week or more, Great Britain, 1998-2013 ................................................................. 70
4.21 Proportion of pupils in England who had used illegal drugs in the last year, by age and gender, 2001-2013 ................................................................. 71
4.22 Summary of drugs taken in the last year, 15 year olds by gender, England, 2013 ................................................................. 71
4.23 Ever smoked, drunk alcohol, or taken drugs, by age, England, 2013 ................................................................. 72
4.24 Injury-related deaths by specific cause in adolescents 10-19 years, 3-year average age standardised death rates, England, 2007-2009 ................................................................. 73
4.25 Average minutes per day of TV viewing, by age, 2006-13 ................................................................. 74
4.26 Daily online activities by age in the UK, 2013 ................................................................. 75
4.27 Proportion of 16-24 year olds who access social networking sites on the internet at home ................................................................. 75
4.28 Adolescents reporting adequate sleep, age 11-15, England, 2014 ................................................................. 76

CHAPTER 5: Sexual health
5.1 Sexual activity of young people aged 16-24, Great Britain, 2012 ................................................................. 81
5.2 Experience of sexual intercourse reported by 15 year olds in England, by gender, 2002-2014 ................................................................. 81
5.3 Use of contraception by women in the UK, by age, 2008/9 ................................................................. 83
5.4 Use of family planning services during the five years prior to interview in the UK, by age, 2008/9 ................................................................. 84
5.5 Young women in contact with sexual and reproductive health services, rate per 100 resident population, by age, England 2013/14 ................................................................. 85
5.6 Contraceptive use among women attending community contraceptive clinics in England, 2013/14 ................................................................. 85
List of Charts

5.7  Answers to the question ‘Is there a special birth control service for young people available locally?’ Year 10 pupils, 2014 .................................................. 86
5.8  Preferred source of information about sex when growing up, 16-24 year olds, Great Britain, 2012 ................................................................. 87
5.9  Under-18 conception rate in England and Wales, 1998-2013 .................. 88
5.10 Under-18 conception rate in Scotland, 1998-2012 ................................. 89
5.11 Under-16 conception rate in England and Wales, 1998-2013 .................. 89
5.12 Under-16 conception rate in Scotland, 1998-2012 ................................. 90
5.13 Birth rates for women aged 15-19 in Northern Ireland, 1998-2013 .......... 90
5.14 Births per 1,000 girls aged 15-19, UNICEF international comparisons 2013 .... 91
5.15 Rates of new STI diagnoses by age group and gender England 2014 .......... 92
5.16 Rates of selected STI diagnoses per 100,000 population in the UK, by age and gender, 2014 ................................................................. 93
5.17 Rates of Chlamydia diagnoses per 100,000 population in England, by age and gender, 2003-2013 ................................................................. 94

CHAPTER 6: Mental health and wellbeing

6.1  Prevalence of mental disorders in 11-16 year olds in Great Britain, by gender, 2004 ........................................................................................................ 99
6.2  Prevalence of mental disorders among 11-16 year olds in Great Britain, by ethnicity, 2004 ......................................................................................... 99
6.3  Prevalence of mental disorders among 11-16 year olds in Great Britain, by educational qualification of parent, 2004 ........................................ 100
6.4  Trends in mental disorders in 11-15 year olds in Great Britain, by gender, 1999 and 2004 ................................................................. 101
6.5  Parents’ reports of children’s symptoms of depression or anxiety, by gender, 1986 and 2006 ........................................................................ 102
6.7  Hospitalisations for self-harm by methods other than poisoning, 10-24 year olds, England, 2014 ................................................................. 104
6.8  Hospitalisation for self-harm rates (per 100,000) among 10-19 year olds in England, 2007/8 – 2013/14 ................................................................. 105
6.9  Age specific suicide rates (per 100,000) in the UK, by gender and age, 1981-2013 ......................................................................................... 106
6.10 Age/gender standardised prevalence and time trends in frequent physical fighting in children aged 11-15, selected countries, 2002 and 2010 .......... 108
6.11 Rates of hyperkinetic disorders in 11-16 year olds in Great Britain, by gender, 1999 and 2004 ........................................................................................................ 109
6.12 Hospital admissions for eating disorders, 10-24 year olds by gender, England, 2013/14 ..................................................................................................................... 110
6.14 Personal wellbeing measures as reported by 16-24 year olds, UK, 2014 ............................................................ 112
6.15 Unicef overview of child wellbeing in rich countries ......................................................................................... 113

CHAPTER 7: Physical health, longterm conditions and disability
7.1 Prevalence of lifetime doctor-diagnosed asthma in England, by age and gender, 2010 .................................................................................................................. 119
7.2 Hospital admission of 10-19 year olds for asthma, 2006/7 to 2013/14 ............................................................................. 120
7.3 Hospital admissions of 10-19 year olds in England for diabetes, 2006/7-2013/14 ............................................................... 121
7.4 Hospital admissions of 10-19 year olds in England for epilepsy, 2006/7-2013/14 ................................................................. 122
7.5 Cancer incidence for 15-24 year olds by countries of the UK, by gender, 2008-2010 ......................................................................................... 123
7.6 Teenage and young people’s cancers in the UK by diagnostic group, 2013 ............................................................. 123
7.7 Prevalence of impairment types for young people and adults aged 16-34 in Great Britain, 2009/10 ......................................................... 125
7.8 Proportion of pupils with special educational needs (without statements) in English state-funded secondary schools, 2014 ........................................................................ 125
7.9 Participation restrictions experienced by children aged 11-15 in Great Britain, 2009/11 ......................................................................................... 126
7.10 Barriers to participation experienced by children aged 11-15 in Great Britain, 2009/11 ......................................................................................... 127

CHAPTER 8: Healthcare
8.1 Sources of helpful information about drug use, school pupils in England, 2013 ................................................................................................. 133
8.2 Where 12-15 year olds first go for help or information about emotional and physical health issues, 2013 ................................................................. 134
8.3 Preferred sources of information about sex when growing up, young people aged 16-24, Great Britain, 2012 .................................................................... 135
List of Charts

8.5 GP consultation rates for young people in England, by age and gender, 1995/6-2008/9 ................................................................. 137
8.6 Last visit to the doctor by Year 10 pupils, 2014 ............................................. 137
8.7 Extent to which young people felt at ease with their GP at their last visit, by age and gender, 2012 .............................................................. 138
8.8 Experiences in general practice of young people aged 16-24, England, 2014 ......................................................................................... 139
8.9 Accident and Emergency attendances by age group in England, 2013-14 ...................................................................................... 141
8.10 Trends in emergency admissions to hospital for 10-14 year olds, England, 1999-2010 ................................................................. 142
8.11 Young people’s views on hospital inpatient experiences, 12-15, England, 2014 .................................................................................. 143
8.12 Deaths in England from causes likely to require palliative care, by age, 2006-2009 .................................................................................. 145
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“Key Data on Adolescence contains a wealth of incredibly useful information. It casts a much-needed light on this really important area, allowing researchers to further explore the lives of our young people. It provides insights to policy makers and service providers in planning and implementing programmes that will further improve young people’s health outcomes.”

Prof Ian Lewis and Christine Lenehan
Children and Young People’s Health Outcomes Forum co-chairs

“Key Data on Adolescence is essential for anyone who has an interest in young people. As well as a focus on health behaviour and use of services Key Data looks at the broader context of young people’s lives. This is vital to inform our understanding of young people’s development as a context for providing better services.”

Prof Sally Kendall
Director, Centre for Research in Primary and Community Care,
University of Hertfordshire

“Key Data on Adolescence remains a vital tool to improve our understanding about the lives of young people in totality. We need robust information about young people’s health behaviours and their use of health services to better meet their needs and crucially to support their transition into adulthood as they move from Child and Young Person centred to Adult delivered services”

Dr Jacqueline Cornish, OBE FRCP (Lond) Hon FRCPCH DSc(Hon)
National Clinical Director Children, Young People and Transition to Adulthood Medical Directorate, NHS England.

“Key Data on Adolescence remains an essential tool for bringing young people to national attention, vital for the clinician, researcher or policymaker alike.”

Prof Russell Viner, Professor of Adolescent Health, UCL Institute of Child Health

“Information drives change. Key Data 2015 will help local areas plan and deliver services based on up to date information about young people’s health and wellbeing and the context in which they live.”

Dr Ann Hoskins, PHE Deputy Director, Health and Wellbeing, Healthy People.

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