

The health and wellbeing of children and young people in England

AN INFOGRAPHIC REPORT



Contents

Introduction	3
Overview of child health in England	4
Child poverty	5
Smoking in pregnancy	6
Breastfeeding	7
School readiness	8
Pupils with special educational needs	9
Infant deaths	10
Child deaths	11
Low birth weight of term babies	12
Tooth decay in five year olds	13
Overweight or obesity in children	14
Teenage pregnancy	15
Chlamydia	16
Measles, mumps and rubella vaccination	17
Human papilloma virus vaccination	18
A&E attendance	19
Asthma	20
Diabetes	21
Epilepsy	22
Mental health	23



Introduction

Aims

'Children are our greatest treasure. They are our future'

Nelson Mandela

Measuring and reporting the circumstances of children and young people is key to improving their wellbeing. This report summarises 20 key indicators of child health and provides evidence based infographics that summarise the scale of the challenge and suggest evidence based actions for each indicator to support service development, improve health outcomes and reduce health inequalities

Audience

This report will be of use to:

- health and care professionals working with children and young people
- commissioners of children's services
- public health professionals
- voluntary organisations for children and young people

Approach



The report consists of an overview of child health in England. Twenty indicators were chosen for availability, potential for intervention and lifelong importance. For each indicator the report presents an infographic of:

- relevant data using PHE Fingertips
- a brief summary of the evidence

References are included in a supplementary document

Acknowledgements

The report was produced by Dr Marilena Korkodilos





















Each chapter indicates the author of the evidence summary

I am grateful to the following for their comments:

- Dr Ann Hoskins
- Dr Ingrid Wolfe



Overview of child health in England

<p>Child poverty 2018/19</p>  <p>18.4%</p> <p>of children <16 years lived in a relative low income family</p>	<p>Smoking in pregnancy 2019/20</p>  <p>10.4%</p> <p>of women smoked at the time of delivery</p>	<p>Breastfeeding 2019/20</p>  <p>48.0%</p> <p>of women breastfed 6-8 weeks after birth</p>	<p>School readiness 2018/19</p>  <p>71.8%</p> <p>of children aged 5-6 years were school ready</p>
<p>Special educational needs pupils - 2018</p>  <p>14.4%</p> <p>of school pupils had special educational needs</p>	<p>Infant deaths 2018-19</p>  <p>4</p> <p>babies per 1,000 live births died < 1 year old</p>	<p>Child deaths 2016-18</p>  <p>11</p> <p>children aged 1-17 years died per 100,000 children</p>	<p>Low birthweight at term 2018</p>  <p>2.9%</p> <p>of term babies weighed <2,500g</p>
<p>Tooth decay 2018/19</p>  <p>23.4%</p> <p>of 5 year olds had tooth decay</p>	<p>Overweight/obesity 2018/19</p>  <p>22.6%</p> <p>of 4-5 year old children were overweight or obese</p>	<p>Overweight/obesity 2018/19</p>  <p>35.2%</p> <p>of 10-11 year old children were overweight or obese</p>	<p>Teenage pregnancy 2018</p>  <p>16.7 per 1,000</p> <p>of girls aged <18 years became pregnant</p>
<p>Chlamydia 2018</p>  <p>2,083 per 100,000</p> <p>young people aged 15-24 years were diagnosed with chlamydia</p>	<p>MMR vaccination 2019/20</p>  <p>90.6%</p> <p>of 2 year olds had the MMR vaccine</p>	<p>HPV vaccination 2018/19</p>  <p>83.9%</p> <p>of 13-14 year old girls had the HPV vaccine</p>	<p>A&E attendance 2018/19</p>  <p>655.3</p> <p>A&E attendances per 1,000 children aged 0-4 years</p>
<p>Asthma admissions 2018/19</p>  <p>178.4</p> <p>hospital admissions for asthma per 100,000 children aged <19 years</p>	<p>Diabetes admissions 2018/19</p>  <p>50.7</p> <p>hospital admissions for diabetes per 100,000 children aged <19 years</p>	<p>Epilepsy admissions 2018/19</p>  <p>76.7</p> <p>hospital admissions for epilepsy per 100,000 children aged <19 years</p>	<p>Mental health admissions 2018/19</p>  <p>88.3</p> <p>hospital admissions for mental illness per 100,000 children aged <19 years</p>

Child poverty

Definition

Poverty is defined in different ways. A commonly used measure of poverty is people in relative low income - living in households with income below 60% of the median in that year - compares the households with the lowest incomes against the rest of the population in that year

How many children live in poverty?

2 million

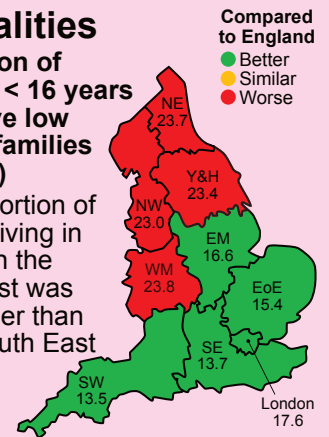
In 2018/19 about 1 in 5 children in England aged <16 years lived in relative poverty, that's about 2 million children



Inequalities

Proportion of children < 16 years in relative low income families (2018/19)

The proportion of children living in poverty in the North East was 1.8x higher than in the South East



Why it matters

Poverty has a significant impact on children's life chances. Children living in poverty are more likely to:

- die in the first year of life
- be bottle fed
- breathe secondhand smoke
- become overweight
- suffer from asthma
- have tooth decay
- perform poorly at school
- die in an accident

Risk factors

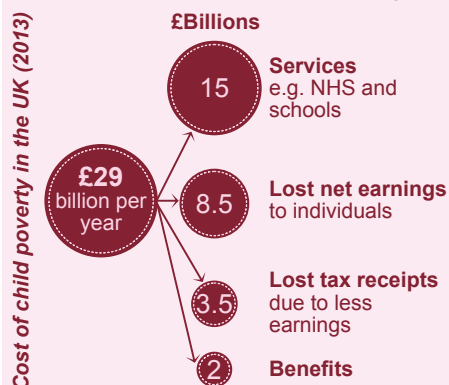
Families most at risk of poverty include:			
	Child < 1 year	Disabled family member	Lone parents
Minority ethnic families	Mother <25 years	3+ children	Workless families

Actions to reduce child poverty

Reducing child poverty requires partnership working between national government, local government, the NHS, the private sector, voluntary organisations and communities including:

Employment	Household costs	Social security
<ul style="list-style-type: none"> ✓ Introduction of a true living wage ✓ Reduce long term unemployment ✓ Support parents into employment 	<ul style="list-style-type: none"> ✓ Affordable housing ✓ Affordable public transport ✓ Affordable early years childcare 	<ul style="list-style-type: none"> ✓ Provide sufficient income support ✓ Provide better support for families with children with chronic illness

Costs of child poverty



What can health professionals do?










-
- ✓ Expand social history to include financial difficulties and access to welfare
 - ✓ Direct parents to services that can provide information about benefit allowances
 - ✓ Collaborate to provide advice and support services alongside standard health services
 - ✓ Promote services known to negate child poverty
 - ✓ Advocate for policy action to reduce child poverty
 - ✓ Strengthen the evidence base on poverty and health



Smoking in pregnancy

Why it matters

Smoking is the single most important risk factor in pregnancy. It is associated with an increased risk of:

Antenatally	Infancy	Childhood
 Miscarriage	 Preterm birth	 Chest and ear infections
 Stillbirth	 Low birth weight	 Learning difficulties
 Birth defects	 Infant deaths	 Asthma

How many women smoke in pregnancy?

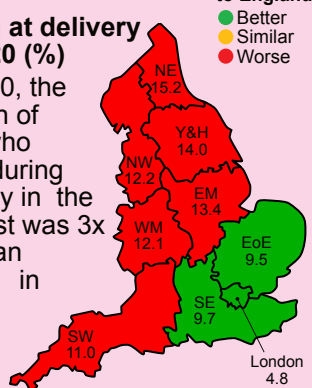


In 2019/20 in England, about 1 in 10 women smoked during pregnancy; that's 58,834 pregnant women

Inequalities

Smoking at delivery in 2019/20 (%)

In 2019/20, the proportion of women who smoked during pregnancy in the North East was 3x higher than women in London



Inequalities

Smoking in pregnancy varies significantly across communities and social groups



Rates of smoking in pregnancy in the most deprived areas are 5x higher than those in the least deprived areas



Rates of smoking in pregnancy in women < 25 years are 3.5x higher than women aged 25-39 years



Rates of smoking in pregnancy in white women are 2.5x higher than women in other ethnic groups

Costs

Smoking in pregnancy costs the NHS millions of pounds every year

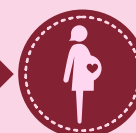
Estimated annual cost to the NHS

This comprises treating problems in: Mothers

Infants



£20m - £87.5m



£8m - £64m



£12m - £23.5m

Impact

Estimated annual impact of reducing rates of smoking in pregnancy to 6% by 2022*

	Numbers reduced
Stillbirth	45 - 73
Neonatal death	11 - 25
Preterm births	482 - 766
Low birth weight	1,455 - 2,407
Sudden infant deaths	7 - 11

*England tobacco control plan target

Actions to reduce smoking in pregnancy

Reducing smoking in pregnancy includes:



Identification and referral of pregnant women who smoke to a local stop smoking service



Expert behavioural support combined with stop smoking aids

Target cessation programmes at pregnant women and their partners



Skills training for stop smoking staff to meet the need of pregnant women



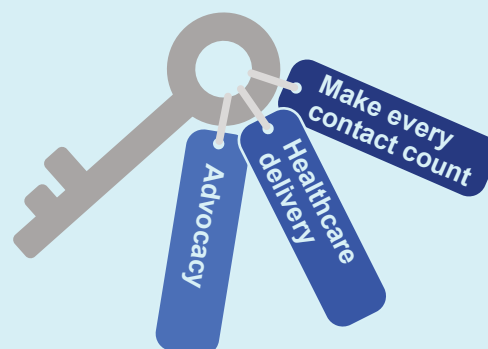
Return on investment

Smoking cessation programmes are cost effective



It estimated that spending between £13.60 - £37.00 per pregnant smoker would yield positive cost savings for the NHS. These estimates are conservative being limited to NHS costs during pregnancy and the first year of life

What can health professionals do?



- ✓ **Ask:** to establish and record smoking status

✓ **Advise:** on the most effective way to stop smoking

✓ **Act:** to signpost to locally available support
- ✓ Work with commissioners to develop innovative models or care, particularly to disadvantaged groups
- ✓ Advocate on policy actions to support stop smoking

✓ Promote stop smoking campaigns



Breastfeeding

Why it matters

Breastfeeding has lifelong benefits for babies and their mothers

Benefits for babies

Benefits for mothers

Decreased risk



How many women in England breastfeed?

Initiation
2018/19

6-8 weeks
2019/20



7 in 10
women



5 in 10
women

Inequalities

Breastfeeding varies significantly across communities and social groups



Breastfeeding rates in women in the least deprived group are 1.5x higher compared to women who are in the most deprived group



Breastfeeding rates in women aged 35-39 years are 1.9x higher than in women aged <28 years

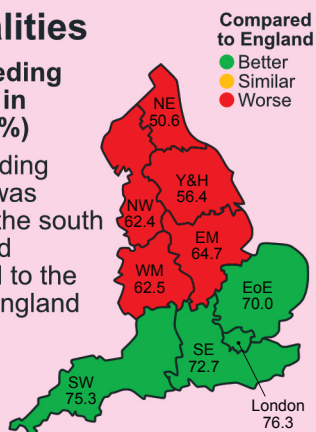


Breastfeeding rates in women from Chinese and other ethnic groups are 1.2x higher compared to White women

Inequalities

Breastfeeding initiation in 2018/19 (%)

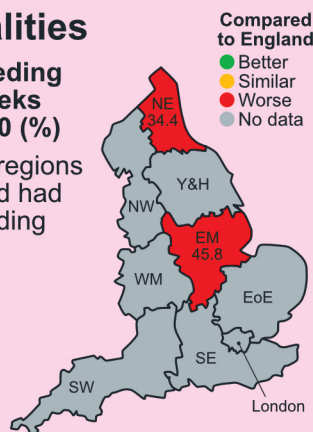
Breastfeeding initiation was higher in the south of England compared to the north of England



Inequalities

Breastfeeding at 6-8 weeks in 2019/20 (%)

Only two regions in England had breastfeeding data



The cost of not breastfeeding

£48m

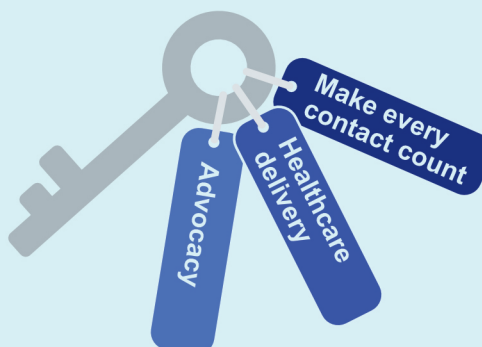
The cost to the NHS every year of treating five illness linked to babies not being breastfed

- Ear infection
- Chest infection
- Gastroenteritis
- Necrotising enterocolitis
- Breast cancer

Actions to increase breastfeeding

- 1 Raise awareness that breastfeeding matters
- 2 Provide effective professional support to mothers and their families
- 3 Ensure that mothers have access to support in their community
- 4 Restrict the promotion of formula milks and baby foods

What can health professionals do?



- 1 ✓ Attend training on the benefits of breastfeeding
✓ Provide antenatal and postnatal education and support
- 2 ✓ Develop referral pathways and support networks
✓ Provide targeted/specialist breastfeeding support services
- 3 ✓ Support the implementation of full Baby Friendly accreditation
✓ Develop public awareness and acceptance campaigns



School readiness

Definition

School readiness at age five is a measure of how prepared a child is to succeed in school cognitively, socially and emotionally. It is assessed using the good level of development (GLD). Children are defined as having reached a GLD at the end of the Early Years Foundation Stage if they achieved at least the expected level in personal, social and emotional development, physical development, communication and language, mathematics and literacy

How many children are ready for school?

71.8%

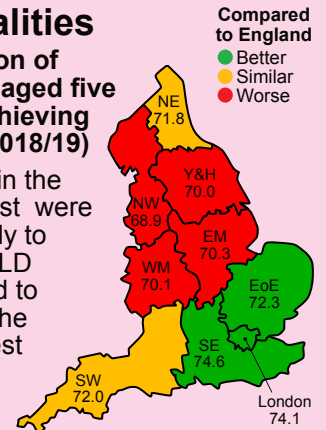
In 2018/19 about 7 in 10 children in England aged five years had achieved a GLD



Inequalities

Proportion of children aged five years achieving a GLD (2018/19)

Children in the South East were more likely to have a GLD compared to those in the North West



Why it matters

Children who don't achieve a GLD aged five years struggle with:



social skills



reading



maths



physical skills

Which impacts on outcomes in childhood and later life:



educational outcomes



crime

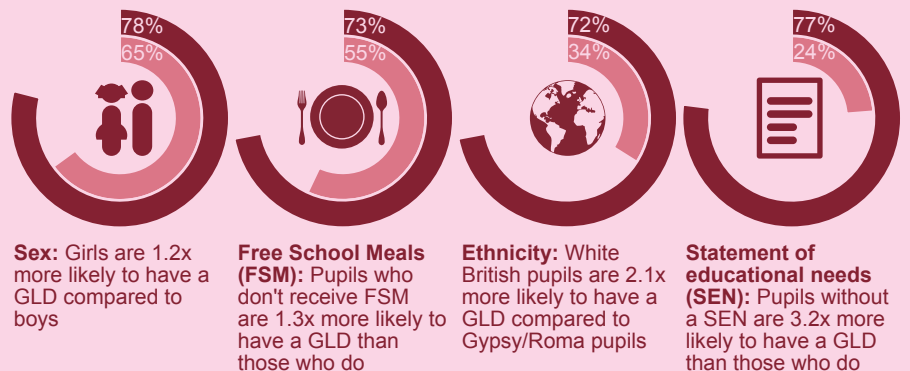


health



death

Inequalities



Actions to improve school readiness



Ensure good maternal mental health: Maternal mental health is one of the strongest predictors of well being in the early years



Enhance physical activity: Physical activity for young children is an important component of early brain development



Provide parenting support programmes: Parenting has a significant impact in the early years



Provide high quality education: Significantly improves child health and educational outcomes, particularly for disadvantaged children



Encourage learning activities e.g. reading: A child's communication environment is a more dominant predictor of early language than their social background

Investing in early years

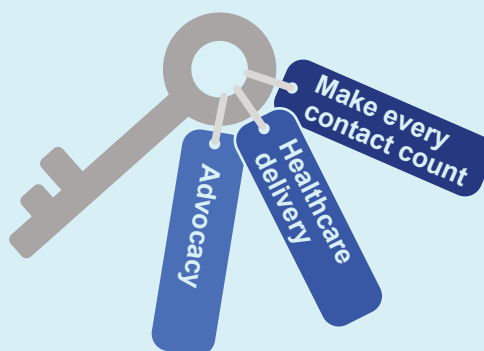


Every £1 invested in quality early care and education saves taxpayers up to £13 in future costs



Targeted parenting programmes to prevent conduct disorders pay back £8 over six years for every £1 invested

What can health professionals do?



- 1 ✓ Ensure children's physical health e.g. screening and treatment for developmental problems
✓ Encourage positive parenting practices
✓ Promote early literacy
✓ Identify and assess perinatal mental health problems
- 2 ✓ Strengthen integration of services through co-location and delivery
- 3 ✓ Advocate for the delivery of high quality early years education



Pupils with special educational needs (SEN)

Definition

- A child or young person has SEN if they have a learning difficulty or disability which calls for special educational provision
- Learning difficulty (40%) is the most common type of need for pupils on SEN support
- The number of children or young people with a SEN or requiring an Education Health and Care Plan (EHCP) has risen by 35% between 2014 and 2018

How many children have a SEN?

1 in 7

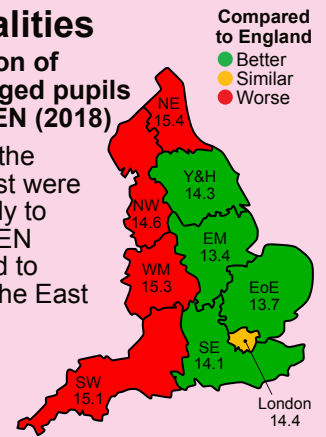
1,168,144 school aged pupils in England had a SEN in 2018, about 1 in 7 school aged children



Inequalities

Proportion of school aged pupils with a SEN (2018)

Pupils in the North East were more likely to have a SEN compared to those in the East Midlands



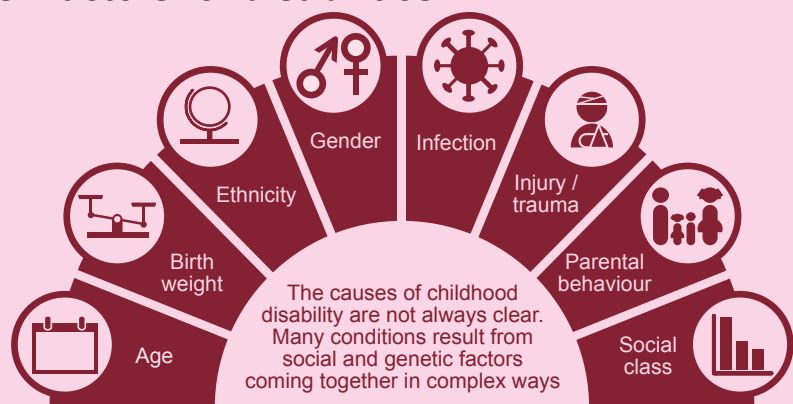
Why it matters

£ → £
The annual cost of bringing up a disabled child is 3 times higher than that of bringing up a non-disabled child

4 in 5 children with a learning disability are bullied

2 in 5 disabled children in the UK live in poverty

Risk factors for disabilities



Actions to manage and support

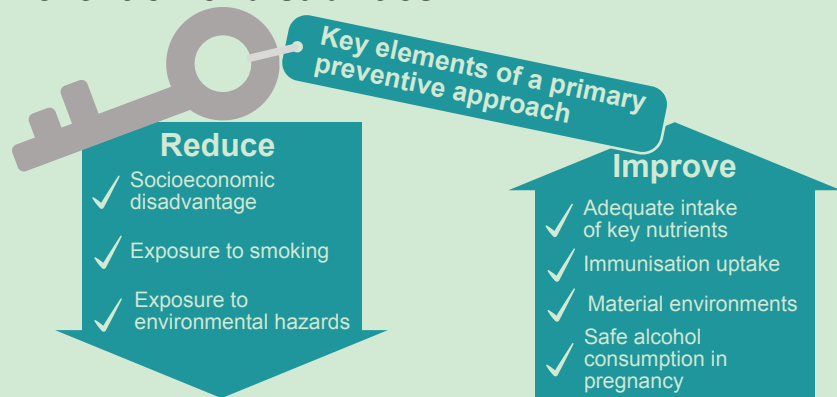
Joined up multi-disciplinary support is key to supporting children and their families, including:

- ### Medical
- ✓ Search for a possible underlying aetiology
 - ✓ Inform and counsel family
 - ✓ Manage associated medical/behavioural issues

- ### Therapy services
- ✓ Children may benefit from a number of services including:
 - Physiotherapy
 - Speech and language therapy
 - Occupational therapy
 - Music therapy

- ### Education
- ✓ Early assessment of needs
 - ✓ Planning for pre-school
 - ✓ Drawing up an education, health and care plan (EHCP) to ensure appropriate support

Prevention of disabilities



What can health professionals do?

-
- 1 ✓ Support prevention, identification, assessment and early intervention
 - ✓ Consider the transition from specialist paediatric services to adult health care
 - 2 ✓ Collaborate with partners in education, health and social care to provide support
 - ✓ Commission services jointly for children and young people (up to age 25)
 - 3 ✓ Advocate for the delivery of high quality services for children with SEN



Infant deaths

Definition

The infant mortality rate (IMR) is the number of deaths in babies aged less than one year per 1,000 live births

Neonatal mortality is the number of infant deaths less than 28 days. It is considered to be a good indicator of maternal and newborn health and care

How many babies die?

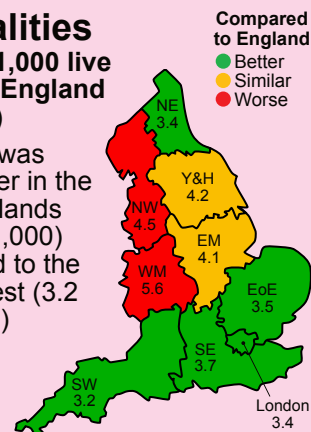
7,434 babies died before their first birthday in 2017-19 in England, about four babies per 1,000 live births



Inequalities

IMR per 1,000 live births in England (2017-19)

The IMR was 1.8x higher in the West Midlands (5.6 per 1,000) compared to the South West (3.2 per 1,000)



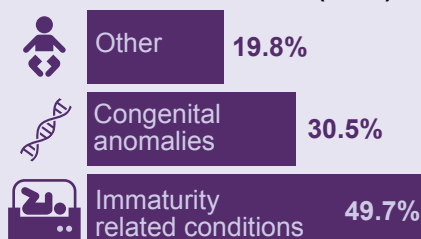
Why it matters

- ✗ More babies are dying before their first birthday. For the first time since 2006 IMRs in England and Wales increased in 2015 and 2016
- ✗ The reduction in neonatal mortality in the UK has not equaled gains made in comparable EU countries over the past 25 years

Why babies die

In 2018 most infant deaths (49.7%) were due to immaturity related conditions

Causes of infant deaths (2018)

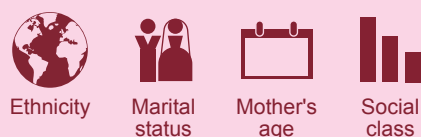


Inequalities

1500 In 2017-19 there were 7,434 infant deaths. The IMR in the most deprived group was 2x higher than in the least deprived group. If the IMR was that of the least deprived group for all deprivation deciles there would have been 1,500 fewer infant deaths

Risk factors

Socioeconomic



Environment



Medical



Infant



Actions to reduce infant deaths

Reducing infant deaths requires a combination of NHS action and actions on wider social determinants, including:

Maternal	Infancy	Healthcare	Wider determinants
<ul style="list-style-type: none"> Reduce smoking Reduce obesity Optimise health 	<ul style="list-style-type: none"> Increase breastfeeding Follow safer sleep guidance Increase immunisations 	<ul style="list-style-type: none"> Ensure access to antenatal care High quality neonatal care Enhanced genetic services 	<ul style="list-style-type: none"> Reduce child poverty Provide safe environments

What can health professionals do?

- ✓ Ask about smoking and signpost to smoking cessation services
 - ✓ Provide advice about safer sleeping
 - ✓ Promote breastfeeding
 - ✓ Promote immunisations
- ✓ Attend training to ensure high quality care
 - ✓ Promote early booking
- ✓ Promote services known to negate child poverty
 - ✓ Participate in Child Death Reviews to inform practice or develop resources to reduce infant deaths



Child deaths

Why it matters

- ✗ Too many children are still dying unnecessarily
- ✗ In 2018, about one in three deaths of children and young people (CYP) aged 0-19 years in the UK was considered to be avoidable
- ✗ In 2019/20, about one in 10 child death reviews in England was assessed by Child Death Overview Panels (CDOPs) as having a modifiable risk factor
- ✗ The reduction in neonatal and under-five mortality in the UK has not equalled gains observed in comparable EU countries over the past 25 years
- ✓ If the UK had the same childhood mortality rate as Sweden, there would be five fewer child deaths every day

How many children die?

3,671 children aged 1-17 years died in 2016-18 in England

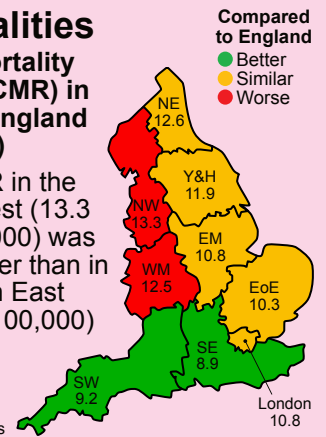


Inequalities

Child Mortality Rates* (CMR) in CYP in England (2016-18)

The CMR in the North West (13.3 per 100,000) was 1.5x higher than in the South East (8.9 per 100,000)

*deaths per 100,000 CYP aged 1-17 years



Risk factors

- Factors intrinsic to the child**
 - Prematurity
 - Ethnicity
 - Chronic illness
- Factors around parental care**
 - Basic care of the child
 - Responding to health needs
 - Parental smoking
- Environmental factors**
 - Parental age
 - Social class
 - Housing
- Service need and provision**
 - Unmet medical needs
 - Inadequate health care
 - Lack of support services

Inequalities

Across all age groups. Children who live in poverty and deprivation are less likely to survive than their more privileged peers

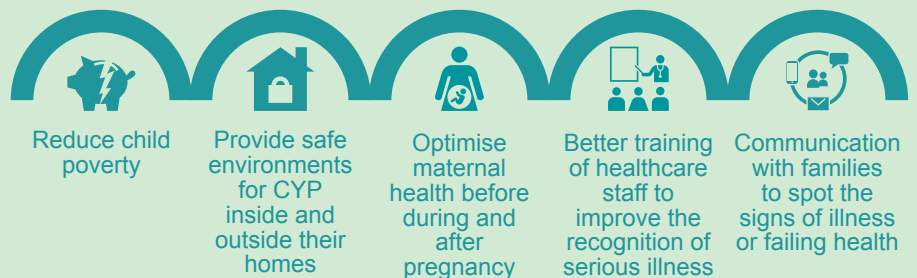
Why children die

Top 4 causes of child deaths (2018)

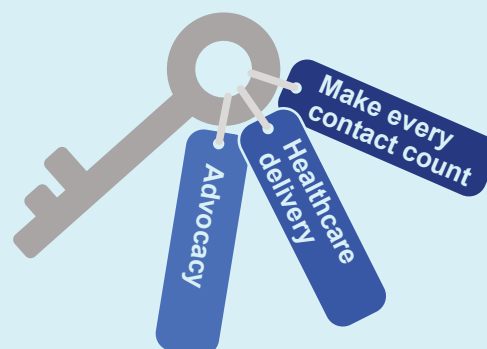
1-4 years	5-9 years	10-14 years
Congenital anomalies 16%	Cancer 33%	Cancer 29%
Cancer 15%	Respiratory system 12%	External 21%
Respiratory system 12%	Nervous system 11%	Nervous system 9%
Nervous system 10%	External 11%	Respiratory system 8%

Actions to reduce child deaths

Reducing child deaths requires a combination of NHS action and actions on wider social determinants, including:



What can health professionals do?



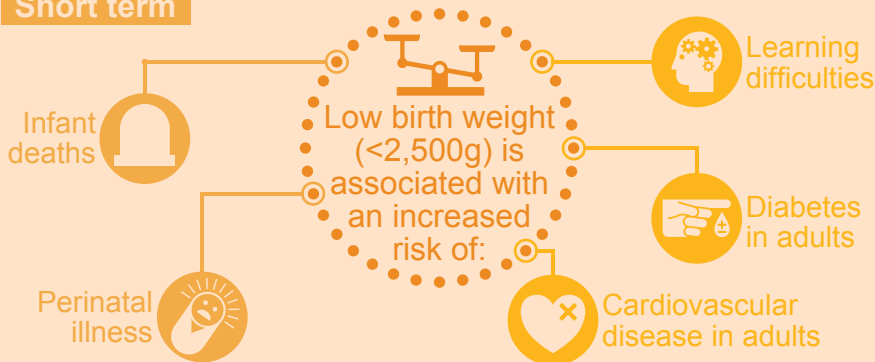
- 1 ✓ Ask about smoking and signpost to smoking cessation services
✓ Promote immunisations
- 2 ✓ Provide safe care through training, leadership and sharing good practice
✓ Provide effective care through evidence based practice
✓ Develop innovative models of care with commissioners
- 3 ✓ Promote services known to negate child poverty
✓ Participate in Child Death Reviews to inform practice or develop resources to reduce child deaths



Low birthweight of term babies

Why it matters

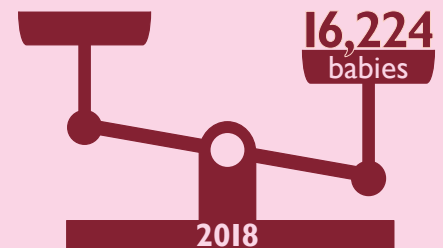
Short term



Long term

How many babies have a low birth weight at term?

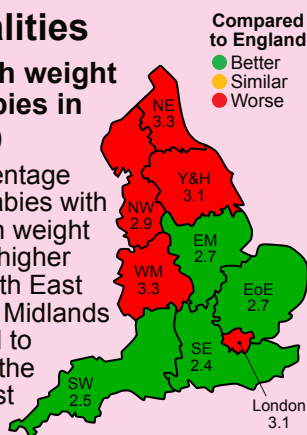
3% of term babies had a low birth weight in 2018, that's



Inequalities

Low birth weight term babies in 2018 (%)

The percentage of term babies with a low birth weight was 1.3x higher in the North East and West Midlands compared to babies in the South East

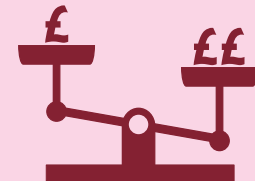


Inequalities

3900 Low birth weight at term in the most deprived group was 1.6x higher than in the least deprived group. If the proportion of term babies with a low birth weight was that of the least deprived group for all deprivation deciles there would have been about 3,900 fewer term babies with a low birth weight

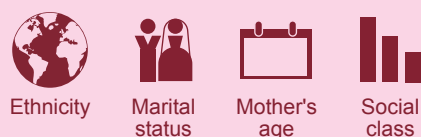
Costs of low birth weight

Birth weight is an important determinant of hospital costs; As birth weight decreases average hospital costs increases



Risk factors

Socioeconomic



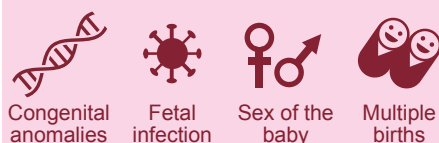
Environment



Medical



Infant



Actions to reduce low birth weight

Reducing low birth weight involves tackling modifiable risk factors for low birth weight, including:

Maternal

- ✓ Reduce smoking
- ✓ Optimise health
- ✓ Micronutrient supplementation
- ✓ Prevent and treat infectious diseases



Healthcare

- ✓ Ensure access to antenatal care
- ✓ Provide enhanced genetic services

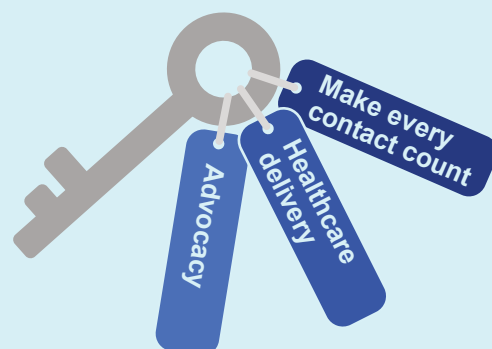


Wider determinants

- ✓ Reduce poverty
- ✓ Reduce teenage pregnancy



What can health professionals do?



- 1 ✓ Ask about smoking and signpost to smoking cessation support
✓ Support pregnant women to take the recommended micronutrients
- 2 ✓ Attend relevant training to ensure high quality care
✓ Increase awareness of early booking
- 3 ✓ Promote services known to negate child poverty
✓ Support action to prevent unplanned teenage pregnancies
✓ Strengthen the evidence base on the causes of low birth weight



Tooth decay in five year olds

Why it matters



Oral health is an important aspect of a child's overall health status



Tooth decay is the most common chronic disease in childhood even though it is largely preventable



Tooth extraction is the number one reason why five to nine year olds are admitted to hospital

How many 5 year olds have tooth decay?



About 1 in 4 children aged 5 years have tooth decay



On average 3.4 teeth are affected and most tooth decay is untreated

Risk factors for tooth decay

Increased risk



Deprivation



Ethnicity



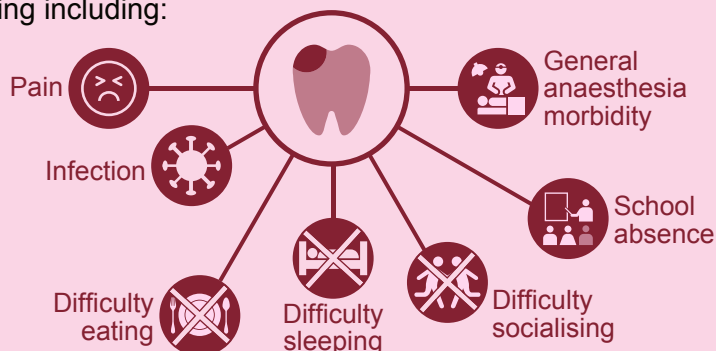
Poor diet



Poor oral hygiene

Impact of tooth decay

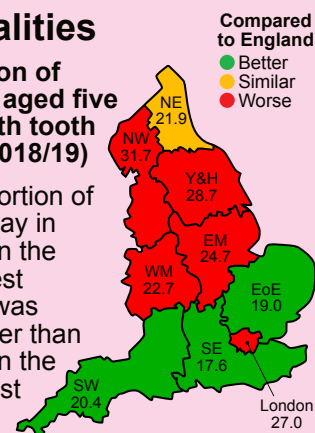
Tooth decay has a significant impact on a child's health and wellbeing including:



Inequalities

Proportion of children aged five years with tooth decay (2018/19)

The proportion of tooth decay in children in the North West (31.7%) was 1.8x higher than children in the South East (17.6%)



Costs

Dental diseases place significant costs on the NHS

£836

Average cost of a tooth extraction in hospital for a child aged under 5 years

£50.5 million

Cost of tooth extractions in children <19 years in 2015 to 2016

£7.8 million

Cost of tooth extractions in children <5 years in 2015 to 2016

Return on investment



Every £1 invested in targeted community fluoride varnish programmes returns:

- £2.29 after 5 years, increasing to
- £2.74 after 10 years



Every £1 invested in targeted supervised toothbrushing returns:

- £3.06 after 5 years, increasing to
- £3.66 after 10 years

Actions to reduce tooth decay



Brush with a fluoride toothpaste for 2 minutes twice a day

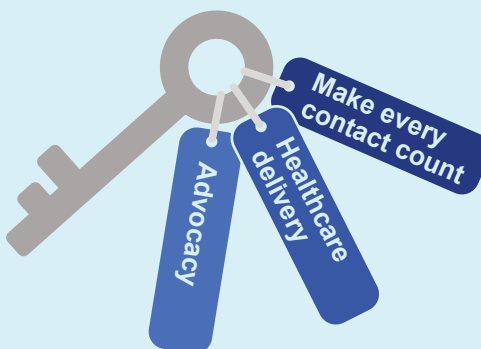


Reduce the consumption of food and drinks that contain sugars



Take the child to the dentist when the first tooth erupts at about 6 months and then regularly

What can health professionals do?



- ✓ **Ask:** if their child has received dental care

✓ **Advise:** encourage regular dental checks

✓ **Act:** signpost to the Sugar Smart app to support reduced sugar in diets
- ✓ Provide oral health messages to parents and carers

✓ Support initiatives to improve service provision to dental care
- ✓ Advocate on policy actions to support healthier diets and reduce sugar consumption

✓ Support water fluoridation



Overweight or obesity in children

Why it matters

- ⚠ Childhood obesity is one of the biggest public health challenges facing the UK
- ⚠ Being overweight or obese in childhood has profound impacts on the health and life chances of children
- ⚠ Obese children are much more likely to become obese adults

Impact of childhood obesity

Increased risk of



Bone and joint problems



Low self esteem and depression



Breathing difficulties



School absence



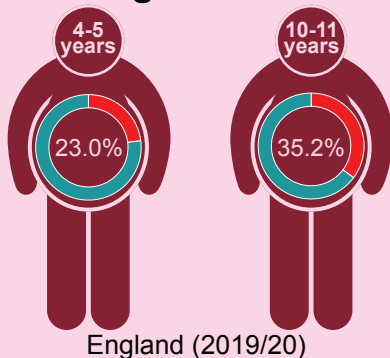
High blood pressure and high cholesterol



Type 2 diabetes



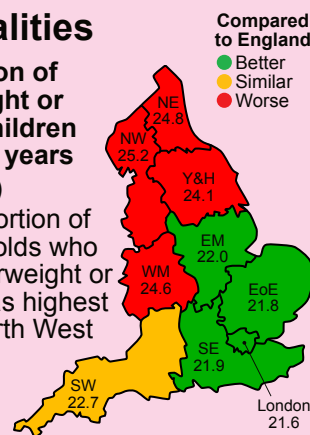
How many children are overweight or obese?



Inequalities

Proportion of overweight or obese children aged 4-5 years (2019/20)

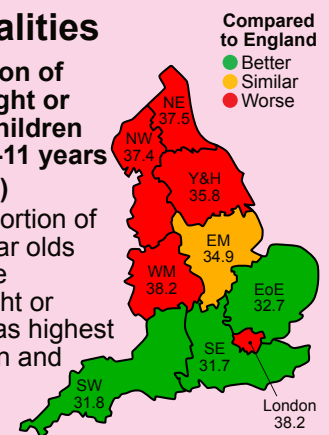
The proportion of 4-5 year olds who were overweight or obese was highest in the North West



Inequalities

Proportion of overweight or obese children aged 10-11 years (2019/20)

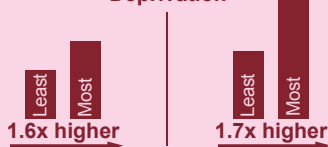
The proportion of 10-11 year olds who were overweight or obese was highest in London and the West Midlands



Inequalities

Childhood obesity varies significantly across communities and social groups (2019/20)

Deprivation



Ethnicity



Actions to reduce obesity

Reducing obesity requires many actions delivered by a range of different sectors, including:



Government

- ✓ Subsidies and taxes
- ✓ Reformulation



Education

- ✓ Encourage physical activity



Family

- ✓ Parental education
- ✓ Healthy meals



Local government

- ✓ Public health campaigns



NHS

- ✓ Breastfeeding support



Environment

- ✓ Urban planning
- ✓ Active transport

Costs of obesity

Obesity costs are huge

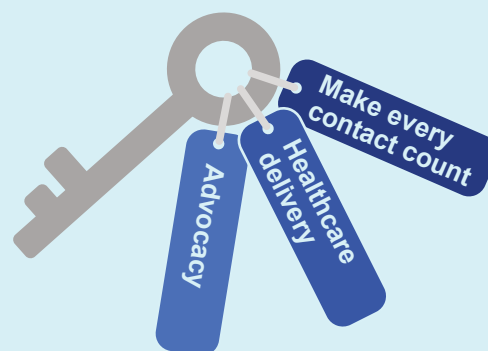
£6.1 billion

Annual costs to the NHS of treating overweight and obesity related ill health

£27 billion

Costs of obesity to the wider economy

What can health professionals do?

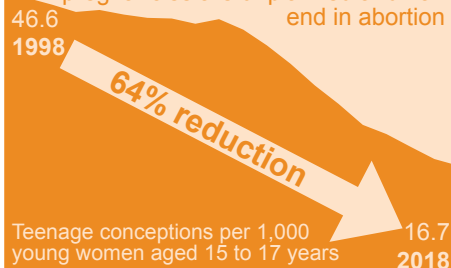


- 1 ✓ Provide consistent evidence-based healthier weight, optimal nutrition and physical activity, advice
 ✓ Use opportunistic moments to open up conversations about weight
 ✓ Promote breastfeeding uptake and duration
 ✓ Encourage parents to sign up for the Start 4 Life information service for children from 0 to 5 years
- 2 ✓ Be familiar with the local obesity care pathway and the services and support that are available
- 3 ✓ Advocate for policies at a national level that support families to make healthier choices about nutrition and physical activity

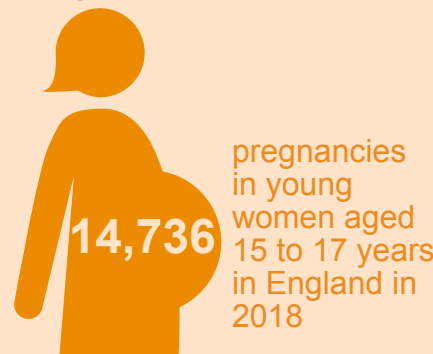
Teenage pregnancy

Why it matters

Although the teenage pregnancy rate has reduced it still remains higher than a number of other western European countries. About 75% of teenage pregnancies are unplanned and half end in abortion



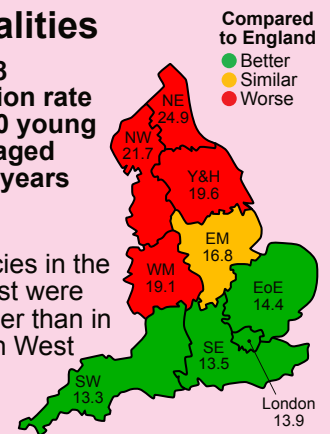
How many teenage pregnancies are there?



Inequalities

Under 18 conception rate per 1,000 young women aged 15 to 17 years (2018)

Teenage pregnancies in the North East were 1.9x higher than in the South West



Risk factors



Individual

- Drug and alcohol use
- Experience of a previous pregnancy
- Experience of sexual abuse
- First sex before 16
- Lack of knowledge about sex or contraception
- Low self esteem
- Poor school performance



Family

- Ethnicity
- Family history of teenage pregnancy
- Frequent family conflict
- Living in care
- Lower social class

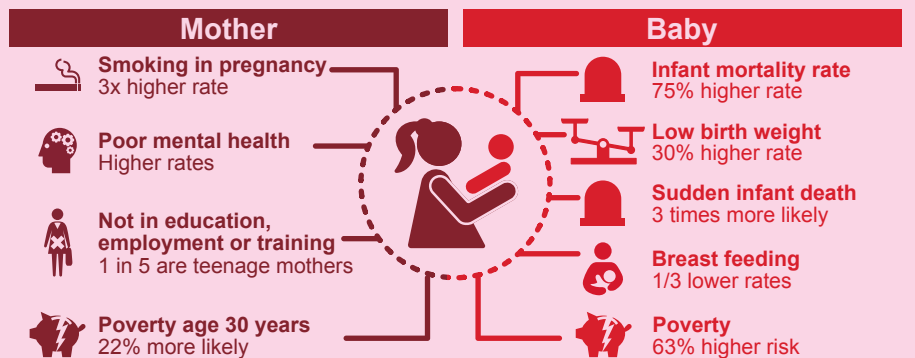


Social

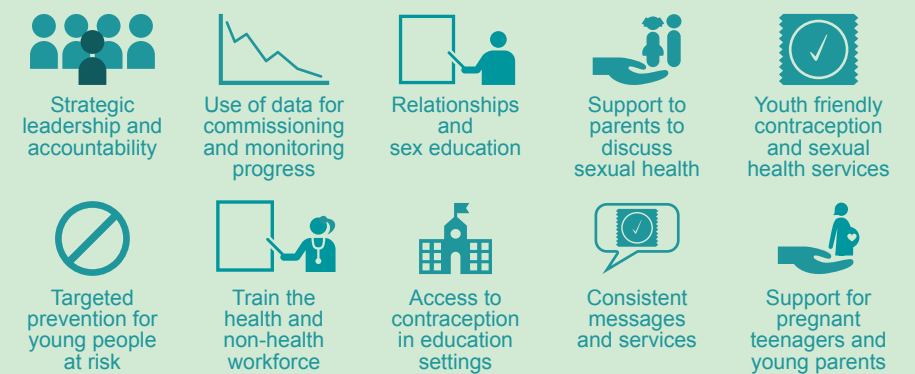
- Dating someone who is older
- Pressure from peers to have sex

Impact of teenage pregnancy

Outcomes for teenage mothers and their babies are disproportionately poor

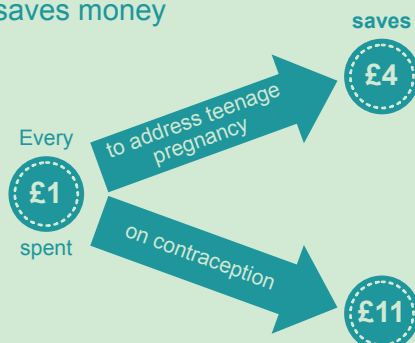


Actions to reduce teenage pregnancy

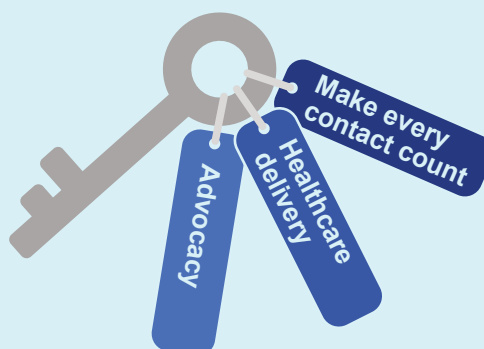


Return on investment

Addressing teenage pregnancy saves money



What can health professionals do?



- ✓ Let young people know what services are available at the practice/school/clinic
 - ✓ Equip young people with negotiating skills to resist peer pressure
- ✓ Offer youth friendly contraception and sexual health services
 - ✓ Utilise the 'You're Welcome' quality standards
 - ✓ Work with colleagues to discuss how to be more 'teenage friendly'
- ✓ Contribute to sex and relationships education
 - ✓ Support strategic multi-agency partnership working to reduce teenage pregnancy



Chlamydia

Why it matters

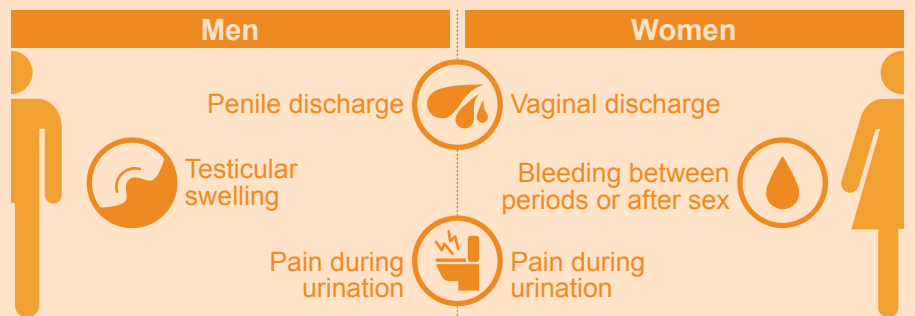
Chlamydia is a bacterial infection passed on through unprotected sex

49% of all diagnoses of sexually transmitted infections (STIs) in England in 2019 were of chlamydia

59% of chlamydia diagnoses in England in 2019 were in young people aged 15 to 24 years

Symptoms

Most people with chlamydia do not notice any symptoms. If there are symptoms they include:



How many young people are diagnosed?

134,418

young people aged 15 to 24 years were diagnosed with chlamydia in England in 2019

That's about one young person diagnosed every four minutes



Risk factors

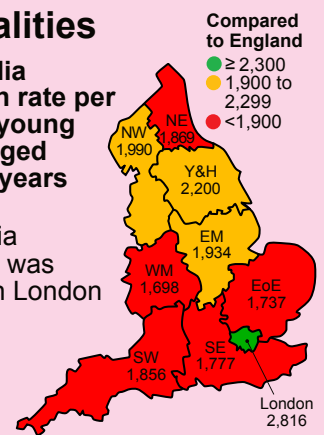
Any sexually active person can be infected with chlamydia. People more at risk include:

- Black minority ethnic populations
- Men who have sex with men
- People living in more deprived areas
- Young people aged 15 to 24 years

Inequalities

Chlamydia detection rate per 100,000 young people aged 15 to 24 years (2019)

Chlamydia detection was highest in London



Health consequences

The consequences of untreated genital chlamydia may include:

- *Urethritis
- *Epididymitis
- *Proctitis
- *Pelvic inflammatory disease
- *Infertility
- *Ectopic pregnancy
- *Neonatal conjunctivitis
- *Neonatal pneumonia

Actions to prevent chlamydia infections

Prevention is key to achieving good sexual health outcomes including

- Reduce risk**
Education
Condom use
- Test <25 year olds**
If sexually active - annually or following partner change
- Treat**
Treatment and partner management

Prevention requires a whole systems approach, including

- Schools**
Relationships and sex education
- NHS**
Opportunistic testing and treatment
- Local authorities**
Deliver testing and treatment pathways

Impact of screening

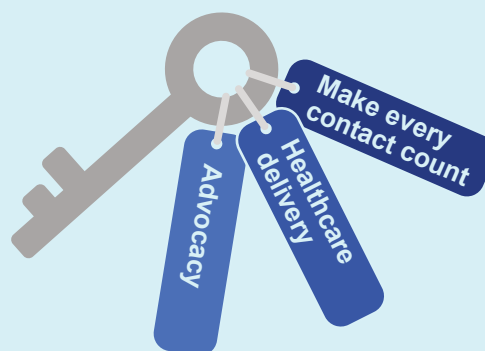
36% reduction in the risk of developing pelvic inflammatory disease within one year

Screening men and women < 25 years old can be cost effective

Diagnosing and treating asymptomatic chlamydia infections can reduce the chance of developing complications



What can health professionals do?













- ✓ Identify risky behaviour
 - ✓ Provide healthy and safer sex advice, including consistent condom use and other risk reduction behaviour
 - ✓ Signpost and promote local services
 - ✓ Offer opportunistic testing and treatment
- ✓ Support the development of integrated chlamydia screening
 - ✓ Ensure services are young people friendly
- ✓ Support the development of national services and standards

Measles, mumps and rubella vaccination

Why it matters

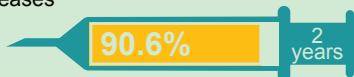
- ✓ Measles, mumps and rubella (MMR) vaccination save lives and prevents serious illness and disability
- ✓ Vaccination protects people who are more vulnerable e.g. people who are immunocompromised
- ✓ MMR vaccination is safe and effective, 2 doses are needed for best protection

Impact of measles, mumps and rubella

Measles	Mumps	Rubella
Measles can lead to:	Mumps can lead to:	Rubella in the first 3 months of pregnancy can lead to:
 Pneumonia	 Meningitis	 Miscarriage or stillbirth
 Deafness	 Encephalitis	 Congenital rubella syndrome
 Encephalitis	 Pancreatitis	
 Death	 Deafness	

How many children are immunised with MMR?

The World Health Organisation recommends that on a national basis $\geq 95\%$ of children are immunised against vaccine preventable diseases



90.6% of two year olds in England received one dose of MMR in 2019/20



86.8% of five year olds in England received two doses of MMR in 2019/20

Inequalities

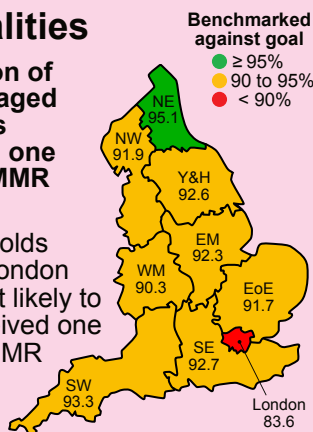
Many factors affect uptake of immunisations including:

Ethnicity	Socioeconomic status	Family size
		
Religious or cultural beliefs	Children with learning disabilities	Lack of access to services
		

Inequalities

Proportion of children aged two years receiving one dose of MMR (2019/20)

Two year olds living in London were least likely to have received one dose of MMR



Parental attitudes

93% of parents were confident with the UK vaccination schedule

90% of parents automatically opt to vaccinate their children

Return on investment

MMR: A healthy return on investment

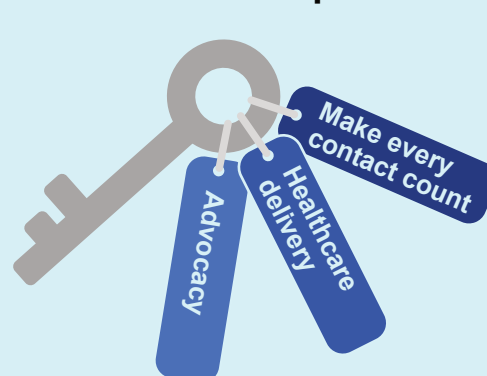
£14 Every £1 spent on the MMR immunisation programme returns £14

20x Public health interventions to manage an outbreak of measles are estimated at 20 times the cost of vaccinations

Actions to improve MMR uptake

- Improve data collection and reporting
- Develop a comprehensive commissioning approach e.g. accessibility of services and digital opportunities to target populations with lower uptake
- Staff engagement and training to promote uptake
- Effective communication to families

What can health professionals do?



- 1 ✓ Ask about immunisation uptake and encourage immunisations in children who have not been immunised
- 2 ✓ Support the delivery of the Healthy Child Programme
 - ✓ Ensure parents/carers have access to evidence based information about immunisations
 - ✓ Ensure services are culturally sensitive and accessible to all
- 3 ✓ Use opportunities during or following outbreaks to raise community awareness and offer MMR vaccination

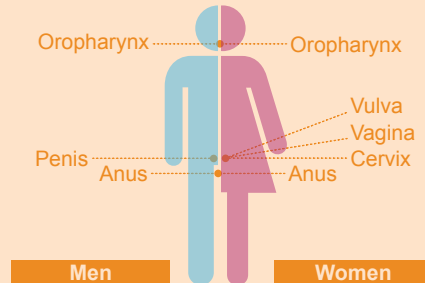
Human papilloma virus (HPV) vaccination

What is HPV?

- HPV is the name for a group of over 200 viruses
- HPV infects the deepest layers of the skin or genital areas
- 4 out of 5 people will be infected with a type of HPV in their lives
- Most HPV infections are symptomless and resolve on their own within 2 years

Why it matters

A small proportion of infections with certain types of HPV can persist and progress to cancer

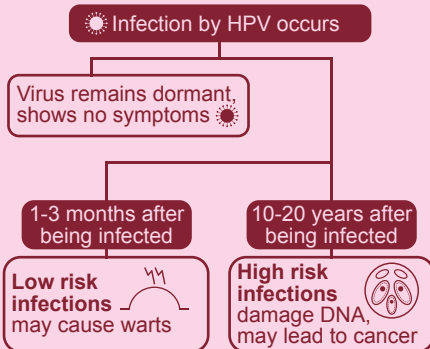


How many cancers is HPV responsible for?

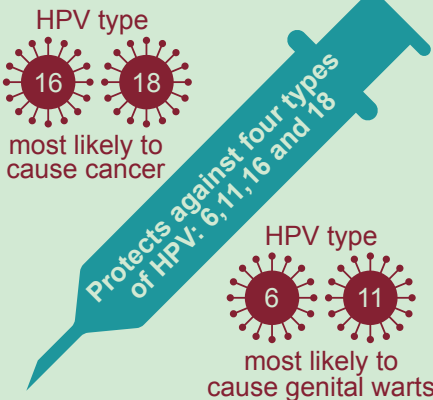
5% of all cancers worldwide

Cancer	Percentage	Annual number of cases in UK
Cervical	99	3,200
Anal	90	1,400
Vulvo-vaginal	70	1,550
Oropharyngeal	70	2,980 (England)
Penile	60	640

How HPV causes cancer

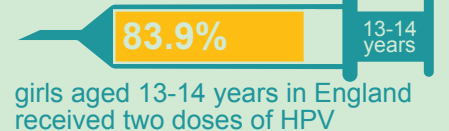


HPV vaccine



How many girls are immunised?

The WHO recommends that >90% of girls are fully immunised with HPV vaccine by 15 years
In 2018/19



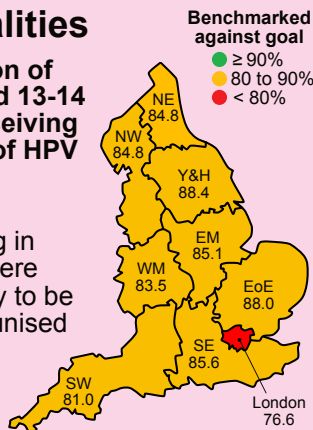
girls aged 13-14 years in England received two doses of HPV

From September 2019 boys aged 12 to 13 years will be offered the HPV vaccine for the first time in England

Inequalities

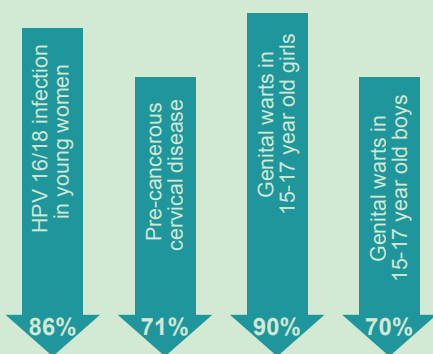
Proportion of girls aged 13-14 years receiving 2 doses of HPV vaccine (2018/19)

Girls living in London were least likely to be fully immunised with HPV



Impact of HPV immunisation

Since 2008 HPV vaccine reduced



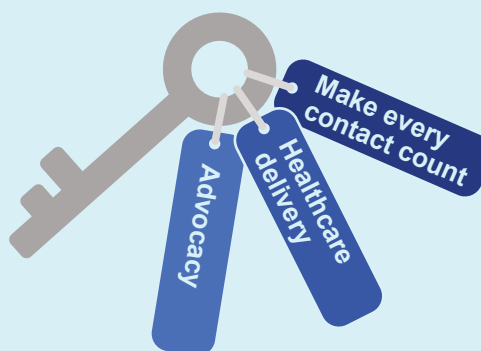
Modelling estimates that by 2058 in the UK, the HPV vaccine programme could prevent up to

63,138 HPV-related cervical cancers
49,649 HPV-related other cancers

Actions to improve HPV immunisation uptake

- Improve data collection and reporting
- Develop a comprehensive commissioning approach e.g. accessibility of services and digital opportunities to target populations with lower uptake
- Staff engagement and training to promote uptake
- Effective communication to families and young people

What can health professionals do?



1. Ask about immunisation uptake and encourage immunisations in young people who have not been immunised
2. Ensure parents/carers and young people have access to evidence based information about immunisations
 - Ensure services are culturally sensitive and accessible to all
3. Promote initiatives to increase HPV vaccination nationally and locally, seeking to advance best practices

A&E attendance

Why it matters



Emergency care across the NHS in England is under great pressure

Rates of A&E attendance have increased over recent years

Children and young people are more frequent users of A&E than adults

A&E attendances in children aged 0-4 years are often preventable



How many children attended A&E?

2,193,044

children aged 0-4 years attended A&E in 2018/19

that's about
4 children every minute



Attendance trends

There was a 35% increase in A&E attendance of children aged 0-4 years over an eight year period



What influences A&E attendance?

Many factors influence attending an A&E including:



Accessibility and quality of primary and social care



Higher neighbourhood deprivation



Childcare experience

Common causes of emergency admissions

In 2015/16, 10 conditions accounted for 42% of all emergency admissions for children and young people:



Viral infections



Acute bronchitis



Other upper respiratory tract infections



Abdominal pain



Intestinal infection



Tonsillitis



Poisoning by medication and drugs



Epilepsy, fits



Asthma

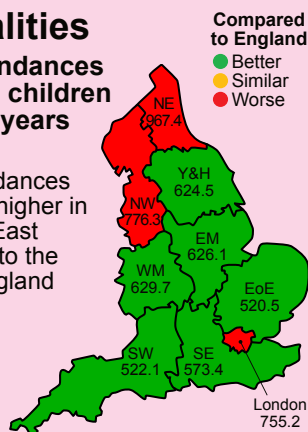


Arm fracture

Inequalities

A&E attendances per 1,000 children aged 0-4 years (2018/19)

A&E attendances were 1.9x higher in the North East compared to the East of England



Actions to reduce A&E attendance

Actions to reduce A&E attendance include:

Healthcare provision	Prevention	Parental support
Improve access and quality of care in the community	Promote breastfeeding	Support parents to stop smoking
Provide extended opening times in primary care	Improve uptake of immunisations	Help parents manage minor illnesses
Improve online content and resources	Provide advice about accident prevention	Educate parents about good hygiene practice

Inequalities



Children aged 0-4 years from the most deprived areas are 1.4 x more likely to go to A&E than children from the least deprived areas

£30-54 million

Estimated annual savings if A&E attendances in all children aged 0-4 years were brought down to the level of the least deprived

What can health professionals do?



- Promote breastfeeding, hygiene awareness, immunisations and oral health
- Support parents to give up smoking
- Improve parental health literacy to manage minor illnesses
- Encourage access to local health services, including registration with a GP and local dentist
- Strengthen the quality of care in the community
- Promote services known to negate child poverty
- Work with local authorities to develop pathways out of homelessness



Asthma

What is asthma?

Asthma is chronic disease that inflames and narrows the airways in the lungs. It is defined by the history of respiratory symptoms such as wheezing, shortness of breath, chest tightness and coughing



Why it matters



Asthma is the most common long term medical condition in children



Asthma is the most common reason for urgent hospital admissions in children



A small number of avoidable deaths every year are from asthma

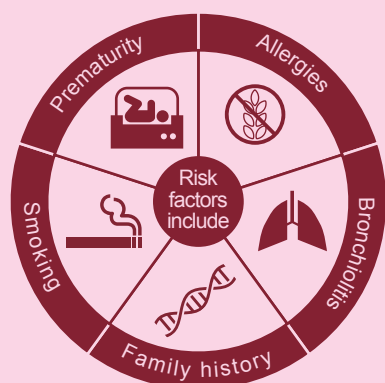
How many children have asthma?

1 in 11



children in the UK are receiving treatment for asthma, that's about **932,000** children in England

Risk factors for asthma



Triggers for an asthma attack



Impact

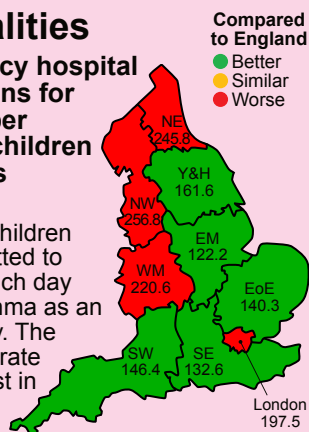
Asthma can cause a number of complications including:

Medical	Social
<ul style="list-style-type: none"> Severe asthma attacks Emergency hospital admissions Permanent decline in lung function Pneumonia Growth delay 	<ul style="list-style-type: none"> Missed school days Poor sleep Symptoms that interfere with physical activity

Inequalities

Emergency hospital admissions for asthma per 100,000 children <19 years (2018/19)

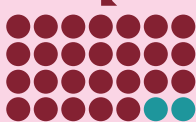
About 62 children were admitted to hospital each day due to asthma as an emergency. The admission rate was highest in the North West



Asthma deaths

Mortality rates for asthma are higher in the UK than in many other European countries

28 children and young people under the age of 20 years died from asthma in 2014



93% had preventable factors



46% had aspects of care well below the standard

Costs

£1.1 billion
Annual costs of asthma to the NHS

Cost of emergency admission compared to annual review is

23x higher

£28.6 million
Annual UK savings by implementing all elements of care

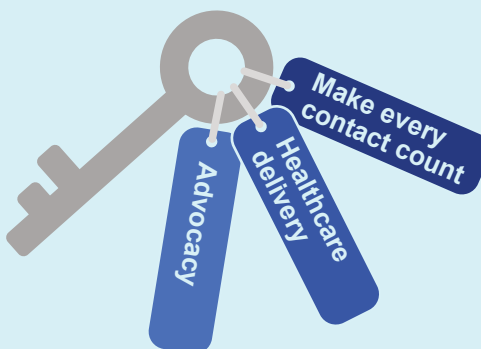
Costs of care for an asthma attack compared to well managed asthma are

3.5x higher

Actions to improve asthma care

- ✓ Prevention and long-term control are key to managing asthma
- ✓ Written action plans, education and regular medical review help to prevent or reduce the severity of an acute asthma attack
- ✓ Monitor asthma control and inhaler technique at each review
- ✓ Treat acute exacerbations in line with agreed guidelines

What can health professionals do?







- 1 ✓ Monitor asthma control and inhaler technique at each review
✓ Ask about smoking and/or second hand smoke exposure. Offer support to stop smoking as appropriate
✓ Review immunisations and encourage uptake as appropriate
- 2 ✓ Work with partners to develop new models to deliver asthma care
✓ Complete the NHS e-LfH e-Asthma programme to improve care quality
- 3 ✓ Support research to increase the understanding of asthma and lead to improvements in its management
✓ Advocate for national policies to reduce triggers e.g air pollution








Diabetes

What is diabetes?

Diabetes is a lifelong condition in which the amount of glucose in the blood is too high because the body cannot use it properly. There are two main types (1 and 2). The four common symptoms of diabetes are:






-  Frequent urination
-  Increased thirst
-  Feeling more tired than usual
-  Losing weight

Comparison of type 1 and type 2 diabetes

Type 1		Type 2
The body is unable to produce insulin	 Cause	The body does not produce enough insulin or is resistant to insulin
Usually develops in childhood	 Age	Usually develops in people aged 45 years or older
Occurs in about 95% of children and young people	 Occurrence	Occurs in about 3% of children and young people
Family history	 Risk factors	Family history, overweight, high blood pressure, ethnicity, deprivation
Insulin injections	 Treatment	Diet and exercise, tablets or insulin injections

Why it matters

Diabetes can lead to serious complications

CHILDREN	Emotional and behavioural difficulties		Depression
	Retinopathy		Blindness
	High blood pressure and cholesterol		Cardiovascular disease
	Albuminuria		Kidney failure
			Amputation
		ADULTS	

How many children have diabetes?

30,123

children aged 0-19 years in England and Wales were receiving care from a paediatric diabetic unit in 2018/19

28,569
children had type 1 diabetes

790
children had type 2 diabetes

764
children had other types of diabetes

About **8**

children aged 0-15 years in England and Wales are diagnosed with type 1 diabetes every day

How many children are admitted to hospital?

2018/19

Number of emergency hospital admissions in children <19 years with diabetes every day in England



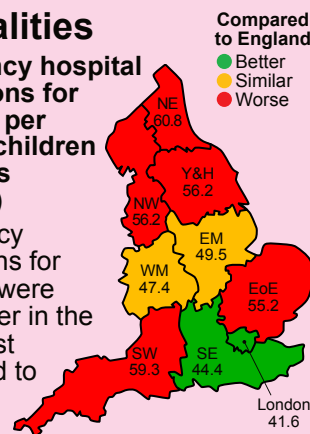
20%

Proportion of all newly diagnosed patients who had diabetic ketoacidosis at diagnosis of type 1 diabetes

Inequalities

Emergency hospital admissions for diabetes per 100,000 children <19 years (2018/19)

Emergency admissions for diabetes were 1.5x higher in the North East compared to London



Costs

Diabetes incurs considerable health and social costs. There are no studies of recent costs of childhood diabetes in England

£10 billion

Overall the NHS spends about £10 billion a year on diabetes. That's 10% of its entire budget

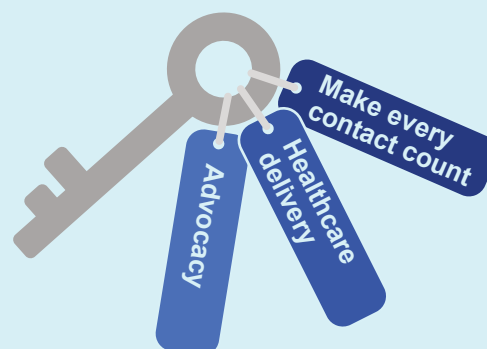
Almost 80% of the money the NHS spends on treating diabetes is on treating complications



Actions to improve diabetes care

- Treat suspected diabetes presentations in line with agreed guidelines
- Treat diabetic ketoacidosis in line with agreed guidelines
- Offer a programme of diabetes education from diagnosis that is updated at least annually
- Offer access to mental health professionals with an understanding of diabetes

What can health professionals do?



- 1 ✓ Ensure children receive the essential health checks specific to their diabetes type
 - ✓ Ask about smoking and/or second hand smoke exposure. Offer support to stop smoking as appropriate
 - ✓ Measure HbA1C four or more times per year and utilise them as part of diabetes management
 - ✓ Screen for co-morbid autoimmune diseases
- 2 ✓ Support quality improvement strategies to aimed at improving diabetes management
- 3 ✓ Advocate for national policies to prevent type 2 diabetes e.g reducing obesity



Epilepsy

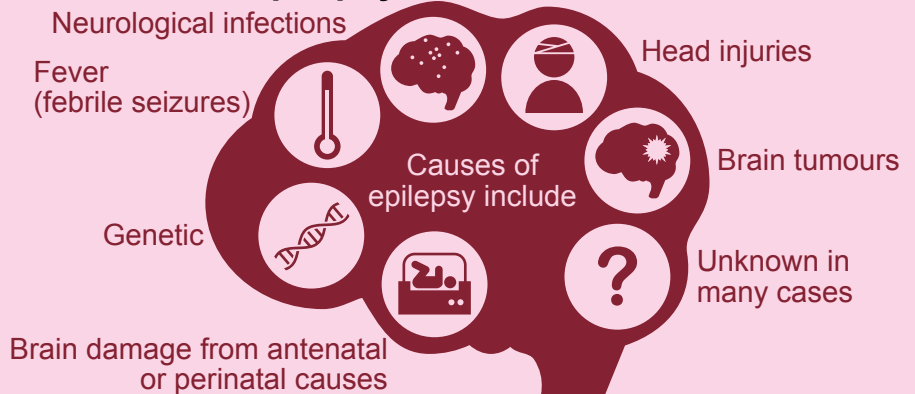
What is epilepsy?

Epilepsy is a common condition that affects the brain and causes frequent seizures

Seizures are bursts of electrical activity in the brain that temporarily affect how it works. They can cause a wide range of symptoms including:

- Uncontrollable jerking and shaking called a 'fit'
- Losing awareness and staring into space
- Becoming stiff

What causes epilepsy?



Why it matters

- ⚡ Epilepsy is the most common long-term neurological condition of childhood
- ⚡ The consequences of a diagnosis of epilepsy are severe and wide-reaching
- ⚡ Outcomes for children and young people (CYP) with epilepsy are suboptimal
- ⚡ 1 in 8 children who died from epilepsy had modifiable factors

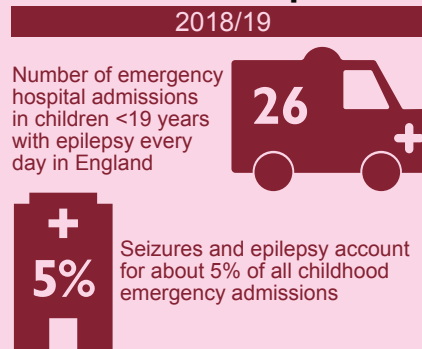
Epilepsy and mental health in children



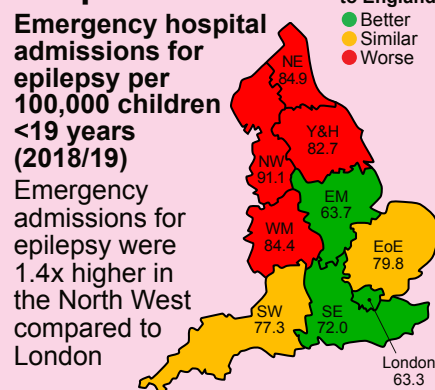
How many children have epilepsy?



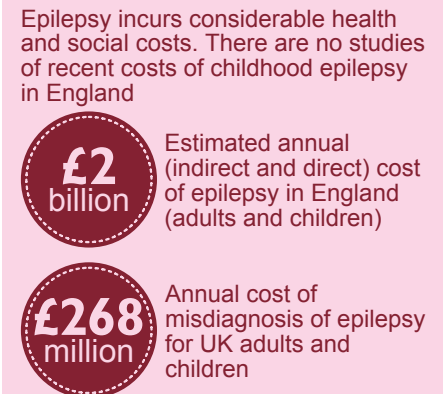
How many children are admitted to hospital?



Inequalities



Costs



Actions to improve epilepsy care

- ⚡ All CYP with a recent onset suspected seizure should be seen urgently by a specialist
- 👥 Enable CYP with epilepsy and their family to participate as partners in all decisions
- 📋 All CYP with epilepsy should have a comprehensive care plan and individualised anti-epileptic drug treatment

What can health professionals do?



1. ✓ Ensure all CYP with epilepsy should have a regular structured review
- ✓ Ensure CYP with epilepsy have an individual healthcare plan at school to ensure they are safe and included
- ✓ Ensure all CYP with epilepsy should have an Epilepsy passport including regular medications and emergency plans
- ✓ Recognise early signs of mental health problems and direct CYP to relevant support
2. ✓ Participate in the Epilepsy 12 audit to review and improve epilepsy care
3. ✓ Advocate for CYP with epilepsy to raise awareness and support CYP

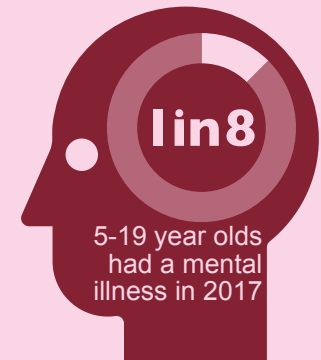
Mental health

Why it matters

Mental illnesses are a leading cause of health-related disabilities in children and young people and can have adverse and long-lasting effects



How many children have a mental illness?



Risk factors

Risk factors for mental illnesses include:

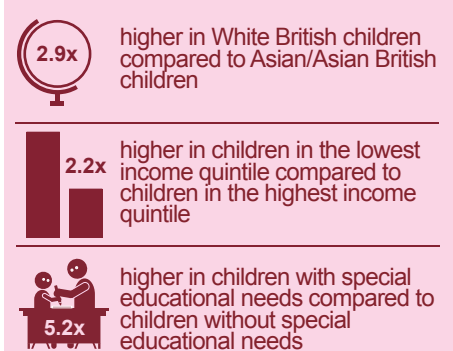


Facts about mental illness

- 25%** of children who need treatment receive it
- 50%** of those with a lifetime mental illness (excluding dementia) will experience symptoms by the age of 14
- 75%** of those with a lifetime mental illness (excluding dementia) will experience symptoms by the age of 14

Inequalities

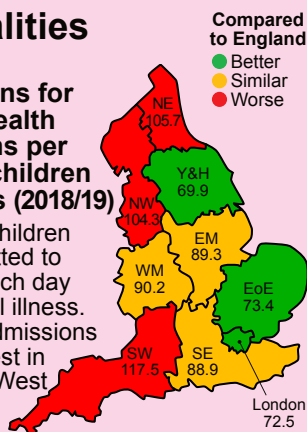
Mental illness is:



Inequalities

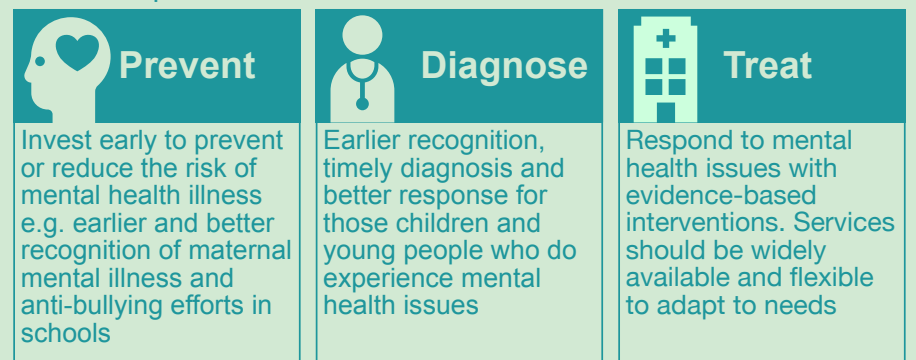
Hospital admissions for mental health conditions per 100,000 children <18 years (2018/19)

About 29 children were admitted to hospital each day with mental illness. Hospital admissions were highest in the South West

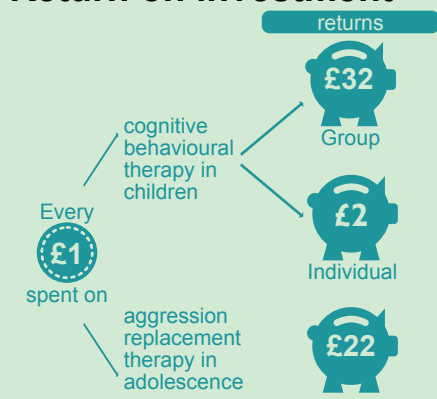


Actions to promote mental health

Actions to promote mental health include:



Return on investment



What can health professionals do?

