Proportion of children at a healthy weight during their final year of primary school

Key messages

- Weight status at the end of primary school, like earlier in childhood, is an important predictor of health outcomes later in life.

- Monitoring of trends in weight status across childhood helps identify pivotal points during childhood to intervene and prevent children becoming overweight and obese.

- In England, the proportion of children at healthy weight at Year 6 has stayed fairly constant since 2007, although there was an increase in the proportion of obese children in 2015/2016.

- Children living in the most deprived areas are more likely to be overweight or obese compared with children in the least deprived areas.

What is this indicator showing us?

This indicator shows us the proportion of children in England who are a healthy weight, underweight, overweight and obese in Year 6 (aged between 10 and 11 years), using a measure of Body Mass Index (BMI).

Data availability and comparability

Data on children’s weight status at Year 6 are only available in England - see Indicator 3.1 for a cross-country comparison for healthy weight when starting school. The data for children aged 10.5 to 11.5 years were obtained through the National Child Measurement Programme98. The child measurement programmes in Wales and Scotland only capture data on children aged between four and five years of age and cannot be used for this indicator (see additional data note).

Proportion of children at a healthy weight in their final year of primary school in England

Latest data: In 2015/2016, 65% of children in Year 6 in England were within the healthy weight BMI centile.

Trend: Since 2006/2007 there has been a small decrease (2%) in the percentage of children leaving school in Year 6 who are within the healthy weight BMI centile. During the same time period the percentage of children who leave school in Year 6 identified as obese has increased by 3% from 17% to 20%.

Spotlight on inequalities

Children are at a much greater risk of being overweight or obese if they grow up in deprived circumstances. Obesogenic environmental factors are concentrated in deprived neighbourhoods. In 2015/2016, 40% of children in England’s most deprived areas were overweight or obese, compared to only 27% in the least deprived areas. These inequalities appear to be rising. The prevalence of obesity and overweight among Year 6 pupils is increasing among the most deprived groups. In comparison, the rate is consistently lower among the least deprived groups (most deprived 40% in 2015/2016 compared to 38% in 2010/2011; least deprived 27% in 2015/16 and in 2010/2011).

Figure 4.1.2: Prevalence of overweight and obesity among Year 6 pupils in England by deprivation quintile (first and fifth) 2010/2011 to 2015/2016

Why is this indicator important?

The childhood obesity epidemic presents one of the greatest health threats to children and their future. This threat is now universal across all countries, rich and poor.

Weight status in childhood is an important predictor of overweight, obesity, health, and mortality risk across the life-course. Overweight also has a major impact on health and wellbeing in childhood.

Being overweight or obese during childhood can:

- lead to an increased risk of a host of conditions including Type 2 diabetes, high blood pressure, cardiovascular disease and bowel cancer
- negatively impact educational attainment
- lead to low self-esteem and negative body image, and limit the ability to take part in physical activity
- increase visits to GPs

Measuring children’s weight at school entry and Year 6 provides an opportunity to map trends and identify pivotal points during childhood to intervene in order to prevent overweight and obesity and to improve the health of future generations.

The children and young people we consulted told us that the following things were important to them:

- healthier canteen: healthy options should be less expensive than unhealthy options
- having a healthy environment: when junk food is all around and your peers are eating unhealthily you are more likely to make poor choices
- for young people to hear from an inspirational person about the importance of physical activity: sporting stars could do more, such as going into schools to encourage young people to participate in sports

(RCPCH & Us Voice Bank 2016)
Where are we now in the UK?

In 2015/2016 just over three in every five (65%) Year 6 children in England were classed as having a healthy weight, and this has remained fairly constant since 2007/2008.

The risk of being overweight or obese increases as children progress through primary school. In Reception class, around 20% of children are overweight or obese, rising to around a third of children by the time they are in Year 6.

Globally, there is a rising trend of obesity prevalence; however, there is variation among countries\textsuperscript{148}. Data from 2010 show that around one in five children aged 3 to 17 years were overweight or obese in wealthy countries in the OECD (21% of boys and 23% of girls). The UK prevalence was slightly higher than the OECD average (22% of boys and 22% of girls), compared with 14% of girls and 15% of boys in Norway and 44% of boys and 38% of girls in Greece.

What does good look like?

Childhood obesity is very largely preventable. Therefore, we should aim for a decrease in the proportion of children who are overweight or obese across all countries. A logical target is 5%, the expected prevalence of obesity arising from the definition of obesity as BMI at or over the 95th centile when the UK growth reference was devised. Reductions in underweight should also be a target.

How can we improve?

There are many complex factors that create an obesogenic environment, shape behaviours and, together with some biological risk factors, affect the likelihood of a child being overweight or obese. These include maternal stress and smoking, maternal nutrition, genetics, breastfeeding status, weaning and food choices, timing of puberty, primary and secondary school, societal influences, and the workplace and the family environment\textsuperscript{149}. These factors also contribute to overweight and obesity being passed down through generations\textsuperscript{102}.

The WHO Report on Ending Childhood Obesity 2016 emphasised the need for coordinated cross-sectoral action and a strong focus on actions in pregnancy and early life\textsuperscript{102}. A full set of policy recommendations is set out in the RCPCH 2015 report *Tackling England’s Childhood Obesity Crisis*\textsuperscript{110}.

Key actions

- Enact cross-government childhood obesity strategies across all countries, including rigorous evaluation of their impact.
- Robust evaluation to monitor the effectiveness of the proposed sugar levy and other sugar-reduction initiatives on sugar-sweetened beverages in all countries.
- Expand nutritional standards to all schools. Make school-based health education a statutory subject in all schools, fostering and focusing on the importance of both physical activity and nutrition.
- Introduce a ban across the UK on the advertising of foods high in saturated fats, sugar and salt before 9pm, and evaluate the impact of online food marketing on children.
- Extend the reach and effectiveness of universal measurement programmes in different countries to include an increase in the number of measurement points and longitudinal tracking of children, starting much earlier in childhood. There should be sharing of data with general practitioners, school nurses and parents. Introduce Year 6 and P6 cohorts in child measurement programmes in Scotland, Wales and Northern Ireland.
- Support a research environment that enables sustained, long-term expansion of basic science and applied research to identify the causes of obesity and effective interventions to tackle it.
- Ensure that overweight and obese children have timely access and support to attend evidence-based healthy weight programmes, via prescriptions or referrals by their GP.
- Ensure children with significant underweight have timely access to specialist child health services.
**Additional data note**

BMI is calculated as weight divided by height squared (kg/m²) and is a measure of weight independent of height. Assessing BMI in children is more complicated than in adults, because children’s BMI will change as they grow and mature. BMI centiles are therefore used to measure how far a child’s BMI is above or below the average BMI value for their age and sex and usually categorised as underweight, healthy weight, overweight or obese.

Categories based upon BMI centiles are calculated for surveillance purposes as follows:

- **Underweight**: a BMI centile less than or equal to the 2nd centile
- **Healthy weight**: a BMI centile greater than the 2nd centile but less than the 85th centile
- **Overweight**: a BMI centile greater than or equal to the 85th centile but less than the 95th centile (i.e. overweight but not obese)*
- **Obese**: a BMI centile greater than or equal to the 95th centile

Data for ages two to 15 years are collected as part of The Scottish Health Survey. However, because this is aggregated we are not able to make country comparisons. Data are collected in Northern Ireland as part of the Health Survey Northern Ireland but are aggregated for ages two to 10 years.
Chapter 4: School age/adolescence

4.2 Human Papilloma Virus (HPV) vaccination

Proportion of girls who have received the completed Human Papilloma Virus (HPV) course of immunisation

Key messages

- The Human Papilloma Virus (HPV) vaccination during adolescence is a highly effective public health measure to prevent cervical cancer and genital warts.

- The UK has one of the highest coverage levels for HPV (over 80% of girls have completed their HPV course), probably due to the school-based delivery mechanism in the UK.

- HPV coverage provides data on the performance of school immunisation services for adolescents.

- Girls of black and ethnic minority background, and girls not in mainstream education, are less likely to take up or complete the vaccination course.

- Universal HPV vaccination for adolescent boys should be considered across the UK.

What is this indicator showing us?

This measure tells us how many adolescent girls have been fully immunised against the Human Papilloma Virus (HPV) (i.e. received all three doses of the vaccine until 2014, when it was changed to two doses) since the UK government’s immunisation programme commenced in 2008.

Data availability and comparability

Data on the uptake of the HPV vaccine are available from the beginning of the vaccination programme in 2008 to the school year 2013/2014 for England, Wales, Scotland and Northern Ireland. Data are for 12-to 13-year-old girls in school Year 8 in England and Wales, in school Years S2 and S3 in Scotland and Year 8 in Northern Ireland (see additional data note).

Human Papilloma Virus (HPV) vaccination rates in England, Northern Ireland, Scotland and Wales

![Graph showing HPV vaccination rates](image)

Latest data: In 2013/2014 83.5% of girls in Wales, 86.7% of girls in England, 87.2% of girls in Northern Ireland and 88.8% of girls in Scotland received all three doses of the HPV vaccine.

Trend: The percentage of girls completing the HPV course only once dropped below 80% in any of the UK nations (75.4% in England in 2009/2010). Generally, the percentage of girls completing the vaccine course has remained steady between 80% and 90%.

Source: Public Health England; Public Health Wales; Information Services Division, Scotland; and Health Protection Surveillance Centre, Northern Ireland.

Figure 4.2.1: Proportion of girls receiving the complete course of the HPV vaccine, 2008/2009 to 2013/2014
Why is this indicator important?

This indicator tells us how many girls have been protected from HPV during their teenage years and young adulthood, the time when HPV infection is highest.

HPV is a group of over 100 common, very contagious types of viruses, sub-groups of which are linked to cancer and genital warts. Some types of HPV are present in most cases of cervical cancer and a smaller proportion of other anogenital and head and neck cancers which can affect both men and women. Protection against HPV infection can also protect against at least seven out of 10 cervical cancers.

In 2008 the UK government began a vaccination programme in 12- to 13-year-old school girls to protect them against the two types of HPV that are linked to 70% of cervical cancer cases in the UK. The original vaccine was changed in 2012 to one that protects against a further two types of HPV that cause the majority of genital warts.

High vaccination rates during adolescence are also an important measure of the overall health system effectiveness for this section of the population.

Where are we now in the UK?

HPV vaccination uptake rates across the four nations in the UK are relatively high, with 84% to 89% of girls in the target year groups receiving all three doses of the vaccine. Rates of vaccination are generally highest in Scotland, with 89% of girls receiving all three doses in the 2013/2014 school year compared to 87% in England, 84% in Wales and 87% in Northern Ireland.

Originally, girls received three doses of the HPV vaccine, but in 2014 this changed to two doses given between six and 24 months apart, as studies showed that two doses were as effective as three.

Rates of a completed vaccination course among girls in the UK are higher than in Australia (73.1%) and the USA (39.7%), while in Europe only seven out of 21 countries with a HPV vaccination programme have achieved coverage rates of over 80%.

Spotlight on inequalities

Reports on English data have shown that black and ethnic minority girls were less likely to take up the HPV vaccine than white British girls, as were girls who were not being educated in mainstream schools, i.e. those being home schooled, in special needs schools or those in a hospital or young offenders education unit.

A study on the effect that deprivation has on HPV vaccination rates has shown girls living in the most deprived areas in England were only marginally less likely to receive the vaccine.

In Scotland, while the uptake of the first dose of the vaccine is not affected by deprivation, it has been reported that increasing levels of deprivation are associated with lower uptake of the second and third doses of the vaccine.

What does good look like?

An effective vaccination programme should be taken up by as much of the target group as possible. This will ensure that the greatest number of girls and women are protected from HPV infection and will also provide protection to unimmunised males and females through what is known as herd immunity (i.e. the overall prevalence of the disease across the population is reduced).

High vaccination coverage in the UK compared to the US is likely to be in part due to the UK having a successful school-based vaccination programme.

Studies which have modelled the long-term impact of the HPV vaccine, using a coverage of 80%, predicted large reductions in the number of women that would be diagnosed with cervical cancer and die from it.

Although it is still too early to see the real impact of the vaccine on cervical cancer in the UK, data from sexually active women aged 16 to 18 years undergoing chlamydia screening show that infection with cancer-causing HPV was 66% lower than before the vaccination was available. Studies from Australia have also shown that the number of girls under the age of 18 who have abnormal cervical cells detected at their smear test has fallen significantly since the introduction of the vaccination programme.
How can we improve?

In order to maintain a vaccination rate above 80%, there must be continued promotion of the vaccination to young people and families, including education and awareness programmes which tackle concerns such as those that link the vaccine to increased sexual activity, which have been shown to be false\textsuperscript{168,169}.

HPV vaccination status should be recorded on local child health information systems and GP records. This will allow identification of those who missed vaccination before their 18th birthday. Vaccination data should also be linked with the NHS systems that will invite women for cervical screening.

Consideration should also be given to extending the vaccination programme to adolescent boys, as the virus is associated with a number of non-cervical cancers which are more common in men (such as anal and oropharyngeal cancer) for which there are no screening programmes, as well as with genital warts\textsuperscript{159}.

Adolescent boys are not currently offered the vaccine in the UK. In Australia, however, the HPV vaccination is provided free to all boys and girls aged 12 to 13 years\textsuperscript{170}. There is evidence that immunising boys strengthens herd immunity, protects them from other diseases associated with HPV, and ensures universal, equitable access for both genders\textsuperscript{171}. However, extending the programme to adolescent boys still requires further evidence of cost-effectiveness\textsuperscript{172}.

### Key actions

- Increase knowledge and awareness amongst girls and their families of the importance of the HPV vaccine.
- Further research is required into the long-term effectiveness of the vaccine, including continued assessment of the optimal number of vaccine doses.
- Further research to identify population groups less likely to commence or complete the vaccination course, including an exploration of barriers to access.
- Ensure data on HPV vaccination are linked to child health data systems and cervical screening systems.
- Examine the cost effectiveness of extending HPV vaccine to adolescent boys in the UK.

### Additional data note

From 2014 onwards data coverage is incomplete as data on the numbers of girls receiving the vaccine are collected annually in the academic year following the year the vaccinations were received, and so this information is still being collected and summarised.
4.3 Smoking in young people

Proportion of regular smokers aged 15 years

Key messages

- Smoking continues to be the greatest single cause of avoidable mortality in the UK. Starting to smoke during adolescence increases the likelihood of being a life-long smoker.

- Latest figures show that the percentage of 15-year-olds smoking regularly is 6% in England and 8% in both Wales and Scotland. Smoking is rarely initiated after adolescence.

- Significant inequalities in adolescent smoking persist, with higher rates of smoking in young people from deprived populations.

- Tobacco control measures across the whole population are the most effective measures for reducing smoking and smoke exposure in children and young people.

What is this indicator showing us?

This indicator shows the percentage of 15-year-olds who report that they are ‘regular smokers’, with ‘regular’ defined as smoking at least one cigarette a week (see additional data note).

Data availability and comparability

Data are available for England\(^{73}\), Scotland\(^{74}\) and Wales\(^{75}\) showing the percentage of regular smokers at aged 15 years, from 1982 to 2014. Data from England have been taken from the report Smoking, Drinking and Drug Use Among Young People in England in 2014; data from Scotland are from the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS), and data from Wales are from the Health Behaviour in School-Age Children (HBSC; from 1998 onwards). There are no comparable data for Northern Ireland.

Smoking rates among young people in England, Scotland and Wales

![Figure 4.3.1: The proportion of regular smokers at age 15 in England, Scotland and Wales by sex, 1982 to 2014](image)

Latest data: Percentage of 15-year-olds recorded as regular smokers - England 2014: 5% boys and 6% girls; Wales 2013/2014: 7% boys and 9% girls; Scotland 2013: 8% boys and 9% girls.

Trend: There has been a steady decline across all countries and both sexes in the overall number of 15-year-olds recorded as regular smokers since 1998.

Source: Data from England have been taken from Smoking, Drinking and Drug Use Among Young People in England in 2014; data from Scotland is from SALSUS; data from Wales is from HBSC.
Spotlight on inequalities

Smoking is the single most important cause of inequalities of health in the UK. When smoking rates are assessed by levels of deprivation, adolescents of lower socioeconomic status (SES) continue to have much higher levels of smoking than their wealthier counterparts (see Figure 4.3.2). In addition, the SALSUS survey in Scotland found a very clear association between the SES of young smokers and their age of initiation, with lower SES smokers starting at a younger age.

![Figure 4.3.2: Proportion of regular smokers at age 15 by Index of Multiple Deprivation (IMD) quintiles (fifth of population) in England (2014) and Scotland (2013)](image)

Why is this indicator important?

Smoking causes approximately 96,000 deaths in the UK each year, including 80% of all deaths from lung cancer, 80% of deaths from bronchitis and emphysema, and 14% of deaths from heart disease. More than a quarter of all cancer deaths are related to smoking.

The main source of tobacco exposure for children is now passive exposure, particularly through parents and carers. Yet active smoking remains a problem, with many thousands of young people still starting to smoke each year in the UK. Smoking has diverse effects on young people's health, including reduced lung function, higher risk of asthma, reduced exercise tolerance, and even impaired growth.

As smoking behaviour is almost always established during adolescence, preventing children from starting smoking is a priority. Most adult smokers have had their first cigarette or were already addicted to nicotine by age 18, and 90% of lifetime smoking is initiated between the ages of 10 and 20 years in the UK.
Where are we now in the UK?

Latest figures show that the percentage of 15-year-olds smoking regularly is at an all-time low at 6% in England (2014) and 8% in both Wales (2013/2014) and Scotland (2013). Data from the past 30 years show an encouraging trend with the rates of 15-year-olds who are smoking regularly declining each year. Rates appear similar in boys and girls in each country (see Figure 4.3.1).

All three countries use self-reported data on smoking habits; however, this has been shown to be a valid and stable indicator of current smoking behaviour in young people180.

Comparable data from across Europe are available from the HBSC survey175. In 2013/2014 this showed that England had amongst the lowest levels of smoking in Europe, ranked 7th out of 42 countries, with Wales at 9th, and Scotland at 15th (Northern Ireland was not included in the survey). The lowest levels of regular smoking at aged 15 were recorded in Armenia (1% for girls and 5% for boys) and Iceland (3% for girls and 3% for boys).

A pragmatic target to reduce regular and occasional smoking among 15-year-olds to 2% by 2025181 has been suggested.

Variation between the rich and poor tells us what could be achieved. If rates of smoking in all young people aged 15 years in England, Scotland and Wales were to equal those of the least deprived areas of England (i.e. 3%), there would be approximately 36,500 fewer young people smoking across the three nations.

It is important to remember that the main source of tobacco exposure for children and young people is parental smoking. Tobacco control measures have led to a fall in children's exposure to second-hand smoke by 79% between 1998 and 2012 in England; however, around one-third of children still had evidence of smoke exposure in 2012182, indicating the need for further efforts to control direct and indirect tobacco exposure.

How can we improve?

The most effective methods of reducing smoking and passive smoke exposure amongst children and young people are policy measures that affect the whole population. Measures include taxation, retail controls, and extending bans on smoking in public places. The introduction of standardised packaging of cigarettes across the UK from May 2016 is a further positive step to reduce exposure and de-normalise smoking183-186.

It is essential to reduce smoking in pregnancy, as it is a risk factor for adverse birth outcomes and because children born to women who smoke in pregnancy are more likely to become smokers themselves (see Indicator 2.1). Services to stop smoking among parents are a further important step in protecting children and young people's health.

Actions focused on reducing initiation amongst young people are also needed – both for their immediate benefit but also to contribute to reducing smoking across the population.

Experimentation with smoking in early adolescence represents a developmental vulnerability to social influence, particularly from peers and adult role models, as well as a desire for perceived status36. The duration of smoking and number of cigarettes required to establish nicotine addiction are lower for adolescents than adults; consequently, addiction is established more quickly187.

Interventions must continue to reduce the accessibility and affordability of, and exposure to, cigarettes for children and young people.

What does good look like?

The negative health consequences caused by smoking are well established. The UK should be aiming for a tobacco-free society – and at the very least a tobacco-free childhood. This means no young people under 18 years of age taking up smoking or exposed to smoke from parents or others.

Children and young people identified the various influences they felt concerning smoking:

- older siblings
- family members
- peers
- television / media

Although the dangers of smoking cigarettes appear to be widely accepted and understood, the children and young people we consulted had mixed views concerning the use of electronic cigarettes, suggesting confusion as to the health risks and long-term effects.

(RCPCH & Us® Voice Bank 2016)
Reducing adult smoking, particularly around children, and maintaining bans on cigarette promotion are the most effective ways to reduce exposure to pro-smoking modelling behaviour.

Direct interventions with young people to reduce smoking initiation can have small individual effects that are important at the population level. Some of the most effective interventions have been peer-led\(^{188,189}\).

Banning smoking in private vehicles carrying children under the age of 18 was a welcome development in England and Wales; however, consideration should be given to extending this to all private motor vehicles in the UK, with implementation supported by high-impact and sustained public health campaigns and advice from health professionals\(^ {190}\).

Electronic cigarettes are not recommended for young people, and it is illegal to sell them to anyone under 18 or to buy them on their behalf in the UK. There is little evidence that nicotine replacement products are effective in helping young people to quit. Young smokers who want to quit should be referred to specialist behavioural stop-smoking support.

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### Key actions

- Increase knowledge and awareness of the harms of smoking amongst children and young people through statutory evidence-based, personal health education in schools.
- Extend bans on smoking in public places and in vehicles, coupled with sustained public health campaigns about the dangers of second-hand smoke for children and young people.
- Protect and extend population level tobacco control measures and individual level stop-smoking services for children, young people, and their parents.
- Continue to monitor the impact of electronic cigarettes on smoking behaviour in children and young people.
- Strengthen data capture across the UK so rates of smoking in young people can continue to be monitored and compared.

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### Additional data note

Three different sources of data were used. The HBSC data used for the Wales sample also recorded data for England and Scotland. However, *Smoking, Drinking and Drug Use Among Young People in England in 2014* and the SALSUS for Scotland were chosen because they had significantly larger sample sizes for these countries than the HBSC. Each survey asked a sample of 15-year-olds how many cigarettes they smoked a week. The samples were selected from different schools and regions within each country.

These data define ‘regular smoking’ as at least one cigarette per week, yet in a 2014 survey pupils classed as ‘regular smokers’ recorded a mean number of 31.1 cigarettes a week\(^ {173}\), consequently the definition of ‘regular smoker’ allows for a significant variation in levels of actual smoking.
Chapter 4: School age/adolescence

4.4 Alcohol and drug use

Proportions of regular alcohol users and those who have ever used cannabis aged 15 years

Key messages

- Alcohol and cannabis use in young people has significantly declined over the past decade, but the UK still ranks poorly among other European countries.

- In 2013, 9% of pupils in England had drunk alcohol in the last week, compared to 25% in 2003\textsuperscript{191}.

- Alcohol and drug use among school-aged children often predicts negative social and health outcomes into adulthood\textsuperscript{192,193}, making health promotion activities at school a vital opportunity for intervention.

- Whilst the prevalence of drug use in young people has steadily fallen, this decline has slowed since 2013, with 15% of pupils reporting that they had ever taken cannabis\textsuperscript{191}.

What is this indicator showing us?

This indicator shows the proportion of 15-year-olds in England, Wales and Scotland who report that they are regular drinkers (i.e. drink at least once a week) and the proportion of 15-year-olds who have ever used cannabis.

Data availability and comparability

Survey data on reported weekly alcohol use and whether young people have ever used cannabis are available in England, Wales and Scotland and are collected through the Health Behaviour in School-Aged Children Survey\textsuperscript{175} (HBSC). Comparable data for Northern Ireland are not available.

Alcohol and drug use among young people in England, Scotland and Wales

![Figure 4.4.1: Proportion of 15-year-olds in England, Scotland and Wales who drink alcohol weekly](image-url)

Latest data: Proportion of 15-year-olds reported drinking alcohol weekly - England 2013/2014: 12% boys and 10% girls; Wales 2013/2014: 14% boys and 12% girls; Scotland 2013/2014: 16% boys and 12% girls.

Trend: Across all three nations there has been a steady decline in the overall number of 15-year-olds regularly drinking since 2002. The data show a minimal gender gap at age 15 in the latest data in all countries, suggesting drinking amongst girls is now similar to amongst boys.

Why is this indicator important?

Alcohol and drugs are some of the leading risk factors for overall burden of disease in the UK\textsuperscript{194}. Substance misuse and abuse are preventable problems with major sequelae for young people, families and society.

Alcohol use can negatively impact upon a young person’s friendships, the relationship with their parents and carers and the dynamics of their peer group, as well as affecting their short- and longer-term educational performance\textsuperscript{192}.

Young people between the ages of 15 and 17 years are more likely to binge drink (drinking multiple drinks in a row), which is linked with other health risk behaviours such as:

- unprotected or regretted sexual activity\textsuperscript{195}
- antisocial and criminal behaviour\textsuperscript{195}
- self-harm and thoughts of suicide\textsuperscript{196}

Those who drink alcohol regularly from an early age are more likely to develop later alcohol misuse or abuse and a range of other negative health and social outcomes when they reach adulthood\textsuperscript{192}. Alcohol is also a risk factor for many adult diseases, including a range of cancers and cirrhosis.

Frequent cannabis use in young people can be associated with negative mental health experiences such as depression, anxiety and even psychosis\textsuperscript{193}. Cannabis and alcohol may also act as a gateway to other drug use, although this remains controversial.

Latest data: Proportion of 15-year-olds reported to have ever used cannabis – England 2013/14: 19\% boys and 19\% girls; Wales 2013/14: 17\% boys and 16\% girls; Scotland 2013/14: 20\% boys and 14\% girls.

Trend: Across all three nations there has been a steady decline in the overall number of 15-year-olds reporting to have tried cannabis since 2002. Similarly to alcohol, sex differences appear to be diminishing.

Source: Health Behaviour in School-Aged Children Survey, World Health Organisation

Children and young people told us that they are more likely to listen to and take note of people who have had experience of drug and alcohol abuse, and then been rehabilitated, such as Robert Downey Jnr., rather than being lectured to by a teacher. They also called for greater access to adults they feel comfortable talking to, who may also be able to offer non-judgemental guidance.

(RCPCH & Us\textsuperscript{®} Voice Bank 2016)

Where are we now in the UK?

Alcohol: In 2013/2014, data from the HBSC survey showed that 13\% of 15-year-olds surveyed in Wales, 11\% in England and 13.5\% in Scotland reported drinking alcohol at least once a week. These figures are in line with the average for all European nations (13\%) who took part in the survey. Across the three nations these figures have declined considerably since 2001/2002, with declines of 43\% in Wales, 41\% in England and 30\% in Scotland. Data on reported drunkenness in Northern Ireland show that almost a quarter (23\%) of young people 11 to 16 years report that they have been drunk more
than twice\textsuperscript{197}. HBSC data for England, Scotland and Wales also show that there has been a decline in the number of 15-year-olds reporting that they have been drunk on two or more occasions, from 55% to 31% between 2002 and 2014\textsuperscript{175}.

\textbf{Cannabis:} In 2013/2014, HBSC data showed that 19% of 15-year-olds surveyed in England, 16.5% in Wales and 17% in Scotland reported having ever tried cannabis. These figures are slightly higher than the average (15%) for all European nations that took part. Across all three nations these figures have declined since 2001/2002, with declines of 17.5% in Wales, 21% in England and 20% in Scotland.

Cannabis use in children between 11 and 16 years old in Northern Ireland has shown a similar pattern of decline, with 14% reported to have used cannabis in 2000 but declining to 5% by 2013\textsuperscript{175}.

\textbf{What does good look like?}

The negative health consequences associated with alcohol and cannabis are well established; therefore, the UK should be aiming for young people to enjoy a cannabis-free adolescence and to minimise alcohol use. The Chief Medical Officer advised children, parents and carers that an alcohol-free childhood is the healthiest and best option. However, if children do drink alcohol, it should be infrequently, until at least the age of 15, and with adult supervision\textsuperscript{198}.

Whilst progress is being made in both alcohol and cannabis, the UK compares poorly to other European countries\textsuperscript{175}. Data from the HBSC survey ranked England, Wales and Scotland 16th, 21st and 22nd respectively out of 42 European countries that reported 15-year-olds drinking alcohol at least once a week. The best performing country reported just 2.5% of 15-year-olds drinking weekly\textsuperscript{175}.

\textbf{Spotlight on inequalities}

Alcohol use is often found to have either no social gradient or a reversed social gradient (i.e. more use amongst the wealthy) amongst adolescents, which is thought to represent issues of status and access\textsuperscript{175,199}. This is shown in Figure 4.4.3 using data from the \textit{What About YOUth?} Survey in England reporting the occurrence and regularity of alcohol use amongst 15-year-olds by quintile (population fifth) of deprivation. Data from the Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) show no significant social inequality associated with 15-year-olds reporting having had a drink in the last week\textsuperscript{174}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure_4.4.3.png}
\caption{Frequency of drunkenness over the last 4 weeks of 15-year-old pupils in England who have had an alcoholic drink in their lifetime by Index of Multiple Deprivation Quintile\textsuperscript{176}}
\end{figure}
How can we improve?

Due to the potential addictive nature and psychological impact of cannabis and alcohol use, it is far better to prevent young people from initiating substance use than to deal with the consequences of their use later in adolescence or young adulthood. Once young people have initiated these behaviours, early intervention is crucial to ensuring that children and young people encountering issues with substance use are provided with appropriate support to minimise ongoing harm\(^\text{200}\).

Prevention starts with ensuring young people have the knowledge and skills to make informed decisions about their health and wellbeing. Young people who have spoken to the RCPCH have highlighted the need to bring discussions about alcohol and drugs into the classroom, and have also highlighted that they are more likely to acknowledge the negative impacts of alcohol and drug use through peer-led learning\(^\text{201}\). NICE guidelines recommend that education on alcohol is tailored to children's age and social background and that it should enable young people to explore the impacts alcohol has on their physical, social and mental health\(^\text{202}\).

Health professionals including paediatricians also have a key role, with NICE guidelines recommending that primary care professionals be appropriately trained to deliver extended brief interventions to young people aged 16 and 17 who are drinking harmfully\(^\text{203}\). Data collected from the World Health Organisation shows that alcohol use and cannabis use increase with age from very early adolescence\(^\text{175}\), emphasising the need for early education and age-appropriate interventions within child health services.

Both alcohol and cannabis consumption in the UK are firmly regulated. However, a growing body of evidence suggests more could be done from a national perspective to better protect children and young people, particularly from alcohol; such measures include increases in taxation, changes in pricing such as minimum unit pricing as well as reducing the promotion to and availability of alcohol for young people\(^\text{204}\).

Key actions

- Ensure all schools adopt comprehensive, up-to-date, evidence-based approaches to drug and alcohol education, which incorporate peer-led learning and are in line with NICE guidance\(^\text{202}\). This should be within statutory personal social health and economic education (PSHE).
- Strengthen implementation of NICE guidance across the UK, in particular the provision of brief interventions in primary and secondary healthcare settings\(^\text{204}\).
- Prevent the uptake of young people drinking alcohol by prohibiting products that are targeted to a younger market\(^\text{205}\).
- Restrict availability of alcohol to young people by ensuring the purchasing of alcohol is made by individuals with valid forms of ID and for the alcohol industry to encourage Challenge 21 and 25 schemes\(^\text{206}\).
- Governments should introduce and implement minimum unit pricing policies for alcohol\(^\text{207}\).

Additional data note

The sample size of HBSC survey and What About YOUth Survey is significantly different and should not be compared.
4.5 Wellbeing

Proportion of young people aged 15 years who report high life satisfaction, by gender.

Key messages

- Wellbeing is a broad concept often understood to include aspects of satisfaction with life and positive mental health as well as other elements. It can be defined as ‘a dynamic state, in which individuals are able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community’[208].

- Lower levels of wellbeing amongst young people are linked with bullying and disruptive behaviours at school[209], whilst higher levels of life satisfaction have been linked to healthier levels of physical activity, screen time, nutrition, and mental health.

- UNICEF reported that young people in Britain had low wellbeing compared with other rich countries in the last decade[210].

What is this indicator showing us?

As a key indicator for wellbeing we are using a measure of subjective wellbeing, i.e. the proportion of young people (15 years old) who recorded high life satisfaction using a visual analogue scale (the Cantril ladder). Young people were asked to indicate the step of the ladder at which they would place their lives at present (from ‘0’ (low) to ‘10’ (high)). High life satisfaction is defined as a score of six or more on the Cantril ladder.

Data availability and comparability

Data are available for England, Wales and Scotland as part of the Health Behaviour in School Age Children (HBSC) survey. There are limited data for Northern Ireland.

Life satisfaction scores among young people in England, Scotland and Wales

Females

![Graph showing life satisfaction scores among females in England, Scotland, and Wales from 2001/02 to 2013/14]

**Latest data:** The proportion of 15-year-old girls with high life satisfaction scores in England, Scotland and Wales in 2013/2014 were 71%, 76% and 72% respectively.

**Trend:** There has been an overall decrease in the proportion of girls with high life satisfaction since 2001/2002. Scores in England have decreased most notably by 11%, scores in Scotland by 5%, and scores in Wales by 6%.

**Source:** HBSC survey, 2004[211], 2008[212], 2012[213] and 2016[175]
Males

![Chart showing proportion of 15-year-old boys with high life satisfaction scores by country, 2001/2002 to 2013/2014]

**Figure 4.5.2: Proportion of 15-year-old boys with high life satisfaction scores by country, 2001/2002 to 2013/2014**

**Why is this indicator important?**

Children’s wellbeing is an important issue, especially in the UK. As the *Good Childhood Report 2015* revealed, the UK is lagging behind after a period of improvement from 1994.

The UNICEF *Innocenti Report Card 12* (2014) used a basket of indicators to define wellbeing, including life-satisfaction as a measure of subjective wellbeing, but also including health, education, income and housing indicators. The Report Card showed a relationship between national economic performance and children’s wellbeing, demonstrating the importance of ensuring the national economy works for all children, rich and poor.

Childhood wellbeing or life satisfaction is a more direct indicator of young people’s health than many apparently more objective indicators, as it reflects what is important to children and young people.

Children with low wellbeing have been reported to be:

- eight times as likely to feel there is conflict in their family;
- almost five times as likely to have been recently bullied;
- three times as likely to feel they do not have enough friends; and
- three times as likely to feel they have a fewer resources than their friends.

A low level of life satisfaction during adolescence is associated with depression and other adverse health outcomes in later life.

**Where are we now in the UK?**

Over the past decade the proportion of young people with high life satisfaction in the UK has fluctuated. Trends appear clearly downward for girls, but less clear for boys. This has led to the gap between boys and girls widening.

There appears to be some variations between countries of the UK in young people's evaluations of their life satisfaction. However, ranking of countries changes over time, suggesting there are no stable trends. There may also be cultural differences in the way children report wellbeing between countries, particularly in international comparisons.

**What does good look like?**

International agencies such as UNICEF use scorecards including a range of indicators rather than a single measure of wellbeing.

The Netherlands were ranked first amongst OECD countries in the most recent UNICEF league table, with the Netherlands scorecard shown in Figure 4.5.3. Whilst the Netherlands scored ‘green’ in the majority of indicators, there remain indicators where the Netherlands does not perform well (e.g. environmental quality and civic engagement).

**Latest data:** The proportion of 15-year-old boys with high life satisfaction scores in England, Scotland and Wales in 2013/2014 were 84%, 88% and 84% respectively.

**Trend:** Life satisfaction amongst boys has fluctuated over time with no clear trend across the three countries.

Ranking compared to other OECD countries:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Netherlands</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income and Wealth</td>
<td>Disposable income of households with children (1000, USD in PPPs)</td>
<td>28.97</td>
<td>26.53</td>
</tr>
<tr>
<td></td>
<td>Child income poverty (%)</td>
<td>10.60</td>
<td>9.54</td>
</tr>
<tr>
<td>Jobs and Earnings</td>
<td>Children in workless households (%)</td>
<td>5.96</td>
<td>15.50</td>
</tr>
<tr>
<td></td>
<td>Children with a long-term unemployed parent (%)</td>
<td>0.64</td>
<td>3.18</td>
</tr>
<tr>
<td>Housing conditions</td>
<td>Average rooms per child</td>
<td>1.26</td>
<td>1.21</td>
</tr>
<tr>
<td></td>
<td>Children in homes that lack basic facilities (n)</td>
<td>0.94</td>
<td>3.42</td>
</tr>
<tr>
<td>Environmental quality</td>
<td>Children in homes with poor environmental conditions (%)</td>
<td>31.10</td>
<td>23.20</td>
</tr>
<tr>
<td>Health Status</td>
<td>Infant mortality (rate per 1,000 live births)</td>
<td>3.70</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>Low birth weight (%)</td>
<td>6.00</td>
<td>6.90</td>
</tr>
<tr>
<td></td>
<td>Self-reported health status (%)</td>
<td>13.70</td>
<td>20.40</td>
</tr>
<tr>
<td></td>
<td>Obesity (%)</td>
<td>0.89</td>
<td>3.11</td>
</tr>
<tr>
<td></td>
<td>Adolescent suicide rate (per 100,000 children)</td>
<td>4.50</td>
<td>3.20</td>
</tr>
<tr>
<td></td>
<td>Teenage birth rate (per 1,000 women 15-19 years)</td>
<td>6.17</td>
<td>25.76</td>
</tr>
<tr>
<td>Education and Skills</td>
<td>Reading skills among 15 year olds (PISA scores)</td>
<td>511</td>
<td>499</td>
</tr>
<tr>
<td></td>
<td>Creative problem solving among 15 year olds (PISA scores)</td>
<td>511</td>
<td>517</td>
</tr>
<tr>
<td></td>
<td>Youth neither in employment nor education/training (%)</td>
<td>4.06</td>
<td>9.05</td>
</tr>
<tr>
<td></td>
<td>Education deprivation (per 1,000 15 year olds)</td>
<td>1.21</td>
<td>3.38</td>
</tr>
<tr>
<td>Civic engagement</td>
<td>Intention to vote (%)</td>
<td>73.52</td>
<td>71.95</td>
</tr>
<tr>
<td></td>
<td>Civic participation (%)</td>
<td>36.46</td>
<td>39.24</td>
</tr>
<tr>
<td>Personal security</td>
<td>Child homicide rate (100,000 children)</td>
<td>0.59</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>Bullying (%)</td>
<td>7.51</td>
<td>9.31</td>
</tr>
<tr>
<td>Subjective well-being</td>
<td>Life satisfaction (score)</td>
<td>7.99</td>
<td>7.51</td>
</tr>
</tbody>
</table>

Figure 4.5.3: Child wellbeing rankings of the Netherlands and UK compared with other OECD countries.

How can we improve?

There are no simple solutions to improving wellbeing amongst young people. Given the very strong links between wellbeing and other areas of health, each of the actions outlined in the other indicator chapters in this report will contribute to improving wellbeing amongst children.

Reducing inequalities must be at the heart of improving wellbeing. Opportunities to share in the wealth and resources of a country are key to the wellbeing of its citizens, particularly its children and young people. For actions to reduce child poverty, see Indicator 5.1 (Poverty). Within each indicator outlined in this report, actions to reduce inequity related to income, gender, ethnicity or sexuality are again key to improving the wellbeing of children.

More directly, strengthening protective individual and social determinants and improving the position of children and young people in society are essential to improve children’s wellbeing. These include social determinants such as family relationships and access to quality education but also cultural factors relating to the valuation of children in society, ethnic and gender equality and reduced tolerance for child abuse and exploitation. The UN Convention on the Rights of the Child guarantees young people’s rights to respect and control over their lives. Promoting young people’s empowerment and participation in
society is a further key part of enhancing wellbeing.

Central to improving children’s wellbeing is gathering and acting upon information directly from them about their lives. In preparing this report, young people from the RCPCH & Us® network were clear that improved communication by adults, and having their rights to information, healthcare and involvement in decision-making respected and acted upon with a focus on increased accessibility of services, improving health education in schools, mental health and issues resulting from poverty, were key to improving their wellbeing.

The Children Society recommends six priority areas that children and young people need to thrive:

- the right conditions to learn and develop
- a positive view of themselves and a respect for their identity
- enough of the items and experiences that matter to them
- positive relationships with their family and friends
- a safe and suitable home environment and local area
- opportunities to take part in positive activities that help them thrive

Spotlight on inequalities

The HBSC cross-national study highlights three sources of inequality for child wellbeing:

**Age:** There is a significant decline in levels of life satisfaction between ages 11 and 15 among girls in almost all countries, but this applies to boys in only a minority of countries.

**Gender:** In the majority of countries, boys report a high life satisfaction more often than girls at ages 13 and 15.

**Socioeconomic status (SES):** High life satisfaction is significantly associated with higher SES in almost all countries for both boys and girls. Children with lower SES are also more likely to be at the bottom of the life satisfaction scale.

![Figure 4.5.4: Influence of SES on the gap between low and high reported life satisfaction of 11- to 15-year-olds by country in 2014](image-url)
Key actions

- Reduce inequalities in health across a range of health outcomes.
- Promote protective and resilience factors in young people's lives.
- Ensure full compliance with the UN Convention on the Rights of the Child.
- Analyse the effects of decision-making on children at a central and local government level.
- Maintain the commitment to eradicate child poverty in the UK by 2020, with a political focus on the poorest children, particularly in times of exceptional financial pressure on families.

Additional data note

Life satisfaction relates to the evaluations that children make about their lives at a cognitive level, and comprises judgements about life as a whole as well as judgements about different aspects of life (e.g. happiness with family relationships)\(^{221}\).

The data collected for England, Scotland and Wales were subjective as they reflect the wellbeing of the children based on their own assessments of how their lives were going. Scorecards such as those produced by UNICEF attempt to collate data that reflect the subjective and objective wellbeing of children.

It will be important to gather comparative data for Northern Ireland, as children in Northern Ireland may have higher subjective wellbeing than children living in England\(^{210}\).
Chapter 4: School age/adolescence

4.6 Suicide

Suicide rate amongst young people aged 15 to 19 years

Key messages

- Suicide is the second most common cause of death in young people aged 15 to 19, and accounts for more than a quarter of all deaths among this age group.
- Suicide rates in England, Wales and Scotland have declined since 2002.
- Young men are more likely to take their own lives than young women.
- Suicide is strongly linked with mental health problems, substance misuse, abuse, academic worries and bullying.
- Suicide is preventable: reduced access to means of suicide and improved mental health support for young people is essential to reduce suicide rates amongst youth.

What is this indicator showing us?

This indicator shows the rate of completed suicides amongst young people aged 15 to 19 years per million. We have used a three-year moving average to smooth fluctuations due to small numbers in each year.

Data availability and comparability

The suicide rate is defined as deaths registered as a result of intentional self-harm or an event of undetermined intent. Statistics in the UK conventionally include undetermined intent deaths, as the great majority are thought to be suicides when reviewed by clinicians.

Data on youth suicide are available for all four nations and can be obtained from mortality data which is coded in line with the International Classification of Diseases (ICD).

Suicide rates among young people in England, Northern Ireland, Scotland and Wales

Figure 4.6.1: Suicide rate (including three-year moving average) for 15- to 19-year-olds, by country, 1998 to 2014

Latest data: In 2014 there were 136 registered deaths as a result of intentional self-harm, and a further 51 deaths identified as undetermined intent among 15- to 19-year-olds in the UK. The suicide rate was lowest in England (43.9 per million). The highest rate was in Northern Ireland (122.9 per million). Scotland and Wales had rates of 54.7 and 69.0 per million, respectively.

Trend: Until recently, the three-year averaged suicide rate was in stable decline in England, falling by 42% from 1998 to 2014. In Wales, a decline was seen between 2000 and 2010, with some suggestion of a rise from 2012. In Scotland, rates have declined since 2000. Rates in Northern Ireland have fluctuated, likely reflecting small numbers, although they have remained notably higher than in all other countries from 2006 onwards.

Source: ONS (England and Wales), NISRA (Northern Ireland) and NRS (Scotland).
**Why is this indicator important?**

Suicide is one of the key indicators of the mental health of young people. It is also a strong contributor to mortality: after the first year of life, child and adolescent mortality is highest among young people aged 15 to 19. The most common category of death amongst this age group is non-intentional injury, with suicide as the second most common cause, accounting for more than a quarter of all deaths in young people aged 15 to 19.

Suicide is strongly linked to mental health problems, deprivation, family environment and bereavement, substance misuse, abuse or neglect, academic worries and bullying.

Suicide is preventable and policy actions, such as reducing paracetamol pack sizes, have contributed to reduced suicide rates over the past two decades. Yet only a minority of young people who die from suicide have had contact with mental health services in the past year, suggesting health services are not meeting the mental health needs of young people.

**Where are we now in the UK?**

Since the early 2000s, the three-year average combined suicide rate for children aged 15 to 19 in England was thought to be in steady decline. However, in recent years rates appear to have risen, climbing from 34.5 per million to 39.1 per million between 2010 and 2014.

Small numbers in Wales, Scotland and Northern Ireland make long-term trends harder to identify. However, Wales shows similar trends to England, while Scotland shows a decline since 2000 with no recent plateau. Rates in Northern Ireland have fluctuated, although they have remained higher than in all other countries from 2006 onwards.

Across the UK in 2014, there were 136 registered deaths as a result of intentional self-harm, and a further 51 deaths registered as undetermined intent among 15 to 19-year-olds. The majority of these were registered in England, where together there were 142 suicide deaths. In Scotland, Northern Ireland and Wales, there were 17, 15 and 13 suicides respectively.

In 2014, the combined suicide rate was 43.9 per million in England. The highest prevalence was in Northern Ireland (122.9 per million), followed by Wales (69 per million) and Scotland (54.7 per million).

Across the UK young males are, on average, three times more likely to take their own lives than their female counterparts. Those from deprived areas had a nearly 80% higher risk of suicide than those from the most affluent areas. Over the past decade, hanging has replaced self-poisoning as the most common method of suicide for both females (42%) and males (55%). Other methods include self-poisoning, drowning and falls.

**Spotlight on inequalities**

There is a strong association between growing up in deprivation (defined using the English Index of Multiple Deprivation) and risk of suicide.

A recent study of suicide deaths from 2001 to 2011 found that, in England, the mean rate of suicide among 15- to 19-year-olds living in the most deprived areas was 79% higher (109 per million) than those living in the least deprived areas (61 per million). The research shows that towards the later part of the decade, the social gradient began to narrow.

**What does good look like?**

Suicide is preventable. The aim must be for no young person to die by their own hand. With appropriate public health and public policy initiatives we can reduce the number of suicides among children and young people.

Many children who die from suicide receive inadequate mental health support services. A 2006 study found many children did not have any contact with mental health service before death while others did not receive appropriate follow-up care relating to previous mental health problems or self-harm.

There is a particular need to increase targeted support services for young males. Young men who commit suicide were less likely to have had contact with mental health services than young women, and they were also less likely to show signs of concern before death.
How can we improve?

We believe that each government should develop a child and adolescent mortality plan to reduce the number of preventable child deaths, including deaths through suicide, with clear targets for reduction.

Many countries already have national suicide prevention plans across all ages, which outline key strategies such as restricting means to access suicide\textsuperscript{234-237}. Yet more must be done specifically for young people.

Governments must increase investment in improving the mental health and wellbeing of children and young people. This should focus on universal mental health promotion across the whole youth population, as well as on better services across education, social care, youth justice and health.

Specific suicide prevention strategies are needed at multiple levels, including that of the individual, family, schools, media and community. Restriction of access to methods was highly effective for reducing self-poisoning; however, the rise of hanging as a cause of suicide presents challenges as method restriction is not possible for the majority\textsuperscript{238}. The RCPCH report \textit{Why Children Die} recommends that the government take further steps to restrict children and young people's access to alcohol by the introduction of a minimum price per unit, regulation of marketing and availability, and action on under-age sales. To date, the government has not adequately addressed this issue.

Further work is needed to reduce the stigma of seeking help for mental health problems, particularly amongst young men.

In terms of services, there is a need for improved early identification of young people in trouble across primary and community services, better coordinated working across education, health, youth justice and social care as well as rapid upscaling of capacity in mental health services for young people.

Early identification of mental health difficulties should be established as a core capacity of all education, youth justice and social care professionals who work with children – as well as health professionals in primary care and the community. This will require major investment into training and workforce development.

Schools, colleges and further education settings have a vital role to play in fostering the development of resilience and promoting better mental health, as well as identifying young people at risk and providing appropriate interventions or referral onwards where needed. In \textit{Why Children Die}\textsuperscript{239} the RCPCH and the National Children's Bureau (NCB) proposed two key policy recommendations to support the mental health and wellbeing of children and young people in education and elsewhere.

Inspection frameworks for schools and colleges should include consideration of the extent to which these settings provide an environment that promotes young people's social and emotional wellbeing and this should be a 'limiting judgement'. An equivalent approach will need to be taken for other settings such as children's homes and youth justice settings.

Departments for Education should ensure that high-quality, comprehensive personal, social and health education (PSHE) programmes are mandated and implemented across all primary and secondary schools. This should foster social and emotional health and wellbeing through building resilience and specifically tackling issues around social inclusion, bullying, drug and alcohol use, and mental health.

Increased capacity within mental health services, particularly Child & Adolescent Mental Health Services (CAMHS), is a widely recognised need across the UK, with poor access, long waiting times and high symptom thresholds all identified as key issues needing to be addressed\textsuperscript{240}.
Key actions

- Develop cross-government mortality plans to significantly reduce the number of preventable child and adolescent deaths, including deaths through suicide.

- Develop national youth suicide prevention strategies, with particular focus on young people in deprived communities.

- Ensure all health, social care, youth justice and education professionals who work with children and young people are equipped with the skills and knowledge to ensure children and young people with mental health needs get the support they need as early as possible.

- Ensure service design recognises the role and importance of schools in relation to children and young people’s health.

- Ensure that paediatric and specialist CAMHS services have sufficient capacity to meet the needs of children and young people.

Additional data note

In official statistics, the definition of suicide in England and Wales differs from the definition in Scotland and Northern Ireland; therefore, data for each of the four nations are not immediately comparable\(^{230}\). We chose to widen the definition of suicide in England and Wales in line with that in Scotland and Northern Ireland – the same approach used by the NSPCC in *How Safe Are Our Children*\(^{241}\).

Figures are for deaths registered, rather than deaths occurring in each calendar year. Due to the length of time it takes to complete a coroner’s inquest, it can take months or even years for a suicide to be registered. More details can be found in the ‘Suicides in the UK’ bulletin\(^{230}\).
4.7 Road traffic injuries

Number of 17- to 19-year-olds killed or seriously injured in cars

Key messages

- Road traffic injuries are a leading cause of death in young people in the UK.
- Globally, young people are the most likely age-group to be involved in transport accidents.
- In 2015 there were 847 reported car driver or passenger deaths or serious injuries amongst 17- to 19-year-olds in England, Northern Ireland, Scotland and Wales. Boys were 1.6 times more likely to be injured or killed on the roads compared with girls.
- There has been a decrease in the number of road traffic injuries per 100,000 population amongst young people in all four nations over the past decade.
- Compared with other wealthy countries, the UK has an excellent record on reducing traffic injuries; nevertheless, these are preventable causes of death and there remains room for improvement.

What is this indicator showing us?

This indicator shows the number of young people aged 17 to 19 years who have been reported killed or seriously injured as a driver or passenger of a car. Note these figures do not include pedestrian injuries on the roads.

Data availability and comparability

Comparable data are available for road traffic injuries among drivers and passengers by severity of injury (serious and fatal) for England, Northern Ireland, Scotland and Wales between 2005 and 2015.

Road traffic injuries involving young people in England, Northern Ireland, Scotland and Wales

![Graph showing road traffic injuries rate per 100,000 population for England (ENG), Scotland (SCO), Wales (WLS), and Northern Ireland (NI) from 2005 to 2015.]

Latest data: The injury rate for young people aged 17 to 19 years who were either seriously injured or killed as a driver or passenger in road traffic accidents in 2015 was 33 in England, 78 in Northern Ireland, 41 in Scotland and 62 in Wales (all per 100,000 population).

Trend: During the last decade there has been a decrease in the rate of road traffic injuries in all four nations. The greatest reduction in mortality rate, 64%, has occurred in England. There are greater year-on-year fluctuations in Northern Ireland, probably reflecting the smaller population.

Source: Road Safety Statistics for England, Scotland and Wales, Statistics Branch, Police Service for Northern Ireland and mid-year population estimates (ONS).
Why is this indicator important?

Road traffic injuries are a leading cause of death in teenagers and young people in the UK, and injuries sustained as a result of non-fatal accidents have major long-term implications for physical and mental health, as well as for educational attainment and employment prospects. Young drivers aged 17 to 19 years make up 1.5% of full UK licence holders. However, 9% of fatal and serious crashes between 2007 and 2014 involved a driver aged between 17 and 19 years. Furthermore, a review of road deaths between 2003 and 2010 in Wales found that of the 25 motor vehicle deaths of adolescents aged 13 to 17 years, 17 (68%) occurred in a vehicle being driven by a 17- to 19-year-old.

Similar patterns are seen internationally, with young people, particularly young men, more at risk than other age groups. Clearly inexperience in handling driving situations is a major contributor. Other factors identified as contributing to increased risk of injuries amongst this age group include:

- Driving with other young people in the car
- Driving at high speed
- Driving under the influence of alcohol or drugs
- Driving without the use of a seatbelt
- Driving at night

Many of these factors are suggested to relate to developmental immaturity in the adolescent brain, particularly relating to the impact of the presence of other young people in the car on decision-making.

Ongoing monitoring of road traffic injury rates is vital for assessing the effectiveness of interventions designed to improve young driver safety.

Spotlight on inequalities

Social deprivation is linked to an increased risk for all types of road crashes and fatalities in children under the age of 15 years, including pedestrians and cyclists. These social gradients appear less for teenager drivers, with higher rates of injuries across all socioeconomic groups amongst this age group.

Where are we now in the UK?

In 2015 there were 847 reported car driver or passenger deaths or serious injuries amongst 17- to 19-year-olds in the UK. Of these, 66 were fatal: 41 in England, six in Northern Ireland, eight in Scotland and 11 in Wales.

During the past decade there has been a decrease in the rate of road traffic injuries in both males and females. Males have experienced the greatest decline but still have a much higher rate than females; in 2015 young males were 1.6 times more likely to be injured or killed in road traffic injuries compared with females.

Latest data: In the UK, injury rates for 17–19 years either seriously injured or killed as a driver or passenger in 2015 were 27 amongst females and 44 amongst males (both per 100,000 population).

Trend: During the last decade there has been a decrease in the rate of road traffic injuries in both young males and females. Males have experienced the greatest decline in rate but still have a much higher rate than females (by 2015 males were still 1.6 times more likely to be injured or killed in road traffic injuries compared with females).

Source: Road Safety Statistics for England, Scotland and Wales, Statistics Branch, Police Service for Northern Ireland and mid-year population estimates (ONS).
times more likely to be injured or killed in road traffic accidents than young females.

Compared with other wealthy countries, the UK has an excellent record on reducing traffic injuries. Road traffic injury rates across all age groups are amongst the lowest in the Organisation for Economic Co-operation and Development (OECD), which includes wealthy countries across the world as well as in Europe\textsuperscript{251}.

When consulted, the children and young people we spoke to felt the key message to send out to their peers to promote safety was that ‘your life matters to us’, which links to ideas around improving self-confidence, creating a positive outlook and improving mental health.

(RCPCH & Us* Voice Bank 2016)

What does good look like?
The UK has the sixth lowest rate of deaths by transport crashes of children aged 10 to 19 years (3.7 per 100,000) across Europe. However, road traffic injuries are preventable, therefore we must aim to continue to reduce incidence of all road traffic deaths of young drivers and passengers 17 to 19 years of age. Lower rates in some countries (Spain, the Netherlands, Sweden, Portugal and Denmark) show that considerable progress is possible within the current state of technology\textsuperscript{16}.

How can we improve?
There are many aspects of road design and transport policy that would reduce traffic injuries across all age groups.

Specifically for young people, strengthening regulations for novice teenage drivers could improve safety and align UK policy with international best practice.

Graduated Licencing Schemes (GLS) have been introduced in several countries, including the USA, Canada, New Zealand and Australia, as an attempt to reduce known risks amongst teenage drivers. The schemes usually contain one or more of the following components:

- restrictions on carrying passengers particularly other young people
- limitations on driving during darkness
- lower alcohol tolerance levels
- requirements for the learning process to include driving in specific settings or for a minimum number of hours

Evidence from countries where GLS schemes have been introduced shows that such measures can reduce road-related deaths\textsuperscript{252,253}. GLS schemes may be successful because they base policy on what we are starting to discover about the adolescent brain.

In addition to the introduction of a GLS across the UK, further evidence and evaluation of current pre-driver education programmes and their impact on young driver safety is required, to ensure young people in the UK are gaining the knowledge and skills for safe driving\textsuperscript{252}.

Key actions

- Introduce Graduated Licencing Schemes across the UK for novice drivers, particularly young people.
- Strengthen the evidence base underpinning young driver education programmes across the UK.
Chapter 4: School age/adolescence

4.8 Sexual and reproductive health

Number of conceptions per 1,000 females under 18 years of age

Key messages

- Young people are the parents of the next generation. The sexual and reproductive health of young people is an important indicator of population health.

- There has been an overall decline in the conception rate of 15- to 17-year-old females since 2007 across England, Scotland and Wales.

- Teenage conception rates are highest amongst young women in the most deprived areas.

- Statutory sex and relationships education, coupled with access to youth-friendly sexual and reproductive health services, are vital for improving the health of young people.

- Early and coordinated support is needed for young parents to improve outcomes for themselves and their children.

What is this indicator showing us?

This indicator shows the number of conceptions per 1,000 females aged 15 to 17 years. This is known as the under-18 conception rate as conceptions below age 15 years are rare.

Data availability and comparability

The number of conceptions for females aged 15 to 17 years was obtained for England and Wales from the Office for National Statistics (ONS)\textsuperscript{254}. Comparable data for Scotland were obtained from the Information Services Division Scotland (ISD)\textsuperscript{255}.

Related but not directly comparable data on live birth rates (but not conceptions) were available for 15- to 17-year-old females in Northern Ireland from the Northern Ireland Statistics and Research Agency (NISRA). Numbers were converted into age-specific rates by using the Population Estimates for the UK, England, Scotland and Wales produced by the ONS\textsuperscript{28}.

Conception rate in England, Scotland and Wales

![Conception rate in England, Scotland and Wales](image)

**Figure 4.8.1: Under-18 conception rate, per 1,000 females aged 15 to 17 years for England, Scotland and Wales**

**Latest data:** The conception rates per 1,000 population of 15- to 17-year-old females in 2014 were 23, 21 and 25 for England, Scotland and Wales respectively.

**Trend:** There has been an overall decline in the conception rate of 15- to 17-year-old females since 2007 across all three nations.

**Source:** Conceptions in England and Wales: 2014 (ONS), Teenage Pregnancy (ISD), and Population Estimates (ONS)
Live birth rate in Northern Ireland

![Graph showing live birth rate per 1,000 females aged 15 to 17 years in Northern Ireland over time.](chart.png)

*Figure 4.8.2: Live birth rate, per 1,000 females aged 15 to 17 years in Northern Ireland*

**Why is this indicator important?**

The sexual and reproductive health of young people is an important indicator of population health, with significant implications for a young person's physical and mental health, their wellbeing, and their educational and economic outcomes.

Teenage pregnancy is associated with poor outcomes for young women and their children; for mothers there is an increased risk of poor educational outcomes, poor physical and mental health, social isolation and socioeconomic deprivation. Risks for the children of young mothers include low birth weight and pre-term birth, along with some evidence of developmental problems.

Advice on sexual health was generally obtained from friends, parents, GPs or sexual health clinics. Children and young people called for an increase in the amount and effectiveness of sex education they receive at school.

*(RCPCH & Us Voice Bank 2016)*

**Where are we now in the UK?**

In 2014, the under-18 conception rates across England, Scotland and Wales were 23, 21 and 25 conceptions per 1,000 women aged 15 to 17 years respectively. Rates have declined considerably since 1998 across all nations: by 51% in England and Scotland and 53% in Wales.

Although not directly comparable, data on live births in Northern Ireland show that there has been a similar marked decline, from 14 births per 1,000 women aged 15 to 17 years in 1998, to six births per 1,000 women in 2013.

**What does good look like?**

While the UK has seen an impressive and welcome decline in under-18 conception rates over the past two decades, current rates remain higher than many similar western European countries. The lowest under-20 conception rates in Europe are in Switzerland (8 per 1,000), and the Netherlands and Slovenia (both 14 per 1,000). The Swiss rate, whilst not exactly comparable with UK data, is highly similar to that amongst the least deprived fifth of the population in Scotland, indicating similar rates are achievable in the UK.
Spotlight on inequalities

Socioeconomic disadvantage can be both a cause and a consequence of teenage motherhood. A comparison of under-18 conception rates across regions in England shows that there are wide geographical variations, with the North East having the highest rate in 2014 (30.2 per thousand women aged 15 to 17) compared with the South East and South West with the lowest rate of 18.8 (per thousand women aged 15 to 17)254. In England, declines in under-18 conceptions have been greatest in the most deprived areas where rates were highest264.

Data from Scotland also demonstrate the link between deprivation and teenage pregnancy, where the under-18 conception rate in the most deprived areas was 5.3 times greater than the least deprived, with 42.2 compared to 8.0 per 1,000 women255.

![Figure 4.8.3: Under-18 conception rate, per 1,000 females by quintiles of the Scottish Index of Multiple Deprivation, 2014255](image)

How can we improve?

Evidence from England suggests that the decline in under-18 conceptions since 1998 was due to concerted multi-faceted policy action across the health, education and social care sectors, in addition to social and educational change264.

Given regional variation in conception rates within nations, there is a need for targeted interventions to improve sexual health literacy in areas where under-18 conception rates are higher than the national average94.

Sex and relationships education in schools is a fundamental component of ensuring young people are equipped with the knowledge and skills to make healthy decisions in relation to their sexual and reproductive health5,265. A recent survey of 2,502 young people across the UK found that 90% agreed that it should be a legal requirement for all schools to teach sex and relationships education266 delivered in an age-appropriate way in both primary and secondary schools267,268.

In order to maximise effectiveness, sex and relationships education needs to be linked with timely access to confidential advice and dedicated young people’s contraceptive services. In addition, the National Institute of Health and Care Excellence (NICE) guidance, Contraceptive services for under 25s, sets out a range of recommendations to strengthen local provision and uptake of sexual health services269.

Targeted provision is also essential for young people at increased risk of poor sexual and reproductive health. In addition to living in deprived areas, rates of under-18 conceptions are found to be associated with free school meal eligibility, persistent school absence by age 14, poorer than expected academic progress between 11 and 14 years of age and being looked after270. Targeted measures may include the provision of free or cost-priced condoms via a condom distribution scheme271.
Key actions

- Provide universal statutory, comprehensive, evidence-based sex and relationships education as part of a wider health education curriculum, embedded within a whole school approach and linked appropriately with local sexual health service provision.

- Strengthen implementation of NICE guidance *Contraceptive services for under 25s*.

- Strengthen targeted measures for young people at increased risk of poor sexual and reproductive health, including implementation and continued evaluation of condom distribution schemes in response to local need.

Additional data note

The under-18 conception rate by deprivation index in Scotland represents the rate of terminations and deliveries combined.