



# Best Start in Life:

Laying the foundations for healthier futures

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## INTRODUCTION

# It gives me great pleasure to introduce my Director of Public Health Annual Report for 2017/18.

This year my report focuses on the health and wellbeing of children aged 0-5 years old. I believe that if we are really going to reduce health inequalities across our city, we must take collective action to improve health and wellbeing in the early years of life and concentrate our efforts on the most vulnerable and powerless in society.

Marmot stated in his 2010 report, 'Fair Society, Healthy Lives', that: 'giving every child the best start in life is crucial to reducing health inequalities across the life course.'

The report paints the local picture of child and maternal health. It compares the health of young children in Bristol to the England average and to other similar communities and where possible between wards across the city. It highlights the latest evidence of what works best to improve the health and wellbeing of this age group, in particular the research evidence set out in the Marmot Report and the Royal College of Paediatrics and Child Health, 'State of Child Health' Report.

It describes what services and interventions are currently in place and what more we could be doing together to improve health and wellbeing outcomes.

Section one provides the demographic overview of 0-5 year olds in Bristol and helps to give an understanding of the different characteristics of the population of 0-5 year olds. This will help inform local organisations and communities about current and future health needs for this age group and help them provide or commission services to address them.

Sections two to five explore a number of key themes important to improving health and wellbeing including: pregnancy and infant health; early years education and health; parenting and resilience and wellbeing. Each section sets out why the theme is important to promoting health and wellbeing and compares the evidence of what works and national standards to what is currently provided in Bristol. Specific recommendations are set out at the end of each section for what more we need to be doing.

Section Six reports on progress made against the recommendations from my last year's Director of Public Health Report 2016, 'Living Well – the Case for Prevention'.

Finally, having reviewed the current picture of the health of children 0-5 years, I set out a number of recommendations for partners to consider across the city. I believe that if we address these challenges, not only will we improve the health and wellbeing of children in Bristol in the short term but we will narrow the gap in health outcomes between different groups and communities in the longer term. This will help make Bristol a fairer and more equal city in which to live.



**Becky Pollard**  
Director of Public Health,  
Bristol City Council

## EXECUTIVE SUMMARY

Bristol has a large population of under-fives and after years of growth the rate of increase is now levelling off.

The population of under-fives is not evenly spread across the city as it ranges from 1% to 15%. Almost 25% of under-fives live in low income households, but this rises to more than 50% in some areas. On average 29% of under-fives are from a Black, Asian and Minority Ethnic background, however the distribution varies considerably across the city. There is a lack of robust data on the number of children who are disabled.

Mothers in Bristol tend to be older than average and fertility rates vary four-fold across the city, there is a low fertility rate in the under 30's but it is very high in the over 35's.

The midwifery services support women and their partners during pregnancy, birth and early parenthood. Mothers and babies who have medical conditions or complications are also supported by obstetricians. There is a new specialist community perinatal mental health service, to meet the needs of mothers with mental health issues.

Outcomes for mothers and babies include: over 99% of women are seen by week 12 of their pregnancy; maternal obesity is an issue for about 20% of pregnant women; 10% of mothers reported that they were still smoking when the baby is born and this is linked to inequalities as 2% of mothers smoke in the affluent areas and around 18% in the most deprived areas, with teenage mothers three

times more likely to smoke; breastfeeding initiation rates in Bristol are very good however inequalities remain; and the percentage of low birth weight babies is the same as the national average.

Quality Early Years provision is good for all children and it has a disproportionately positive impact on the development of disadvantaged children. It can help to address inequalities in life chances. Bristol has an integrated system of early education, health and family support with a clear vision: to improve outcomes for children and families, particularly the most vulnerable, reduce disadvantage and rise aspiration.

Outcomes for children's development include: the percentage of children recorded as having a good level of development at the end of reception is significantly lower in Bristol than in England, but Bristol is average when compared to similar local authorities. There are significant inequalities

in school readiness in Bristol as Black, Asian and Minority Ethnic children are less likely to achieve a good level of development, as are children from poorer backgrounds and those with Special Educational Needs. Boys are less likely to have a good level of development than girls, but much work is being done to address this.

The Healthy Child Programme is core to the health visitor role and sets out the schedule for services covering care from 28 weeks of pregnancy through to age five. This programme is led by health visitors in collaboration with other health professionals and Children's Centres. The Integrated Health Check reviews children aged two to two-and-a-half-years old. This helps build a coherent picture of the child and enables Health Visitors, Early Years Practitioners, Community Nursery Nurses and families to share information about the child's development.

Supporting parents is essential for childhood development. Parenting support is provided across Bristol by many organisations and parents in areas of deprivation can access extra support if they need it.

Improving the health of children is also supported by: immunisation, tackling obesity in children, improving oral health, and reducing unintentional injuries.

Immunisation is the most effective public health intervention in the world for saving lives and promoting good health. Outcomes for the immunisation programme are that overall coverage of infant vaccination in Bristol is good, and the coverage with seasonal flu vaccination is higher in Bristol than nationally. The percentage of children receiving two doses of Measles, Mumps and Rubella is similar to the national average; however it is still a challenge to reach the national targets. Over the past few years Public Health England and partner organisations have put a lot of work into improving the vaccination rate.

Tackling obesity is a priority for Bristol Health and Wellbeing Board and for the Bristol Children and Families Partnership Board. In 2015/16, over a fifth of reception children in Bristol were recorded as overweight or obese. There is a higher prevalence of excess weight in four to five year-olds in areas of greater deprivation; the range is from 10% in Clifton Down to 32% in Hartcliffe & Withywood. A Bristol Healthy Weight Strategy is being developed to address this.

In Bristol, 15% of three year olds have dental decay and 29% of five-year-olds have some types of dental disease which is similar to national figures. Rates of treatment for tooth decay are higher in areas of deprivation.

Unintentional injuries are one of the main causes of premature death and illness for children in England. In Bristol, where rates are significantly higher than the average for England, the most common reason for hospital admissions for injuries in the under-fives is falls, followed by burns. Health Visitors and Children's Centres work collaboratively in preventing injuries.

Building resilience and wellbeing in young children across the social gradient is one of the most important ways of ensuring that all children have the best start in life. The most deprived areas experience significantly higher rates of risk factors for poor mental health in children than the Bristol average. These risk factors are known as Adverse Childhood Experiences (ACEs) and cover domestic violence and abuse, parental substance misuse and parental anxiety or depression. During early years children's mental ill health can be detected through the development checks and may also be picked up by staff in Early Years settings. Midwifery, health visiting, Early Years settings and the voluntary sector work with parents to support the development of close and loving relationships with their infants and young children.

## 2017/18 Key Recommendations

- For key statutory bodies to continue to invest in good quality universal Early Years services, specifically Children's Centres and health visiting and provide targeted support for those in greatest need.
- For service providers and commissioners to continue to strengthen the integration of Early Years Services for education, health and family support.
- For service providers and commissioners to support high quality data collection systems to monitor children's health and wellbeing outcomes including maternity outcomes, perinatal mental health outcomes, breastfeeding, smoking in pregnancy and immunisation uptake rates; to ensure health visitor data is recorded electronically (including the Ages and Stages Questionnaire-3 data from the two year check).
- For Bristol City Council and its partners to ensure children and their families have access to the Bristol Behaviour Change for Healthier Lifestyles programme to help promote healthy lifestyles and reduce inequalities (including weight management, support to stop smoking, emotional health and wellbeing and substance misuse advice).
- For the Health and Wellbeing Board and partners to promote the application of the 'Adverse Childhood Experiences' to the Bristol child population, as part of the city-wide 'Thrive' mental wellbeing programme.

## DEMOGRAPHY OF 0-5 YEAR OLDS IN BRISTOL

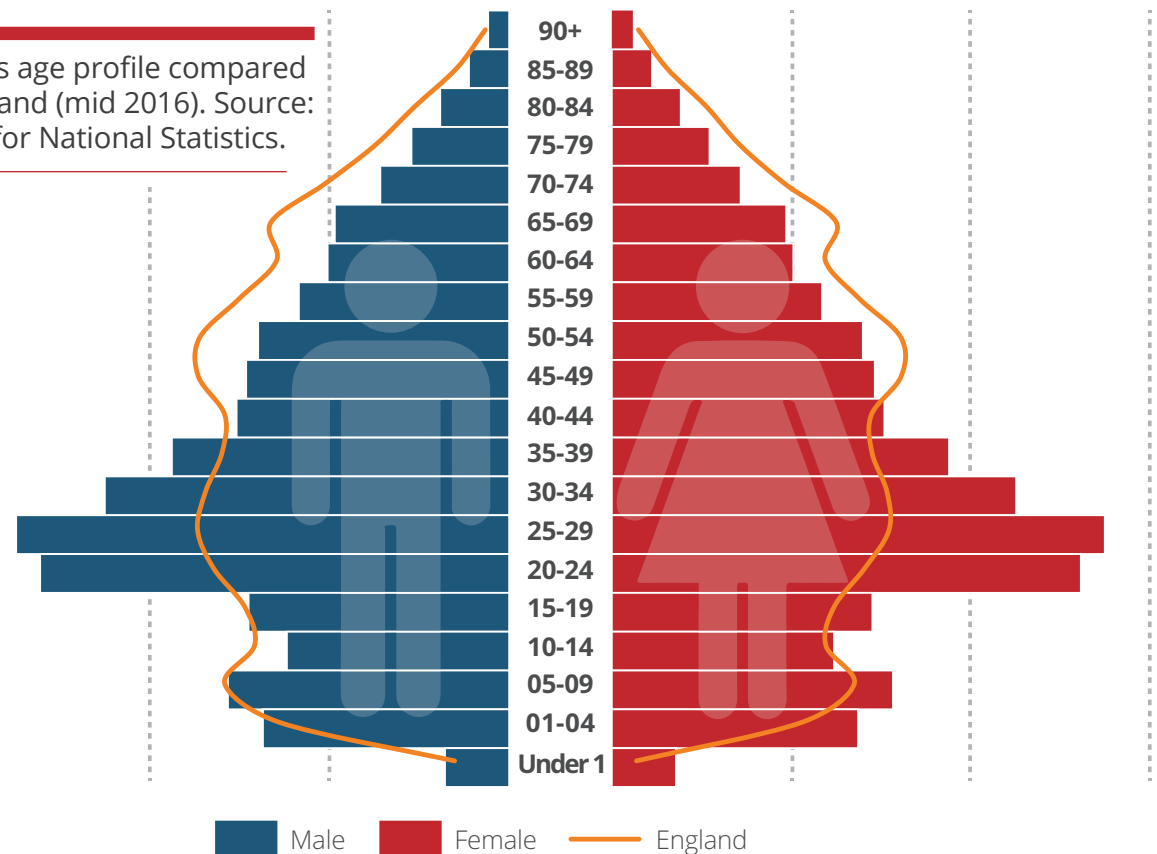
An understanding of the characteristics of the population of 0-5 year olds in Bristol can be drawn from statistics and maps. This helps the services in the city identify their current and future needs and better support their development.

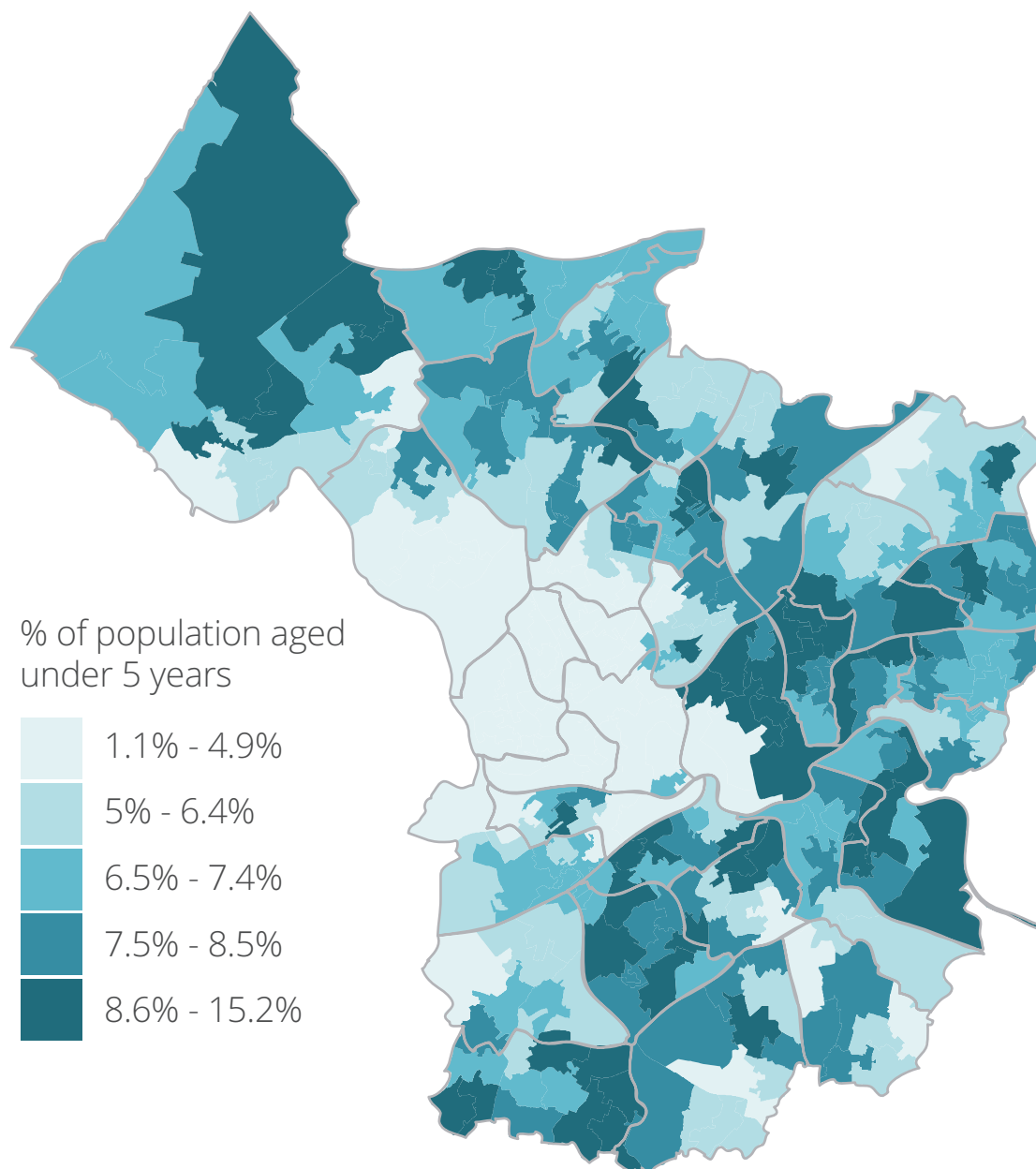
### Key Facts

- Bristol has a large population of under 5s
- The under 5s population is not evenly spread across the city and is higher in more deprived areas
- The under 5s population has grown significantly recently but is now levelling off
- Almost 1 in 4 under 5s live in low income households, but in some areas of Bristol the percentage is higher than 50%
- 29% of under 5s are from a Black, Asian and Minority Ethnic background, but this varies considerably across the city
- Sharp rise in number of births until recently, but now births are leveling
- Bristol has a higher than average proportion of older mothers
- Fertility rates vary 4- fold across the city

Bristol is the 10th largest local authority in England with a population of around 454,000 (ONS mid-year estimate 2016). Bristol has a younger population compared to England and has one of the lowest age profiles in England (see Figure 1).

**Fig 1:** Bristol's age profile compared to England (mid 2016). Source: Office for National Statistics.



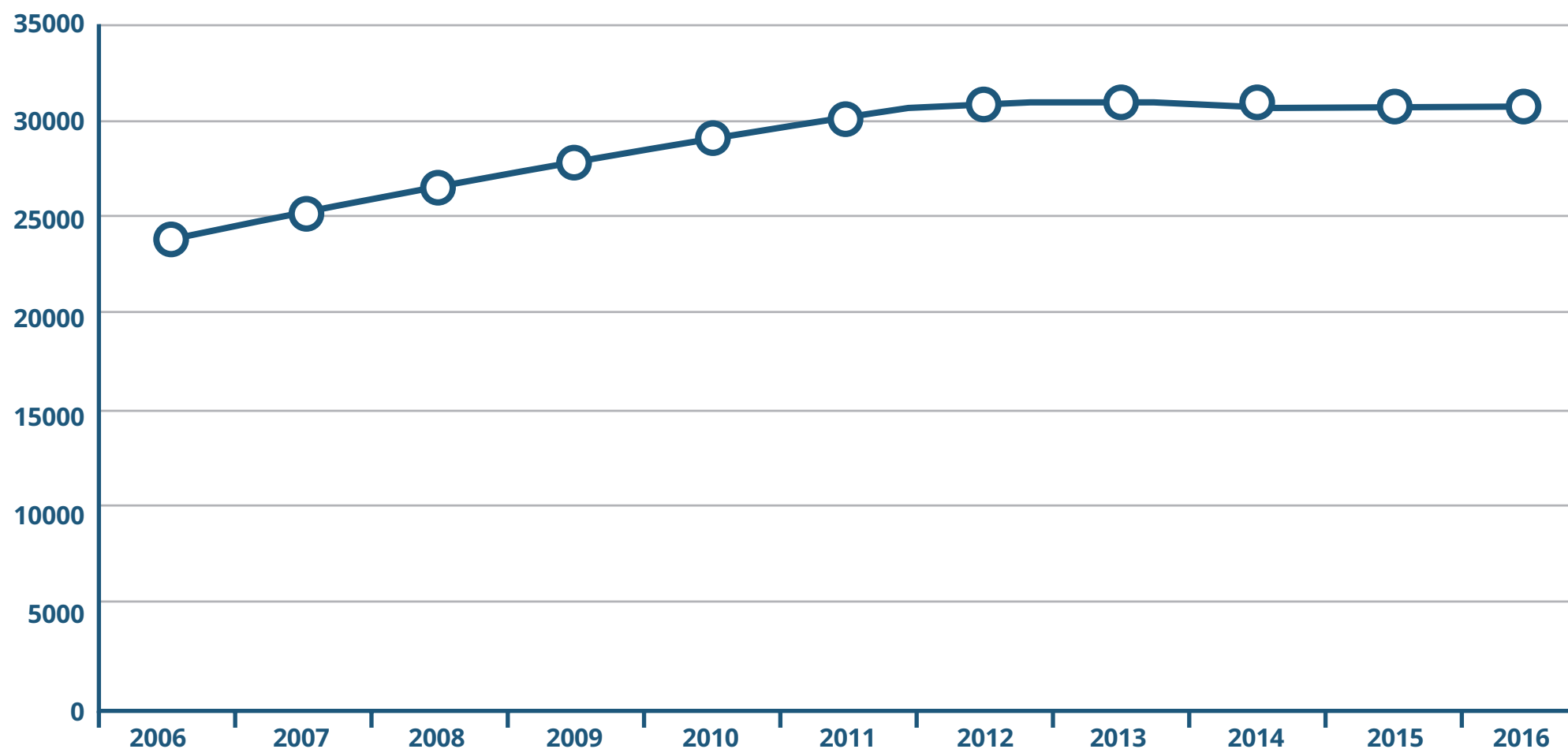


There are an estimated 30,600 children aged under five living in Bristol (ONS mid-year estimate 2016), giving Bristol the 6th largest population of under-fives in England, but this is not evenly spread across the city (Lower Clifton Hill LSOA in Clifton ward has a small under-fives population of only 1% of the population, whereas St Philips LSOA in Lawrence Hill ward is 15%). The proportion of under-fives tends to be higher in areas of higher deprivation (see Figure 2).

**Fig 2:** Proportion of population aged under 5 years in Bristol. Source: Office for National Statistics.

The number of births in Bristol grew considerably between 2006 and 2012, but these have since fallen slightly and have been stable for the past three years. The number of under-fives in Bristol grew by 29% between 2006 and 2014, and has also fallen slightly in the last few years (see Figure 3).

**Fig 3:** Trends in the number of Under 5s in Bristol.  
Source: Office for National Statistics.

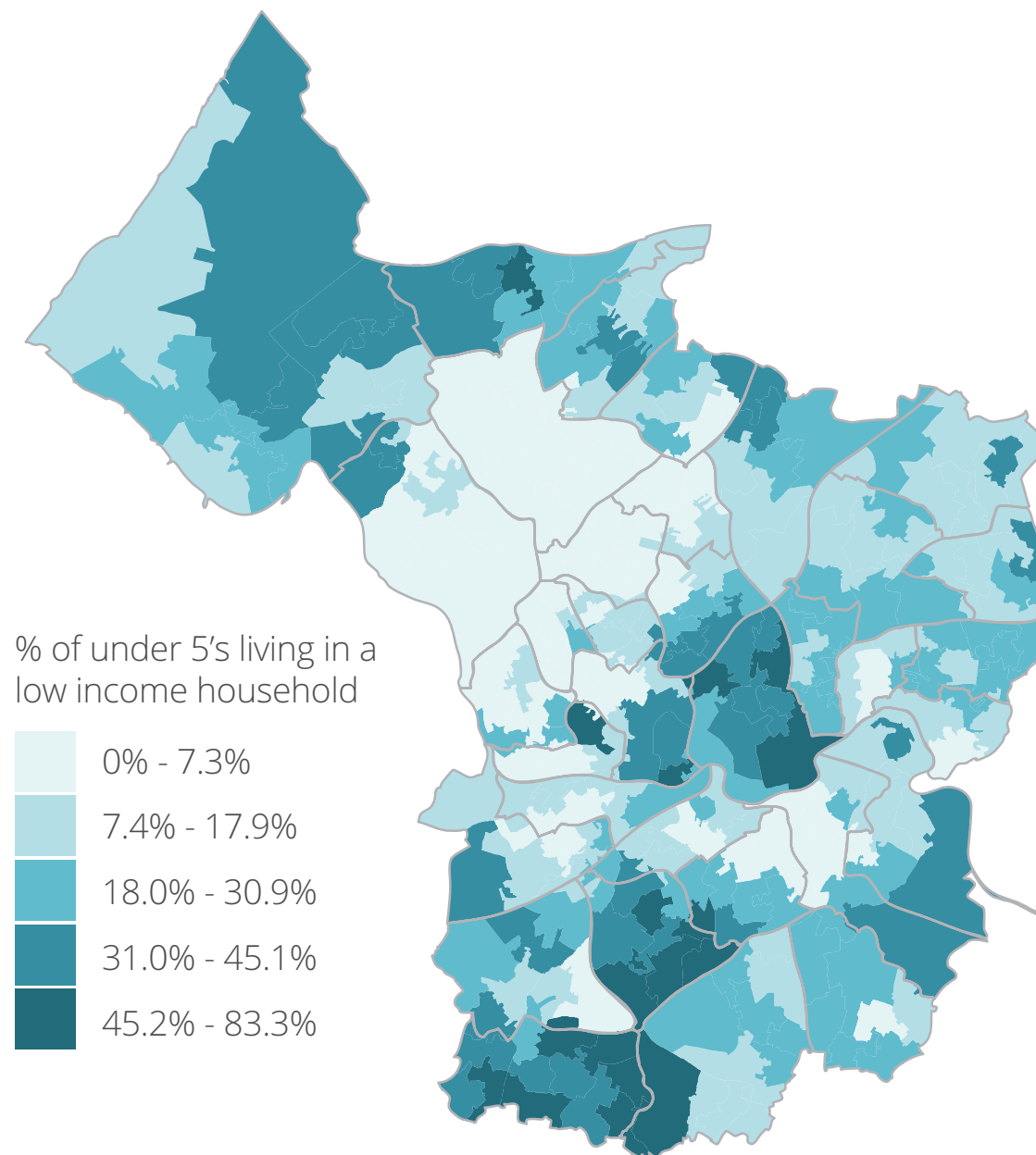




2014-based population projections suggested that the under fives population will continue to grow slowly and is expected to be around 35,500 by 2039, 16% higher than the current population. Given that the under-fives population has actually fallen in the last three years it is not clear that this projection is still likely and caution needs to be taken when dealing with population projections (they are based on purely “projecting” the birth trend forward from 2014).

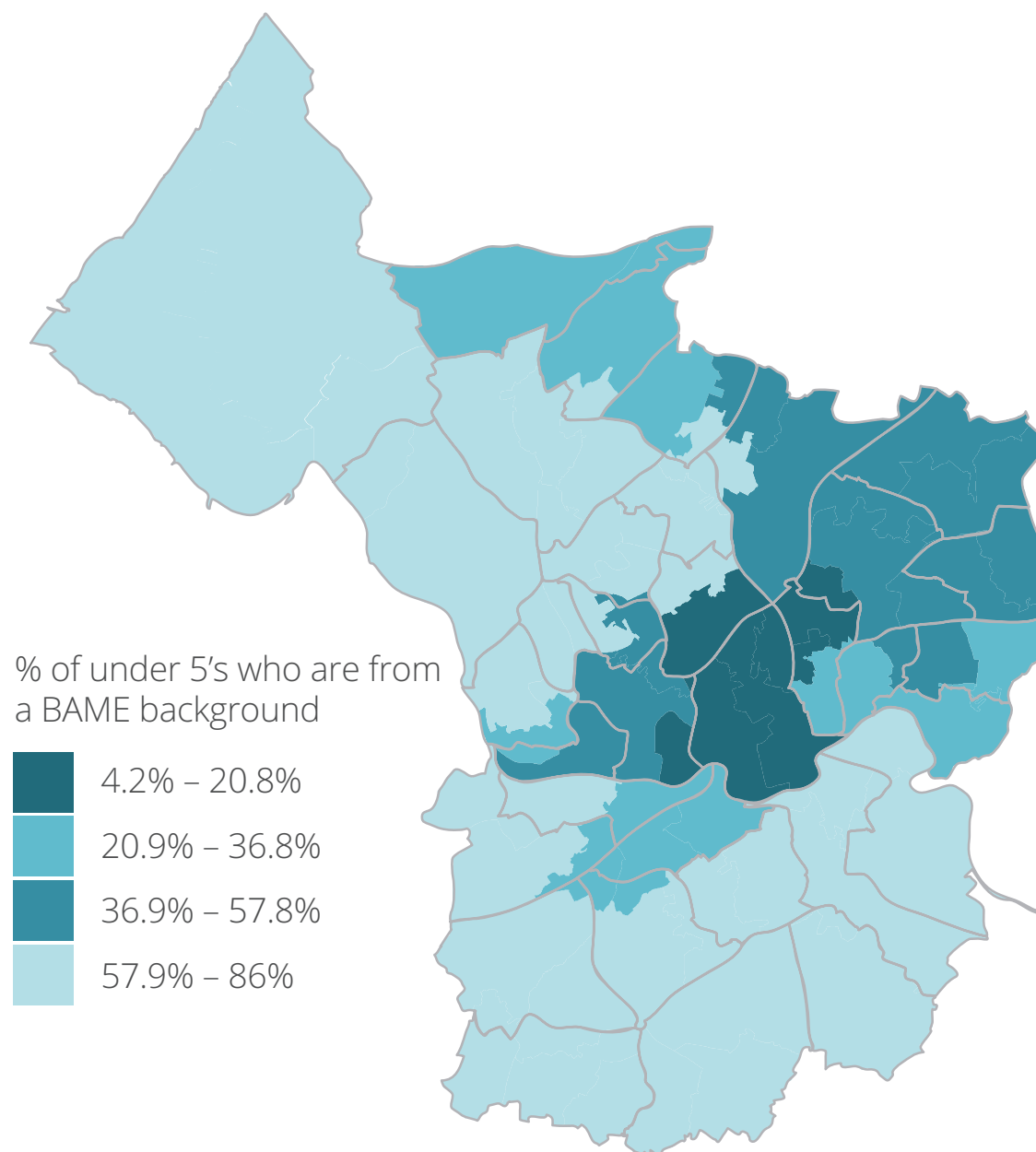
Almost 7,100 children aged under five years (23%) live in low income households in Bristol. In 15 small areas in Bristol more than half of under-fives live in low income households (see Figure 4).

**Fig 4:** Percentage of Under 5s living in low income households in Bristol.  
Source: HM Revenue & Customs (HMRC).



According to the 2011 Census the Black, Asian and Minority Ethnic group (BAME) - all groups with the exception of White, make up 16% of the total population in Bristol, similar to England level of around 15%. In the under-fives the percentage is 29%, higher than the England level of 24%. Within Bristol this percentage varies considerably, ranging from 4.2% of under-fives belonging to a BAME group in Whitchurch Park, to 85% in Barton Hill (see Figure 5).

**Fig 5:** Map of Under 5s BAME in Bristol.  
Source: 2011 Census, Office for National Statistics.

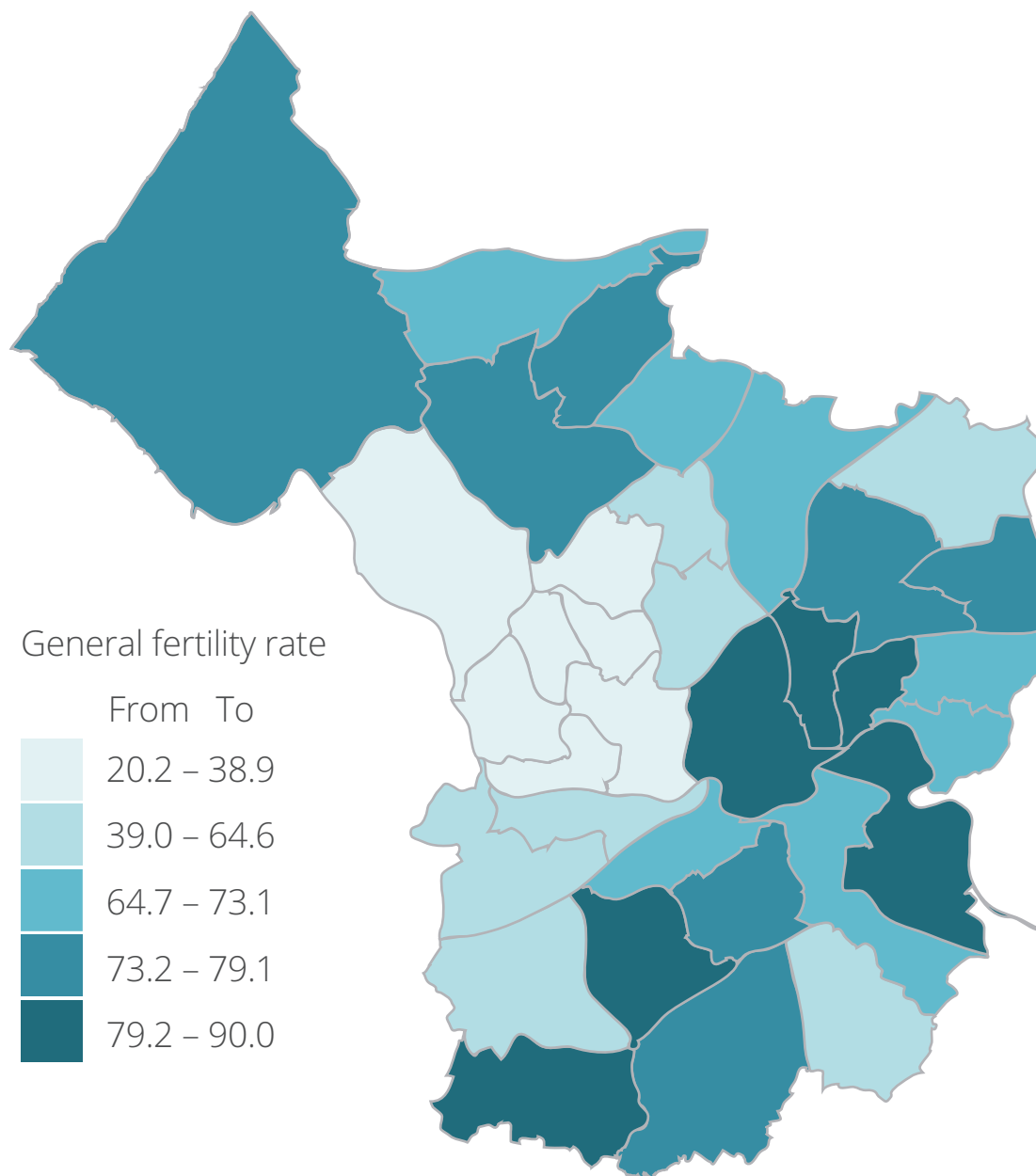


In 2016 there were 6,400 live births in Bristol, higher than previous year (Office for National Statistics). This equates to a rate of 59.0 live births per 1,000 women aged 15-44 (this is called the general fertility rate); lower than the England average of 62.3. The general fertility is about average when compared to core cities. Bristol has a much higher fertility rate in over 35 year old women compared to England and other core cities but a much lower rate in the under 30s. Within Bristol, fertility rates vary considerably, ranging from 20 births per 1,000 women aged 15-44 in Central and Clifton to 90 births per 1,000 women aged 15-44 in Hartcliffe and Withywood (see Figure 6).

**Fig 6:** Figure 6: Births per 1,000 women aged 15-44 years (general fertility rate), 2013-2015. Source: Public Health Knowledge Service, Bristol City Council.

### Disability

According to the 2011 Census there were 3,250 children aged under 16 years in Bristol with a "limiting long-term illness or disability", or 4.1% of the child population. Corresponding data for under 5 year olds is not available.



## SUPPORTING PREGNANCY AND INFANCY

In order to give every child the best start in life, Marmot recommends policy to:

- “ensure high quality maternity services to meet need across the social gradient”
- “give priority to pre- and post-natal interventions that reduce adverse outcomes of pregnancy and infancy” (Marmot 2010).

Maternal physical and emotional health and wellbeing during pregnancy and the year after childbirth (perinatal period) has a profound impact on the health of children throughout their lives (RCPCH 2017). By improving maternity care (NHSE 2016), reducing maternal obesity, reducing smoking, increasing breastfeeding rates, and improving perinatal mental health there is potential to considerably improve outcomes for mothers and infants (RCPCH 2017).

### Key points

- Maternal mortality has declined nationally.
- Infant mortality rates are high in the UK compared to other high income countries. Bristol used to be better than, but is now similar to, the England average.
- The percentage of babies born with low birth weight is generally in line with the national average, but needs monitoring as an increase was observed in the last year.
- Bristol ensures that women are seen early in pregnancy by the midwifery service. Early booking with a midwife improves outcomes. Bristol ensures that 99.9% of women are seen early in pregnancy by the Midwifery Service.



## 2.1 Maternity – What does Bristol data show us?

Ensuring that parents have access to support during pregnancy is particularly important. National guidelines (NICE 2017, NICE 2015a, NHS England 2016) highlight the need for

- A strong midwifery workforce that provides the infrastructure to support women and their partners during pregnancy, birth and early parenthood.
- Delivery of services that avoid unnecessary intervention.
- Ensuring that those women who do, or may, require intervention are signposted at an early stage to specialist care (Marmot 2010).

Maternal mortality in the UK has reduced from 14 deaths per 100,000 maternities in 2003/05 to 9 deaths per 100,000 maternities in 2011/13 (MMBRACE-UK 2016). Numbers are too small for comparisons with other areas or nationally.

Early booking with maternity services improves outcomes for mothers and babies. 99.9% of Bristol women are seen by a midwife or maternity healthcare professional by the end of 12 weeks of pregnancy (2016-17, Source: SW Maternity Clinical Network).

The Caesarean Section rate for women resident in Bristol is higher than the South West median (24.8%) at 26.2% (2016-17, Source: SW Maternity Clinical Network).

### Low birth weight

Low birth weight refers to babies who are born at term (37-42 weeks) that have a birth weight below 2.5 kilogrammes. Low birth weight is often associated with socio-economic factors and poorer long-term health outcomes. Babies born at a low birth weight are more likely to need health, education and social care support during childhood (JSNA 2017) and are more likely to develop heart disease and diabetes. A baby with low birthweight is more likely to be born to a mother with poor health in pregnancy, for instance having raised blood pressure, multiple pregnancy, smoking, drinking, taking drugs, and if they have a congenital or developmental problem. In the latest time period (2015) Bristol had one of the highest rates of low birth weight in the South West at 3.7% of births, and is significantly poorer than England (2.8%).

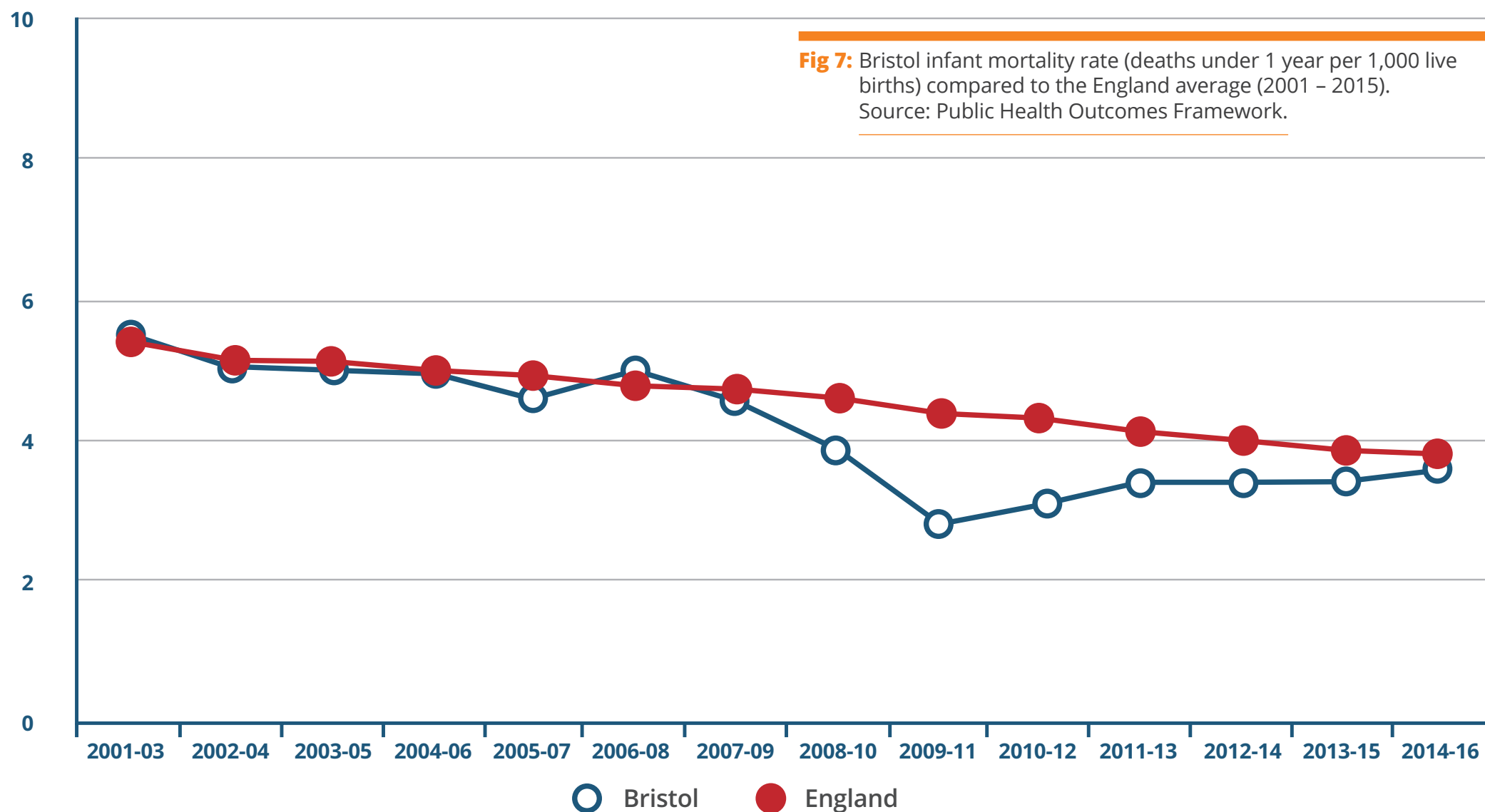
### Infant mortality

There has been some improvement in the stillbirth and neonatal mortality rates in England which fell by over 20% from 2003 to 2013 (NHS Outcomes Framework Indicator 2017). However, rates in the UK continue to be amongst the highest of high income countries (RCPCH 2017).

In Bristol, there is a general downward trend in infant mortality rates as there has been nationally (see Figure 7). In 2009-2012 infant mortality rates in Bristol fell significantly compared to the England average, but have increased a little since then.

Infant mortality and stillbirth rates are linked to a number of complex and often interrelated factors that include; poverty, obesity, mother's age (under 20 years or over 35 years), ethnicity, smoking and diabetes (type 1 or gestational).

Mothers with a history of a previous stillbirth and those who acquire infections are also at greater risk of losing their baby in pregnancy or infancy (HfP 2016). Babies who are born prematurely, multiple births and babies with a congenital abnormality are all at increased risk of dying.



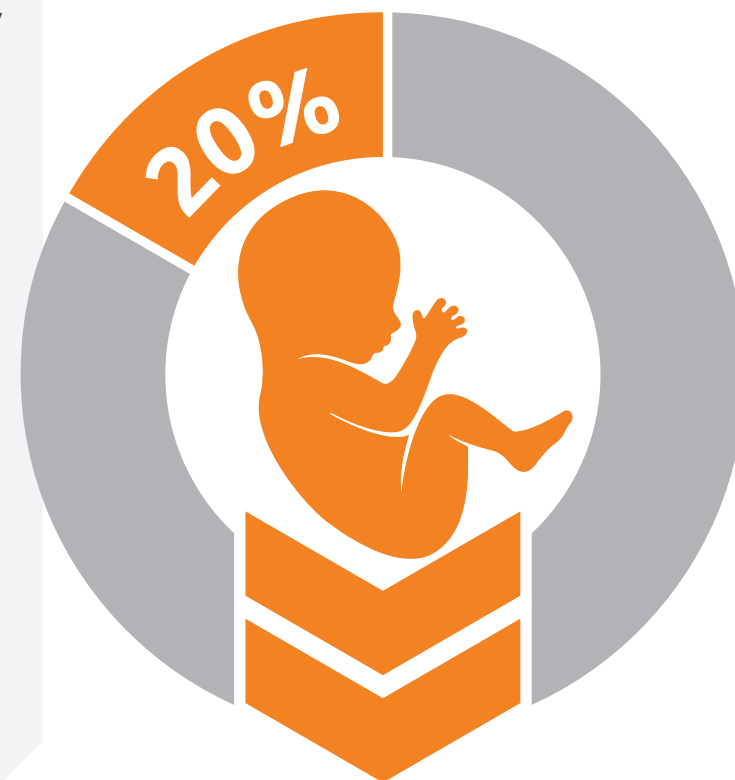
## 2.2 National recommendations for maternity services

NICE has produced detailed guidance on reducing differences in update in immunisations (NICE 2009a) which includes the following recommendations:

- **“Saving Babies Lives”** (NHS England 2016) has set out a national ambition to halve the rates of stillbirths by 2030, with a 20% reduction by 2020.
- **The National Maternity Review** (NHS England 2016) recommends seven key priorities for maternity services such as; personalised care, continuity of carer, improved perinatal mental health care, improved postnatal care, and safer care, a payment system with personal budgets, multi-professional working and working across boundaries.
- **NICE** has produced clinical guidance for effective before, during and after birth care (NICE 2017, NICE 2014d, NICE 2015a).

Recommendations focused upon four areas which have been identified as ways that may lower stillbirth rates:

- Reducing smoking rates.
- Accurate clinical monitoring of growth.
- Raising awareness of maternal reported fetal movement reduction (a key warning sign in half of late term stillborn deaths).
- Effective fetal heart rate monitoring in labour (HfP 2016).



reduction of  
stillbirths by 2020

## 2.3 What are our current maternity services in Bristol?

### Maternity services

Maternity services are commissioned by Bristol Clinical Commissioning Group to deliver care to mother and baby before, during and after birth. There are two maternity providers in Bristol. Mothers can give birth at home, in a birth centre or in a Consultant-led unit. Other services include; fetal medicine, neonatal intensive care and access to donor breast milk via the Precious Drops Milk bank.

### Midwives

Midwives provide care for women before, during and after birth in hospital and community settings. They are the lead professional in the care of women at low risk of complications. They work in partnership with obstetricians to care for women at higher risk of complications. Their role also includes; screening, safeguarding, delivery of public health messages and providing antenatal preparation classes.

### Obstetricians

Obstetricians specialise in the care of mothers and babies who have medical conditions or complications. They provide care working with midwives and general practitioners. They deliver babies who need an operative birth.

### General practitioners

Locally, general practitioners mainly provide care for women at 'low risk'. At six to eight weeks general practitioners carry out the mother's postnatal review, offer contraception and provide the eight week baby check and immunisations.

### Local Maternity System

A Local Maternity System has recently been established across the Bristol, North Somerset and South Gloucestershire area to drive an ambitious maternity transformation plan to implement the recommendations of 'Better Births' the National Maternity Review.





## 2.4 Recommendations for improving maternity services in Bristol – what more can we do?

### Recommendations for improving maternity services in Bristol

- Although there is a recent data collection through the South West Clinical Maternity Network, as yet there are few time trends and lack of national comparisons. It is recommended that there is on-going development of this set of indicators to support the local Maternity Transformation Plan.



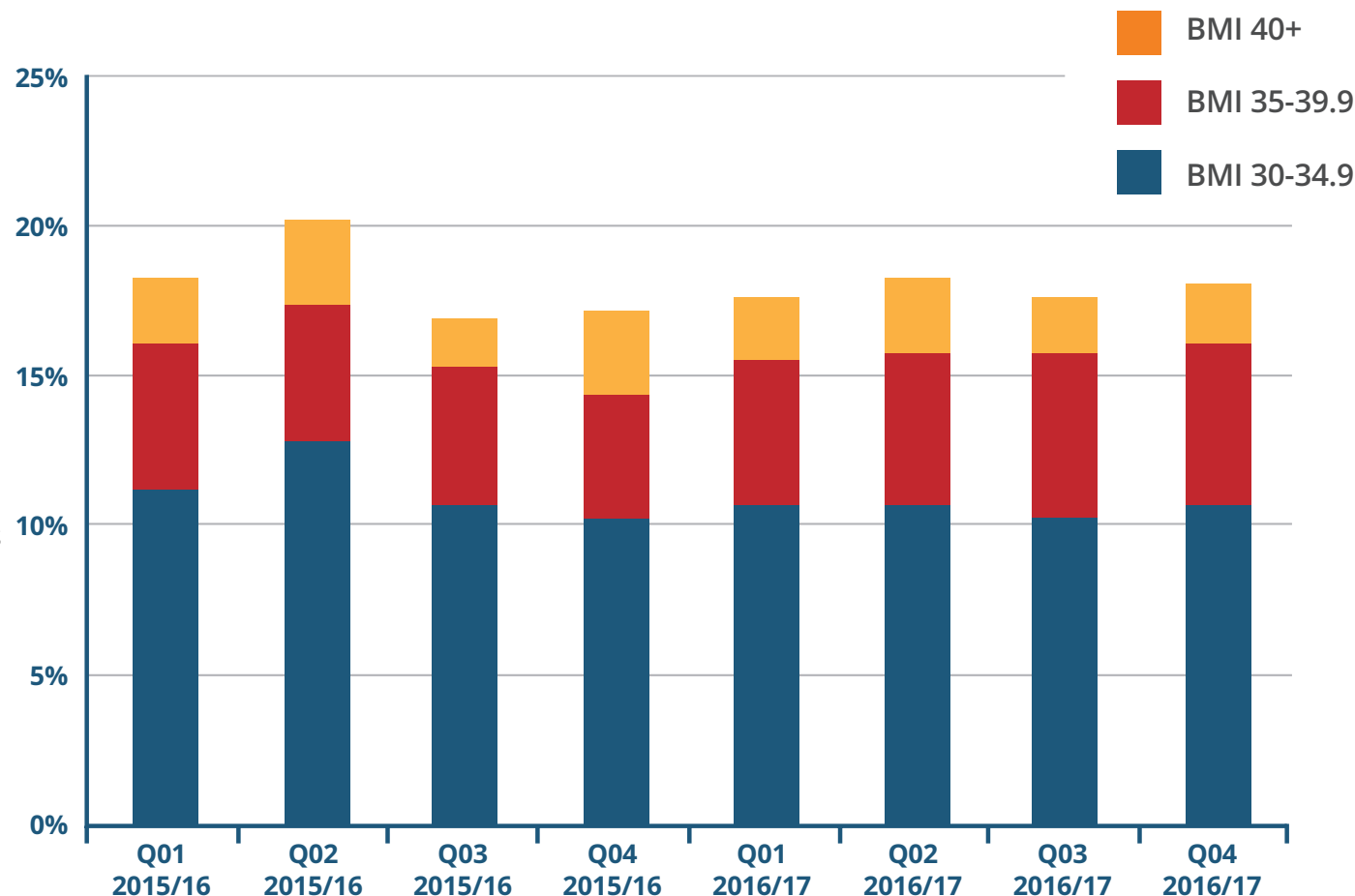
## 2.5 Improving health outcomes for infants and mothers in Bristol

### Maternal obesity

Almost one in five women is obese at antenatal booking (i.e. has a Body Mass Index greater than or equal to 30). Obesity among women during pregnancy not only influences their health, but also increases the risk of complications during pregnancy and is likely to compromise the health of their children (NHS 2016) (Davies 2015):

- For the mother – increased risk of miscarriage, stillbirth, gestational diabetes and perinatal complications.
- For the baby – increased risk of metabolic and developmental abnormalities.
- For the child – increased risk of obesity, diabetes and (high blood pressure).

Figure 8 shows the percentage of maternal obesity in Bristol. The average is 18.2% (SWCN 2017), similar to England as a whole (19%). The percentage of pregnant women who are overweight (i.e. has a Body Mass Index greater than 25 but less than 30) is not routinely available.



**Fig 8:** Percentage of pregnant women in Bristol who are obese at first booking.  
Source: South West Clinical Network Maternity Dashboard.

## What should we be doing to address maternal obesity in Bristol?

**The National Institute for Health and Care Excellence has produced public health guidelines (NICE 2010a) for weight management before, during and after pregnancy. Recommendations include:**

- Offer specific and practical advice around a healthy diet and physical activity: Dispel myths, for instance, advise that there is no need to “eat for two”. Advise eligible women on how to use Healthy Start vouchers to increase fruit and vegetable intake.
- Offer women at booking, who have a Body Mass Index of 30 or more, a referral to an appropriately trained health professional for assessment.
- Personalised advice on healthy eating and how to be physically active.
- Encourage them to lose weight after pregnancy (dieting is not recommended during pregnancy).
- Women with a body mass index of 30 or more at the six to eight-week postnatal check should be offered a referral for advice on healthy eating and physical activity, and structured weight-loss programme.
- Local authority leisure and community services should offer the opportunity to take part in a range of physical or recreational activities that are affordable, and suitable for women with babies and older children, including provision for women who wish to breastfeed.
- Ensure health professionals have the skills to advise on the benefits of weight management and risks of being overweight or obese before, during and after pregnancy.

### What are we doing to support maternal healthy weight?

- Promoting healthy weight is a priority of the Bristol Health and Wellbeing Board.
- A Great Weight Group has been set up to develop a city-wide system approach to healthy weight and to write a strategic plan. See: [www.bristol.gov.uk/social-care-health/get-involved-in-the-great-weight-debate](http://www.bristol.gov.uk/social-care-health/get-involved-in-the-great-weight-debate)
- Midwives currently weigh and measure all women at booking, and offer advice about healthy eating and physical activity in pregnancy.
- Healthy Start vitamins are promoted through the midwifery and health visiting service, and eligible women are encouraged to register for the scheme.
- Health visiting teams currently receive healthy weight training however midwifery teams do not.

- During pregnancy women can be referred to a local Weight Management on Referral service. For pregnant women, the service encourages weight maintenance through a healthy diet.
- After pregnancy, Weight Management on Referral is accessed through the Bristol LiveWell Hub.

Livewell Bristol is the central place to access Health Improvement assistance – whether that is support to stop smoking, eating healthily, moving more or reducing alcohol use. Available from:

[www.bristol.gov.uk/web/live-well-bristol](http://www.bristol.gov.uk/web/live-well-bristol)

From October 2018, the new Bristol Behaviour Change for Healthier Lifestyles Programme will be available to support healthy weight management for all women before, during and after pregnancy.

### Recommendations to reduce maternal obesity

- Ensure the new Bristol Behaviour Change for Healthier Lifestyles Programme supports the needs of women before, during and after pregnancy.
- Review provision of training offered to maternity services to support staff to advise about healthy weight.
- As part of the forthcoming Joint Strategic Needs Assessment chapter on Physical Activity, review the provision of physical activity opportunities through leisure services for women with babies and young children.

## Effects of smoking in pregnancy

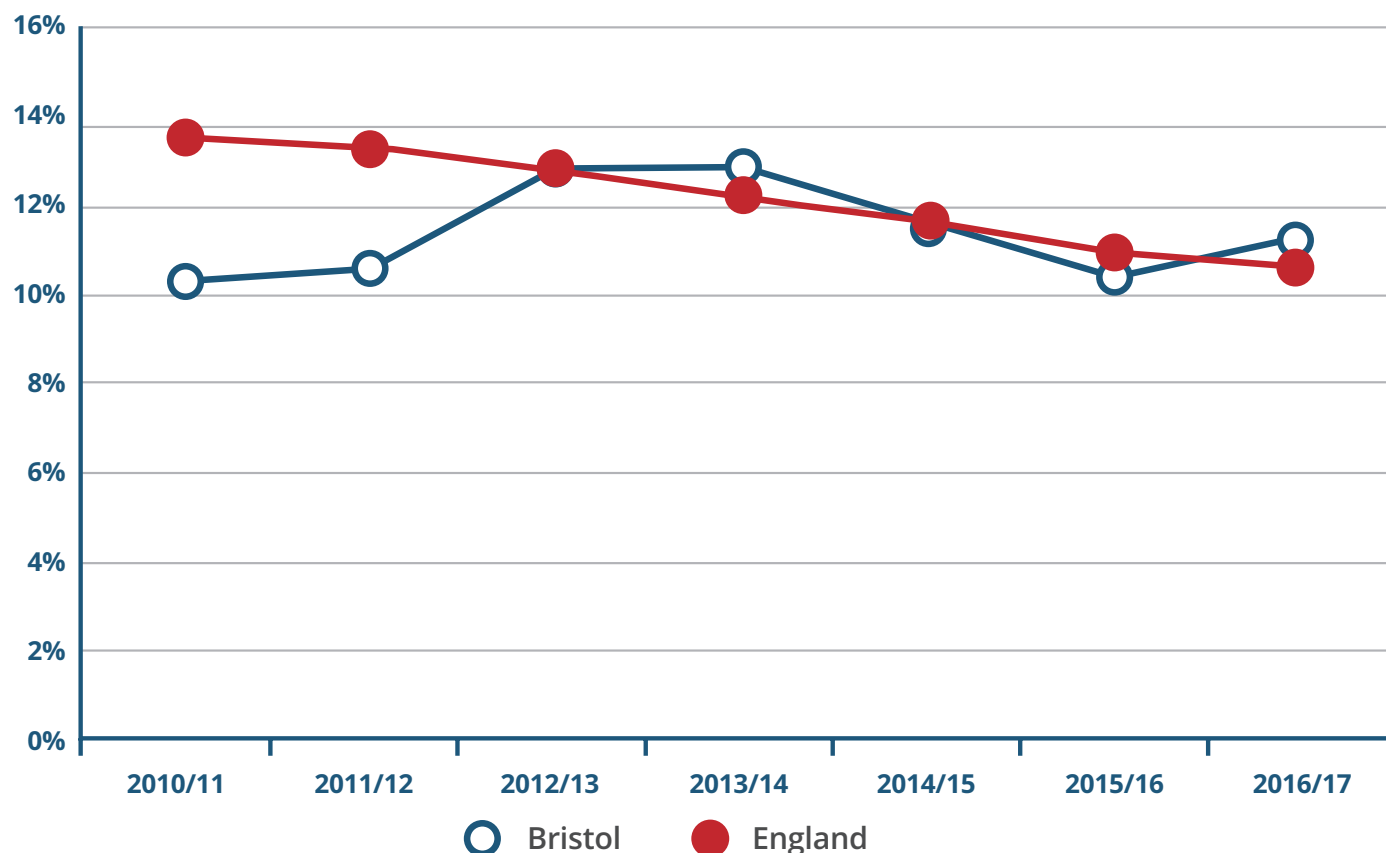
Smoking is one of the most modifiable factors for improving infant health.

- Babies who are exposed to maternal smoking are more likely to die in infancy, be born early, small or stillborn, experience reduced lung function and congenital abnormalities of the heart, limbs and face.
- It is thought that smoking during pregnancy causes around 2,200 preterm births, 5,000 miscarriages and 300 perinatal deaths each year in the UK (RCPCH 2017). Smoking during pregnancy also increases the risk of Sudden Infant Death Syndrome, and a range of problems later in a child's life, including obesity and asthma (RCPCH 2017).

## What does the Bristol data show us about smoking in pregnancy?

Recent Bristol 'smoking at time of delivery (self-reported)' data for 2016/17, shows that 691 (11.2%) of Bristol mothers were still smoking at time of birth (see Figure 9).

This is an increase on the previous year. Bristol rates are higher (not significantly) than the England (10.7%). However, rates of smoking in pregnancy are higher than in many other European countries (RCPCH 2017). There are significant health inequalities in relation to smoking with around 2% of mothers smoking in the affluent areas and around 18% in the most deprived areas with teenage mothers three times more likely to smoke.



**Fig 9:** Percentage of mothers still smoking at the time of delivery  
Source: Public Health England and NHS Digital.

Local data shows that in 2016/17 the midwives referred 413 pregnant women to Stop Smoking Services; of these 59 (14%) set a quit date, 13 women (22% of those who set a quit date) successfully quit at four weeks and 46 (78% of those who set a quit date) were lost to follow up.

Self-reported figures are higher: 30.4% of pregnant women in Bristol who set a quit date stated that they quit smoking (self-reported) as compared to 45.4% in England (Digital NHS 2016).

## What should we be doing to reduce smoking in pregnancy?

- Strengthen data collection, working consistently with national approaches by ensuring accurate recording of smoking status supplemented with carbon monoxide screening at a woman's initial booking visit, and at regular intervals throughout pregnancy, including at 36 weeks (RCPCH 2017).
- Commissioners and service providers must ensure widespread implementation of the NICE Guideline, Smoking: Stopping in pregnancy and after childbirth, with a particular emphasis on routine carbon monoxide testing, training of health care staff and the setting of local targets to monitor implementation (RCPCH 2017).
- Reinforce population-level efforts to reduce smoking, particularly amongst deprived populations. This will be the most effective way of reducing smoking in adults with dependent children. Reducing adolescent smoking is the most effective way of reducing smoking amongst the next generation of parents (RCPCH 2017).

## What are we currently doing to reduce smoking in pregnancy in Bristol?

Bristol City has in place a multi-agency Tobacco Control Strategic Group, with a Smoking in Pregnancy Sub Group.

The sub groups' current action plan includes:

- Training is offered to some midwifery and health visiting staff on smoking key messages, briefing interventions and referral pathways. The training needs to reach all staff and will continue to be included in professional development training.
- Smoking status is recorded at booking with maternity services. Smokers are asked about their smoking status at every appointment.
- Midwives record referrals to the LiveWell Bristol for stop smoking support.

## Recommendations to reduce smoking in pregnancy in Bristol

Continue to implement the multi-agency tobacco control action plan across the whole population with particular actions to support pregnant women:

- Improve smoking data collection including at booking including use of carbon monoxide monitoring.
- Continue to roll out training of midwifery and health visitor staff to support women who smoke.
- Investigate the reasons for high loss to follow-up from support to stop smoking services.
- Extend the offer of support to stop smoking to partners and household members.
- Target population groups with high smoking prevalence, using different models of delivery to respond to their needs.
- Work alongside local communities to communicate the risks of smoking during pregnancy and available support services.

## Breastfeeding

Breastfeeding is highly beneficial for infant and mother (RCPCH 2017).

The World Health Organisation and Public Health England recommend that babies are breastfed exclusively until six months and then continue alongside the introduction of appropriate weaning and family foods until the child is two years old and beyond if wished (WHO 2017).

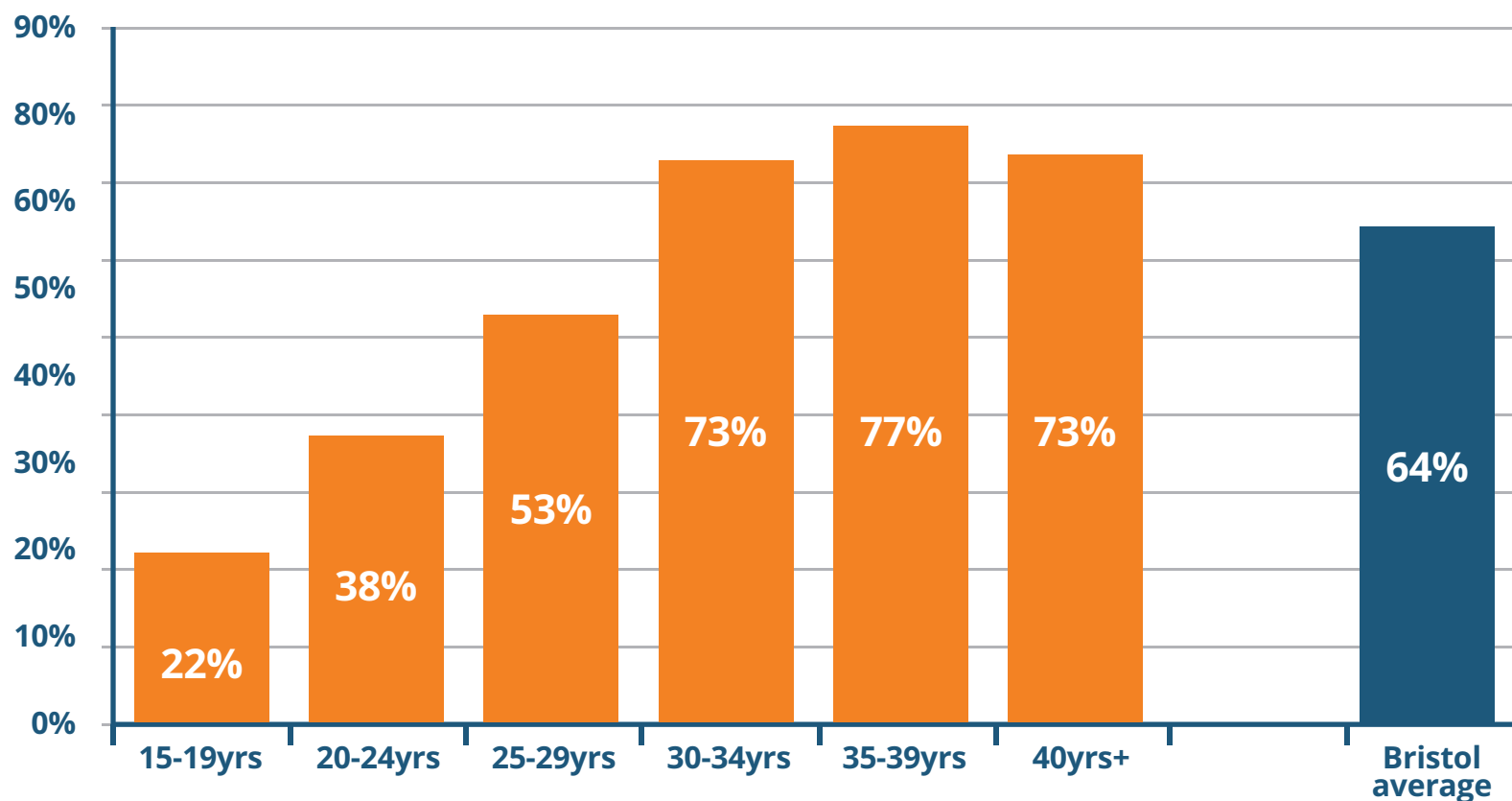
Children who are breastfed are less likely to die in infancy. They also have lower rates of infections, fewer dental problems, and higher intelligence quotient. Growing evidence also suggests that breastfeeding might protect against overweight and diabetes. Breastfeeding benefits mothers and can reduce the risk of breast cancer and postnatal depression, improving birth spacing, and might reduce a woman's risk of diabetes and ovarian cancer (Victora 2016).

## What does the Bristol data tell us about breastfeeding?

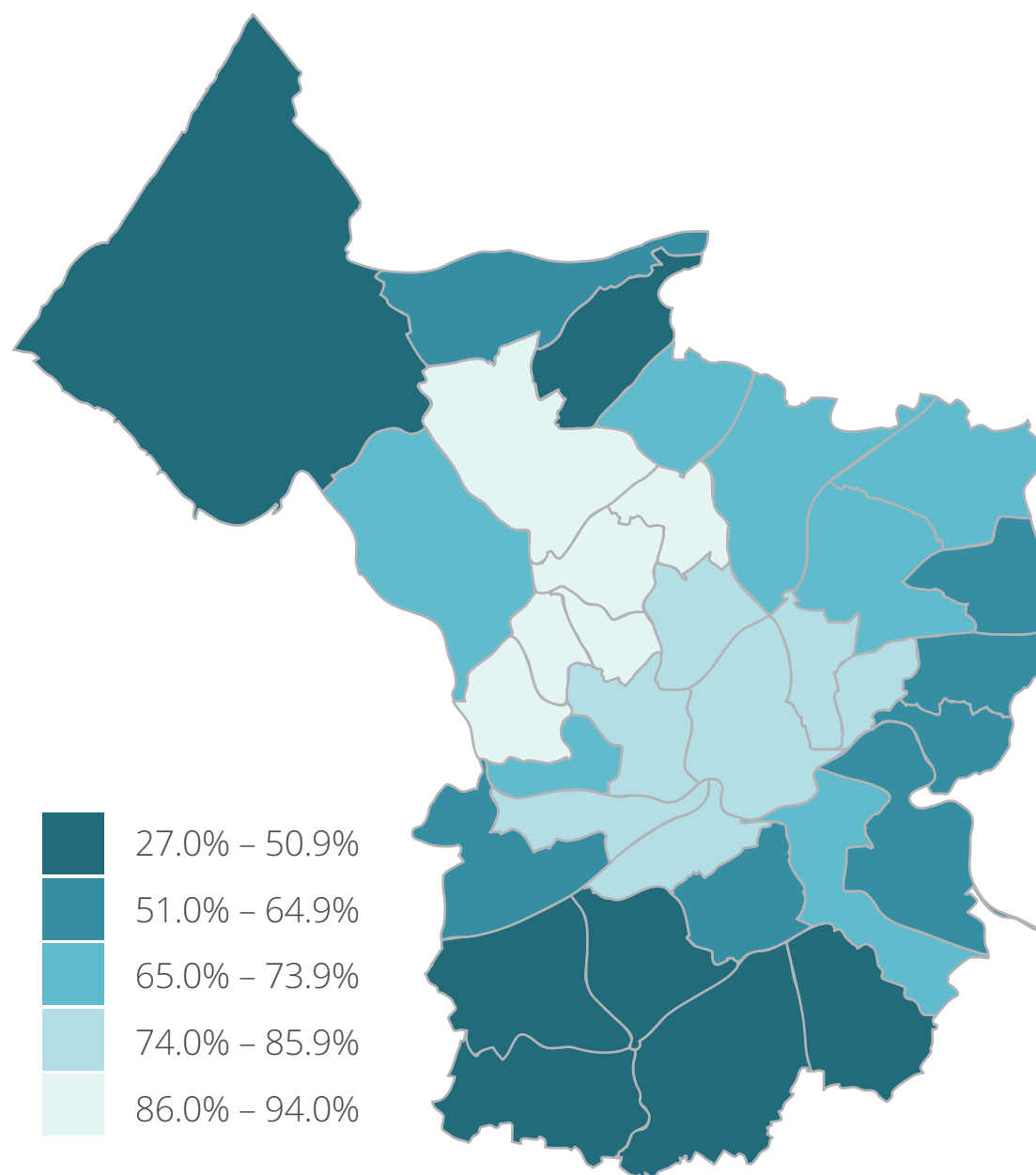
- Breastfeeding rates in Bristol are higher than the national average.
- Breastfeeding initiation rates in Bristol were 82.6% in 2016 (percentage initiating breastfeeding of all those due a check), higher than nationally (73%) and have increased by 8% in the past 10 years (source: NHS England Information Centre).
- 64% of mothers were breastfeeding at six-eight weeks (of those whose breastfeeding status was known), compared to an England average of 50%.
- Initiation data used to be available for local analysis to the Public Health team when the department was within NHS but since Public health responsibilities transferred to the local authority it has no longer been possible to access data except at a Bristol level, so it is not possible to describe inequalities across the city. Partnership work to resolve this issue is ongoing.
- Six to eight week check data on breastfeeding is currently incomplete and an action plan is in place to improve the completeness of this dataset.

Inequalities remain, figure 10 shows that young mothers (aged under 25 years, but especially under 20), are less likely to breastfeed, as are white mothers, and women living in areas of disadvantage as shown in Figure 11 (JSNA chapter 2017). Gypsies and Travellers are one of the groups least likely to start and continue to breastfeed (Condon and Salmon 2014).

**Fig 10:** Percentage of Bristol resident children (born 2015/16) receiving breast milk by the time of their 6 to 8 week check, by maternal age-group (of children with a known feeding status recorded).  
Source: Bristol Child Health System.



**Fig 11:** Breastfeeding Prevalence at 6 to 8 weeks after birth (as a % of infants born in 2015/16, whose breastfeeding status is known).  
Source: Bristol Child Health System.





## What should we be doing to increase breastfeeding rates?

### Key actions to promote breastfeeding include:

- Ensure preservation of universal midwifery and health visiting services to all mothers (RCPCH 2017).
- Maternity services should maintain UNICEF Baby Friendly Initiative Accreditation (RCPCH 2017).
- The adoption of Baby Friendly Initiative standards is also recommended across health visiting services and Children's Centres (PHE/UNICEF 2016).
- Robust and comparable data should be collected measuring breastfeeding initiation, breastfeeding at six to eight weeks and at suitable intervals up to 12 months of age (RCPCH 2017).
- Local breastfeeding support should be planned and delivered to mothers in the form of evaluated, structured programmes, in line with NICE Postnatal Quality Statement 5: Breastfeeding (NICE 2013a).
- Community support via Breastfeeding Welcome Schemes (PHE/UNICEF 2016).
- Developing employer support for breastfeeding mothers (PHE/UNICEF 2016).

## What are we doing in Bristol to improve breastfeeding?

### Baby friendly city

Bristol became the first 'Baby Friendly' city in England and Wales in 2010. Bristol's maternity services hold UNICEF UK Baby Friendly Initiative accreditation, including the neonatal intensive care units. Bristol's health visiting service and Children's Centres achieved accreditation in 2010 as part of the community award, and were re-accredited in 2012.

### Extra support

Public Health Bristol commissions a targeted breastfeeding support service that provides additional assistance before and after birth for women living in areas with low breastfeeding rates. This includes the training of peer supporters and providing breastfeeding counsellors to assist mothers with additional challenges in their communities through support groups.

### The Bristol Breastfeeding Welcome Scheme

facilitated by Public Health Bristol supports mothers when they are out and about in the community with their baby. Over 320 venues and First Bus participate in this scheme. Recent local research suggests that it is welcomed by mothers (Johnson 2017).

## Recommendations for improving breastfeeding in Bristol

- Ensure that breastfeeding initiation data is accessible for analysis by electoral ward, postcode, age and ethnicity to track progress and support the commissioning of services.
- Commission services to ensure that targeted and universal breastfeeding support is available to mothers throughout their breastfeeding journey.
- Continue to encourage health visiting services and Children's Centres to work towards re-accreditation of the UNICEF Baby Friendly Initiative.
- Encourage all services to work towards achieving the new UNICEF Baby Friendly Initiative 'Gold Award' and sustainability standards.
- Continue to promote the Bristol Breastfeeding Welcome Scheme and increase the coverage of the scheme to include more venues in areas with low breastfeeding rates.

## Perinatal mental health

During pregnancy and in the year after birth women can be affected by a range of mental health problems, including anxiety, depression and postnatal psychotic disorders. These are collectively called perinatal mental illnesses (Hogg 2015).

Early diagnosis, treatment and support are crucial in minimising the effects upon infants that can continue throughout their life (Hogg 2015). Nationally only half are diagnosed and only half of those getting the support and treatment that they need to make an early recovery (Bauer 2014).

## What does the Bristol data tell us about perinatal mental health?

In 2016 there were 6,400 maternities in Bristol (see section 1). Local data are not available on the number of women affected by mental health problems, but rates can be estimated from a national survey of perinatal psychiatric disorders as described in Figure 12. It is important to note that each of these conditions often do not happen in isolation, there can be secondary mental illnesses.

Severe perinatal MH conditions	Rates (per 1,000 maternities)	Estimated numbers in Bristol (2015)
Post-partum psychosis	2 per 1000	12
Chronic serious mental illness	2 per 1000	12
Severe depressive illness	30 per 1000	186
Mild / moderate depressive illness and anxiety states	100-150 per 1000	620-930
Post-traumatic stress and distress	150-300 per 1000	930-1860
Adjustment disorders and distress	150-300 per 1000	930-1860

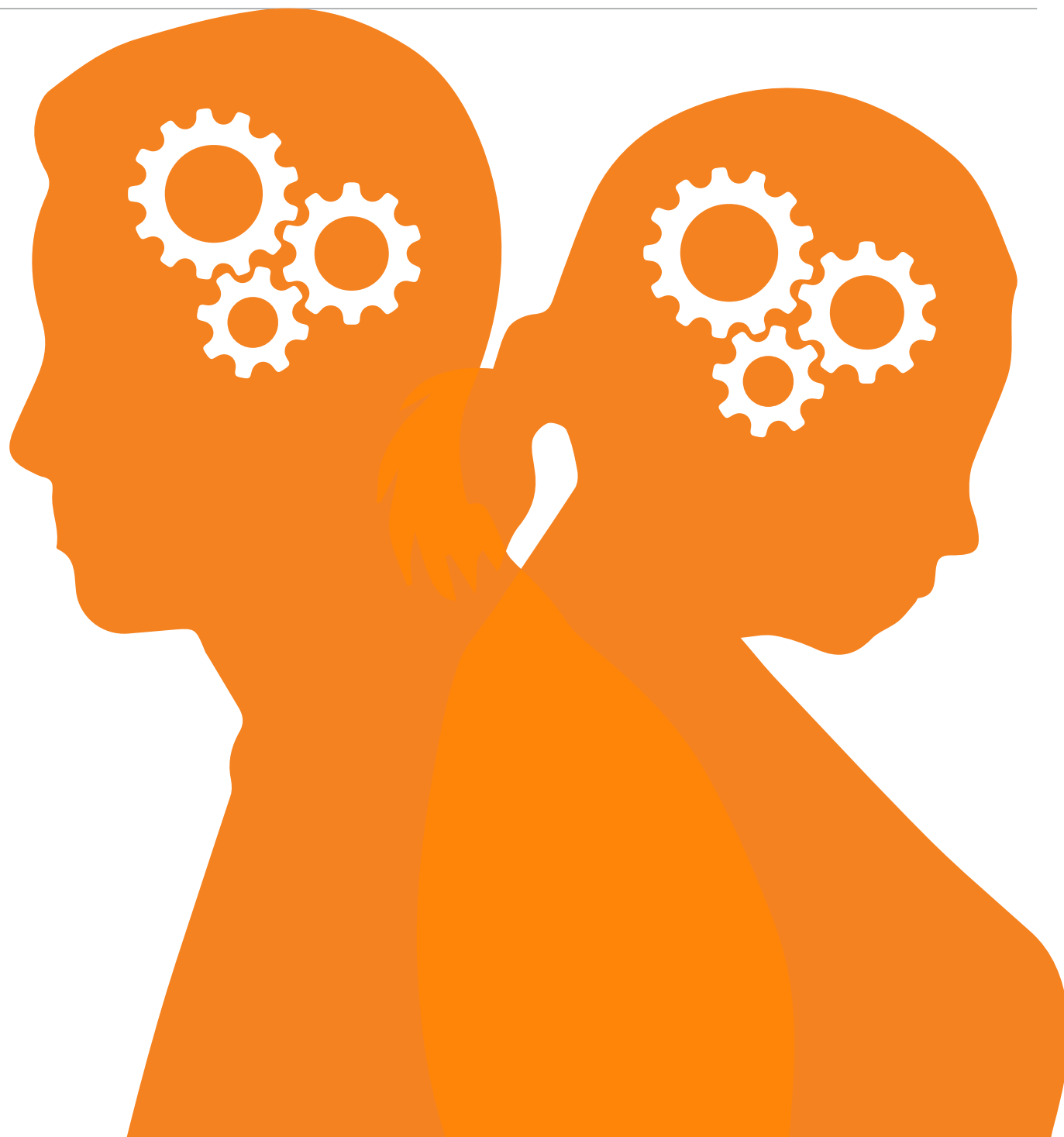
**Fig 12:** Rates of perinatal psychiatric disorder (per 1000 maternities) 2012.  
Source: Royal College of Psychiatrists.

## What should we be doing to improve perinatal mental health?

### **NICE have recommended a range of interventions to improve maternal mental health (NICE 2014b):**

- At a pregnant woman's first contact with services, ask about any past or present severe mental illness, previous or current treatment, and any severe postpartum mental illness in a first degree relative.
- Refer all women who have, are suspected to have, or have a history of severe mental illness to a secondary mental health service (preferably a specialist perinatal mental health service).
- Assess pregnant/postnatal women with a known or suspected mental health problem within two weeks of referral; provide psychological interventions within one month of initial assessment.
- Focus on strengthening the mother-infant relationship where needed.

Marmot recommended that we should “give priority to pre-and post-natal interventions that reduce adverse outcomes of pregnancy and infancy”, and the Royal College of Paediatrics and Child Health (RCPCH 2017) highlighted the profound effect of maternal health and wellbeing on the health of children, recommending that we should “maximise women's health before, during and after pregnancy”.



## What are we doing in Bristol to support Perinatal Mental Health?

There are a variety of support services available to women in Bristol dependent upon need. A key challenge is to support the reduction of stigma associated with mental ill health and to ensure that women are identified and referred for appropriate treatment.

### General practitioners

General practitioners play a key role in identifying women who may be at risk of serious mental health exacerbation in pregnancy and provide community medical support for women in the perinatal period who are anxious or depressed.

### Midwifery and health visiting services

Staff in the midwifery and health visiting services identify risk factors, refer mothers for medical assessment/support, screen mothers for anxiety and depression, signpost mothers to support services and medical help. Both maternity hospitals have a mental health team made up of an obstetrician and midwives/nurses with a special interest in maternal mental health.

### Children's Centres

Children's Centre staff also offer support for mothers with mental health issues. They host and run various groups to enhance emotional attachment.

### Voluntary and community

Mothers for Mothers offers drop-in groups, a helpline, buddy support and low cost counselling. Bluebell offers a buddy system with home and telephone support and a 12-week structured programme for recovery based in three Children's Centres. Bluebell Place, their newly opened drop-in facility in the centre of Bristol offers a programme of support and crèche facilities for women and their partners experiencing antenatal/postnatal anxiety and depression.

### Specialist community perinatal mental health service

A new specialist community perinatal mental health service has recently been commissioned by the Bristol Clinical Commissioning Group. The team are responsible for mothers and babies with high need. They also provide information and support for other practitioners.

### New Horizon

For those experiencing severe perinatal mental health problems, there is a four-bed in-patient service called New Horizon with more in-patient capacity.

### Perinatal Mental Health Protocol

The Bristol Safeguarding Children Board has led the development of a Perinatal Mental Health Protocol to ensure there are clear care pathways to support women and families (BSB 2017).

## Recommendations for improving perinatal mental health in Bristol

- Explore options for local data collection of the number of women affected by perinatal mental health problems and in need of perinatal mental health support to help monitor need and to inform service planning.
- Support the implementation of the Perinatal Mental Health Protocol across all professional groups.



## Case study:

**The 'Perinatal Positivity' Campaign** runs throughout antenatal clinics and Children's Centres across Bristol to raise awareness of Perinatal Mental Health using posters, cards and information from women with lived experience.

The campaign operates in partnership with local services to help signpost mothers to available guidance and support within their community.

## SUPPORTING EARLY YEARS EDUCATION AND HEALTH

Good quality early childhood education and care can help to address inequalities in life chances (Marmot 2010). Effective early year's provision is good for all children but it has a disproportionately positive impact on the development of disadvantaged children.

Marmot recommended an increase in the proportion of overall expenditure allocated to early years, focused progressively across the social gradient, to reduce inequalities in the early development of physical, emotional, health, cognitive, linguistic and social skills.

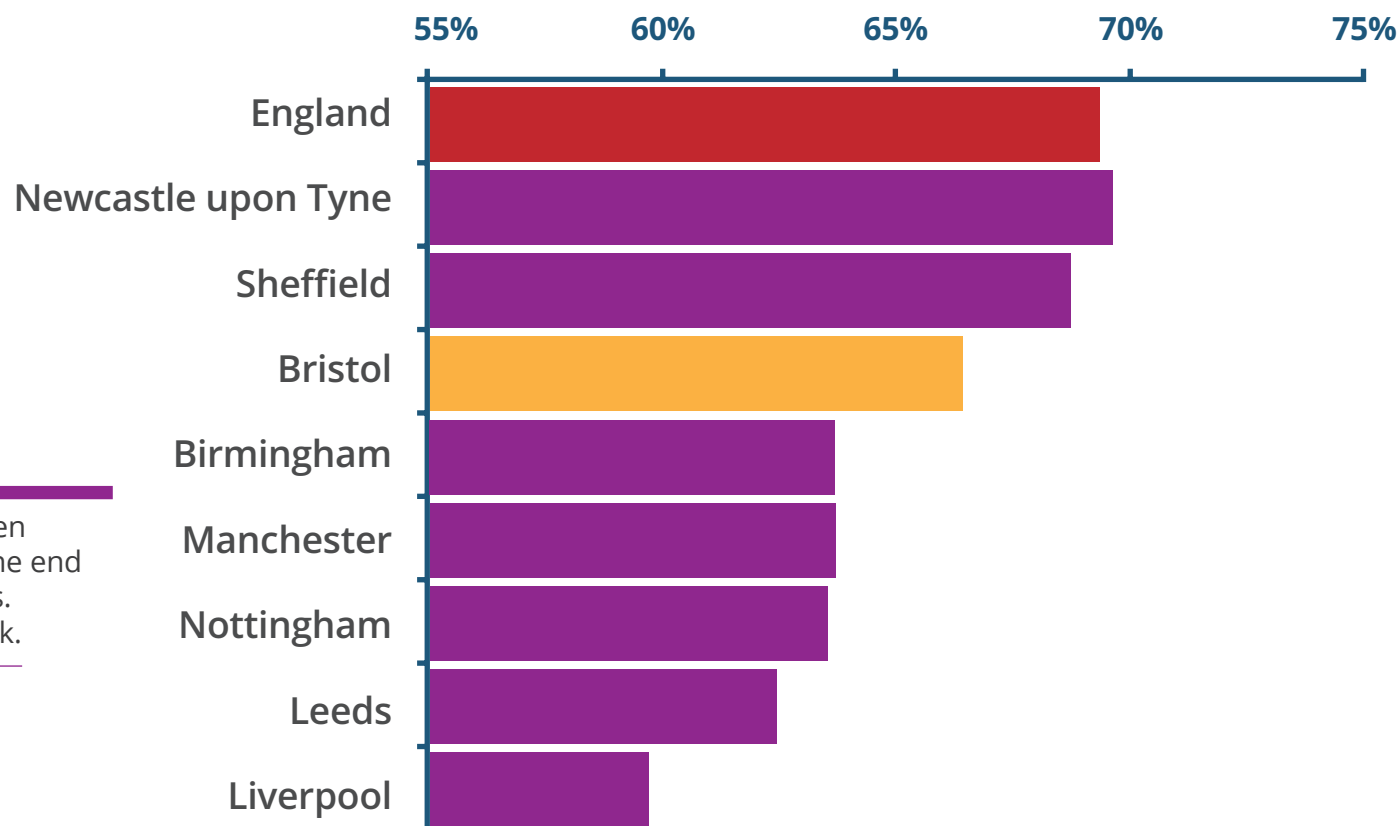
### Key points

- Bristol has 22 Children's Centres, as part of an integrated Early Years' Service.
- The take-up of government funded early years provision is high.
- Local programmes aim to promote quality early years provision including the Early Years Pupil Premium, Bristol Standard for Health supplement and Bristol City Council school transfer record.
- Health visiting services have recently been recommissioned and provide specialist services to disadvantaged groups and an integrated 2 year check with Early Years services.
- Health visiting universal mandated checks are not currently all completed in Bristol.



## 3.1 Supporting early development – what does Bristol data show us?

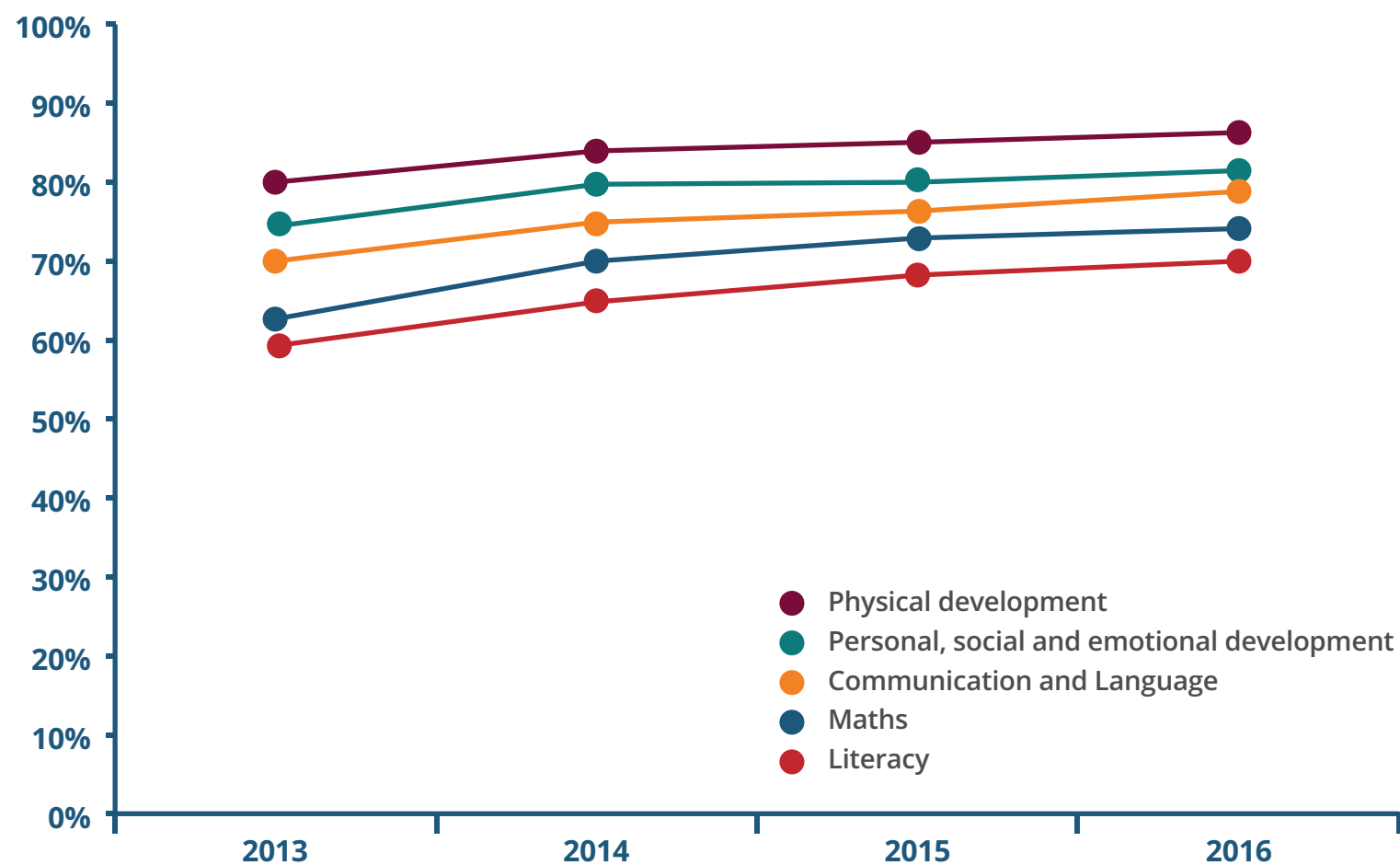
School readiness is a key measure of early learning and development for children in the Early Years Foundation Stage. Information gathered from observational assessments informs the percentage of children judged to have reached a 'Good Level of Development' at the end of the Reception Year in Primary Schools. 68% of children achieved a good level of development in Bristol in 2017 which compares well with the core cities (see figure 13) although is below the England average.



**Fig 13:** School Readiness: the percentage of children achieving a good level of development at the end of Reception compared to other Core Cities. Source: Public Health Outcomes Framework.

There has been an increase in the percentage of children achieving a good level of development within Bristol (see Figure 14).

**Fig 14:** Percentage of children in Bristol achieving a good level of development by area of learning (2013-2016).  
Source: Information & Analysis Team, Bristol City Council.





## Disadvantaged children

Although gaps in achievement between the most and least advantaged children are steadily closing at the end of the Early Years Foundation Stage in Bristol, there remain significant inequalities in school readiness (see Figure 15).

Children from poorer backgrounds are at higher risk of poorer educational outcomes than their more advantaged peers and this gap can be seen very early in life. Although this figure is similar to the England average, (54%), only 53% of children eligible for free school meals achieved a Good Level of Development in 2016.

Those with Special Educational Needs are less likely to achieve a good level of development and boys are less likely to have a good level of development than girls.

**Fig 15:** The percentage gaps of disadvantaged learners (percentage difference in children achieving Good Level of Development at end of Early Years Foundation Stage) 2013 -2016.  
Source: Information & Analysis Team, Bristol City Council.

	2013	2014	2015	2016	Change
Ethnicity: BAME gap compared to non-BAME children	10.6	11.0	9.1	8.2	2.4 ↓
Free schools meal eligibility gap compared to those not eligible	19.9	18.9	17.8	17.0	2.9 ↓
Living in most disadvantaged areas gap compared to living in other areas	18.3	14.2	14.2	12.6	5.7 ↓
Special Education Needs compared to those without	42.6	42.9	50.0	44.5	1.9 ↓
Gender gap (boys compared to girls)	14.0	14.8	13.5	14.8	0.8 ↑

## Ages and Stages -3 Questionnaire

Health visitors measure development at the 12 month and two year check (as part of the integrated two year check) using the Ages and Stages Questionnaire -3. This includes measures of communication, problem solving and personal and social development. Unfortunately, a full database of electronically recorded data from these checks in Bristol is not available for local analysis.

Currently it is not possible to link the data collected at the two-year integrated check on development with the Early Years foundation stage profile data at the end of reception. If it was possible to link these two sets of data at child level, it would help to evidence the impact of interventions offered at age two and the outcome they have on children's development at the end of reception.

School readiness is a key measure of development for five year olds. It measures the percentage of children judged to have reached a good level of development at the end of the Early Years Foundation Stage (age four to five years). The percentage of children recorded as having a good level of development at the end of reception (all prime areas of learning) is significantly lower in Bristol (66.3%) than in England (69.3%), however rates in Bristol are similar to other comparable local authorities (see Figure 13, 2015/16).

## 3.2 National recommendations for early development

### The Marmot report recommends:

- An increase in the proportion of overall expenditure allocated to Early Years, focused progressively across the social gradient, to reduce inequalities in the early development of physical, emotional, health, cognitive, linguistic and social skills. Later interventions are considerably less effective if they have not had good early foundations (Waldfogel 2004).
  - Provide routine support to families through Children's Centres and key workers, delivered to meet social need by outreach to families.
  - Provide outreach to increase the take-up of early years services by children from disadvantaged families.
  - Provide early years services on the basis of evaluated models and to meet quality standards.
  - Develop programmes for the transition to school.
- Provide quality Early Years education:
- The requirements for Early Years settings and schools are set out in the Statutory Framework for the Early Years Foundation Stage, which covers children from birth to age five (DfE 2014a).
  - Ensure universal Early Years public health services (health visiting) are prioritised and supported financially, with targeted help for children and families experiencing poverty (RCPCH 2017).

## 3.3 How are we supporting early development in Bristol?

### Early Years Services in Bristol

Bristol has an integrated system of early education, health and family support with a clear vision to improve outcomes for children and families, particularly the most vulnerable, reduce disadvantage and raise aspiration by strengthening:

- The quality of early education provision across the Early Years sector, including seamless transitions to school.
- Opportunities for the development of speech, language and communication and Personal, Social and Emotional Development as the foundations for life-long learning.
- Genuine partnerships with parents and carers as their child's first educators to empower and enable a collaborative working with other professionals, including health, social care and the voluntary sector.
- A culture of reflective practice and setting-based action research to inform continuous quality improvement.

### Children's Centres

There are currently 22 Children's Centres in Bristol providing integrated early education, childcare, health and family support services to families expecting a baby and those with children aged birth to five years in their local area. Children's Centres offer universal and targeted services, working with a range of partners to improve outcomes for children and families.

The centres aim to meet the requirements of all national guidance in respect of the Statutory Early Years Foundation Stage Framework and the Core Purpose of Children's Centres to improve outcomes for young children and their families, with a particular focus on families in greatest need of support, in order to:

- Reduce inequalities in child development and school readiness.
- Improve parenting aspirations, self-esteem and parenting skills.
- Improve child and family health and life chances.

Each centre devises its own programme of groups and activities based upon local need, informed by health, education and demographic data, to improve outcomes for children. All centres are commissioned to provide evidence-based parenting programmes, including one-to-one outreach support where need arises. The services provided include:

- Early education and childcare.
- Health and maternity services.
- Debt, benefits and housing advice.
- Adult learning and volunteering opportunities.
- Employment support (Job Centre Plus).
- Universal, tailored and targeted Family Support programmes.

In April 2017, 24,850 children under five were registered with a Children's Centre in Bristol, equating to 80.9%, rising to 87% in the 10% most disadvantaged Super Output Areas. Children's Centres share the same health priorities as the health visiting service and work closely with local health colleagues in the maternity and health visiting services to address these.

Children's Centres run a variety of baby/toddler groups that support the development of language skills, physical development and close emotional attachment. They also run and host a number of innovative, creative initiatives to support mothers with perinatal mental health.

As part of the Bristol City Council Corporate Plan 2017, a reconfiguration of Children's Centres and related family support services is underway. This has resulted in a reduction in funding to these centres.

## Government funded early childhood education and care

At present, all three and four year-olds in England are entitled to free early childhood education, funded by the Government, for 570 hours per year (equivalent to 15 hours per week, for 38 weeks of the year). This entitlement is also available to 40% of eligible two year olds whose families meet the income criteria. Funded places are available in private, voluntary and independent settings, childminders, maintained nursery schools and nursery classes as well as Children's Centres.

In Bristol the take-up of the funded provision is high (92% of three and four year-olds, and 71% of two year-olds currently access their free places). Children from some of the most marginalised communities, including Gypsy Roma Travellers and Refugee and Asylum Seekers take up this offer. The high uptake of free Early Education places is significant, as it increases opportunities to identify children and families in need of additional support in the earliest years to improve outcomes and prevent challenges from escalating.

## Targeted support

The Early Years Pupil Premium was introduced by the government in April 2015 to help early years providers try to close the attainment gap between the most disadvantaged children and their peers (Ofsted 2015). It focuses on providing extra targeted strategies to increase the rate of progress these children make and funding is used for training, developing the home learning environment and widening the life experiences of the child and family (BAECE 2017).

Bristol has a strong infrastructure in place to identify children with emerging Special Educational Needs (SEND). Additional funding is available to support access to early year's provision for children with emerging SEND following a referral and assessment process. All early years settings have a designated Special Educational Needs Co-ordinator who acts as an advisor to other staff in the setting and supports with the monitoring of any children identified as having special needs (including emotional health) and liaises with outside agencies.

In addition, the Early Years Portage and Inclusion Team provide support to families and early year's practitioners for those who are disabled and/or have special educational needs. This team of specialists offer advice and guidance to all providers of early education and childcare, and a home visiting service to children and families via a referral process.

The Bristol Autism Team provide support, advice and guidance to early years practitioners in settings, enabling them to ensure children with a diagnosis of Autistic Spectrum Disorder are able to fully access their early education.

The HOPE School is Bristol's Virtual School for children in care. There is a designated member of staff for children in the Early Years Foundation Stage (children from birth to end of reception) who can offer training, support and challenge to early years settings. This role supports working in partnership with foster carers, early year's providers and social workers to improve outcomes for Bristol's children in care. Progress is monitored and tracked, and systems, processes, structures and support are reviewed to reduce inequalities for children in care.

## Improving quality

The Bristol Standard Quality Improvement Framework is a self-evaluation tool that supports all Early Years settings to continuously improve the quality and effectiveness of their provision through an annual cycle of reflection, analysis and development. It enables practitioners to talk knowledgeably about what they do, why they do it and the difference it is making for their children and families. Settings who engage with the process are more likely to be judged as good or better by Ofsted.

Over the last year (2016/17) the Bristol Standard Quality Improvement Framework has been further developed to consider a number of public health priorities. The aim of the Bristol Standard for Health is to use the principles and ethos of the Bristol Standard, to improve health outcomes for children and their families in the early years. A strong working partnership already exists between health and early years services and the Bristol Standard for Health will promote further integration and alignment to strengthen coherence and avoid gaps and duplication in service delivery. The Bristol Standard for Health covers ten early years health priorities including immunisations, injury prevention, oral health, smoke-free places, nutrition, physical activity, domestic violence, risky behaviours, working with young parents and social and emotional wellbeing. This is an innovative collaboration between health and early years services and Bristol University have secured funding to undertake a feasibility evaluation as there are currently no known robust evaluations of multi-component health interventions in early years settings.

## Transition to school

A record of achievement was developed by early years practitioners from across the early years' sector in 2013 to support Bristol children in experiencing a smooth transition. This record is used when children transition between different early years' settings and also between early years settings and school. The record aims to provide accurate information on each child's achievements that can be shared, enabling reception teachers and practitioners in early years settings to develop informed and appropriate plans to support individual learning and development. Feedback from schools indicates that teachers appreciated receiving the transfer records in a consistent format and the information received helped them to plan for children on entry to school. Schools are also encouraged to visit children in pre-school prior to the start of academic year.

## Health Visiting Service in Bristol

In Bristol, the health visiting service has been commissioned by Public Health Bristol since 2015 (following the transfer of commissioning responsibility from NHS England) and a new contract began in April 2017, delivered by the Children's Community Health Partnership.

The service delivers the Healthy Child Programme (DfH 2009) which sets out the schedule for services covering care from 28 weeks of pregnancy through to age five. It focuses on: the transition to parenthood and the early weeks, maternal mental health, breastfeeding initiation and duration, healthy weight, healthy nutrition, managing minor illness and reducing accidents, health, wellbeing and development at age two and school readiness. This service is delivered as a universal service (to everyone) with additional services for families needing extra support, whether this is a short-term intervention or ongoing help for complex longer-term problems. The programme can ensure families receive early help and support before issues develop further and reduce demand on higher cost specialist services. This programme is led by health visitors in collaboration with other health professionals and Children's Centres.

The timing of health visitor checks is mandated nationally. There is no universal check around the time of weaning (six months) to talk about food, oral health, and being active. There needs to be alternative ways to give parents this information to support healthy development.

Health visitors have a significant role in safeguarding vulnerable children. This includes managing a caseload providing support, monitoring, providing reports and evidence at case conferences, reviews and in court. The service also includes two specialist health visitors roles - Early Relationships Health Visitor and Gypsy, Roma and Traveller Health Visitor. These roles provide a targeted service to vulnerable families.

## Integrated work between health visitors and early years

In Bristol, health visitors and Children's Centres work in an integrated way to improve health. This is facilitated by a number of approaches including:

- The Early Years Partnership Board has been set up to inform, steer and oversee developments and partnerships across and beyond the early years' sector. This forum includes representatives from a range of partners including health, to work together to improve outcomes for children in the early years.
- The Service Level Agreement for Children's Centres puts health outcomes and work to support delivery of the Healthy Child Programme at the heart of their role. The Children's Centres have a key role in delivering the "Community" level of the Healthy Child Programme.
- A partnership agreement is in place between health visitors and Children's Centres with each Children's Centre having a link health visitor.
- An information sharing protocol is in place which enables information held by health visitors about new babies born in Bristol and children under five moving into or within Bristol to be shared with each Children's Centre on a monthly basis.
- The Health Visiting service works in an integrated way with Children's Centres to support families but usually from different bases (though health visitors may hold child health clinics in the Children's Centres). Work is underway to increase co-location of health visitors and Children's Centres to further strengthen seamless and integrated service provision for families.

From September 2015 an Integrated Health Check became mandatory combining the health and early year's reviews for two year old children. Bringing the two reviews together aims to help build a coherent picture of the child at age two and enables health visitors, Early Years Practitioners, Community Nursery Nurses and families to share information about children's development. This helps to celebrate children's progress while identifying children who may be following different developmental pathways, improve access to further assessment and appropriate early intervention programmes.

Research has shown that language development at age two is very strongly associated with later school readiness, with the early communication environment in the home providing the strongest influence on language at age two - stronger than social background (Roulstone et al 2011). Identifying the need for additional support at the age two to two-and-a-half years' integrated review will mean that children can benefit from national evidence-based programmes such as 'Every Child a Talker' earlier and where necessary referral on to specialists such as Speech and Language Therapists.



## 3.4 Recommendations for improving early development - what more can we do?

### Recommendations for improving early development

- Protect universal investment for early years education and health visiting. As well as providing additional targeted support where indicated (universal proportionalism).
- Continue to develop further integration of early years and health, e.g. through co-location of staff and promoting the Bristol Standard for Health.
- Engage in national discussions about the timing of Health Visitor universal checks, and develop local approaches to strengthening communication with parents about health development for each child at around six months of age.
- Strengthen integrated work through improved data systems including:
  - Ensure Health Visitor records are recorded electronically, including the Ages and Stages Questionnaire-3 data from the two year check. The scores are not yet recorded in a form which allows for local analysis at a population level.
  - Explore the potential to link data collected at the two-year integrated check with the Early Years Foundation Stage Profile data at the end of reception.



### Case study:

#### **Bristol Boys Early Years Achievement Project.**

The Bristol project involves practitioners and teachers from early years settings and schools in action research, to better understand how boys learn so that their educational achievement can be improved in the early years and beyond.

Nationally and locally girls achieve better outcomes than boys across all areas of learning and development at the end of the Early Years Foundation Stage and this is particularly evident for boys growing up in low income households and boys from some BAME groups. This trend continues as boys get older. The project which includes early years provision in schools, Children's Centres and private, voluntary and independent settings strongly focuses on partnership with parents and creating the optimum conditions for supporting boys' learning and development.

## SUPPORTING PARENTS AND IMPROVING OUTCOMES

### 4.1 Supporting Parents - What does the Bristol data show us?

Marmot (2010) made the following recommendations on ways to support the family, to improve a child's physical and emotional health:

- Provide paid parental leave during the first year of life.
- Provide routine support to families through parenting programmes, Children's Centres, key workers, delivered to meet social need via outreach to families.

#### Key points

- Supporting parents is essential for childhood development.
- Children's Centres are a key source of parenting support.
- Structured parenting programmes are available on a targeted basis, but not to all families.

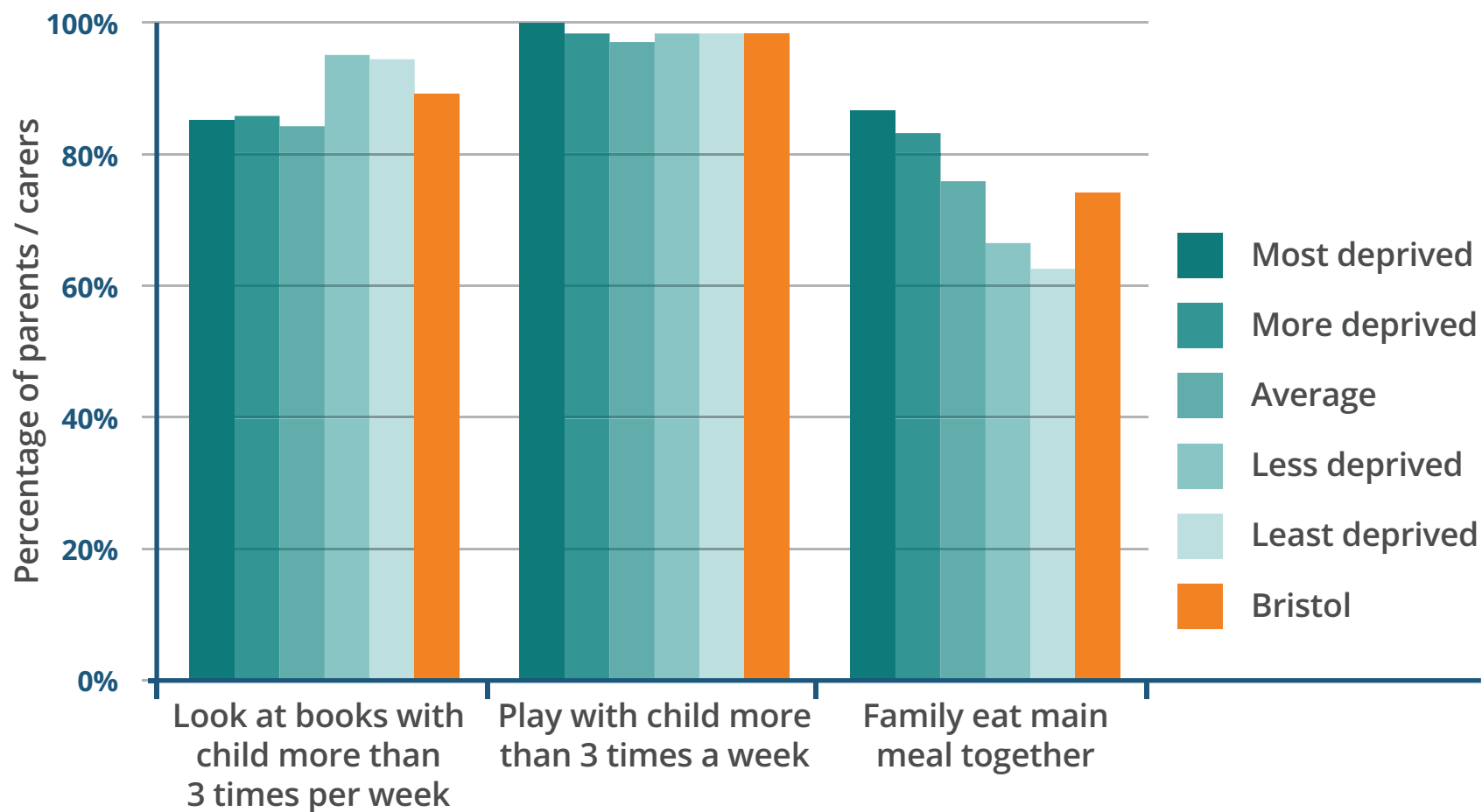
#### Parental income inequalities

Almost 7,100 children aged under five years (23%) live in low income households in Bristol (see Chapter 1, Figure 4). In 15 small areas in Bristol more than half of under-fives live in low income households. There are significant inequalities in income across the city. The highest levels of income deprivation affecting children are in Lawrence Hill, Filwood and Hartcliffe & Withywood.

#### Parental behaviours – survey results

A city-wide survey gives some indication of parenting behaviours across the city. The Bristol City Council Under-Fives Questionnaire was distributed and publicised through Children's Centres and newsletters to inform its work in Early Years. Around 1,000 families out of a possible 12,000 responded to a range of questions. Figure 16 shows that there are high proportions of parents and carers across the social gradient in Bristol who read to their children and play with them more than 3 times a week. It is hard to draw any firm conclusions from this self-selected sample but reading to children was slightly more common among those from the least deprived areas. Families who eat their main meals together are significantly more likely to come from the most deprived areas.





**Fig 16:** Results of the Bristol City Council Under 5s Questionnaire. Source: Information and Analysis Team, Bristol City Council.

## 4.2 National recommendations for supporting parents

### **Families have the most influence on their children. Marmot (2010) set out the evidence for supporting parents:**

- Adequate levels of income and material and psychological support and advice for parents across the social gradient are critical.
- Good parent-child relationships in the first year of life are associated with stronger cognitive skills in young children and enhanced competence.
- Parents are the most important 'educators' of their children for both cognitive and non-cognitive skills.
- There is a growing body of evidence that theoretically sound parenting programmes, which are underpinned by strong research evidence, can provide positive gains for parents and children.

The parent or caregiver/child relationship is vital to a child's development and future psychological wellbeing (Caestecker 2010). Support to parents can be given in a number of different ways, through the structured support that is given by health visitors and other professional or specific interventions to help parents with either general parenting or targeted at specific groups or for specific purposes. Some of these programmes have been evaluated but there are gaps in the literature over the effectiveness of others. What is presented here is a summary of the evidence of effective programmes.

The Healthy Child Programme led by the health visiting service is an evidence-based programme that includes information and guidance to support parenting as part of its universal component (DfH 2009).

There are many evidence-based targeted parenting programmes such as Triple P, Incredible Years (DfE 2014b) and Family Links. In an Australian trial the Triple P Programme was reported to demonstrate a 22% reduction in mental health problems in children and a 22% reduction in emotional distress in parents in less than three years (Saunders et al 2015).

## 4.3 How do we support parents in Bristol?

### Family Support in Children's Centres

Bristol's network of Children's Centres provides a universal and targeted offer to parents and children. They provide a community hub for parents and support them to give their children a good start in life. Free family support includes:

- A delivery point for information, advice and guidance, including advice on benefits, debt, housing and employment/training opportunities.
- Training and support for the development of skills for employment.
- Targeted programmes to support families experiencing particular challenges such as domestic abuse, drug and alcohol abuse and depression.
- Tailored programmes for priority groups.
- Family services provided by the Children's Centre for all children accessing free early education for eligible two year olds at private, voluntary and independent Early Years settings within the reach area.
- Evidence based parenting programmes for instance the Incredible Years programme.

### Parenting programmes

There are some specific parenting programmes in Bristol for parents of children under five.

The Nurturing Programme aims to help adults understand and manage feelings and behaviour and become more positive and nurturing in their relationships with children and each other. It encourages an approach to relationships that gives children and adults an emotionally healthy start for their lives and learning. Workers from Early Years and school settings are trained to deliver this programme which is suitable for parents of children aged 0-12.

The Incredible Years programme is designed to promote emotional, social, and academic competence and to prevent, reduce, and treat behavioural and emotional problems in young children.

Strengthening Families, Strengthening Communities is an inclusive evidence-based parenting programme, designed to promote protective factors which are associated with good parenting and better outcomes for children.

The Rock-a-bye groups are for mothers to help them attach and bond with their babies. The groups are run in nine Children's Centres between one and three times a year per Centre, for parents with babies aged two to eight months. Parents can be referred or self-refer and they are especially suitable for mothers who have anxiety or depression or experienced a difficult or premature birth and are finding it difficult to respond to their baby.

The 'Welcome to the World' programme is an eight-week group for parents expecting a baby. Parents attend the group from approximately 22 weeks of pregnancy. Topics include empathy and loving attentiveness, infant brain development, healthy choices, managing stress and promoting self-esteem and confidence, and effective communication. The aim of the programme is to build and strengthen a parent's attachment to the child. Staffs are trained to deliver this programme in 11 Centres in Bristol and it is currently being delivered in 3 Centres.

Voluntary and community sector organisations also run parenting programmes in the community, but data is not available on how widespread these are or the attendance rates.

## Supporting parental income and leave

One approach to ensuring adequate parental income is through the living wage. There are two definitions of the living wage, the “National Living Wage” and “the Living Wage”. There is a statutory obligation to pay the National Living Wage, formerly known as the National Minimum Wage. The rates of this are:

Year	25 and over	21 to 24	18 to 20	Under 18	Apprentice
April 2017	£7.50	£7.05	£5.60	£4.05	£3.50

There is no local information as to how many people are not paid this. However, it is a criminal offence to not pay this although prosecutions for this are rare.

The living wage is a rate calculated as the minimum a person needs to live on and is recommended by the Living Wage Foundation and the Mayor of London. This is currently £8.45. Bristol City Council has adopted the Living Wage for all its employees.

According to the Annual Survey of Hours and Earnings, in 2014, 14.7% of employee jobs paid less than the Living Wage (ONS 2017).

Marmot recommends paid parental leave in the first year of a child’s life. All women who are employees are entitled to take maternity leave if they give the correct notice to their employers. Statutory Maternity Leave is 52 weeks. Statutory Maternity Pay (SMP) is paid for up to 39 weeks. The allowance is:

- 90% of the average weekly earnings (before tax) for the first six weeks.
- £140.98 or 90% of the average weekly earnings (whichever is lower) for the next 33 weeks. Some of this may be taken as shared leave with the mother’s partner. Partners are entitled to two weeks’ unpaid paternity leave. Employers are free to pay more than this and many have more generous allowances. There is no local data on the uptake of parental leave across the city.

## 4.4 Recommendations for improving support to parents

### Recommendations for improving support to parents

- Explore the reach of universal parenting support and programmes across the city.
- Review the targeted parenting and family support offer to increase uptake across the city and research why some families do not attend.
- Ensure there is a range of parenting provision to meet the needs of families.
- Local organisations to work together, including through the Local Enterprise Partnership, to offer good levels of occupational paid maternity and paternity leave above the statutory requirement and to encourage people to take more of their entitlement.
- Promote the economic health of the city and advocate for the voluntary living wage by demonstrating its value to employers, employees and the local economy.
- Encourage local commissioners to commission for social value with particular regard to support for parents such as the living wage and maternity benefits.

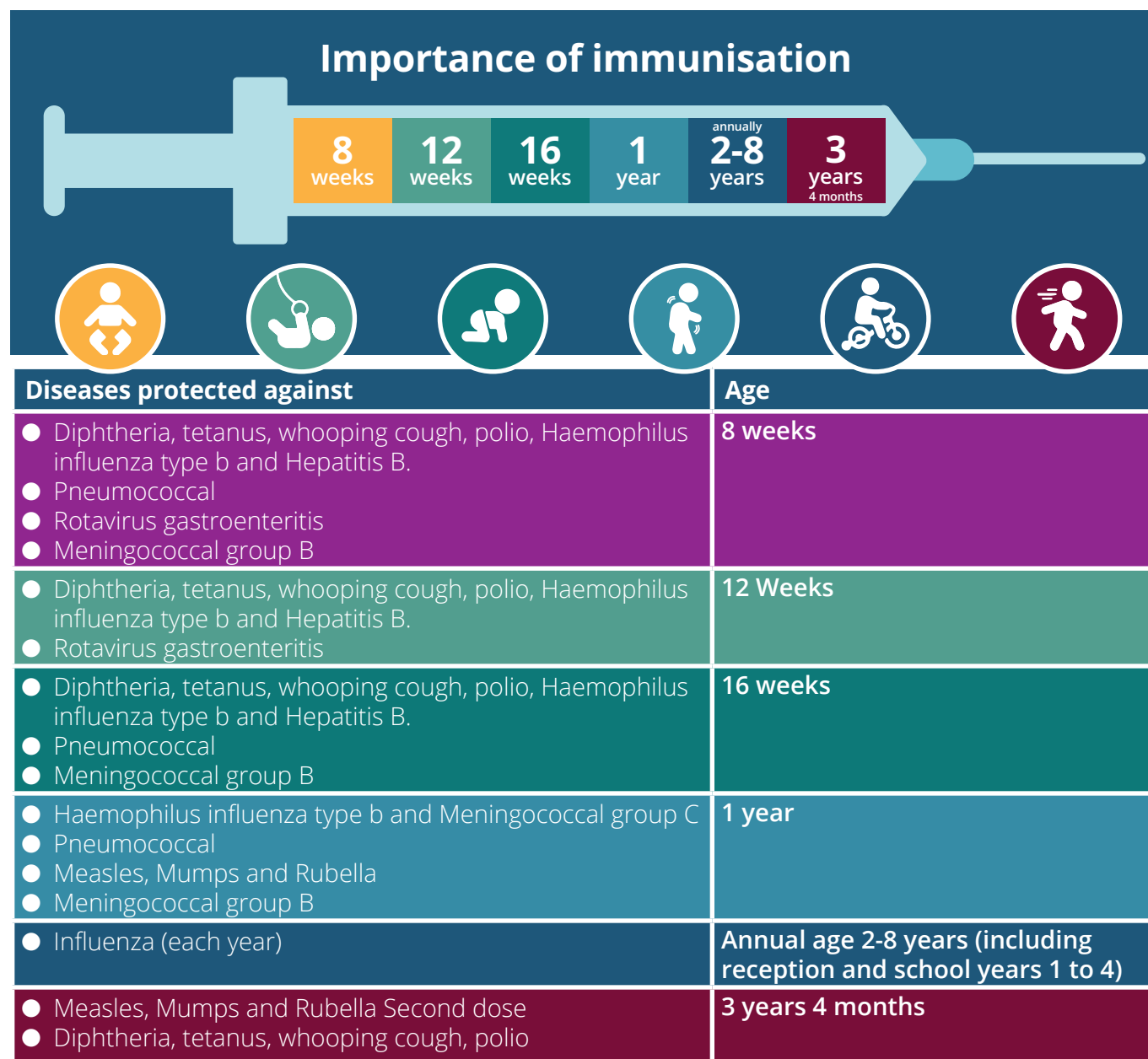


## 4.5 Improving child health outcomes

### Vaccination Uptake

Immunisation is the most effective public health intervention in the world for saving lives and promoting good health. Figure 17 shows the current routine vaccination schedule for children under five years (this schedule changes frequently).

**Fig 17:** Childhood routine vaccination schedule for autumn 2017 (NHS 2017).



When enough children are vaccinated in a local population it provides 'herd immunity' or protection for those people in the community who are unable to have the vaccine.

Children at increased risk of exposure will be offered additional vaccination (to protect from Hepatitis B and Tuberculosis). Children with underlying medical conditions may be offered additional vaccination, for instance the annual influenza vaccination (inactivated vaccine rather than live attenuated influenza vaccine).

Key points

- There is good coverage for infant immunisation in Bristol.
- Coverage is lower than needed for the second Measles, Mumps and Rubella dose, as it is nationally.
- Coverage with seasonal flu immunisation is very poor, as it is nationally.
- There is significant variation in immunisation coverage across the city.
- There is insufficient data on vaccination coverage for children at risk or with medical conditions.

What does the Bristol data show us about vaccination coverage?

Figure 18 shows how Bristol is performing against the national target and the England average. The important comparator is the target, rather than the England average.

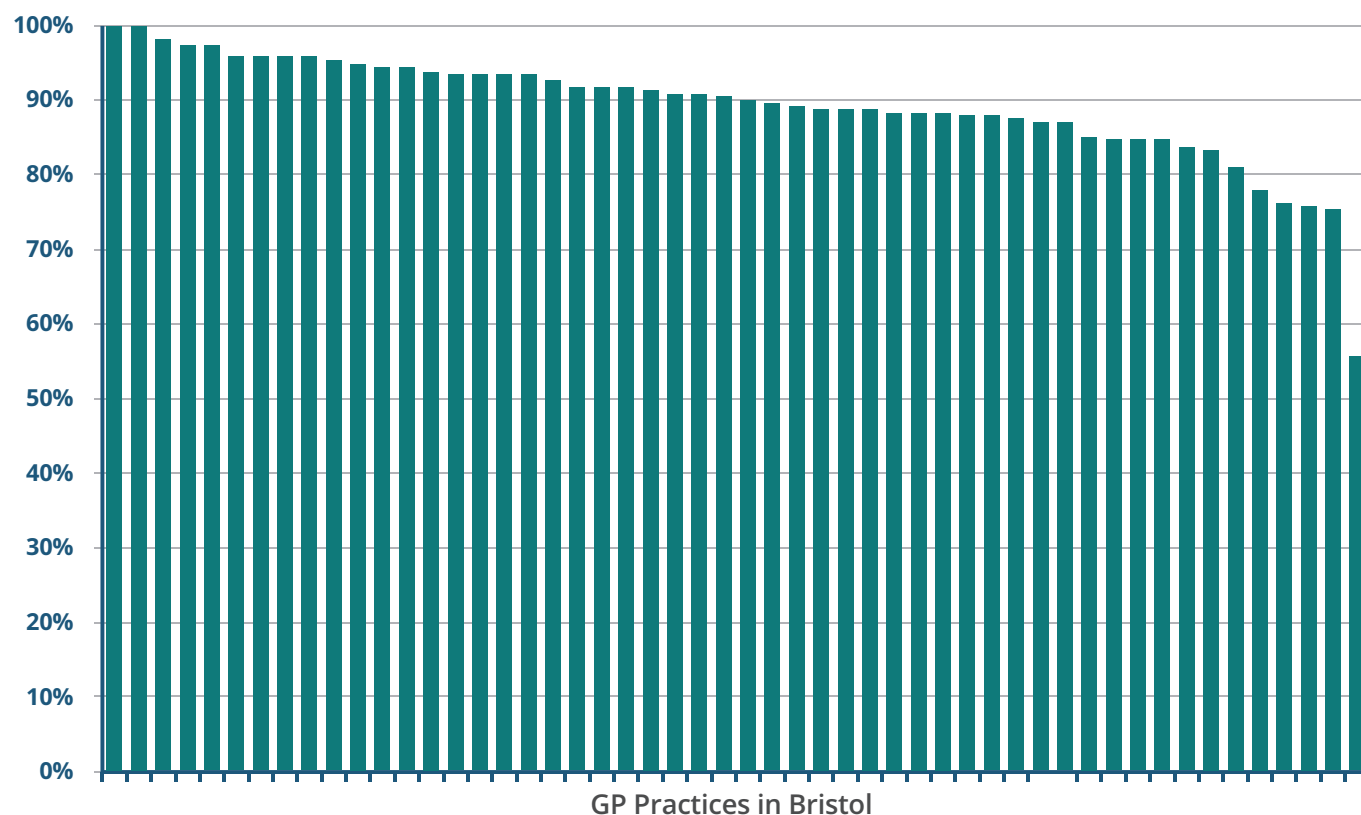
- The coverage in Bristol for infant immunisations is above the national target.
- The percentage of children receiving two doses of Measles, Mumps and Rubella has increased significantly in Bristol over the past six years and is now similar to the national average. It is still a challenge nationally to reach the target of 95%.

- The coverage with seasonal flu vaccination is higher in Bristol (36.7%) than nationally (34.4%) but it is a challenge to reach the target of 65%, as it is nationally.
- There is considerable variation in vaccination coverage across the city, as indicated by the variation in Measles, Mumps and Rubella coverage across Bristol primary care practices. See Figure 19.

Target	Bristol	England	National target
% of children who have received 3 doses of the 5-in1, Haemophilus influenza type b and Pneumococcal by their 2nd birthday	96.1	95.2	95%
% of children who have received 2 doses of Measles, Mumps and Rubella by their 5th birthday years	88.2	88.2	95%
% of children aged 2-4 who receive flu vaccination	36.7	34.4	65%

**Fig 18:** Selected vaccination targets, Bristol and England, 2015/16. Source: PH Outcomes Framework, these data are based on the 2015/16 immunisation schedule, which has slight differences to the current schedule for 2017/18.

**Fig 19:** Measles Mumps and Rubella (MMR) coverage, 5 year olds, Bristol Practices 2015/16.  
Source: NHS Digital.



## What should we be doing to improve vaccination coverage?

**NICE has produced detailed guidance on reducing differences in uptake in immunisations (NICE 2009a) which includes the following recommendations:**

- Immunisation programmes should be multifaceted and coordinated across different settings to increase uptake amongst groups with low uptake:
  - Ensure there is an identified healthcare practitioner in every GP practice who is responsible and provides leadership for the child immunisation programme.
  - Improve access to immunisation services, e.g. through extending clinic times and making sure clinics are child and family-friendly.
  - Send tailored invitations for example tailored reminders or recall invitations if do not attend appointments.
  - Ensure parents have an opportunity to discuss any concerns that they might have about immunisations.
  - Check the immunisation status of children at every appropriate opportunity.



- Training should be offered to all staff groups that advise about immunisations, including children centre staff, social care workers, as well as healthcare professionals.
- Early Years settings should work with the Healthy Child team, led by the health visitor, to promote checking vaccination status, providing information and offering venues for immunisations.

## What are we doing in Bristol to improve vaccination coverage?

Public Health England is responsible for the development of guidance, national standards, procurement and clinical advice regarding vaccinations. NHS England commissions the vaccination programme. Routine vaccinations for children in early years are delivered by primary care. Bristol City Council supports Public Health England in improving the coverage, including facilitation of communications.

Over the past few years Public Health England with partner organisations has put a lot of work into improving the immunisation rate. Specific actions to improve coverage have included:

- A campaign in Inner City and East area of Bristol to raise awareness around Measles, Mumps and Rubella immunisation.
- A high profile launch of seasonal flu immunisation at a Children's Centre.
- Immunisations becoming part of the Bristol Standard for Health.
- Piloting easy read information to support Measles, Mumps and Rubella uptake.

## Recommendations to improve vaccination coverage

- Continue to work in partnership across the city to explore reasons for low uptake and to improve immunisation coverage with a particular focus on Measles, Mumps and Rubella and seasonal flu immunisation.
- Develop better data on vaccination coverage for children at risk or with medical conditions.
- Promote NHS information about when to have vaccinations: [www.nhs.uk/Conditions/vaccinations/Pages/vaccination-schedule-age-checklist.aspx](http://www.nhs.uk/Conditions/vaccinations/Pages/vaccination-schedule-age-checklist.aspx)

## Childhood obesity

Reducing childhood obesity is both a local and national priority (Cabinet Office 2017). The World Health Organisation regards childhood obesity as one of the most serious global public health challenges for the 21st century stating obesity in childhood is associated with an increased risk of premature onset of illnesses, including diabetes and heart disease. Obese children are more likely to suffer ill-health, be absent from school due to illness and require more medical care than those within the healthy weight spectrum. Overweight or obese children and young people are more likely to become obese adults (Baird et al 2005).

### Key points

- Supporting children and families to maintain a healthy weight is very important in the prevention of long term conditions.
- Excess weight can have impact on emotional health.
- Rates of overweight in Bristol at age four to five years are similar to England but they are high nationally.
- There are significant differences in the prevalence of overweight children across the city.
- A city-wide healthy weight strategy is under development.

### What does the Bristol data show us about childhood obesity?

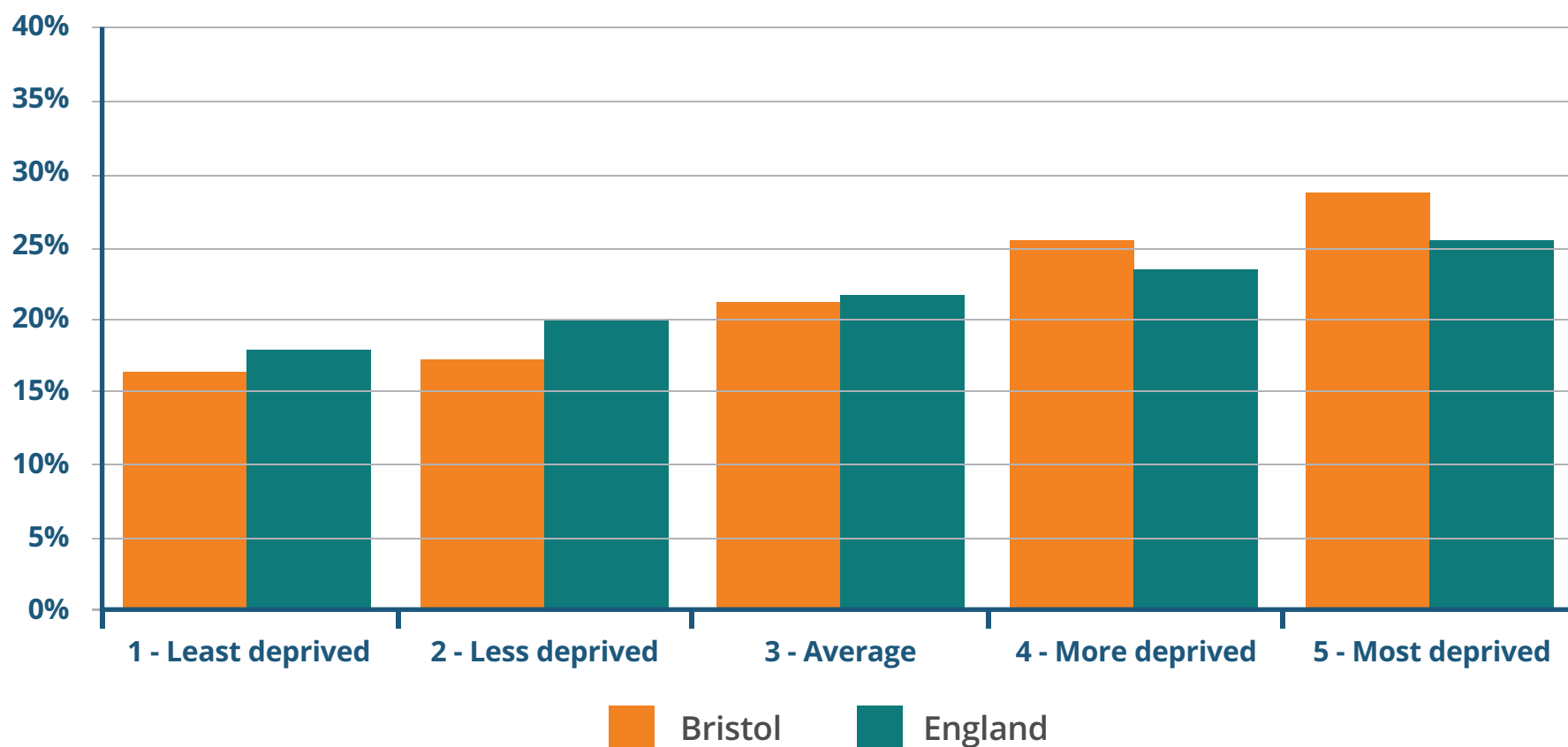
In England, child height and weight is measured at Reception Year (age 4 to 5 years) and Year Six (aged 10 to 11 years) through the National Child Measurement Programme, which is a government mandated requirement.

Bristol data (2015/16) indicates prevalence of excess weight (obesity and overweight) at reception is 22.9% as compared to 22.1% nationally, in other words, over a fifth of reception children were recorded as overweight or obese. 9.4% of children in Bristol were very overweight (obese) in (2015/16) which is similar to nationally (9.3%).

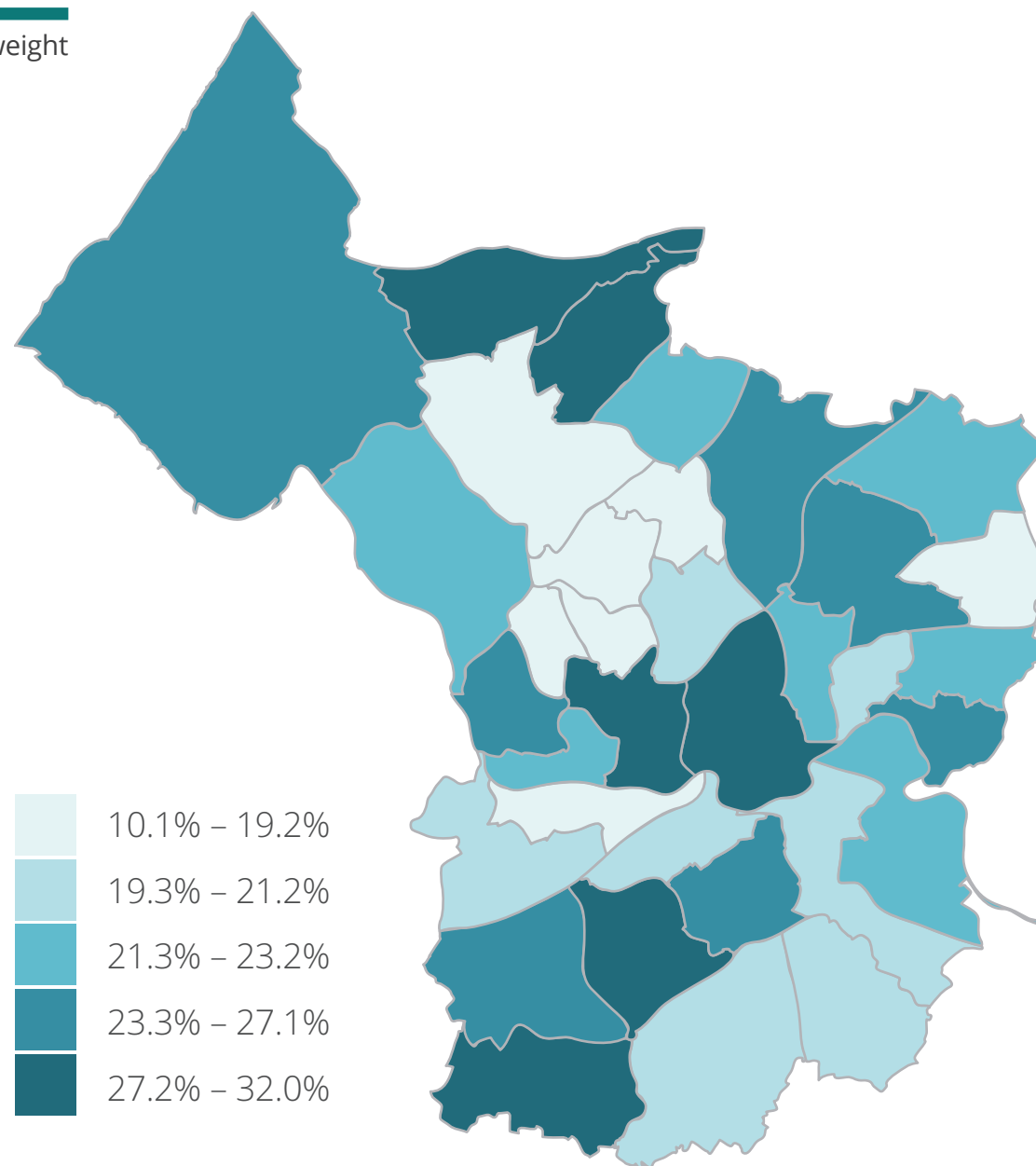
There is significant variation in the proportion of four to five year olds who are overweight or obese across Bristol (see Figure 20), with a higher prevalence of excess weight in areas of greater deprivation. By ward (see Figure 21), the range is from 10% in Clifton Down to 32% in Hartcliffe & Withywood (2013/14 to 2015/16).



**Fig 20:** Childhood excess weight prevalence, by deprivation, reception year (4/5 years), Bristol resident pupils versus England average, 2015/16.  
Source: National Child Measurement Programme



**Fig 21:** Percentage of reception children (4/5 years) that are overweight or very overweight, 3 year average, 2013/14 to 2015/16.  
Source: National Child Measurement Programme.



## What should we be doing about childhood obesity?

**The State of Child Health report (RCPCH 2017) made a number of recommendations, although these are mainly for Government there is relevance for our local work:**

- Enact the national childhood obesity strategy.
- Monitor the effectiveness of sugar reduction initiatives.
- Expand nutritional standards in schools.
- Make school-based health education statutory (including physical activity and nutrition).
- Support research to identify causes of obesity and interventions to tackle it.
- Ensure overweight children have timely access to support to attend evidence-based programmes for weight management.

**Public Health guidance PH47 (NICE 2013b) sets out the most effective ways to provide weight management programmes, including:**

- Programmes should be multi-component and focus on healthy eating, physical activity, reducing sedentary behaviour, strategies for family behaviour change.
- Programmes should include positive parenting skills.
- Programmes should be tailored to meet individual need.

**Further guidance sets out evidence around preventing excess weight, for example through promoting physical activity (NICE 2009b). There are specific physical activity guidelines for children in early years. The Chief Medical Officer (DfH 2011) set out guidelines for levels of physical activity for children in early years:**

- Physical activity should be encouraged from birth, particularly through floor-based play and water-based activities in safe environments.
- Children of pre-school age who are capable of walking unaided should be physically active daily for at least 180 minutes (three hours), spread throughout the day.
- All under-fives should minimise the amount of time spent being sedentary (being restrained or sitting) for extended periods (except time spent sleeping).

Guidelines (SACN 2015) for dietary intake include recommendations (PHE 2016) that sugar intake should not exceed 5% of total dietary energy for age two years upwards, which is around: less than 13g for two year olds (one - three teaspoons), less than 15g for three year olds (two - four teaspoons), less than 19g for four to six year olds (three - five teaspoons).

## What are we doing in Bristol to reduce childhood obesity?

Tackling childhood obesity is a priority for the Bristol Children and Families Partnership Board. A Bristol Great Weight Strategy (all ages) is currently being developed. [www.bristol.gov.uk/social-care-health/get-involved-in-the-great-weight-debate](http://www.bristol.gov.uk/social-care-health/get-involved-in-the-great-weight-debate)

In Bristol there are a number of interventions to both prevent and manage obesity, as described in the Bristol Child Healthy Weight Pathway (BCHWP 2013).

Preventing obesity and promoting a healthy weight, good nutrition and physical activity is a key component of the work of public health and partners in Early Years. The Bristol Standard for Health (described in section 3) has specific guidance to help Early Years settings to help parents to give their children a healthy diet when they are weaning and throughout toddlerhood and the preschool years. The health visitors play a key role in giving parents consistent information and can use the one year and two year checks to discuss weight, diet and exercise with parents. At the two year check children are weighed and measured and health visitors are able to use this as an opportunity to discuss these issues with parents.

Physical activity guidelines have been incorporated into the Bristol Standard for Health and Early Years settings use these to inform parents how to keep their children active.

The Bristol Standard for Health also has guidance for Early Years settings about catering and all settings in Bristol are encouraged to sign up to the “Eat Better, Start Better” voluntary guidelines published by the Children’s Food Trust. All information about packed lunches is consistent with these guidelines.

Bristol is running a city-wide campaign, Sugar Smart Bristol, which aims to inform all families and individuals of the amount of sugar in much everyday food and encourage them to swap to healthier choices. Families are given information and the campaign is running city-wide, so all citizens can access information. Early Years settings are encouraged to sign up to this. Businesses can apply for a Sugar Smart award if they offer children water or milk to drink.

Children who are overweight or obese can be referred to Alive N Kicking which works with children (and their parents) from age 2 - 16 years? In early years the focus is on the healthy lifestyle message with less of a focus on weight. Alive N Kicking work with Children’s Centres and aim to link to the community support and services they provide. Children identified as overweight by the National Child Measurement Programme are given information about Alive N Kicking and parents and carers can self-refer. Between April 2016 and March 2017, 51 two to four year olds attended Alive N Kicking and 46 completed the programme. See [www.ank.uk.com/home](http://www.ank.uk.com/home).

Public Health Bristol commission Children’s Community Health Partnership to provide healthy weight nurses who work with children age two to sixteen years and their parents to provide one to one support in more complex situations. They identify key lifestyle areas for change when working with a family to support children to grow into a healthy weight.

Healthy weight advice for children aged two to five years is available from NHS choices: [www.nhs.uk/Livewell/childhealth1-5/Pages/Overweight2to5.aspx](http://www.nhs.uk/Livewell/childhealth1-5/Pages/Overweight2to5.aspx)

## Recommendations to reduce childhood obesity

- Work in partnership to develop the city-wide Great Weight strategy and action plan.
- Support city-wide activities that promote healthy eating and physical activity, e.g. Bristol Eating Better.
- Continue to support Early Years settings and services to promote healthy weight.
- Ensure that through the procurement of the Bristol Behaviour Change for Healthier Lifestyles Programme the needs of young children and families are met.

## Oral health

Tooth decay is almost entirely preventable (RCPCH 2017) yet it remains a serious problem. In England, a quarter of five-year-olds (in 2015) experienced tooth decay, and the vast majority went untreated (Public Health Matters 2014).

Children who have toothache or who need treatment may have pain, infections and difficulties with eating, sleeping and socialising. They may be absent from pre-school or school and parents may also have to take time off work to take their children to a dentist. Oral health is therefore an important aspect of a child's overall health status and to children's school readiness, and can be seen as a marker of wider health and social care issues including poor nutrition and obesity. Tooth decay and obesity may be more likely to occur together; given that excessive intake of sugar and social deprivation are risk factors for both conditions (Public Health Matters 2014).

### Key points

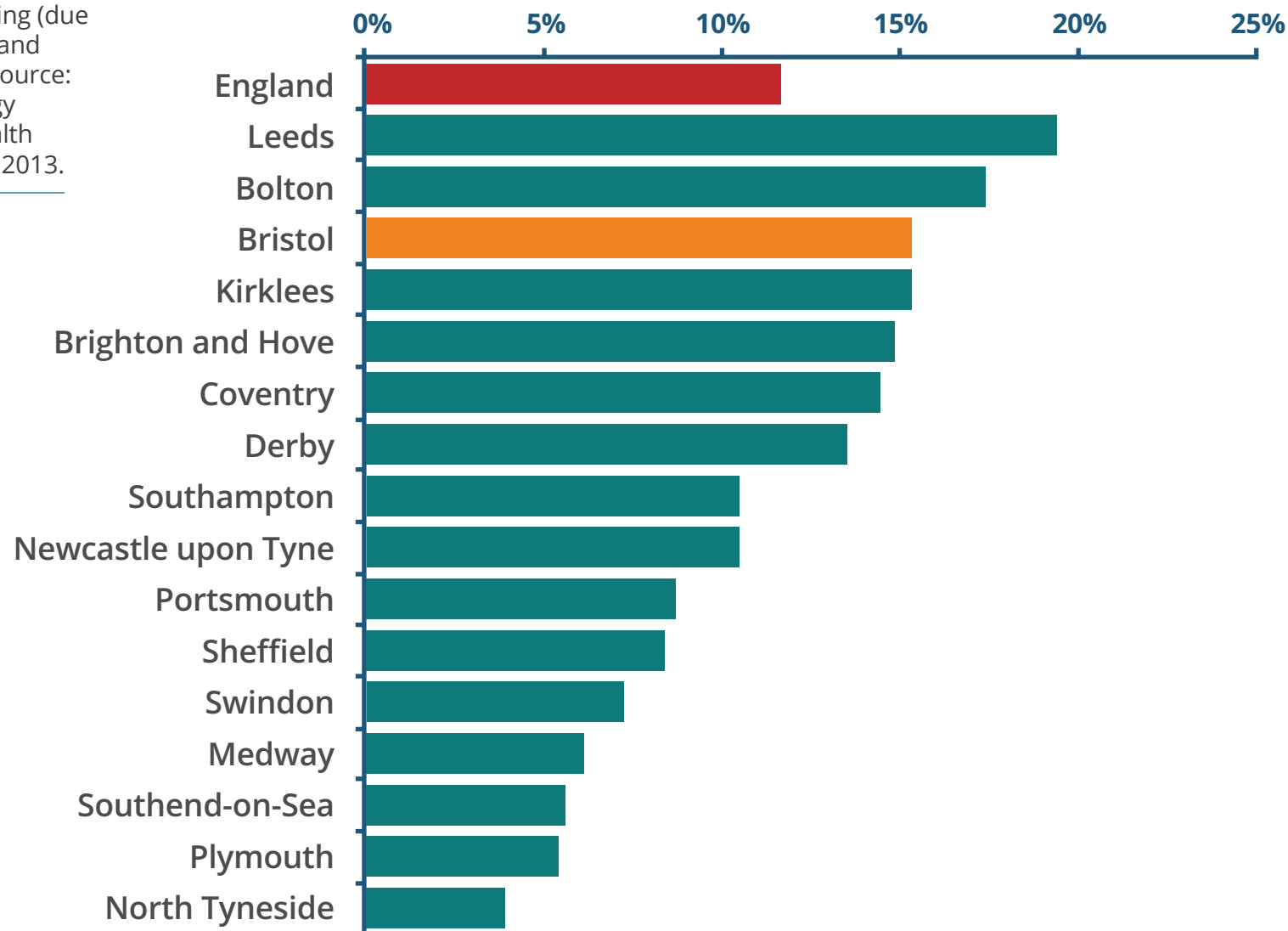
- Poor oral health has a significant impact of child's health, wellbeing and development.
- Rates of decay in preschool children are high.
- Tooth decay is largely preventable through lower sugar intake, regular tooth-brushing, and use of fluoride toothpaste.

### What does the Bristol data show us about oral health?

Regular national dental surveys monitor oral health of children at age three and five years and allow for comparison of local and national data. Local samples are relatively small so it is not possible to use these data to look at variations with Bristol.

Figure 22 indicates that in Bristol 15% of three year olds have dental decay, which is similar to nationally (though the survey was based on a small sample of children in each local authority area).

**Fig 22:** Percentage of children aged 3 with one or more obviously decayed, missing (due to decay) and filled teeth. Bristol and statistical neighbours (2012/13) Source: Dental Public Health Epidemiology Programme for England: oral health survey of three-year-old children 2013.





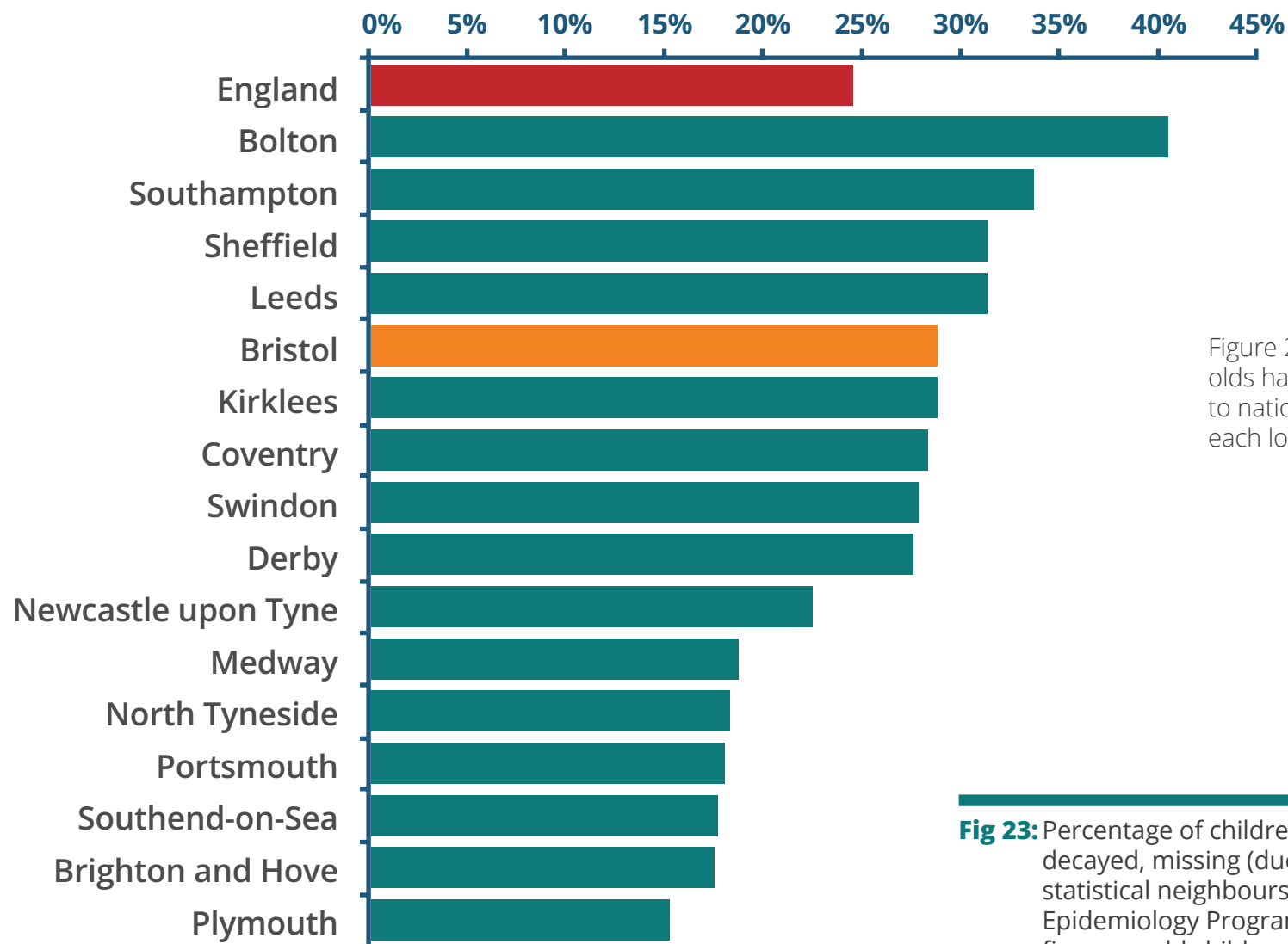
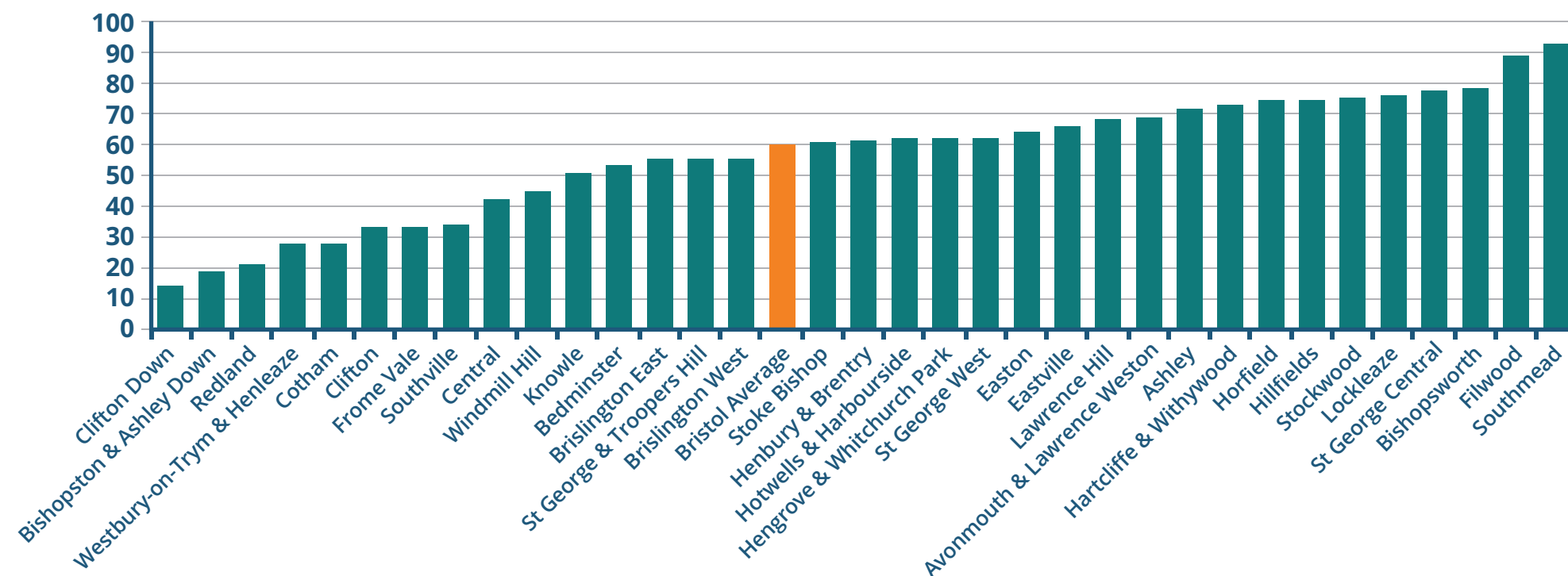


Figure 23 indicates that in Bristol 29% of five-year-olds have dental decay, which is statistically similar to nationally (the survey sample was small from each local authority area).

**Fig 23:** Percentage of children aged 5 with one or more obviously decayed, missing (due to decay) and filled teeth. Bristol and statistical neighbours (2014/15). Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children 2015.

Local analysis of NHS data payments data allows us to look at variations across the city. Figure 24 shows that rates of treatment for tooth decay are higher in areas where there are higher levels of deprivation.



**Fig 24:** Rate of teeth extracted, filled or subject to sealant restoration, by NHS community dentists, for children aged 0-4 years (rate per 1,000), by ward of residence, annual average 2014 to 2016. Source: NHS Dental payments data (NHS England) & 2015 mid-year population estimate.

## What should we be doing about oral health?

### **The State of Child Report (RCPCH 2017) included recommendations around children's oral health, including:**

- Equipping families from birth with knowledge to enable good oral hygiene and encourage regular brushing.
- All children should have their first dental check by their first birthday (Dental Check by One).
- Reduction in consumption of high-sugar foods, particularly drinks, and education to parents and children about replacing high-sugar foods and drinks.
- Children need timely access to both primary and specialist dental care to reduce the likelihood of serious complications following early tooth decay.
- Fluoridation of public water supplies requires consideration as an effective public health measure which has been shown to reduce health inequalities.

### **NICE has made recommendations to local authorities and partners to improve oral health (NICE 2014c) and aim to:**

- Promote and protect oral health by improving diet and reducing consumption of sugary food and drinks (and so improve general health too).
- Improve oral hygiene.
- Increase the availability of fluoride, including through fluoride varnishes.
- Encourage people to go to the dentist regularly.
- Increase access to dental services.

## What are we doing in Bristol to improve oral health?

An Oral Health Promotion Strategy 2016-2021 was published last year covering Bristol, South Gloucestershire, North Somerset and Bath and North East Somerset (BCC 2016). This strategy covers oral health promotion across the life course, from birth through to old age, and the recommendations are being implemented.

In Bristol, two targeted schemes are currently being developed to promote good oral health amongst children aged birth to five years. The first is an adaptation of our toothbrush distribution scheme which will ensure that the families who most need them will receive a healthy start pack when their child is aged four to six months old and this will include a toothbrush and toothpaste, a free flow drinking cup and healthy start vitamins as well as information sessions hosted by local health visiting teams. The second is a supervised tooth brushing scheme where children in selected Early Years settings will be supervised to brush their teeth once a day.

Oral health has been embedded into the Bristol Standard for Health to support oral health promotion in early year's settings.

The Bristol Sugar Smart campaign's objectives are to improve oral health as well as promoting healthy weight. As part of this campaign we are promoting a reduction in food and drink containing added sugar promoted and given to children aged five and under.

## Recommendations to improve child oral health

- Implement the local oral health strategy action plan.
- Implement targeted tooth brushing schemes: targeted distribution scheme and supervised tooth brushing.
- Support specific actions to reduce sugar intake including Sugar Smart Bristol.
- Support the Dental Check Ups before One national campaign.



## Childhood injury

Unintentional injuries are one of the main causes of premature death and illness for children in England. Every year in England, 60 children under the age of five die from injuries in and around the home, which is one in twelve of all deaths of children aged one to four. There are also 450,000 visits to A&E departments and 40,000 emergency hospital admissions in England each year because of injuries at home among under-fives. There is a strong link between child injuries and social deprivation with children from the most disadvantaged families far more likely to be killed or seriously hurt due to unintentional injuries in the home (PHE 2014a). Children who live in the most deprived areas are also at greater risk of being killed or injured on the roads (PHE 2014b).

### Key points

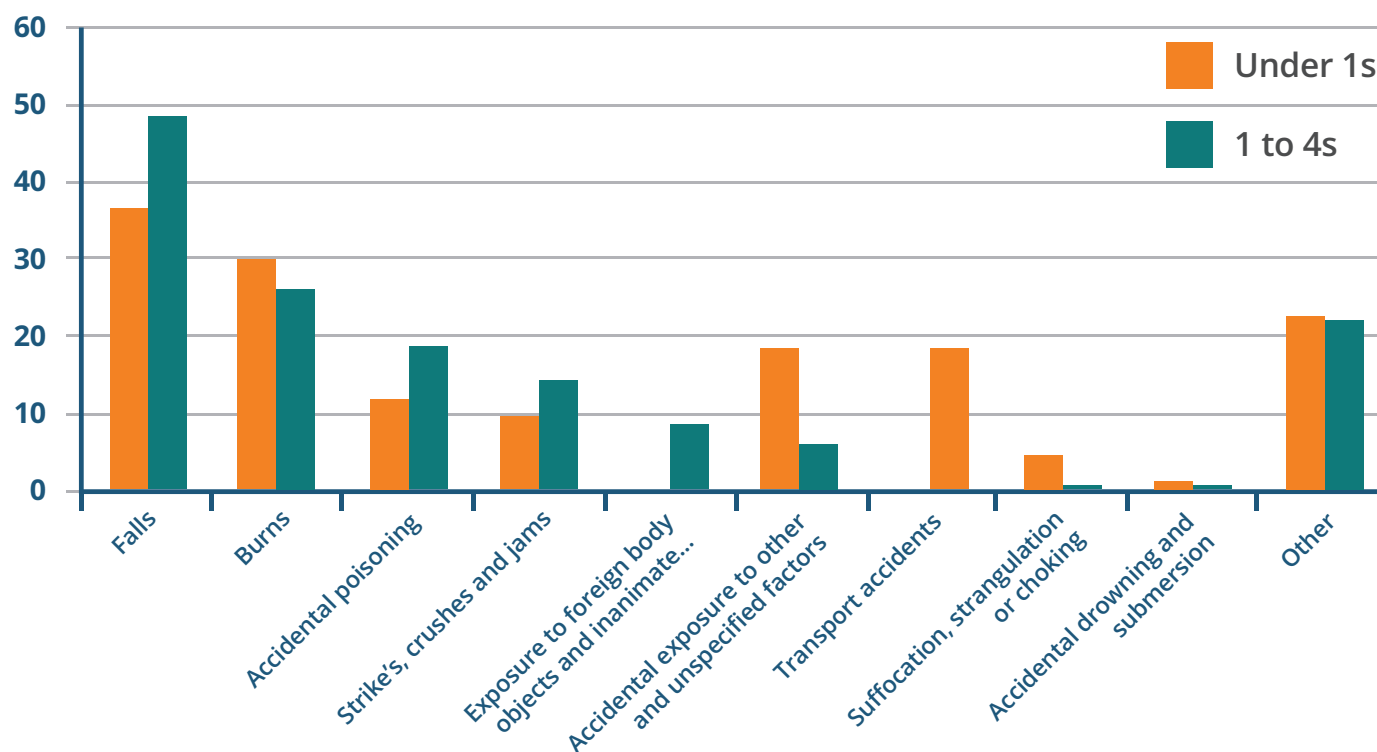
- The rate of hospital admissions due to unintentional injuries in children aged under 5 is significantly worse in Bristol than the English average.
- Falls are the biggest cause of injury in Bristol, followed by burns.
- One of the six high impact areas for health visitors to work with families on is injury prevention.
- Children's Centres have a key role in supporting families to prevent injuries in the home.

## What does Bristol data show us about childhood injury?

The rate of hospital admissions due to unintentional injuries in children aged under 5 is significantly worse in Bristol (153.3 in every 10,000) than the English average (129.6) (source: Public Health Outcomes Framework 2015-16).

Data on emergency admissions provide detail on the causes of injuries in under-fives in Bristol. Figure 25 shows that the most common reason for admission is falls, followed by burns.

**Fig 25:** Rate of emergency admissions due to injury by 10,000 populations (2013/14 to 2015/16): under 1 versus 1-4 year-olds. Source: Hospital Episode Statistics, via Bristol Public Health Knowledge Service.



## What should we be doing to reduce childhood injury?

### The State of Child Health report (RCPCH 2017) included the following recommendations to reduce unintentional injuries:

- Local authorities have a responsibility to provide strategic leadership for injury prevention, bringing together a very wide range of services including health, education, social care, housing and emergency services.
- Health, education and social care Early Years professionals need training to prevent injuries in Early Years' settings and to educate and support parents in injury prevention.
- Home safety practices, such as child proofing kitchen and bathroom cupboards, and safe bathing, can be achieved at minimal cost.
- All local authorities should introduce 20mph speed limits in built-up areas to create safer environments for children to walk, cycle and play.

### Public Health England (PHE 2014a) identifies five priority areas for preventing accidents at home, these are:

- Choking, suffocation and strangulation (main risks window blinds, bedding).
- Falls (from stairs, furniture and buildings).
- Poisoning (from medicines and household products).
- Burns and scalds (hot drinks and heated appliances).
- Drowning (bath).

### NICE recommends actions to prevent injuries (NICE 2010b), which cover:

- Strategic leadership locally for injury prevention.
- Installation and maintenance of permanent safety equipment in social and rented accommodation.
- Policy for safe outdoor play and leisure.
- Promoting and enforcing speed reduction on roads and promoting road safety.



## What are we doing in Bristol to reduce childhood injuries?

Health Visitors and Children's Centres work collaboratively in preventing injuries. Injury prevention is one of the high impact areas for health visiting and there are opportunities to promote injury prevention at each of the universal contacts, target activities and through the drop-in health clinics. Children's Centres who identify injury prevention as a priority for their reach area raise awareness of home safety by running campaigns and activities in groups for parents that inform them of hazards and how to reduce to the risk of harm. Avon Fire and Rescue Service and Children's Centres have been working with Public Health on developing a parenting intervention aimed at families of babies of around six months that includes injury prevention, first aid and weaning advice called Teeny Explores.

Children from the most disadvantaged families are most at risk of an unintentional injury in the home. The Home Safety Equipment Scheme is a public health funded intervention that supplies and fits safety equipment such as blind cord cleats, safety gates, fireguards, cupboard and drawer locks, window locks/restrictors and carbon monoxide alarms. The scheme is targeted to families in receipt of means tested benefits who have a least one child aged under five years. Health visitors usually refer parents to this at the nine - twelve month check but this is being reviewed as children are often mobile (rolling, crawling and some walking) before this age. In future we are hoping to be able to target eligible families earlier through Children's Centres.

In Bristol there has been a roll-out of 20 miles an hour signage in residential areas. The aims of 20mph speed limits in Bristol have been to reduce road casualties, increase levels of walking and cycling locally, and improve social cohesion in communities.



## Case study:

**The Incredible Year's parenting programme** operates a course of 14 group sessions for parents experiencing challenges with parenting. Parents are given opportunities to discuss their difficulties and learn practical ways to improve their parenting skills in a safe, informal and welcoming environment. Parents are tasked with trying different approaches to parenting at home from 1-1 playtime with their child to keeping calm during child outbursts. Parents say that they can identify and engage with others in the group and goal setting enables them to realise their achievements at the end of the course.

## Recommendations to improve child oral health

- Complete a needs assessment of childhood injuries to identify further opportunities locally for prevention.
- To facilitate combined training for health visitors and Children's Centre staff so they can promote consistent injury prevention advice at every opportunity with families.

## BUILDING RESILIENCE AND WELLBEING

A resilient child has been defined as one who ‘can resist adversity, cope with uncertainty and recover more successfully from traumatic events or episodes’ (Newman 2002).

The World Health Organisation embeds resilience in its definition of good mental health, which it describes as ‘a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community’ (WHO 2014). The ability of a person to cope with stress emphasises the significance of resilience as a protective factor against mental ill health.

### Key factors for promoting resilience

- Secure attachment to care giver.
- Breastfeeding (promotes attachment).
- Positive proactive parenting.

Healthy brain development begins before birth and accelerates through infancy (DH 2012). It can be disrupted by exposure to stress and toxic substances such as alcohol or tobacco before birth, potentially undermining later mental health (ACMD 2003).

Babies are born with highly reactive systems for responding to hunger, tiredness, loud noises or pain. The baby’s exposure to these stresses can be moderated by parenting which recognises and responds to the child’s needs and the baby gradually learns that its needs will be met. By six months, infants will begin to self-regulate and to have some control over their emotions. Without an effective care giver, however they can be over-exposed to prolonged stress hormones which affect this ability to regulate emotions and these are at the root of many later mental health problems (CfMH 2016a).

Healthy attachment between the child and care givers helps buffer the child against adversity (Bowlby 1958). This helps them to cope with challenges and build resilience. Likewise, positive, proactive and stimulating parenting is associated with higher self-esteem, reduced behavioural problems and better academic and social outcomes. If parents face too many stressors (e.g. through poverty, unstable housing, substance misuse, difficult relationships or their own mental health problems), they may be unable to adequately protect the child from adversity (CfMH 2016a).

### Key risk factors for poor mental health in young children:

- Parental substance misuse.
- Abuse and trauma.
- Poor maternal mental health.
- Parental stressors such as poverty, conflict in relationships, crime, poor housing.

Parental alcohol and drug use can cause damage to the unborn child and after birth, can affect children throughout their lives (ACMD 2003). It can interfere with a care giver’s sensitivity to a child’s physical and emotional needs and reduces their ability to stimulate and promote healthy brain development. Parents may also be using substances to manage their own mental health difficulties thereby amplifying risks (Ofsted 2013). In the three to five-year age group hyperactivity, inattention, impulsivity and aggression are more common among children whose parents misuse drugs and alcohol and there is evidence that even at this age, children are sometimes expected to take on excessive responsibility for others and depression and anxiety may become evident. There is also some evidence of inappropriate learned responses due to witnessing problem behaviours like violence and criminal activity (ACMD 2003).



Child abuse and neglect represent a major risk factor for child development, and can result in a situation where the child both craves and fears the care giver leading to insecure attachment which is particularly linked to adult personality disorder (CfMH 2016).

Children from low income families are four times more likely to experience mental health problems compared to children from high income families (Morrison Gutman et al 2015) and tackling poverty is a key recommendation from the State of Child Health Report.

Children facing multiple adverse childhood experiences (ACEs) have been shown to be at the greatest risk of poor mental and physical health over their lifetime (Bellis 2015). These chronic traumatic stresses in early life such as abuse, neglect, poverty, and dysfunctional home environments have been associated with the development of a wide range of health harming behaviours such as substance misuse, smoking, risky sexual behaviour and crime as a way of coping with the psychological impacts of these early experiences. However, exposure to environmental risk does not mean that poor mental health is inevitable and children exposed to similar adversity can take very different pathways. What makes children more resilient to these stresses is not fully understood. Children from disadvantaged backgrounds have lower resilience and poor mental health outcomes. Parental stressors can be much more common among this group (ref Morrison & Gutman et al 2015).

## Key points

- Improving mental health is a priority for Bristol.
- We know some of the risk factors and protective factors for mental health, resilience and wellbeing.
- In Bristol there are high levels of risk factors.
- We do not have good measures of mental health wellbeing prevalence locally for 0-5s.
- Our Children's Centres and other Early Years settings and services are key for promoting protective factors such as building resilience.
- Other services such as Health Visitors are also key for identifying mental health disorders and building good mental health.

## 5.1 Building Resilience and Wellbeing – what does Bristol data show us?

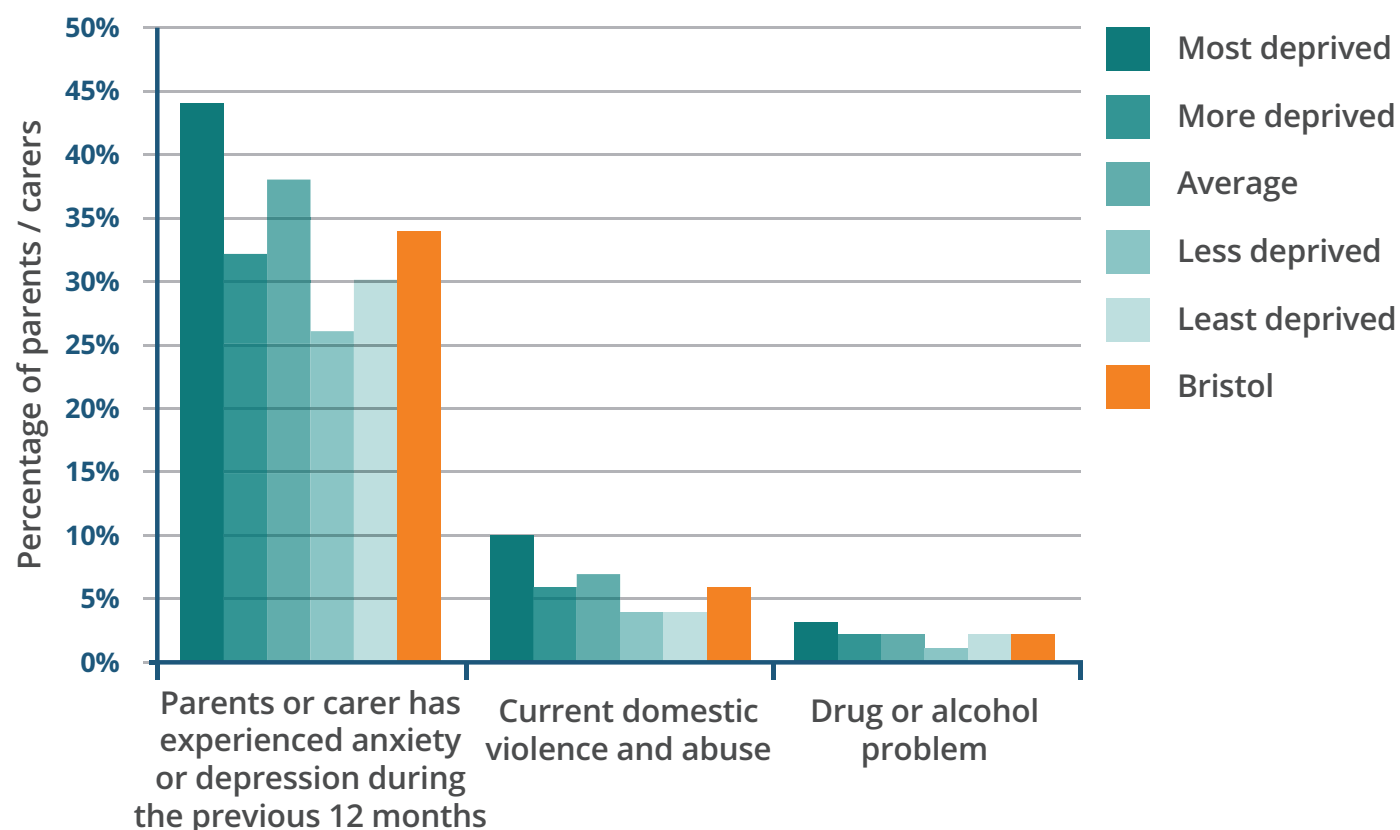
### Measures of social and emotional development

Health visitors measure development at the twelve month and two year checks using the Ages and Stages -3 Questionnaire. School readiness also measures the social and emotional development of children at the end of the school reception year (data are included in section 3).

### Survey data of risk factors for poor mental health

Data from the Bristol under Fives survey is included in section 4. Figure 26 shows risk factors for poor mental health. Around a third of parents and carers who responded to this survey reported mental ill health in the previous 12 months. This is highest among those who experience the greatest levels of deprivation.

Those in the most deprived areas also experience the highest levels of domestic violence and abuse and there are also a higher proportion of people in these areas who use drugs problematically. The most deprived areas experience significantly higher rates of risk factors for poor mental health in all of the categories than the Bristol average.



**Fig 26:** Bristol Under 5 Survey (BCC) showing risk factors for poor child mental health, by deprivation. Source: Information and Analysis Team, Bristol City Council.

## Parental substance misuse

It is not possible to determine the actual figure of children living with substance misusing parents but it is estimated that in England in 2011/12 there were 103,742 children under 18 living with at least one parent who was in drug treatment and in 2015 there were 945,919 children under 16 who were affected by parental alcohol problems (CC 2017). Parental substance misuse is a key risk factor for poor mental health in children.

Bristol City Council data recording adults in drug and alcohol treatment shows that in 2016/17, 380 children under five years were living in the same house with at least one parent in substance misuse treatment and 368 were living elsewhere. The real figures will be higher than this because not all parents who misuse drugs and alcohol are in treatment services. Figure 27 shows the number of children of adult clients between 2012 and 2017. Many adults will continue to stay in treatment across the year-end dates and therefore some of these children will be counted in consecutive years.

It is not known why there is a reduction in numbers under-5s who have parents in treatment between 2015/16 and 2016/17.

The reduction in the number of 0-5s who have parents in drug and alcohol treatment reflects the aging population of adults in treatment in Bristol and suggests that parents of young children are not engaging with these services, exposing children to higher levels of risk.

	Children under 5 years in the house	Children under 5 years elsewhere	Total
2012/13	517	350	867
2013/14	495	383	878
2014/15	456	385	841
2015/16	443	455	898
2016/17	380	368	748

**Fig 27:** Number of children aged 0 to 5 years who have parents and carers in drug and alcohol treatment services, by whether they live in the same house or elsewhere.

Source: Theseus data, unpublished data BCC.

### Number of children aged 0 - 5 years with parents in substance misuse treatment, by engagement with social care and category of need.

Category of need	Number
Early Help	10
Child in need	17
Has a child protection plan	17
Looked after child	9
<b>Total</b>	<b>51</b>

**Fig 28:** Number of children aged 0 – 5 years with parents in substance misuse treatment, by engagement with Social Care and category of need (2017).

Source: Theseus 2017, unpublished data BCC.

The link between parental problematic substance use and child safeguarding can be seen in Figure 28, showing children aged under five who have parents in substance misuse treatment in Bristol and are engaged with social care.

The link between children who have a parent or carer in drug or alcohol treatment and deprivation is strong. Between 2012 and 2017, a yearly average of 91 children aged five and under who had parents in substance misuse treatment services lived in the most affluent areas and an average of 189 per year lived in the most deprived areas (Theseus 2017).

## Prevalence of diagnosable mental health issues in young children

Mental health problems recognised in younger children include behavioural disorders (conduct disorder), attention deficit hyperactivity disorder, and emotional disorders (such as anxiety, phobias and depression). Data measuring levels of mental health and resilience in the under-fives is not routinely collected and national prevalence studies have not collected data for under-fives.

## 5.2 National recommendations for building resilience and wellbeing

### Marmot (2010) recommended:

- Build resilience and well-being of young children across the social gradient.
- Give priority to pre and post-birth interventions that reduce adverse outcomes of pregnancy and infancy.

Marmot recommended targeted home visiting to support high risk parents. One of the most successful home visiting programmes has been The Family Nurse Partnership. Evaluation of the programme in the US has shown improvements in outcomes such as reduced crimes, reduced child abuse as well as improved educational outcomes for the children (CfMH 2016), although initial UK findings have been less positive (Robling 2016).

The State Of Child Health Report (RCPCH 2017) emphasised the need to “Maximise mental health and wellbeing throughout childhood”:

- Professional bodies representing all those working with infants, children and young people in health, social care, education, criminal justice and community settings should equip their members with the necessary tools to identify mental health issues through the promotion of resources such as the MindEd portal.

- NHS England should ensure that funding designated for expanding Child and Adolescent Mental Health Services reach frontline services.

### The report (RCPCH 2017) included related recommendations:

- Ensure full compliance with the UN Convention on the Rights of the Child.
- 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.
- Ensure universal Early Years public health services are prioritised and supported, with targeted support for children and families experiencing poverty.
- Invest in a well-trained multi-disciplinary workforce that can respond to children and families at risk of or who experience harm.
- Protect and continue to support the provision of early help services.

### NICE guidance:

- Highlights the important role of health visitors to build resilience and to identify families with additional needs and provide support (NICE 2014d, NICE 2016a).
- The need to prevent and address attachment difficulties in children who are adopted from care, in care or at risk of going into care (NICE 2015b).
- The role of local authorities in promoting social and emotional wellbeing among vulnerable children (NICE 2013c) through ensuring arrangements are in place for integrated commissioning of universal and targeted services for under-fives (including general practice, maternity, health visiting, school nursing and all Early Years providers) and ensuring children and families with multiple needs have access to specialist services, including child safeguarding and mental health services.
- The importance of working with pregnant women who use drugs and alcohol (NICE 2010c) to ensure good partnership working between agencies, support based on individual need, referral pathways into treatment services and education about the potential effects of substance misuse on the developing foetus.

## 5.3 How are we building resilience and wellbeing in Bristol?

The focus of the prevention of poor mental health in young children is the promotion of good attachment and the support of parents to prevent perinatal mental health problems, which will underpin the development of resilience. Midwifery, health visiting, Early Years settings and the voluntary sector work with parents to support the development of close and loving relationships with their infants and young children.

### Midwifery Service

Universal interventions aim to build resilience and wellbeing of young children across the social gradient. This includes the UNICEF Baby Friendly Initiative to promote attachment, using evidence-based best practice standards to support parents to nurture close relationships, supporting attachment, emotional wellbeing, and optimum brain development. Antenatal classes include two or three sessions focusing on the babies' needs for closeness and comfort.

### Health visiting service

The health visiting team have received training in the Solihull approach: a psychologically-informed, evidence-based model of working which includes supporting healthy brain development, attachment, containment, reciprocity and behaviour management. They use this in their practice providing home, telephone and clinic support. The service is also Baby Friendly Initiative accredited.

A Specialist Early Relationships Health Visitor provides therapeutic help and support to parents and carers experiencing difficulties in their relationships with their infants and young children. This includes attachment problems, maternal depression and concerns regarding child behaviour. The aim is to provide early intervention before problems become entrenched. This service is only currently available in the East Central area.

### Family Nurse Partnership

The Family Nurse Partnership is an enhanced health visiting service working with first time parents aged eighteen and under. It offers a structured programme of support from pregnancy to the child's second birthday, delivered by a designated, trained family nurse. It is focused on the health and well-being of the child, including personal health, life course development, maternal role, and relationships with family and friends. All of this work contributes towards attachment and building the foundations for resilience. Parents evaluate it highly and there are currently around 90 Bristol families receiving support.

The first families have recently 'graduated' from the Family Nurse Partnership into mainstream services and there have been good outcomes particularly around breastfeeding initiation and smoking cessation.

### Children's Centres

Services offered by Children's Centres are discussed in Section 4 and are important resources for nurturing resilience in children under five years, including those who are most disadvantaged. They deliver evidence-based programmes for parents that cover social skills, independence, problem solving, breastfeeding, supporting relationships with other adults, other community factors, debt advice, housing support, family support, and parenting. The Emotional Health Transformation Plan funded training in Mental Health First Aid for Children's Centres staff in 2017.

### First Response

First Response is the first point of referral for professionals and members of the public who are concerned about the welfare of a child. First Response assesses all the available information and identifies appropriate pathways into services, which may include Early Help or a child protection referral.

## Early Help

Early Help works with families who require support but do not meet the threshold for social care. Some Early Help referrals received for families with children are referred to Children's Centres, and some are managed by separate Early Help teams.

Consent is required from parents and carers to refer to Early Help. The aim of this work is to prevent escalation of need and improve the outcomes for children. This may involve referrals for parenting support. Families who are facing crisis can be referred to the Family Intervention Team for tailored family led support including, housing support and advice, debt management and mental health interventions. Priority is given to children or young people who live in households of families that meet two or more criteria highlighted in the Family Outcome Plan. These criteria are:

- Parents and young people involved in crime or antisocial behaviour.
- Children who have not been attending school regularly.
- Children who need help.
- Adults out of work or at risk of financial exclusion, and young people at high risk of being out of work.
- Families affected by domestic violence and abuse.
- Parents and children with a range of health problems.

## Children's Social Care

When families are faced with more complex problems the local authority has a duty to protect and promote the welfare of children. These children can be categorised in one of three ways:

i) Children in need are those who are aged under 18 and:

- need local authority services to achieve or maintain a reasonable standard of health or development.
- need local authority services to prevent significant or further harm to health or development.
- or they are disabled.

ii) Children who are subject to a Child Protection Plan are those who are under 18 and thought to be at risk of significant harm. The names of these children are recorded on the child protection register and the child protection plan is put in place to identify ways to reduce the likelihood of harm to the child and to protect the child's welfare.

iii) Children in care are looked after by their local authority. They might be living:

- with foster parents.
- at home with their parents under the supervision of social services.
- in residential children's homes.
- other residential settings like schools or secure units.

The Emotional Health Transformation Plan funded eight sessions in Promoting Positive Mental Health for children's social care staff in 2016.

## Parental Substance Misuse Services in Bristol

Bristol Recovery Orientated Alcohol and Drugs Service (ROADS) provide an intensive family support service for parents who live with their children, where there is a child protection plan in place. They also run parenting workshops for all clients, a fathers' group and a women's morning. There is a crèche for children under five years.

## Detection of perinatal, infant and preschool mental health problems

The midwifery team and health visitors screen mothers for depression and other mental health problems, which may interfere with attachment and refer for support. Children's Centre staff may also detect mental health problems and signpost for support.

Issues with mental ill health during early years can be detected through the development checks that are undertaken by Early Years providers or health visitors including Family Nurse Partnership and may also be picked up by staff in other Early Years settings.

## Mental health interventions for common (low level) perinatal & preschool mental health

Perinatal mental health interventions for mothers are discussed in section 2. These may have an impact on attachment between mothers and their babies.

Child and Family Consultation teams are a multi-disciplinary team who work with and engage children and young people with emotional, behavioural or mental health difficulties. There is a Child and Family Consultation team for each of the Bristol Areas (North, East/Central, and South). Low level interventions for children up to the age of five are offered by Primary Infant Mental Health Specialists, who are part of the Child and Family Consultation teams. They support frontline professionals who work with preschool children and their carers when there are concerns about mental health. They also run training.

GPs provide assessment for parents and children and may provide treatment for common perinatal mental health disorders or referral into mental health treatment services and support.



## 5.4 Recommendations for building resilience and wellbeing in Bristol – what more can we do?

### Recommendations for building resilience and wellbeing in Bristol

- The application of the 'Adverse Childhood Experiences' to the Bristol child population, potential interventions in Bristol should be explored.
- Continue to support routine services (maternity services, health visitors and Children's Centres) build parental understanding of the importance of reducing stresses in pregnancy, responding to baby needs through sensitive parenting and building parent-child attachment.
- Continue to provide effective universal Children's Centres, family support and health visitor services.
- The Children and Families Partnership Board and Bristol Safeguarding Children Board have a key leadership role to support work that addresses risk factors for poor mental health including child poverty and abuse.
- Continue to ensure that all professionals who work in Early Years settings have access to appropriate training and resources to enable them to use evidence-based interventions and to prevent and identify delayed development and mental health issues in young children (and parents).







## Case study:

**The PAUSE Bristol Project** works with women who have repeatedly had their children taken into care. It offers support to begin to tackle the issues that led to the removal of their children and to delay any more pregnancies.

The project aims to improve the social, emotional, environmental and physical health of women who are typically disadvantaged and reduce the number of new pregnancies to ultimately reduce the number of children placed in care. These women have complex needs.

Pause will work with 20 women over the next 18 months who, otherwise would be estimated to have 15 pregnancies/children removed from their care during that time. Three practitioners provide intensive work to help women take a pause from the cycle of pregnancy/removals and focus on themselves. The women are asked to commit to this process by using an effective form of reversible contraception.

This break enables us to support the women to begin to identify and process their emotional trauma, tackle the barriers they need to overcome, improve the contact they have with their children and start to see a positive future for their lives.

## REVIEW OF 2016 RECOMMENDATIONS

### Recommendation 1

The Director of Public Health should work through Bristol Health and Wellbeing Board and other stakeholders to implement the 4:4:48 prevention model to address modifiable unhealthy lifestyle behaviours (including smoking and tobacco, alcohol misuse, poor diet and lack of physical activity) and put 'Health in All Policies'.

Bristol City Council is procuring a Bristol Behaviour Change for Healthier Lifestyles Programme to help people who want to change their unhealthy lifestyles. It is re-procuring local substance misuse services for people with more serious alcohol and substance misuse issues. The Bristol Health and Wellbeing Board have adopted a 'Health in All Policies' approach. Health inequalities impact assessments have been undertaken as part of the council budget reduction programme.

### Recommendation 2

The Health and Wellbeing Board should oversee an audit of current prevention and early intervention programmes against the evidence-based interventions set out in this report and identifies any gaps.

A high level review of prevention activities was carried out as part of the Bristol, North Somerset and South Gloucestershire Sustainability Transformation Programme. However, more work is needed to identify further gaps and areas for development.

### Recommendation 3

The Bristol Children and Families Partnership Board should seek to strengthen cost effective public health programmes aimed at children and their families to give them a better and healthier start in life (specifically targeting those who experience the greatest disadvantage).

The Partnership Board has developed a work plan to promote health and wellbeing through its Joint Health Outcomes Challenge Group. This group meets regularly and oversees key work programmes including emotional and mental wellbeing, injury prevention and childhood obesity. Progress is monitored through a set of key indicators reported to the Board.

## Recommendation 4

Bristol City Council's Public Health Team should coordinate the roll out of a 'Making Every Contact Count' training programme for multidisciplinary front line staff to improve health and wellbeing.

Public Health Bristol has launched a citywide Making Every Contact Count (training programme). A number of 'train the trainers' have been recruited and over 40 front line staff from housing, health, social care and environmental health have received this training. A dedicated Coordinator is rolling out this programme across Bristol, North Somerset and South Gloucestershire.

## Recommendation 5

The Director of Public Health will work with the emerging Mayor's City Office, other city partnerships, the Bristol, North Somerset and South Gloucestershire Sustainability Transformation Plan and the West of England devolution deal to find ways to strengthen and consolidate public health effort to reduce health inequalities, preventable death and disease.

The Director of Public Health is working with the Mayor's City Office to consolidate public health approaches to tackle the wider determinants of health. The Public Health Bristol Team working closely with the Bristol, North Somerset and South Gloucestershire Sustainability Transformation Programme to strengthen prevention, early intervention and self-care programmes as well as working in partnership to launch a 'Thrive' programme to promote mental health and wellbeing.

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## REFERENCES

ACMD (2003) Hidden harm: Responding to the needs of children of problem drug users, Advisory Council on the Misuse of Drugs Inquiry reports.

Baird J, Fisher D, Lucas P, Kleijnen J, Roberts H, Law C, (2005) Being big or growing fast: systematic review of size and growth in infancy and later obesity. *BMJ* 2005; 331:929

Bauer A et al (2014). The costs of perinatal mental health problems. London: Centre for Mental Health.

Bellis M, Ashton K, Hughes K, Ford K, Bishop J and Paranjothy S (2015) Adverse Childhood Experiences and their impact on health-harming behaviours in the Welsh adult population, Public Health Wales and Centre for Public Health, John Moores University. [Online] Available: [www.cph.org.uk/wp-content/uploads/2016/01/ACE-Report-FINAL-E.pdf](http://www.cph.org.uk/wp-content/uploads/2016/01/ACE-Report-FINAL-E.pdf) [28/7/2017]

Bonin E M, Stevens M, Beecham J, Byford S, Parsonage M (2011) Cost and longer term savings of parenting programmes for the prevention of persistent conduct disorder: a modelling study. [Online], Available: [www.bmcpublichealth.boimedcentral.com/articles10.1186/1471-2459-11-803](http://www.bmcpublichealth.boimedcentral.com/articles10.1186/1471-2459-11-803) [1 Aug 2017]

Bowlby J. (1958). The nature of the child's tie to his mother, *International Journal of Psychoanalysis*, 39, 350-371.

Bristol Child Healthy Weight Pathway (2013). [Online], Available from: [www.cchp.nhs.uk/sites/default/files/attachments/Bristol%20Care%20Pathway%20For%20Child%20Weight%20Management.pdf](http://www.cchp.nhs.uk/sites/default/files/attachments/Bristol%20Care%20Pathway%20For%20Child%20Weight%20Management.pdf)

Bristol City Council (2015) Bristol Early Years Vision. [Online], Available: [www.bristolearlyyears.org.uk/vision](http://www.bristolearlyyears.org.uk/vision) [21 Jul 2017]

Bristol City Council (2016). Oral Health Promotion Strategy (2016-21). [Online], Available: [www.bristol.gov.uk/policies-plans-strategies/oral-health-promotion-in-bristol](http://www.bristol.gov.uk/policies-plans-strategies/oral-health-promotion-in-bristol) [1 Aug 2017]

Bristol City Council (2017) Corporate Strategy 2017-22. Big Decisions, Tough Choices. [Online], Available: [www.bristol.gov.uk/documents/20182/1188753/The+Corporate+Strategy+at+a+glance](http://www.bristol.gov.uk/documents/20182/1188753/The+Corporate+Strategy+at+a+glance) [21 Jul 2017]

Bristol Safeguarding Board (2017). Perinatal protocol. [Online], Available: [www.bristolsafeguarding.org/media/1271/perinatal-protocol-for-web.pdf](http://www.bristolsafeguarding.org/media/1271/perinatal-protocol-for-web.pdf) [9 Aug 2017]

British Association of Early Childhood Education. Practical tips on allocating Early Years Pupil Premium funding. [Online], Available: [www.early-education.org.uk/sites/default/files/Early-Ed\\_Tip\\_EYPPs%20ONLINE%20small\\_0.pdf](http://www.early-education.org.uk/sites/default/files/Early-Ed_Tip_EYPPs%20ONLINE%20small_0.pdf) [21 Jul 2017]

Cabinet Office (2017) Child Obesity: a plan for action. [Online], Available: [www.gov.uk/government/publications/childhood-obesity-a-plan-for-action](http://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action) [31 Jul 2017]

Caestecker I, Killoran-Ross M (2010) early years and public health: a case study from the Glasgow experience. In Goldie I (Ed) *Public Mental Health today. A handbook* (pp121 – 134). Brighton. Pavilion Publishing/Mental Health Foundation.

Centre for Mental Health (2016), 0-4 years: Missed opportunities: children and young people's mental health. [Online], Available: [www.centreformentalhealth.org.uk/missed-opportunities](http://www.centreformentalhealth.org.uk/missed-opportunities) [30/05/2017].

Children's Commissioner (2017) on measuring the number of vulnerable children in England. The Office of the Children's Commissioner for England, July 2017

Cole TJ, Bellizzi MC, Flegal KM, Dietz WH (2000). Establishing a standard definition for child overweight and obesity worldwide: international survey. *BMJ* 2000; 320:1240-3.

Condon L & Salmon D. (2015) 'you likes your way, we got our own way: Gypsies and Travellers views on infant feeding and health professionals support' Health Expect, 2015 Oct; 8 (5):784-95.doi: 10.1111/hex.12214. Epub 2014 Jun 3. [Online], Available: [www.ncbi.nlm.nih.gov/pubmed/24890123](http://www.ncbi.nlm.nih.gov/pubmed/24890123) [19 Jul 2017]

Davies S.C. (2015) Annual Report of the Chief Medical Officer 2014. The Health of the 51%: Women. London; Department of Health (2015).

Department of Health (2012), Annual Report of the Chief Medical Officer 2012 Our Children Deserve Better: Prevention Pays. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/255237/2901304\\_CMO\\_complete\\_low\\_res\\_accessible.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255237/2901304_CMO_complete_low_res_accessible.pdf) [30/05/2017]

Department of Education (2014a) Statutory Framework for the Early Years Foundation Stage: Setting the Standards for Learning, Development and Care of Children from Birth to Five. London. Department of Education. [Online] Available from: [www.gov.uk/government/publications/early-years-foundation-stage-framework--2](http://www.gov.uk/government/publications/early-years-foundation-stage-framework--2) [21 Jul 2017]

Department of Education (2014b). Finding a Parenting Programme. [Online], Available: [www.webarchive.nationalarchives.gov.uk/20140108000405/www.education.gov.uk/commissioning-toolkit/Programme/CommissionersSearch](http://www.webarchive.nationalarchives.gov.uk/20140108000405/www.education.gov.uk/commissioning-toolkit/Programme/CommissionersSearch) [1 Aug 2017]

Department of Health (2009) Healthy Child Programme: pregnancy and the first five years of life. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/167998/Health\\_Child\\_Programme.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/167998/Health_Child_Programme.pdf) [21 Jul 2017]

Department of Health (2011) Start Active, Stay Active: A report on physical activity from the four home countries' Chief Medical Officers. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/216370/dh\\_128210.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216370/dh_128210.pdf) [31 Jul 2017]

Digital NHS (2016). Statistics on NHS Stop Smoking Services: England April 2015 to March 2016. [Online], Available: [www.digital.nhs.uk/catalogue/PUB21162](http://www.digital.nhs.uk/catalogue/PUB21162) [20 Jul 2017]

Edwards R T, O'Ceilleachair A, Bywater T, Hughes D A, Hutchings J (2007) Parenting programme for parents of children at risk of developing conduct disorder: cost effectiveness analysis. British Medical Journal. [Online], Available: [www.bmj.com/content/bmj/334/7595/682.full.pdf](http://www.bmj.com/content/bmj/334/7595/682.full.pdf) [1 Aug 2017]

Egger H. & Angold A. (2008) Common emotional and behavioural disorders in preschool children: presentation, nosology, and epidemiology. Journal of Child Psychology and Psychiatry and Allied Disciplines 47, 313–37

Glover V. (2014) maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. Best Pract Res Clin Obstet Gynaecol. 2014 Jan; 28(1):25-35. Doi: 10.1016/j.bpobgyn.2013.08.017. Epub 2013 Sep 18

Hogg S (2015). All Babies Count: spotlight on perinatal mental health - prevention in mind. How mental illness affects women before and after pregnancy, and what can be done to help. [Online] Available: [www.nspcc.org.uk/services-and-resources/research-and-resources/2013/all-babies-count-spotlight-perinatal-mental-health/](http://www.nspcc.org.uk/services-and-resources/research-and-resources/2013/all-babies-count-spotlight-perinatal-mental-health/) [1 Aug 2017]

House of Parliament (2016) Infant mortality and stillbirths in the UK. Post Note No: 517 May 2016. London

Johnson D. (2017) 'The Baby Imperative; Mothers' experiences of negotiating public breastfeeding in a local context'. Unpublished Master's Thesis, University of Bristol.

Joint Strategic Needs Assessment for Bristol (2017). [Online], Available: [www.bristol.gov.uk/documents/20182/34740/JSNA+2016+to+2017+final+version](http://www.bristol.gov.uk/documents/20182/34740/JSNA+2016+to+2017+final+version) [19 Jul 2017]

Joint Strategic Needs Assessment for Bristol Chapters (2017). [Online], Available: [www.bristol.gov.uk/policies-plans-strategies/jsna-chapters](http://www.bristol.gov.uk/policies-plans-strategies/jsna-chapters) [31 Jul 2017]

Marmot Review (2010) Fair Society: Healthy Lives. [Online], Available: [www.local.gov.uk/marmot-review-report-fair-society-healthy-lives](http://www.local.gov.uk/marmot-review-report-fair-society-healthy-lives) [19 Jul 2017]



MMBRACE -UK (2016) UK Confidential Enquiry into Maternal Death. [Online], Available: [www.npeu.ox.ac.uk/downloads/files/mbrance-uk/reports/MBRRACE-UK%20Maternal%20Report%202016%20-%20website.pdf](http://www.npeu.ox.ac.uk/downloads/files/mbrance-uk/reports/MBRRACE-UK%20Maternal%20Report%202016%20-%20website.pdf) [19 Jul 2019]

Morrison Gutman L, Joshi H, Parsonage M and Schoon I (2015) Children of the new century, Centre for Mental Health. [Online], Available: [www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=9faa732d-883b-42c1-b223-bb9de11a109c](http://www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=9faa732d-883b-42c1-b223-bb9de11a109c) [1 Aug 2017]

NHS Information Centre Maternity and Breastfeeding statistics. [Online], Available: [www.england.nhs.uk/statistics/statistical-work-areas/maternity-and-breastfeeding/](http://www.england.nhs.uk/statistics/statistical-work-areas/maternity-and-breastfeeding/) [8 Aug 2017]

National Institute of Health and Care Excellence (2009) Public Health guidelines PH21: Immunisations: reducing differences in uptake in under 19s. [Online], Available: [www.nice.org.uk/guidance/ph21](http://www.nice.org.uk/guidance/ph21) [1 Aug 2017]

National Institute of Health and Care Excellence (2009b) Public Health Guideline 17: Physical activity for children and young people. [Online], Available: [www.nice.org.uk/guidance/ph17](http://www.nice.org.uk/guidance/ph17) [8 Sept 2017]

National Institute of Health and Care Excellence (2010a) PH 27. Weight management before, during and after pregnancy. [Online], Available: [www.nice.org.uk/guidance/ph27](http://www.nice.org.uk/guidance/ph27) [19 Jul 2017]

National Institute of Health and Care Excellence (2010b) Public Health Guidance 29 Unintentional injuries: prevention strategies for under 15s. [Online], Available: [www.nice.org.uk/guidance/ph29](http://www.nice.org.uk/guidance/ph29) [1 Aug 2017]

National Institute of Health and Care Excellence (2010c) CG 110 Pregnancy and complex social factors: a model for service provision for pregnant women with complex social factors. [Online], Available: [www.nice.org.uk/guidance/cg110](http://www.nice.org.uk/guidance/cg110) [28/7/2017]

National Institute of Health and Care Excellence (2013a) Postnatal care quality standard: Standard 5 breastfeeding. [Online], Available: [www.nice.org.uk/guidance/qs37/resources/postnatal-care-2098611282373](http://www.nice.org.uk/guidance/qs37/resources/postnatal-care-2098611282373) [19 Jul 2017]

National Institute of Health and Care Excellence (2013b) Public Health Guideline 47: Weight management: lifestyle services for overweight or obese children and young people. [Online], Available: [www.nice.org.uk/guidance/ph47](http://www.nice.org.uk/guidance/ph47) [8 Sept 2017]

National Institute of Health and Care Excellence (2013c). LGB 12 What can local authorities achieve by promoting the social and emotional wellbeing of children and young people? [Online], Available: [www.nice.org.uk/advice/lgb12/chapter/what-can-local-authorities-achieve-by-promoting-the-social-and-emotional-wellbeing-of-children-and-young-people#improve-the-populations-health-and-wellbeing](http://www.nice.org.uk/advice/lgb12/chapter/what-can-local-authorities-achieve-by-promoting-the-social-and-emotional-wellbeing-of-children-and-young-people#improve-the-populations-health-and-wellbeing) [30/05/2017]

National Institute of Health and Care Excellence (2014a). CG 190 Intrapartum care for healthy women and babies. [Online], Available: [www.nice.org.uk/guidance/cg190](http://www.nice.org.uk/guidance/cg190) [13 Sept 2017]

National Institute of Health and Care Excellence (2014b) CG192 Antenatal and postnatal mental health: clinical management and service guidance. [Online], Available: [www.nice.org.uk/guidance/cg192](http://www.nice.org.uk/guidance/cg192) [1 Aug 2017]

National Institute of Health and Care Excellence (2014c) Public Health Guideline 55. Oral health: local authorities and partners. [Online], Available: [www.nice.org.uk/guidance/ph55](http://www.nice.org.uk/guidance/ph55) [8 Sept 2017]

National Institute of Health and Care Excellence (2014d) LGB 22 Health Visiting. [Online], Available: [www.nice.org.uk/advice/lgb22/chapter/What-can-local-authorities-achieve-by-commissioning-high-quality-health-visiting-services#build-resilience-and-reduce-costs-in-later-life](http://www.nice.org.uk/advice/lgb22/chapter/What-can-local-authorities-achieve-by-commissioning-high-quality-health-visiting-services#build-resilience-and-reduce-costs-in-later-life) [13/06/2017]

National Institute of Health and Care Excellence (2015a) Quality standard (CG37).

Postnatal care up to 8 weeks after birth. [Online], Available: <https://www.nice.org.uk/guidance/cg37> [19 Jul 2017]

National Institute of Health and Care Excellence (2015b). NG 26 Children's attachment: attachment in children and young people who are adopted from care, in care or at high risk of going into care. [Online], Available: [www.nice.org.uk/guidance/ng26/chapter/Recommendations#supporting-children-and-young-people-with-attachment-difficulties-in-schools-and-other-education](http://www.nice.org.uk/guidance/ng26/chapter/Recommendations#supporting-children-and-young-people-with-attachment-difficulties-in-schools-and-other-education) [1 Aug 2017]

National Institute of Health and Care Excellence (2016a). QS 128 Early years: promoting health and wellbeing in under 5s. [Online], Available: [www.nice.org.uk/guidance/qs128](http://www.nice.org.uk/guidance/qs128) [13/06/2017]

National Institute of Health and Care Excellence (2017) Clinical Guideline (CG62). Antenatal care for uncomplicated pregnancies. [Online], Available: [www.nice.org.uk/guidance/cg62](http://www.nice.org.uk/guidance/cg62) [19 Jul 2017]

Newman T (2002) Promoting Resilience: A Review of Effective Strategies for Child Care Services. Barnardo's for the Centre for Evidence based Social Services, University of Exeter. [Online], Available: [www.barnardos.org.uk/what\\_works\\_in\\_building\\_resilience\\_-\\_summary\\_1\\_.pdf](http://www.barnardos.org.uk/what_works_in_building_resilience_-_summary_1_.pdf) [30/05/2017]

NHS England (2016) National Maternity Review: Better Births' Improving Outcomes of Maternity Services in England: A Five Year Forward View for Maternity Care. [Online], Available: [www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf](http://www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf) [19 Jul 2017]

NHS 2017 The Routine Immunisation schedule for Autumn 2017. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/633693/Complete\\_imm\\_schedule\\_2017.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633693/Complete_imm_schedule_2017.pdf)

Ofsted (2013) what about the children? Manchester, Ofsted. [Online], Available: [www.dera.ioe.ac.uk/17492/1/What%20about%20the%20children.pdf](http://www.dera.ioe.ac.uk/17492/1/What%20about%20the%20children.pdf) [28/7/2017]

Ofsted (2015) The Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2014/15. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/483347/Ofsted\\_annual\\_report\\_education\\_and\\_skills.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/483347/Ofsted_annual_report_education_and_skills.pdf) [21 Jul 2017]

O'Neill D, McGilloway S, Donnelly M, Bywater T, Kelly P (2010) a cost- effectiveness analysis of the Incredible Years parenting programme in reducing childhood health inequalities. Journal of Health Economics. [Online], Available: [www.search.prequest.com/docview/1422045560?accountid=30892](http://www.search.prequest.com/docview/1422045560?accountid=30892) [1 Aug 2017]

ONS 2017. [Online], Available: <http://visual.ons.gov.uk/how-many-jobs-are-paid-less-than-the-living-wage-in-your-area> [1 Aug 2017]

Public Health England/Unicef (2016) Commissioning Infant feeding Services: a Toolkit for Local Authorities. [Online], Available: [www.gov.uk/government/publications/infant-feeding-commissioning-services](http://www.gov.uk/government/publications/infant-feeding-commissioning-services) [19 Jul 2017]

Public Health England (2014a) Reducing unintentional injuries in and around the home among children under five years. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/322210/Reducing\\_unintentional\\_injuries\\_in\\_and\\_around\\_the\\_home\\_among\\_children\\_under\\_five\\_years.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/322210/Reducing_unintentional_injuries_in_and_around_the_home_among_children_under_five_years.pdf) [1 Aug 2017]

Public Health England (2014b) Reducing unintentional injuries on the roads among children and young people under 25 years. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/322212/Reducing\\_unintentional\\_injuries\\_on\\_the\\_roads\\_among\\_children\\_and\\_young\\_people\\_under\\_25\\_years.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/322212/Reducing_unintentional_injuries_on_the_roads_among_children_and_young_people_under_25_years.pdf) [1 Aug 2017]

Public Health England (2016) National Diet and Nutrition Survey. [Online], Available: [www.gov.uk/government/news/young-children-still-exceeding-sugar-recommendation](http://www.gov.uk/government/news/young-children-still-exceeding-sugar-recommendation) [1 Aug 2017]

Public Health Matters (2016) Health matters giving every child the best start in life. [Online], Available: Source: PHE [www.gov.uk/government/publications/health-matters-giving-every-child-the-best-start-in-life/health-matters-giving-every-child-the-best-start-in-life](http://www.gov.uk/government/publications/health-matters-giving-every-child-the-best-start-in-life/health-matters-giving-every-child-the-best-start-in-life) [7 Aug 2017]

Public Health Matters (2017) Child Dental Health. [Online], Available: <https://publichealthmatters.blog.gov.uk/2017/06/14/health-matters-child-dental-health/> [31 Jul 2017]



Royal College of Paediatrics and Child Health PCH (2017) State of Child Health Report 2017. [Online], Available: [www.rcpch.ac.uk/state-of-child-health](http://www.rcpch.ac.uk/state-of-child-health) [19 Jul 2017]

Robling M, Bekkers M-J, Bell K, Butler C, Cannings-John R, Channon S, Martin B C, Gregory J W, Hood K, Kemp A, Kenkre J, Montgomery A, Moody G, Owen-Jones E, Pickett K, Richardson G, Roberts Z E S, Ronaldson S, Sanders J, Stamuli E, and Torgerson D. (2016) 'Effectiveness of a nurse-led intensive home-visitation programme for first-time teenage mothers (Building Blocks): a pragmatic randomised controlled trial'. *Lancet*, 387, 146-155

Roulstone S, Law J, Rush R, Clegg J, & Peters T. (2011) the role of language in children's early educational outcomes. DfE Research Brief RB134.

Saunders M, Ralph A, Thompson R, Sofrnoff K, Gardiner P, Bidwell Dwyer S (2015) Every Family: A Public Health approach to promoting children's wellbeing. University of Queensland.

Scientific Advisory Committee on Nutrition (2015) Carbohydrates and Health. [Online], Available: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/445503/SACN\\_Carbohydrates\\_and\\_Health.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445503/SACN_Carbohydrates_and_Health.pdf) [1 Aug 2017]

South West Clinical Network (2017). Data source. South West Clinical Network Maternity Dashboard (financial year 15-16).BMI=kg/m2. [Online], Available: [www.maternitydashboard.swscn.org.uk](http://www.maternitydashboard.swscn.org.uk) [20 Jul 2017]

Theseus (2017) unpublished Bristol City Council data.

Victora C, Bahl R, Barros A, França G, Horton S, Krasavec A, Murch S, Sankar M, Walker N, Rollins N. (2016) 'Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect', *Lancet* 2016; 387:475-90. [Online], Available: [doi.org/10.1016/S0140-6736\(15\)01024-7](https://doi.org/10.1016/S0140-6736(15)01024-7) [19 July 2017]

Waldfoegel J (2004) Social mobility, life chances, and the early years, CASE Paper 88, London: London School of Economics, Centre for the Analysis of Social Exclusion.

World Health Organisation (2014) mental health: a state of wellbeing. World Health Organisation. [Online], Available: [www.who.int/features/factfiles/mental\\_health/en/](http://www.who.int/features/factfiles/mental_health/en/) [21/7/2017]

World Health Organisation (2017). Topics: Breastfeeding. [Online], Available: [www.who.int/topics/breastfeeding/en/](http://www.who.int/topics/breastfeeding/en/) [19 July 2017]







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