

St.Helens

Joint Strategic Needs Assessment

2019

3a. Maternity and Early Years



St.Helens
Council



St Helens Clinical Commissioning Group

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1. Introduction

There is clear evidence that pregnancy and the early years are crucial to the future health and wellbeing of children and adults. This is influenced by background demographic and socioeconomic factors including educational status and economic prosperity. Children during the early years of life should be provided with the physical, intellectual and social skills necessary to develop into healthy and resilient children and adults. A mother's health is also vital, as well as lifestyle choices leading up to and during pregnancy.

The St.Helens 2017 Maternity, Children and Young People JSNA highlighted some important issues regarding the children and young people of St.Helens. For example, the wide variation of health outcomes by ward, low breastfeeding rates, but also some positive outcomes, such as high vaccination rates and low infant mortality rates.

This report explores maternal and early years' health in St.Helens, from smoking rates during pregnancy to breastfeeding rates. It will provide an overview of need in the Borough and highlight both areas of improvement and decline.

2. Key Findings

- There were 2,050 live births to St.Helens residents in 2017.
- It is estimated that by 2029, the population of 0-25 year olds will remain relatively static. However, the population of 0-12 year olds will decrease by 6% and 13-21 year olds will increase by 7%.
- The rate of smoking during pregnancy has decreased in recent years from 21.7% in 2010 to 15% in 2018.
- Breastfeeding rates are improving slowly, however they still remain significantly below the England and regional averages.
- For the majority of vaccines, St.Helens performs better than the England rate.
- Infant mortality in St Helens is the lowest in the North West.

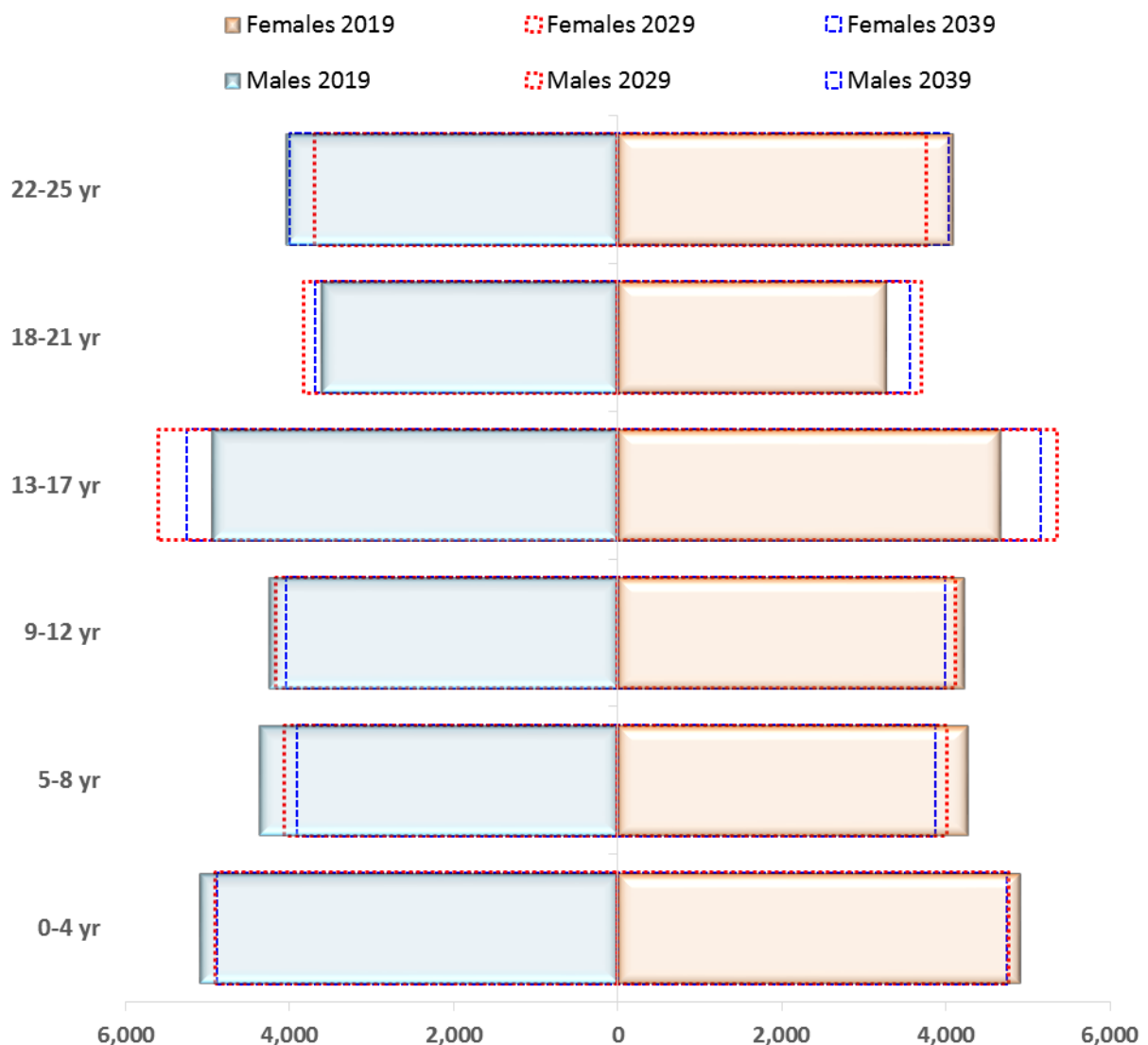
3. Demographics

3.1 Population

The resident population of 0-25 year olds in St.Helens is 52,445 (2017 mid-year estimate, ONS), making up 29% of the total population of St.Helens. There are 26,417 children of school age (4-16 year olds) that reside in the Borough, that make up 15% of the population.

Collectively, it is estimated that by 2029 the population of 0-25 year olds will remain similar to 2019, with just a 0.5% increase, after which a 1.7% decrease projected for 2039. Decreases in population in the 0 to 12 years age-band are predicted in the next ten to twenty years (-6%), and increases in the 13 to 21 year age-band (+7%).

Figure 1. Population projections



Source: ONS, 2018

4. Pregnancy and birth

4.1 Birth Rate

There were 2,050 live births to St.Helens residents in 2017; this is similar to 2016 in which there were 1,994. The most recent published birth rate in St.Helens (2017) is 11.4 live births a year per 1,000 population. This is almost in-line with the North West and England averages of 11.5 and 11.6 respectively.

Table 1. Crude birth rates per 1,000 population

	St.Helens	Merseyside	North West	England
2011	11.9	12.0	12.6	13.0
2012	12.1	12.0	12.6	13.0
2013	11.6	11.5	12.2	12.3
2014	11.1	11.5	12.0	12.0
2015	11.1	11.5	12.0	12.1
2016	11.2	11.5	11.9	12.0
2017	11.4	11.3	11.5	11.6

Source: St.Helens Public Health Intelligence, ONS

The general fertility rate gives the birth rate taking into account the number of women potentially of child-bearing age in the population. The rate in St.Helens of 62.5 per 1,000 is similar to the North West and England averages (63.4 and 62.5 per 1,000 females aged 15-44 years respectively).

4.2 Low Birth Weight

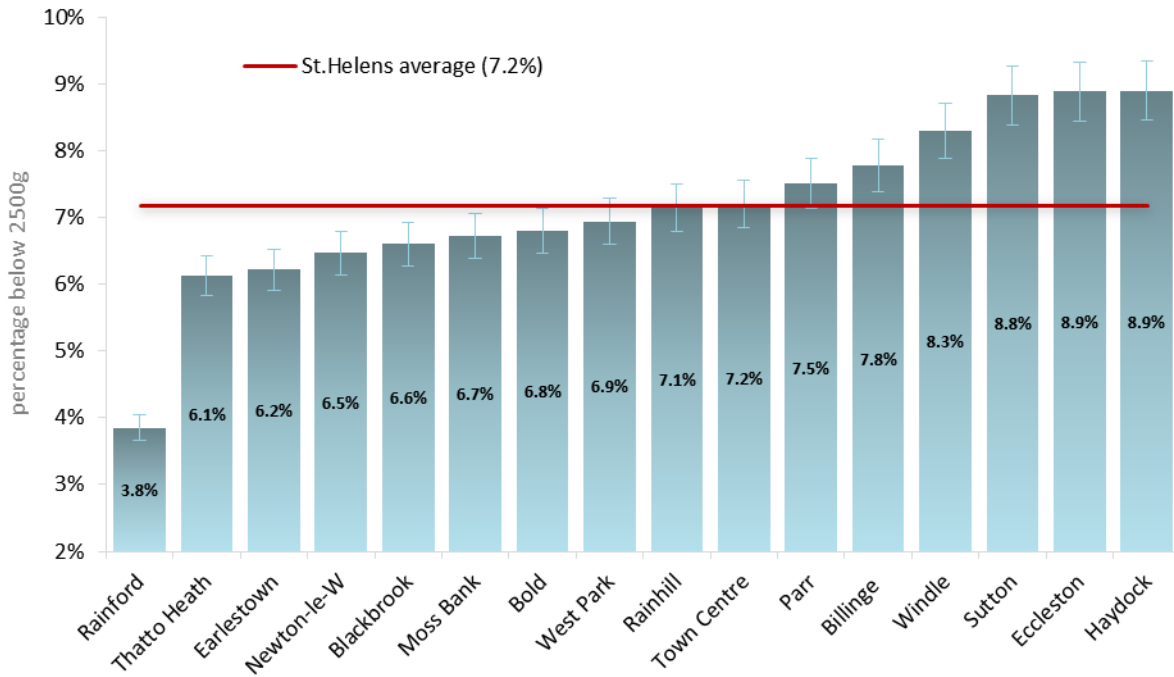
Infants born weighing less than 2.5kg are more likely to suffer from inhibited growth and cognitive development as well as chronic diseases later in life. The mother's exposure to certain risk factors, such as poor nutrition, smoking and alcohol abuse, greatly contribute to the likelihood of a child being born weighing less than 2.5kg.

In 2016, 6.8% of live births in St.Helens were low birth weight, which is lower than the North West and England averages (7.5% and 7.3% respectively), though these differences are not statistically significant. The percentage of babies born with a low birth weight in the Borough has stayed statistically similar to the national average over recent years.

Premature birth has an effect on birth weight, so it is also worthwhile to look at births born at term (37 weeks gestation or longer). Lower weight in a high proportion of these births might indicate an effect due to lifestyle factors locally. In 2016 2.4% of births at term in St.Helens had a weight of less than 2.5kg, (42 births). This is lower than the regional and national rates (2.9% and 2.8%), though again the difference is not statistically significant.

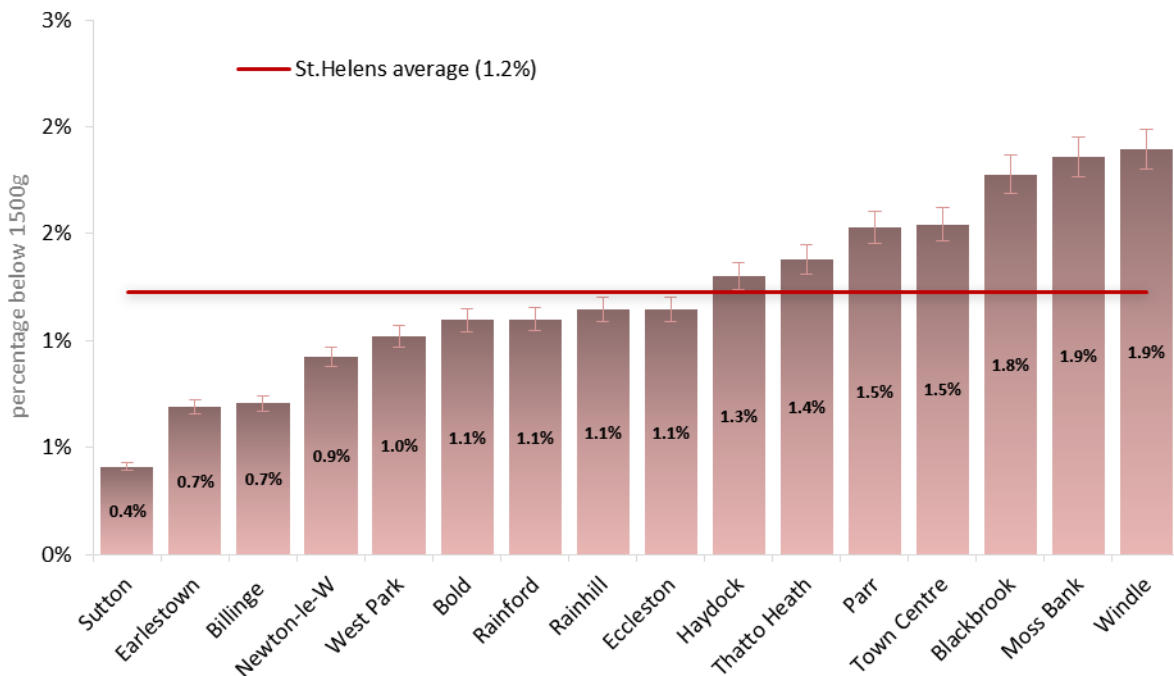
Within St.Helens between 2009 and 2013 there appeared to be inequalities related to deprivation for low birth weight, but the latest combined data from 2014 to 2017 does not reflect this correlation. Parr and Town Centre, the most deprived wards in the Borough, had the highest percentage between 2009 and 2013, but now have a lower percentage than more affluent wards like Eccleston, Windle and Billinge.

Figure 2. Low birthweight by ward, 2014-2017



Source: St. Helens Public Health Intelligence, Public Health Birth File

Figure 3. Very low birthweight by ward, 2014-2017



Source: St. Helens Public Health Intelligence, Public Health Birth File

4.3 Caesarean Section

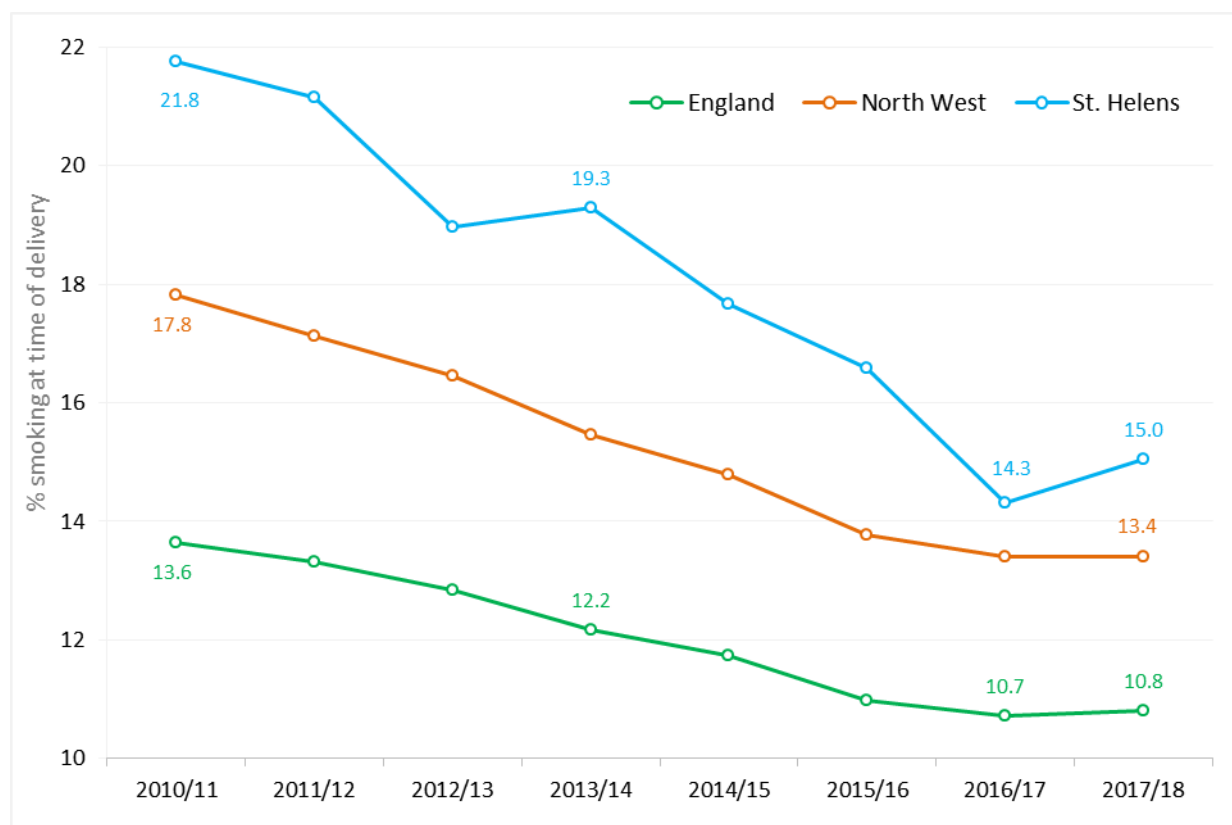
A caesarean section (or C-Section) may be carried out for a range of reasons, including when a vaginal birth is considered a risk for the mother or baby. In 2016/17 the percentage of births from caesarean section in St.Helens (27.2%) was similar to the England averages (27.1%) and higher than the North West average (26.7%). It was also a slight decrease on the previous year (27.6% in 2015/16, PHOF).

4.4 Smoking in Pregnancy in St.Helens

Smoking in pregnancy increases the risks of miscarriage, premature birth, stillbirth and low birth-weight. Exposure to tobacco smoke in the womb can also affect outcomes for infants after birth; they are at higher risk of infant mortality and respiratory illnesses.

In St.Helens in 2017/18, 15% of women smoked at the time of delivery, slightly up from 14.3% in the previous year. While the long term trend is downward, the current figure remains higher than both the England average (10.8%) and the North West average (13.4%).

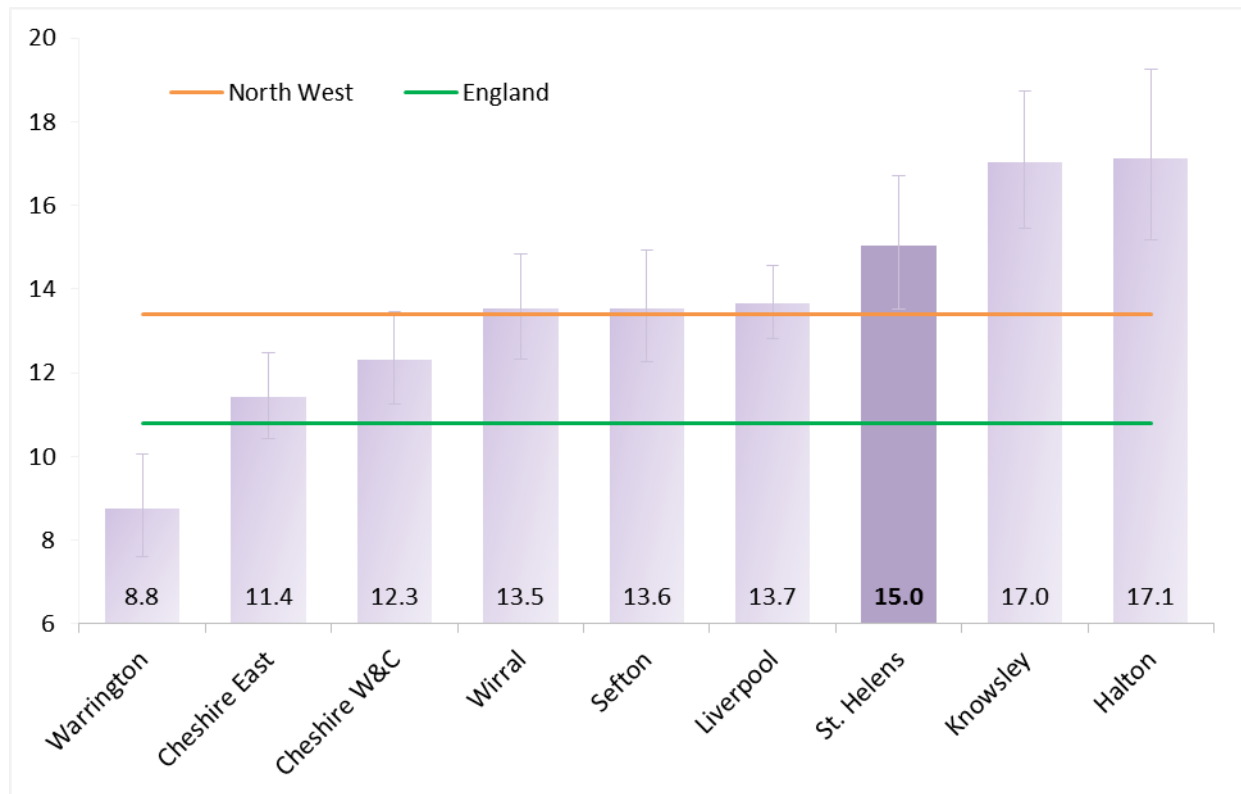
Figure 4. Smoking at time of delivery - trend



Source: Calculated by PHE from the NHS Digital return on Smoking Status At Time of delivery (SATOD)

Although the 2017/18 figure for St.Helens has increased by 0.7% compared to 2016/17, there is encouragement when looking at the consistent decrease since 2013/14 when the figure for St.Helens was 19.3%; and also when looking at the individual quarters in 2017/18, where quarter 4 was 13.8% and quarter 2 was 12.1% (below the England average as it was in 2013/14); the results from the other 2 quarters were over 17%, which increased the annual outturn percentage.

Figure 5. Smoking at time of delivery - Cheshire & Merseyside local authorities, 2017-18



Source: Calculated by PHE from the NHS Digital return on Smoking Status At Time of delivery (SATOD)

The St. Helens figure of 15% is not statistically significantly higher than the North West region average figure of 13.4%. However, there are only Knowsley and Halton local authorities with a higher prevalence in the Cheshire and Merseyside region.

5. Early Years

5.1 Hospital admissions

5.1.1 Admissions of babies under 14 days old

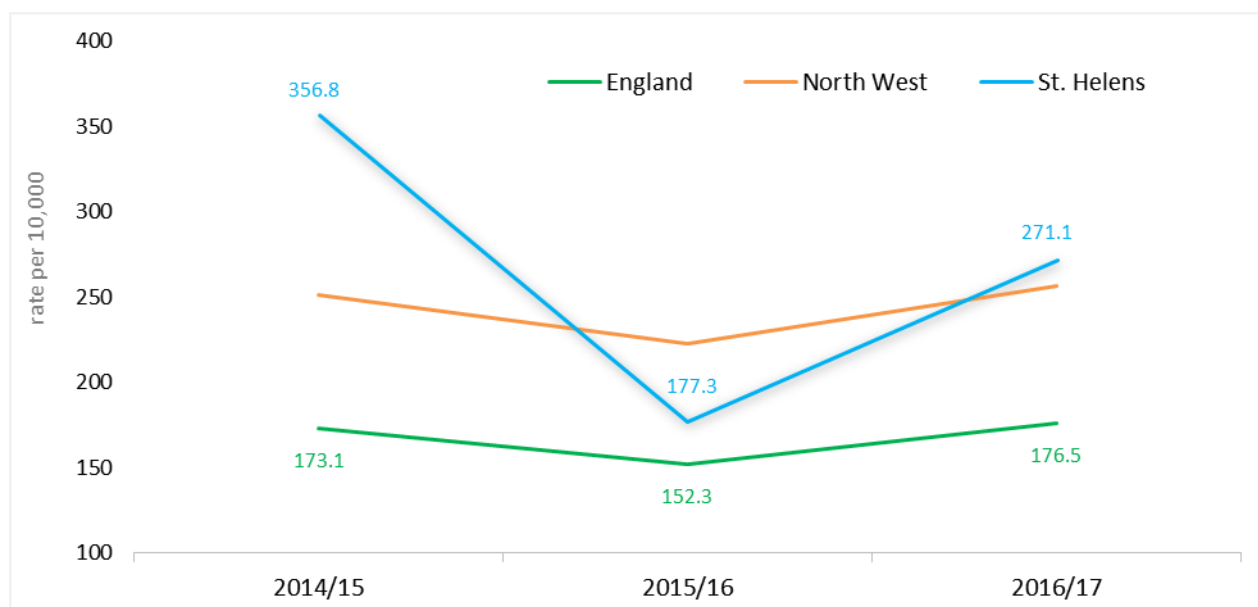
Jaundice and dehydration, often linked with feeding problems, are two common reasons for babies to be admitted to hospital in their first 14 days of life. In St.Helens the rate of admissions for babies within 14 days of birth is 94.1 per 1,000, which is lower than the previous year (106.8 per 1000 in 2015/16) but still higher than both the national (71 per 1,000) and regional (90.6 per 1,000) rates (2016/17) (PHOF, 2018).

5.1.2 Admissions of under 1 year olds for gastroenteritis

Hospital admissions for under one year olds with gastroenteritis is measured to demonstrate the effectiveness of the health service out-of-hospital, since gastroenteritis has low morbidity and mortality and limited need for hospitalisation. Breastfeeding, increased hygiene and a healthy diet, as well as support for young parents and increased awareness of home management of illnesses can reduce hospitalisation for the condition.

For 2016/17, the rate for admissions for gastroenteritis in infants under 1 year old in St.Helens is 271.1 per 10,000, an increase on the previous year's figure of 177.3 per 10,000. This is similar to the North West average of 256.7 per 10,000 and higher than the England average of 176.5 per 10,000 (PHOF, 2018). The rate in St.Helens has fluctuated in recent years.

Figure 6. Admissions for gastroenteritis in infants aged under 1 year, Trend



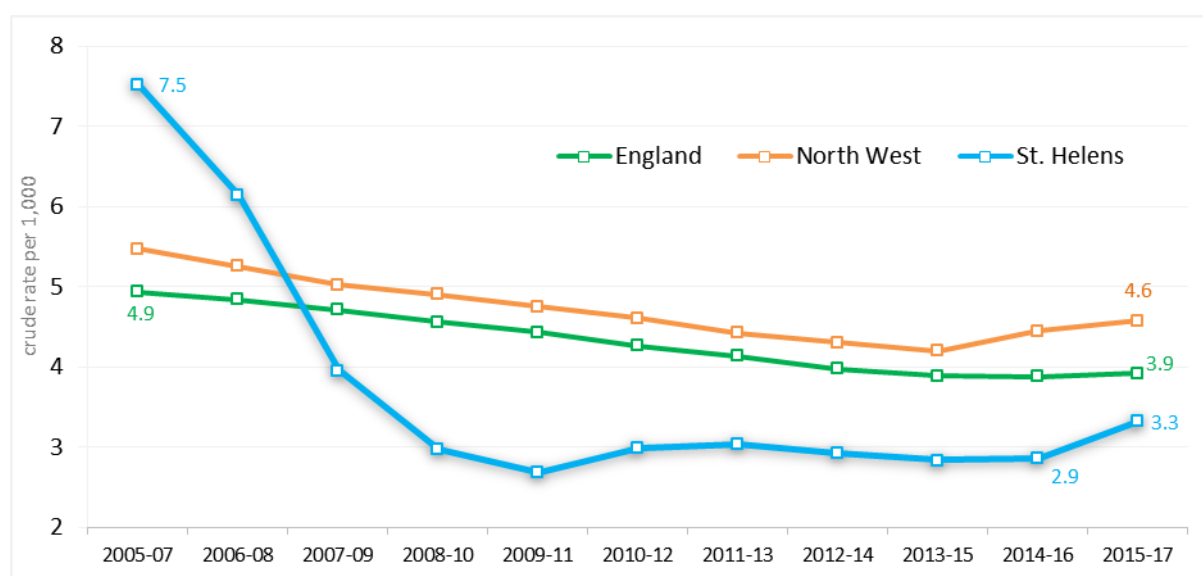
For more information on hospital admissions and accident and emergency attendances for 0-4 year olds refer to section 3.4 in the Children and Young People JSNA (3b).

5.2 Infant and Child Mortality

5.2.1 Infant Mortality

Infant mortality (deaths in the first year of life) remains below the national average in St.Helens. The current figure of 3.3 per 1,000 is the joint lowest in the whole North West (with Cheshire West & Chester and Cumbria) and lowest of its ten statistical neighbours, which, although being a highly positive result, is the highest rate since 2009. This most recent infant mortality rate is more than half that of nine years ago (7.5 per 1,000 in St.Helens in 2005-07). Infant mortality is a key measure of overall health in the population and is highly sensitive to changes in health, healthcare and the environment. While the rate has risen slightly in the last year, it is worth noting that overall numbers remain low.

Table 2. Infant mortality by three-year period (crude rate per 1,000 births), Trend



Source: Office of National Statistics (ONS)

5.2.2 Child Mortality

Childhood mortality refers to deaths amongst children aged 1-17 years. Death in childhood represents not only a tragedy for that young person's family but also a loss to wider society in terms of lost years of productive life. In children aged between 1-4 years, the most common causes of death are congenital malformations, deformations and chromosomal abnormalities.

During the three year period, 2014-16, the childhood mortality rate in St.Helens (13.6 per 100,000) decreased to below regional average (14.3), but remained above national (11.6). St.Helens ranks 15th (where 1st is worst) when compared to the 23 upper tier local authorities in the North West.

Table 3. Child mortality by three-year period (directly standardised rate per 100,000)

	St.Helens	North West	England
2011-13	10.5	13.5	11.9
2012-14	13.5	13.1	12.0
2013-15	16.6	14.0	11.9
2014-16	13.6	14.3	11.6

Source: Office of National Statistics (ONS)

5.3 Breastfeeding

Breast milk provides perfectly balanced nutrition, the composition of which changes during each feed and over time as the baby matures. There are many short and long term benefits from breastfeeding for both mother and baby (UNICEF UK Baby Friendly Initiative 2005).

5.3.1 Benefits of Breastfeeding

There are numerous benefits of breastfeeding to the baby such as protecting them against infections, reduced incidence of diabetes, Sudden Infant Death Syndrome (SIDS), obesity and cardiovascular disease. Furthermore, breastfeeding has benefits for the mother including reduced risk of breast cancer and ovarian cancer, as well as osteoporosis.

Evidence suggests that breastfed infants born into the most deprived areas have better health outcomes than formula fed babies born into the least deprived areas. Improving breastfeeding rates in the lowest socioeconomic groups could therefore help address inequalities in health within St.Helens. It has been purported in the past that breastfed babies have better cognitive abilities and other cerebral development at ages three and five, but there are more recent studies and evidence that state there may be no connection¹.

5.3.2 Prevalence of Breastfeeding

Breastfeeding initiation rates in St.Helens were the ninth lowest recorded rate in England in 2017.

Table 4. Prevalence of breastfeeding initiation

	St.Helens	Halton	Knowsley	Liverpool	Sefton	North West	England
2010/11	48.6%	48.6%	38.4%	52.6%	55.8%	63.4%	73.7%
2011/12	51.1%	51.1%	41.8%	51.2%	54.1%	62.0%	74.0%
2012/13	52.3%	52.3%	40.8%	50.9%	54.0%	62.3%	73.9%
2013/14	57.1%	51.6%	-	53.2%	56.8%	64.5%	73.9%
2014/15	58.1%	52.8%	47.7%	53.8%	56.0%	64.6%	74.3%
2015/16	56.0%	54.1%	44.3%	53.6%	53.1%	64.2%	74.0%
2016/17	55.3%	54.6%	48.4%	55.0%	57.9%	64.5%	74.5%

Source: PHOF, 2018

Although just over half of women start to breastfeed, the rate reduces quickly. In 2016/17, 55.3% of women started to breastfeed; by the time they left hospital this had reduced, and by the time of handover to health visitors (10-14 days) it had reduced again, to a point where just over one in five infants (22.4%) were receiving breast milk either exclusively or partially at 6-8 weeks.

Table 5. Breastfeeding prevalence at 6-8 weeks after birth

	St.Helens	Halton	Knowsley	Liverpool	Sefton	North West	England
2015/16	22.2%	21.8%	18.0%	31.5%	*	*	43.2%
2016/17	22.4%	22.0%	19.3%	33.5%	29.6%	*	44.4%
2017/18	21.8%	20.2%	18.9%	35.2%	31.7%	*	42.7%

Source: PHOF, 2018 / NWBH (HV data)

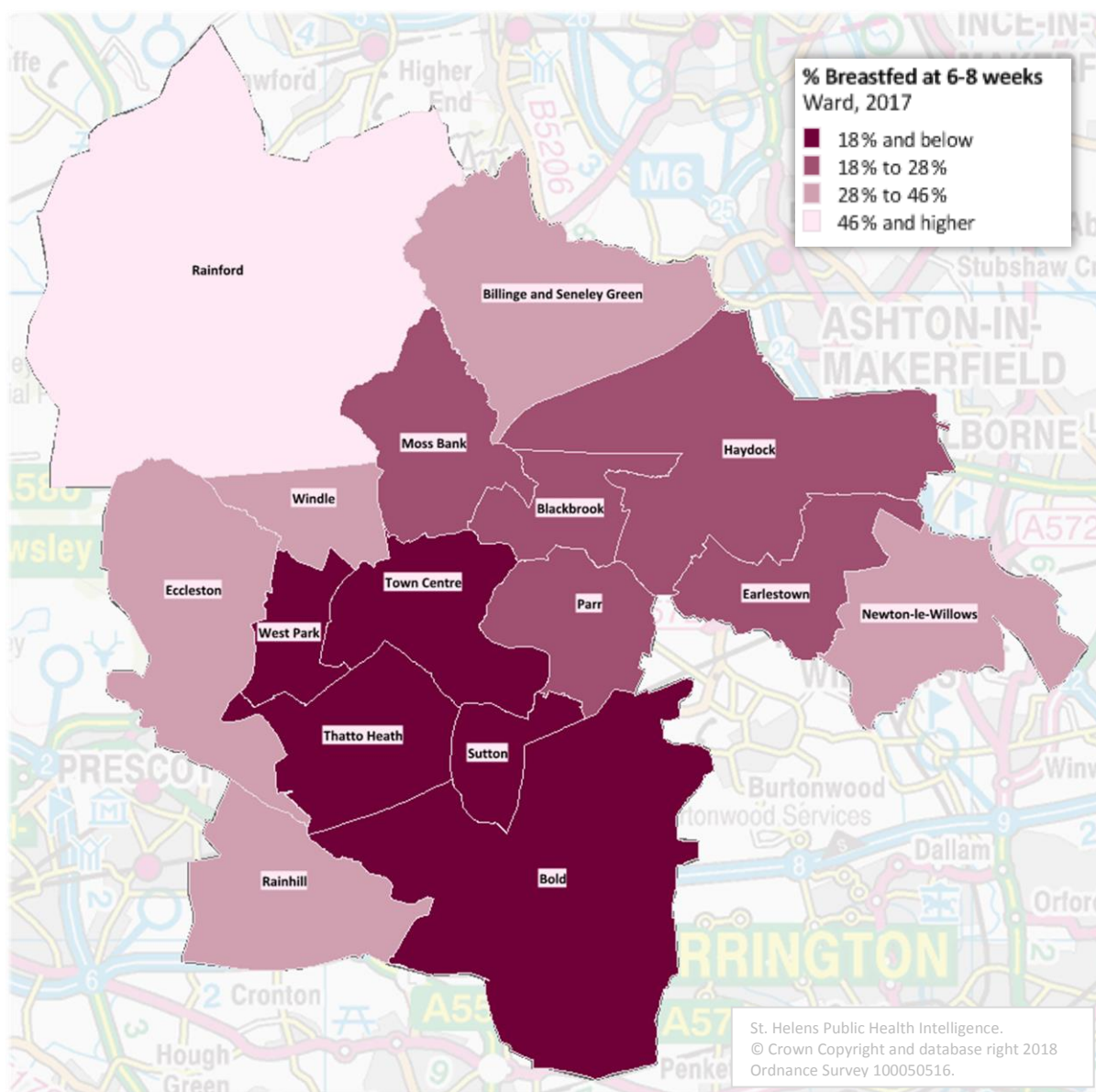
¹ <https://www.nhs.uk/news/pregnancy-and-child/breastfeeding-doesnt-boost-childrens-intelligence/>

**value not published for data quality reasons, or suppressed due to incompleteness of source data*

The most recent quarterly figures (for Quarter 2 in 2018/19) show that 25.8% of infants were breastfed at 6-8 weeks in St.Helens; Quarter 1 was 24.2%, which is an encouraging sign for a possible increase in prevalence in the 2018/19 annual outturn for St.Helens, although it is still around 20% fewer infants totally or partially breastfed than the England average.

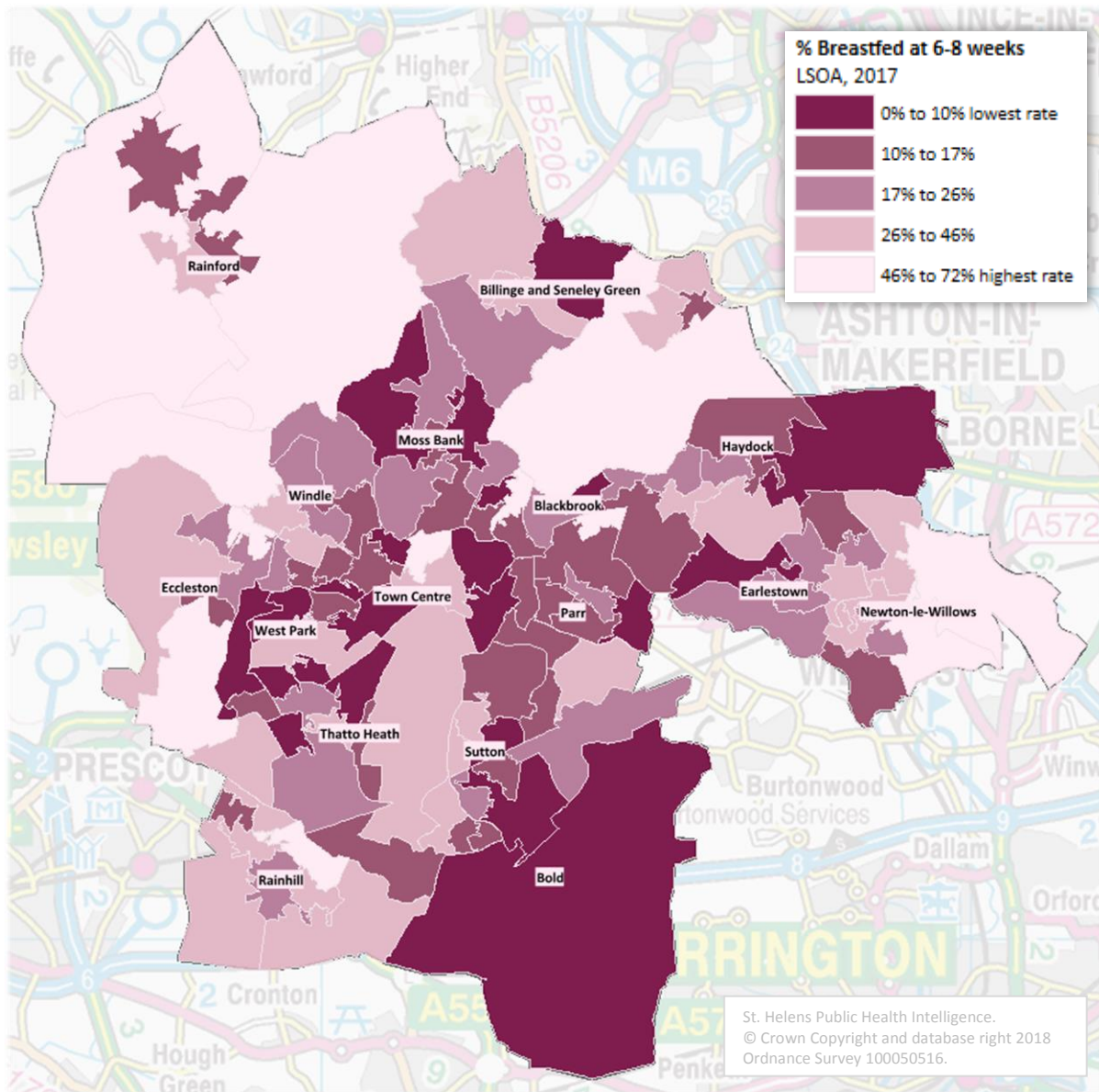
Breastfeeding rates vary by ward but even more so when looking at smaller areas; the most deprived wards tend to have the lowest breastfeeding rates, but there are areas within them that have better rates than the ward average suggests; conversely, the rates can fluctuate in small areas within less deprived wards. This is illustrated in the two maps below which were derived from the same data from 2017.

Map 1: Percentage Breastfeeding at 6-8 weeks, Ward 2017



Town Centre, West Park, Sutton and Bold had the lowest ward rates; Rainford, Rainhill, Billinge and Newton had the highest ward rates; yet, as can be seen in Map 2 below, there are small areas in Town Centre that have higher rates than small areas in Rainford.

Map 2: Percentage Breastfeeding at 6-8 weeks, LSOA 2017



5.4 Vaccinations

According to the World Health Organisation, the two public health interventions that have had the greatest impact on the world's health are clean water and vaccines.

Immunisation is a process where a safe non-infectious part of the bacteria or virus (the vaccine) is introduced into the body which then responds by generating antibodies. This makes the person immune to the disease. Immunisation against infections played a large part in the rapid improvements in life expectancy in the 20th century.

Table 6. Current immunisation schedule 2018

AGE	Immunisation (Vaccine given)
2 months	<ul style="list-style-type: none"> • DTaP/IPV(polio)/Hib/HepB: (diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenza</i> type b and hepatitis B) 6-in-1 injection • PCV: (pneumococcal conjugate vaccine) in a separate injection • Rotavirus: oral route (drops) • Meningitis B
3 months	<ul style="list-style-type: none"> • DTaP/IPV(polio)/Hib/HepB: 6-in-1 injection; 2nd dose • Rotavirus: oral route (drops)
4 months	<ul style="list-style-type: none"> • DTaP/IPV(polio)/Hib/HepB: 6-in-1 injection; 3rd dose • PCV: 2nd dose - in a separate injection • Meningitis B: 2nd dose
between 12 & 13 months	<ul style="list-style-type: none"> • Hib/MenC: (combined as one injection) 4th dose of Hib and 1st dose of MenC • MMR: (measles, mumps & rubella) combined as one injection • PCV: 3rd dose - in a separate injection • Meningitis B: 3rd dose
2-8 years	<ul style="list-style-type: none"> • Nasal flu spray: annually. For children aged 2, 3 and 4, this is usually given in the GP surgery. Children in school years 1, 2 and 3 may have this at school
3 years and four months	<ul style="list-style-type: none"> • Preschool booster of DTaP/IPV: (polio): 4-in-1 injection
12-13 years (girls)	<ul style="list-style-type: none"> • HPV: (human papillomavirus types 16 and 18) - two injections. The second injection is given 6-12 months after the first one
14 years	<ul style="list-style-type: none"> • Td/IPV (polio) booster: 3-in-1 injection • Men ACWY: combined protection against meningitis A, C, W and Y
Adults	<ul style="list-style-type: none"> • Influenza (annual) & PPV pneumococcal polysaccharide vaccine: for those over 65 years and also those in high-risk groups • Td/IPV (polio): for those not fully immunised as a child • DTaP/IPV: for pregnant women from 20 weeks of gestation to protect the newborn baby against whooping cough • Shingles vaccine: for adults aged 70 (catch-up for adults aged 78/79)

A number of other vaccines are given to particular people at risk of infection.

Additional vaccinations are available for people who are travelling to different parts of the world.

Most vaccination programmes are delivered by GP practices. Vaccinations for school aged children are provided by school nurses in the school setting. This results in less disruption for children and families and ensures a high uptake. Schools, including independent schools have a key role to ensure that children attending their schools have access to the Healthy Child Programme including school aged vaccinations.

5.4.1 Key Statistics

5.4.1.i Pertussis

The pregnancy pertussis (whooping cough) vaccine is offered during pregnancy, between 28 to 38 weeks' gestation, which maximises the antibody response transferred to the unborn baby. Newborn babies will then have natural protection to greatly reduce their risk of contracting whooping cough infection as a young baby². The uptake in Merseyside (March 2018) is 73.4%, which is higher than the national average (70.8%). St.Helens CCG has an even higher uptake at 77.7%, almost 7% higher than the national average.

Table 7. Monthly coverage of Prenatal Pertussis Vaccine Programme (%)

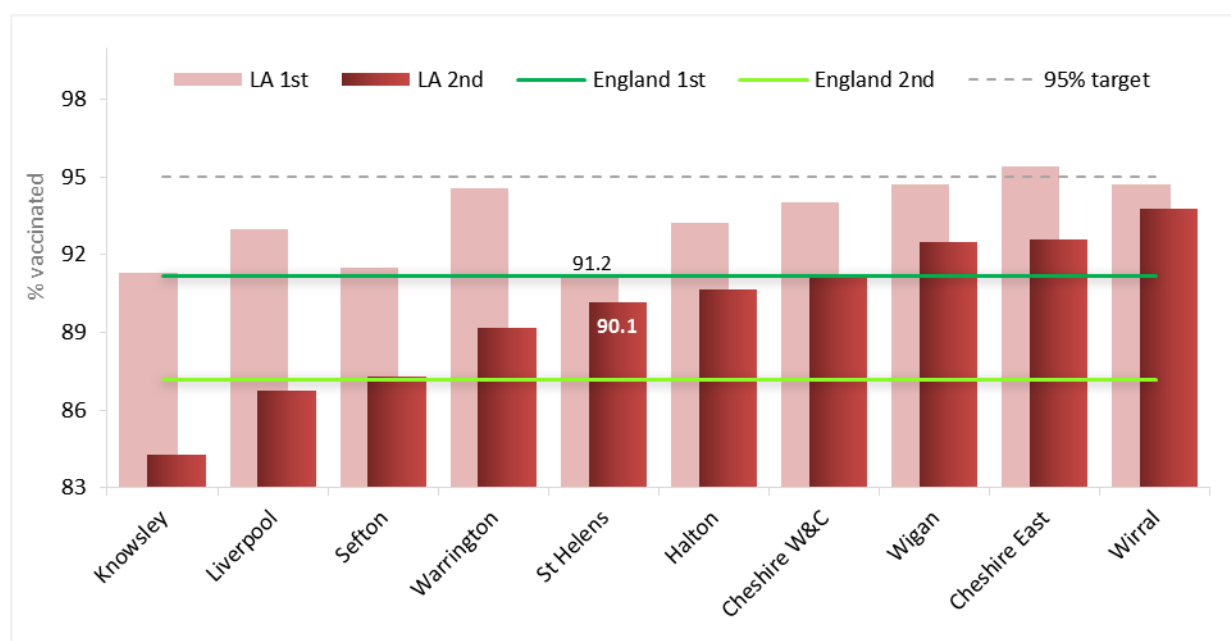
CCG	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
St.Helens CCG	79.4%	79.8%	82.5%	85.4%	85.3%	71.9%	77.7%
NHS Cheshire & Merseyside	77.2%	77.4%	78.7%	80.9%	77.2%	75.2%	73.4%
England	70.7%	72.6%	73.6%	74.7%	72.9%	72.6%	70.8%

Source: PHE

5.4.1.ii Mumps, Measles and Rubella (MMR)

The national target for MMR vaccinations is 95%. In St.Helens, the uptake of the first dose of the MMR vaccination is 91.2% (2017/18) which is exactly in-line with the England average.

Figure 7. MMR vaccination uptake (Aged 2 and 5 years) 2017/18



Source: NHS Digital, 2018

The second dosage of the MMR vaccination is given by the time the child is aged 5. The national target remains at 95% although the St.Helens figure for 2017/18 is below the target at 90.1%, but is 3% above the actual England average. The target is not being met at regional or national level with a North West average of 89.4% and England average of 87.2%.

² The pertussis vaccine is a combined vaccine that also protects against tetanus, diphtheria and polio.

5.4.1.iii HPV Vaccine

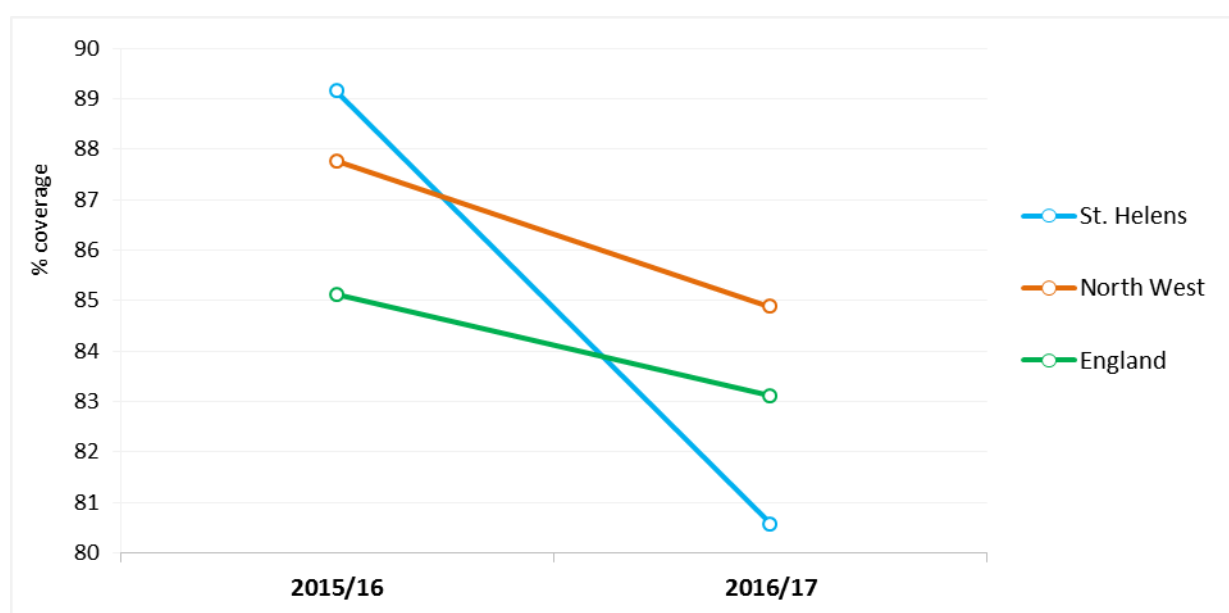
The Human Papilloma Virus (HPV) vaccine, first launched in 2008, is a programme delivered to secondary school Year 8 females (13-14 years old)³. HPV vaccines protect against the main causes of cervical cancer. While it was initially a three dose vaccination programme, it was run as a two-dose schedule from September 2014. St.Helens was performing well in 2015/16 with a higher coverage (89.1%) than the North West and England averages (87.8% and 85.1% respectively); however, an 8.6% decrease in coverage in 2016/17 to 80.6% placed them lower than regional and national averages. Apart from Sefton, other local authorities in the region had a decrease in coverage in 2016/17 also, with Halton having the largest decrease, of 14.2% compared to 2015/16.

Table 8. HPV vaccination coverage for two doses (females 13-14 years old): 2015/16-2016/17

area	2015/16		2016/17		year-on-year % difference
	Number of females	% of females	Number of females	% of females	
Halton	626	91.3%	532	77.1%	-14.2%
Knowsley	464	89.9%	465	85.8%	-4.1%
Liverpool	2,072	87.6%	2,001	82.3%	-5.3%
Sefton	1,378	90.4%	1,420	91.4%	1.0%
St. Helens	772	89.1%	709	80.6%	-8.6%
Wirral	1,593	91.7%	1,535	86.0%	-5.7%
North West	32,845	87.8%	32,993	84.9%	-2.9%
England	239,735	85.1%	240,590	83.1%	-2.0%

Source: PHOF

Figure 8. HPV vaccination coverage trend: 2015/16-2016/17



Source: PHOF

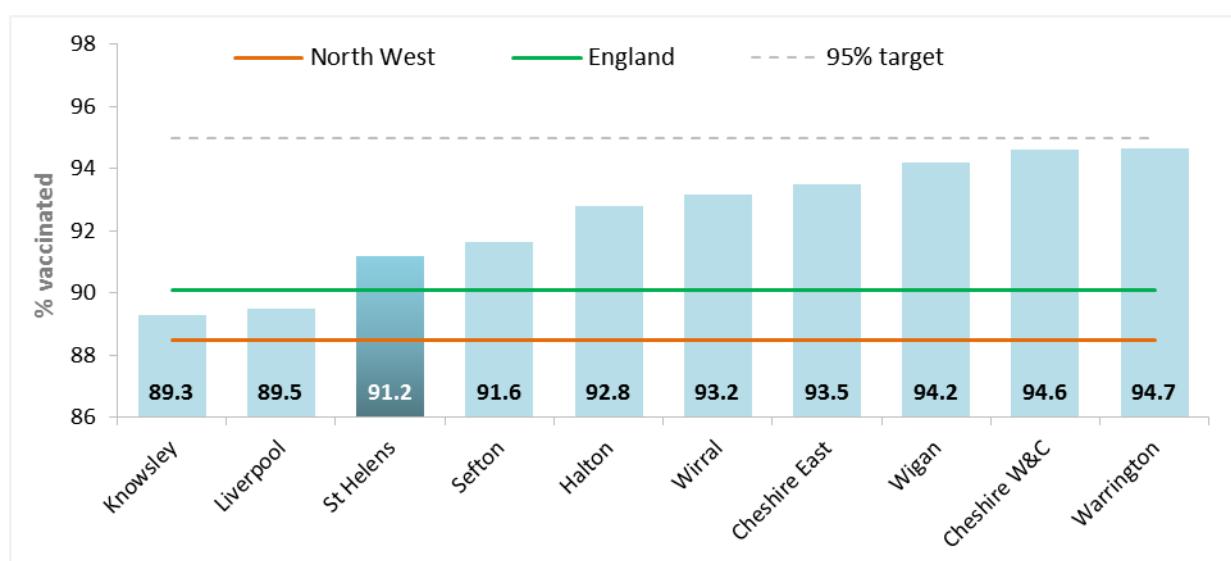
³ The first HPV vaccine dose is usually offered to females in Year 8 (aged 12–13 years) and the second dose 12 months later in Year 9, but some local areas have scheduled the second dose from six months after the first.

5.4.2 Impact of Immunisation Programmes

The development of effective vaccines has led to a huge decrease in childhood deaths, however, in recent years outbreaks of measles and mumps have occurred in Merseyside and South Wales. These infections spread rapidly in children who hadn't been fully immunised. An increase in cases of meningitis amongst young adults nationally has resulted in a new programme offering vaccination against meningitis A, C, W and Y for 18 year olds.

The most common cause of gastroenteritis in children under 5 years old is the rotavirus; a highly infectious agent which is responsible for around 130,000 cases of diarrhoea in England and Wales every year. Approximately 10% of gastroenteritis cases in children of these ages lead to a hospital stay. In 2013, vaccination of infants was introduced. In St.Helens this is expected to avoid 450 GP visits and 45 children staying in hospital per year. In 2017/18 91.2% of infants were vaccinated before their first birthday in St.Helens; higher than the regional and national averages (88.5% and 90.1% respectively).

Figure 9. Rotavirus - Primary Dose % 2017/18



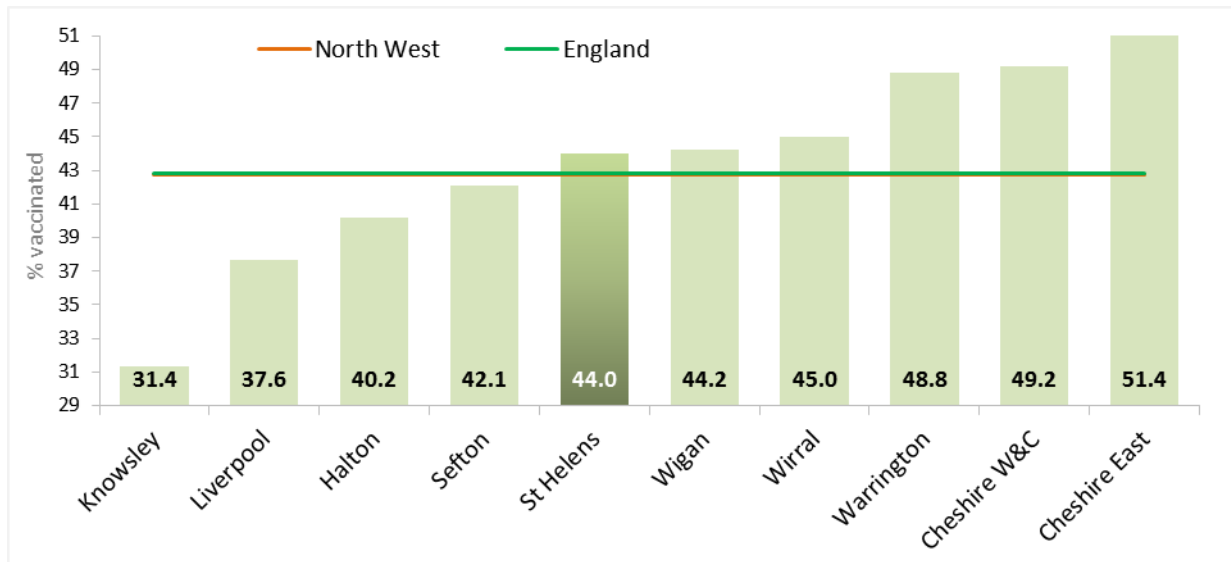
Source: NHS Digital

5.4.2.i Flu Programme in St.Helens

Respiratory infections are a key factor in the increased number of preventable winter deaths in St.Helens and the flu immunisation programme is an important contributor to reducing these excess deaths.

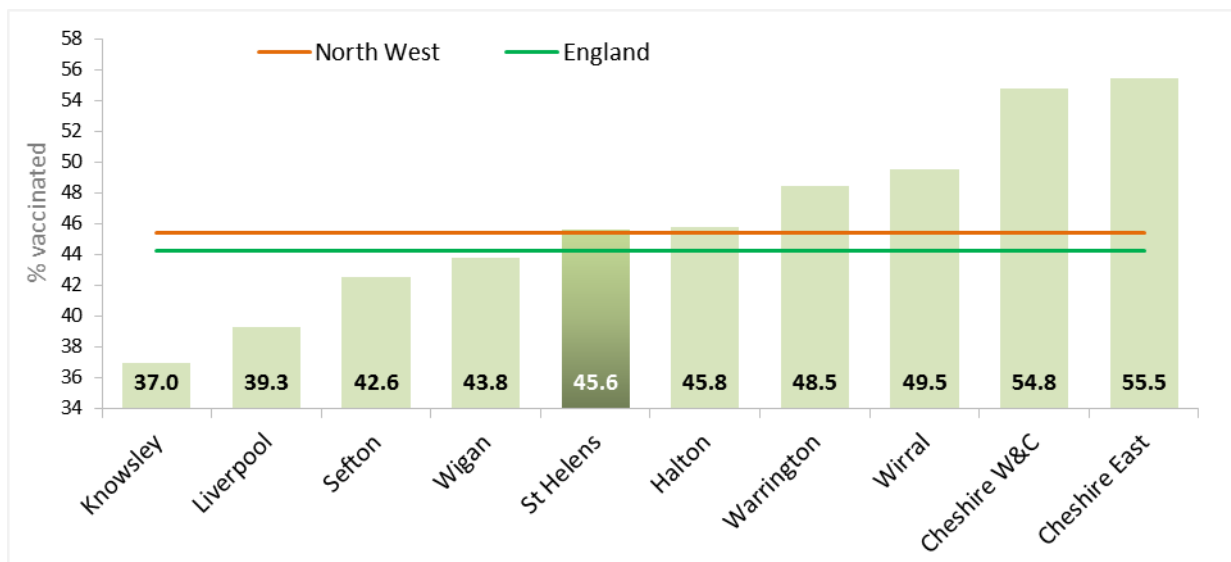
St.Helens Council and NHS St Helens CCG have worked with NHS England to ensure effective delivery and uptake of this programme. St.Helens has led a number of initiatives to promote uptake of the flu vaccination, working with the local community.

Figure 10. All 2 year olds vaccinated from 1 September 2017 to 31 January 2018



Source: NHS Digital

Chart 14: All 3 year olds vaccinated from 1 September 2017 to 31 January 2018



Source: NHS Digital

Please note further information regarding children aged under five years is contained within the **JSNA**

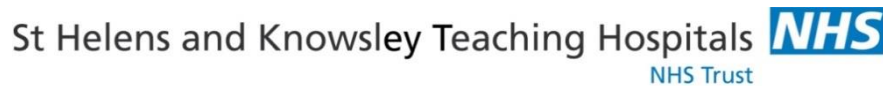
Section 3b – Children and Young People document. Examples include:

- 'EYFS' in **3.1.1** (page 5)
- 'Physical Activity' in **3.2.5.i** (page 16)
- 'Dental Health of Children' in **3.3.4** and Figure 14 (page 20-21)
- '0-4 year Hospital Admissions' in **3.4.1** (page 23)

St.Helens People's Board

Members:

St.Helens Council
NHS St Helens Clinical Commissioning Group
Halton and St.Helens Voluntary and Community Action
Healthwatch St.Helens
NHS England
Torus
Bridgewater Community Healthcare NHS Trust
North West Boroughs Healthcare NHS Foundation Trust
St.Helens and Knowsley Teaching Hospitals NHS Trust
Merseyside Police
Merseyside Fire and Rescue



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